

What Hath All the Rules Wrought? Assessing the Success of the Post-Crisis Framework

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Key Points

- Individual financial-services firms – and especially the largest banks – are safer and sounder than before the crisis, but the cumulative impact of these rules and broader reforms may well be making financial markets more fragile.
- The success of the post-crisis framework is critical – the 2008 one cost as much as \$20 trillion in the U.S. alone. However, these costs also demonstrate the profound hazard of reconstructing the regulatory framework in ways that do not address unintended effects of the new rulebook or meet emerging challenges.
- The post-crisis regulatory framework cannot be judged by traditional cost-benefit analytics or by the extent to which it forestalls another financial crisis. Near-term analytics assessing emerging market risks and the role rules play in promoting them is the best way to judge the rulebook and make corrections to it in light of emerging risks and changing markets.
- Potential risks are all too clear. Rules may not be the sole driver of these risks, but if they compound or heighten them, correction is critical. All rules have costs and many of the new rules have major, game-changing ones. These costs – qualitative as well as quantitative – redefine markets regardless of policy objectives, sometimes supporting these objectives but increasingly at odds with them.
- Risks already evident include secular stagnation, market-risk transfers to entities outside prudential and/or resolution requirements, growing market illiquidity, dangerous risk concentrations at the largest banks and/or non-banks, increasing operational fragility, and greater taxpayer risk.
- Resilience must be immediately bolstered through action on the financial market's infrastructure and on activities and practices that threaten financial stability regardless of the firms engaging in them. Market discipline resulting from an unambiguous end to expectations of taxpayer rescue will avoid undue reliance on firm-specific rules and the ability of regulators to mandate and enforce them.

Executive Summary

In this paper, we ask a fundamental question: is the sum total of all of the rules written since the global financial crisis began in 2007 working as hoped? Although some key planks of the post-crisis framework – especially the critical one barring bail-outs – have yet to be crafted, it's not too early to ask this threshold question given the eight years since the globe teetered on the brink of economic catastrophe and the thousands of pages of new rules finalized since then.

Indeed, it's an urgent question given worrisome signs of heightened financial-system risk which this paper attributes in part to the cumulative body of new rules. This paper thus weighs the costs and benefits of the new financial-regulatory framework in a new way.

Traditional cost-benefit analyses count an array of costs – often putting dollar values on the most irrelevant ones (e.g., how long it takes to fill out forms) because real costs – especially those resulting from a new rule piling atop older ones – are very hard to calculate with traditional economic methodology. Benefits are also often far more qualitative than clearly quantitative both at the outset and over time as each rule wrestles with emerging circumstance.¹ Efforts to count the costs and benefits of each rule on its own thus divert policy attention from the critical one we tackle here: regardless of cost and given the difficulty of immediately knowing real benefit, are there any intermediate-term analytics that demonstrate emerging risks that warrant near-term action before unintended or even perverse effects create new risks perhaps even more lethal than those eight years ago?

It is, of course, true that all of the new rules are warranted if they avert a new financial crisis. Estimates of the cost of the last financial crisis in the U.S. alone exceed \$20 trillion, making systemic regulation an urgent priority. However, if rules exacerbate risk instead of ameliorating it -- as disturbing recent events may presage -- then the new framework is not only unsuccessful in averting crises, but also unduly costly in its own right.

Some have suggested that the only way to know if all the new rules meet their intended goal – systemic-crisis deterrence and shock absorbance – is to know that a crisis was about to befall the market and then failed to materialize and/or was diminished to manageable proportions. We disagree: systemic risk comes from numerous sources outside the scope of the new rules – e.g., geopolitical risk, natural disaster, fraud, terrorist direct or cyber attack, etc. Thus, crises may well materialize regardless of reform.

Further, a methodology for detecting crisis prevention is unknown – for example, risk averted by supervisory enforcement of the new rules at a single regulated institution may never be disclosed, making the impact of the broader regulatory framework undetectable or irrelevant.

We thus propose a success criterion based not on how many crises the new framework prevents, but rather on intermediate-term analytics that measure changes in the financial market assessing factors such as the extent to which overall liquidity has grown or diminished, whether practices recognized as

¹ Federal Financial Analytics, *Operational Impediment to Effective Financial Regulation* (October 22, 2012), available at:

http://www.fedfin.com/images/stories/client_reports/operational%20impediments%20to%20effective%20financial%20regulation.pdf

risky have reduced or simply shifted to other sectors, the performance of critical markets to date, and the ability of the financial-services sector to support economic growth, expand delivery to under-served communities, innovate, and otherwise remain a vibrant source of financial intermediation.

This paper concludes that the post-crisis regulatory framework is showing dangerous signs of making the financial system in aggregate more – sadly not less – risky. Given that the overall body of systemic resilience and resolution rulemaking remains incomplete, this is even more worrisome since new risks spawned by the unintended effect of all of the prudential rules to date may well require new taxpayer rescues.

Intermediate-Term Success Analytics

In 2011, we released a preliminary assessment of the cumulative impact of the post-crisis framework as of that date.² In 2012, we added to these analytics with a comprehensive landscape of pending U.S. and global rules that mapped their intended effect versus possible unintended and even perverse results.³ Now, we bring these analytics forward, assessing market developments and the rules since then to identify possible unintended consequences of the body of global financial regulation. Emerging risks and the rules that may exacerbate them include:

1. Secular Stagnation

As the managing director of the International Monetary Fund (IMF) recently noted⁴, growth in the wake of the financial crisis has remained persistently slow even as accommodative monetary policy in the U.S., U.K., Japan, and European Union has reduced interest rates to zero and, in some cases, into negative territory. Flight-to-quality considerations sparked by geopolitical and other risks contribute to these problems, but regulatory incentives also may be significant factors due to:

- liquidity regulation, which forces the largest banks to hold trillions in “high-quality liquid assets” (HQLAs). The treatment of sovereign obligations as risk-weighted assets (RWAs) with a zero weighting and their eligibility as collateral also sparks strong demand for HQLAs by capital-strapped banks, especially those outside the scope of high leverage requirements akin to those mandated in the U.S. When bank balance sheets comprise large volumes of HQLAs and economic demand is soft, there is scant incentive to offer low-return credit, with many market participants instead holding both significant HQLAs that do not contribute to growth and chasing yield in high-risk ways through other assets (e.g., leverage loans, structured financial instruments) in hopes of boosting yield; and

² Federal Financial Analytics, *A New Framework for Systemic Financial Regulation: Simple, Transparent, Enforceable and Accountable Rules to Reform Financial Markets* (November, 2011), available at http://www.fedfin.com/images/stories/client_reports/complexityriskpaper.pdf

³ Federal Financial Analytics, *Strategic Regulatory Landscape: Regulatory Intent versus Policy and Market Risk in the Financial-Services Industry Capital, Liquidity, Risk Management and Related Prudential Requirements* (October 22, 2012), available at http://www.fedfin.com/images/stories/client_reports/Regulatory%20Landscape.pdf

⁴ Lagarde, Christine, *Prevent “New Mediocre” From Becoming “New Reality”* (April 9, 2015), available at <http://www.imf.org/external/pubs/ft/survey/so/2015/NEW040915A.htm>

- regulatory cost. In 2014, FedFin conducted a study that showed that the annual cost of only some of the post-crisis rules was \$70.2 billion for six of the eight largest U.S. banks.⁵ These and other costs (see below) create opportunities for non-banks to offer like-kind liabilities and asset products at significant comparative advantage (see below). Banks believe that these added costs reduce their capacity to support growth. Further, a Federal Reserve Bank of Boston study⁶ has found that the transfer of this funding outside regulated banks may contribute to secular stagnation because “shadow” liabilities are not efficiently intermediated into traditional forms of household and corporate credit that promote economic growth.

2. Market-Risk Transfer

An array of both liabilities and assets in which regulated banks once held sway are increasingly transferring to non-banking institutions often called “shadow banks” or, where non-bank capacity is limited, becoming increasingly concentrated in a few large bank and/or non-banking firms. As the IMF recently noted with regard to asset management,⁷ non-banks may increase market liquidity as banks confront all their new rules, thus providing a “spare tire” that insulates the supply of needed financial products. However, to the extent risk transfers due to regulatory-arbitrage effects, then customer, investor, counterparty, and systemic risk may rise as a result of large holdings outside prudential standards, stress testing, resolution protocols, and/or central-bank liquidity facilities. Where economically-viable activities do not transfer in large enough volume to sustain market liquidity or meet demand, then additional unintended results -- including incentives for secular stagnation -- ensue. Potentially risky effects of the transformation of finance from regulated to less- or unregulated providers include:

- “Store of Value” Risk: To the extent funds transfer from banks to non-banks, individuals and entities that anticipate safekeeping may be shocked to discover that there is risk of loss of principal in stress situations. A recent study⁸ found that households largely disregard these risk factors during market upticks, but seek security in banks under stress conditions. To the extent banks are unable or unwilling to accept these funds or investors wait too long before becoming depositors, significant harm (e.g., loss of principal) may ensue with resulting cost to economic growth and the long-term ability of borrowers to meet their indebtedness, handle retirement needs, and/or absorb unanticipated expenses. A new Federal Reserve Board study⁹ joins the Federal Reserve Bank of Boston and this study to recommend that central banks support liquidity to “shadow banks” under stress to prevent these risk.

⁵ Federal Financial Analytics, *The Regulatory Price-Tag: Cost Implications of Post-Crisis Regulatory Reform* (July 30, 2014), available at http://www.fedfin.com/images/stories/client_reports/Cost%20Implications%20of%20Post-Crisis%20Regulatory%20Reform.pdf

⁶ Peek, Joe, and Rosengren, Eric S., *The Role of Banks in the Transmission of Monetary Policy* (September 9, 2013), available at <http://www.bostonfed.org/economic/ppdp/2013/ppdp1305.pdf>

⁷ IMF, *GLOBAL FINANCIAL STABILITY REPORT, Chapter 3: The Asset Management Industry and Financial Stability* (April 2015), available at <http://www.imf.org/external/pubs/ft/gfsr/2015/01/pdf/c3.pdf>

⁸ Moreira, Alan, and Savov, Alexi, *The Macroeconomics of Shadow Banking* (July 2014), available at http://www.newyorkfed.org/research/conference/2014/wholesalefunding/TheMacroeconomicsofShadowBanking_Moreira.pdf

⁹ Ferrante, Francesco, *A Model of Endogenous Loan Quality and the Collapse of the Shadow Banking System* (2015), available at <http://www.federalreserve.gov/econresdata/feds/2015/files/2015021pap.pdf>

However, as the Federal Reserve Board staff study notes, a central-bank facility backing shadow liabilities could exacerbate regulatory arbitrage as well as renew fears of moral hazard (that is, too big to fail institutions outside the traditional banking sector).

- **Structured Financing:** Because of liquidity, capital, and other prudential requirements, banks may be unable to meet credit demand to offset secular stagnation. Regulators are increasingly hoping that “market-based finance,” especially via securitization, will develop credit capacity outside the traditional banking sector. This may, however, create significant volumes of complex instruments that increase market reliance on credit rating agencies and otherwise run the risk of repeating those aspects of the 2008 crisis resulting from mortgage-backed securitization. Indeed, reliance on asset securitization to stoke credit supply in areas like residential housing, small-and-medium size businesses, and infrastructure could compound risks if structured positions (e.g., first-loss tranches) are held in volume by non-banking investors (e.g., insurance companies, pension funds) dependent on stable asset valuations to meet critical market needs.
- **Hidden Leverage:** One of the most innovative recent developments in retail finance and small-business lending/investment is person-to-person (P2P) lending. Generally executed through corporate-owned platforms, P2P finance is designed to connect individuals or small businesses that need financing with individuals who wish to invest in the resulting risk. Nominally, there is no “shadow banking” since risk merely transfers through the P2P platform without concentrating in a single hand. However, P2P platforms have increasingly served as intermediaries, meaning that the end lender/investor is not another individual or small business, but rather a bank, investment fund, or securitization vehicle. If the exposures end up at a bank – e.g., as in Citibank’s recent P2P ventures designed to create more community-reinvestment loans – then these exposures are subject to capital regulation; if not, not. Further, P2P platforms are not subject to liquidity regulation, meaning that they may not be able to hold the commitments they fund if stress conditions lead end-investors suddenly to reduce their own activity. At present, platform-related risk is unlikely to prove systemic, but it remains to be seen if the incentives that helped to create these platforms are constrained by market factors and limit overall market risk.
- **Concentration and Resolution Risk:** An array of new bank rules adversely affect profitability often in ways that make it uneconomic for them to remain in complex businesses that require extensive infrastructure (e.g., acting as futures commission merchants, physical-commodity trading, prime brokerage). It is hoped that risky activities that exit banks simply decline in the market. However, these activities may instead concentrate in the very largest banks, deepening reliance on them as critical market infrastructure, or concentrate in large non-banking firms already active in these activities. Low-risk activities that require extensive inter-connectedness among large financial institutions (e.g., serving as custody banks, providing clearing services, securities lending) may not transfer easily out of regulated banks, creating strains on market liquidity and functionality; if activities do transfer, then the resolution risks of concern in banking organizations will similarly transfer with unknown consequences to global financial-market stability given the absence of resolution regimes for most non-banks and financial-market utilities.
- **Payment, Settlement, and Clearing:** One of the hallmark reforms instituted in the wake of the financial crisis is the transfer of over-the-counter (OTC) derivatives trading from dealer

banks to central counterparties (CCPs) and similar execution facilities. When banks are members of these facilities, they must hold significant amounts of regulatory capital and liquidity to ensure their ability to honor any calls from a CCP to handle risk resulting from defaulting members. Non-bank members have similar compensation responsibilities to the CCP, but are often exempt from prudential requirements that bolster their ability in fact to honor any such calls. In the absence of sufficient capital and liquidity by the CCP to handle any shortfalls, contagion risk could quickly become systemic – indeed, many global regulators are already focusing on this unintended effect of the transfer of OTC trading to CCPs. Even in the event systemic-settlement risk does not occur, however, the relatively higher cost of bank operations within CCPs could force them to scale back their role as counterparties for hedging and related transactions. This likely would reduce supply for risk-transfer purposes and also increase concentration risk outside the banking sector.

- **Transparency:** Recent enforcement actions (e.g., those related to fixing benchmarks) have made it clear that prior banking practice did not promote market transparency. It remains to be seen if structural reforms repair these failings or if incentives generic to trading spark new market-integrity problems outside institutions now forced to improve internal controls and reporting. An array of post-crisis actions have also led large banks to improve their controls against tax evasion, money-laundering, and terrorist financing. Continued counterparty demand for illicit support may shift these operations outside the banking system in the absence of like-kind controls and legal/reputational risk. An array of rules mandating transparency (e.g., “call reports” in the U.S.) require traditional banks to disclose both to the public and regulators’ key aspects of their balance sheets and risk profiles. Finance conducted in publicly-traded companies is generally subject to investor-focused disclosures, but these may not address factors that affect long-term safety and soundness (e.g., counterparty exposures, concentration risk, intra-group exposures).

3. Systemic Illiquidity/Central-Bank Risk

The 2013 “taper tantrum,” ongoing bouts of serious “fails” in the fixed-income market, and the alarming events on October 15, 2014 in the U.S. Treasury market have demonstrated the potential for significant volatility and even systemic illiquidity under stress. Traditionally, the largest banks in the U.S. have insulated markets from risk due to their market-making role, but new liquidity, capital, and proprietary-trading rules (among others) have limited the extent to which banks can hold large volumes of assets to insulate markets. To be sure, this market-making function was in many ways facilitated prior to the 2008 crisis by too-big-to-fail (TBTf) expectations for the largest banks, but it remains true that, in their absence, market resilience may have significantly eroded due to the combination of lack of liquidity capacity and growing reliance on automated trading.

As noted recently by a senior Federal Reserve Bank of New York official,¹⁰ automated trading has benefits (i.e., more rapid price discovery), and it can obviate the need for capital from regulated institutions by closing out each day in a netted position. However, huge volumes of intraday trading may pose serious risk if sharp spikes in volatility or other factors create new “flash-crash” conditions. Indeed, in the remarks cited above, this official suggested that an unintended consequence of new prudential rules may well be heightened Treasury-market volatility. The enforcement action filed on

¹⁰ Potter, Simon, *Challenges Posed by the Evolution of the Treasury Market* (April 13, 2015) available at <http://www.ny.frb.org/newsevents/speeches/2015/pot150413.html>

April 21 related to the 2010 U.S. equity market links this potentially systemic effect to automated trading conducted by one individual outside the scope of prudential regulation and the ability then and likely now of market infrastructure to protect itself and to count on large market-makers.

The FRB and most other central banks cannot support idiosyncratic liquidity risk at a bank holding company or non-bank. This addresses moral hazard and TBTF, but perhaps at risk of making risk at individual institutions far more contagious to the broader market. The studies above thus often recommend that central banks be authorized to support non-banks to prevent new bouts of systemic risk. To the extent this is needed or done, then a key goal of the post-crisis framework – ending taxpayer risk through provision of central-bank support without offsetting prudential regulation – will be significantly endangered. The regulatory-arbitrage and moral-hazard issues noted above related to shadow banking would also apply.

4. Taxpayer Risk

The demand for HQLAs and new capital pressures are among the factors encouraging large holdings of sovereign and agency obligations. Limits on the ability of regulated banks also to offer credit have increased demand for government-backed issuances (e.g., U.S. government-sponsored enterprises and student-loan offerings, the new European Union infrastructure bank, etc.). Government offerings are generally indifferent to the extent to which a participating financial institution is a regulated bank, with the sharp transformation of lending backed by the U.S. Federal Housing Administration showing clearly that non-banks are empowered as banks leave certain private-capital segments and borrowers are forced to rely on government-backed offerings.

Taxpayer-supported finance may prevent slow growth from turning into no growth, as well as provide continued financing to sectors determined by public policy to serve the public good. However, the more financing backed by explicit or implicit taxpayer guarantees, the greater fiscal-policy risk in concert with the potential for systemic risk if markets come to doubt the willingness or ability of sovereigns to support their offerings. In the EU, this was called the “doom loop,” but it also has been evident in the U.S. where weakness at the GSEs played a significant role in the 2008 financial crisis and the lack of a solution to the GSEs’ structure prolongs stagnation in residential-mortgage finance.

Taxpayer risk may also spike if pressures on regulated financial institutions heighten illiquidity that is then exacerbated by automated trading or other factors. To the extent that overall liquidity in key sovereign markets – e.g., U.S. Treasuries – is seen by markets to be undermined or, at the least, endangered, borrowing costs will rise for sovereign issuers. This will hike the cost of defeating these sovereign obligations.

Illiquidity in sovereign markets poses not only costs to taxpayers, but also unique risks to those in the U.S. The status of the U.S. dollar as the globe’s reserve currency is in large part predicated on its almost certain protection against loss of principal and robust liquidity. If market factors undermine this as the recent speech from the Federal Reserve Bank of New York cited above fears, then the reserve status of the dollar could be challenged with significant long-term costs not only to taxpayers, but also the role of the U.S. financial market.

5. Risk-Taking Incentives

The overall body of post-crisis regulation is first and foremost designed to reduce regulatory incentives and/or the lax supervision that permitted banking organizations to take risks they could not absorb. However, some recent rules may undermine this:

- **Leverage Capital:** Because risk-based capital was found to be insufficient to insulate banks, especially EU ones, from stress, regulators have now added a leverage requirement to the Basel III Accord. Leverage standards require banks to hold fixed amounts of capital against both on- and off-balance sheet assets regardless of risk. Leverage capital is designed to be a floor under risk-based capital, but it is often the binding constraint. As a result, banks face capital incentives to take greater credit and trading risk in hopes of meeting market demand for sufficient return to investors.
- **Systemic Thresholds:** In the U.S., the Dodd-Frank Act requires that enhanced prudential standards apply to any bank holding company (BHC) with assets over \$50 billion. These standards impose significant additional cost that may encourage greater risk-taking, reduced operational cushions (see below) and have other unintended consequences. The cost of all of these rules may also diminish the ability of regional banks – often mainstays of regional credit markets – from providing loans and offering other services. This may exacerbate secular stagnation and/or increase reliance on non-banks.
- **G-SIB Surcharge:** Under both the Dodd-Frank Act and global edicts, banks that trip certain thresholds are deemed global systemically-important banks (G-SIBs) and then subjected to higher risk-based capital. In the U.S., the G-SIB surcharge will be higher than the global one and include a factor related to reliance on short-term, wholesale funding. These charges may reduce the ability of G-SIBs to support credit growth and counterparty liquidity needs, as well as create a perverse incentive for traditional institutions sanctioned as G-SIBs to take on riskier businesses since these are assumed in the surcharge even though the bank may not take such risks. Further, the manner in which the G-SIB surcharge is calculated does not clearly permit a bank to adjust its operations once it is designated in a way that reduces or ends its surcharge because of the self-references embedded within the methodology. Standards that define global systemically-important insurers and pending ones for firms like asset managers and broker dealers also pose the risk of unintended consequence (in contrast to regulation based on activities and practices) that may create systemic risk even if not undertaken in a very large firm.

6. Heightened Operational Risk

As noted, FedFin found in 2014 that the largest U.S. banks absorbed annual post-crisis regulatory costs of at least \$70.2 billion from those rules that could be reliably quantified based on comparable public data. Combined with slow growth and strong competition from non-banks for choice customers, profits at many U.S. banks have shown significant strain. This has led regulators to fear that operational infrastructure is being sacrificed because banks simply lack the resources with which to meet new rules, support credit demand, and simultaneously increase their resilience to cyber-attack and undertake other costly information-technology improvements. To the extent operational resilience is weakened at banking organizations, financial-market operational resilience will be similarly strained, especially in complex, cross-border, and/or capital-markets operations.

Further, these operational costs may undermine the ability of traditional banks to innovate in areas like new retail-payment products and technologies. All such products require extensive and costly infrastructure, infrastructure that is especially costly to banking organizations that must meet new rules requiring, for example, extensive board review of new ventures and that must hold capital (including for operational risk) against new offerings. Innovation may well thus take place largely outside of regulated banks, reducing risk to this sector from untried or high-risk offerings, but exacerbating the transformation of finance into one increasingly dominated by less- or un-regulated entities. Lack of operational and governance controls could also spur a sharp rise in higher-risk innovations (e.g., P2P platforms providing intermediation, automated trading) largely housed outside of traditional institutions due the ability of new entrants to win significant market share in the absence of competitive offerings from slower, but arguably more resilient, banking organizations.

7. Regulatory Fragmentation

In 2013, FedFin released a paper predicting the fragmentation of the global regulatory framework on which many nations embarked with such urgency after the 2008 crisis.¹¹ We recommended at the time that harmonization be addressed in part through trade-in-financial-services negotiations, which since ensued in the construct of the ongoing U.S.-European negotiations over investment and service activities. However, these deliberations are not faring well and it appears unlikely that trade negotiations will help to harmonize national practice, especially with regard to the operations of foreign financial institutions in host countries.

The U.S. has embarked on its own clear course here, while continuing home-host resolution considerations are increasingly leading international companies, especially banks, to house host operations in subsidiaries, not branches. However, other sovereigns have similarly established their own standards – e.g., EU ones defining eligible CCPs, continuing barriers to entry (particularly via branches) in many emerging nations.

Regulatory fragmentation is in and of itself an unintended consequence of the new framework. Global bodies are seeking to remedy it through initiatives such as peer reviews and the “comply or explain” paradigm recently proposed by the Financial Stability Board. It is not, however, likely that nations will reverse course and adhere to global edicts, especially when national law or market conditions stipulates another course.

To be sure, fragmentation may have some offsetting benefits, especially given the problems finalizing an effective cross-border resolution regime for banks and other financial-services firms. However, it has the following possible adverse implications:

- increased opportunities for regulatory arbitrage;
- reduced flows of capital, especially for sustainable emerging-market development; and
- continued operations by some nations as tax havens or shelters for higher-risk transactions.

¹¹ Federal Financial Analytics, *Banking by Border: Preventing Prudence from Turning into Protection in the New Financial Regulatory and Trade Framework* (February 19, 2013), available at http://www.fedfin.com/images/stories/client_reports/Petrou_Banking_by_Border.pdf

Conclusion

In the aftermath of the 2008 crisis and its cataclysmic cost, some have suggested that these hard lessons have been lost because tough rules are being watered down. Some rules are indeed less stringent than initially proposed and some of this may well be due to lobbying, not logic. However, what if the crisis spurs another consequence: a corpus of systemically-consequential rules that is ill considered and cumulatively counter-productive?

We pose this question here not to argue against any of the new rules or those yet to come. Instead, we build on a comment sent in 2013 to the Basel Committee on Banking Supervision¹² to argue that banking is not a test-tube in which agents can act without external effect. Financial products range from safekeeping for funds, interest-bearing sources of liabilities for financial intermediation, investment opportunities, and an array of credit and operational functions that keep the lights on for both macroeconomic growth and the basic – if little-noticed – plumbing that keeps money flowing from those who have it to those who need or want it.

Rules have costs and, whether these costs can be quickly quantified or are worth it, they change markets, especially in an era in which management is all too often dictated by immediate return, not long-term shareholder value. As a result, the cost of rules drives and sometimes also distorts incentives that in turn drive or distort those needed to accomplish public-policy objectives such as safety and soundness, customer protection, competitiveness, innovation, and sustainable growth.

None of the intermediate-term analytics outlined here is conclusive, but many are evident in the shape of recent market phenomena. As a result, we argue that they require careful consideration, re-calibration as needed, and reflection in the context of the over-arching goal of policy since the crisis: a financial system that stands soundly on its own instead of one in which both providers and customers either expect taxpayer-subsidized rescue or – worse – stand naked without it despite their innocence before the storm.

¹² Federal Financial Analytics, *The regulatory framework: balancing risk sensitivity, simplicity and comparability – discussion paper* (October 10, 2013), available at http://www.fedfin.com/images/stories/client_reports/Karen%20Shaw%20Petrou%20-%20Basel%20Comment%20Letter%20-%20101013.pdf