

## Financial Sector Evolution In the New Regulatory Environment

### Narrative for the FRBNY Financial Advisory Roundtable

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I will attempt to interpret some of the most salient evidence regarding how financial markets are evolving in response to recent changes in regulation and monetary policy. My remarks include some opinions that may take many years to support or refute with evidence. I have prepared some charts to support the discussion.

The changes in regulation most relevant to this topic are (i) capital, liquidity, and activity limits on banks; and (ii) various changes in derivatives markets that are designed to improve competition or lower systemic risk associated with counterparty failure. The key changes in monetary policy are (i) an extended period of near-zero overnight interbank rates, (ii) significant quantitative easing, and (iii) the introduction of a reverse repurchase (RRP) facility, by which a wide range of wholesale market participants can invest cash directly with the central bank.

As a result of these changes, we are witnessing significant evolution in the manner in which capital, liquidity, risk are intermediated by the financial system. Whether these changes are likely to improve financial market “flow efficiency” is a mixed story to be discussed at our meeting. Financial stability has improved significantly as a result of regulatory changes, primarily higher capital requirements, but that is not my focus here.

One of the main themes of the story is the flexibility with which users of the U.S. financial system are able to adapt to regulation by adjusting the paths by which funds and financial claims flow through the system from ultimate sources to ultimate destinations. Banks and their affiliated dealers are not handling as large a fraction of these flows as they would, and did, in the absence of recent reforms. In the case of private credit provision, a trend

toward non-bank sources of credit had already been in progress for several decades.

A wide range of non-bank “investment companies,” in aggregate, are handling an increasing share of flows. These firms, which can often be identified by their pass-through tax treatment, include mutual funds, exchange traded funds (ETFs), real estate investment trusts (REITs), business development companies (BDCs), private equity firms, hedge funds, distressed-debt firms, and special-purpose securitization vehicles such as issuers of collateralized loan obligations (many of which are set up by banks). We should also anticipate some increase in market share for broker-dealers that are not bank affiliated and by non-bank-affiliated firms whose businesses include significant commodities trading. Agency-based asset-management firms are also well placed to serve a larger role. I have not discovered much about the extent to which intermediation has shifted to non-U.S. venues, beyond noticing that OTC derivatives trading is shifting from New York to London.

Putting aside whose share of intermediation has grown or shrunk, primary markets for credit have generally been robust, the intended consequence of recent monetary policy. It may not be until the end of exceptional monetary policy support that we are able to discover how well primary debt markets can function in the new regulatory regime. According to a JP Morgan analyst,<sup>1</sup> Dealogic data show that corporate bond issuance is roughly doubled, or more, during periods of active quantitative easing.

The cost of obtaining capital in the primary market also depends on the efficiency of secondary markets. Primary market investors “price in” the cost of laying off their positions with secondary market participants, who themselves price in the cost of obtaining subsequent liquidity, and so on. My earlier comment about the adaptability of the U.S. financial system leaves me guardedly optimistic about the cost of capital to ultimate users, but there could be significant winners and losers among providers of financial services.

An often reported example is the significant decline in the “FICC” (fixed-income, commodity, and currency) revenues of bank-affiliated dealers. Much of that decline, however, is a consequence of historically low volatility in the term structure of interest rates. Volatility will likely increase with the end of

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<sup>1</sup> Nikolaos Panigirtzoglou, “Flows and Liquidity,” May 31, 2014.

aggressive monetary policy. Bank-affiliated dealers are not as well placed as others, however, to maintain or increase their shares of recovering trading revenues. In absolute terms, some bank-affiliated dealers are adapting their business plans to regulatory change and will remain major players with healthy revenues. Others, particularly some European banks, are less likely to do so or have already decided cut back sharply.

The secondary market for treasuries is special in several ways. This market is ground zero for quantitative easing and has been exempted from the Volcker Rule. The advent of direct participation in treasury auctions, another source of disintermediation, has prompted a suggestion by the Treasuring Borrowing Advisory Committee to re-examine the design of primary dealer system. The imposition of a binding leverage requirement on large bank holding companies will, by definition, increase the shadow price of regulatory capital for holding low risk assets such as treasuries and treasury repo relative to higher risk assets. This is likely to reduce liquidity in treasury markets. Altogether, I find it difficult to predict or attribute what will happen to the effectiveness of intermediation in this market.

Regulation is encouraging alternatives to traditional dealer intermediated trading, by which trades are bilaterally negotiated by between one client and one dealer. In standardized OTC derivatives markets, dealers are being forced by ongoing implementation of Title VII of the Dodd Frank Act to compete with each other, somewhat, on swap execution facilities. It is too early to judge the efficiency of SEF-based trading, at least in the form that is being implemented.

Significant reductions in secondary bond market turnover have, anecdotally, been problematic for smaller or riskier issues. Greater standardization of corporate bond contracts could mitigate some of the related loss in market efficiency. Trading costs for larger investment-grade issues do not seem to have increased much, holding steady at around 20 basis points of bid-ask spread for IG bonds according to Market Axess data.

Intermediation strategies have adapted. Rather than routinely offering immediacy by absorbing large positions into their inventories, dealers are said to be shifting toward helping institutional clients “work” large orders over longer time periods, through incremental identification of counterparties. In the municipal bond market, Li and Schuerhoff (2014) find a

reduction the supply of immediacy and an increase in the price of immediacy.<sup>2</sup> In relative terms, the core (largest, most central) dealers in this market remain the most willing to supply immediacy, and still take a greater share of gains from trade than smaller dealers. Here as well, though, immediacy is not as available as it had been.

In OTC derivatives markets, one should not look to aggregate notional amounts outstanding to judge the impact of regulation on market activity levels. Regulatory capital requirements, central clearing requirements, and initial margin requirements (for both cleared and uncleared positions) have caused dealers to rely much more heavily on trade compression and netting. Dealer balance sheets are much less used to warehouse positions than they had been. This is one of the success stories of Dodd Frank. Volume of trade data, although not as comprehensively available as data on notional outstanding amounts, show that activity levels are relatively robust, controlling for the significant reduction in market volatility. (Exchange-traded interest rate derivatives volumes are down as much as OTC volumes.)

A selection of recent news articles related to changes in the structure of financial markets

“Leverage loans in the shadow banks”

<http://www.ft.com/intl/cms/s/0/005b252c-cfb7-11e3-a2b7-00144feabdc0.html?siteedition=intl#axzz30KVgkkw3>

“Fed says no on high risk bank loans”

<http://www.bloomberg.com/news/2014-05-01/junk-loans-pulled-as-investors-say-no-after-fed-raises-concerns.html>

“Alliance Bernstein Goes Direct to Grow Fixed Income”

<http://www.fundfire.com/c/882244/83794/alliancebernstein-goes-direct-gr>

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<sup>2</sup> Dan Li and Norman Schuerhoff, “Dealer Networks: Market Quality in OTC Markets,” Working Paper, Federal Reserve Board.

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“Asset Managers Hiring, But Cautiously”

[http://www.fundfire.com/c/882224/83794/asset managers hiring cautiously?referrer\\_module=sideBarHeadlines&module\\_order=1](http://www.fundfire.com/c/882224/83794/asset-managers-hiring-cautiously?referrer_module=sideBarHeadlines&module_order=1)

“JP Morgan Drags Down Investors as Trading Revenues Decline”

<http://seekingalpha.com/article/2193043-jpmorgan-drags-down-investors-as-trading-revenues-decline?isDirectRoadblock=false&app=1&uprof=14>

“Three Bankers Bolster Blankfein as Trading Sinks”

<http://www.bloomberg.com/news/2014-05-05/three-bankers-bolster-blankfein-as-goldman-trading-sinks.html>

“Loan funds face first major test as flows reverse”

<http://www.ft.com/intl/cms/s/0/e21f9e9e-d487-11e3-8f77-00144feabdc0.html#axzz30KVgkkw3>

“Fed Normalization Possible; Non-Banks Adding Liquidity”

<http://www.economics21.org/commentary/fed-normalization-view>

“Old Guard of Banking Sets Out to Disrupt It: Former Citi Chief Is Among Backers of a Peer-Lending Upstart”

<http://online.wsj.com/news/articles/SB10001424052702303722104579238600929163132>

“JP Morgan’s Dimon Sees Facebook to Google Challenging Bank”

<http://www.bloomberg.com/news/2014-05-06/jpmorgan-s-dimon-sees-facebook-to-google-challenging-bank-online.html>

“Finance: Deutsche Bank’s Gamble”

<http://www.ft.com/intl/cms/s/0/f95615c6-dff0-11e3-9534-00144feabdc0.html#axzz322hGQEMG>

“FICC and thin: The engine of investment banking is spluttering”  
<http://www.economist.com/news/finance-and-economics/21600992-engine-investment-banking-spluttering-ficc-and-thin>

“Buy Big Banks on Breakup Potential?”  
<http://blogs.barrons.com/stockstowatchtoday/2014/05/21/buy-big-banks-on-breakup-potential/?mod=BOL hp blog stw>

“BlackRock Forms Partnership with Tradeweb Markets”  
<http://online.wsj.com/news/articles/SB10001424052702303409004579561753008719032?KEYWORDSmod=mktw>

“Bundled debt demand reaching levels of height of crisis”  
<http://www.ft.com/intl/cms/s/0/63ca5748-daea-11e3-9a27-00144feabdc0.html?siteedition=intl#axzz322hGQEMG>

“BDC leverage cap reform clears hurdle; debate persists”  
<http://www.reuters.com/article/2013/12/13/us-bdc-reform-idUSBRE9BC0J020131213>

Excerpt from Risk.net story

<http://www.risk.net/energy-risk/news/2346115/fuel-hedgers-bemoan-bank-retrenchment-from-commodities>

“Bank exits from commodity markets hit fuel hedgers” (risk.net)

World Fuel Services, Delta Air Lines and other firms say that hedging their exposure to fuel prices has become increasingly difficult as banks withdraw from commodity markets. "In the past six months, there has been a noticeable decline in liquidity," said Ben Bergum, director of fuel hedging at Delta. "It has forced us to do more transactions through the cleared markets. There are still players out there that make markets -- it's just that fewer of them are banks

doing bilateral hedging. We are still able to do what we need to do, but it's getting more difficult.