Should Banks’ Stress Test Results be Disclosed? An Analysis of the Costs and Benefits

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Abstract

Stress tests have become an important component of the supervisory toolkit. However, the extent of disclosure of stress-test results remains controversial. We argue that while stress tests uncover unique information to outsiders — because banks operate in second-best environments with multiple imperfections — there are potential endogenous costs associated with such disclosure.

First, disclosure might interfere with the operation of the interbank market and the risk sharing provided in this market. Second, while disclosure might improve price efficiency and hence market discipline, it might also induce sub-optimal behavior in banks. Third, disclosure might induce \textit{ex post} market externalities that lead to excessive and inefficient reaction to public news. Fourth, disclosure might also reduce traders’ incentives to gather information, which reduces market discipline because it hampers the ability of supervisors to learn from market data for their regulatory actions.

Overall, we believe that disclosure of stress-test results is beneficial because it promotes financial stability. However, in promoting financial stability, such disclosures may exacerbate bank-specific inefficiencies. We provide some guidance on how such inefficiencies could be minimized.


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In the wake of the financial crisis, the Federal Reserve expects large, complex bank holding companies (BHCs) to hold sufficient capital to continue lending to support real economic activity even under adverse economic conditions. Stress testing is one tool that helps bank supervisors achieve that goal. The Dodd–Frank Wall Street Reform and Consumer Protection Act (DFA) requires the Federal Reserve to conduct an annual stress test of large BHCs and nonbank financial companies designated by the Financial Stability Oversight Council (FSOC) for Federal Reserve supervision to evaluate whether they have sufficient capital to absorb losses resulting from adverse economic conditions. (DFA, Section 1115(a)). The DFA also requires BHCs and other nonfinancial companies supervised by the Federal Reserve to conduct their own stress tests: for systemically important firms, these tests must be performed on a quarterly basis and for other firms—those with assets exceeding $10 billion — they should be performed on a semi-annual
basis (DFA, Sections 1115(a), 1115(b)). The Federal Reserve adopted rules implementing these requirements in October 2012.

Interestingly, Congress left it to the regulatory agencies to specify the nature and design of these stress tests so that several important questions remain unanswered — and controversial. For example, should bank-specific stress-test results be publicly disclosed? If so, to what extent? Should the tests follow the traditional approach of focusing on the resilience of each bank individually or should they instead focus more on the resilience of the banking sector to a common macroeconomic shock?

Many proponents of disclosure of stress-test results have linked the severity of the recent financial crisis to bank opacity. They argue that many banks took on excessive risks that were not adequately disclosed so that such risks could not be properly priced by the market. Disclosure of stress-test results informs outsiders whether banks are sufficiently capitalized to absorb negative shocks, thereby enhancing market discipline. Such market discipline, in turn, would have prevented insiders from engaging in excessive ex ante risk taking behavior that may have contributed to the recent financial crisis. Greater transparency of a bank’s risks would have also allowed banking regulators to better monitor the banks and allowed them to intervene early enough to take corrective actions by recapitalizing weak or insolvent banks. Unfortunately, by the time regulators intervened, it was too late as there was a widespread panic because the market could not distinguish a solvent bank from an insolvent bank and such panic brought the whole financial system to its knees. By disclosing stress test information, investors’ confidence in the banking sector would be restored and such a boost in investor confidence would, in turn, positively influence the real economy. While the rationales for disclosing the results of these stress tests seem intuitive, some have argued that disclosing the results of these stress tests may actually have unintended consequences. For example, instead of providing market discipline, if stress tests are not properly

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1The Federal Reserve previously highlighted the use of stress tests as a means of assessing capital sufficiency under stress during the 2009 Supervisory Capital Assessment Program (SCAP) and the 2011 and 2012 Comprehensive Capital Analysis and Review (CCAR) stress test exercises.
designed, disclosure of their results may actually create more panic, thereby lowering confidence in the banking sector. A lower confidence in the banking sector may have more negative consequences on the real sector.

In any debate regarding the desirability of disclosures, the objective of such disclosures must be specified. In the case of stress tests, these tests could serve either a microprudential and/or macroprudential objective. A microprudential goal implies that an individual bank has enough capital buffer to absorb potential losses, thereby ensuring its solvency. A macroprudential goal implies that the banking system as a whole has the ability to survive a systemic crisis, thereby promoting financial stability. In this monograph, we will argue that these two goals may not necessarily be compatible with each other — while stress-test results accompanied with appropriate disclosures could promote overall financial stability, they might simultaneously induce inefficiencies at the individual banks.

We will also argue that the benefits of disclosing stress-test results are clear: stress tests may uncover unique information about banks allowing both bank supervisors and market participants to exercise discipline on the bank’s behavior. However, because banks operate in second-best environments that are prone to externalities, we argue that there are endogenous costs associated with such disclosures. We believe that a proper understanding of the sources of these costs would better inform the debate and guide regulators in both designing these tests and handling the disclosures. More precisely, we believe that — at least from a macroprudential financial stability perspective — the benefits of disclosing stress-test results are undeniable. Instead, our goal is to explain how, conditional on disclosure of these stress-test results, the costs associated with these tests could be minimized via the design of stress tests and the nature of the disclosure.

To better understand the sources of the endogenous costs, we will first review several theoretical frameworks for discussing the costs and

\[2\text{This debate is described in the article “Lenders Stress over Test Results,” Wall-Street Journal; March 5, 2012. See http://online.wsj.com/article/SB10001424810063961024572605510414.html.} \]
benefits of greater disclosure. In the absence of a clear sense of the potential costs and benefits associated with greater disclosure, the knee jerk reaction is that more information is always better, since usually more information provides better market discipline. However, we will explain why the conventional wisdom that more disclosure leads to better market discipline need not hold for banks as they operate in second-best environments, i.e., environments with market and informational frictions. First, banks engage in risks that are notoriously opaque, hard to verify, and easily susceptible to asset substitution. Second, banks operate in environments that are prone to externalities. In such environments, there are endogenous costs to disclosure that supervisors must take into account in determining both the design of the tests and how to handle the disclosure of the results. In such environments, greater disclosure may actually sometimes impede welfare. The main insight of our monograph is that, when it comes to the disclosure of stress-test results, perhaps too much importance has been attached to how such disclosure would improve market discipline. If the goal of disclosure of stress tests' results is to improve market discipline, we will show that market discipline is a necessary but not sufficient condition for economic efficiency. Furthermore, in second-best environments, the incentives of all market participants need to be taken into account in understanding how and when disclosure would affect market discipline.

The remainder of the monograph is organized as follows. In Section 2, we review in detail the nature of stress tests, discussing the unique information they provide to outsiders. In Section 3, we review the conventional wisdom and explain how disclosure of stress tests could provide regulatory and market discipline and how such discipline may indeed have a positive impact on economic efficiency. Section 4, which is the main section of the monograph, reviews in detail possible costs of disclosure. We first explain in general why the conventional wisdom may not hold up well for banks. Then, we discuss four theories that highlight problems with disclosure and link them to the context of stress testing in the banking system. First, disclosure might harm

\footnote{We discuss later how the benefits of disclosure of stress-test results might be due to supervisory discipline in addition to market discipline.}
the operation of the interbank market and the provision of risk sharing achieved in this market. Second, detailed ex-post disclosure might adversely affect the ex-ante incentives of bank managers and lead them to take myopic inefficient actions to pass the test. Third, greater disclosure might lead to inefficient ex-post reaction from market participants, who face a coordination problem (e.g., a run) and put excessive weight on public information rather than on their own private information. Fourth, the disclosure of stress-test information publicly might crowd out the private information in market prices and reduce the ability of regulators to learn from market prices. With the benefits of the insights gained from the discussions in Section 4, in Section 5 we explain that there is a non-trivial trade-off associated with disclosure of stress-test results. We believe that such disclosure serves an important purpose in promoting financial stability, in particular at the aggregate level. However, there are costs of detailed disclosure at the bank specific level. In order to minimize these costs, we provide several recommendations to regulators about how to handle the design and disclosure of stress tests results. Section 6 concludes.
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References


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