

# USING MINSKY TO SIMPLIFY FINANCIAL REGULATION

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## Introduction

Some two years after the adoption of the Dodd-Frank Act, its implementation is still far from complete. And despite the fact that one of the major objectives of the legislation was to remove the threat that banks that are “too big to fail” (TBTF) would require a taxpayer bailout, the financial system has become even more concentrated and the largest banks even larger. According to the president of the Federal Reserve Bank of Dallas, “Dodd-Frank . . . may actually perpetuate an already dangerous trend of increasing bank industry concentration” (Fisher 2012, 1). Indeed, the top five financial conglomerates now account for over 50 percent of total industry assets, and three of them are over or near the 10 percent limit on the share of national deposits set by the 1994 Riegle-Neal Act liberalizing branch banking (see the figures presented in Rosenblum 2012).

And as recovery from the deep recession caused by the 2008 financial crisis seems more visible, and most financial institutions have recovered sufficiently to repay the financial support that they received under the Troubled Asset Relief Program, the specific rules that will be promulgated by government regulatory agencies and are required to make Dodd-Frank operational are facing increasing resistance from the financial services industry. Due to staff and funding shortages in regulatory agencies and the sheer number of regulations to be finalized, most will not be approved or implemented on the timetable required by the legislation.

Support for this resistance and additional delays have come from the judicial system. A ruling by the D.C. Circuit Court of Appeals (in *Business Roundtable v. Securities and Exchange Commission*, No. 10-1305<sup>2</sup>) has vacated a Securities and Exchange Commission (SEC) rule because its analysis of the costs of the regulation was not sufficiently extensive. A second suit has been brought against the Commodity Futures Trading Commission’s (CFTC) rule on derivatives position limits.<sup>3</sup> A recent report suggests that a large majority of the rule proposals currently under discussion do not meet the court’s requirements on impact assessment and could be successfully challenged (see CCMR 2012).

This goes beyond more specific industry complaints about particular regulations, such as the definition of a swaps trader or proprietary trading, and suggests that the Dodd-Frank legislation may be too extensive, too complicated, and too concerned about eliminating specific past abuses to ever be

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<sup>2</sup> “On July 22, 2011, the U.S. Court of Appeals for the District of Columbia (the ‘D.C. Circuit’) found that the Securities and Exchange Commission (‘SEC’) acted arbitrarily and capriciously in adopting proxy voting rules, Rule 14a-11. Although the SEC’s adopting release devoted 60 pages to a cost-benefit analysis of this rule, the D.C. Circuit vacated Rule 14a-11 on the basis that the SEC ‘failed adequately to consider [Rule 14a-11’s] effect upon efficiency, competition, and capital formation.’ . . . In reaching this conclusion, the court sharply criticized the SEC’s efforts, at one point calling them ‘unutterably mindless’” (Kini and Proctor 2011, 1).

<sup>3</sup> On December 2, 2011, the International Swaps and Derivatives Association, Inc., and the Securities Industry and Financial Markets Association filed “a legal challenge to the Commodity Futures Trading Commission’s (CFTC) final rules that limit the positions that investors may own in certain commodities. . . . [T]he Associations contend that the CFTC’s decision-making process in enacting the Rule was procedurally flawed. Among other deficiencies, the CFTC adopted the Rule without making findings as to the necessity and appropriateness of the position limits, as required by statute. Furthermore, the CFTC failed to conduct any meaningful cost-benefit analysis and lacked a reasoned basis for its rule” (*Futures Magazine* 2011).

completed by regulators, implemented by supervisors, or respected by bank compliance executives. Indeed, it has been represented as a veritable paradise for regulatory arbitrage.

The result has been a call for a more fundamental review of the framework of financial system legislation. Some have even suggested a return to a regulatory framework closer to Glass-Steagall's separation of institutions by function. Last year's presentation to this conference (Levy Institute 2011) called specifically for a review of the 1999 "Act to enhance competition in the financial services industry by providing a prudential framework for the affiliation of banks, securities firms, insurance companies, and other financial service providers, and for other purposes," better known as the Gramm-Leach-Bliley (GLB) Act, which has been one of the main causes of the creation of financial conglomerates that are "too big to fail." Allowing the creation of financial holding companies to deal with the full range of financial services made them not only much larger but also much more complex, and thus more difficult to regulate and supervise.

As Hyman Minsky noted in his review of possible post-Glass-Steagall regulatory reform, one little-appreciated benefit of the 1933 Act was that "the scope of permissible activities by a depository institution was to be limited to what examiners and supervisors could readily understand. . . . it was not so much the differences and riskiness as it was the ease of understanding the operations that led to the separation of investment and commercial banking" (Minsky 1995a, 5). In other words, Glass-Steagall's limits on the size and activities of financial institutions would enable supervisors, examiners, and regulators to understand the institutions' operations. While Dodd-Frank seeks to limit government bailouts of large financial institutions, its "Orderly Liquidation Authority" gives preference to the use of Federal Deposit Insurance Corporation (FDIC) resolution procedures for merging failed institutions with larger ones on the presumption that larger institutions have a better ability to absorb new deposits and a lower likelihood of failure. But this is precisely what has led to the creation of a smaller number of larger and larger institutions, many of which surpass the Riegle-Neal limitations placed on the share of deposits that an institution absorbing a resolved bank's depositors may hold.<sup>4</sup> And this will only make the resulting system more difficult to regulate and the job of the supervisors monitoring compliance that much more difficult.

The Federal Reserve Bank of Dallas (Rosenblum 2012) has proposed that the most effective way to simplify supervision of the financial system is to break up the large, complex financial institutions. But this proposal deals only with the size of financial institutions; it does not indicate what the structure of the smaller institutions should be. Creating a greater number of smaller, independent financial holding companies would not necessarily simplify supervision if these companies were still dealing in multiple types of complex, interconnected financing activities involving structured lending instruments. Simply making institutions smaller need not make them safer and more stable, if they are permitted the same range of activities involving the same types of financial instruments. And in the absence of effective

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<sup>4</sup> Indeed, a number of influential District Federal Reserve presidents have argued that existing FDIC authority would have been sufficient to deal with the resolution of the larger financial institutions during the crisis; see, for example, Hoenig (2009) and Fisher (2010). Well before the crisis, Feldman and Stern (2005) proposed that FDIC resolution could be used to prevent this process, but this provision was not included in Dodd-Frank.

antitrust legislation,<sup>5</sup> breaking up the larger institutions would in all likelihood simply engender another process of concentration by merger and acquisition similar to that seen after the suspension of branching restrictions.<sup>6</sup>

In his consideration of possible post-Glass-Steagall configurations of the financial system, Minsky suggested that the simplicity and transparency inherent in Glass-Steagall could be preserved within a bank holding company structure by restricting the assets and liabilities of the separate subsidiaries. In a number of documents prepared for the mid-1990s discussions on reforming Glass-Steagall, Minsky proposed, “One or more subsidiaries of a post Glass-Steagall bank holding company will have monetary liabilities. These subsidiary institutions will enjoy protections from the central bank and treasury which guarantee that their monetary liabilities will not fall to a discount from their face value. . . . In exchange for this protection the assets they can own will be restricted. A representative post Glass Steagall bank holding company will have specialized financial subsidiaries which include not only a combination of commercial, investment and merchant banking subsidiaries but also a sampling of more specialized financial institutions such as credit card operations, payment operations, finance companies and the brokering and underwriting of insurance. Each subsidiary will have a dedicated equity, which protects the holders of the liabilities of the subsidiary” (Minsky 1995c, 3).

The implications of such a system are that, “once the distinction between the payments and financing operations of banks is recognized, it follows that post Glass Steagall banking firms will be structured as bank holding companies in which the payments subsidiary is clearly separated from the financing subsidiaries. In exchange for this protection the assets of the payments subsidiary will be limited to government debt and interest earning accounts at the Federal Reserve: the assets of the payments banks will not include business and household liabilities” (10–11). Thus, the “holding company structure of post Glass Steagall banking [would] quite naturally lead to 100% money” (12), as was proposed by Henry Simons (1934) and Irving Fisher (1935) in the 1930s and by James Tobin (1987) and Robert Litan (1987) in the 1980s.

In this approach, a single subsidiary would be dedicated to the provision of deposit-taking transactions services, while other subsidiaries would provide investment and merchant banking services. If all subsidiaries were sufficiently and separately capitalized, there could be no problem of “bailing out” the speculative activities to save the payments systems, there would be no possibility of using customer deposits for proprietary trading and speculation, and with appropriate balance sheet restrictions on the transactions subsidiary, the moral hazard created by deposit insurance could even be eliminated.

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<sup>5</sup> The existing antitrust legislation was written for a segmented system such as Glass-Steagall and has never been revised to deal with the problems of size and competitiveness created by GLB. See Kregel (2009).

<sup>6</sup> The history of deregulation in the United States has been to provide an initial period of increased entry and competition, only to be followed by increased bankruptcies and consolidation, restoring industry concentration to even higher levels. The airline industry is exemplary of this trend, which was also followed in telecommunications, energy, transport, etc.

## The “vision” of the economic system

It is clear that Minsky meant for this proposal to be a means by which a possible post–Glass-Steagall reform could best provide what he considered the basic objectives of the financial system—to support the capital development of the economy and to provide a safe and secure payment system—because in such a reformed system “the payments and the financing of the capital development of the economy functions will therefor[e] be separated in a post Glass Steagall banking structure” (Minsky 1995c, 8).

But such a proposal implied a method of providing for the system’s “capital development” that differed radically from what had been the basis for the economic system up to that point. For Minsky, the capital development of the system meant more than just the gross accumulation of capital stock or the growth of national income, but rather a broader interpretation of the advancement of the economy, including maximizing the level of employment and an equitable distribution of income. Building on Joseph Schumpeter’s *Theory of Economic Development* (1934), Minsky proposed an explanation of more or less sustained capitalist expansion in the 19th and 20th centuries, interrupted by periodic crises in which the production interdependencies and financing arrangements and conventions would break down, leaving in their place conditions for renewed expansion. In such a system, equilibrium would be maintained, not by market-based price adjustment, but by a new configuration of productive and financial relations.

He also took from Schumpeter the idea that it was the logic of capitalist expansion that would produce these disruptions. While any economic or political system could suffer from random, external shocks or political upheaval, it would be impossible, by assumption of their nature, either to explain them or to provide a means of countering them unless they could be foreseen. In general, such shocks would only disturb existing relations that could be reestablished in a recovery. In Minsky’s view, however, the endogenous disruptions would change the underlying finance and growth dynamic of the system, with a transformed economy emerging to resume its expansionary path. This was not a theory of business cycles, but of Schumpeterian economic development; of continuous, evolutionary change driven by the generation of financial instability through the very mechanisms used by the financial system to support the capital development of the economy.

The importance of this innovative process led Minsky to the view that it “needs to be understood now that development financing involves taking risks. . . . The need is for a regulatory and supervising authority for the financial system that accepts that financing development opens the system to losses that have the potential for adversely affecting the safety and security of the economy’s payment facilities. To allow for this possibility the regulators need to try to insulate the payments system from the consequences of such losses. The problem therefore is to provide for protection of the payments system from the consequences of the losses which may ensue from development financing.” As a result, Minsky characterized the role of the financial system as servant to two mutually conflicted masters: “any capitalist banking and financing system” is “drawn between two masters” that it “needs to serve: one master requires assurance that the financing needed for the capital development of the economy will be forthcoming and the second master requires assurance that a safe and secure payments mechanism will be provided” (Minsky 1994, 10–11).

Minsky's adaptation of the Simons/Fisher proposal may thus be seen as an attempt to ensure financial stability by separating financial institutions by function, or "master," so that each would serve only one master. Banks that provide payment services can be made perfectly safe and secure by requiring 100 percent reserves in government currency and coin or other risk-free government liabilities.<sup>7</sup> The financing of the capital development of the economy would then take place via retained earnings of corporations or by means of investors' conscriptions committed to financing specific private business activities. Organized and supervised as an investment "trust," such an institution would have a 100 percent ratio of capital to assets and thus should not be considered a threat to the financial stability of the economic system.

In such a perfectly separated, dual system there would be neither a deposit-credit multiplier, nor leverage, nor creation of liquidity. It would reflect the idea that the financial system should operate so as to create Friedrich Hayek's idea of "neutral" money, in which all investment decisions are the consequence of the voluntary savings decisions of individuals. The Wicksellian alternative formulation of this condition is the equality of the nominal rate of interest and the "real" rate of return on investment. In this approach, there are no "monetary" disturbances to equilibrium in the "real" economy, as savings determine loanable funds that limit investment. A financial system that was regulated via a 100 percent reserve requirement on deposits and a 100 percent ratio of capital to assets for investment trusts would then appear to resolve the conflicting objectives noted by Minsky. One institution would provide the safe and secure means of payment, while another would provide for the financing of the real capital development of the economy by intermediating and investing private savings.

But such a system could neither ensure the stability of the real economy nor assure stability of the capital financing institutions, since the real investments chosen could still fail to produce the anticipated rate of return, and sectoral overinvestment and financial bubbles could still exist if there were herding behavior by the investment advisers of the trusts that produced procyclical financing behavior. There would always be a risk of investors calling on the government to save them from financial ruin.<sup>8</sup>

### **Narrow banking and a "monetary production economy"**

For Minsky and Schumpeter, such a "narrow banking" system could not be considered a modern "capitalist" system; it would be akin to what John Maynard Keynes defined as a "real wage," as opposed to a "monetary production," economy. In a monetary economy, it is the role of the financial sector to ensure the financing of the acquisition and control of capital assets by increasing the liquidity of the liabilities of the business sector.

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<sup>7</sup> But such proposals are not new. The National Banking Act was based on government liabilities backing the issue of national banknotes. In any event, it did not provide the promised guarantee of stability, primarily because of the variability of the securities' value. Minsky's proposal would provide for a government guarantee to support the mark-to-market value of the assets; see Kregel 1996.

<sup>8</sup> Aside from the theoretical difficulties in formulating the correspondence of real and money rates (see Myrdal 1939) or neutral money (see Sraffa 1932).

But more important, such a system would create a problem in a dimension other than what is now called “macroprudential” regulation. The liabilities of the financial system would be composed of household savings allocated to investment fund shares financing real investments, to the holding of deposits in the narrow banks backed by government debt or currency and coin, and to holding government-issued coin and currency. Business sector savings would be allocated to retained earnings financing, deposits in narrow banks, or government issues of currency and coin. This would mean that total private saving would exceed investment by the private sector’s holdings of narrow bank deposits and government currency, creating a tendency toward deflation or recession. Price and/or output stability would then require an exogenous addition to demand to offset this imbalance, such as might be provided by government expenditures financed by the issue of either currency or government bonds, if such issues were held as reserves for the narrow banks or the direct discounting of business sector liabilities. Alternatively, the central bank could engage in the direct financing of public or private sector investment expenditures. The “macroprudential” stability of the financial system would then require the application of what Abba Lerner (1943) called “functional finance.” The size of the deficit creating the additional government means of payment required for macroprudential stability would be determined by the private sector holdings of narrow bank deposits and currency, adjusted for the current account position.

Thus, what Minsky believed was the major factor stabilizing the postwar Glass-Steagall system—the existence of a “Big Government” deficit providing a floor under private sector incomes—would be even more important in a narrow banking system holding company structure than it was under Glass-Steagall. Indeed, Minsky’s use of the Keynes-Kalecki profits equation was meant to show that it is primarily the generation of corporate income that results from investment expenditures that allows current profits to cover the cash flows associated with the liabilities issued to finance investment. It is the level of business investment and government net expenditure that generate the cash flow that validates the corporate liabilities and produces the real source of financial stability in the system.

In the absence of a large government sector to support incomes, debts could not be validated in a narrow bank holding company structure. But, even more important, it would be impossible in such a system for banks to act as the handmaidens to innovation and creative destruction by providing entrepreneurs the purchasing power necessary for them to appropriate the assets required for their innovative investments. In the absence of private sector “liquidity” creation, the central bank would have to provide financing for private sector investment trust liabilities, or a government development bank could finance innovation through the issue of debt monetized by the central bank. To meet the requirements of the “two masters,” such a system would have to combine Keynes’s idea of the “socialisation of investment” with the “socialisation” of the transactions and payments system. This suggests that in order to satisfy Minsky’s “two masters” the real problem that must be solved lies in the way that regulation governs the provision of liquidity in the financial system.



### **The “two masters” are Siamese twins**

In the modern capitalist system that Minsky analyzed in his financial fragility hypothesis, two different types of financial institutions provide the liquidity required for the financing of Schumpeterian creative destruction. The control of real assets by productive enterprises can be financed through the issue by a financial institution of liabilities that can be used as a means of payment in lieu of the coin and currency issued by the government. This is what is commonly known as “deposit creation,” and it has traditionally been provided by what in the Glass-Steagall regulatory system were called “commercial” banks. Alternatively, productive enterprises can issue securities through the services of financial institutions that provide liquidity by acting as primary and secondary market-makers offering to buy and sell the securities at announced bid-ask spreads and in standard amounts. These have traditionally been known as “investment” or merchant banks.

Minsky considered deposit creation the basic activity of banks. He defined it as the “acceptance function”: “Banking is not money lending; to lend, a money lender must have money. The fundamental banking activity is accepting, that is, guaranteeing that some party is creditworthy. A bank, by accepting a debt instrument, agrees to make specified payments if the debtor will not or cannot. . . . A bank loan is equivalent to a bank’s buying a note that it has accepted” (Minsky 2008 [1986], 256). Thus, for Minsky the basic activity of a bank is not the safekeeping of depositors’ coin and currency, nor is it the investment of depositors’ funds because of an informational advantage. Rather, a bank’s basic activity is the creation of its own liabilities, which are used to acquire the liabilities of productive enterprises that it has “accepted”—that is, whose payment it has guaranteed. A narrow bank on this definition is not a bank, but simply a safe house or piggy bank for government issues of coin and currency.

### **Why banks are unique liquidity creators**

Minsky noted that a bank’s liabilities have to be viewed as embodying more of Keynes’s liquidity premium than their assets (the liabilities that they accept and hold as assets in their loan books) if they are to earn income from a positive net interest spread, or “carry” (Ibid., 277). This “credit enhancement” function allows banks to increase the liquidity of the liabilities they accept and thus increase liquidity of the whole system. Banks effectively turn the liabilities that stand behind fixed real capital assets into currency means of payment.

The successful operation of this basic function of banking thus depends crucially on the liquidity of bank liabilities, and this depends crucially on the assurance that bank liabilities can always be used as an equivalent means of payment that the borrower can use to acquire control over real goods, services, and capital assets. This means that bank liabilities have to be considered as a perfect substitute for government issued coin and currency.<sup>9</sup>

It is to ensure this substitutability that banks also issue their liabilities in exchange for government coin and currency of the public. That is, they offer a transaction or payments service to clients. These deposit

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<sup>9</sup> It is for this reason that banks are often characterized as “public-private” partnerships.

liabilities are a simple borrowing operation that provides no credit enhancement or liquidity creation. Bank balance sheets thus contain two different, yet identical, promises to pay the holder currency and coin. One is backed by a liability, the promise of a productive business operation to pay; the other is (partially) backed by an asset, the customer's deposited coin and currency. The first function increases system liquidity because it increases the liquidity of the issuer of the liability; the second does not, since the depositor exchanges one type of means of payment for what is a guaranteed equivalent. These promises are treated as equivalent because they are both liabilities of the bank and carry the bank's pledge to exchange them on sight for coin or currency on an equal basis. Since both of these deposit liabilities are the basis of the payments system and serve as a store of existing value for individuals, the essential function of the financial system in creating the liquidity required for financing the capital development of the economy is inevitably joined with the provision of the means of payment. The "two masters" must of necessity cohabit in a single institution. The conflict between them cannot be solved through separation.

The second type of liquidity generation is the activity of financial institutions in providing for the primary distribution and secondary trading of the equity and fixed-income liabilities issued by firms to finance the capital development of the economy. It is this function that Keynes highlighted: "[T]he liquidity of investment markets often facilitates, though it sometimes impedes, the course of new investment. For the fact that each individual investor flatters himself that his commitment is 'liquid' (though this cannot be true for all investors collectively) calms his nerves and makes him much more willing to run a risk. If individual purchases of investments were rendered illiquid, this might seriously impede new investment. . . . So long as it is open to the individual to employ his wealth in hoarding or lending money, the alternative of purchasing actual capital assets cannot be rendered sufficiently attractive . . . except by organising markets wherein these assets can be easily realised for money" (Keynes 1936, 160–61).

In a primary distribution such as a "bought deal," the underwriting financial institution provides a guarantee of the price the issuer will receive for the liabilities and thus the amount of funds to be raised by the issue. The underwriter will buy for its own balance sheet any securities that cannot be sold to the public at the guaranteed price. The underwriter thereby guarantees that he will be able to exchange the issuer's liability for coin and currency or a deposit account held in a bank by the purchaser, or by transferring a deposit of his own. Thus, if the issue is not fully sold, the underwriter will have to get a bank to either "accept" the unsold securities as collateral against the issue of a demand deposit that the underwriter transfers to the issuer or use its own deposits. In either case, the transaction requires the participation and transfer of bank liabilities and the potential access to bank liquidity to ensure the guarantee of liquidity. The "acceptance" function of the underwriter is thus directly dependent on being able to sell the securities to the public or to convince a bank to "accept" them in exchange for a transactions deposit.

The same thing is true for the operation of financial institutions in providing liquidity in the secondary securities markets. For example, the broker-dealers who operate in providing liquidity to the secondary markets as officially designated "specialists" or "dealers" quote bid-ask prices on stocks and hold inventories that fluctuate as they act as net buyer or seller in providing for an "orderly market." These inventories of assets are financed via "call" loans, financed by banks' "acceptance" of the specialist's

inventory as collateral. Thus, in general, the liquidity that is provided in the primary and secondary capital markets is directly or indirectly dependent on the liquidity generated by the “acceptance” function of deposit-issuing banks.

In engaging in this creation of liquidity for the capital development of the economy, the banks are always “short” government-issued coin and currency (in practice, central bank reserves). To cover this potential short position, Minsky noted that banks “make financing commitments because they can operate in financial markets to acquire funds as needed; to so operate they hold assets that are negotiable in markets and hold credit lines at other banks. The normal functioning of our enterprise system depends upon a large array of commitments to finance, which do not show up as actual funds lent or borrowed, and money markets that provide connections among financial institutions” (Minsky 2008 [1986], 256).

Since this market-support mechanism to acquire funds as needed is not fail-safe, central banks provide banks with access to reserves through the discount window, where the central bank “accepts” the assets held by the bank in exchange for government means of payment. This means that the ultimate source of liquidity in the system is the central bank “acceptance” function known as “lender of last resort.”

Along with the clear recognition of this function in the Banking Act of 1935, an additional mechanism was introduced to ensure the liquidity of bank liabilities: a federal deposit insurance guarantee financed via an assessment of the size of a bank’s deposit liabilities that creates a trust fund to be used to provide coin and currency to the depositors of a bank that fails to meet its commitments. It has usually been the case that the depositors of a failed bank have their insured credits transferred to a solvent bank that absorbs the failing bank, rather than being directly reimbursed by the insurance fund for the insured value of their deposits. But, as Minsky observed, it is neither the existence nor the size of the trust fund that provides the liquidity guarantee for the deposits. Ultimately, it is the willingness of the central bank to create reserves against this government agency guarantee. Thus, it is always the central bank in its role as lender of last resort that provides the ultimate source of liquidity for the banks that are regulated and insured. And it is these banks that provide the ultimate liquidity to the rest of the financial system, which in normal times does not have access to the central bank.

### **Creators of “fictitious” liquidity: shadow “banks”**

Minsky (2008 [1986]) noted that “[o]ur complex financial structure consists of a variety of institutions that lever on owners’ equity and normally make on the carry, that is, borrowing at a lower rate than their assets can earn” (277). Which is to say, there are institutions that engage in the same type of activity as banks but without the ability to borrow coin and currency from the general public, and thus without the ability to offer their own insured liabilities as a substitute means of payment. Since they cannot provide payments services, their fundamental activity is borrowing and lending to one another, thus increasing what Minsky called “financial layering”; that is, the issue of financial liabilities to acquire the liabilities of other financial institutions.

The liquidity of a liability issued by any nonbank financial institution will then be determined by its ability to finance it—that is, to borrow in order to hold the liability—and this will ultimately depend on access to the liquidity of a deposit-creating bank. In a consolidated view of the financial system, every liability in the nonbank financial system, as well as the short-term liabilities of the nonbank nonfinancial system, are all ultimately dependent on the liquidity created by the deposit-taking, insured banks. This means that a failure to meet a payment commitment by any institution in the financial system will have an impact on all the others in the system, and will ultimately depend on the liquidity provided by the banking system.

For Minsky, a condition of “financial distress” will occur when any individual financial institution “cannot meet its obligations on its balance sheet liabilities.” This may evolve into a “financial crisis” when “a very significant subset of the economy is in financial distress” and “‘a slight disturbance’ in money flows creates such widespread financial distress that financial crisis is threatened” and financial fragility is transformed into “financial instability.” At each stage in the evolution toward instability, financial intermediaries become more reliant on other financial institutions, and ultimately banks, to refinance their liabilities. As Minsky noted, “A key to the generation of financial crisis is whether the holders of marketable securities who have large scale debts outstanding can refinance or must liquidate their positions when they need cash” (Minsky 1964, 266). “The worst thing that could happen to the solvency of any financial institution is a forced sale of its assets in order to acquire cash. Imagine what would happen to asset values, if there were a need to liquidate government bond positions by the government bond dealers or if the sales finance companies were suddenly to try to sell their portfolios of consumer installment paper on some market. In order to prevent this type of forced liquidation of assets, the financial intermediaries protect themselves by having alternative financing sources, i.e., by having ‘de facto’ lenders of last resort. These de facto lenders of last resort ultimately must have access to the Federal Reserve System in times of potential crisis” (Minsky 1964, 376).

It is for this reason that Minsky proposed more active use of the discount window, and recommended that financial institutions always be “in the bank”—that is, borrowing from the window—because this provides direct information to the central bank about the assets the bank holds as its cushion of safety. He also recommended that the window be open to all financial and nonfinancial institutions since their condition ultimately depends on the insured, regulated banks. It would thus be more efficient to provide the funding directly, rather than indirectly through the banks and the banks to their clients. Indeed, this is precisely what the Federal Reserve was forced to do in order to stem the collapse of liquidity in the recent crisis.

### **Regulators discover Minsky**

The recent Bank for International Settlements Committee on the Global Financial System report on global liquidity (CGFS 2011) clearly reflects this view of liquidity in the financial system. It notes the basic difference between what it calls “official” liquidity, provided by the central bank, and private liquidity, provided by private financial institutions who “provide market liquidity to securities markets, for instance through market-making activity, or provide funding liquidity through, for example, interbank

lending. The conditions under which these intermediaries can fund their balance sheets, in turn, depend on the willingness of other private sector participants to provide funding or market liquidity” (4). The report distinguishes between market liquidity, “the ability to trade an asset or financial instrument at short notice with little impact on its price,” and funding liquidity, “the ability to raise cash either via the sale of an asset (sometimes called balance sheet liquidity) or by borrowing.” “This interdependence underlines the endogenous character of private liquidity. At the macroeconomic level, private liquidity is thus closely related to monetary liquidity or funding conditions, as reflected in various monetary and credit aggregates or measures of the cost of funding. The creation and destruction of private liquidity is closely related to leveraging and deleveraging by private institutions. Depending on their ability or willingness to take risks and provide maturity or currency transformation services, financial institutions can both dampen or amplify monetary stimuli provided by central banks or provide stimuli of their own. . . . This gives rise to a pronounced state dependency of private global liquidity. In the extreme, general uncertainty about the viability of banks and other financial institutions can lead to a drying-up of private funding, and the private, endogenous component of global liquidity disappears altogether” (4–5).

### **The means of creation of “fictitious” liquidity**

Minsky’s proposal for the “post Glass Steagall” holding company system not only eliminates the creation of liquidity from the transactions function of the system, but also does so for the subsidiaries financing the system’s capital development. But the post–Glass-Steagall system that emerged after the 1999 GLB Act evolved in a very different way. It not only preserved the creation of liquidity by the deposit-taking subsidiaries of the holding companies, but also validated a plethora of diverse structures that were introduced to provide additional liquidity into the system as a result of the competition between commercial and investment banks. Dodd-Frank is simply an additional step in the process described by Minsky in which a bailout of the financial institution validates the practices that originally created the difficulties.<sup>10</sup>

Indeed, the recent crisis can be described as the collapse of “fictitious” liquidity created by these structures, the failure of the banking sector to provide sufficient liquidity to prevent the onset of a “debt deflation” (what Minsky defined as the ultimate attempt to access liquidity by “selling position to make position”—that is, selling assets in order to redeem liabilities), and finally, the inability of the Federal Reserve to intervene sufficiently quickly to ensure the provision of liquidity for the non-bank financial institutions which could not find support from the insured banks.

There were three particular stages in the evolution of these nonbank liquidity-creating structures that are important for understanding the recent financial crisis. The first was the rapid expansion in the number and variety of institutions that “lever on owners’ equity” and their introduction of innovations that allowed them to earn more than the simple carry or net interest spread. The second was the rapid increase in the use of this liquidity to fund increased financial layering in the financial sector. The third

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<sup>10</sup> “Every time the Fed protects a financial instrument it legitimizes the use of this instrument to finance activity; it thus prepares the way for the next expansion of liquidity and the next financial crisis” (Minsky 2008 [1986], 106).

was the increase in the use of liquidity to lend against positions whose return was determined by an expected change in prices (i.e., capital gains) rather than the production of income, but which had virtually no corresponding over-the-counter (OTC) or organized market to determine prices.

This tendency toward the increase in fictitious system liquidity emerged in the 1980s as noninsured, nonregulated financial institutions encroached on the protected deposit business of commercial banks and the commercial banks sought to protect their earnings by developing nonregulated sources of liquidity generation. The most emblematic of these alternative sources of liquidity is the money market mutual fund ( MMMF), which issues shares with a fixed net present value of one dollar to finance the purchase of short-term commercial paper, thus providing the equivalent of a sight deposit in a regulated, insured commercial bank. It is a clone of a bank, and operates outside the regulatory regime governing banks. It provides the same transformation of illiquid business debt into a substitute for coin and currency, and can offer better returns and lower lending costs because of the lack of regulation. However, the liquidity so created is fictitious, since it depends on the ability of commercial firms to meet their payments on commercial paper, yet the fund shares are priced as if they were more liquid than insured bank deposits. The problem with the MMMF is that, in contrast to a commercial bank that can create deposits that are a substitute for coin and currency by granting a commercial loan, a mutual fund cannot automatically fund commercial paper by lending to the firm. It has to sell a mutual fund share to the general public in exchange for a sight deposit on an insured bank, or for coin and currency. It cannot engage in the acceptance function that Minsky considers the foundation of the system of financing capital development. A mutual fund share cannot buy a trip on the subway.

Largely in response to the introduction of capital requirements, in the late 1980s regulated, insured banks created “arm’s-length” structured investment vehicles (SIVs) to reduce the assets held on balance sheets and to increase their return on equity. An SIV purchases structured assets or mortgages from the originating banks and finances them through the issue of short-term asset-backed commercial paper and some medium-term equity notes. The SIV earns the interest spread between the short-term paper issued to fund the acquisition of the long-term structured assets, augmented by leverage created from overselling the commercial paper. Just as in the case of the MMMF, the SIV cannot create the funding of its assets; it must sell its paper to the public in exchange for a sight deposit or coin and currency. At their peak, the asset-backed commercial paper issued by SIVs accounted for a third of the total asset-backed commercial paper market.

The shifting of assets from regulated, insured banks’ balance sheets thus provided a benefit by reducing their capital requirements and increasing their fee incomes above the net interest margins. It also created an increase in fictitious system liquidity, since an SIV has no line of credit with the originating bank (as is the case with the issue of generic commercial paper) and no access to the central bank in the case of a runoff in its commercial paper as investors decline to roll over their investments (the equivalent of a deposit “drain” for a bank). In case of distress an SIV will be forced to sell its assets. The liquidity created by the SIVs was thus fictitious. After arguing that that they were not formally committed to backing the commercial paper issued by the SIVs that they had created, managed, and administered, the banks eventually admitted a de facto responsibility and took the assets back onto their balance sheets, thus confirming Minsky’s rule that liquidity in the system is always dependent on

deposit banks. It is important to note that while the majority of assets in SIVs were collateralized mortgage assets, they were originally created to allow collateralization of the banks' credit card receivables, auto loans, student loans, and so forth, all of which were subject to the same increasing fragility as the mortgage-backed assets.

Another source of fictitious liquidity and a popular method of moving assets off balance sheets to increase income was asset securitization. This involves the creation of a formally independent special purpose entity—like an investment trust—that issues liabilities, usually fixed interest, whose proceeds are used to acquire fixed-income assets. The assets purchased from the originating bank are used as collateral for the liabilities issued to fund them. Various combinations of income from the assets can be structured to create different levels of risk associated with the different class, or “tranche,” of liability. The aim is to create, through tranching, a structure in which the assets produce a higher return than paid on the liabilities. But, as Minsky observed, that should mean that the liabilities have a higher liquidity premium than the assets. Liquidity is thus created by ensuring that a large proportion of the liabilities has a higher credit rating than the assets that support them. This is achieved by “credit enhancement”; that is, by “overcollateralization” (the value of the assets is greater than the liabilities issued), by the purchase of credit default swap (CDS) protection, or by purchasing a guarantee from a monoline insurer that is sufficient to convince a nationally recognized statistical rating organization to provide the majority of the liabilities with an investment-grade rating, allowing pension funds, insurance companies, and trusts to purchase liabilities backed by assets that they would not be permitted to buy directly because their creditworthiness is too low. Here, the liquidity is provided by placing assets into a structure that transforms them into more liquid liabilities. Unlike the SIV, there is little maturity transformation in this process; rather, income is generated by transforming illiquid, higher-yielding assets into liquid, low-yielding assets. Again, this is fictitious liquidity, since it depends on the performance of the underlying assets or the conditions of the entities that provide the credit enhancement. Since both the issuers of CDSs and the monoline insurers provisioned against the risk represented by the investment-grade rating of the liabilities rather than the much higher risk of the underlying assets, these guarantees were insufficient to ensure the liquidity of the liabilities.<sup>11</sup>

Derivatives, whether of the plain-vanilla variety or embodied in structured lending vehicles, also provide fictitious liquidity, since they provide the possibility of creating the equivalent of ownership exposure to an asset with only a minimum margin payment. Thus, instead of borrowing from a bank to invest in an asset, it is possible to take a long position by buying an OTC or exchange-traded derivative with only a small margin payment on top of the option premium. Regulated commercial banks were originally allowed to deal in derivatives on government securities since their intermediation was permitted by Glass-Steagall. But the Office of the Comptroller of the Currency, in a series of administrative rulings, eventually opened the way to dealings in derivatives on all types of assets, providing for the creation and dominance of insured banks in OTC derivatives dealing (see Kregel 2010).

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<sup>11</sup> It is telling that the SEC appears to have believed that the rating of securities by rating agencies provided an assessment of their “liquidity”: “securities that were rated investment grade by a credit rating agency of national repute, typically were more liquid and less volatile in price than securities that were not so highly rated” (Adelson 2007).

Another mechanism central to the recent crisis was the so-called “section 20” exemption that allowed banks to create “security affiliates” to deal in securities if income from these activities did not constitute their “principal” source of revenue (see Kregel 2010). Since banks were permitted to deal in government securities under Glass-Steagall, the principal source of income took the form of running a matched-book repurchase business that created little risk, and could be grossed up to produce any desired revenue to “cover” the income generated from securities trading. This allowed banks to engage in what would become proprietary trading, and, more important, created the “repo” market, in which an investor without capital could take a position in an asset that was funded by the use of the asset as collateral. The only financial commitment was to find the funds to cover the small or nonexistent “haircut” applied to the value of the asset in determining how much would be lent against it. Since such contracts were overnight or extremely short term, they again augmented the liquidity of long-term, less liquid assets. (It is worth noting that the repo market had been a persistent source of fraudulent activity and regulatory difficulty over many years prior to the recent crisis.<sup>12</sup>)

All of these innovative structures greatly increased the ability of the system to create and finance the holding of, and speculation in, new types of exotic financial assets. For this reason, they are often described as constituting a “shadow” banking system, but they were not banks and they did not create “liquidity” in the same way as a regulated bank—that is, through the guarantee of provision of means of payment. This fictitious liquidity depended more on particular movements in the prices of the assets and the ability to sell them as required than on their ability to produce income. When these price anticipations were not realized, it was impossible to generate liquidity through the sale of underlying assets without creating declines in prices that produced loss and potential insolvency. Indeed, most of these assets were long term, with no formal or informal markets or market makers. Not only were there no markets in which to sell them, there were no market makers or prices to value the assets. Their very existence and value depended on fictitious liquidity, and when it disappeared, so did their value. Ultimately, the liquidity required to support these assets depended on their acceptance by insured banks. If banks were not willing to provide it, then it had to be provided by the central bank if an outright debt deflation was to be avoided.

In the recent crisis, the fact that many bank holding companies were also involved in the creation of this “shadow” liquidity severely limited the ability of their banking subsidiaries to provide liquidity support, since to do so would have required increasing borrowing from depositors rather than accepting the liabilities of another unit in the holding. A single institution cannot provide accommodation to itself, since it would just be transferring losses from one unit to another, jeopardizing its ability to attract customer “core” deposits.

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<sup>12</sup> This list is not exhaustive. For example, rehypothecation of collateral and securities lending in prime brokerage accounts also augment system liquidity at no cost or at only a small haircut on value.



## **Liquidity was not used to provide for the capital development of the economy**

The basic difficulty caused by the recent explosion of fictitious liquidity is that it was used primarily to finance the acquisition of financial assets that did not represent real capital assets or the expected future income from real assets but rather an anticipated appreciation in the price of the assets—an appreciation that was driven by the increase in fictitious liquidity. The stability of these positions was again dependent on a particular pattern of price change. And many in the industry recognized these structures as implicit “Ponzi” schemes (see McCulley 2007). When these anticipated price movements were not realized, many of the structures in which margins were linked to the value of the position generated an increased demand for accommodation for a position whose value was declining. Thus, the demand for liquidity increased with a decline in the value of the position and the decline in the amount of fictitious liquidity it could provide. The fact that there were no markets to provide evaluations of the worth of the positions made it more difficult to assess risks, leading to an often inappropriate increase in haircuts and margin calls, and reducing liquidity at precisely the moment the structures required additional liquidity to remain viable.

In simple terms, the shadow system created liquidity to fund holdings of financial assets and to generate incomes from trading assets in order to exploit price differences, rather than to generate income and employment. As Minsky pointed out, a borrower’s balance sheet represents a flow dimension that is crucial to its stability: the balance between the financing costs of the liabilities relative to the income generated by the assets. For a business firm, this is business income from output, employment, and the sale of output. For a financial institution financing the firm, its income is derivative of the firm’s income. However, most of the lending in the recent crisis was lending by one financial institution to another in order to finance their holdings of financial assets and income generated by simple price volatility. This is “financial layering” within the system and represents the increased financial fragility that was generated by this creation of “fictitious” liquidity.

## **What is wrong with current regulatory proposals?**

The basic error in the current regulatory approach embodied in Dodd-Frank is that it does very little to limit the creation of fictitious liquidity or to redirect the creation of that liquidity to the financing of the capital development of the system.<sup>13</sup> Dodd-Frank seeks to limit the exposure of government to the consequences of another collapse of regulated, insured institutions, requiring the latter to hold higher levels of equity capital in order to meet the losses created by a debt deflation caused by a reversal in anticipated prices. But capital is meant to be a reserve to ensure solvency of the institutions, and the insolvencies that were avoided in the recent crisis were created by excessive liquidity creation. The

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<sup>13</sup> One of the greatest deficiencies in the new Bank for International Settlements regulations on liquidity is that they set liquidity requirements for financial institutions rather than limiting the financial institutions that create liquidity. The former are specious for as Keynes reminded, there is no such thing as system liquidity, while it is possible to restrict the operation of institutions that provide liquidity. It is also likely that they will distort the prices of the assets that satisfy this requirement as usually happens with any division between regulatory and nonregulatory assets.

ability to create liquidity depends on the financing institution engaging in the acceptance function. Only a regulated bank offering insured deposits can do this. Avoiding another crisis will thus depend on limiting the means of “fictitious” liquidity creation noted above.

As Minsky’s proposal above suggests, the way to make banks truly safe is for every subsidiary of the bank holding company to carry a 100 percent reserve ratio and a 100 percent capital ratio. But no amount of capital can substitute for the creation of the liquidity required for the capital development of the system. This is particularly true for nonbank investment trust structures that are implicitly 100 capitalized.

One way to do it would be to modify Minsky’s proposal by placing limitations not only on the assets and liabilities of the subsidiaries but also on the number and functions of the subsidiaries of a financial holding company. Holding companies providing transaction services, a store of value, or financing (for housing, consumers, or short-term business financing of commercial paper) would then be limited to activities closely related to liquidity creation. A separate group of holding companies, with the appropriate related sets of activities, would provide underwriting and capital market services for the financing of productive investment. The aim would be to limit each type of holding company to a range of activities that are sufficiently linked to their core function, and to ensure that each company were small enough to be effectively managed and supervised (see Kregel 2008).

As proposed in last year’s Levy Institute report (Levy Institute, 2011), some of the difficulties created by Dodd-Frank are due to the attempt to introduce Glass-Steagall-type provisions into the 1999 GLB Act without revisiting its main provisions relating to the revision of the 1956 Bank Holding Company Act. A realistic attempt to preclude “too big to fail” banks would seem to require revision of GLB.

But such a revision would be both time-consuming and difficult in the present political environment. A more expeditious method of reform that could replace Dodd-Frank would be to ask if there were any reason why the fictitious-liquidity structures that have grown up in the process of deregulation are necessary to the operation of the economy. Indeed, most of the liquidity-creating structures mentioned above were generated by the restrictions on activity caused by the segmentation of financial functions and competition between commercial and investment banks. Since the GLB Act eliminated any such distinction, the justification for most of these structures loses cogency.

For example, is there any reason why MMMFs should exist independent of banks? They could be eliminated by a simple ruling reversing the original court decision that commercial paper was a security and thus could not be operated by commercial banks under Glass-Steagall. Under GLB, there is no reason for them to exist, and they could be transformed into regulated, insured institutions by a simple decision of the Financial Stability Oversight Council.

There is also no reason why securitization should exist in its present form. Indeed, if these structures were regulated like other financial institutions and subject to transparency and reporting, they would in all probability not be viable (see Kregel 2010). As suggested by Lew Ranieri (1996), one of the innovators in securitization, there are some assets that should not and cannot be successfully securitized. Thus, the assets that are permitted in securitized structures should be subject to regulation. It is instructive that

government-sponsored enterprises oversaw the securitization of “conforming” mortgage assets without difficulty as long as they met the strict conditions for inclusion. It thus follows that some securitized structures cannot be effectively risk rated, and credit ratings should not be permitted as an indication of their suitability for certain portfolios.

Repurchase agreements should be regulated so that they do not fund speculative financial institutions, such as proprietary trading desks or hedge funds. The supposed need for collateralized deposits of large size could be easily met by extending deposit insurance to all deposits. Repos have been the source of fraud and instability throughout their history, even when they were primarily restricted to risk-free government securities. They could simply be reclassified as loans and regulated as such.

Derivatives have become an integral part of the modern financial system, and hardly any position is undertaken or financing instrument created without the inclusion of a derivatives position. The problem is that while they disperse risk and provide hedging, they often hide the true risk to the purchaser. Trading on regulated exchanges will not change the lack of transparency concerning risk exposure. The problem could be reduced if derivatives positions were fully margined.

These measures would not guarantee system stability, as new mechanisms of fictitious liquidity would quickly be invented. But they could be easily introduced by simply reversing the regulatory and legal decisions that allowed them to come into existence, primarily in order to provide for a more level playing field between commercial and investment banks. The level playing field was secured by the GLB Act, which rendered these measures outdated and unnecessary. They should have been repealed when the act was approved or, better, by revision of the act itself. Either approach would provide a degree of regulatory control over fictitious liquidity creation and thus stem the reflexive impact of its collapse on asset prices. This would also require financial institutions to seek other forms of income; among them, lending to support the capital development of the economy.

All of these decisions are within the remit of existing regulatory agencies or the FSOC and could be implemented rapidly and without the delays surrounding the implementation of Dodd-Frank.

#### **Addendum: The conundrum of regulation**

Much of the innovation that has occurred in the Glass-Steagall system was part of an attempt by regulated banks to increase their return on equity. And much of the deregulation in the financial system was introduced in order to allow commercial banks to augment their income and compete with less regulated investment banks. Indeed, some foresaw this problem as leading to the disappearance of commercial banking (see Kregel 1997). Ironically, it is the investment banks that have disappeared as a result of GLB.

For any financial institution, its return on equity is determined by the return on assets multiplied by the ratio of assets to bank equity, better known as leverage. The problem that commercial banks faced was the decline in the share of system assets that were being financed by bank liquidity, along with the decline in net margins on this business. Thus, deregulation provided a way to increase leverage, but the

creation of bank holding companies that could use this increased leverage to improve system liquidity and thus inflate the amount of income produced led to greater financial fragility and eventual collapse. An increase in capital ratios does nothing to increase the returns to traditional liquidity creation by means of acceptance lending. Rather, it will simply lead to an increase in leverage or to greater consolidation, as banks seek to improve their bottom line by raising the price of services. An alternative, which Minsky suggested, is for banks to access the central bank directly for reserves to hedge their short cash positions resulting from deposit creation. This would preclude the need for offering retail deposits as the base mechanism for generating reserves.

The conundrum of regulation is to find a way to allow banks to concentrate on financing the capital development of the economy through liquidity creation while at the same time providing secure transactions services, with the combination earning rates of return on capital that are competitive with other forms of capital investment. Increasing the amount of capital required and thus the income that must be earned would appear to be a sure incentive to innovate in the direction of higher leverage and fictitious liquidity, or to charge more for the provision of transactions services.

Finally, macroprudential regulation has to recognize the importance, first noted by Marriner Eccles, of the impact of the employment rate and the government budget on the level of liquidity and the solvency of financial institutions. As Minsky continually emphasized, the success of the Glass-Steagall system was due as much to the existence of Big Government as a complement to the lender-of-last-resort function of the central bank as it was to the restrictions placed on the assets that deposit-taking institutions could hold.

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