Chapter 26
Regulatory Reform: Where to from Here?

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The recent financial crisis has exposed many market and regulatory failures.[1] Those failures have triggered regulatory reform. The question is whether this reform goes in the right direction and whether it will work. The comments that follow are based on material out of my recent book on competition and stability in banking (Vives, 2016).

Crises have been a recurrent feature of banking from the 19th century on (e.g., Reinhart and Rogoff, 2009). In the 20th century, a major one was the US banking panic of October 1907. This panic was ended with the intervention of J.P. Morgan by inducing bankers to put up the money to stop the crisis, and that was a major factor behind the establishment of the Federal Reserve later on. The crisis was due in fact to a shadow banking system, the investment trusts which had made risky investments with no access to the commercial banks clearinghouse support, and was related to an attempt to corner the copper market. This crisis had deposit runs and a stock market crash. The crisis of October 2007 was the first bank crisis out of subprime trouble, with the run on Northern Rock in the UK. There was also a deposit run, but this was an induced run from the run on the wholesale funding market. In between, we went through a phase of

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[1] See Baily *et al.* (2013) and Brunnermeier *et al.* (2009).

regulation and deregulation. Post the 1930's Great Depression, a range of tight regulations were introduced: deposit insurance, Glass–Steagall, and deposit rate regulation (Regulation Q). The result was that moral hazard was controlled at the cost of financial repression. This period was very stable, with almost no crises, up to the 1970s. Then shadow banks appeared in the form of money market mutual funds that started destabilizing banks since they could not compete by paying for deposits. Regulation Q was repealed, the Savings and Loans were liberalized, but prudential regulation did not follow suit. The consequences are well-known. The recent past crisis was preceded also by more deregulation and the emergence of a shadow banking system that hid substantial systemic risk.

Therefore, the obvious question to ask is whether we will ever learn. The regulatory cycle of regulation and deregulation, followed up by a crisis seems to be a permanent feature of the banking landscape. I will summarize what regulatory reform is trying to accomplish, assess its potential effectiveness, and a possible way forward.

Regulatory reform

According to the Financial Stability Board, the core areas of regulatory reform are building resilient financial institutions, ending "too-big-to-fail" (TBTF), making derivative markets safer, and transforming shadow banking into resilient market-based finance.

These reforms were to be in response to regulatory failure up to the crisis, where we saw a lack of account of systemic effects, misaligned incentives with expanded risk-taking because of market-based banking (securitization and wholesale funding in particular), regulatory arbitrage with shadow banking, lack of credible resolution mechanisms, procyclicality in the regulations and insufficient capital and liquidity requirements, and excessive reliance on corporate governance controls.

There has been a lot of progress along the above mentioned lines. Macroprudential regulation tries to control systemic risk with a cross-sectional dimension (quantity and quality of capital and liquidity requirements) and a time series dimension to tame the procyclicality of regulation. There is improved supervision, stress testing, structural reform, trying to insulate certain segments of banks from capital markets activity (the Volcker rule, Vickers in the UK, Liikanen in the European Union), and enhanced resolution.

What is the assessment of the regulatory reform? The reform is moving in the right direction, at least contingent on the problems we encountered in the last crisis. The question is whether it goes far enough to be effective, and whether there is consistency in the instruments proposed.

Among the things that are still subject to debate, the first is the level and quality of capital and liquidity requirements, as well as the pace of the implementation. We have to be aware that, from an economic point of view, we lack a good theory of capital in banking. We have fragmented theories, and it is very difficult to determine the right capital level because the foundation on which we build is not very solid. Even then, if we were to get to the right number then the implementation pace is very important. Moreover, the treatment of systemically important financial institutions (SIFIs) is not settled. We do not quite know still how to make those institutions internalize the negative externalities that they generate.

There is a lot of work to do in terms of accounting for the interactions of capital, liquidity, and transparency requirements as well. Typically, the optimal capital requirement, the optimal liquidity requirement, optimal disclosure requirements, and macroprudential ratios are thought of separately. But, in fact, all these instruments are connected. Not only connected because they generate interacting incentives in the agents, but also because, given the objectives of the regulator to minimize probabilities of failure and illiquidity, there is the danger of ending up with too tight or too lenient regulation when not accounting for their interactions.

Both capital and liquidity requirements may contribute to diminish probabilities of failure and illiquidity that regulators have want to control. On occasions, being stricter in one dimension may allow some relaxation in the other. This means that a piecemeal approach to prudential regulation may not work, or at least, may be inefficient since it will not strike the right combination of intensities of the instruments.

Let me put two examples. The first one is when the Savings and Loans were liberalized in the 1980s. On the face of this liberalization, the prudential regulators should have thought about increasing the solvency requirement. This was not done, and the consequences were dire. Another slightly more subtle effect is the following one. In the beginning of 2006, the ABX

index on credit derivatives on subprime mortgages (residential mortgage-based securities) was introduced. This provided a very powerful public signal on this segment of the market that was rather opaque and for which information was poor. When in 2007 these indexes started to trade below par, signaling trouble, then, according to quite a few observers, the run on structured investment vehicles (SIVs) that were buying these products started. This happened because when a powerful public signal indicates bad news, it acts as a coordination device to run. What should the prudential regulator have thought when this Credit Derivative Index was introduced in 2006? It should have introduced (or increased) liquidity requirements into those SIVs. Those liquidity requirements would have provided a buffer against runs, limiting fire sales and their consequences, and at least would have mitigated the run problem. This is what a prudential regulator that wanted to control the probability of illiquidity would have done (see Vives, 2014). Another example of the need to introduce or reinforce liquidity requirements is provided by the introduction of market value accounting, which was introduced previously to the crisis, and which may also introduce more potential coordination problems and runs.

All in all, a holistic approach to prudential regulation and its instruments is needed. Another obvious example is the need of a careful consideration of the regulatory perimeter in order to avoid regulatory arbitrage. The idea of regulating by function, to avoid forms of shadow banking to escape regulation, has to be made consistent with regulation by entity, which eventually is where failure occurs.

The competition-stability trade-off and the need to coordinate prudential regulation and competition policy

There are trade-offs between competition and stability in banking. Those trade-offs follow from the second best principle in economics that whenever we cannot fix all the market failures, if we try to improve one of them we may go in the wrong direction in terms of welfare. That is to say, if we could fix the problems in banking related to basic sources of market failure such as asymmetric information, externalities, and behavioral biases, then we know that pushing for competition without limit would be good for welfare. Unfortunately, we are not there yet. And even though regulation

can improve this trade-off, and in fact it should work to improve this trade-off, we are most likely not going to be able to resolve it completely. Regulation must try to relax the trade-off to allow more competition and stability. However, a residual trade-off will remain, most likely.

At the end of the day, this means that we need to coordinate prudential regulation and competition policy. An example can be taken from Spain and Portugal. During the crisis, some weak banks in those countries started to bid for deposits at a very high rate. Then the sound banks had also the incentive to pay very high rates for deposits to maintain its market share. The Central Bank/regulator recommended that deposit rates be capped to limit systemic risk. This is an example where a limitation in competition may increase welfare, and in fact may allow the sound institutions to compete.

Another example of the link between competition policy and prudential regulation is the resolution of failing entities during the crisis. Regulators in most instances tried to sell or merge a bank in trouble to another bank. This was the case for example of the HBOS/Lloyds merger in the UK, undertaken against the opinion of the competition authority. The government basically agreed to the merger without thinking on the potential long-term consequences for the market structure. Other similar mergers, such as Abbey and Lloyds, had been blocked before for competitive reasons.

Finally, an instance where there is better alignment between prudential concerns and competition policy is the use of competition policy as a credible tool to check the TBTF problems. Here there is striking divergence between the approaches in the US and the European Union. In the European Union-the competition authority, the European Commission, has control of state aid. In the US, it does not. If the competition authority can impose divestitures, structural and conduct measures on TBTF entities that have been helped, the incentives of those entities to take risk will be diminished.

In conclusion, regulatory reform has to take a holistic approach taking account of the interactions between its different instruments, coordinate with competition policy, and push the frontier of the trade-off between competition and stability in order to allow more of both. Better regulation makes competition effective in delivering consumer and investor welfare.

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