



BANK OF ENGLAND

Speech

Bank regulation: on the benefits of flexibility

Speech given by

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The views in the speech are my own but have benefited from contributions and discussions with Hugh Burns, Rachael Fitzpatrick, David Swallow, Andrew Whitworth, and Jon Cunliffe and Sam Woods for comments.

Good morning. Thank you for inviting me to give this speech today ahead of what promises to be an interesting day.

About a year ago I gave a speech at the Westminster Business Forum covering my views on the present and future of prudential bank regulation. I spoke of how the finalisation of so-called Basel 3.1 signalled that the wave of international banking regulatory reform following the Global Financial Crisis is now over. Yes, there are number of post-crisis reforms still to be implemented. But these are largely known quantities. At this stage in the policy cycle, you should not expect a lot of further 'big' reform of bank regulation.

This does not mean we are standing still.

As we complete the implementation of post-crisis reforms, our focus is pivoting towards maintaining the dynamic resilience of the regulatory framework. By this, I mean scanning the horizon for emerging and evolving risks, evaluating the functioning of the framework for unintended consequences, and where appropriate intervening to make adjustments in response to these while ensuring that we do not weaken the level of resilience we have built so far. As my colleague, Sam Woods, highlighted in a speech in May, we would like to keep our regulatory framework calibrated roughly where it is now and we have no desire whatsoever to weaken it.¹ At the same time, we will be flexible in responding to new risks, and opportunities and make adjustments when the evidence warrants it.

My speech has two parts. The first part is directly relevant to the conference agenda. I will share with you my three priorities on implementation issues for liquidity policy. The second part will be on a broader yet crucial topic - the future of financial regulation post-Brexit.

Liquidity policy: three priorities

Cashflow mismatch risk

Starting with liquidity policy – a major pillar of the post-crisis reforms.

Over the past decade, we have seen significant improvements in UK banks' resilience to, and preparedness for, the wide range of possible liquidity risks they could face, driven in a significant way by regulatory reform.

The wave of reforms in liquidity policy began around 2010 with the revised, quantitative liquidity regime introduced by the Financial Services Authority. Then there was the phased introduction of the Liquidity Coverage Ratio (LCR) from 2015. This saw firms build up a buffer of liquid assets for use in times of stress, initially equivalent to at least 80% of their expected net outflows under the LCR scenario, increasing to at

¹ See 'Stylish Regulation', a speech by Sam Woods, <https://www.bankofengland.co.uk/speech/2019/sam-woods-ubs-20th-annual-financial-institutions-conference-lausanne>

least 100% from the start of last year. Cumulatively, these reforms mean that UK banks now hold 65 percent more regulatory liquidity than they did in 2009 (Chart 1, Annex).

We have also been busy polishing the Pillar 2 liquidity aspects of the prudential framework, intended to address risks not captured, or not fully captured, by the LCR. Following the release of our Statement of Policy on Pillar 2 Liquidity last year, we have implemented updated methodologies to assess significant sources of liquidity risk outside the LCR framework. They include: intraday liquidity risk; the risk that a bank will have to meet non-contractual payments to protect its franchise; the risk of the need to post additional collateral for derivative contracts; or to tackle risks arising from prime brokerage businesses.²

However, there is another source of potentially significant liquidity risk, which we would like to be able to assess closely. This takes me to the first of my three priorities in this area: cashflow mismatch risk.

The LCR is an endpoint measure of a firm's cumulative liquidity needs over a 30-day period relative to its liquidity resources. As a result, even if a firm is meeting its LCR it could still experience a liquidity shortfall before day 30, due to a timing mismatch in the availability of liquidity resources or an inability to monetise sufficient non-cash assets on a given day. This is what we call cashflow mismatch risk.

From next month (July 2019), we will be implementing a new cashflow mismatch reporting template – the PRA110 – which will replace two, legacy FSA returns. This template builds on the EU maturity ladder and draws on LCR definitions, to align with current regulations and reduce the marginal burden on firms. As a part of our cashflow mismatch framework, these data will be used to ensure that, throughout the LCR stress and 30-day horizon, supervisors have sight of whether firms have sufficient liquidity to cover their liquidity needs on a daily basis; and enable supervisors to monitor, with daily granularity, liquidity mismatches which will occur during longer lasting or more severe stress events.

These data should also shine a light on unintended consequences, such as 'cliff risks' arising from firms pushing maturity mismatches just beyond the LCR's 30-day horizon.

NSFR

Looking further ahead - in both the liquidity and policy-making horizon – my second priority is the implementation of the Net Stable Funding Ratio (NSFR).

The purpose of the NSFR is to deal with similar risks to the LCR, but over a 12-month horizon with a less acute stress. The NSFR is calibrated so as not to impose a tight constraint to deposit-funded maturity

² Prudential Regulation Authority Statement of Policy, February 2018, <https://www.bankofengland.co.uk/prudential-regulation/publication/2018/pillar-2-liquidity>

transformation, which lies at the heart of the banking model. Instead its purpose is to act as a brake on rapid balance sheet expansions funded by short-term wholesale funding - a significant contributor to the stress seen during the financial crisis for many firms. And empirical research has shown that the NSFR adds explanatory value over and above liquid asset holdings and the capital and leverage ratios (Chart 2, Annex).³

The NSFR will be implemented in the EU through the Capital Requirements Regulation 2 (CRR2) in June 2021. How and when the NSFR will be implemented in the UK depends in part on the terms and timings of the UK's withdrawal from the EU. The Bank and the PRA remain committed in implementing international standards.

Encumbrance

This brings me to my third priority in liquidity policy: our commitment to review our approach to risks arising from firms' asset encumbrance positions.⁴

Assets are encumbered if they are subject to arrangements that restrict a firm's ability to freely transfer or realise them. A certain amount of asset encumbrance reflecting secured funding with private counterparties is useful: as part of a diversified funding strategy, it reduces funding costs and makes it more likely that a firm will be able to scale up issuance in stress. The PRA cares about the extent to which a firm encumbers assets in business-as-usual because this reduces what it will have left to use for generating secured funding in a stress – it's 'dry powder'. And at some point, asset encumbrance may start to make unsecured creditors nervous about which assets might be left for them in certain resolution scenarios.

PRA and EU policies already set out some requirements or expectations in respect of managing risk arising from asset encumbrance, and request some information from firms. But, in my view, there are good parallels with our revised supervisory approach to double leverage confirmed in April last year.⁵

There, the PRA reached a view that a double leverage limit would be too crude a measure to manage double leverage risks. This is because it is important to take into account individual firms' risk profile, risk mitigants or the drivers of double leverage in groups, and that a limit is not risk sensitive enough. Instead, the PRA developed and set out expectations of firms regarding their management of double leverage, placing the onus on firms to quantify and explain their use of double leverage and how they manage the related risks,

³ See Lallour, A. & Mio, H. (2016), "Do we need a stable funding ratio? Banks' funding in the global financial crisis", *Bank of England Staff Working Paper*, No. 602. This empirical perspective is in contrast to Cecchetti, S. & Kayshap, A. (2016), who develop a simplified bank balance sheet model in which the LCR and NSFR in theory largely overlap in their impact (see 'What Binds? Interactions between Bank Capital and Liquidity Regulations', available at: https://faculty.chicagobooth.edu/anil.kashyap/research/papers/What_Binds_Interactions-between-bank-capital-and-liquidity-regulations_2016.pdf).

⁴ This review is ongoing and coincides with a recommendation in Mark Zelmer's independent review of the supervision of the Co-operative Bank (see 'Independent review of the prudential supervision of The Co-operative Bank Plc', available at: <https://www.gov.uk/government/publications/independent-review-of-the-prudential-supervision-of-the-co-operative-bankplc>).

⁵ Prudential Regulation Authority Policy Statement 9/18 'Groups policy and double leverage', available at: <https://www.bankofengland.co.uk/prudential-regulation/publication/2017/groups-policy-and-double-leverage>.

and in particular the cash flow risks. It is possible that we will reach a similar view in relation to encumbrance as we develop our thinking over the summer. Watch this space!

This is all I had to say on liquidity. It illustrates our approach to policy-making post-finalisation of the international banking reforms. Finalisation of unfinished post-crisis implementation business; evaluation of finished business; response to emerging and evolving risks. All of which require a flexible evidence-based approach to policy making driven by practical supervisory and market experience and forward looking assessment of opportunities and risks.

The future regulatory framework

This takes me to the second part of my speech and to a broader issue – the post-Brexit future regulatory framework in the United Kingdom.

The United Kingdom's position as the leading international financial centre is premised on our commitment to robust prudential standards. High prudential standards mean that businesses and households can plan with the confidence that the UK financial system will continue to serve the economy in bad times as well as good.

Whatever form Brexit takes, under our mandate we remain committed to these robust standards.

The Bank and the PRA are also committed to working with international authorities in a spirit of responsible openness. This means promoting consistent implementation of international standards, leading the international debate on prudential standards, and encouraging further openness between jurisdictions, a point also made by Sam Woods last month.

Brexit naturally raises the question of what the future relationship with the EU for financial services will be. It also raises the overarching question of what the right prudential regulatory framework for the UK will be, given how much of the current framework is determined at European level.

As Sam said last month: maintaining the current EU-inherited regulatory framework '*would be undesirable if it came with the prospect of becoming a rule-taker in financial services with all the risks – both prudential, and as a matter of industrial policy – that entails.*'⁶

I agree, and I think it is particularly important that our future regulatory framework is dynamic and responsive, and allows UK regulators to make necessary adjustments to that framework to reflect technological, economic and social change.

⁶ See footnote 1.

Innovation and dynamism

The Bank is committed to supporting responsible innovation in the UK's financial system. Last week, Huw Van Steenis published his report on the Future of Finance. This suggested ways the UK financial system might develop and what we, in the Bank, might need to do to facilitate this. The Governor set out the main elements of the Bank's response in his Mansion House speech, which the Bank published at the same time. This shows how important we think financial innovation is for the future of finance in the UK, and how the Bank can seize its opportunities while guarding the financial system against associated risks, in accordance with our mandate.

We already have experience working with this kind of change. The UK has the largest number of digital-only 'neobanks' in Europe, with 15 licenses granted since 2005. A survey by finder.com, found that 9% of British adults have accounts with neobanks.⁷

The PRA has authorised six fintech firms as full banks since 2015, and we currently have 17 firms in pre- or live application. This compares to 29 non-fintech firms. When it comes to technological innovation in finance, the future is already here.

If the UK is to seize the opportunities offered by innovation, we will need to maintain a flexible, supportive - and robust - regulatory regime. As regulators, we can only do this if we are forward-looking, learn from practical supervisory and broader central bank experience, and fully engage with industry.

Being able to flexibly amend our rulebook so that we can continue to achieve our objectives is a necessary element for achieving this vision. The Bank and the PRA are already making active use of the flexibility we have under the current regime. To give a few examples of relevant areas where we have been flexible, or where we are actively considering being flexible in future:

Example 1: We managed to make the process of approving internal risk models simpler for firms, without compromising on rigour. Within the constraints of CRR, the PRA clarified our expectations on how firms can demonstrate that they meet the CRR requirements on 'prior experience' of using IRB approaches.⁸ Provided that they receive PRA approval, it's not just smaller banks that can make use of internal models but innovative, tech-based firms could also take advantage of this.

Example 2: We are reviewing operational resilience (jointly with the FCA) and outsourcing requirements – we will consult on these topics later this year. As we announced last week, these will clarify the PRA's expectations on outsourcing to the Cloud and to other technology service providers - taking into account the

⁷ Both statistics according to: *The Economist*, 'Neobanks are changing Britain's banking landscape', 2 May 2019

⁸ 'Internal Ratings Based (IRB) approach: clarifying PRA expectations', Policy Statement 23/17, October 2017

potential operational and cyber benefits of the cloud, particularly for smaller financial institutions, alongside the risks that would need to be managed.

Example 3: As the Governor said at Mansion House last week, we are looking at how the use of 'new regulatory reporting technology (also known as 'RegTech') could deliver potentially significant efficiency benefits to both firms and supervisors. RegTech has the potential to make data collections simultaneously more timely and useful for us, while less onerous for firms. And as part of our work on Regtech, we are also looking at ways of updating the PRA's Rulebook so that it supports our future regime. Partly this is about making our rulebook machine readable and potentially machine executable. But it also means looking at whether we can simplify the rulebook in some areas to allow supervisors to more effectively implement rules. To deliver some of the benefits, it will be important that regulators have the powers to update rules flexibly. Some types of rules will not lend themselves to some aspects of Regtech because they inherently rely on human judgement, others will. And as the people closest to our regulatory regime, supervisors, resolution specialists and our market specialists are best placed to provide this judgment.

Independence and accountability

In my view, the best way to achieve this kind of robust and flexible regulatory framework is by giving responsibility for the technical detail of regulatory rules to an independent, expert regulator with strong accountability mechanisms.

That is common practice internationally: the EU was an international outlier in implementing much of Basel 3 through 'Level 1' legislation (which is adopted by the European Parliament and Council), given its unique supranational nature and its single market objectives. All other Basel Committee member central banks and regulators (other than Switzerland) implemented Basel 3 standards through independent regulators.

Closer to home, empowered independent regulators are also the norm across a wide range of sectors in the UK – from communications and broadcasting to nuclear safety. The majority of domestic regulators have the ability to set standards and there is a spectrum of how far these resemble financial regulators' rule-making powers in terms of specificity, the degree to which standards are binding, and legal enforcement. For example, Ofcom has powers under the Communications Act 2003 and the Broadcasting Act 1996 to set standards in the Ofcom Broadcasting Code, as well as extensive enforcement powers.

Compared with other sectors, rule-making powers may be even more important in financial regulation for a combination of three reasons.

First, it is often more efficient and effective to deal with technical and complex matters in rules made by the regulator. This is because of the synergies with an independent regulator's supervisory functions – giving the

organisation's front-line expertise about the effect rules are having in the marketplace – and the dedicated resources the regulator can bring to bear on regulatory issues.

Second, regulation operates against a background of markets for regulated products and services continuously developing, in some cases very rapidly. For example, other domestic regulators have comparably complex standards, e.g. the Office for Nuclear Regulation, but these are not as obviously set against rapid industry changes.

These two reasons were cited in material accompanying the Financial Services Bill introduced in 2012 and were underlying the Financial Services and Markets Act back in 2000.⁹

A third reason is more recent. It is to ensure that macroprudential policy – a cornerstone policy innovation of post-crisis reform – can be effective.

An important objective of macroprudential policy is to build resilience during times when risks are elevated so that the financial system can support the real economy when risks crystallise.

By definition, the effective setting of such, time-varying, macroprudential policy depends on the most current and recent assessment of risks in the financial system and in the timeliness of policy action.

As macroprudential policy operates through microprudential regulatory rules, regulatory flexibility is of essence.

In the absence of regulators being able to adapt rules in response to risks, macroprudential policy will be weakened and incentives to stoke credit booms will be strengthened.

We now have enough research on the credit cycle to know that if this happens again, so will the probability of another financial crisis.¹⁰ As Chuck Prince put it, at the tail end of the previous credit boom: "When the music stops, in terms of liquidity, things will be complicated. But as long as the music is playing, you've got to get up and dance. We're still dancing."¹¹ Well, I have already talked about what we have done to turn down the liquidity music. But if regulators don't have the ability to adjust the volume, or to put it in regulatory language, flexibly adapt their rule book, we risk returning to the pre-crisis world of dancing till banks drop – and the rest of us with them.

⁹ Financial Services Bill, Delegated Powers Memorandum, 2012, paragraph 10: <https://www.parliament.uk/documents/DPRR/2012-13/Financial-Services-Bill/Financial-Services-Bill-Delegated-Powers-Memo-24-05-12.pdf>

¹⁰ See for example: Schularick, Moritz, and Alan M. Taylor. 2012. "Credit Booms Gone Bust: Monetary Policy, Leverage Cycles, and Financial Crises, 1870-2008." *American Economic Review*, 102 (2): 1029-61; David Aikman & Jonathan Bridges & Anil Kashyap & Caspar Siebert, 2019.

"Would Macroprudential Regulation Have Prevented the Last Crisis?," *Journal of Economic Perspectives*, American Economic Association, vol. 33(1), pages 107-130, Winter; Stijn Claessens & Ayhan Kose, 2013; "Financial Crises Explanations, Types, and Implications," IMF Working Papers 13/28, International Monetary Fund.

¹¹ *Financial Times*, 'Citigroup chief stays bullish on buy-outs', 9 July 2007.

The Bank and PRA can make good use of rule-making powers because of the strong synergies across the supervisory, policy and other central banking functions. Our wider central banking and financial stability functions mean we already need to take a long-term, strategic view of how the economy and financial system are evolving, which brings another important perspective to our prudential rule-making. For example, in July 2016, after the referendum on the UK leaving the EU, we excluded central bank reserves from the UK leverage exposure measure to avoid an unwanted tightening of firms' leverage ratios. At the same time, to ensure banks' resilience was not undermined, this exclusion was offset by an increase in the leverage ratio to 3.25%. This two-step reform was to ensure that the exclusion mitigated the risk that the leverage ratio might impede monetary policy actions, but also that it did not alter capital standards as a result of adjusting the definition of the exposure measure. By taking into account alternative perspectives across the Bank and PRA, we were able to respond in a way that fulfilled our core central banking objectives of monetary and financial stability simultaneously.

Of course there is always a potential risk that independent, sectoral regulators become too close to the industries they regulate. We need to take this risk seriously. But the best way to do this is through giving the regulator clear, stable, democratically-mandated objectives on a statutory footing. And with robust accountability mechanisms to hold the regulator to these objectives.

An independent regulator can only work if we have strong arrangements for accountability. By enhancing the regime's legitimacy, robust accountability arrangements make the regime more sustainable. We see this with the UK regime. The Bank and PRA already have robust accountability arrangements. This includes frequent Parliamentary committee hearings across the Bank's overall mandate - 23 in 2018 alone. According to a 2017 Bank of International Settlements report the Bank is the fourth most accountable central bank of the 26 assessed, by number of appearances to Parliament. Second when only looking at major economies.¹²

And the statutory framework is strong. The PRA's objectives require us not just to promote the safety and soundness of firms we regulate by seeking to avoid adverse effects firms may have on stability in the UK, but also secondarily to act in a way that facilitates effective competition where possible. This ensures our regulation supports innovation, rather than stifling it. And it is competition and innovation that drive international competitiveness, not loose regulatory standards. The PRA also must 'have regard' to a range of important regulatory principles, such as proportionality, appropriate consumer responsibility, efficiency, and transparency.¹³ And the Treasury writes regularly to the FPC and PRC to specify the government's economic policy and make relevant recommendations. The PRA is obliged to consult the public on policy changes and to carry out cost benefit analyses to justify rule changes. A Practitioners' Panel, drawn from industry provides feedback on our policy development and supervisory approach.

¹² Bank of International Settlements, 'Parliamentary testimony by central banks', 28 April 2017 (restricted).

¹³ FSMA 2000, section 3b.

We also take evaluating our own actions seriously. The Bank is the only central bank to have an Independent Evaluation Office - an arm's-length permanent evaluation function that assesses performance across the full breadth of central banking activities. And when lessons are to be learned we cooperate closely with independent reviews of our supervision: as we have done recently regarding the Co-operative Bank.

So we already have robust accountability mechanisms – by some measures some of the most robust among comparable jurisdictions. But we may need to update them to make sure they are as robust as can be as we in the PRA make use of our independence to facilitate competition, support innovation and ensure we can respond to the opportunities and risks of the future in a flexible way.

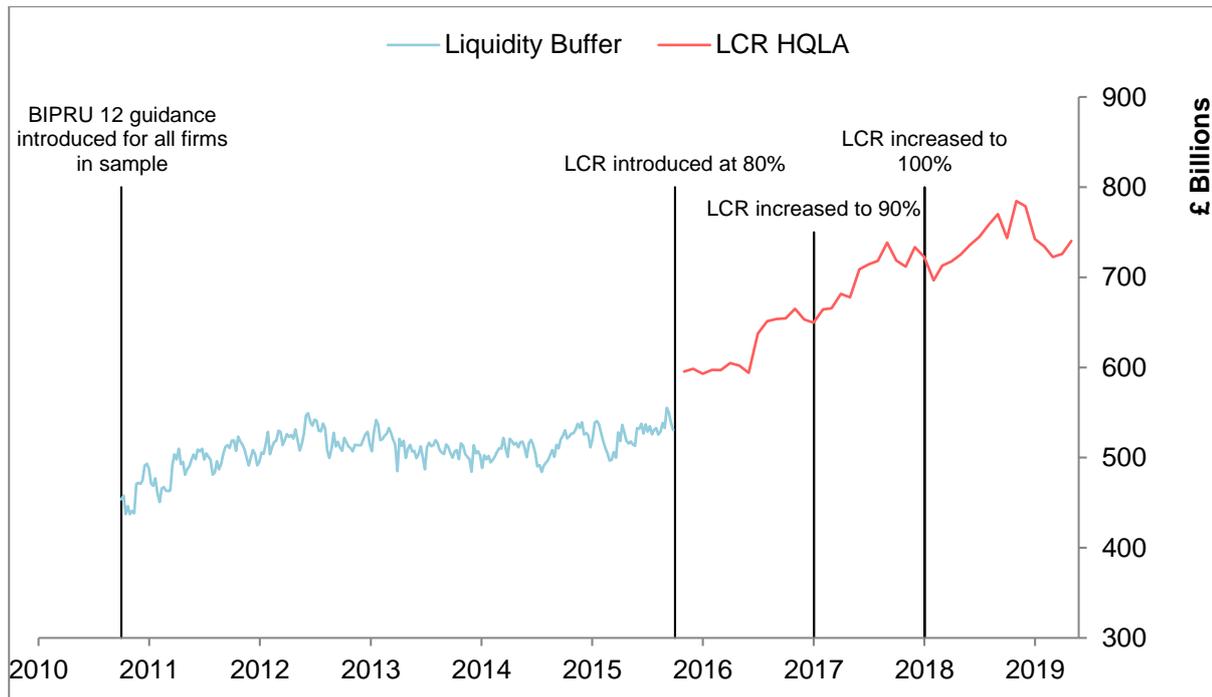
Conclusion

After more than 10 years of reforms since the global financial crisis, my job as a prudential regulator is to adjust the rough edges of a largely completed set of banking reforms in response to unintended consequences, new risks and opportunities – such as those I described in relation to liquidity policy.

But the biggest change to finance is coming from technology. This poses many opportunities as well as risks. It is crucial that post Brexit, UK regulators have the powers and tools to respond to them, as well as challenges from climate change and demographics, amongst others, flexibly in support of a vibrant and resilient UK financial system.

ANNEX

Chart 1: UK banks' holdings of liquid assets ^{(a)(b)(c)(d)}



Source: PRA regulatory returns

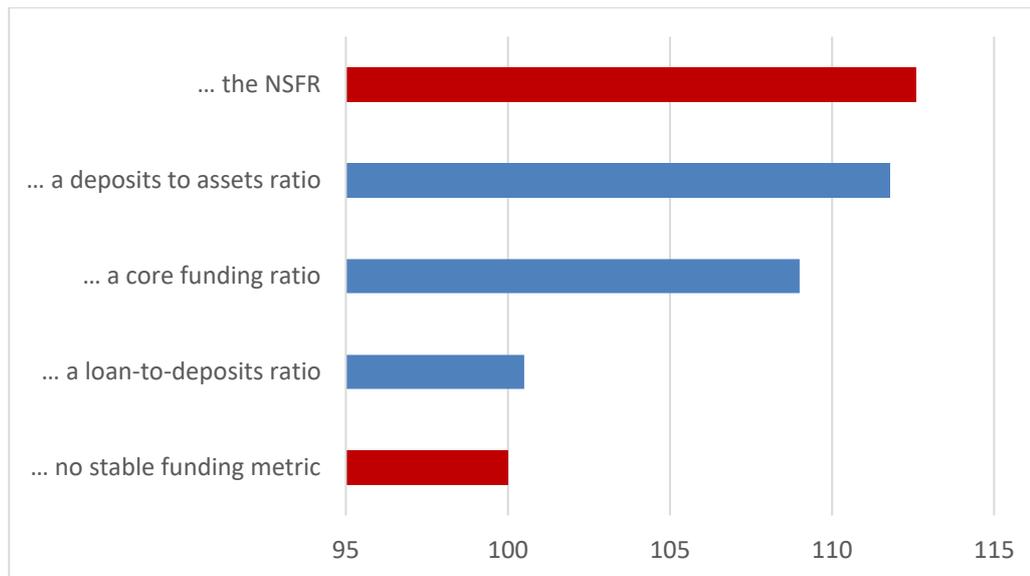
(a) UK banks are Barclays, HSBC, Lloyds, Nationwide, RBS, Santander UK and Standard Chartered.

(b) Liquidity buffer refers to the liquidity held under the BIPRU 12 regime (reported weekly).

(c) LCR HQLA refers to high quality liquid assets under the EU Delegated Act (reported monthly since October 2015).

(d) Definition of liquid assets is broader under the LCR.

Chart 2: Predictive power of a multivariate logit model of bank failure, with...^(a)



Source: Lallour & Mio (2016), Table 3, page 27.

(a) Predictive power benchmarked against model including no stable funding metric; uses a linear transformation of the Akaike Information Criterion, which expresses the trade-off between model parsimony and predictive power.

Chart 2 (adapted from Lallour and Mio 2016) uses detailed balance sheet data for a sample of 121 banks (located in 30 countries, mostly in Europe and North America) at end 2006. The authors investigate the power of stable funding ratios as predictors of bank failures during the crisis (i.e. as counterfactually effective financial stability policies, had they been in place before the crisis). They use a broad definition of bank failure which includes bankruptcy, nationalisation, distressed sale to a competitor, individual and collective capital injections and government guarantees. The multivariate model employed included controls for a leverage ratio, a capital ratio, and an LCR proxy (i.e. a liquid asset ratio). This chart compares the predictive power of different multivariate models according to the structural funding ratio included.