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(doi: 10.12831/73635)

Journal of Financial Management, Markets and Institutions (ISSN 2282-717X)
Fascicolo 1, gennio-giugno 2013

Ente di afferenza:
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Preventive Macroprudential Policy

JFMI
Journal of Financial Management Markets and Institutions

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Abstract

This piece discusses the framework for macroprudential policy in concrete terms. It raises three points. It makes a strong case for preventive tools over ex post intervention, seeking to complement the Basel III individual buffer approach by targeting risk externalities. Next, it discusses a ladder of enforcement tools for fixed prudential standards, and possible new tools, that are more flexible. To avoid forbearance, we suggest prioritizing a timely use of low adjustment cost instruments. These can be escalated or toned down as required to nudge intermediaries towards capital and stable funding norms. We suggest combining flexible instruments with robust medium term standards, to minimize resistance to adjustment along the credit cycle while ensuring a rapid effect on risk incentives. Flexible tools can thus help maintaining the commitment to robust standards, while allowing fine tuning of the transition according to market conditions. Finally, borrowing from organization theory, this paper argues for a contingent governance framework for macroprudential councils that assigns pre-eminence to different authorities depending on the specific emergency. Specifically, we argue for: assigning to microprudential regulators tools for the implementation of liquidity and capital ratios; to macroprudential authorities within central banks tools for aggregate liquidity risk management, including charges for unstable funding; and to fiscal authorities overall control once capital support requires fiscal means.

Keywords: Financial Stability, Bank Regulation, Macroprudential Policy, Liquidity Risk, Liquidity Charges.
JEL Codes: G28; G29.

1 Selecting macroprudential tools: what are the sources of risk externality?

It is easy to think of large banks as tall city buildings. Banks are highly leveraged intermediaries, building credit volume on an equity capital foundation. Houses, like banks, are worth more when located in dynamic cities where land costs are high. Builders naturally seek to economize on lot size, depth of stone foundations, and construction material. In a city, buildings are tall and close.

Bank capital is usually less than 5% of assets. Most bank credit is built on less durable foundations, funding which may be withdrawn at various speeds.

Just as runs are the main threat to banking systems, the historical threat to cities was rapid fire propagation. These are interesting analogies.

Historically, stone and bricks were expensive building material. The most common house construction was in wood and thatch, which are less resistant to storms and fire.

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ISSN 2282-717X

History can be instructive in this regard. London in 1666 was a rapidly growing city. As population density increased, houses were made taller, and dense slums surrounded the medieval core of the city. Here is an abridged extract from the Wikipedia entry on «The Great Fire of London»:

John Evelyn in 1659 called London a «wooden, northern, and inartificial congestion of Houses», and expressed alarm about the fire hazard posed by the wood and the congestion. By «inartificial», Evelyn meant unplanned and makeshift, the result of organic growth and unregulated urban sprawl.

The City was essentially medieval in its street plan, an overcrowded warren of narrow, winding, cobbled alleys. It had experienced several major fires before 1666, the most recent in 1632. Building with wood and roofing with thatch had been prohibited for centuries, but these cheap materials continued to be used.

The only stone-built area was parts of the City where the merchants and brokers lived. It was surrounded by an inner ring of overcrowded poorer parishes which contained many fire hazards – foundries, smithies, glaziers', theoretically illegal in the City, but tolerated in practice.

What increased further the risk of fire propagation was the over-leveraging of upper floors. Typical six- or seven-storey timbered London tenement houses had «jetties» (projecting upper floors) on a narrow footprint at ground level, «encroaching» on the street to maximise the use of land by a bursting population. The gradually increasing size of upper storeys meant the top jetties all but met across the narrow alleys. The fire hazard was well perceived – «as it does facilitate a conflagration, so does it also hinder the remedy», but «the covetousness of the citizens and connivancy of Magistrates» worked in favour of jetties.

In 1661, Charles II issued a proclamation forbidding overhanging windows and jetties, largely ignored by the local government. Charles' sharper edict in 1665 warned of the risk of fire, and authorised both imprisonment of recalcitrant builders and demolition of dangerous buildings.

The Great Fire came one year later, raging over three days. It originated with a small flame, which spread irresistibly across the crammed wooden buildings. The fire did not spread fast, but it was relentless. It burned the entire City, St Paul Cathedral, and over 80% of the housing stock[1]. The loss was immense.

This experience suggests that house density, flammable construction material and excessive interconnectedness were the key causes of fire propagation.

What did city elders do to avoid a repetition? Force households to keep a bucket of water, or mandate city houses henceforth to be built from bricks and stone? The correct answer is B. It was more expensive, but essential. Probably many Londoners objected to the higher cost. But buckets, while fine for villages and small fires, are not for cities of closely connected buildings, where only bricks and stone stop or slow down fires[2].

The lesson from history is that preventing propagation is more important than focusing on how to fight the fire once it did spread. Prevention of risk propagation should be the mission of macroprudential policy, not just ex post resolution and crisis management. Aggregate risk largely arises from collective choices, not by accident. Were it just about ex post intervention, such as liquidity support, resolution and bail in, it would fail to address

[1] The Tower of London was saved only by ring-fencing, as soldiers blew up an entire neighborhood to stop the advance of the flames.

[2] Other measures included ruling out jetties, and to a lesser extent discourage density. In the end, London was rebuilt on the old street structure.

the root causes, and would still shift large losses on citizens. Ex post support works largely by transferring value from risk averse long term monetary savers to risk taking short term borrowers. While it boosts up risky assets ex post, it is an irresponsible policy overall.

1.2 Are Basel rules preventive enough?

The Basel III rules on higher capital requirements and tougher liquidity rules will increase resilience. These tools are of two types. Buffers are classic instruments which enhance individual resilience upon a shock. In contsrast, standards on fire-resistant construction targets (such as the net stable funding ratios) are a major innovation, and will target propagation risk directly. They are essential to move banks away from a failed business model, which encouraged massive gambles while creating massive risk externalities[3].

However, prudential measures have preventive effects only if implemented in a timely and effective fashion. The planned implementation of the liquidity norms, relative to those on capital, is inexplicably slow. Under Basel III, the liquidity coverage ratio, which requires banks to hold stocks of liquid assets (water buckets), does not take effect until 2015, seven years after the largest wholesale runs in banking history.

By now it is apparent that water buckets are not enough for serious fires. In the recent European banking distress, liquidity buffers have been quickly run down without stopping runs. Only central bank hydrants slow down the runs, but if used indefinitely they ultimately debase the currency, and thus run out[4]. The truth is that there are not enough safe assets in the world, given the accumulated flammable wood. Making the buckets larger by defining more assets as liquid will help, but not much.

Serious construction standards which target aggregate propagation risk are an indispensable choice for a credible implementation. Net Stable Funding Ratios (NSFR) limit the use of unstable construction material. They represent a major change for bank strategies, and have accordingly been delayed further, until 2018.

Relying on sufficient long term funding (insured deposits, medium term credit) is more expensive, but also more resilient. It takes more time to raise than wholesale funding, which in good times is just a phone call away, but is more stable.

Stable funding has also other advantages. As long term investors bear some risk, they are more concerned with bank risk than overnight lenders, so the funding takes more time to be raised. Overall, the NSFR can induce more gradual credit expansion, more local funding and lending, and fewer global bets and carry trades.

Banks naturally resist the NSFR fiercely, calling them very expensive, and regulators are under immense political pressure to dilute and postpone. General public opinion does not understand liquidity risk, though it affects 95% of bank funding. Postponing the introduction of the NSFR after the CRD4 ratification round would certainly ensure its silent death.

[3] This strategy has been termed «collecting pennies in front of a steamroller». Accordingly, the recent crisis has been called «the revenge of the steamroller».

[4] The real value of monetary creation is finite, and decreasing beyond some amount. It also forces high losses on savers, hits incentives for long-term investment, and ultimately results in less credit (less water pressure for productive or household use).

1.3 Are Basel liquidity rules implementable?

Long-term stability demands a credible implementation, to prevent avoidance or collective inertia. Industry resistance ahead of a long delayed introduction is to be expected. The further the system will be at the deadline from the standards, the tighter they will look, and a credit crunch would force relaxation. Announcing common standards without any tools to nudge banks towards compliance would be irresponsible[5].

2 Section II: Implementation tools

Strong transitional tools must ensure that norms be perceived as credible. We discuss in sequence microprudential and macroprudential tools. Some do exist, but have been too sparingly used. Others, especially on the long neglected liquidity risk front, do not exist yet, but absolutely should.

2.1 Micro Prudential Tools

A simple scheme for preventive intervention has tools of increasing intensity, as the intermediary falls below some capital or liquidity standard.

We seek here to provide a ladder of escalating measures, to be activated sequentially. The first stage would be once general prudential ratios on capital or liquidity are reached. At this stage, microprudential regulators naturally lead the intervention. The next stage arises once compliance is unsatisfactory, but the intermediary is still above some well defined ratios. The likely need for liquidity support makes it essential to also engage a macroprudential authority. Once the intermediaries approach minimum conservation ratios, a final stage arises when fiscal authorities may take over the leadership of the intervention, since public resources are likely to be needed to forcibly recapitalize or to contain the spillover effect of default.

2.1.1 *First step: Warnings*

At an initial stage, authorities tend to prefer discreet pressure for corrective action, as disclosure of a breach may trigger adverse market reactions. But this calls for a delicate balance in case of noncompliance. Even in the U.S., where the FDIC has a clear doctrine of prompt corrective action, in practice it has rarely been applied to any bank of any significant size. Extreme sanctions, such as the threat of licence withdrawal, are always possible. Yet such «nuclear» interventions are extremely rare for obvious reasons.

These concerns tend to lead to forbearance, as pressure may trigger an adverse market response. Taken to its limit, this logic implies complete adjudication of preventive policy.

[5] Had European banks been nudged during the 2009-2010 market recovery to tighten capital and liquidity, as UK and US banks were forced to do, they would not be facing the current distress.

The problem with standards is that a bank is either compliant or not. Rigid norms potentially create trigger points.

So what other tools are available to the regulator when warnings are not heeded?

2.1.2 *Second stage: charges*

We advance here the case for using prudential charges once ratios deteriorate. These would take the form of a flow of payments commensurate to the extent of the breach. The aim is to induce timely adjustment, removing the incentive to delay adjustment and seek forbearance. Charges should be flexible, so that they may be escalated when conditions would enable faster compliance, and attenuated when the banking sector comes under stress.

Introducing prudential charges would be a major innovation, and would lower the threshold for actively preventive policy while allowing graduated pressure[6]. They draw inspiration from the recognition that risk incentives are best contained by limiting the upside in good times than by threatening harsh punishments in distress, which are not credible because of limited liability or because of stability concerns.

2.1.3 *Third stage: Escalating charges*

Charges induce incentives to adjust while allowing a smoother process over time, and may be less distortionary across banks. If charges fail to obtain enough response, they need to be raised at some intermediate ratios, signaling determination without necessarily introducing triggers or deadline effects.

2.1.4 *Fourth stage: Direct constraints on payments*

At some stage, once intermediate prudential ratios are breached, risk incentives become very skewed. Raising charges further would not help, as it would weaken solvency while enabling the bank to keep operating at a stage of elevated risk shifting. Charges may also fail to stop overconfident bankers. Once ratios breach some minimum conservation ratios, there should be less reliance, or even suspension of charges, and an escalation to a general prohibition of bonus and dividend payments.

2.1.5 *Final Stage: Seizure or Resolution*

Seizure or forced recapitalization by public means becomes a clear necessity below some prudential ratios, where the intermediary has neither the capacity nor the incentives to take corrective action.

[6] Regulators at present have a limited scope to impose charges. User fees are not risk based. Fines are admissible once after a breach, so preventive use is ruled out. They can be challenged legally, and in practice, are imposed only upon fraud.

2.2 Preventive Macro Prudential Tools

Macro prudential policy aims to adjust micro measures to overall market circumstances. Since raising capital in hard times is difficult, the Basel norms on countercyclical buffers commit regulators to ensure capital is built up during expansion years, with some leeway to be run down in stress times. On liquidity, however, there is no countercyclical instrument, and in fact not even a framework for countercyclical liquidity policy. The Basel III proposals on liquidity buffers (though not the stable funding norms) have been diluted, and are to be introduced over a transition period. But since Liquidity Coverage Ratios (LCRs) act as fractional liquidity reserves for small runs, they do not contain aggregate liquidity risk, as they are easily borrowed forward. Critically, they have little preventive effect as their implicit cost is countercyclical (Perotti and Suarez, 2011).

In contrast, Stable Funding Ratios represent the major innovation and the more robust standards. They are preventive if they are set tight enough to contain aggregate liquidity risk. Because of their greater impact, they have been delayed, and there is no commitment to their introduction. At best, they may be introduced by 2019.

Such a long transition to stable funding standards creates a regulatory vacuum. In addition, perceived sovereign risk in the EU varies markedly across countries. As bank solvency is naturally linked through markets to domestic public solvency, it is obvious that the transition process to stable funding cannot be uniform across countries. Thus there is a need to manage the transition as well as to differentiate it across countries, in particular those in the Eurozone where there is no national monetary flexibility.

Perotti (2012) proposed a concrete tool along Perotti and Suarez (2010), and in the spirit of Acharya, Khrishamurti and Perotti (2011) and Brunnermeier, Gorton and Khrishamurti (2011). This measure was recently adopted in the CRD4 legislation.

National prudential regulators should be empowered to charge «prudential risk surcharges» on the gap between a bank's current liquidity position and the Basel III ratios[7]. Such charges would ensure reliable progress in adjustment, as well as compensate for individual banks' contribution to propagation risk. They would therefore serve both as transitional tools for microprudential regulators as well as macroprudential tools to contain aggregate systemic liquidity risk. Revenues would flow to a fund for financial stability, and would become available to fiscal authorities in case of need for direct capital support of individual banks.

Once the exact technical specifications of LCRs and NSFRs are received in EU legislation, charges may be applied to both. Of the two, it is much more important to target individual convergence to stable funding, as other instruments exist to compensate for liquidity buffers.

Surcharges may start low, and be raised when circumstances allow to nudge banks into compliance. While set at the national level, they would represent a common EU framework for the transition, and would be coordinated by the European Systemic Risk Board.

[7] Since central banks are the natural and better informed regulators of aggregate liquidity, they would seem to be the natural authority for such charges. In some countries the authority may be vested in the microprudential regulator, in coordination with the monetary authority.

Critically, charges would enable a timely countercyclical liquidity policy. They would be lowered in hard times, but will also enable to push for faster adjustment in good times. At present, there are no clear tools for this purpose. EU countries run different liquidity frameworks.

Surcharges would induce early adoption of safer standards, while giving banks the flexibility to plot their own path toward convergence. Adjusting the charges would be smoother than adjusting or postponing the ratios entirely. Surcharges can be better targeted than higher interest rates, which hit everyone and not just the gamblers.

2.2.1 *Consequences of the charges*

The primary goal of the surcharges is to induce a longer bank funding maturity and reduced contingent outflows upon external shocks. They would create a wedge between shorter and longer term rates. Past evidence suggests that this wedge would not affect the volume of bank credit much, as it induces savers to take more term deposits.

By making it expensive for banks to use short term funding, charges can affect the yield earned by investors on demandable (non-retail) claims. This will correct a major loophole. Right now, wholesale short term funding is de facto insured but evades deposit insurance charges. Once regulations will be properly extended to shadow banks, charges are likely to lead to a cost increase for money market funds and conduits. This will reverse a disintermediation trend driven solely by regulatory arbitrage.

A key question is how much costlier will credit become, and how reliable. The cost of credit will be raised in good times, at most by the amount of the charges, if banks were to pass the entire cost to investors. However, the cost and volume of credit would be more stable in bad times, for two reasons. First, banks will suffer less rapid outflows and would need to deleverage less, or less rapidly. Second, countercyclical charges will be lowered in times of credit crunch. On average, it may have little effect. Critically, since the crisis there is a consensus that volatile credit access is very costly for businesses and taxpayers.

More affected will be money-centre banks with few retail deposits, though they could adjust by choosing medium term funding. On the supply side, money market funds will find it more costly to operate as quasi banks. They may reduce their reliance on demandable liabilities, becoming intermediaries for more medium term savings.

2.2.2 *Charge setting and Coordination in the EU*

International coordination of rate-setting is desirable. Some commentators argue that they should be set at an equal level across countries in the transition to common norms. But a level playing field requires that riskier banks face higher charges, or else competition is distorted.

It would have been desirable in 2005-2007 for Spain and Ireland to have higher charges than, say, Germany, where there was no foreign credit-fuelled real estate bubble. This

flexibility would actually reinforce the cohesion of the Euro Area, reducing the rigidity imposed by a single monetary area.

A concern often raised in Continental Europe on NSFRs is that they make it harder for the universal bank model, since retail deposits may not be sufficient to support their lending. While the concern is legitimate, it is essential to stress three aspects. First, charges would be flexible, and can be graduated to contain the risk of a credit crunch. Second, they would reduce the risk of rapid deleveraging at the date of the introduction of the liquidity norms. But most importantly, the flow of credit to the real economy is more closely related to other regulatory features. In particular, capital risk and LCR ratios still penalize corporate loans over securitized or sovereign credit, even though the crisis proved these assets to have high correlation risk. If there are concerns on containing the squeeze on bank lending, it is more useful to work on the relative capital risk weights for securitized credit and commercial lending. Undermining standards essential for long term stability would be irresponsible, as there are better means to soften pressure on bank credit volumes.

Unlike transaction taxes, liquidity risk charges target risk creation. By this, they contribute not just revenues, but also increase financial and ultimately fiscal stability. In addition, the establishment of a common framework for liquidity management would contribute to the process of EU convergence to a common market.

3 Conclusions

Microprudential standards target risk choices and resilience at the level of individual intermediaries. In contrast, macroprudential policy needs to target propagation risk, aiming to prevent at least as much as to contain crises. Regulators now recognize that fixed prudential standards are not suited to contain risk evolution along the cycle, as norms soon become bypassed or obsolete. Recalibrating standards along the credit cycle allows the countering of any deterioration of risk incentive over time. Timely macroprudential intervention is thus key to risk prevention.

As Andrew Crockett (2000) said early on: «The received wisdom is that risk increases in recessions and falls in booms. In contrast, it may be more helpful to think of risk as increasing during upswings, as financial imbalances build up, and materialising in recessions».

To shift emphasis towards preventive policy, rather than ex post intervention, preventive tools are granted to prudential regulators, with a clear mandate to act in a timely fashion to avoid excessive forbearance and risk shifting across countries. Nowhere is the need more urgent than on liquidity risk, the critical transmission mechanism for both the 2007-08 and 2011 bank crisis.

The EU ratification of Basel III introduced a novel instrument, prudential charges, uniquely suited for preventive action. Rate flexibility at the national level in the transition would also reinforce the cohesion of the Euro Area, reducing the rigidity imposed by a single currency. It would enable the authorities to contain credit risk creation in individual countries. At present, bank solvency is a national responsibility, but a com-

mon currency within the Euro Area causes unstable bank funding to spill over to other countries. A specific financial stability tool, distinct from interest rates, also avoids a common monetary policy from carrying a dual responsibility, which confuses the role of the European Central Bank.

Acknowledgements

We thank useful discussions on this theme with Jean Charles Rochet, André Sapir, Tim Besley, Viral Acharya, and policymakers from the ECB, the Bank of England, the US Federal Reserve Bank and the Nederlandsche Bank. All responsibility for the content is ours.

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