



Economic Letter

Shadow Banking Reemerges, Posing Challenges to Banks and Regulators

by Alex Musatov and Michael Perez

ABSTRACT: Shadow banking has come roaring back and in new forms that still manage to escape bank regulation and could pose systemic risks since these activities remain deeply intertwined with traditional banking.

“Shadow banking,” an almost sinister-sounding term that originated in 2007, describes large banks’ practice of constructing off-balance-sheet legal entities to circumvent regulatory oversight.¹ These operations initially traded in instruments that repackaged bank-issued loans as bonds, selling them to investors.

Shadow banking has since become a catchall for financial markets and intermediaries that perform bank-like activities—transforming the maturity, liquidity or credit quality of capital. True to the term’s origins, shadow banking remains lightly regulated, potentially harboring unique risks without the oversight and deposit insurance offered to more traditional counterparts.

Nonbank intermediation (NBI) is another term used to describe these kinds of financial activities and intermediation of capital. The process involves transactions of households, corporations and governments via institutions other than commercial banks.

This broad definition spans a diverse spectrum, from informal peer-to-peer lending to sophisticated institutional asset managers. Importantly, players in this spectrum operate largely beyond the numerous safeguards placed on the traditional banking system, leaving the shadow

banks potentially more vulnerable to financial stress.

NBI plays a role in a substantial and growing portion of domestic capital, making it a key component of the financial system with implications for financial stability and economic policy. The diversity and connections with traditional banks accentuate the need for policymakers to remain watchful for NBI as a potential source of credit risk and a catalyst for asset fire sales in times of financial stress (*Table 1*).

Banking by Any Other Name

Capital intermediation is a fundamental pillar of modern economics. Together with a vibrant labor market and robust institutions, efficient capital allocation enables growth in productivity and welfare. Traditional banks take deposits from savers, identify creditworthy borrowers and lend them money, then keep the difference between the interest paid on deposits and that charged on loans.²

The inherent liquidity mismatch between their short-term liabilities (deposits) and long-term assets (loans) makes banks vulnerable to “runs.” To minimize the likelihood of banking crises, traditional banks are subject to regulatory oversight and have access to the lender of last resort (the Federal Reserve System).

NBI has evolved alongside banks by servicing overlooked or niche markets,

Table
1

Nonbank Financial Entities Vary in Scope, Connections to Traditional Banks

Name	Description	Connections to traditional banks
Retirement funds	Savings plans allowing individuals to earn and earmark funds for retirement. They typically carry substantial liabilities and are major stakeholders in mutual funds, insurance companies, hedge funds and private equity.	Retirement funds invest in diverse securities, including those of banks and other financial institutions. Conversely, many banks offer retirement benefits, including pension and retirement plans, to their employees.
Mutual funds	Professionally managed investment funds that pool money from investors to purchase securities. They are often categorized by the types of securities they invest in, including money market instruments (money market mutual funds), stocks (equity funds) and fixed-income securities (fixed-income funds, including ultra-short bond funds).	Traditional banks often permit mutual fund managers to operate in their offices and sell their services. Banks may also hold assets in mutual funds and offer substitute products such as insured money market deposit accounts, proprietary funds and private-label funds.
Broker-dealers	Firms that execute securities orders on behalf of clients as well as on an institution's own behalf. Services provided include investment advice to customers, supplying liquidity through market-making activities, facilitating trading activities and securities financing, and raising capital for companies.	Many broker-dealers operate as business units or subsidiaries of commercial banks. Banks may refer accounts or customers to broker-dealers or enter into third-party brokerage agreements with registered broker-dealers to sell securities to bank customers.
Alternative investment funds	Collective investment schemes that employ alternative strategies for making investments in various equity and debt securities, as well as financial instruments such as derivatives (often options trading). Examples include private equity funds, exchange-traded funds, hedge funds and real estate investment trusts.	Commercial banks may invest in alternative funds if they possess enough capital for emergency injection in the case of a fund failure.
Financing firms	Firms offering financing to borrowers outside the commercial banking sector. Examples include finance companies, peer-to-peer lenders, business development companies, credit unions and financial technology firms.	Banks have increasingly formed partnerships with alternative financing firms, and in some instances, launched competing products.
Insurance companies	Firms that offer risk management policies to the public, either by selling directly to individuals or through other sources such as employee benefit plans. Many insurance companies specialize in one type of insurance, such as life insurance, health insurance or auto insurance, while others offer multiple types of coverage.	Insurance companies may be owners of federally chartered banks and thrifts.

SOURCE: Authors' research.

spearheading unique technologies and accepting maturity mismatches (and hence, risk) outside of banks' risk appetite.

Real-time, granular monitoring of NBI is difficult since many shadow operations do not disclose their activities to regulators. Moreover, NBI covers a wide range of entities and markets. Further complicating matters, double-counting is unavoidable in many instances (a retirement fund may hold assets in a hedge fund, which in turn may have money market fund holdings).

Despite the paucity of real-time data, there is no doubt that NBI in the U.S. has rebounded since the Great Recession and approached new highs.

Diverse and Interconnected

NBI's importance has increased over the past four decades (*Chart 1*). In 1980, it accounted for roughly 40 percent of the domestic financial sector. As mutual funds' prominence increased and life insurance companies fueled the markets for corpo-

rate bonds and commercial real estate, NBI growth greatly outpaced that of banks. By 1990, NBI accounted for two-thirds of the intermediation market and has continued to slowly gain share.

NBI's rise produced important benefits: greater diversity of funding sources, increased market liquidity and—in theory—a more efficient allocation of risk among investors. These benefits are not costless, however. NBI almost always increases the length and complexity of the capital intermediation chain, potentially aggravating informational asymmetries between borrowers and lenders.

There are also important regulatory implications not only because of NBI's size but also because of the intricate and inextricable links to its regulated peers through lines of credit, derivatives, insurance, co-investments, securitization and securities clearing, wealth management, counterparty arrangements and other bilateral services. The history of the U.S. financial system is rife with crises and near-crises that exposed vulnerabilities of an intermediation landscape only partly observable by regulators.³

The multidirectional links between banks and nonbank intermediaries engender fear that an NBI collapse would most likely spread into the banking sector, affecting availability of credit to the real economy (*Chart 2*). These concerns came to life during the 2007–08 global financial crisis. Some nonbank intermediaries (such as money market mutual funds and securitization vehicles) were highly leveraged or had large holdings of illiquid assets and proved vulnerable to runs when investors withdrew large sums on short notice.

The forced sell-off led to fire sales of assets, reducing their value and propagating the stress onto traditional banks. Banks, facing their own financial difficulties and fearing heightened economic risk, tightened lending standards across the board, potentially impacting otherwise credit-worthy borrowers and leading to a broad economic slowdown.

Rebound Brings New Risks

NBI, which experienced a sharp contraction during the global financial crisis amid notable problems with mortgage-related securities, is once-again expanding. It has grown in part because traditional

banks, battered by losses incurred during the financial slump, face additional regulatory pressures. In areas where NBI more directly competes with depository institutions, it has stepped in as tighter capital requirements and fear of heavy penalties limit banking industry response. Known for swiftly evolving and adapting to new regulations and changes in investor preferences, NBI may be taking on risky activities with few restraints.

Leveraged lending—lending to already heavily indebted businesses—is particularly illustrative.⁴ Nonbank lenders accounted for 62 percent of leveraged loan issuance in 2015, up from 37 percent in 1998.⁵ While the new regulatory guidance decreased traditional banks' exposure to these loans, it may have pushed the risk onto less-experienced NBI participation.

Another growing subset of NBI is mutual funds that attempt to replicate the returns of relatively illiquid assets such as those offered to holders of leveraged loans. Labeling themselves as “alternative mutual funds” or “liquid alts,” they have grown rapidly by reaching investors who normally pursue more mainstream asset classes.⁶ Their primary risk stems from the fact that they promise daily liquidity to investors while holding assets that can be hard to sell immediately.

New Types of Loans

Peer-to-peer lending (P2P), one of the newest participants in NBI, connects savers and borrowers directly through online platforms. Most P2P loans are unsecured personal loans, though businesses can also borrow through P2P companies.⁷ In theory, the inventive use of technology decreases intermediation costs by reducing administrative and search costs. For borrowers, P2P lending provides access to financing that traditional lenders might avoid because of relatively small loan balances, inadequate collateral, low credit scores or insufficient credit histories.

There are few prospects of recovering money following a P2P default, unlike for other high-yield assets such as junk bonds. Moreover, P2P loans are thinly traded on secondary markets, making it difficult for lenders to exit a transaction before a loan matures. Recently, some traditional banks withdrew funds they had funneled through P2P platforms to

borrowers, citing lax internal controls and poor loan performance.⁸

Some NBI isn't as prevalent as it was before the financial crisis but has evolved in ways that may introduce new systemic risks. Money market mutual funds, offering investor liquidity, largely hold highly rated very short-term corporate debt. A sell-off of the funds was an aggravating factor during the 2007–08 financial crisis; they now hold \$2.7 trillion in assets compared with

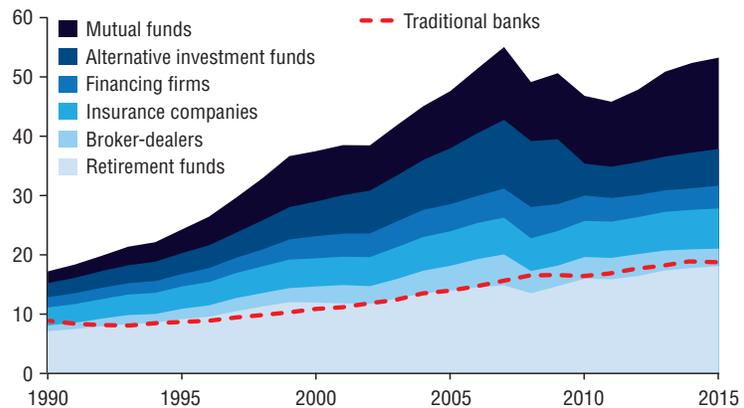
\$3.7 trillion in 2008.⁹ The decrease is partly attributable to Securities and Exchange Commission regulations imposed in 2014. As the money market funds have shrunk, a close substitute has rapidly emerged—ultrashort bond funds, which generally buy debt that matures in a year or less.¹⁰

Systemic Risks Persist

The financial crisis highlighted the need to more comprehensively analyze

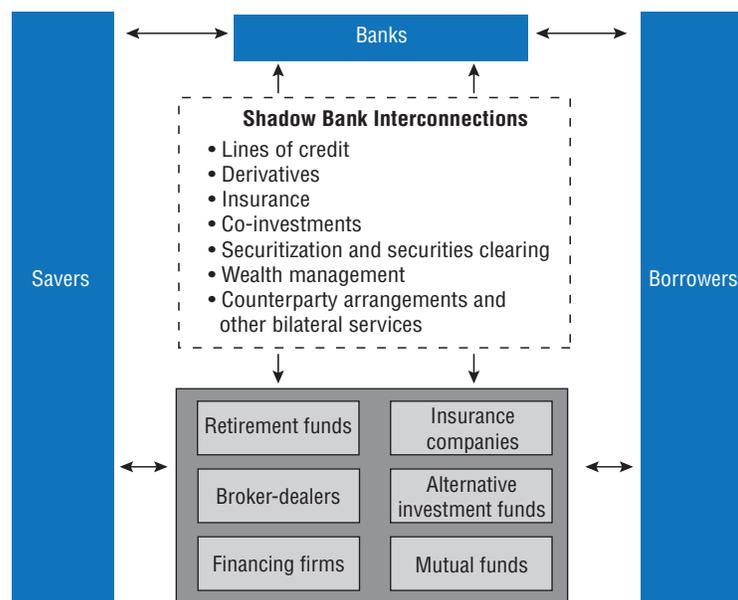
Chart 1 Nonbank Intermediation Recovers

Total liabilities, trillions of 2015 dollars



SOURCE: Federal Reserve Board—Financial Accounts of the United States (Z.1 Tables).

Chart 2 Nonbank Intermediation Adds Complexity to Capital Allocation



SOURCE: Authors' research.

and understand the links between the banking sector and NBI. The official sector is collecting more and better information about NBI and searching for hidden vulnerabilities.

Banking supervisors now examine the exposure of traditional banks to NBIs and are trying to contain it through such avenues as capital and liquidity regulations. Central bankers and bank supervisors in the U.S. evaluate large, complex banks not only as stand-alone entities, but also with consideration of how policy actions could reverberate through the highly connected financial system.¹¹

Still, many areas of NBI remain obscured from regulators' view, and not all NBI is subject to supervision. The main challenge for policymakers is creation of macroprudential oversight while simultaneously maximizing the benefits of NBI and minimizing its contribution to systemic risk.

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Notes

¹ "What Is Shadow Banking?" by Laura E. Kodres, *Finance & Development*, International Monetary Fund, vol. 50, no. 2, 2013, www.imf.org/external/pubs/ft/fandd/2013/06/basics.htm.

² Banks offer many other services, such as processing/clearing of payments, trust service and currency exchange.

³ Examples include the string of collapses in the insurance industry in the 1990s; the failure of Long-Term Capital Management; the bailout of American International Group;

Bear Stearns' liquidation of two of its hedge funds that held mortgage-based securities; the conservatorship of Fannie Mae and Freddie Mac; the failure of Lehman Brothers; and the Reserve Primary money market funds' "breaking the buck," allowing less than \$1 share price.

⁴ "Did the Supervisory Guidance on Leveraged Lending Work?" by Sooji Kim, Matthew Plosser and João Santos, Liberty Street Economics, Federal Reserve Bank of New York, May 2016, www.libertystreeteconomics.newyorkfed.org/2016/05/did-the-supervisory-guidance-on-leveraged-lending-work.html#.

⁵ "U.S. Leveraged Loan Issuance," S&P Capital IQ Leveraged Commentary and Data, Standard & Poor's Corp., 2016, www.leveragedloan.com/primer/#!marketbackground.

⁶ "Alternative' or 'Hedged' Mutual Funds: What Are They, How Do They Work and Should You Invest?" by Sam Diedrich, *Forbes*, February 2014, www.forbes.com/sites/samdiedrich/2014/02/28/alternative-or-hedged-mutual-funds-what-are-they-how-do-they-work-and-should-you-invest/#21047336200f.

⁷ Secured loans are sometimes offered using luxury assets such as jewelry, watches, vintage items and buildings as collateral. Other forms of P2P lending include student loans, commercial and real estate loans, payday loans, secured business loans, leasing and factoring.

⁸ "Banks Said to Draw Plans for Cutting Back Online Lending Risk," by Matt Scully, Bloomberg, May 25, 2016, www.bloomberg.com/news/articles/2016-05-24/banks-said-to-devise-plans-for-cutting-back-online-lending-risk.

⁹ Money market funds take deposit-like investments from clients and invest them in short-term market securities. Unlike banks, which hold reserves, these funds have no reserve requirements and can, therefore, sometimes offer better returns than banks.

¹⁰ "The Safety and the Risk in Ultrashort Bond Funds," by Daisy Maxey, *Wall Street Journal*, Aug. 8, 2014.

¹¹ The Large Institution Supervision Coordinating Committee is an example of this macroprudential approach. It was created to coordinate the supervision of the largest banks and other systemically important institutions.

▶ *The financial crisis highlighted the need to more comprehensively analyze and understand the links between the banking sector and NBI.*

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