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Working Paper No. 655

A Minskyan Road to Financial Reform

by

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ABSTRACT

In the aftermath of the global financial collapse that began in 2007, governments around the world have responded with reform. The outlines of Basel III have been announced, although some have already dismissed its reform agenda as being too little (and too late!). Like the proposed reforms in the United States, it is argued, Basel III would not have prevented the financial crisis even if it had been in place. The problem is that the architects of reform are working around the edges, taking current bank activities as somehow appropriate and trying to eliminate only the worst excesses of the 2000s.

Hyman Minsky would not be impressed.

Before we can reform the financial system, we need to understand what the financial system does—or, better, what it *should* do. To put it as simply as possible, Minsky always insisted that the proper role of the financial system is to promote the "capital development" of the economy. By this he did not simply mean that banks should finance investment in physical capital. Rather, he was concerned with creating a financial structure that would be conducive to economic development to improve living standards, broadly defined.

In this paper, we first examine Minsky's general proposals for reform of the economy—how to restore stable growth that promotes job creation and rising living standards. We then turn to his proposals for financial reform. We will focus on his writing in the early 1990s, when he was engaged in a project at the Levy Economics Institute on reconstituting the financial system (Minsky 1992a, 1992b, 1993, 1996). As part of that project, he offered his insights on the fundamental functions of a financial system. These thoughts lead quite naturally to a critique of the financial practices that precipitated the global financial crisis, and offer a path toward thorough-going reform.

Keywords: Global Financial Crisis; Hyman Minsky; Financial Reform; Basel III; Capital Development; Banks

JEL Classifications: B22, B25, B26, B52, E02, E11, E12, E44, G01, G18, G20, G21

The outlines of Basel III have been announced. Some have already dismissed them as too little (and too late!)—even if they had been in place they would have proved no more than a nuisance, a minor little speed bump on the way to financial crisis. The problem is that the architects of reform are working around the edges, taking current bank activities as somehow appropriate. They appear to believe that a simple nip-and-tuck will be sufficient to restrain the excesses of the 2000s. Hyman Minsky would not be impressed. Most of what the financial sector is now doing is actually harmful. Before we can reform the financial system, we need to understand what the financial system does, or, better, what it *should* do. To put it as simply as possible, Minsky always insisted that the proper role of the financial system is to promote the "capital development" of the economy. By this he did not simply mean that banks should finance investment in physical capital. Rather, he was concerned with creating a financial structure that would be conducive to economic development to improve living standards, broadly defined.

We will first examine Minsky's general proposals for reform of the economy how to restore stable growth that promotes job creation and rising living standards. We then turn to his proposals for financial reform. We will focus on his writing in the early 1990s when he was engaged in a project at the Levy Economics Institute on reconstituting the financial system (Minsky 1992a, 1992b, 1993, 1996). As part of that project, he offered his insights on the fundamental functions of a financial system. These thoughts lead quite naturally to a critique of the financial practices that led to the global financial crisis, and offer a path toward thorough-going reform.

GENERAL POLICIES FOR REFORM IN LIGHT OF THE GLOBAL CRISIS

Minsky (1986) argued that the Great Depression represented a failure of the smallgovernment, laissez-faire economic model, while the New Deal promoted a big government/big bank highly successful model for financial capitalism. The current crisis represents a failure of the big government/neoconservative model that promotes deregulation, reduced supervision and oversight, privatization, and consolidation of market power. It replaced the New Deal reforms with self-supervision of markets, with greater reliance on "personal responsibility" as safety nets were gutted, and with

monetary and fiscal policy that is biased against maintenance of full employment and adequate growth to generate rising living standards for most Americans (see Kelton and Wray 2004; Wray 2005). Even in the midst of the worst economic calamity since the Great Depression, policymakers are paralyzed by the supposed risks of running budget deficits and "unfunded entitlements" resulting from Social Security shortfalls that might appear 30 or more years in the future. And they have confused the well-being of Wall Street's "fat cat" bankers with the well-being of Main Street's households and firms.

We must return to a more sensible model, with enhanced oversight of financial institutions and with a financial structure that promotes stability rather than speculation. We need policy that promotes rising wages for the bottom half so that borrowing is less necessary to achieve middle-class living standards. We need policy that promotes employment, rather than transfer payments—or worse, incarceration—for those left behind. Monetary policy must be turned away from using rate hikes to preempt inflation and toward a proper role: stabilizing interest rates, direct credit controls to prevent runaway speculation, and supervision. And rather than trillions of bail-outs and guarantees for the bloated financial sector, we need a combination of short-term economic stimulus spending plus long-term commitments by the federal government to repair and improve infrastructure, create jobs, and reduce inequality (see Tymoigne and Wray 2009; Wray 2008a, 2008b, 2010).

Minsky insisted "the creation of new economic institutions which constrain the impact of uncertainty is necessary," arguing that the "aim of policy is to assure that the economic prerequisites for sustaining the civil and civilized standards of an open liberal society exist. If amplified uncertainty and extremes in income maldistribution and social inequalities attenuate the economic underpinnings of democracy, then the market behavior that creates these conditions has to be constrained" (Minsky 1996: 14, 15). It is time to take finance back from the clutches of Wall Street's casino.

Minsky had long argued that a private sector–led expansion would increase financial fragility, foreseeing the sectoral balance approach later promoted by Wynne Godley. At the aggregate level, the sum of the government balance, the domestic private balance, and the foreign balance must equal zero. In an expansion led by private sector spending, tax revenues would tend to rise, reducing the government sector's deficit (even

moving it to surplus, as was the case during the Clinton years). At the same time, a country with a high propensity to import (like the United States) would incur a current account deficit. By accounting identity, the private sector's balance would deteriorate—moving toward a deficit.

What is remarkable is that Minsky foresaw the implications as early as 1963—33 years before it became a reality (Minsky 1963). The US private sector ran an almost continuous deficit in the decade after Minsky's death in 1996—leading to a massive accumulation of debt. The reasons for this are complex: fiscal policy that was chronically too tight (biased to run surpluses before full employment), mercantilist policies of trading partners that generated a US current account deficit, changing views of debt (households and firms were more willing and able to increase debt loads as memories of the great debt deflation of the 1930s faded), and stagnant real wages since the early 1970s (so that once growth of labor force participation by women had reached a peak, family living standards could continue to rise only by borrowing). In any case, debt loads eventually became too great to service—reaching five times GDP (compared to "only" three times GDP in 1929 on the precipice of the Great Crash and the Great Depression).

Minsky's general policies to promote financial stability focused on encouraging growth of wages (at a pace consistent with productivity growth) so that consumption would not require debt. Further, he wanted to promote a high consumption society rather than an economy that grew by encouraging investment (Minsky 1964, 1968, 1986). In that he deviated from most "Keynesian" policy of the postwar period, which usually sided with neoclassical supply-siders in favoring policy to promote more investment (through business tax cuts, for example). According to Minsky, investment is destabilizing because it must rely to some degree on external finance; a sustained investment boom actually increases indebtedness and greater fragility. Minsky was well-aware that investment would create aggregate profits (as in the Kalecki equation), but as discussed above there would be leakages to the government and foreign sectors in an expansion. Further, an investment boom can create a euphoria and rising asset prices—leading to a wave of takeovers and leveraged buy-outs, financed by even more debt.

Minsky also took an aggregate markup approach to prices: prices are a markup over the wage bill in the consumption sector, which ensures that some of the

consumption output is available to workers in the investment sector, to capitalists, to government employees, and to foreigners (Minsky 1986). Hence, all else equal, if investment is a rising share of GDP, this will lend an inflationary bias through a rising markup. In addition, because the investment sector tends to be more highly unionized, oligopolized, and technologically advanced, policies that favor it will also tend to generate inflation before full employment is reached. Policymakers would thus move to attenuate an expansion long before it generated full employment in order to fight inflation pressures.

In Minsky's view, growth promoted by government consumption and public infrastructure investment would actually improve private sector balance sheets—hence would be financially stabilizing. Still, it would also promote higher markups (relieved to the extent that public infrastructure investment increased potential output). Unlike most progressive Keynesians, Minsky was not a strong supporter of welfare, at least for those who can work. Instead, he always pushed for employment programs as a preferred antipoverty strategy. From the early 1960s he advocated an employer of last resort program—a universal job guarantee funded by the federal government (Minsky 1965). He argued that this would not be as inflationary as welfare because it could be used to increase aggregate supply even as it increased demand. Further, he believed that offering jobs rather than handouts was more consistent with participatory democracy and with promotion of social inclusion. He argued that by setting a basic living standard and offering an infinitely elastic supply of jobs, the employer of last resort program would achieve full employment without generating inflation pressures (see Harvey 1989; Kelton and Wray 2004; Minsky 1965).

The global crisis offers both grave risks as well as opportunities. Global employment and output are collapsing faster than at any time since the Great Depression. Hunger and violence are growing—even in developed nations. The 1930s offer examples of possible responses—on the one hand, nationalism and repression, on the other a New Deal and progressive policy. Minsky's proposals for reform are in the spirit of the New Deal, although he argued that we cannot simply restore the New Deal reforms—in many ways they are outdated. Still, we should be thinking of reform on a similar scale. Government must play a bigger role, which in turn requires a new economic paradigm

that recognizes the possibility of simultaneously achieving social justice, full employment, and price and currency stability through appropriate policy.

There is no question that finance has played an outsized role over the past two decades, both in the developed nations where policy promoted managed money and in the developing nations which were encouraged to open to international capital. Households and firms in developed nations were buried under mountains of debt even as incomes for wage earners stagnated. Developing nations were similarly swamped with external debt-service commitments, while the promised benefits of neoliberal policies usually never arrived. It is time to finally put global finance back in its proper place as a tool to achieving sustainable development. This means substantial downsizing and careful reregulation. In the next section we examine Minsky's views on the proper role to be played by the financial system.

REFORM OF THE FINANCIAL SECTOR

In his writings over the last half of the twentieth century, Minsky emphasized six main points:

- 1. a capitalist economy is a financial system;
- 2. neoclassical/mainstream economics is not useful because it denies that the financial system matters;
- 3. the financial structure has become much more fragile;
- 4. this fragility makes it likely that stagnation or even a deep depression is possible;
- 5. a stagnant capitalist economy will not promote capital development;
- 6. however, stagnation can be avoided by apt reform of the financial structure in conjunction with apt use of fiscal powers of the government.

With that in mind, let us see what he identified as the essential functions of a financial system (see Minsky 1992a, 1992b, 1993). These include provision of the following:

1. a safe and sound payments system;

2. short-term loans to households and firms, and, possibly, to state and local government;

3. a safe and sound housing finance system;

4. a range of financial services including insurance, brokerage, and retirement savings services; and

5. long-term funding of positions in expensive capital assets.

Obviously there is no reason why any single institution should provide all of these services, although the long-run trend has been to consolidate a wide range of services within the affiliates of a bank holding company. The New Deal reforms had separated institutions by function (and state laws against branching provided geographic constraints). Minsky recognized that Glass-Steagall had already become anachronistic by the early 1990s. He insisted that any reforms must take account of the accelerated innovations in both financial intermediation and the payments mechanism. He believed these changes were largely market-driven and not due to deregulation. However, economies of scale in banking are exhausted at a relatively small size. And large "too big to fail" banks are systemically dangerous, too large and complex to regulate, supervise, or manage. Hence, reforms ought to aim for downsizing. This does not necessarily mean a return to Glass-Steagall separation by function, but it does mean that policy should favor small institutions over large ones.

Space constraints permit me to comment only briefly on each of the five functions identified as essential by Minsky. In each case, the current arrangements fall short of what is needed.

First, the payments system. Clearing checks at par requires access to the Fed only the Fed can guarantee that bank liabilities used in payment always maintain parity against cash. And if we are to use bank deposits as the basis of payments, we must have deposit insurance to prevent bank runs at the first hint of crisis. Nothing less than 100% coverage will do—as the UK found out when the crisis hit because its insurance covered

only 90% of a depositor's funds (it was forced to increase coverage to 100% to stop bank runs). What this means is that if we use "private" banks to run our payments system, we must "backstop" them with government guarantees. Effectively, then, they are playing with "house money"—issuing claims on government to make loans and to purchase risky assets. They are not really private, rather they are public-private partnerships. If they lose their gambles, Uncle Sam pays (bank owners absorb 5–8% of the losses, deposit insurance covers the rest). So the other side of the coin must be close regulation and supervision of the kinds of assets they are permitted to buy.

The alternative is a public payments system—based on the old "postal savings bank" model. This is an extremely cost-efficient and safe way of providing payments services (still used in many countries, including Japan and Italy)—wages are deposited directly in the post office, utilities bills are deducted from accounts, and checks can be written for other payments. The postal savings bank would hold only the safest assets recall the Milton Friedman-Irving Fisher "100% reserves" model—such as cash and federal government debt (see Phillips 1995). Direct access to the central bank ensures par clearing. Government policy would determine the interest rate paid on safe and secure savings.

Turning to short-term lending, when banks are backstopped by government, market incentives are weak because holders of insured deposits do not care if the banks take risky bets. And owners are putting up only 5–10 cents on every dollar bet—with government taking the rest of the risk. (I will bring up the obvious barriers to owners exerting control over well-compensated management, who may well choose to run what my colleague, Bill Black, calls control frauds.) Since most of the funds used to make loans or buy risky assets are effectively provided by government, the only justification for using the banks as intermediaries is if they do proper underwriting, and can do a better job than the government can. In the case of commercial loans, I think that is highly probable, but only if the banks hold the loans to maturity and develop relations with their customers. In other words, securitization is inimical to proper underwriting.

This statement can no longer be controversial in the wake of the scams perpetrated on the argument that "efficient markets" would provide all the incentives needed. Securitization failed spectacularly, and mostly because none of those involved in

the process ever assessed creditworthiness of borrowers. The originate to distribute model eliminated underwriting, to be replaced by a combination of brokers who were paid to make liar loans with no chance of repayment, property valuation by assessors who were paid to overvalue real estate, credit ratings agencies who were paid to overrate securities, accountants who were paid to ignore problems, and monoline insurers whose promises were not backed by sufficient loss reserves (see Kregel 2008; Wray 2008a, 2010). Reform must get the assets back onto the books of the banks, reviving relationship banking. Financial institutions should be given a choice: either surrender their bank charters that give them access to insured deposits, or do proper underwriting and retain the loans they originate (whilst financing their positions in the loans by issuing insured deposits). It is also important to prevent chartered banks from shifting risks through derivatives and "insurance"—the incentive to do good underwriting is diminished if others bear the risk.

Obviously, this reverses the trends of the past three decades, during which financial institutions have done everything they could do to shift risks. As we now know, all these efforts failed—for a variety of reasons, all the risks came right back to the banks. Further, the belief that someone else would bear the risks changed behavior in a way that greatly increased systemic risks. For these reasons, chartered banks should be forced to bear the risks they create. There is still room for institutions and practices outside the realm of chartered banks—but these would not have access to deposit insurance or to par clearing at the Fed. In the past the problem has been that "shadow banks" had lower costs that gave them a competitive advantage over chartered banks that were subject to more constraints and that had to operate a costly payments system. This can be rectified in two ways: compensating chartered banks for operating the payments system and charging shadow banks for access to it. Alternatively, as discussed above, the payments system could be taken away from banks and operated directly by government savings banks.

The third function is housing finance, particularly important in a nation in which a large majority of households are homeowners. Here simplest is best: the 30-year, fixed-rate mortgages originated and held by thrifts operating as mutuals worked exceedingly well. Incentives of shareholders (technically, the liabilities were not deposits) and borrowing homeowners were well-aligned. The thrifts were killed by a combination of

change of ownership (gradually rules were relaxed until an individual could own a thrift—opening the floodgates of control fraud) and Chairman Volcker's experiment in monetarism (raising short-term rates above 20%, resulting in insolvency of most thrifts). It may not be possible to bring back the mutuals, but it is relatively easy to promote safe practices. Government insurance of mortgages should be restricted to those originated and held by financial institutions that conform to approved practices. Only fixed-rate mortgages subject to proper underwriting would be included, and only mortgages held by the originator would retain government insurance.

Note, however, that where government takes most of the risk for lending that is seen to be in the public interest (mortgage loans, student loans), the social value of underwriting might be low. Default rates of 5% or 10% on such loans might be seen to be acceptable so long as there are strong public benefits of financing an activity like homeownership or college education. In that case, it may not be desirable to use financial intermediaries—it might make more sense for the government to cut out the middleman and to make the loans directly. The higher default rates that might result from lower quality underwriting done by government could be more than offset by the reduced costs of intermediation. This seems to be the case in the case of student loans, where policy is moving away from reliance on intermediaries. The other thing to note is that if we are to promote long-term fixed-rate mortgages there must be a promise that the central bank will not embark on any Volcker-esque experiments that drive short-term borrowing rates to 20%. Since mortgage lenders will be stuck with long-term fixed-rate assets, there must be a social compact to keep the Fed's overnight rate target within reasonable bounds.

Moving on to provision of a range of financial services, including brokerage, retirement, and insurance, the argument to consolidate these in "big box" financial superstores was always based on "synergies." In reality, as Minsky and many others have argued, economies of scale in banking are reached at a very small size. Supposed economies of scope have proven to be mostly the ability to dupe customers with "bait and switch" schemes. Charles Keating's Lincoln Savings used its FDIC seal of approval to sell risky and ultimately worthless assets to its elderly widows who thought they were buying insured CDs. More recently, Goldman Sachs allowed hedge fund manager Paulson to design sure-to-fail synthetic CDOs that Goldman sold to its own customers,

allowing both Goldman and Paulson to use CDSs to bet on failure. In other words, the "synergy" allows the institution to screw its customers. Worse, large invariably becomes too complex to manage, regulate, or supervise. This allows top management to run the institution as a control fraud, screwing owners. And, finally, since the institution is "too big to fail," Uncle Sam will also get screwed when it is called in for the inevitable bail-out.

Hence following Minsky, all large chartered banks should be prohibited from diversifying across the range of financial services. Instead, they should be narrowly focused in their activities, forced to spin-off any business not closely related to making short-term commercial loans and commercial and residential real estate mortgages. By contrast, Minsky proposed to create a network of local community development banks (CDBs) that would be permitted to engage in a wide range of services, targeted to their communities (Minsky, Papadimitriou, Phillips, and Wray 1993). Minsky wanted to include payments services, small business and consumer loans, mortgages, retirement savings, and financial advice within each CDB. The CDBs would be public-private partnerships, with the federal government providing some of the capital base. They would be run by a community board of directors, with representatives of government sitting on the boards. Banking would be "intensified"—rather than the megabank holding company with affiliates and branching, each CDB would be local but loosely linked to the network through its relation to a government-owned Federal Bank for Community Development Banks.

Finally, the financial system needs to help fund long-term positions in complex and expensive capital assets. Historically there are three main approaches to investment banking. In the first, the investment bank either places stocks and bonds issued by firms to finance their capital stock, or it actually takes positions in the stocks and bonds, financing its holding by issuing shorter-term and more liquid liabilities. In the second, a universal bank combines commercial banking and investment banking. In the third, a bank holding company owns various types of financial firms, with firewalls between its investment bank and commercial bank affiliates. Minsky (1992a, 1992b, 1993) argued that the move to money manager capitalism essentially merged these forms. The crisis revealed two related problems. First, underwriting standards deteriorated when

investment banks were transformed from partnerships to publicly held firms. (See Galbraith [2009] for discussion of similar problems in the late 1920s, when investment banks created subsidiary trusts that issued stocks.) The investment banks got caught up in the same "maximization of shareholder value" delusion that gripped all publicly traded firms in the stock market euphoria. Since top management was rewarded with stock and options, "pump and dump" schemes dominated strategy as short-term trading profits triumphed over longer-run returns. A "trader mentality" was promoted, and traders like Bob Rubin actually rose to the top ranks of many of the investment banks. Second, complex—and opaque—linkages among firms were created because of financial dependency (for example, positions in securities were financed in the commercial paper market) and counterparty risks (for example, risks were supposedly hedged through use of CDSs). When problems arose in mortgages, the securities were downgraded, affiliates such as special purpose vehicles were denied access to the commercial paper market, and CDS "insurance" became worthless when counterparties could not pay. The entire financial system froze because the linkages were broken.

How can we get investment banking back on track? Again, a big part of the problem is underwriting and incentives. An investment bank that plans to sell the debt it helps to originate has reduced incentive to do good underwriting (Mayer 2010). And when the capital development of the economy becomes a "casino" (where speculation dominates-as Keynes said), it will be ill-done. It will be very difficult to reorient investment banking toward a long-term horizon with proper underwriting when debt is securitized and subject to lax oversight of the Securities and Exchange Commission (SEC), and when the average stock is held less than a year (and the stock market taken as a whole is a negative source of funding of capital assets—because firms are caught up in the casino, purchasing their own equity to share in the gains of a speculative bubble). Minsky emphasized that the capital development of the economy can be ill-done in two ways: the Smithian way and the Keynesian way. It can be misallocated—Smithian—for example, too much residential real estate investment. And the aggregate level of investment can be too low-Keynesian insufficient investment. Keynes called for socialization of investment—with government determining the aggregate scale. John Kenneth Galbraith also endorsed socialization of investment to resolve the Smithian

problem, with much more investment flowing into public infrastructure. We might pose a new "TINA" to Margaret Thatcher's TINA—there is no alternative to socialization of investment—to resolve the Smithian and Keynesian problems.

In any event, what is needed is to change the incentive structure at investment banks so that good underwriting is rewarded. Compensation of top management and traders must be linked to longer-term results. Neither higher capital ratios (as mandated in Basel III), nor requirements that banks put some "skin in the game" will help. When investment banks originate to distribute, capital ratios are irrelevant (they do not hold the assets on their books). And in a speculative boom, investment bankers are happy to take positions in the dodgy assets that are booming-on the theory they can offload them at the peak. Hence, compensation must be tied to longer-term returns—say, five year income flows (debt service). To be sure, investment bankers will always pursue a strategy of separating "fools" from their money. It will not be possible to keep up with their innovations of means of doing so. Instead, what is necessary is to reduce the pool of "fools" that will be screwed by investment bankers. To put it as simply as possible, no institution whose mandate is to serve the public interest (pension funds, state and local governments, insurance funds) should be allowed to do business with Wall Street's investment banks. There is ample evidence that they will always lose when dealing with Wall Street. It will be far easier to restrict the pool of "fools" that Wall Street banks are able to dupe than it will be to try to restrict the methods used by Wall Street to screw its customers. Hence, no institutions that are given preferential tax treatment, no public entities, and no individuals with wealth below a mandated minimum (say, \$5 million) should be permitted to serve as patsies for Wall Street's investment banks.

This does leave retirement savings up in the air. Like all other nations, the United States is an aging society, with a relative decline of working-age population and a rise in the proportion of seniors. The conventional wisdom has been that if baby boomers accumulate more financial wealth today, they will be able to draw upon that in the future when they retire. To be sure, pension funds have accumulated a huge quantity of financial wealth, and, indeed, they have become so large that they are literally able to "move markets" with their allocations. The commodities price bubble of the mid-2000s was caused by pension funds. The problem is that there is far too much money chasing far too

few asset classes that can be expected to generate good returns. And every pension fund manager must beat the average to retain her position. This has led to risky bets in speculative markets, and must lead to disappointment (Nersisyan and Wray 2010).

Another strategy is required. At the aggregate level, accumulation of financial wealth in pension funds cannot help provide for tomorrow's seniors. The only way to take care of tomorrow's retirees is to increase investments in those areas that will increase tomorrow's real productivity-of the goods and services that seniors and everyone else will want. More saving today can actually be counterproductive if it reduces today's aggregate demand, leaving plant, equipment, and labor idle—reducing the incentive to invest. Since for-profit business cannot look very far into the future for profits, there is very little capital investment that can be made today on the prospect that seniors in 2050 will demand output. In other words, almost all the preparation for seniors in the distant future must be made by government-mostly in the form of education and public infrastructure investment. Pension funds make no contribution to that. We must wean society from reliance on private pension plans and accumulations of private pension funds and retirement savings. Instead, the Social Security leg of the retirement stool must be enhanced, and government support for private savings (in the form of tax advantages) should be reduced. At the same time, government should increase its investment in those areas that really will help to take care of future retirees.

CONCLUSIONS

Minsky accepted Keynes's argument that the two outstanding faults of capitalism are its arbitrary and inequitable distribution of income and unemployment. According to Minsky, better economic performance since WWII has not resolved these problems. In his view, poverty can be resolved only through a combination of policies that would achieve three conditions: 1) euthanasia of the rentier; 2) put in place a modest bias of taxes and transfers in favor of the poor; and 3) maintain tight full employment. Minsky was convinced that the focus of any anti-poverty program would have to be tilted toward jobs, not toward transfers and welfare. He defined tight full employment as a condition such that over a broad range of occupations and industries, employers would like to

employ more workers than they do. Tight full employment helps the poor in several important ways, according to Minsky. Some of the poor move from a condition of unemployment to employment as involuntary unemployment falls. Minsky argued that the evidence shows that periods with higher employment tends to be associated with rising relative wages for the poor. Further, tight full employment would help to reduce poverty by increasing the number of workers per family; thus, poor families benefit as the total hours worked rises and as wages rise.

More generally, Minsky believed that policy should encourage faster wage growth for low-paying jobs relative to growth of wages for highly paid work. This means that at the low end, wage growth will exceed productivity growth, while at the high end, productivity growth will exceed wage growth. Similarly, prices will grow in low-wage sectors as costs rise; to prevent inflation overall will require some kind of constraint on prices and wages in high wage sectors. Minsky argued that such policy can be justified: previously the low wage workers "subsidized" high wage workers because wages in the lagging sectors were depressed by unemployment—an argument consistent with the segmented labor markets hypothesis.

Minsky's employer of last resort policy was designed to simultaneously remedy both of these faults. First, it would ensure tight full employment by offering a job to anyone willing to work. Second, it would hire off the bottom—setting a base compensation package. Unlike pump-priming demand stimulus, which puts pressure on wages at the top in the hope that jobs will trickle-down, ELR puts pressure on wages at the bottom. Hence it can achieve full employment while reducing inequality—and without generating inflation pressures. Over time, wages at the bottom would be raised faster than productivity. It is possible that government policy might be necessary to restrain wage increases at the top. This would be much more acceptable so long as ELR were in place to ensure no downward wage pressure at the bottom. Otherwise, "wage controls" are likely to put most pressure on the weakest workers.

To Keynes's "two outstanding faults," Minsky added a third: a financially complex capitalist economy will tend to generate instability—a robust financial system is naturally transformed to a fragile system through the normal profit-seeking behavior of entrepreneurs. The success of the New Deal policies and of the postwar "Keynesian"

policies actually created conditions that made instability more virulent. According to Minsky, these policies lent an inflationary bias to the economy, encouraged debt, and increased income inequality. As a result, deeper recessions and more frequent and severe financial crises would reappear in the 1970s. Minsky was famous for asking "can It happen again?"—that is, could another debt deflation and great depression occur? His answer was that the combination of big bank (Federal Reserve) and big government (a federal budget that had grown from less than 3% of the economy in 1929 to more than a fifth of the economy in the postwar period) would *probably* be able to prevent "It" from happening again. As he would say, "stability is destabilizing," and while there is no final solution to this fundamental flaw of the capitalist economy, the instability could be constrained by appropriate institutions and interventions. Unfortunately, the set of policies adopted by the neoclassical synthesis Keynesians made matters worse. It is doubly unfortunate that these policies were identified as Keynesian, helped to discredit Keynes's *General Theory*, and led to a resurrection of neoclassical economics.

According to Minsky, even as the General Theory was abandoned, it became more relevant than ever when instability returned at the end of the 1960s. The run of good times, such as those experienced in the early postwar period, promoted greater leverage, and reduction of margins of safety as the value of liquidity declined in the context of postwar optimism and government safety nets. Financial relations become more complex, with more layers of debt interposed between income generation and income receipt. As Minsky argued, to the extent that the institutional structure and swift interventions can constrain crises, risky financial practices are validated and still riskier innovations are encouraged. Fragility rose on a long-term trend, with increasingly severe financial crises. But since deep recessions were avoided, the system was never cleansed of excessive debt—what Minsky termed "financial simplification" that used to occur in depressions, when all debt is wiped out and only equity ownership remains. To make matters worse, over the past decades the belief that "markets work to promote the public interest" gained in popularity. All of this put in place conditions that made "It" possible. By denying the possibility of another debt deflation, policy, as well as the behavior of the private sector, promoted an evolution that led to the inevitable collapse of 2007.

Hence, it is time for fundamental reform of the financial sector. Minsky believed that we need to make "industry" dominate over "speculation" (recalling Keynes's famous dichotomy), and not vice versa, or the capital development of the economy will be illdone in two ways: the Smithian/neoclassical way or the Keynes/aggregate demand way. If investment is misdirected, we not only waste resources, but we get boom and bust. If investment is too low, we not only suffer from unemployment, but also profits are too low to support commitments-leading to default. Further, when profits are low in "industry" then problems arise in the financial sector because commitments cannot be met. In that case, individual profit-seeking behavior leads to incoherent results as financial markets, labor markets, and goods markets all react in a manner that causes wages and prices to fall, generating a debt deflation. Unfortunately, things are not better when investment is too high: it generates high profits that reward innovation, generating greater risk-taking, and eventually producing a financial structure that is too fragile. As Minsky always argued, the really dangerous instability in the capitalist economy is in the upward direction—toward a euphoric boom. That is what makes the debt deflation possible because asset prices become overvalued and too much unserviceable debt is issued.

The Smithian ideal is that debt deflations are not endogenous, rather they must result from exogenous factors, including too much government regulation and intervention. So the solution is deregulation, downsizing government, tax cuts, and making markets more flexible. The Keynesian view is that the financial structure is transformed over a run of good times from a robust to a fragile state as a result of the natural reaction of agents to the successful operation of the economy. If policymakers understood this, they could formulate policy to attenuate the transformation—and then to deal with a crisis when it occurs.

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