Vítor Constâncio: Margins and haircuts as a macroprudential tool

Remarks by Mr Vítor Constâncio, Vice-President of the European Central Bank, at the ESRB Conference on Macroprudential Margins and Haircuts, Frankfurt am Main, 6 June 2016.

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The Footnotes can be found at the end of the speech.

Ladies and Gentlemen,

It is a pleasure to speak here today at the ESRB conference on macroprudential margins and haircuts. In my view, macroprudential margins and haircuts have the potential to become tools for controlling the build-up of excessive leverage in the financial system. Importantly, these tools would reach beyond the banking system and also address the build-up of leverage and liquidity risks in parts of the financial system, where we have seen rapid growth in recent years. Before I elaborate further on the specific need for macroprudential margins and haircuts, possible tools and how to implement them, allow me to set a more general stage for the important discussions we will be having and briefly touch upon a key lesson from the history of financial crises.

In recent years, convincing evidence has been provided showing that excessive leverage, credit booms and subsequent de-leveraging episodes were at the heart of recurrent episodes of financial instability since the late 19th century.[1] Let me single out two major crises where the build-up of leverage and the subsequent de-leveraging played a key role.

First, the stock market bubble of 1927–1929 and the subsequent "Great Crash" of 1929 were accompanied by an extraordinary growth followed by contraction of leveraged trading in stock markets, amplified by margin calls.[2] The ensuing Great Depression brought real, severe economic consequences. While there is still debate on its ultimate causes, the Great Crash is widely considered as a major factor. Notably, the Great Crash motivated the establishment of the so-called "Regulation T" which allowed the Federal Reserve Board to set minimum margins for partially loan-financed transactions of stocks. And from 1947 until 1974, the Federal Reserve Board frequently changed these minimum margin requirements. The evidence on the success of this macroprudential tool in curbing excessive credit in securities transactions and stock market volatility is at best mixed.[3] Importantly, however, the limited scope of Regulation T – which allowed investors to avoid its impact by substituting other forms of borrowing for margin loans – has been identified as a key flaw.[4] I will return to this issue later on in this talk.

The second major crisis – the 2007–2009 global financial crisis – is still fresh in our minds. The build-up of excessive leverage and subsequent deleveraging in the banking sector[5] and within financial markets more generally[6], is widely viewed as one of the main causes of the global financial crisis. Notably, an important conclusion of this literature is that leverage and liquidity were closely interlinked and reinforced the stress in the financial system.

One of the key lessons from the history of financial crises is that the negative externalities of excessive leverage and associated liquidity risks that give rise to systemic risk provide a fundamental rationale for macroprudential policies. These limit the build-up of leverage in the financial system in a pre-emptive manner. In pursuit of excess returns, market participants engage in excessive leverage without internalizing systemic costs of their risk-taking behaviour. These comprise spillovers to counterparties and financial networks[7] or asset price declines triggered by fire sales.[8] A large and growing literature[9] supports the conclusion that these systemic externalities of excessive leverage call for macroprudential policies that restrict the use of leverage pre-emptively, as a way to improve general welfare.

The next crisis will likely come in a different form and perhaps involve different markets and entities, but history tells us that it is a fair bet to say that excessive leverage will again play a major role. To the extent that derivatives and securities financing transactions (SFTs) are the main means to create leverage, in particular in the non-bank financial sector, this calls for pre-emptive regulatory action in these markets. Let me now explain in more detail why I believe we should equip macroprudential authorities with the power to set margins and haircuts.

Macroprudential margins and haircuts as tools to control leverage and avoid liquidity spirals

Margins and haircuts are a determinant of the build-up of leverage via derivatives and SFTs, and are strongly interlinked with the procyclicality of that leverage. For derivatives, the initial margin determines the amount of exposure that can be created for a given amount of equity. In turn, the size of the haircut on SFT collateral, particularly in repos, determines the amount of funding market players can obtain for a given amount of collateral.

Importantly, in the current situation where margin- and haircut-setting is left to the discretion of market participants, margins and haircuts are strongly procyclical.[10] In exuberant times, low volatility and risk-aversion as well as competitive pressure lead to low margins and haircuts, supporting the build-up of leverage. When the cycle turns, higher volatility and higher risk aversion feed into higher margins and haircuts, amplifying de-leveraging pressures. As a result, a vicious cycle can emerge, where higher margins and haircuts force de-leveraging and more sales, generating a liquidity spiral. That is what Gary Gorton called "the run on repo" during the recent financial crisis.

The crisis revealed the important contribution of these dynamics in derivatives and SFT markets to systemic stress. Financial stability concerns related to derivatives and SFTs are now widely discussed in a growing academic literature, highlighting the systemic relevance of these markets.[11] For derivatives, the most prominent example relates to the case of AIG whose significant positions in credit default swaps were a major factor that triggered its bail-out. The build-up of its large derivative portfolio was facilitated by the ability to avoid posting margin on these trades, creating serious stress when facing margin calls. For SFTs, particularly repos, a key concern relates to excessive reliance on short-term wholesale funding via these transactions. Indeed, SFTs were identified as a major source of leverage in the financial system and as an important determinant of banks' vulnerability to funding and liquidity shocks. For example, evidence for US broker dealers showed that their leverage was strongly procyclical and changes in repos were the primary driver of adjustments in their balance sheets.[12]

In regulatory circles, the potential for setting margins and haircuts as a policy tool to address systemic risks in derivatives and SFT markets was already identified shortly after the global financial crisis. Indeed, the Committee on the Global Financial System (CGFS) concluded that margining practices in OTC derivatives and haircut-setting in SFTs are a source of procyclicality in the financial system, and recommended enhancements to these practices in order to dampen the build-up of leverage in good times and soften the system-wide effects in bad times.[13] Furthermore, the CGFS encouraged macroprudential authorities to consider measures that involve countercyclical variations in margins and haircuts.

Since then, regulatory progress has been made to limit systemic risk arising in derivatives and SFT markets. In 2009, the G20 committed to major reforms in the OTC derivatives market, including the aim to significantly increase central clearing of derivatives and, where appropriate, to move them to organised markets. Moreover, several reform packages have been agreed at the international level. These include the Financial Stability Board (FSB) *"Regulatory framework for haircuts on non-centrally cleared SFTs"[14] , the FSB work on "Standards and Processes for Global Securities Financing Data Collection and Aggregation",* the Basel Committee on Banking Supervision (BCBS) and Board of the International Organization of Securities Commissions (IOSCO) *"Margin requirements for non-centrally cleared derivatives*[15] and the Committee on Payments and Market Infrastructure and IOSCO *"Principles for financial market infrastructures for cleared transactions"*.[16] One aim these rules have in common is to limit the procyclical effects of margins and haircuts: for example, the BCBS-IOSCO rules authorise the inclusion of periods of stress in internal models and provide for standardised margin and haircut schedules as an alternative to calculations with internal models. In turn, the FSB minimum haircut framework provides for a backstop against excessively low haircuts. At the EU level, a large part of the international framework have been already implemented in the *European Market Infrastructure Regulation (EMIR) and the Securities Financing Transactions Regulation* (SFTR).

However, there are some limitations in these current frameworks. For example, with respect to the scope of coverage, the framework for non-centrally cleared OTC derivatives exempts counterparties with gross notional OTC exposures below EUR 8 billion – an uncomfortable high threshold in my view, effectively exempting a large number of non-bank financial entities from the shadow banking sector. More importantly, none of the current rules covering derivatives and SFTs provide authorities with specific macroprudential tools to set, and if necessary, change minimum margin and haircut levels to prevent the build-up of excessive leverage in the financial system. While both the BCBS-IOSCO margin framework as well as the FSB minimum haircuts framework note the possibility for national authorities to use macroprudential margins and haircuts, such tools have not yet been developed and implemented in Europe to date.

What tools should be made available

The key question that comes up is: what macroprudential tools should be made available to competent authorities? What tools can be effective both in limiting the build-up of leverage and in dampening the procyclical and potentially destabilizing influence of margin and haircut increases in the downturn of the cycle? In the ECB's response to the European Commission's consultation on the review of the European Market Infrastructure Regulation (EMIR), *we suggested "that macroprudential intervention tools be included in Level 1 of EMIR" and noted "two policy instruments that potentially could reduce or limit leverage through derivatives and SFTs and the pro-cyclicality of margins and haircuts: (a) permanent minimum requirements, and (b) time-varying minimum requirements or buffers.*[17]

" More specifically:

"Permanent minimum margin requirements and haircuts

Floors on margins and haircuts help to limit the build-up of leverage in a benign market environment and reduce the size of any "shock effect" of a sudden increase of margins and haircuts.

Time-varying minimum requirements/buffers

Time-varying minimum margin and haircut requirements can either be applied by introducing minimum requirements that are varied over time or by applying a countercyclical add-on on top of existing minimum margin requirements. The aim is to reduce leverage in the expansionary part of the financial cycle, but it may also reduce the "shock effect" of sudden margin increases by ensuring that any increase in margins due to increased volatility happens from a higher level. It should be emphasised that recourse to such tools would not lead CCPs to be under-margined with respect to the financial risks they face. These requirements would still allow CCPs to set margins and haircuts above the levels specified by the macro-prudential authority."

A Special Feature article[18] in the latest ECB *Financial Stability Review* provides further analyses of the merits of these different policy tools. Allow me to share these analytical results, before I conclude on how to implement such macroprudential tools in practice. The Special Feature combines recent theoretical insights[19] with a new empirical analysis[20]. The key results are threefold.

First, macroprudential powers to set margins and haircuts should have a broad scope. That is, any regulation should capture both derivatives and SFTs, and both centrally cleared and non-centrally cleared transactions. This is a key result from the calibrated general equilibrium model which shows that regulation with limited coverage is doomed to be ineffective due to leakages. Notably, the potential for regulatory arbitrage in case of tools that only target specific markets is a central issue in macroprudential policy more generally. Moreover, as I already noted, research shows that the fact that the Federal Reserve Board had the limited power to only set time-varying margins on listed equities bought on margin, was an important reason for the limited effectiveness of Regulation T in the decades after the Great Crash of 1929.[21]

The second key result is that setting minimum margins and haircut floors – on a broad scale – would limit the build-up of leverage and reduce the procyclicality of current margin and haircut setting practices. With minimum margins and haircuts, the same minimum quantitative requirements would apply over the financial cycle. Basically, such a minimum floor assures conservative margins and haircuts, and would have prevented the very low baseline margin and haircut levels that we have seen before the global financial crisis.[22]

Importantly, introducing minimum floors can also limit the need for market participants to raise margins and haircuts in a downturn, since the initial margin and haircut levels are already higher when the cycle turns.

Third, and finally, both the theoretical and empirical results suggest that allowing competent authorities to add time-varying add-ons on top of minimum margin and haircut requirements could have the potential to increase welfare even more than a minimum floor would.

Overall, the theoretical and empirical findings in the Special Feature support intervention powers for macroprudential authorities. Taken together, the key message is that only a comprehensive regulation of margins and haircuts applied on several different types of securities or transactions can reduce the build-up of leverage and asset market volatility in an economically meaningful way.

In practice, I envisage minimum margins and haircut floors on both centrally cleared and non-cleared derivatives and SFTs as an essential reform to enhance the resilience of the financial system.

Let me now step away from these analytical underpinnings and conclude with some thoughts on how to design and implement such macroprudential tools in practice, and the challenges we face.

How to design and implement a macroprudential framework for margins and haircuts

The existing evidence and experience in previous crises in my view presents a case for providing macroprudential authorities with the power to intervene in margin and haircut requirements. For the next steps of designing and implementing such a framework, there is a range of practical and governance issues that need to be overcome and agreed upon.[23] Let me outline three important issues that warrant special attention:

First, to facilitate implementation and to ensure that macroprudential tools effectively complement existing microprudential rules on margin and haircut setting practices, the macroprudential framework should build on the current regulatory frameworks and policy recommendations as applicable to derivatives and SFTs, at the EU and global level. These frameworks include standardised margin and haircut schedules that are simple and transparent and should form the basis for setting macroprudential margins and haircuts. These schedules would serve as a starting point to calibrate minimum margins for the various classes of derivatives, as well as for minimum haircuts applied to different types of securities serving as collateral.

Second, ensuring non-bank entities are appropriately affected by margins and haircut requirements would be a key aspect of any future macroprudential regime. To a significant extent, non-banks currently access derivatives markets indirectly by channelling their activity through larger financial institutions, which act as principals to the transactions. Macroprudential tools would need to be designed at the level of transactions and their participants to ensure they can be fully "passed through" to non-banks.

Last, the calibration and institutional design of the tools would need to avoid arbitrage across products and across jurisdictions: the tools would need to be applied consistently across cleared and uncleared transactions so as to preclude a shift away from central clearing. The tools would also need to be designed in such a way that counterparties cannot evade them by booking their transactions in a different jurisdiction. A sound implementation principle would be to apply these tools directly to transactions, regardless of the market, jurisdiction or infrastructure where the transactions were booked. One way to ensure consistency and avoid arbitrage would be to set these requirements via market-wide regulation in Union law, in line with the implementation approach recommended by the FSB for their minimum haircut framework. With such an approach, any derivative transaction or SFT by a European entity would be subject to a margin or haircut floor, irrespective of whether this transaction is with an EU or non-EU counterparty or of the centrally clearing entity used.

Conclusion

Let me conclude. As I stated in a recent speech, one of the overarching principles of macroprudential policy is to act in a pre-emptive and strongly counter-cyclical manner against the build-up of systemic risk.[24] To fulfil this role, macroprudential authorities need to be equipped with tailor-made tools. For the banking sector, macroprudential policy is already operational. However, we need to avoid that reforming regulation on banks increases the incentives for risky leverage build-up outside the banking sector. Non-banks and market-based financing expanded enormously and their role in financing the economy continues to grow at a fast pace. This diversification of finance sources has many positive aspects. However, it enhances the responsibility of regulators in ensuring that it does not lead to the build-up of systemic risk.

Thank you for your attention.

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[22] See i.e. Gorton, G., & Metrick, A. (2012). Securitized banking and the run on repo. *Journal of Financial Economics*, 104(3), 425–451.

[23] See also Battistini, N., M. Grill, P. Marmara and K. van der Veer (2016), A case for macroprudential margins and haircuts, Special Feature A in *ECB Financial Stability Review*, May, 110–119.

[24] V. Constâncio "Principles of Macroprudential Policy", speech at the ECB-IMF Conference on Macroprudential Policy, Frankfurt am Main, 26 April 2016