

The Cost of Regulation

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Tighter regulation inevitably carries a cost, but must be weighed against the benefits of greater financial stability. Estimating net benefits is, however, a complex exercise and while consensus is that in aggregate these remain positive, gains could be made by improving efficiency and addressing leakages. Moreover, structural reform, and not least completing the European Banking and Capital Markets Unions, would do much to alleviate downside risks and lift growth. History teaches that ensuring economic prosperity and financial stability over time requires more than a set of regulatory safety margins. The revival of macroprudential regulation aims to address past errors with a flexible and forward-looking approach. These tools are still largely untested and at risk of unintended costs. Overall optimisation of the net benefits from regulation requires an iterative and co-ordinated approach. The potentially most damaging costs stem from regulatory protectionism. Recent trends are worrying and could, if confirmed, also forewarn of a less co-ordinated G20 response to the next crisis.

The Global Financial Crisis (GFC) of 2007-08 marked a sharp turning point; after three decades shaped by deregulation, the regulatory pendulum began to swing back bringing sweeping changes. While much of the new regulatory framework is now known, many measures are still in a transition phase. Prudential standards have been tightened, with higher safety margins on capital, liquidity, funding and exposures, new stress testing rules and resolution planning. Further changes have come with efforts to insulate conventional banking from capital market activities, to move derivatives trading to central counterparties, and to protect investment funds and insurance. More recently, data protection rules have joined the list. The Financial Stability Board (FSB, 2017) offers a useful overview on the implementation status of financial regulatory reforms in the priority areas.

The focus here is on the cost-benefit of regulation and the first section offers a typology of costs. Much of the analysis is still in early stages and yet inconclusive. As proof that at least no harm is being done, policymakers often point to the on-going economic recovery. Closer scrutiny of this argument in the second section, however, suggests the same inconclusiveness. Waiting several years for clarification would be suboptimal, however, and as discussed in the third section, setting regulation should be an iterative process and one that is co-ordinated across various jurisdictions. The article concludes with a warning on costly and potentially destabilising financial protectionism.

In search of the efficient frontier

In theory, there is an efficient frontier at which the benefits (in terms of financial stability and effective crisis mana-

gement) for a given level of regulatory tightness is achieved at a minimal cost. Finding this frontier in a real-world framework is a complex, if not impossible, exercise given the multitudes of regulations, costs, geographies and new innovations (e.g. Bitcoin) involved. To frame the discussion, let's nonetheless first consider a cost-benefit typology.

- *Financial crisis costs (or the benefit of avoiding crisis):* The first cost is in fact the benefit. Financial crises are costly and while estimates vary, they are generally found to be high, and often with permanent loss of income. The gross economic benefit of regulation is generally defined as the resulting decline in the probability of crisis times the cost of crisis. To obtain the net benefits, the cost of regulation is then subtracted.

The BCBS (2010) report that the median cumulative loss from different studies, is 19% of pre-crisis GDP when permanent effects are excluded and 158% if permanent effects are permitted. The median loss across all comparable studies is 63% of GDP. Taking this latter number, a 1% decline in the probability of crisis would thus yield a gain of 0.63%.

As summarised in BCBS (2010) Tables A2, the decline in the probability of crisis as the result of higher capital and liquidity safety margins also varies across models, but the marginal benefit generally declines. The average of all models finds that increasing tangible common equity to risk weighted assets from 6% to 7%, yields a decline in

(1) The views expressed are attributable only to the author and to not any institution with which she is affiliated.

the probability of crisis of 2.6pp (with a range across the different models of 6.8pp to 0.7pp), while moving it from 14% to 15% only lowers the probability by 0.1pp (with a range of 0.2pp to 0.1pp).

- *Bank lending costs (in steady state and transition):* The most commonly studied costs in the literature are the direct ones from higher capital and/or liquidity requirements. Slovik and Cournède (2012) find that implementing the Basel III capital requirements increases the average bank lending rate by 15bp by 2015 and 50bp by 2019 in the US, euro area and Japan. These lending rates are then translated in a GDP impact using the semi-elasticities from the OECD's New Global Model. The result is a cost of 0.05pp on annual GDP from implementing the 2015 requirement (1.2pp on common equity) and 0.15pp from the 2019 requirement (3.7pp on common equity).

As summarised by Fender and Lewrick (2016), the increase in lending spreads across different studies range from 5bp to 80bp for a 1pp increase in the capital ratio with the related impact on GDP ranging from 0.01% to 0.12% on annual GDP growth. Fender and Lewrick find that the combined Basel III requirements raise the CET1/RWA ratio for the entire banking system by 2.7 to 3.4pp, leading to a 2.19-2.41pp decline in the probability of crisis with an expected gain of 1.38-1.52% of GDP (applying the median 63% loss from above). The expected costs are estimated at 0.32-0.41% of GDP, thus yielding a net benefit of 1.05-1.11% of GDP.

Basel III is only part of the new regulatory framework and higher net lending rates are only part of the cost involved. Already, we note the large divergence of analysis outcomes.

- *Capital market lending costs:* Less commonly discussed is the impact of requirements on banks for financial market liquidity. Such considerations are particularly relevant given the focus on more market based financing systems, for example, Europe's Capital Markets Union. Baranova *et al.* (2017) show that at low levels of stress, liquidity premiums are around 40bp higher on corporate bonds and 8bp higher on Gilts. Adding up these effects yields a cost of around 0.08% of GDP in steady-state. The same study finds the net benefit of regulatory reforms (including the bank lending channel and TLAC) to be 0.44% of GDP, i.e. considerably lower than above.

While the literature cited above offers a useful framework, several costs are either included only implicitly or not at all. Given the difficulty of estimating these costs, this is not surprising, but they nonetheless deserve consideration.

- *Oversight (compliance) costs:* Regulation naturally requires oversight and here too, there is a trade-off to calibrate between sufficiently effective oversight and unnecessarily bureaucratic and costly procedures.
- *Uncertainty costs:* Legal uncertainty and law-fact uncertainty also matter, where the former refers to uncertainty about the content and the latter to uncertainty in terms of the actual application. Prolonged periods of uncertainty are generally costly as these tend to delay investment and hiring decisions.

- *Leakage and arbitrage costs:* Leakages occur when the activity in question moves to other institutions and/or instruments not covered by the regulation. Regulatory arbitrage generally results from loopholes that can be exploited by the institutions and/or instruments concerned. In both cases, the risk is that the related regulation will come at a cost with no benefit in terms of financial stability, and may even increase risks.
- *Unintended costs:* Individual pieces of regulation interact across institutions, instruments and geographies, and this could generate unintended costs.

Evidence from the real economy and markets

The discussion above highlights the complexity of assessing the cost of a still changing regulatory environment. Some commentators point to the global recovery, credit expansion, the favourable stance of credit surveys and dynamic asset prices as tangible evidence that the new regulatory framework is not hampering growth.

Recovery is certainly encouraging but it has been lacklustre and slow and remains supported by exceptionally accommodative monetary policy. Moreover, the consensus proxy for trend potential growth has declined considerably (see Chart 2). It would be wrong to just blame this on regulation with issues as such as demographics, protectionism and high levels of indebtedness all weighing on trend potential. Moreover, part of what was perceived as trend potential pre-crisis may in fact have been due to what ultimately proved unsustainable credit expansion.

A further point worth mention is the spectacular decline in the proxy for where that consensus sees the neutral rate of interest (or *r*-star). Again, several factors weigh in, but tighter financial regulation may be part of the story, not least by increasing safe-asset demand. Structurally lower, and at times even negative, interest rates present its own dangers. As highlighted by Powell (2017), this could weigh on financial sector profitability and encourage excessive risk-taking and/or leverage, fuelling potentially destabilising asset price bubbles.

Excessive asset price valuation has certainly been a concern expressed in several financial stability reports. As highlighted in FSB (2017), a few periods of short-lived market volatility in recent years have indicated some vulnerability in secondary markets. Concern, moreover, is how this might change as QE is gradually removed.

So far, there is little evidence to suggest that regulation is holding back recovery, nonetheless, low trend potential and a low neutral rate merit attention, as does market liquidity. Recognising the complexity and uncertainty linked to the appraisal of the regulatory framework, it is encouraging that the FSB has launch a framework for review. Indeed, now is a good time to take stock of new regulations and draw on further impact assessments to address eventual inefficiencies related to all the costs discussed above.

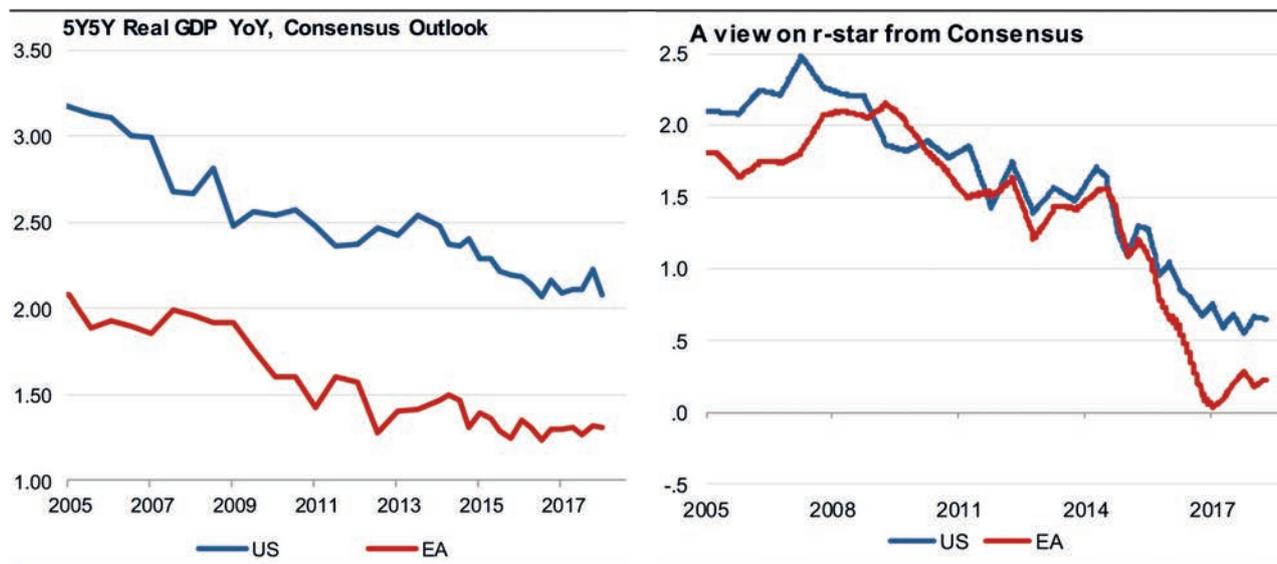


Chart 2: Lower trend potential growth...
 Source: Consensus Economics and own calculations (see Marcussen (2017) for details on the methodology).

Forward looking and flexible

Financial history is littered with carefully crafted regulatory frameworks that have sought to deliver the right trade-off between costs and benefits only to be surprised by the emergence of a new financial crisis from an unexpected source.

Ex-ante cost-benefit analysis offer valuable analysis, but policymakers should be cognisant of the fact that these often focus on a single measure and thus do not account for the spill over effects from other measures. Moreover, the economic modelling behind such analysis comes with the usual uncertainties. Ex-post analysis must thus carry equal weight in the regulatory process, to constantly seek cost efficiency gains and address potential leakages, and thus ensure that net benefits remain positive.

Macroprudential regulation has made something of a comeback post-crisis with the recognition that more flexible and forward-looking instruments must be part of the regulatory toolbox. Several challenges arise from these tools. First, there is the need to develop a set of indicators that can signal whether macroprudential policy tools should be tightened. Second, interactions with other policies, such as monetary or fiscal policy, must be better understood. Finally, here too there are leakages.

Several of the macroprudential tools directed at credit supply today focus on the banking sector (capital requirements, reserve requirements, large exposure limits...). This raises risks that borrowers may go instead to capital market or peer-to-peer electronic lending platforms. While one could argue that this would still protect banks from excessive direct exposure, it would not protect the overall economy from the dangers of excessive leverage. And if the result of excess leverage is ultimately a significant economic downturn or recession, this could still endanger

... and lower r-star.

overall financial stability with asset prices collapsing and rising NPLs on bank balance sheets. The ex-post outcome of such measures could thus be a net cost rather than a net benefit.

Following on from the points above, the interconnected nature of the global financial system means that externalities must also be considered and pleads for co-ordination across jurisdictions. This takes us to our final discussion point on the creeping regulatory divergence and risks of protectionism.

Protect against protectionism

As policymakers have sought to strengthen national financial stability and protect taxpayers from the eventual cost of any future crisis, international frictions have appeared. The IMF's latest Global Financial Stability Report (GFSR) from April 2018 noted that "... country specific liquidity considerations, while helping to strengthen national financial systems, may inadvertently introduce frictions in international funding markets".

While such frictions may be unintended, there is growing concern in the current political context, however, that genuine protectionism may be returning. Back in March 2017, the G20 Finance Minister and Central Bank Governor meeting statement dropped the language the promised to "resist all forms of protectionism" and the March 2018 statement just includes a "need for further dialog and actions".

Protectionism can of course take many forms; the mildest version is best qualified as regulatory divergence (be it regulation or supervisory interpretations and practices) as opposed to genuine protectionism. A survey on regulatory divergence by IFAC and BIAC found that this is costing 5-10% of the financial industries annual turnover or \$780bn (or almost 1% of global GDP) and presents a

moderate to substantial barrier to growth. While surveys come with uncertainty, this is nonetheless a very sizable cost and should incentivize better co-ordination amongst different jurisdictions.

Regulatory divergence and protectionism may, moreover, be an indication of a less co-ordinated G20 policy response to the next financial crisis which again raises concerns.

Conclusion

Concluding this discussion on the cost of regulation, it must be recognised that there are still a long list of unanswered questions. Given this, an iterative approach that seeks to ensure efficiency gains and address leakages on an on-going basis and co-ordinated across geographies is required. While the recent initiatives from the FSB are encouraging, hints of creeping regulatory protectionism are a concern.

Financial regulation, moreover, is not something to be considered in isolation; other reform efforts matter. Zooming in on the euro area, completing the Banking Union and rapidly advance on the Capital Market Union would not only deliver significant economic benefits but also make the region more resilient to adverse negative exogenous shocks, such as financial protectionism. By lifting trend potential, such measures should also lift r -star, which, in itself, could contribute to better financial stability.

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