Comment

Augusto de la Torre: Fernández de Lis and García-Herrero focus on a novel form of prudential regulation—namely, countercyclical (or dynamic) provisioning requirements. These were first introduced more than a decade ago in Spain, in July 2000. At the time, they were strongly opposed by the affected banks, international accounting bodies, and free-market advocates, but such measures are now seen as a valid regulatory option within the rapidly emerging and still fluid macroprudential policy agenda.¹

The paper discusses issues in the design and implementation of the dynamic provisioning regimes in Spain (the oldest system), Colombia and Peru (newer systems, introduced in 2007 and 2008, respectively). While the authors explore the implementation of the Spanish regulations in greater depth because of the longer application period, in all three cases the analysis covers the relevant issues, including the choice between system-based versus institution-specific criteria, the degree of reliance on rules versus discretion, the allowable uses of accumulated dynamic provisions, their accounting treatment, and their tax deductibility. The comparative discussion clearly illustrates that while the differences across the three regimes are numerous and nontrivial, important general lessons can still be extracted. The paper does not attempt a quantitative analysis of impact, but it does provide a rich qualitative examination of comparative policy experiences. The paper is an important contribution to the macroprudential policy debate and provides an informative and balanced assessment of some of the key issues at stake in the field of countercyclical prudential norms.

I concentrate my comments on alternative rationales for countercyclical provisions, their implications for regulatory design, and some of the associated tensions and trade-offs. According to the paper, the rationale for countercyclical

^{1.} However, for purely practical rather than theoretical reasons, the ongoing Basel III discussion has moved in favor of countercyclical capital instead of countercyclical provisions.

provisions stems from the systematic procyclical bias observed in financial systems. Accordingly, the draft paper reviewed reasons behind such bias, highlighting the distortions from remuneration systems (bonuses) and competition pressures, both of which lead to the underpricing of risk during good times. The revised version of the paper provides a more extensive literature review, pointing to ten possible reasons for procyclicality, which range from short-sightedness to collateral constraints, herd behavior, and financial regulation itself. Useful as this review is, it falls short of providing a satisfactory rationale. To be sure, a careful, solid grounding of macroprudential policy on economic first principles is still a pending task and goes beyond the scope of the paper.² Nonetheless, it is hard to see why procyclicality per se warrants a regulatory response, especially considering that financial fluctuations may well reflect fundamental factors that are themselves procyclical. For example, authentic investment opportunities rise in the upswing of the business cycle, leading to a concomitant procyclical rise in credit demand. Similarly, financial activity is likely to follow the cycles associated with the Schumpeterian process of creative destruction. Moreover, as the authors themselves recognize, a rapid expansion of credit during the upswing phase of the business cycle can simply reflect sustainable financial deepening, rather than socially undesirable financial procyclicality.

In sum, financial procyclicality per se does not logically justify the introduction of dynamic provisions. Such a policy response would need to be justified by the joint existence of two conditions: a clear identification of the market failures that lead to procyclical financial trajectories that deviate from fundamentals; and a well-argued case that the resulting market equilibrium is constrained inefficient, that is, that the state has a comparative advantage over the market to improve the equilibrium. The second condition is as crucial as the first—determining that the market equilibrium is inefficient is a separate issue from assessing whether the state faces the same constraints as the private sector or, instead, has a special capacity that the market lacks to effect a Pareto-improving move via policy.

Firming up the rationale for macroprudential regulation is essential for appropriate policy design in general and for dynamic provisions design in particular. Research that I am jointly conducting with Alain Ize suggests that high payoffs can be obtained in exploring the policy rationale by distinguishing between three analytical lenses (or paradigms) that depend on the type of frictions and associated market failures that are emphasized. In all three cases,

2. See de la Torre and Ize (2013).

aggregate risk has to be a central part of the picture, for it is arguably impossible to justify macroprudential policy in a world of purely idiosyncratic risk.

The first paradigm (called the agency paradigm) emphasizes principal-agent incentives, which can be thrown out of equilibrium by an aggregate shock. In this case, regulatory authorities, acting on behalf of small and unso-phisticated investors, are called to recalibrate capital or provisioning requirements as needed in order to realign principal-agent incentives and prevent sophisticated investors from making one-sided bets that take advantage of (and use the money of) the unsophisticated agents. In this case, "excessive" financial procyclicality would reflect the failure of the regulator to adequately represent unsophisticated investors. Under these circumstances, dynamic provisions aimed at realigning incentives (and thus at reinforcing market discipline) would be justified under the traditional theory of delegated supervision.³

The second paradigm (the collective action paradigm) emphasizes collective action problems (such as uninternalized externalities, coordination failures, and free riding) that typically interact with agency constraints (such as collateral constraints or asymmetric information). To the extent that financial intermediaries do not take into account the systemic impact of their individual actions, institutions can reach an "excessive" size (from the social perspective) or take on "excessive" credit risk in good times, followed by "excessive" deleveraging and fire sales in bad times. This type of market failure provides a new and powerful rationale for macroprudential intervention—that of inducing the internalization of externalities. This can be done, say, via price-based interventions (for example, Pigovian taxes on credit, dynamic provisioning requirements aimed at dampening the amplitude of cyclical fluctuations, or capital charges proportional to the systemic footprint of the intermediary) or quantity-based interventions (such as caps on size or functional segmentations to limit interconnectedness). In this case, regulators act on behalf not of the unsophisticated market participants, but rather of society at large, and macroprudential policy is aimed at correcting (rather than boosting) market forces.

The third paradigm (the collective cognition paradigm) emphasizes collective cognition limitations (or bounded rationality) interacting with Knightian uncertainty. They can lead to mood swings, that is, to bouts of exuberant optimism followed by bouts of panic and extreme risk and uncertainty aversion. Mood swings provide yet another and much more challenging role for macroprudential policy—that of guiding markets so that they evolve along sustainable trajectories. Whether the state is able to do so is, of course, a tough

3. Dewatripont and Tirole (1994).

64 ECONOMIA, Spring 2013

question, given that the state itself is an agent that can fall prey to principal-agent distortions, coordination problems, and irrational exuberance. But if there is any scope for the state to improve the market equilibrium in the face of mood swings, it would be not because the state knows better than the market, but because it has a comparative advantage over the market in resolving collective action problems—that is, because of the traditional public-good considerations for policy.

The objectives and design of dynamic provisions are not independent of the paradigm through which finance is seen. The discussion in the paper by Fernández de Lis and García-Herrero makes it clear that the authorities in Spain, Colombia, and Peru had different and often muddled rationales in mind when setting up their respective dynamic provisioning regimes. However, the predominant thinking seems to have been more akin to the agency paradigm, especially in Spain and Colombia. This can be gleaned from the fact that, despite their ostensible intention of dampening the amplitude of the credit cycle, the authorities in both countries based much of the design of their dynamic provisioning regimes on bank-specific characteristics (that is, the credit behavior and the risk composition of the credit portfolios of individual banks). Dynamic provisions in these two cases aimed more at buffering than at dampening—that is, at ensuring that the banking boats were better built to resist financial waves, rather than at reducing the size of the waves. Congruently with the buffering function and institution-specific focus, the authorities in Spain and Colombia implemented (or evolved toward) completely rulesbased systems. Peru, by contrast, seems to have been more concerned about uninternalized externalities, given that the criterion to activate or deactivate dynamic provisions was linked to a systemic variable—namely, the rate of GDP growth. Despite its system-based trigger, the Peruvian regime was rules based and left no room for discretion. To be sure, both Colombia and Peru used another macroprudential tool alongside dynamic provisions, namely, the legal reserve requirement. This tool relied more on central bank discretion and was thus more suited to the dampening objective, especially where mood swings are a key source of policy concern.4

The authors highlight the interesting asymmetry in market behavior, which they label asymmetric market discipline. By that, they mean the tendency of financial markets to be "too lenient in good times and too strict in bad times." One wonders, however, whether market discipline is the right term to use,

4. See Federico, Végh, and Vuletin (2013a, 2013b); de la Torre and Ize (2013).

for it conjures images of market forces leading to efficient market outcomes. Again, the answer depends on the paradigm. If uninternalized externalities or mood swings are the driving forces behind procyclicality, market discipline is really not a part of the story, neither in good times nor in bad times. Hence, under the collective action and collective cognitions paradigms, what the authors call asymmetric market discipline is simply a manifestation of market under- and overreaction relative to what is warranted by fundamentals.

Finally, the authors insightfully assess some of the pros and cons of the three dynamic provisioning regimes. They note, in particular, that the institution-specific focus of dynamic provisions in Spain and Colombia tended to penalize the institutions that gained market share because they were more efficient. By contrast, the systemwide focus of the Peruvian regime tended to penalize the more prudent institutions. In doing so, the authors are actually hinting at a much deeper issue in macroprudential policy, namely, that tensions and trade-offs are virtually unavoidable because, first, macroprudential regulations aimed at addressing the market frictions and failures under one paradigm often exacerbate the frictions and failures under another paradigm and, second, macroprudential policies often create or boost microprudential distortions. The implication is that rather than trying to achieve a perfect combination of macroprudential policies, authorities should seek to achieve a reasonable balance of macro- and microprudential policies, given the inherent tensions and trade-offs.

^{5.} On market frictions, see de la Torre and Ize (2010a, 2010b); on distortions, see Cordella and Pienknagura (2013).

66

References

- Berger, Allen N., and Gregory F. Udell. 2004. "The Institutional Memory Hypothesis and the Procyclicality of Bank Lending Behavior." *Journal of Financial Intermediation* 13(4): 458–95.
- Caruana, Jaime. 2010. "Macroprudential Policy: What We Have Learned and Where We Are Going." Keynote speech presented at the Second Financial Stability Conference of the International Journal of Central Banking. Bank of Spain, Madrid, 17 June 2010.
- Cordella, Tito, and Samuel Pienknagura. 2013. "Macro-Prudential Policies from a Micro-Prudential Angle." Washington: World Bank.
- de la Torre, Augusto, and Alain Ize. 2010a. "Containing Systemic Risk: Paradigm-Based Perspectives on Regulatory Reform." *Economía* 11(1): 25–64.
- ——. 2010b. "Regulatory Reform: Integrating Paradigms." *International Finance* 13(1): 109–39.
- ———. 2013. "The Foundations of Prudential Regulation: A Conceptual Framework." Washington: World Bank.
- Devenov, Andrea, and Ivo Welch. 1996. "Rational Herding in Financial Economics." *European Economic Review* 40(3–5): 603–15.
- Dewatripont, Mathias, and Jean Tirole. 1994. *The Prudential Regulation of Banks*. MIT Press.
- Federico, Pablo, Végh, Carlos A., and Guillermo Vuletin. 2013a. "Effects and Role of Macroprudential Policy: Evidence from Reserve Requirements Based on a Narrative Approach." University of Maryland.
- ———. 2013b. "Reserve Requirement Policy over the Business Cycle." University of Maryland.
- Fernández de Lis, Santiago, and Alicia García-Herrero. 2008. "The Housing Boom and Bust in Spain: Impact of the Securitisation Model and Dynamic Provisioning." *Housing Finance International* 23(1): 14–19.
- ——. 2009. "The Spanish Approach: Dynamic Provisioning and Other Tools." In *Towards a New Framework for Financial Stability*, edited by David Mayes, Robert Pringle, and Michael Taylor. London: Central Banking Publications.
- Fernández de Lis, Santiago, Jorge Martínez, and Jesús Saurina. 2001. "Credit Growth, Problem Loans, and Credit Risk Provisioning in Spain." In *Marrying the Macroand Microprudential Dimensions of Financial Stability*, BIS Paper 1. Basel: Bank for International Settlements.
- Fernández de Lis, Santiago, and Emilio Ontiveros. 2009. "Towards More Symmetric and Anti-Cyclical Monetary and Financial Policies." Available online at www .voxeu.org.
- FSB (Financial Stability Board). 2011. "Progress in the Implementation of the G20 Recommendations for Strengthening Financial Stability." Report of the Financial Stability Board to G20 Finance Ministers and Central Bank Governors. Basel.

- FSB (Financial Stability Board), IMF (International Monetary Fund), and BIS (Bank for International Settlements). 2011. "Macroprudential Policy Tools and Frameworks." Update to G20 Finance Ministers and Central Bank Governors. Basel: Bank for International Settlements.
- Kahneman, Daniel, and Amos Tversky. 1973. "On the Psychology of Prediction." Psychological Review 80(4): 237–51.
- Kindleberger, Charles P. 1978. *Manias, Panics, and Crashes: A History of Financial Crises*. New York: Basic Books.
- Kiyotaki, Nobuhiro, and John Moore. 1997. "Credit Cycles." *Journal of Political Economy* 105(2): 211–48.
- Lepetit, Laetitia, and others. 2008. "The Expansion of Services in European Banking: Implications for Loan Pricing and Interest Margins." *Journal of Banking and Finance* 32(11): 2325–35.
- Minsky, Hyman P. 1982. Can "It" Happen Again? Essays on Instability and Finance. Armonk, N.Y.: M. E. Sharpe.
- Nys, Emmanuelle. 2008. "Service Provision and Loans: Price and Risk Implications." *Revue d'Economie Politique* (May).
- Rajan, Raghuram G. 1994. "Why Bank Credit Policies Fluctuate: A Theory and Some Evidence." *Quarterly Journal of Economics* 109(2): 399–441.
- Restoy, Fernando, and José María Roldán. 2009. "Dynamic Provisioning and Accounting: Can a Consensus Be Reached?" *The Banker* (August).
- Taylor, Ashley, and Charles Goodhart. 2006. "Procyclicality and Volatility in the Financial System: The Implementation of Basel II and IAS 39." In *Procyclicality* and Volatility in the Financial System in Asia, edited by Stefán Gerlach and Paul Grunewald. Houndsmill, Basingstoke: Palgrave Mcmillan.
- Wezel, Torsten. 2010. "Dynamic Loan Loss Provisions in Uruguay: Properties, Shock Absorption Capacity and Simulations Using Alternative Formulas." Working Paper WP/10/125. Washington: International Monetary Fund.
- Williamson, Oliver E. 1963. "Managerial Discretion and Business Behavior." *American Economic Review* 53(5): 1032–57.