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IT ISN'T WORKING

Time for More Radical Policies

ÉRIC TYMOIGNE and L. RANDALL WRAY

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Preface

The Obama administration has implemented several policies to "jump-start" the U.S. economy. Two core premises are that monetary measures are required to strengthen the financial system before the rest of the economy can recover, and that most major banks have a temporary liquidity problem induced by malfunctioning financial markets. The administration's efforts have largely focused on preserving the financial interests of major banks.

Research Associate Éric Tymoigne and Senior Scholar L. Randall Wray believe that maintaining the status quo is not the solution, since it overlooks the debt problems of households and nonfinancial businesses—re-creating the financial conditions that led to disaster will set the stage for a recurrence of the Great Depression or a Japanese-style "lost decade." They recommend a more radical policy agenda, such as federal spending programs that directly provide jobs and sustain employment, thereby helping to restore the creditworthiness of borrowers, the profitability of firms, and the fiscal position of state and federal budgets.

The authors describe the leveraging of income and equity by households, firms, and financial institutions as the underlying cause of the crisis. As the level of risky assets on the banks' balance sheets rose, the rate of profit in the finance, insurance, and real estate sectors accelerated. According to Hyman P. Minsky, banks with higher leverage and profit rates must grow faster in order to maintain a certain level of profitability. History shows that lending against expected increases in asset values is almost always a recipe for trouble. Since leverage is highly procyclical, an unconstrained financial system will tend toward explosive growth during a boom. The notion that legislated capital requirements (such as those inherent in the Basel agreements) can constrain growth and risk is, therefore, flawed. And the argument that the U.S. government had to inject capital and get the bad assets off the books in order to encourage banks to lend again is nonsensical. More lending, say the authors, is not a solution to excessive leverage and debt.

There has been a long-term trend toward nonbank financial institutions (the "shadow banking sector") and the "originate to distribute" model. The public scolding of banks for "not

providing credit" is misplaced, since the "shadow" sector is shrinking balance sheets and cutting off credit. The market wants more deleveraging because of solvency risks, not liquidity problems, so there will be no sustainable recovery until these debts are reduced and incomes begin growing again.

While Washington's focus is on the staggering government debt and unsustainable fiscal deficits, the real concern should be the debt level of the private domestic sector. It is important to recognize that government debt is low relative to the size of the U.S. economy, and deleveraging in the private sector cannot happen without an expansion of the government deficit. Otherwise, there is risk of a full-blown debt-deflation process. The current approach of the financial institutions that created the mess is to discourage loan renegotiations and modifications because preventing resolution is more profitable, based on the money to be made by squeezing debtors with fees and penalties. This explains why current policies have failed to keep people in their homes. And the promise to create three million new jobs when there are already 9.5 million fewer jobs than at the start of the downturn indicates that current efforts are grossly insufficient. The financial bailout has crowded out more sensible spending policies.

The authors maintain that the government's programs will not work unless they deal with the core issue: many financial institutions are probably insolvent and should not be saved because they form a barrier to sustainable recovery. Policy should downsize the trade- and fee-driven financial sector, reduce monopoly power, increase supervision and regulation (and restore proper underwriting), and favor small, independent financial institutions. Policy should also support countercyclical government employment programs such as those created under the New Deal, help households to restructure their finances and remain in their homes, and reallocate commitments that favor the financial sector.

As always, I welcome your comments.

Dimitri B. Papadimitriou, *President* October 2009

It Isn't Working

Introduction

With employment numbers dropping rapidly, the finances of state governments, households, and businesses worsening, and highly leveraged financial institutions overwhelmed by a mountain of "legacy" assets, the Obama administration has had a lot to deal with in its first few months in office. Unfortunately, like the Bush administration before it, the Obama team appears to be trying to re-create the bubbly financial conditions that led to disaster. This tack is not likely to succeed, and it is displacing policies that might actually prevent a recurrence of the Great Depression. Even if the \$23.7 trillion the federal government has so far allocated in the form of spending, lending, and guarantees does preserve the status quo, we believe it will merely set the stage for another—bigger—financial crisis a few years down the road. This is why we recommend an abrupt change of course and the pursuit of a more radical policy agenda.

Instead of trying to revive the productive economy, most of the recovery effort so far has consisted of CPR for Wall Street. Fearing what it might find if it actually examined the books of financial institutions in detail, the administration put a chosen handful through a wimpy "stress test" after announcing that none would fail. Rather than closing massively insolvent institutions, Washington continues to allow them to conduct "business as usual," and to show questionable profits so that they can pay out big bonuses to the geniuses who created the toxic waste that brought on the crisis.

In short, current policy serves to preserve the interests of big financial companies rather than to implement government programs that would *directly* sustain employment and restore state finances. To make matters worse, the Obama administration is already preoccupied with "paying for" additional spending through tax hikes, or through spending cuts elsewhere. It does not appear to be willing to let the fiscal position of the federal budget grow as needed to meet current challenges. We suspect the balanced-budget craziness will get worse during the next election season—much as President Roosevelt's 1936 campaign tied him to fiscal tightening that threw the economy back into depression in 1937.

The U.S. economy is crushed by massive indebtedness in the financial and household sectors, so maintaining the status quo is

not a solution. Proposals to relieve debt burdens by encouraging lenders to renegotiate mortgages have failed miserably, and personal income is falling at a terrifying rate. Already, 6.5 million people have lost their jobs, including 500,000 in June 2009 alone. The administration's promise that the stimulus package will create 3.5 million jobs over the next two years is unsatisfying in the face of these challenges.

We need federal government spending programs to provide jobs and incomes that will restore the creditworthiness of borrowers and the profitability of firms. We need a swift and detailed investigation of financial institutions' balance sheets, and resolution of those firms found to be insolvent. We need to downsize financial institutions that are "too big to fail" while putting in place new regulations and supervisory practices to lessen the possibility of system fragility as the economy recovers. We need a package of policies to relieve households of intolerable debt burdens. And, given that the current crisis was fueled in part by a housing boom, we need to find a way to deal with the oversupply of homes and high vacancy rates that are driving down real estate values and increasing the social costs for communities. And we've got to rein in the money managers that seem to be dictating policy.

How Did We Get Here?

In a word: leverage. There are different kinds of leverage, and we used them all. Income was leveraged by households and by firms in order to take on more debt. For the past dozen years, scholars at the Levy Institute have been warning about the consequences of a practically unbroken deficit spending spree, as evidenced by exceptionally high debt-to-income ratios (see the following section). Many financial institutions leveraged equity using highly complex proprietary models to assess risk and expand balance sheets to the maximum extent under the capital requirements of Basel II. They also leveraged safe, liquid assets (e.g., reserves and Treasuries) and increased the level of risky assets as a proportion of their balance sheets. Banks moved assets off balance sheet and into "special purpose vehicles" in order to avoid capital requirements. Overall, there was an increase in financial sector "layering," as the nominal value of financial assets and liabilities grew much faster than GDP. Indeed, the debt of financial institutions grew much faster than other private sector debt.

We could say that the FIRE (finance, insurance, and real estate) sector "leveraged" the rest of the economy, as its employ-

ment and profits not only expanded but also accelerated (the sector received 40 percent of the nation's profits before the bust). Recent revisions to the U.S. national accounts show that Americans spend more on financial services and insurance (8.2 percent of personal consumption, or \$832 billion annually) than on food and beverages consumed at home (7.9 percent). In 1995, that pattern was reversed (7.2 versus 9 percent). While we prefer not to get into a sterile argument about "productive" versus "unproductive" labor, it appears in retrospect that the FIRE sector has played an outsized role in recent years (like the tail wagging the economy's dog). All efforts are aimed at keeping leverage high, while the Federal Reserve (Fed) and Treasury try to get banks to lend again—as if another debt bubble were the cure for an ailing economy.

As Hyman P. Minsky argued, banking is an unusual profit-seeking business because it is based on very high leverage ratios. Further, banks serve an important public purpose, so they have access to the lender of last resort (the Fed) and government guarantees. Those guarantees provide cheap and virtually unlimited credit in the form of insured (bank) deposits. Because creditors (depositors) will not lose if the banks fail, they feel little need to supervise bank activities (i.e., there is no "market discipline"). The banks, in turn, can increase profits on equity by raising the return on assets under a given capital ratio and by reducing the ratio of capital to assets (increasing leverage). These actions increase the risk but can dramatically raise profitability without upping the amount of capital at risk, since the government insurer will absorb any equity losses on bad assets.

Minsky (2008) provided a simple example. Consider a bank with \$25 billion in assets, \$1.25 billion in capital, \$187.5 million in profits after taxes, and an allowance for loan losses. Its assetto-capital (or leverage) ratio is 20, its return on assets is 0.75 percent, and its profit on equity is 15 percent (20*0.75). Assume that the bank's rival also has \$25 billion in assets and earns \$187.5 million in profits but its equity is \$2.085 billion, for a leverage ratio of 12. While the rival earns the same return on assets, it earns 9 percent on equity. It can increase profits either by earning more on assets (by taking on riskier assets, all else equal) or by increasing its leverage ratio (by acquiring more assets against its larger capital base). Note that the disparity in profitability due to the difference in leverage ratios is dramatic: if the rival increases its leverage to 20, it expands its assets to \$41.7 billion and its profits to \$312.75 million, which is equivalent to the profit rate of 15 percent enjoyed by the other bank. Using the

same amount of capital, the rival bank increases its loans and deposits by \$16.7 billion, while its owners' total exposure to losses remains at \$2.085 billion. However, the government insurer's exposure increases by \$16.7 billion.

As Minsky also noted, simple arithmetic shows that banks with higher leverage and profit rates must grow faster to maintain a certain level of profitability, especially when shareholders impose a specific return-on-equity target. Assuming a dividend payout ratio of one third, banks earning a 15 percent profit rate will accumulate capital at a 10 percent annual growth rate. To maintain a leverage ratio of 20, asset and deposit liabilities must increase by 20 times the increase of capital each year. Moreover, assets will have to grow at an even faster rate if the return on assets increases under a given leverage ratio, or if the bank increases its leverage ratio. Both of these events are likely in a boom, and this explains why an otherwise unconstrained financial system will tend toward explosive growth. Indeed, a recent paper by economists at the Federal Reserve Bank of New York shows that leverage in the financial system is highly procyclical, since assets relative to equity expand during a boom and decline during a bust (Adrian and Shin 2009). The notion that legislated capital requirements such as those promulgated by Basel II can tightly constrain growth and risk is flawed.

What if a bank discovers that, after increasing its leverage ratio, a lot of its new loans are going bad? Assume that one out of eight loans turns out to be toxic waste, so that the bank's equity disappears (and leverage has approached infinity!). One strategy is to patiently rebuild capital through retained earnings (assuming the bank's other assets remain profitable). A more aggressive strategy would be to "bet the bank" by making riskier loans in the hope of recouping losses. The option chosen by management will depend on the firm's incentive structures as well as regulatory and supervisory practices, and overall expectations. If management's performance is closely scrutinized and pay structures are tied to short-term performance, management will likely choose to hide losses and pursue a higher risk/return path. Strict capital requirements combined with lax oversight makes this response even more probable, as management tries to rebuild capital before the regulatory agencies discover the losses and close the institution. The savings and thrift industry reacted to insolvency in this way in the 1980s, and indeed, the regulators in the Reagan administration encouraged them to do just that (Black 2005).

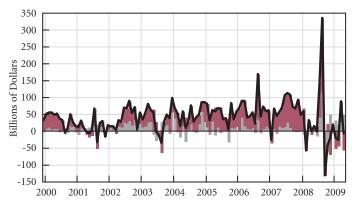
This is why former Treasury Secretary Henry Paulson's argument that government had to inject capital and get the bad assets off the books in order to encourage banks to lend again was nonsensical. Loan losses and lack of capital are not a barrier to lending; rather, they can encourage rapid growth of risky loans. More lending is not a solution to excessive leverage and debt!

In any event, there is always an incentive to increase leverage ratios and improve the return on equity. Assuming that the capital ratio is 5 percent and that banks can finance their earnings position by issuing government-guaranteed liabilities, then \$95 out of every \$100 gambled is effectively the government's money (in the form of insured deposits). In the worst case, the banks will lose \$5 of their own money, but if the gamble pays off, they keep all of the profits. Imagine walking into a casino and the government giving you \$95 to gamble for every \$5 you spend—and you get to keep all of the winnings. What would you do? You would play for high stakes of course! So, if subjected only to market forces, profit-seeking behavior under such incentives would be subject to many, and frequently spectacular, bank failures. The odds are even more in the favor of speculators if the government adopts a "too big to fail" strategy—although exactly how the government chooses to rescue which institutions will determine the value of that "put" to the banks' owners. This is why guarantees without close supervision are bound to create problems.

While the Basel agreements were supposed to increase capital requirements, the ratios were never high enough to make a real difference, and the institutions were allowed to assess the riskiness of their own assets for the purposes of calculating riskadjusted capital ratios. If anything, Basel I and II contributed to financial fragility and the collapse of the global financial system. In lieu of closely regulated and supervised financial institutions, effective capital requirements need to be very high—maybe 100 percent-to discourage excessively risky behavior, and risk assessments must be performed at arm's length by neutral parties. We used to have a policy of "double indemnity," whereby owners were personally liable for twice the amount of a bank's losses. That provision, plus prison terms for managers convicted of any unlawful activities, would perhaps provide the proper constraints. Failing that, the only solution is to constrain bank practices, such as the types of assets and liabilities that are allowed on the banks' books.

Supervisors should always be wary of rapid growth, which has proven to be a predictor of insolvency. Since there is always a limited supply of creditworthy borrowers, rapid growth is sus-

Figure 1 Bank Credit at All U.S. Commercial Banks, 2000–09 (in billions of dollars)



- Bank Credit
- Loans and Leases in Bank Credit
- Securities in Bank Credit

Source: Federal Reserve (Series H.8)

tained by lowering either credit or underwriting standards. If income grows at a 4 percent pace, the ability to service debt cannot grow at orders of magnitude above that pace. Yet, high and rising leverage means that financial institutions must grow faster, and that is partly the reason that a greater share of GDP and profits was captured by the FIRE sector (Tymoigne 2009c).

But the situation is much worse than indicated by these examples. In the early 1980s, then-Fed Chairman Paul Volcker's high interest rate policy killed the thrifts, and we transitioned to a "market-based" financial system. To be sure, there already was a long-term trend away from commercial banking and toward nonbank financial institutions—what is now known as the "shadow banking sector." One illustration of this transition is the "originate to distribute" model, where institutions originate loans that serve as collateral for securities sold in markets (Wray 2007, Minsky 2008). Jimmy Stewart's thrift (as portrayed in the 1946 film It's a Wonderful Life) was replaced by a high stakes casino where everyone in the home finance food chain tacked on fees for services: mortgage brokers, banks and thrifts that originate loans, as well as property appraisers, accountants, title insurers, rating agencies, lawyers, mortgage and security insurers (including credit default sellers), and security brokers and dealers. Whatever was left of the homeowner's principal and interest payments was parceled out to various tranched securities held by money managers for their clients.

A similar transformation occurred throughout the financial system, so leverage had to be very high (30, or even 300) to meet return-on-equity goals. Since competition reduced returns, leveraged money sought progressively riskier assets; hence, low docs, no docs, and NINJA loans. A 2003 flier sent to brokers from a mortgage company tells it all: "Did You Know NovaStar Offers to Completely Ignore Consumer Credit!" (Morgenson 2007b). We now know the outcome, and it's not pretty.

Leverage is a beautiful thing on the way up, and a disastrous thing on the way down. In our earlier example, reducing leverage from 20 to 12 would require the rival bank to unwind \$16.7 billion in loans (40 percent of its balance sheet). In the crisis that began in August 2007, most deleveraging took place off of the banks' books, for two reasons. First, it is difficult to delever bank deposits and loans because loans are idiosyncratic and therefore hard to sell. Presumably, loans that appear on a bank's books today are there precisely because they are more difficult to securitize, and they cannot be recalled because debtors do not have cash on hand for repayment. Thus, positions can only be unwound slowly, as loans are repaid or as credit losses materialize.

Second, as highly leveraged institutions subject to some oversight, banks cannot afford to recognize these losses or to sell their marketable assets into declining markets. As shown in Figure 1, bank credit has not declined substantially since the recession began in late 2007. Rather, it shows an upward trend, as funding comes from the purchase of private securities rather than loans, which are also trending upward despite the transition to a market-based system. However, the shadow banking sector has greatly reduced its leverage by writing off bad debts and recognizing losses. Of course, that is just the other side of the coin in the loss of financial wealth globally. Thus, much of the public scolding of banks for "not providing credit" is misplaced. As shown in Figure 2, it is the "shadow" sector that is shrinking balance sheets and cutting off credit—for all previously financed activities, not just mortgages.

One of the supposed advantages of the market-based model is that it made illiquid assets (e.g., home mortgages, credit card debt, and student loans) marketable and more liquid. Unfortunately, that was only during the boom. When the bubble burst, these assets became hot potatoes that could be sold only into declining markets. And, since the assets were held mainly by institutions that

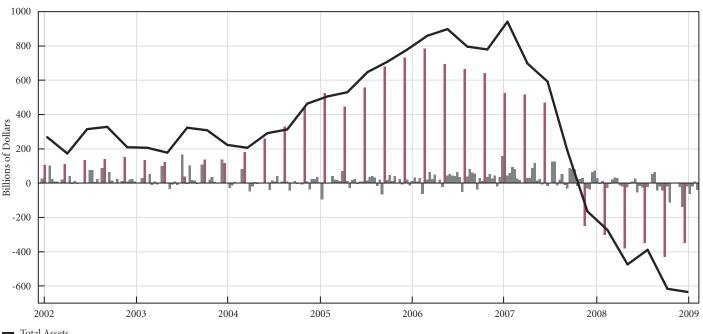


Figure 2 Change in the Assets of Asset-backed Securities Issuers, 2002-09 (in billions of dollars)

Total Assets

Mortgage Assets

Other

Source: Federal Reserve (Series Z.1)

"mark to market," falling prices triggered more sales to avoid greater losses, pushing prices even lower, in what Irving Fisher and Minsky described as a "debt-deflation process": the higher the leverage ratio, the greater the impact when exiting a toxic asset class.

The panic during this process was made much worse because financial institutions typically financed their asset positions by issuing liabilities held by other financial institutions (rather than to insured depositors). These institutions offered collateral against the credit extended to them by others, while creditors allowed a maximum leverage in collateralized borrowing by demanding a "haircut." As Tobias Adrian and Hyun Song Shin (2009) explain, if the haircut is 2 percent, the borrower can borrow \$98 for each \$100 of assets pledged as collateral. The haircut must come out of equity (the borrower can finance only \$98 of its asset position by issuing debt, so \$2 must be covered by capital). That means a maximum leverage ratio of 50 when the haircut is \$2, of 25 when the haircut is \$4, and so on. The haircut varies by the riskiness of the asset and over time.

For instance, U.S. Treasuries had a haircut of a quarter of 1 percent before the crisis (a borrower could obtain a loan equal to 99.75 percent of the value of the securities pledged). The haircut increased to 2-4 percent for prime mortgage-backed securities and to 18-25 percent for "mezzanine" level loans. If the average haircut across a bank's assets is 8 percent, then the maximum leverage ratio is 12.5. By August 2008 (during the severe liquidity crisis), the haircut was raised to 3 percent for U.S. Treasuries, to 10-20 percent for prime mortgage-backed securities, and to more than 35 percent for mezzanine loans. It rose to as high as 40 percent for high-yield (junk) bonds and 60 percent for assetbacked securities. Since banks and shadow banks had leveraged their safe assets during the boom, they were now stuffed with assets exposed to large haircuts, making it expensive to raise the credit to finance asset positions. Ultimately, they were forced to sell their positions, which depressed asset prices further and reinforced their leverage problem (IMF 2008). When the entire shadow banking sector tried to delever, institutions refused to extend credit to one another except at huge haircuts, and they tried to sell assets to other institutions that could not finance positions in the assets they already held. Asset prices subsequently collapsed in a self-reinforcing spiral.

A similar process is under way in the commercial real estate sector. One way to calculate the value of commercial real estate is the income approach. Malay Bansal (2009) provides the following illustration of commercial real estate losses using commercial mortgage-backed securities based on real-world values before and after the financial crisis. Suppose an office building in 2006 is expected to generate \$600,000 per year and markets are capitalizing that income flow at a 6 percent rate. The building is then estimated to be worth \$10 million. Further assume that lenders will accept a loan-to-value (LTV) ratio of 80 percent, so a purchaser must put up \$2 million to borrow \$8 million. The term of the loan is five years, so the asset position will have to be refinanced. After the crisis, the markets raise the capitalization rate to 8 percent and lower the LTV ratio to 60 percent. Assuming the rental income is not affected, the building is now worth only \$7.5 million and the owner can borrow no more than \$4.5 million in order to refinance. Since the owner must pay off the original \$8 million loan, he needs to come up with an additional \$3.5 million. If he cannot find the cash (or if he decides to sell the property), then the price of the building falls to between \$4.5 million (the borrowing limit) and \$7.5 million (the value determined by the expected rental income). Thus, moving from a "6 percent cap, 80 percent LTV" to an "8 percent cap, 60 percent LTV" means that the same rental income results in an asset price depreciation of 25 to 65 percent. Furthermore, this result could be a lot worse, because rental incomes will be depressed during a crisis, along with expectations of further real estate price depreciation.

This exemplifies the downside of a market-based system and was one of the primary reasons for the intervention undertaken by Washington, when the Fed and Treasury confronted the liquidity crisis by extending deposit insurance; guaranteeing, lending against, and even buying commercial paper, asset-backed commercial paper, and mortgage-backed securities; opening the discount window to some shadow banks; and handing bank charters to investment banks so that they would have access to insured deposits. The government guarantee meant that there would be no haircut, so it acted effectively as a circuit breaker to stop the normal market process of deleveraging through asset sales (i.e., by allowing the shadow banks to finance their asset positions using depositors as creditors).

If the problem had been one of excessive leverage exclusive to the financial sector, the crisis could have been resolved by getting the financial institutions to accept one another's liabilities and refinance their positions in one another's assets. But the problem was one of excessive leverage throughout the global economy, where there was too much lending against prospective income flows and expected asset appreciation. Although the

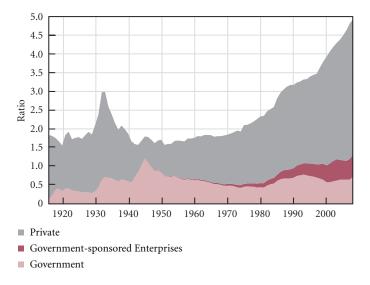
market wants more deleveraging because of solvency risks (rather than liquidity problems), Washington wants to prevent it in spite of excessive debts and collapsing incomes. Although some scavengers are buying toxic waste at deep discounts, debtors will not be able to service the debts, and there will not be a sustainable recovery until these debts are reduced and incomes are growing.

The Debt Problem: Where Is the Problem and How Big Is It?

As shown in Figure 3, the level of indebtedness of the U.S. economy is at an all-time high, and well above the debt-to-GDP ratio on the eve of the Great Depression. In the early 1930s, the nominal level of debt was three times higher than the value of nominal GDP; in 2008, it was five times higher.

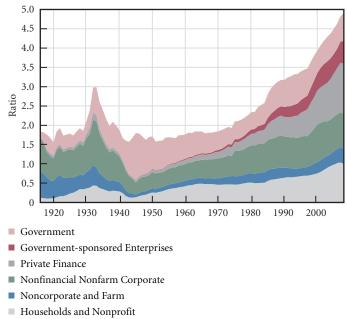
Even though politicians and commentators have been clamoring over the staggering government debt and supposedly unsustainable fiscal deficits, it is the debt level of the private domestic sector that should be of great concern. The ratio of private domestic debt relative to GDP in 2008 was 3.6, compared to 0.73 for the government sector (0.53 for the federal government) and 0.58 for government-sponsored enterprises. While the debt problem is very serious, the concern about the federal deficit and its effect on the public debt is misplaced. Not only is the government debt low relative to the size of the economy, but as a matter of national accounting, deleveraging in the private sector cannot happen without an increase in the government deficit. In addition, if the government deficit does not grow fast enough to meet the saving needs of the private domestic sector, national

Figure 3 Total Financial Liabilities Relative to GDP, 1916–2008*



Sources: Carter et al. 2006; National Income and Product Accounts (NIPA); Federal Reserve Flow of Funds Accounts (from 1945)

Figure 4 Total Financial Liabilities Relative to GDP by Sector, 1916–2008*



Sources: Carter et al. 2006; U.S. Census Bureau 1975; NIPA; Federal Reserve Flow of Funds Accounts (from 1945)

*Note: Prior to 1945, net public and net private debts are used (as defined by the U.S. Bureau of the Census). From 1945 onward, Census data is replicated by using data about total financial liabilities provided by the NIPA and Flow of Funds Accounts. Data for net public debt is approximated by taking total financial liabilities for each level of government, and by removing any monetary, life insurance, or pension liabilities (the government sector excludes monetary authorities). Private debt is computed by starting from "total finance total financial liabilities" and "domestic nonfinancial sectors total financial liabilities," and by removing some items in order to get as close as possible to the definition used by the Census Bureau (which excludes monetary instruments and other liabilities of financial institutions). Flow of Funds Table D.3, "Debt Outstanding by Sector," is not used because it underestimates significantly the Census data about outstanding debt available until 1976. The use of "total financial liabilities" (once adjusted for the elements that the Census Bureau removed) for each sector does a much better job of tracking Census data and so allowed a comparison of pre-1945 data with data available from 1945.

Figure 5 Household and Financial Sector Debt Relative to Their Respective Income, 1929–2008



- Debt-to-Wage Ratio of Households (right-hand scale)
- Debt-to-Profit Ratio of Financial Institutions

Sources: Bureau of Economic Analysis; Carter et al. 2006; NIPA; Federal Reserve Flow of Funds Accounts (from 1945)

income will decline and a full-blown debt-deflation process will emerge, given the size of the private sector's overall debt.

Two specific subsectors in the private sector are a major concern: private finance and households. As shown in Figures 4 and 5, their debt has increased dramatically since the early 1980s (private finance) and early 2000s (households). By 2008, the debt-to-GDP ratios for these subsectors were 1.0 and 1.3, respectively, accounting for 64 percent of the debt-to-GDP ratio of the private sector. Nonfinancial corporate debt has grown at a more moderate pace, but it has been augmented recently by a wave of leveraged buyouts (IMF 2008).

To be sure, it is not easy to say how much debt is too much (quality matters as much, if not more, than the quantity of debt). Debt ratios have been rising since 1960, and the debt-to-GDP ratio exceeded that reached on the eve of the Great Depression by the mid 1980s. How much debt can be serviced safely depends on a number of factors, one of which is the relation between debt service requirements and the normal source of cash flow for borrowers. The old postwar home-finance model was based on 30-year fixed-rate, self-amortizing loans. Interest rates were relatively low, households did not have much other debt, and incomes were doubling every generation. Locking in a 30-year fixed payment meant that the debt service from growing income would fall by half over the duration of the loan. Of course, it was more complex than this: typically, families kept a mortgage for only seven

years, often trading up to a more expensive house; divorce rates rose, increasing the burden of mortgage payments (possibly on two houses); and second mortgages financed college education. Nevertheless, home prices tended to rise fast enough to accommodate these additional burdens.

After the early 1970s, median real wages stagnated, unemployment ratcheted upward, job tenure became less secure, interest rates were increasingly unstable and generally higher, and adjustable-rate mortgages became commonplace. Household debt included more auto leases and loans, student loans, medical debts, cash-out equity loans, and so on. Thus, the growth of debt and the greater reliance on short-term debt with adjustable interest rates—and high fees and penalties—occurred precisely as the ability to service debt out of income declined.

This response was frequently justified because of rising asset values, especially housing, as lenders were blinded by the surging value of collateral rather than income. History shows that lending against expected rising asset values is almost always a recipe for trouble—what Minsky called a Ponzi scheme. If asset values stop climbing, income falls, or finance costs rise, the debt cannot be serviced. Yet, there is a natural affinity for "market-based" finance to move toward asset-based lending measures. An asset's value includes prospective income flows plus appreciation plus (in the case of business assets) "goodwill." The purchaser and lender will build in a margin of safety that is largely a function of asset price volatility.

The belief that we had entered the era of "the Great Moderation" meant that volatility had fallen, so margins could be reduced. This is a common feature of speculative booms—mass delusion that we have entered a new economy in which the only direction is up (recall James Glassman and Kevin Hassett's *Dow 36,000* in the late 1990s, or Fisher's statement on the eve of the 1929 stock market crash that stock prices "have reached a permanently high plateau"³). Further, appreciation and goodwill grow faster than projected income in an asset price bubble, so a larger portion of an asset's valuation will depend on these ephemeral sources. Finally, unlike current income that can be documented, future asset prices depend on expectations that are subject to "whirlwinds" of optimism.

Here is the reason why the shift to markets and away from banks matters. When a commercial bank makes a loan, the loan officer wonders, "How will I get repaid?" Because the loan is illiquid and will be held to maturity, the ability to repay matters, since it is prudent to rely on income flows rather than the possible seizure and forced sale of an asset in the distant future, under unknown market conditions. When an investment bank makes a loan, the loan officer wonders, "How will I sell this asset?" The future matters only to the degree that it enters the asset's value today, since the asset will be sold immediately. Even the buyer need not worry about the future: when confidence is high and euphoria reigns, it is easy to sell an asset whose value is disproportionately determined by expected appreciation (and goodwill). The sky's the limit: it's possible to justify *any* debt ratio because it will fall automatically as the asset appreciates.

As late as spring 2007, Fed economists were presenting papers (e.g., at the Levy Institute's annual Minsky conference) that denied real estate was overvalued or that there was a credit bubble because real estate values would continue to rise and validate the debt (the vast majority of economists were in a similar state of denial). As former Fed Chairman Alan Greenspan rationalized during the dot-com boom, how can one argue with the wisdom of tens of millions of market players?⁴ John K. Galbraith (1997) nicely captures the circularity of such group-think: "It is difficult not to marvel at the imagination which was implicit in this gargantuan insanity. If there must be madness something may be said for having it on a heroic scale."

Indeed, this was a fundamental reason for the separation of commercial and investment banking in the aftermath of the 1930s collapse. Under the new rules, commercial banks would make and hold loans, issuing insured deposits to finance positions. As loans would be held to maturity, there was no need to mark to (fleeting) market values. During a bubble, banks were unable to count asset price appreciation as a source of profits and equity; nor was it necessary to recognize losses if asset prices fell. Since the value of most of their liabilities (deposits) did not fluctuate, the practice of ignoring asset price changes would keep balance sheets stable. By contrast, investment banks and other financial institutions were subject to market fluctuations—recognizing capital gains and rewarding traders with bonuses in good times, and taking losses and downsizing portfolios in a bust. The market-based institutions were highly procyclical, while commercial banks could be much less so.5

Unfortunately, as we freed commercial banks to become brokers and dealers in marketed assets, we moved strongly in the opposite direction, allowing them to leverage government money (insured deposits) with little supervision. We also allowed them to use their own complex and proprietary models to value assets and assess risk. When the financial crisis arrived, we handed bank

charters to the remaining investment banks so that they could also use government money to speculate in asset markets. This response represents an ironic completion of the circle, since the main justification for deregulating commercial banks was to allow them to compete with the (much more efficient) shadow banking sector. But when these shadow banks collapsed, we gave them access to insured deposits so that they could compete with the banks. We also promoted the consolidation of institutions that were "too big to fail" (or rather, "too big to supervise"), so that management and owners had nothing to fear: only government money was at risk, and government had neither the will nor the competency to oversee the gambling undertaken by these institutions.

Such government policies have failed to "jump-start" Wall Street, let alone the economy. Debt loads remain excessive, while income and employment continue to fall, and delinquencies and foreclosures continue to rise. Even at current, depressed prices, assets are overvalued and many financial institutions are insolvent, holding mountains of toxic waste that will never be worth anything.

The Response of the Obama Administration

The Obama administration has implemented several policies with two premises at their core. First, the administration has stated that the crisis is simply monetary and thus requires monetary measures to strengthen the financial system before the rest of the economy can recover (echoing arguments made by Fisher in the early 1930s). As observed by James K. Galbraith (2009a, 2009b), the problem is deemed to be no more serious than some clogged plumbing—a bit of Drano in the form of government handouts and guarantees should get credit flowing again. Second, most major banks are not insolvent but rather have a temporary liquidity problem induced by malfunctioning financial markets. Market mechanisms will restore the true, higher value of "legacy" assets over time, and the economy will recover when the banks are healthy.

These two premises have been used to focus most of the administration's efforts on preserving the financial interests of major banks. The government has committed *at least* \$23.7 trillion dollars to support the economy—through the Troubled Asset Relief Program (TARP), Federal Reserve, Federal Deposit Insurance Corporation (FDIC), and U.S. Treasury—and \$2.3 trillion has been spent through June 30, 2009 (SIGTARP 2009a). Most of this money has been allocated to the financial sector, and

only minimal effort has been made to solve the debt problems of households and nonfinancial businesses.

At the outset, and under a cloud of secrecy, the Obama administration allowed Bush-Paulson's TARP to continue helping the financial sector, and the Treasury to continue picking the winners for government funding (Morgenson and Van Natta 2009). Following an outcry about the slow progress in improving oversight, the TARP Special Inspector General (SIGTARP) and the Congressional Oversight Panel (COP) were installed in December 2008. These bodies have been very worried about fraud, particularly with the extension of TARP programs toward legacy assets, and have complained about TARP's lack of transparency. They have noted that the Treasury "has repeatedly failed to adopt recommendations" made by SIGTARP in terms of fund use and the valuation and performance of TARP assets and Term Asset-Backed Securities Loan Facility (TALF) borrowers (SIG-TARP 2009a, 7). SIGTARP has already announced two investigations and is in the process of improving TARP transparency on its own, without the support of the Treasury.⁶

The Capital Purchase Program (CPP) of TARP was followed by 11 subprograms, of which seven have been directed toward restoring the profitability and solvency of financial institutions, and which, along with CPP, account for 77 percent of the \$441 billion already used as seed money (SIGTARP 2009a, 37ff.). This came on top of massive efforts by the Fed, the FDIC, and others to stabilize financial institutions. Three core plans within TARP are the Capital Assistance Program (CAP), the Public-Private Investment Program (PPIP), and TALF. These plans aim to show the public that banks are solvent and need only temporary assistance because of (temporarily) malfunctioning financial markets. For example, PPIP was promoted to create a market for "legacy" assets. For potential buyers, the program was highly generous, since the Treasury and FDIC took most of the risk and little of the gains (so much for a market approach). Nevertheless, the program has failed, largely because of banks' unwillingness to sell at huge discounts (sometimes as low as 10 cents on the dollar) and thus reveal their deep insolvency. Above all, banks do not want legacy assets to be valued properly.

PIMCO flirted with the idea of creating a fund that would allow investors to take positions in toxic waste, before realizing that this approach could create a public relations nightmare if the company was seen to be making a profit at taxpayers' expense. Furthermore, if the public bought into the fund and it then collapsed (because the troubled assets never recovered), the

company would be blamed for bilking investors. More recently, however, BlackRock, one of the world's largest publicly traded investment management firms, rushed into the void by announcing it would create a cash-for-trash fund capitalized by the federal government. BlackRock would earn fee income, while investors as well as taxpayers would earn returns if their bets paid off. This approach would let the general public share in recovery. Of course, if the assets continued to depreciate, both the investors and Uncle Sam would assume the losses.

Previously, BlackRock proposed to do essentially the same thing under the Master-Liquidity Enhancement Conduit (M-LEC) "superfund" scheme. The main difference was that banks were supposed to assume most of the risk. This superfund never took off because there were not enough banks willing to back it. Financial insiders knew that the M-LEC was too small (only \$75 billion, when trillions were needed), and no more than a means of temporarily parking trash in order to avoid massive unloading of toxic assets by the special-purpose vehicles. The continuing failure to find other financial professionals willing to hold these toxic assets has meant that financial institutions are turning to Uncle Sam for more cash to burn.

None of these programs has dealt with the core issues at stake: many financial institutions are probably insolvent and need to be closed; assets must be analyzed carefully to figure out potential profits and the true state of financial institutions; and an investigation must determine the responsibilities of top managers. Although financial markets have stabilized, they remain heavily supported by the government, and we have not dealt with the solvency problem. Banks have been posting profits but their gains come largely from exceptional cash inflows (such as the sale of Smith Barney by Citibank), and they still need government help to make those profits. Goldman Sachs, for example, repaid \$10 billion of CPP money to avoid the executive pay limit but received \$12.9 billion as part of the AIG bailout (Scheer 2009)—despite suspicions of accounting manipulation (if not fraud) surrounding the valuation of assets. The April and May USCOP reports clearly illustrate the flaw in the Obama administration's approach:

The recently announced Public-Private Investment Fund focuses directly on the problem of impaired assets; that initiative reflects the working premise that it is possible through government-subsidized, highly leveraged asset purchase vehicles to obtain valuations for non-performing or otherwise troubled assets, sell those assets at those values to willing

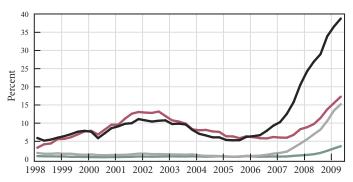
buyers, and perhaps avoid the need for the reorganization or even the break-up of systemically significant financial institutions. Treasury has not explained its assumption that the proper values for these assets are their book values—in the case, for example, of land or whole mortgages—and more than their "mark-to-market" value in the case of ABSs, CDOs, and like securities; if values fall below those floors, the banks involved may be insolvent in any event. Treasury has also failed to explain its assumptions about the economic events that would cause investors to default or how long it believes assets will have to be held to produce a reasonable return for private investors. (USCOP 2009a, 75)

TALF cannot address the creditworthiness issue. It can provide more funds to the lenders for lending, but asset-backed securities have never been the source of significant funding for small businesses. This report raises the question of whether TALF will have a meaningful impact on small business credit. (USCOP 2009b, 4)

In short, the entire array of programs will work only if the problem is one of temporary illiquidity, not one of excessive leverage and debt or a legacy of vastly overvalued assets based on economic scenarios that will never be realized. Given this inappropriate premise in dealing with financial institution leverage, the problems that do exist will remain if the administration does not change course. Otherwise, the capacity of the U.S. economy to recover will be constrained and could lead to a Japanese-style "lost decade."

In addition to eight TARP programs and other policies oriented toward bolstering the financial system, several programs have addressed debt in the nonfinancial sector. However, the total committed support for the sector is only \$887.4 billion, including \$700 billion in potential guarantees by the FDIC and \$75 billion and \$8.4 billion, respectively, allocated to servicers and credit unions for mortgage modification. Of the amount committed, only \$130.4 billion has been spent, through a TARP fund made available to car producers that includes a \$19 billion tax credit provided by the Housing and Economy Recovery Act of 2008, and other means (SIGTARP 2009a, 137). Total committed support for the nonfinancial sector represents just 3.7 percent of the \$23.7 trillion pledged to support the overall economy, and only 5.7 percent of the \$2.3 trillion already spent. The rest is allocated to financial institutions.

Figure 6 Serious Delinquency among Mortgagors, 1998–2009 (in percent)



- Subprime Adjustable-rate Mortgages (ARMs)
- Subprime Fixed-rate Mortgages (FRMs)
- Prime ARMs
- Prime FRMs

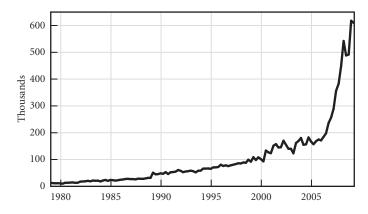
Source: Mortgage Bankers Association

The Making Home Affordable (MHA) program, which expanded the HOPE for Homeowners program put in place during the George W. Bush administration, was allocated \$50 billion through TARP, for a total funding allocation of \$75 billion. MHA aims to provide financial assistance *to servicers* to modify private-label mortgages and refinance conforming mortgages. In May 2009, this program was expanded upon by the Helping Families Save Their Homes Act.

There is a great need for these initiatives. Delinquency rates are climbing sharply, the result of rising unemployment and, more significantly, poor underwriting procedures that include loans to prime borrowers. Figure 6 clearly illustrates that prime borrowers with adjustable-rate mortgages (ARMs) have serious delinquency rates equivalent to those of subprime borrowers.

Preliminary results for government programs show that they do not go far enough in dealing with the household debt problem, with only 235,247 mortgages modified as of July (USDT 2009). HOPE NOW, a private initiative supported by the Treasury, the Department of Housing and Urban Development, and Freddie Mac, was more successful in 2008, when it helped 2.3 million homeowners avoid foreclosure. None of these programs, however, has been able to keep pace with the rapidly growing number of foreclosures (Figure 7). There is also mounting frustration among households, who are frequently unable to contact their servicers. Moreover, interest-rate resets are expected to rise through 2011 and contribute to sharply rising defaults if nothing

Figure 7 Number of Foreclosures, 1979-2009 (in thousands)



Source: Mortgage Bankers Association

substantive is done (IMF 2007, 8). A Deutsche Bank report predicts that the number of mortgagors who will be underwater will rise from 27 to 48 percent by 2011, representing approximately 25 million U.S. households that have predominantly conforming mortgages (most exotic mortgages are already underwater) (Weaver and Shen 2009).

There are additional concerns about how households are being helped, since current approaches discourage servicers and holders of structured securities from renegotiating loans. First, the rate for redefaults within six months of a loan modification is expected to reach 30 to 45 percent (Adelino, Gerardi, and Willen 2009). A 2009 report by the Office of the Comptroller of the Currency (OCC) and the Office of Thrift Supervision (OTS) shows that, among two thirds of first-lien mortgages, serious delinquency (90 days or more past due) reached 36.1 percent after nine months for loans modified during the first quarter of 2008, and 41.8 percent for loans modified during the second quarter (OCC and OTS 2009, 29). Loans modified during the third and fourth quarters were on track to show even worse delinquency rates. Thus, marginal and temporary loan modifications will not suffice. We need a significant and permanent reduction of debt payments, particularly in light of the redefault rates of second-lien mortgages.

Second, loan modifications may entail large fees and penalties that households cannot afford, and, depending on circumstances and state laws, modifying a mortgage might lead to a change from a nonrecourse to a recourse loan—with even graver consequences in the case of redefault. Third, these loan modifications usually occur after the borrower has been delinquent for

a long time. Past policy initiatives such as Project Lifeline provided a strong incentive to remain delinquent for 90 days by not considering a loan modification before that time. This response contributed to higher redefault rates, since "the more serious the delinquency, the less likely the borrower will remain current after modification" (OCC and OTS 2009, 31).

Fourth, financial scams are on the rise. Subprime lenders are becoming loan modifiers and luring households to pay large upfront fees with no beneficial result (e.g., a "fresh start" that is simply rolling delinquent payments into future debt services) or for modifications that worsen the household's financial situation (Goodman 2009a). IndyMac proposed a "5-year hybrid, 30-year term, 8-year graduated payment, 176 percent combined loan-to-value, mega-balloon, super bendover ARM" (Mr. Mortgage 2008). This loan modification would combine two mortgages for a total lien of \$840,000 on a house worth \$470,000, starting with a 3 percent interest rate (for five years) that would rise gradually to 6.25 percent by year nine. The balloon payment would be about \$250,000 at the end of year 30, thereby crushing a debtor with a heavy financial burden. There is a high probability that the borrower would have to sell the house at the end of the mortgage.

Fifth, securitization prevents loan modifications because the financial interest in outstanding mortgages is spread among many different parties. This is especially true for nonconforming mortgages packaged into private-label MBSs. These limits to efficient modification are compounded by servicers who have a fiduciary duty toward the holders of structured securities: "Changing the terms of the mortgages, they contend, can hurt investors by reducing interest payments. Lawsuits could follow" (Morgenson 2009). As a consequence, the redefault rate is much higher on securitized mortgages:

Loans held on the books of servicing banks and thrifts had the lowest re-default rates at 35.06 percent after three months, and 50.86 percent after six months, compared with loans serviced on behalf of third parties. The lower re-default rate for loans held by servicers may suggest that there is greater flexibility to modify loans in more sustainable ways when loans are held on a servicer's own books than when loans have been sold to third parties (OCC and OTS 2008, 21).

Nobody seems to know the location of the mortgage deed or even who holds the deed, often leaving judges with little means to bring financial troubles to a close (Morgenson 2007a). The practice of foreclosing without the deed became common during the boom, even though it is illegal (Porter 2007).

Sixth, as noted above, servicers have contributed to this problem by providing marginal modifications, charging dubious fees, prematurely foreclosing on properties, and engaging in illegal actions, such as destroying mortgage checks, that have gone unpunished (Porter 2007, Morgenson 2007c). Katherine Porter found unsubstantiated fees and missing documentation for half of the loans she examined, and an Associated Press (2009) report shows that these problems are extensive among servicers helped by MHA. Servicers have an incentive to hold out for a foreclosure rather than renegotiate. Perhaps the real problem is that the financial institutions that created the mess are preventing resolution because it is more profitable, based on the money to be made by squeezing debtors with fees and penalties, to ride out the collapse (Goodman 2009b, UBS 2007).

Mortgage servicers earn revenue in three major ways. First, they receive a fixed fee for each loan. Typical arrangements pay servicers between .25% and 1.375% of the note principal for each loan. Second, servicers earn "float" income from accrued interest between when consumers pay and when those funds are remitted to investors. Third, servicers usually are permitted to retain all, or part, of any default fees, such as late charges, that consumers pay. In this way, a borrower's default can boost a servicer's profits. A significant fraction of servicers' total revenue comes from retained fee income. Because of this structure, servicers' incentives upon default may not align with investors' incentives. Servicers have incentives to make it difficult for consumers to cure defaults.... Mortgage servicers can exploit consumers' difficulty in recognizing errors or overcharges by failing to provide comprehensible or complete information. In fact, poor service to consumers can actually maximize servicers' profits. (Porter 2007, 5–6)

As discussed above, when the thrifts were destroyed in the 1980s, we transitioned to a new "market-based" home finance model involving independent mortgage brokers, property appraisers, risk raters, title companies, mortgage insurers, credit default swap sellers, mortgage servicers, securitizers, accounting firms, commercial banks, investment banks, and pension funds and other managed money that ultimately held the securities. In this originate-to-distribute model, almost everyone who services the securities lives on fee income rather than on the interest and

principal payments related to mortgages. Of course, this is part of the reason why no one bothered to check whether homeowners could afford to make their mortgage payments.

It is also the reason that almost no one in the home finance food chain cares about resolving the mortgage crisis—it is far more profitable if the homeowner cannot or does not make any payment. When payments cease, the mortgage company that services the loan makes the payments, which are then distributed among holders of the securities. In return, the mortgage company collects its normal servicing fee plus late fees amounting to 6 percent of the monthly payment. Late fees alone can amount to 12 percent of the total revenue received by loan servicers. Thus, it is in the interest of mortgage companies to maximize the number of delinquencies, as well as the amount of time that households are delinquent.

When a mortgage is foreclosed, the mortgage servicer has first claim to the revenue from the sale of the house. According to a UBS study, foreclosure can take up to two years, and overall costs—including paying off the servicer—can absorb 90 percent of the revenue from the sale of the house. This is why total losses (borne mostly by the securities holders) are so huge even if home values fall by "only" 30 percent. Thus, mortgage companies actively interfere to ensure that homeowners are unable to renegotiate the terms of their mortgages. According to Peter Goodman (2009b), they prefer "purgatory—neither taking control of houses and selling them, nor modifying loans to give homeowners a break." They and their subsidiaries accumulate late fees and are paid for services such as title searches, insurance policies, appraisals, and legal findings that are recouped upon sale of the property. This explains why current government policies are unable to keep people in their homes. In spite of government offers to pay mortgage companies up to \$4,000 to modify a loan, the companies make more money by driving owners out.

A similar story applies to other sectors in the economy, where financial market participants who helped to create the crisis are subsequently hired as contractors to deal with the fallout. Thus, there is more money to be made from a long and deep crisis. Hence, most of the effort toward solving household debt problems has focused on refinancing and loan modifications rather than on sustaining or improving income and creditworthiness—and the effort has failed miserably.

In addition to its major role in helping the financial sector and its minor role in helping homeowners, the Obama administration and Congress have provided a \$787 billion stimulus package under the American Recovery and Reinvestment Act (ARRA). Approximately \$150 billion is allocated to state and local governments (and unemployment benefits), while \$250 billion is earmarked for households (tax cuts and some social spending) and \$200 billion is to be used for infrastructure. As of May 2009, only 6 percent (\$50 billion) of the stimulus package had been implemented, and almost half of this amount went toward Medicaid costs for state and local governments. The remainder was paid out in Social Security benefits and unemployment compensation for households.

A total of \$80 billion per quarter is to be spent through the end of 2010, an amount that represents approximately 2.25 percent of GDP. However, first-quarter personal income in 2009 fell at an 8 percent pace, while the number of hours worked fell by 7 percent in the second quarter. This indicates that the preliminary GDP numbers (falling at "only" a 1 percent pace) will be revised downward. By the end of summer 2009, the United States had lost about 7 million jobs, versus a gain of 2.5 million new jobs during a normal expansion of the labor force—a total of 9.5 million fewer jobs than at the start of the downturn. President Obama's promise to create three million new jobs (and estimates that the stimulus package will save between 2.5 and 3.5 million jobs) indicates that current efforts are grossly insufficient.

Much of the talk in Washington is about the "unsustainable" budget deficits, so it is unlikely that another stimulus package will be forthcoming. We believe that this response is due in large part to the public's fury toward the government's rescue of Wall Street. In this sense, the financial bailout has crowded out more sensible spending policies.

Alternative Policy

Using arguments very similar to those made by John Maynard Keynes in the 1930s, the approach taken by the administration has been critiqued very thoroughly by many economists who deny that our problems can be solved by rescuing Wall Street (e.g., James K. Galbraith and William Kurt Black). In addition, Wray 2009 provides a detailed set of policies both for the short run (to deal with the crisis) and for the long run (to build a sustainable economic and financial system). We will not repeat those arguments here. Rather, we will focus in the broadest terms on two issues: how can we stimulate recovery, and how can we put finance into its proper role?

In our view, most administration proposals are fundamentally misguided, since they are based on the twin presumptions that Big Banks face only a liquidity problem and that, if this problem is resolved, the economy will recover. We believe these presumptions are entirely mistaken. The Big Bank problem is insolvency, and these banks should not be saved because they form a barrier to a sustainable recovery. Given a chance, they will resurrect the bubble conditions that led to the current crisis.

The best approach resembles a banking "holiday," where the largest (19) banking and shadow banking institutions are closed for a brief period so that supervisors can assess the problems—including uncovering the claims that the Big Banks have against one another. It is highly likely that such claims represent trillions of dollars of bad assets (e.g., an examination of AIG uncovered such linkages when the government bailout of the company resulted in side payments to the Big Banks and shadow banks). By consolidating the balance sheets of these types of banking institutions and netting out such claims against one another prior to shutting them down, the collateral damage for the other banks and shadow banks, as well as the level of government assistance, will be relatively small. This approach will help to downsize the financial sector and reduce monopoly power. Moving forward, policy should favor small and independent financial institutions.

Greater supervision and regulation of the financial sector is particularly important if we're to stop the practices that brought on the crisis. Based on the absence of regulations in the early 1930s and again in the 1980s, market mechanisms will push management and owners of insolvent institutions to ramp up losses, resulting in massive deflation, bankruptcies, and the destruction of physical assets, in combination with enormously high unemployment. Social unrest will grow, threatening the entire socioeconomic system until the debt structure is simplified.

A more effective way to place the economic process on solid ground is to deal with the underlying cause of the problem: borrowers cannot service their debts. This situation implies sustaining incomes and employment, and, if necessary, drastically modifying the debt-service burden. The boom of the early 2000s (and, more broadly, the growth process since the early 1980s) was based on household borrowing and deficit spending.

There are two key ways to alter this approach to economic growth and stimulate recovery. First, a household's main source of income is employment, which is linked to the state of the economy. Policy can "decouple" this link through countercyclical government employment programs such as those created in

Figure 8 Number of Unemployed, Dissatisfied Underemployed, Marginally Attached, and Discouraged Workers, 1994–2009 (in millions)



- Employment-Population Ratio (right-hand scale)
- Unemployed, Dissatisfied Underemployed, Marginally Attached, and Discouraged Workers

Source: Bureau of Labor Statistics

the 1930s under the New Deal. In one case, the Works Progress Administration (WPA) spent \$11 billion in its first six years on construction and conservation projects, and on community service programs, employing eight million workers. Meanwhile, the Civilian Conservation Corps employed 2.75 million workers at a dollar a day to reclaim government land and forests through irrigation, soil enrichment, pest control, tree planting, fire prevention, and other conservation projects; and the National Youth Administration enabled 1.5 million high school students and 600,000 college students to continue their education by providing part-time jobs. By the end of 1934, more than 20 million Americans (one out of six!) were receiving assistance from the "Welfare State."

About 26 million people currently lack a steady full-time job, and this number is climbing rapidly (Figure 8). Meanwhile, the desperately unemployed are swayed by employment scams that promise help for a large upfront fee (Richmond 2009). Government employment programs would automatically resolve this kind of unemployment in the absence of private sector hiring. And, in an economic upswing, the private sector would subsequently hire workers out of the government programs. This would strengthen the automatic stabilizer effect of these programs, since spending would be countercyclical.

These federal jobs programs should be permanent, since 10 to 15 million people are unemployed or underemployed during the best of times. In addition, these programs could be struc-

tured to pay a living wage tied to productivity gains, which would help to restore the purchasing power of households after 35 years of stagnant real wages. The growth process would be sound financially, as consumption would grow in tandem with real wages (and with productivity to avoid inflation).

Employment guarantees, however, are not enough to deal with the current crisis, since households have accumulated debt well beyond their means and government employment programs would pay, on average, lower wages than many households previously earned. As a result, the jobs programs provide only partial relief of the debt problem, and a need for loan modifications combined with simpler and less costly bankruptcy proceedings. Based on past solutions, some economists have suggested a "debt jubilee"—the cancellation of household sector debt—and credit card companies have begun to use this approach (Streitfeld 2009). We believe that the government should provide incentives to encourage more financial companies to follow suit.

If borrowers meet their payments, lenders will return to profitability and some of the securitization processes will be revived. It may be time to reform the financial system by reducing the trade-and-fee-driven financial sector, but such a reform was not suggested by the 2009 Department of Treasury Report, which is mostly a copy of the 2008 Paulson Report. What is needed is a return toward term lending by regulated financial institutions that hold loans and a restoration of incentives to engage in proper underwriting. (Tymoigne 2009b provides a detailed critique of recent proposals for financial reform.)

One specific problem with the current crisis is that it involves highly desirable long-term physical assets: homes. Traditionally, debt problems are dealt with by the liquidation or destruction of borrower assets. Given the high desirability of homes, however, there should be an alternative method of dealing with excess supply. Several economists, such as Warren Mosler (2009) and Dean Baker (2009), have already provided a solution to this problem. The government would simplify the foreclosure process and stand ready to buy the homes of distressed mortgagors at current market value or the value of the mortgage, whichever is less. This would allow the homeowner to lease the property at a fair rental price, with an option to buy it back after two years at the prevailing market price. This approach would not only deal with the excess supply of homes (and put a floor under home prices) but also help households to restructure their finances while remaining in their homes (a small step in this direction was made recently; see Merle 2009).

We need to modify significantly the principal and interest owed, so that debt servicing becomes possible through the normal funding of homeowners (i.e., income) for the length of the loan (meaning, for example, no balloon or teaser payments). The amount owed should also be modified to account for large negative equities held by some homeowners. In addition, modifications should not assume that home sales would be the normal means of servicing mortgages in the future.

Data show that the redefault rate is considerably lower when modification involves lowering monthly payments by 20 percent or more (e.g., an over-60-days delinquency rate of 37.6 percent after 12 months, compared to 58.8 percent without any change in debt payment [OCC and OTS 2009, 32]). However, such payment modifications do not go far enough, since they may include future balloon payments or other cost hikes. In addition, all mortgages (prime and nonprime) that have unsustainable terms must be modified, even if borrowers are not currently delinquent.

A major increase in government spending is the only way to smooth the deleveraging process. As opposed to new money, part of the \$20-plus trillion committed to help the financial sector could be reallocated to finance the programs outlined above. In any case, the size of the budget deficit is really a red herring, since a sovereign government can always afford to buy what is for sale—whether unemployed labor, real estate, or toxic financial assets. And it is not clear that the spending proposed here will increase the budget deficit, which already exceeds \$1 trillion per year *before the stimulus package has fully kicked in*. (This is because the budget deficit is determined endogenously for the most part.)

There are two ways to obtain large budget deficits: the "ugly" way and the "virtuous" way. We have used the first, destroying tax revenue caused by a collapsing private sector (much as Japan did during its lost decade). The virtuous path is through the application of more aggressive fiscal stimulus that turns the private sector around and begins to produce more tax revenue, so that large deficits are short-lived. If we continue down the ugly path and robust recovery does not begin for many years, there will also be large budget deficits for many years. While that outcome does not worry us (in the sense that it cannot make our sovereign government insolvent), the outcome in terms of job losses and real suffering of the population does. Thus, it is better to spend on a much bigger scale now in order to create jobs and rekindle private sector growth. If we do that, the budget deficit will shrink and GDP will grow, while government debt- and deficit-to-GDP rates will fall.

Notes

- 1. Of course, one may argue that these assets always were hot potatoes. Loans are illiquid even with securitization. Asset-backed securities (which are securities issued by special-purpose entities that are backed by illiquid claims) have been somewhat more liquid, but many of these still entail a buy-and-hold strategy because of very thin markets (Tymoigne 2009c).
- 2. By identity, the government deficit equals the nongovernment surplus. If the U.S. private sector rebuilds its balance sheet by spending less than its income, the government has to spend more than its tax revenue. The only other possibility is that the rest of the world spends massively—letting the United States run a current account surplus—but that situation is highly implausible.
- 3. See Galbraith (1997, 70). Bernard Baruch presaged Greenspan's cheerleading for the 1990s New Economy boom when he said in June 1929, "The economic condition of the world seems on the verge of a great forward movement."
- Greenspan might have been channeling the ghost of Princeton professor Joseph Stagg Lawrence, who remarked in the summer of 1929: "The consensus of judgment of the millions whose valuations function on that admirable market, the Stock Exchange, is that stocks are not at present over-valued.... Where is that group of men with the allembracing wisdom which will entitle them to veto the judgment of this intelligent multitude?" (Galbraith 1997, 70). The inability of economists to foresee crisis is well known, but what is less recognized is their inability to face up to crises even when they are under way. As Galbraith notes, in November 1929, the Harvard Economic Society (comprising the university's more conservative economics faculty) announced, "A severe depression like that of 1920-21 is outside the range of possibility. We are not facing protracted liquidation" (Galbraith 1997, 71). He goes on to note that the Society reiterated this view over the course of the Great Depression, until it was itself liquidated.
- 5. They would of course still be somewhat procyclical, since the demand for loans as well as creditworthiness moves with the cycle. But they would not be forced to sell off their loans simply because asset prices were falling; so long as firms and households would eventually recover sufficiently to service debt, the loans could be retained and marked to original value.

- SIGTARP recently released a report on the use of funds by financial institutions that used TARP funds; see SIGTARP 2009b.
- 7. From 1929 to 1931, those deflationary market mechanisms were reinforced by recessive fiscal and monetary policies based on the principle that government should get out of the way. In addition, fiscal and monetary policies were constrained by the need to maintain the exchange rate between the dollar and gold.
- 8. During the Great Depression, "the government hired about 60 per cent of the unemployed in public works and conservation projects that planted a billion trees, saved the whooping crane, modernized rural America, and built such diverse projects as the Cathedral of Learning in Pittsburgh, the Montana state capitol, much of the Chicago lakefront, New York's Lincoln Tunnel and Triborough Bridge complex, the Tennessee Valley Authority, and the aircraft carriers Enterprise and Yorktown" (Auerback 2009, 4). It also built or renovated 2,500 hospitals, 45,000 schools, 13,000 parks and playgrounds, 7,800 bridges, 700,000 miles of roads, and a thousand airfields. And it employed 50,000 teachers, rebuilt the country's entire rural school system, and hired 3,000 writers, musicians, sculptors, and painters, including Willem de Kooning and Jackson Pollock. The late Hyman P. Minsky worked in the WPA as a young economist, estimating Cobb-Douglas production functions for the future Senator Paul Douglas (Auerback 2009; NRPB 1942, 342–43, notes 4, 5, 8).
- 9. Recent proposals to make the Federal Reserve the primary regulator of financial stability are misplaced, since the task would be given mainly to economists (most of whom believe in the neutrality of money and have a weak understanding of finance and accounting issues), and since the Fed has a poor track record in terms of handling financial stability issues. Substantial modifications to the Fed structure and its analytical framework would have to be implemented before it could become an effective financial stability regulator (Tymoigne 2009a).

References

Adelino, M., K. Gerardi, and P. S. Willen. 2009. "Why Don't Lenders Renegotiate More Mortgages? Redefaults, Selfcures, and Securitization." Public Policy Discussion Paper No. 09-4. Federal Reserve Bank of Boston. July.

- Adrian, T. and H. S. Shin. 2009. "The Shadow Banking System: Implications for Financial Regulation." Staff Report No. 382. Federal Reserve Bank of New York. July.
- Associated Press. 2009. "AP IMPACT: Gov't Mortgage Partners Sued for Abuses." *The New York Times*, August 5.
- Auerback, M. 2009. "Time for a New 'New Deal." The Big Picture Blog, comment posted February 28, www.ritholtz.com/blog/2009/02/time-for-a-new-%E2%80%9Cnew-deal%E2%80%9D/.
- Baker, D. 2009. "How to Solve the Housing Crisis." *Guardian*, July 27.
- Bansal, M. 2009. "Make Your Own Opinion about Commercial Real Estate." Thoughts on Markets and Economy Blog, comment posted August 2, http://marketsandeconomy. wordpress.com/2009/08/02/make-your-own-opinion-about-commercial-real-estate/.
- Black, W. K. 2005. The Best Way to Rob a Bank Is to Own One: How Corporate Executives and Politicians Looted the S&L Industry. Austin: University of Texas Press.
- Carter, S. B., et al., eds. 2006. *The Historical Statistics of the United States: Earliest Times to the Present.* Millennial Edition. New York: Cambridge University Press.
- Galbraith, James K. 2009a. "No Return to Normal: Why the Economic Crisis, and Its Solution, Are Bigger than You Think." *Washington Monthly*, March/April.
- 2009b. Statement before the Committee on Financial Services, U.S. House of Representatives, Hearings on the Conduct of Monetary Policy, February 26. www.house.gov/ apps/list/hearing/financialsvcs_dem/galbraith022609.pdf.
- Galbraith, John K. 1997. *The Great Crash*. New York: Mariner Books.
- Goodman, P. S. 2009a. "Subprime Brokers Back as Dubious Loan Fixers." *The New York Times*, July 20.
- ——. 2009b. "Lucrative Fees May Deter Efforts to Alter Loans." *The New York Times*, July 29.
- International Monetary Fund (IMF). 2007. "Financial Market Turbulence: Causes, Consequences, and Policies." Global Financial Stability Report. Washington, D.C.: IMF. October.
- ——. 2008. *Global Financial Stability Report*. Washington, D.C.: IMF.
- Merle, R. 2009. "Administration Weighs More Foreclosure Aid: Homes Could Be Rented under Proposal." *The Washington Post*, July 17.

- Minsky, H. P. 2008. "Securitization." Policy Note 2008/2. Annandale-on-Hudson, N.Y.: The Levy Economics Institute. June.
- Morgenson, G. 2007a. "Judge Demands Documentation in Foreclosure." *The New York Times*, November 17.
- ———. 2007b. "Creative Loans, Creative Compensation." *The New York Times*, November 18.
- ——. 2007c. "Dubious Fees Hit Borrowers in Foreclosures." *The New York Times*, November 6.
- ——. 2009. "A Reality Check on Mortgage Modification." The New York Times, April 25.
- Morgenson, G., and D. Van Natta Jr. 2009. "During Crisis, Paulson's Calls to Goldman Posed Ethics Test." *The New York Times*, August 8.
- Mosler, W. 2009. "Mosler Housing Proposal." Mosler 2012 Blog. http://mosler2012.com/?page_id=211.
- Mr. Mortgage. 2008. "Actual IndyMac (Exotic) Loan Modification." December 3.
- National Resources Planning Board (NRPB). 1942. Security, Work, and Relief Policies. Report of the Committee on Long-Range Work and Relief Policies to the National Resources Planning Board. Washington, D.C.: U.S. Government Printing Office.
- Office of the Comptroller of the Currency and Office of Thrift Supervision (OCC and OTS). 2008. *OCC and OTS Mortgage Metrics Report*, Third Quarter 2008.
- ——. 2009. OCC and OTS Mortgage Metrics Report, First Ouarter 2009.
- Office of the Special Inspector General for the Troubled Asset Relief Program (SIGTARP). 2009a. *July Report*. Washington, D.C.: Office of the SIGTARP.
- ——. 2009b. "SIGTARP Survey Demonstrates That Banks Can Provide Meaningful Information on Their Use of TARP Funds." Audit Report No. SIGTARP-09-001, July 20. Washington D.C.: Office of the SIGTARP.
- Porter, K. M. 2007. "Misbehavior and Mistake in Bankruptcy Mortgage Claims." Legal Studies Research Paper No. 07-29. Iowa City: University of Iowa.
- Richmond, R. 2009. "Online Scammers Prey on the Jobless." The New York Times, August 5.
- Scheer, R. 2009. "Government Sachs' Strikes Gold ... Again." *TruthOut*, July 14.
- Streitfeld, D. 2009. "Credit Bailout: Issuers Slashing Card Balances." *The New York Times*, June 16.

- Tymoigne, É. 2009a. *Central Banking Asset Prices and Financial Fragility*. New York: Routledge.
- ——. 2009b. "A Critical Assessment of Seven Reports on Financial Reform: A Minskyan Perspective. Working Paper No. 574. Annandale-on-Hudson, N.Y.: The Levy Economics Institute. August.
- 2009c. "Securitization, Deregulation, Economic Stability, and Financial Crisis." Working Paper No. 573.
 Annandale-on-Hudson, N.Y.: The Levy Economics Institute. August.
- UBS Investment Research. 2007. *Investment Strategist*, November 27.
- U.S. Census Bureau. 1975. *Historical Statistics of the United States, Colonial Times to 1970*. Bicentennial Edition; Vols. I–II. Washington, D.C.: U.S. Government Printing Office.
- U.S. Congressional Oversight Panel (USCOP). 2009a. *April Oversight Report*. Washington, D.C.: USCOP.
- U.S. Department of the Treasury (USDT). 2009. Making Home Affordable Program: Servicer Performance Report through July 2009. www.treas.gov/press/releases/docs/MHA_public_report.pdf.
- Weaver, K. and Y. Shen. 2009. "Drowning in Debt—A Look at 'Underwater' Homeowners." Deutsche Bank Securitization Report, August 5.
- Wray, L. R. 2007. "Lessons from the Subprime Meltdown." Working Paper No. 522. Annandale-on-Hudson, N.Y.: The Levy Economics Institute. December.
- 2009. "The Return of Big Government: Policy Advice for President Obama." Public Policy Brief No. 99.
 Annandale-on-Hudson, N.Y.: The Levy Economics Institute.

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