The current financial crisis comes less than a decade after the culmination of a long, bipartisan effort to loosen U.S. financial services regulation. Those reforms included 1999’s Gramm-Leach-Bliley Act (“GLBA”), which relaxed the post-Depression Glass-Steagall boundaries between commercial banking and investment banking.

This research note summarizes the logical premises that supported loosening the Glass-Steagall framework; evaluates the accuracy of those premises, given the observed market realities of the credit bubble and crisis; and recommends a path forward.

The link between the financial crisis and the relaxation of Glass-Steagall’s constraints is rather more complicated than typically understood. GLBA largely relied on an internally consistent set of logical premises: (1) that widening the scope of banks’ activities would allow them to reverse a long-term secular decline in competitiveness; (2) that non-depository “shadow banks” should continue to compete in the banking business, because free market discipline would force them to make sound credit risk-return decisions; and (3) that even if shadow banks failed to make good credit decisions, their resulting bankruptcies would not result in taxpayer harm.

To most policymakers at the time, those premises seemed sound. But in hindsight, all three premises have proven disastrously false in the marketplace.

Except for the few largest bank holding companies, the opportunity to enter the securities business has not made banks any more competitive. Moreover, it turns out that non-banks (e.g. Merrill Lynch, GE Capital, CIT, GMAC, the GSEs) made breathtakingly bad credit risk-return decisions. And the lack of any bank-like regulatory governors on growth allowed leading shadow banks to grow so explosively during the credit bubble that, when they failed, taxpayers were forced by two successive Administrations to support them, for fear of the collateral damage of such large firms’ collapse.

Congress did not create the crisis through the 1999 deregulation. But by focusing on the deregulation of banks, instead of managing the already growing systemic risk of the shadow banks, Congress not only enabled the financial crisis, it may well have hastened it.

In light of that experience, policymakers should now focus on a new kind of Glass-Steagall – one that prevents shadow banks from creating the same kinds of risks again.
The Logic of GLBA

The proponents of GLBA did not intend to increase risk within the financial system. On the contrary, GLBA represented an attempt to mitigate a secular decline in the importance and profitability of the banking system, and an apparent increase in its risk.

Structural Shift

In the 25 years before GLBA, commercial banks’ share of U.S. financial assets had declined by more than half. Banks’ key structural role in the intermediation of credit and interest risk was slowly being supplanted. (See Figure 1).

Rise of Shadow Banks

The deposit-funded commercial banking system was being steadily replaced by the capital market-funded “shadow banking” system. Shadow banks, in the most useful definition, are firms that hold assets similar to commercial banks’, but with liabilities more like investment banks’. (See Figure 2).

Commercial banks’ traditional assets typically comprise relatively illiquid commercial and consumer loans. Banks’ traditional funding relies heavily on core deposits. Because deposit funding enjoys some measure of FDIC insurance and is provided by independent, atomized depositors, it tends to be relatively “sticky” in the face of exogenous shocks. It tends not to dissipate quickly as market conditions worsen. Such a resilient source of funding fits

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**Figure 1**

**Financial Sector Assets**

Source: Federal Reserve Board, Flow of Funds; Department of Commerce (Bureau of Economic Analysts), National Income and Products Table 1.1.5
well the inherently illiquid nature of credit-intensive commercial and consumer loans.

Investment banking is a very different business. Such firms underwrite securities and make markets in them. Given those activities, their assets tend to disproportionately comprise relatively liquid inventories of corporate and government securities. Investment banks favor inexpensive, short-term funding in the wholesale markets. This funding derives from relatively few institutional sources, many of which depend on credit rating agency judgments. Investment banks lack the same kind of resilient retail funding that marks commercial banks, but the pure investment banking business model, given its asset-liquidity, does not need it.

Shadow banks, then, exist at the intersection of commercial bank-like assets (that is, credit-intensive and illiquid), and investment bank-like liabilities (that is, whole-sale, short-term, and confidence-sensitive). A variety of non-bank firms – investment banks, mortgage REITs, finance companies, the housing GSEs – fall within this definition.

Before GLBA, and on into the credit bubble, shadow banks could secure funding at lower cost than commercial banks, while constructing similar asset portfolios. This funding advantage over banks was often compounded by a leverage advantage, as credit rating agencies, for many asset classes, required less capital support than would be required by bank regulators. With both funding and capital advantages in hand, shadow banks grew to more than half of the U.S. financial system.
Impact on Banks

In many of the commercial banks’ core asset classes, high-quality borrowers left them in favor of lower-cost capital market and shadow bank alternatives. Investment grade corporate clients, for example, increasingly sought short-term financing in the commercial paper markets. Prime mortgage borrowers were increasingly captured by the growing portfolios of Fannie Mae and Freddie Mac. Prime auto finance customers shifted to the captive finance arms of manufacturers. The high-margin consumer credit card business, as well as subprime auto lending, moved to monoline finance companies that were generally funded through off-balance sheet asset-backed securities.

Because of these shifts in market share, deposit-funded commercial banks became ever more concentrated in those asset classes that were relatively ill-served by the capital markets — particularly higher risk middle-market commercial loans, small business loans, and commercial real estate finance.

In other words, the asset portfolios of insured depositories had been steadily forced by non-bank competition into the most risky, most volatile corners of the business.

GLBA’s Three Premises

Faced with what seemed to be a secular reduction in banks’ profitability, and an increase in banks’ risk, policymakers had, logically, two broad options: (a) prevent non-banks from encroaching on traditional bank businesses; or (b) allow banks to compete in the markets that were steadily stealing banks’ market share. GLBA was an emphatic endorsement of the second approach, and a rejection of the first. Such a policy choice implicitly rested on three logical premises. (See Figure 3).

The first premise is that by allowing commercial banks to affiliate themselves
with investment banks, they would retain client lending business that otherwise would be captured by the shadow banking system. In theory, as traditional commercial bank clients increasingly accessed the capital markets for their funding, instead of relying on bank credit, the banks themselves would be able to help arrange that capital market financing, and collect fees as a result. Although those securities businesses might be high-risk, that volatility would be kept separate from the actual deposit-taking legal entities, and housed in affiliates of the banks’ holding companies.

Second, policy-makers had implicitly assumed that non-banks were taking share from banks because they were fundamentally better business models. That is, non-banks were making better risk-return decisions, because they were free from regulatory burdens, and flexible enough to embrace product and technological innovations rapidly.

Third, and crucially, GLBA was premised on the notion that because non-banks did not rely on insured deposits, even if the crucible of free market discipline somehow resulted in imprudent risk-taking, those risks would not result in systemic or taxpayer harm.

**Evaluating GLBA’s Premises**

With the benefit of hindsight, the three premises underpinning GLBA’s key choice — allowing bank holding companies to pursue non-bank activities, instead of regulating non-banks’ banking activities — proved to be almost completely false.6

**GLBA did not make most banks more competitive.**

The opportunity to participate in the investment banking business has provided virtually no benefit to the vast majority of commercial banks. The global securities business requires substantial scale and scope to compete credibly. With the exception of only a few bank holding companies (like Citigroup, which, not coincidentally, pressed hard for GLBA), most banks are simply too small or geographically limited to be relevant in the core investment banking businesses. For the vast majority of regional and community banks, the theoretical availability of the securities business has been wholly irrelevant.

Most banks did not become more profitable or efficient as a result of GLBA. More likely, the reverse is true. As discussed below, GLBA instead left intact the ability of shadow banks to compete in traditional commercial bank businesses — that is, to take credit and interest rate risk as though they were banks — which further compressed bank profitability.

**Shadow banks made systematically distorted, pro-cyclical credit decisions.**

GLBA’s second tacit premise — that lightly regulated non-banks could be better credit and rate intermediaries than regulated banks — has also proved inaccurate.
In hindsight, the reason that “shadow banks” were able to out-compete traditional banks so thoroughly during the credit bubble is not due to better business models, but rather due to structural features that were decidedly pro-cyclical. Pro-cyclical features are disproportionately successful during credit bubbles.

Absent bank-like prudential regulation, shadow banks’ credit decisioning, capital levels, and funding costs were all driven by the same general kinds of necessarily backwards-looking, data-driven models. Such models, unfortunately, tend to predict the most optimistic credit results, the lowest required capital levels, and the lowest funding costs, at precisely the wrong time: at the end of a long, benign credit cycle.

In other words, the very capital and funding arbitrage that allowed shadow banks to underprice risk and gain share during the bubble also ensured correspondingly devastating results in the crisis.

**Taxpayers were forced to rescue the shadow banking system.**
Finally, the third logical premise supporting the shadow banking system proved inaccurate as well: despite shadow banks’ lack of substantial deposit insurance, or other explicit taxpayer backing, policymakers stepped in to prop up the shadow banking system as it failed.

An inherent feature of shadow banks is the immense scalability of their balance sheets. They are not subject to bank-like prudential regulation that might serve as a governor on their growth. They need not compete, slowly, customer by customer, for deposit funding, because they rely almost exclusively on wholesale
funding markets instead.

So the shadow banks — the firms most willing and able to underprice risk during the bubble — also had the best ability to fund explosive loan growth. By the time of the crisis, the result was a collection of non-banks with extremely large balance sheets, which included substantial positions in illiquid consumer and commercial loans, funded mostly by short-term capital market funding.

Unfortunately, when very large, capital market-funded firms suffer credit deterioration, ripple effects in the global capital markets can be severe. Shadow banks’ broker-intermediated, model-driven origination engines generate adversely selected loans during the benign phase of the credit cycle. Those loans then suffer disproportionately as the cycle turns. Wholesale funding begins to tighten in the face of mounting credit losses, and the resulting liquidity squeeze forces highly leveraged shadow banks to sell assets at depressed levels. This causes asset prices to decline, which in turn causes wholesale market secured creditors to tighten funding terms even further. (See Figure 4).

The result is a quickly deteriorating cycle of forced de-leveraging: a classic banking panic — but in the shadow banking system.8

This dynamic created the very real potential for full-scale runs on money market funds, and the attendant shutdown of the commercial paper markets. More
than any other factor, the potential real economy havoc created by such a shut-
down helped drive policymakers towards a massive, unprecedented, and aston-
ishly expensive taxpayer bailout of shadow banks. (See Figure 5).

**Implications**

The loosening of Glass-Steagall prohibitions did not directly lead to the finan-
cial crisis of the past few years. But by focusing on the deregulation of banks,
instead of managing the already growing systemic risk of shadow banks, the late
20th Century financial reforms may well have enabled the crisis.

Absent two broad-based repairs to financial regulation, it might well be im-
possible to reestablish a functioning shadow banking market. First, the moral
hazard reinforced by the serial rescues of shadow banks must be dampened
through the adoption of a credible resolution regime for systemically important
firms. Second, a rationalized structured credit market (e.g. one with appropri-
ate checks on the discretion of issuer-paid rating agencies) is a prerequisite for
a resilient shadow banking system. Structured credit, after all, is the principal
means by which shadow banks take credit and interest rate risk.

If those broad-based reforms are made, then policymakers may go on to tailor a
new Glass-Steagall regime – one that suited to the 21st Century:

1. Create prudential regulation for systemically important shadow banks.
   As recent events painfully illustrate, large non-banks that have substan-
tial shares of wholesale funding markets create disruptive ripple effects
   when they fail. Such effects are at least as disruptive and as expensive
to taxpayers as the failure of depositories. At minimum, such shadow
banks should be subject to the same limits on risk-taking as banks. In-
 deed, given such firms’ deep interconnection within wholesale funding
markets, limitations on credit-intensive asset concentrations and pro-
 prietary trading might even be made more stringent than for banks.

2. Eliminate shadow banks’ capital arbitrage. In a similar vein, systemi-
cally important shadow banks should be subject to the same capital
standards as banks. Allowing disparate capital frameworks encourages
capital to migrate to the most permissive regime. That, in turn, encour-
ges distorted, pro-cyclical credit allocation.

3. Eliminate shadow banks’ funding arbitrage: Stress test liquidity posi-
tions. The crisis has underscored the fragility of shadow banks’ funding
model, which relies on confidence-sensitive wholesale markets to sup-
port credit-intensive assets. For systemically important shadow banks,
 at least, regulators should stress test liquidity buffers in multiple, simul-
taneous dimensions, including asset-liquidity stresses (e.g. assume no
sales of structured credit without a 40% haircut for 6 months); funding
market stresses (e.g. assume sub-AAA unsecured markets are shut for
12 months); and yield curve stresses (e.g. immediate long-end increase
by 100 bps, short end increase by 300 bps).
Policymakers stood silent through decades of the shadow banks' emergence as a distorting and destabilizing force in the U.S. financial system. A renewed approach to Glass-Steagall, informed by the lessons of the crisis, could address that problem at long last.

Endnotes

1. It is not wholly accurate to claim, as is commonly the shorthand, that GLBA repealed Glass-Steagall. Rather, GLBA allowed commercial banks and securities firms to become affiliated with each other, but kept other prohibitions in place. See Peter Wallison, “De-regulation and the Financial Crisis: Another Urban Myth”, American Enterprise Institute Outlook Series, text accompanying notes 6-9 (October 2009). Of course, even GLBA’s sponsors appeared to believe that they were repealing Glass-Steagall, so the confusion today, more than 10 years later, is not especially surprising. Senate Banking Committee, Press Release: “Gramm Closing Floor Statement on Gramm-Leach-Bliley Act of 1999” (November 4, 1999) (“Ultimately, the final judge of the bill is history. Ultimately, as you look at the bill, you have to ask yourself, ‘Will people in the future be trying to repeal it, as we are here today trying to repeal – and hopefully repealing – Glass-Steagall?’ I think the answer will be no”).


3. Even independent, atomized, insured depositors can panic, of course, if the threat of catastrophic collapse is sufficiently severe and well-publicized. The experience of IndyMac, Washington Mutual, and even Wachovia during the credit crisis makes that clear. But most banks did not experience runs, despite the deep, wide-spread credit deterioration during 2007 through 2009.

4. Commercial paper is essentially short-term debt issued by corporations and bought by institutional investors. Commercial paper investors typically are not willing or able to retain credit risk, so the market is dominated by issuers that carry the highest short-term credit ratings. Because the debt is short-term, large corporate borrowers are faced with the practical need to continually “roll” or refinance their commercial paper as it matures.

5. For a more detailed overview of the GSEs’ role in the credit bubble and crisis, see Raj Date, “The Giants Fall: Eliminating Fannie Mae and Freddie Mac”, Cambridge Winter Center (March 3, 2010).

6. This is not meant as a criticism. Policymakers’ perspectives, in 1999, were understandably colored by a long period of relative economic stability and growth. In general, forward-looking estimates of risk (by legislators and market participants alike) tend to decline during periods of prosperity.

7. Shadow banks, definitionally, are not deposit-taking institutions. But the availability of a loophole in the Bank Holding Company Act allowed non-banks to own certain state-chartered depositories, called industrial loan companies, without subjecting the parent firm to consolidated regulation by the Federal Reserve, and its attendant capital requirements. GLBA expanded that loophole to include ownership by investment banks. That appealed to the largest Wall Street firms, which could now use ILCs to diversify their funding bases with insured deposits, but without having to hold bank-like capital levels. By the onset of the crisis, almost 90% of the nation’s ILC assets were in a single state, Utah, and almost two-thirds of those Utah assets were held by subsidiaries of just five Wall Street investment banks: Merrill Lynch; Morgan Stanley; Lehman Brothers; Goldman Sachs, and UBS. See Raj Date, “Industrial Loan Companies and Shadow Banking”, Cambridge Winter Center (August 10, 2009).

8. See generally Gorton, supra note 3; Mehrling, supra note 3, at pages 14-15.
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