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TECHNICAL NOTE—SYSTEMIC RISK OVERSIGHT FRAMEWORK AND MACROPRUDENTIAL POLICY

This Technical Note on Systemic Risk Oversight Framework and Macroprudential Policy for Spain was prepared by a staff team of the International Monetary Fund as background documentation for the periodic consultation with the member country. It is based on the information available at the time it was completed in October 2017.

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TECHNICAL NOTE

SYSTEMIC RISK OVERSIGHT FRAMEWORK AND MACROPRUDENTIAL POLICY

Prepared By
Monetary and Capital Markets Department

This Technical Note was prepared by IMF staff in the context of the Financial Sector Assessment Program in Spain. It contains technical analysis and detailed information underpinning the FSAP's findings and recommendations. Please also see the Financial System Stability Assessment at
http://www.imf.org/~/media/Files/Publications/CR/2017/cr17321.ashx
Further information on the FSAP can be found at
http://www.imf.org/external/np/fsap/fssa.aspx

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Glossary

BdE	Banco de España
CCB	Countercyclical Capital Buffer
CESFI	Comité de Estabilidad Financiera
CNMV	Comisión Nacional del Mercado de Valores
CRD	Capital Requirements Directive
CRR	Capital Requirements Regulation
DGSyFP	Dirección General de Seguros y Fondos de Pensiones
DSTI	Debt service-to-income
DTI	Debt-to-income
EBA	European Banking Authority
ECB	European Central Bank
EIOPA	European Insurance and Occupational Pensions Authority
ESMA	European Securities and Markets Authority
ESRB	European Systemic Risk Board
EU	European Union
FLESB	Forward-looking Exercise on Spanish Banks
FROB	Executive Resolution Authority (originally, Fondo de Reestructuración Ordenada Bancaria)
FSAP	Financial Sector Assessment Program
FSB	Financial Stability Board
G-SII	Global Systemically Important Institution
IFRS	International Financial Reporting Standard
IIP	International Investment Position
LCR	Liquidity Coverage Ratio
LGD	Loss Given Default
LTV	Loan-to-value
MoE	Ministry of Economy, Industry and Competitiveness
O-SII	Other Systemically Important Institution
SSM	Single Supervisory Mechanism

EXECUTIVE SUMMARY[1]

Macroprudential oversight for banking is a shared responsibility between Banco de España (BdE) and the European Central Bank (ECB). BdE is the national competent and designated authority for exercising macroprudential powers under the Capital Requirements Regulation (CRR) and the Capital Requirements Directive (CRD) IV, respectively. Similar to other countries in the banking union, macroprudential oversight is shared with the ECB, which possesses the "topping-up" power—the ability to apply more stringent measures under the CRR/CRD IV framework than those applied by national authorities. At the European level, the ESRB can also recommend national authorities and European institutions to adopt measures to mitigate systemic risk on a "comply-or-explain" basis. However, in Spain, the national macroprudential authority, responsible for maintaining financial stability for the entire financial system, has not been set up.

The macroprudential policy stance appears broadly appropriate. BdE has put in place a framework for calibrating capital buffers. The countercyclical capital buffer (CCB) is currently at zero given that a new financial cycle upturn has not started, with still negative credit gap and weakly recovering house prices. However, it would be useful to adopt a requirement to assess the sensitivity of borrowers' debt servicing capacity, including against rising interest rates.

The existing macroprudential toolkit would benefit from expansion, particularly to include more effective tools to deal with risks associated with real estate exposures. The crisis highlighted the important role of macroprudential policy, especially in the currency union, in handling systemic risk. As the pre-crisis experience illustrated, monetary conditions that were appropriate for the euro area as a whole proved to be too expansionary for Spain, with strong credit growth fueling bubbles in the real estate market. Hence, a legal basis for imposing limits on loan-to-value (LTV) and debt service-to-income (DSTI) ratios, as well as amortization periods, should be actively considered. These borrower-based tools for banking should be assigned to BdE to ensure efficient implementation.

Conduct of systemic risk surveillance with a greater focus on risks and the system perspectives is essential. Currently, there are no mechanisms that bring together the findings of systemic risk monitoring and assessment that are independently carried out by BdE, Comisión Nacional del Mercado de Valores (CNMV), and Dirección General de Seguros y Fondos de Pensiones (DGSyFP); and forming a comprehensive view on overall financial stability to 'whistle-blow' emerging systemic risk is absent. Effectively, the mindset should shift from dealing with the 'expected loss' of the crisis legacy to preparing for the 'unexpected loss' of tail-risk events, which in turn requires a better understanding about the transmission of systemic risk and the resilience to shocks. Early warning exercises could be conducted regularly to help increase the focus on risks and the ability to 'connect the dots.'

[1] The author of this note is Phakawa Jeasakul (IMF), part of the Spain FSAP 2017 team led by Udaibir Das. The analysis has benefitted from discussions with the staff of the Bank of Spain, the Spanish Treasury, the European Central Bank, the Spain FSAP team, and reviewers at the IMF.

Technical capacity for systemic risk monitoring and assessment is generally strong, but additional work is needed. BdE, CNMV, and DGSyFP have effectively contributed to EU-wide systemic risk surveillance led by the ESRB and the European financial sector authorities. BdE's Financial Stability Report also shows analytical sophistication. However, BdE's existing macrofinancial analysis could help deepen the understanding of macrofinancial linkages and financial stability risks. Further efforts could be devoted to improve the early warning system that would help identify macrofinancial vulnerabilities and gauge financial stress, and perform macroprudential stress testing that better accounts for second-round effects, solvency-liquidity links, interbank contagion, and cross-sectoral interconnectedness. The capacity to carry out both solvency and liquidity stress tests for overseas subsidiary operations should be enhanced.

A Systemic Risk Council should be set up to improve inter-agency coordination on matters relevant for financial stability, including systemic risk surveillance and prudential policies. Given the sectoral approach to financial sector oversight, the Council will provide a platform that brings together its core member agencies—BdE, CNMV, DGSyFP, and the Treasury—to foster inter-agency coordination. The Council will naturally serve as the national macroprudential authority that remains to be established as advocated by the ESRB. Though not possessing regulatory powers in its own right, the Council could be given a legislative mandate for maintaining overall financial stability and authority to issue statements—ranging in force from observations, to warnings and recommendations—on emerging threats to financial stability and needed remedial actions. Logically, the Council should be chaired by the Governor of BdE, the agency most suited to lead systemic risk monitoring and assessment, and would be supported by a joint secretariat led by BdE.

The role of BdE in safeguarding financial stability should be further strengthened. Given its comparative expertise in macrofinancial analysis, BdE is well-placed to play an anchor role in macroprudential oversight. However, an institutional upgrade is required to enable BdE to effectively play such a role. A broader financial stability mandate should be given to BdE, and an internal financial stability committee within BdE should be set up to foster a more integrated approach to systemic risk surveillance and policy decision-making. The overall accountability framework should be strengthened to ensure the willingness to act. Together with the Systemic Risk Council, BdE should be held accountable to Parliament for safeguarding financial stability, including the submission of a revamped Financial Stability Report that is broadened to cover the entire financial system.

Table 1. Recommendations on Strengthening the Systemic Risk Oversight Framework and the Conduct of Macroprudential Policy	
Recommendations and Authorities Responsible for Implementation	**Timeframe**
Main recommendations	
Establish a Systemic Risk Council for inter-agency coordination on systemic risk surveillance and prudential policies, with secretariat supported by BdE (MoE, BdE)	Short-term
Expand the macroprudential toolkit to include borrower-based tools (MoE)	Short-term
Enhance the systemic risk surveillance framework to comprehensively cover macrofinancial linkages, intra-system interconnectedness, and cross-border spillovers (BdE, CNMV, DGSyFP, Treasury)	Short-term
Continue monitoring and closing data gaps as needed; and clarify the legal basis enabling inter-agency information sharing for systemic risk surveillance (BdE, CNMV, DGSyFP)	Medium-term
Other recommendations	
Give BdE a broader financial stability mandate, along with a more robust accountability framework; and modify the mandate of CNMV and DGSyFP to better support their macroprudential oversight function (MoE)	Short-term
Conduct early warning exercises regularly; and establish inter-agency technical working groups to co-develop necessary analytical tools and jointly conduct systemic risk monitoring and assessment (BdE, CNMV, DGSyFP, Treasury)	Short-term
Use Financial Stability Report to communicate more effectively about systemic risk with the public (BdE)	Short-term
Strengthen BdE's internal organization to better support its financial stability function, including creating an internal financial stability committee; and develop an integrated financial stability surveillance framework that incorporates macrofinancial analysis and monitoring of financial markets and payment systems (BdE)	Short-term
Consider how to make policymaking at BdE benefit from external views (BdE, MoE)	Short-term
Develop an analytical framework to guide the implementation of prudential tools to deal with system risk stemming from market activity (CNMV)	Short-term
Increase DGSyFP's resources for conducting systemic risk surveillance (DGSyFP, MoE)	Short-term
Enhance the technical capacity, particularly in the areas of early warning system, macroprudential stress testing, and macrofinancial analysis (BdE, CNMV)	Medium-term

OVERVIEW

1. **Banco de España (BdE) is in charge of macroprudential policy regarding banking, a shared competency with the European Central Bank (ECB).** According to national law, BdE is the designated authority for exercising macroprudential powers available based on the Capital Requirements Directive (CRD) IV, as well as the competent authority for applying macroprudential tools in the Capital Requirements Regulation (CRR).[2,3] The ECB possesses the "topping-up" power—the ability to apply more stringent measures under the CRR/CRD IV framework than those applied by national authorities. The macroprudential policy framework beyond banking has yet to be developed at the European level, with some preliminary thinking being put forward by the European Systemic Risk Board (ESRB) more recently.[4]

2. **Spain has not yet established a national macroprudential authority, with systemic risk surveillance being carried out largely along the sectoral lines.** BdE, Dirección General de Seguros y Fondos de Pensiones (DGSyFP),[5] and Comisión Nacional del Mercado de Valores (CNMV) independently conduct financial stability analysis of banking, insurance, and capital markets, respectively. These agencies also contribute to systemic risk surveillance at the European level under the leadership of the ESRB, along with the European Banking Authority (EBA), the European Insurance and Occupational Pensions Authority (EIOPA) and the European Securities and Markets Authority (ESMA) that oversee their respective sectors.

3. **The crisis illustrated that a well-functioning systemic risk oversight framework is critical for ensuring financial stability.** The need for a strong policy framework is particularly important for Spain, as the monetary policy stance adopted for the currency union may give rise to diverging credit developments across member countries, which in turn require macroprudential action at the national level.[6] Effective systemic risk oversight rests on (i) robust surveillance to monitor, identify and assess systemic risk, (ii) proactive use of macroprudential policy and other measures as necessary to mitigate financial stability threats, and (iii) continued efforts to close regulatory loopholes and data gaps. The overall framework also needs to be buttressed by clear mandates, as well as appropriate governance structures and accountability mechanisms, to underpin 'ability to act,' incentivize 'willingness to act,' and promote coordination.

[2] The CRR refers to the Regulation (EU) No 575/2013 of the European Parliament and of the Council. The CRD IV refers to the Directive 2013/36/EU.

[3] In the absence of the national macroprudential authority, BdE would be the competent authority for exercising powers related to article 458 of the CRR in accordance with Real Decreto 84/2015. As the national banking supervisor, BdE is the competent authority for exercising powers related to articles 124 and 164 (as well as others) of the CRR.

[4] See "Macroprudential Policy beyond Banking: An ESRB Strategy Paper" (ESRB, 2016).

[5] DGFSP is part of the Ministry of Economy, Industry and Competitiveness (MoE).

[6] See "The Interaction of Monetary and Macroprudential Policies" (IMF, 2012).

4. Structure of the note. This note comprises three sections. The first section assesses the systemic risk surveillance practice and provides recommendations on how to further strengthen systemic risk monitoring and assessment. The second section evaluates the conduct of macroprudential policy in Spain, with a focus on BdE's operational framework, and discusses steps to help BdE perform more effectively a central bank's role in leading systemic risk surveillance with a risk-focused mindset. The third section focuses on the institutional arrangements, with an objective of illustrating pros and cons of the available options for creating a national macroprudential authority.

SYSTEMIC RISK SURVEILLANCE

A. Current Setup

5. At the European level, the ESRB plays a leading role in systemic risk surveillance. The ESRB serves as the forum for central banks and financial sector authorities to discuss stability issues for the entire financial system in the European Union.[7] In pursuit of its macroprudential oversight mandate, the ESRB can issue warnings and make recommendations on a "comply-or-explain" basis. The European financial sector authorities—the EBA, the EIOPA and the ESMA—also carry out systemic risk surveillance of their respective sectors. These European institutions regularly publish risk dashboards and risk assessment reports; moreover, the ESRB produces thematic reports that aim at addressing certain risks and vulnerabilities, as well as macroprudential policy issues. In parallel, the ECB also conducts financial stability surveillance, with a holistic approach that covers macrofinancial linkages, financial institutions, and financial markets.

6. In Spain, systemic risk monitoring and assessment is largely carried out from the individual sector perspectives, with no agency in charge of the entire financial system. BdE, DGSyFP and CNMV perform their surveillance function with the focus on banking, insurance and capital markets, respectively. BdE, as the central bank, also conducts macrofinancial analysis, monitors financial market developments, and oversees payment systems; however, these functions are performed mainly to fulfill its price stability objective, with the attention to financial stability generally beyond the current scope. In addition, the Treasury—part of the Ministry of Economy, Industry and Competitiveness (MoE)—monitors macrofinancial developments, especially those related to the government debt market.

7. BdE's Financial Stability Report is a key financial stability surveillance publication. BdE has published its Financial Stability Report biannually since 2002, with the primary coverage on banks. The report is the main communication channel about stability issues concerning the banking system—the predominant part of Spain's financial system. In 2008, CNMV started publishing a section on "Securities Markets and Their Agents" biannually in its quarterly Bulletin to provide an

[7] In accordance with the Regulation (EU) No 1092/2010 of the European Parliament and of the Council, establishing the ESRB, BdE is a voting member for Spain, while CNMV and DGFSP are non-voting members.

overview update on market activity. In 2016, CNMV for the first time published its Financial Stability Note, which essentially presents a risk dashboard.

B. Spain-Specific Characteristics

8. Spain's financial system remains largely bank-dominated (Figure 1 and Table 2). For financial institutions operating in Spain, banking system assets amounted to about 250 percent of GDP, which accounted for 68 percent of aggregated assets, as of end-2016. Meanwhile, insurance companies, pension funds, and investment funds accounted for 17 percent of aggregated assets. Banks are thus playing a relatively more important role in financial intermediation in Spain than in other major advanced economies. Based on the Financial Stability Board (FSB)'s economic function-based definition, shadow banking, which amounted to around 25 percent of GDP as of end-2015, is rather small in Spain. However, sizeable securitization activity takes place in Spain, although securitized loans are largely kept on banks' balance sheets. In terms of financial markets, outstanding private sector debt securities issued domestically and internationally amounted to 63 percent of GDP and stock market capitalization stood at 61 percent of GDP as of end-2016. The local bond market is dominated by government securities.

9. Banks are significantly exposed to real estate sector developments, with substantial macrofinancial linkages amplifying credit cycles. About 55 percent of bank lending in Spain is related to construction and real estate activities (13 percent) and residential mortgages (42 percent) (Figure 2). Furthermore, the level of home ownership, the share of construction and real estate services in overall economic activity, and the importance of housing wealth relative to total wealth are higher in Spain than in other European economies. For the past crisis, the real estate sector boom resulted in significant macro imbalances, bubbles in the housing market, and an excessive buildup in leverage and indebtedness across sectors.

10. Spain is vulnerable to inward spillovers owing to significant international banking activity and a large negative net international investment position (IIP). International Spanish banks have increased their overseas exposures significantly over the past decade, with international claims currently amounting to about 45 percent of banking system assets, up from around 20 percent at end-2008.[8] Although the international banking model brings about the welcome benefit of diversification,[9] these international banks have become more dependent on overseas profits that are in turn influenced by macrofinancial development in key host countries. The large negative net IIP also implies that Spain continues to remain exposed to shifts in global financial conditions.

11. Intra-system interconnectedness though appearing relatively limited could change rapidly. In Spain, financial institutions are connected through conglomerate structure, cross-sectoral claims, and common exposures (Figure 2). Domestically, while bank balance sheets continue to contract, nonbank activity has already picked up. At the moment, covered bond issuance and

[8] Based on BdE's Financial Stability Report, May 2017.

[9] International Spanish banks adopt a business model that strikes a fine balance between subsidiaries' financial and operational autonomy and groups' risk management control.

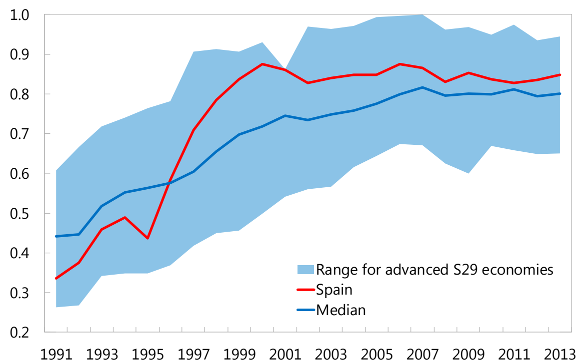
securitization activity are mostly for funding rather than risk transfer; asset portfolios of insurers and investment funds are independently managed, with no special consideration to own groups. However, the nature of interconnectedness of cross-sectoral activity could evolve based on incentives. Lastly, product cross-selling—prevalent in Spain—could come with market conduct and reputational risks.

Figure 1. Selected Advanced Economies: Financial System Structure

Spain's financial system is fairly developed based on the combined metrics of depth, access and efficiency.

Financial Development Index, 1991-13 [1]

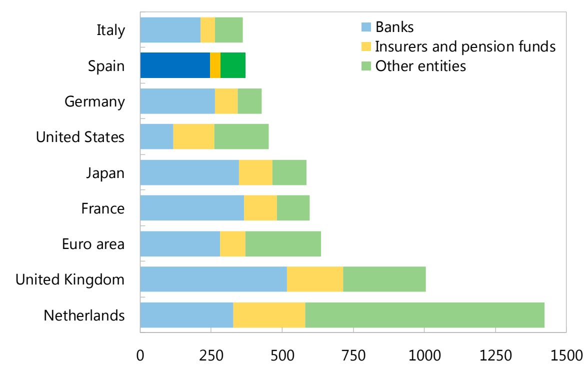
Value between 0 and 1, with the higher value the more developed



Financial institutions are comparatively smaller, with a bank dominance.

Aggregated Assets of Financial Institutions, 2015

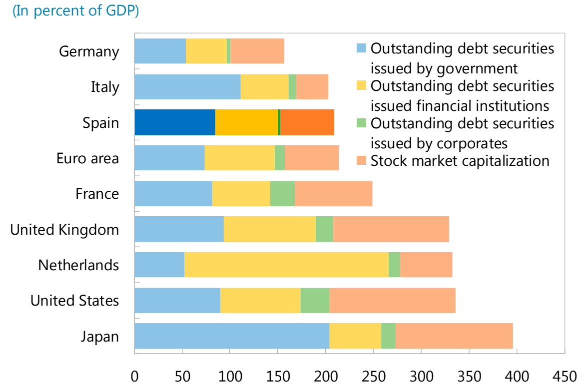
(In percent of GDP)



Financial markets are also smaller, with a sizeable bond market for the government and financial institutions.

Value of Financial Markets, 2015

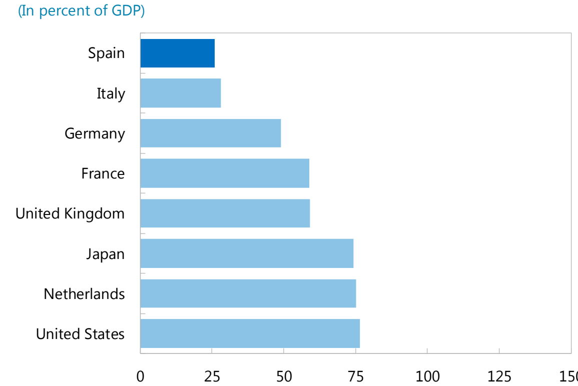
(In percent of GDP)



Shadow banking activity is limited.

Shadow Banking Activities, 2015

(In percent of GDP)



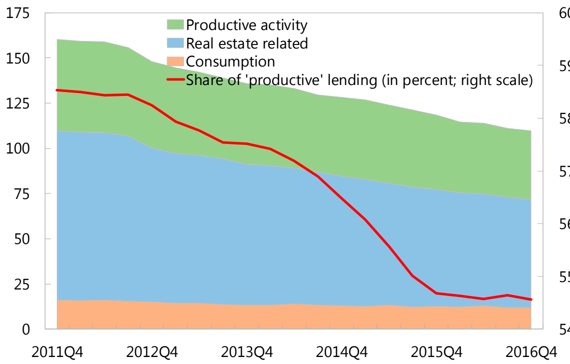
Sources: BIS, Debt Securities Statistics; FSB, 2016 Global Shadow Banking Monitoring Report; IMF, IMF SDN/15/08 and World Economic Outlook database; and IMF staff estimates.

1/ The financial development index is based on the combined metrics of depth, access and efficiency. See IMF SDN/15/08. Advanced S29 economies comprise: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong SAR, Ireland, Italy, Japan, Korea, Luxembourg, the Netherlands, Norway, Singapore, Spain, Sweden, Switzerland, the United Kingdom, and the United States.

Figure 2. Financial System Structure

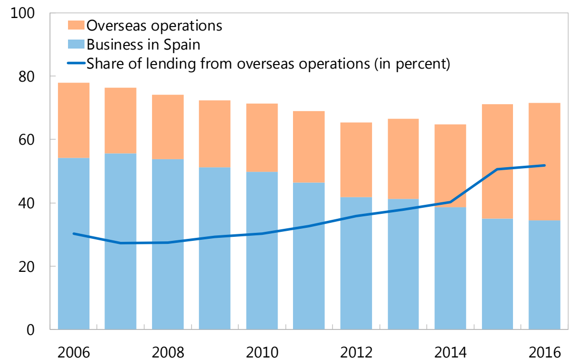
The banking system still has significant exposures to real estate sector.

Allocation of Bank Lending, 2011-16
(In percent of GDP)



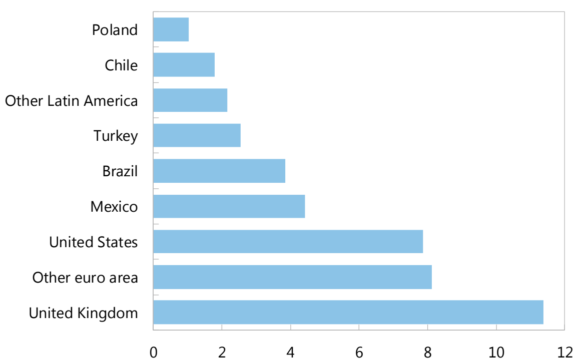
The outward orientation of the banking system has increased, …

Bank Lending, 2006-16
(In percent of total assets)



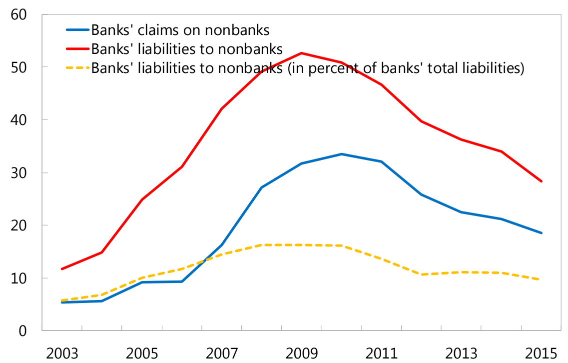
With a strong presence in the United Kingdom, the United States, Mexico, Brazil, and Turkey.

Overseas Exposures of Spanish Banks, March 2016
(In percent of total claims; based on the ultimate risk basis)



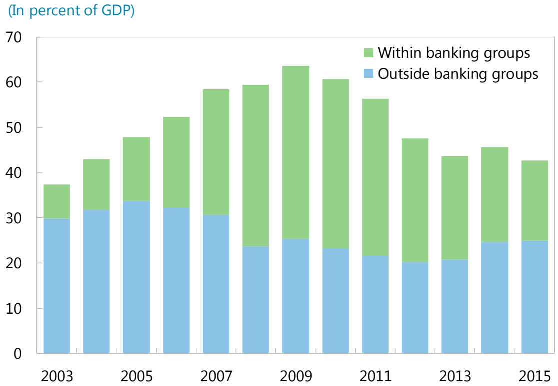
Cross-sectoral linkages have reduced in the aftermath of the crisis.

Bank and Nonbank Cross-sectoral Claims, 2003-16
(In percent of GDP)



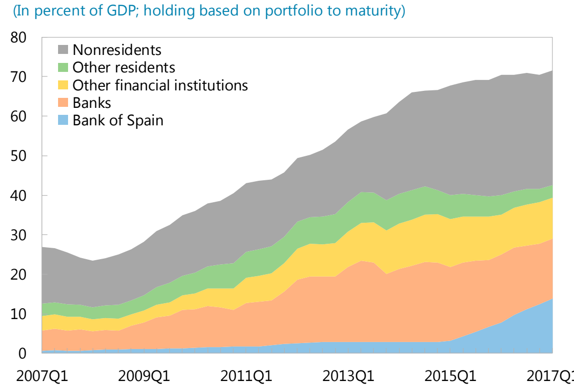
However, non-negligible shadow banking activity takes place within banking groups.

Shadow Banking Activity, 2002-15
(In percent of GDP)



The government bond market becomes a main source of interconnectedness.

Holding of Government Bond, 2007-17
(In percent of GDP; holding based on portfolio to maturity)



Sources: BdE; IMF, CNMV; Financial Soundness Indicators database and World Economic Outlook database; Haver Analytics; and IMF staff estimates.

Table 2. Financial System Structure

	In billion euros			In percent of GDP			In percent of total assets		
	2007	2012	2016	2007	2012	2016	2007	2012	2016
Financial institutions 1/									
Total assets	4,365	4,700	4,021	404	452	361	100.0	100.0	100.0
Banks	2,935	3,414	2,738	272	328	246	67.2	72.6	68.1
Insurance companies	233	264	276	22	25	25	5.3	5.6	6.9
Pension funds	102	109	126	9	10	11	2.3	2.3	3.1
Other financial institutions	1,095	912	881	101	88	79	25.1	19.4	21.9
o/w: Investment funds	...	148	266	...	14	24	...	3.2	6.6
o/w: Financial vehicle corporations	...	356	224	...	34	20	...	7.6	5.6
Financial markets									
Outstanding debt securities	1,291	1,837	1,646	119	177	148	...	...	...
o/w: Government	338	738	942	31	71	85	...	...	...
Stock market capitalization	821	462	679	76	44	61	...	...	...

Sources: BdE; BIS, Debt Securities Statistics; ECB; FSB, 2016 Global Shadow Banking Monitoring Report; IMF, World Economic Outlook database; and IMF staff estimates.

1/ Based on operations in Spain.

C. Assessment

12. **The authorities generally have a strong technical capacity for systemic risk monitoring and assessment, but some existing macrofinancial surveillance is not geared towards financial stability analysis.** BdE, CNMV, and DGSyFP have effectively contributed to EU-wide systemic risk surveillance led by the ESRB and the European financial sector authorities. The analysis presented in BdE's Financial Stability Report reflects analytical sophistication, while the risk dashboard recently published by CNMV shows a further step to improve systemic risk monitoring. Within BdE, high-quality macroeconomic research and macrofinancial analysis have been produced across various Directorate Generals, but the objective of these works is mainly for understanding macroeconomic implications rather than assessing financial stability risks. BdE has also developed a heat map to help identify overall macrofinancial vulnerabilities and guide the calibration of the macroprudential policy stance (particularly, the countercyclical capital buffer (CCB)), as well as a stress testing framework for banks, known as the "Forward-looking Exercise on Spanish Banks (FLESB)."

13. **The conduct of systemic risk surveillance with a greater attention on the system perspective is desirable.** Currently, there are no mechanisms that bring together the findings of systemic risk monitoring and assessment that are independently carried out by BdE, CNMV, and DGSyFP, with the formation of a comprehensive view regarding financial stability for the entire system still missing. Moreover, cross-sectoral interconnectedness receives an inadequate attention given that this aspect lies outside any agency's responsibilities. A more integrated approach, as well as inter-agency coordination mechanisms, is necessary to ensure that relevant channels are well captured, including procyclical amplification and cross-sectoral contagion due to macrofinancial linkages, common and cross exposures, and interactions between institutions and markets.

14. The overall approach towards systemic risk surveillance could be more risk-focused and forward-looking. BdE's Financial Stability Report tends to focus on describing the situation of the banking system. This approach seems broadly appropriate in the period right after the crisis given that the main challenge has been about dealing with the 'expected loss' of the crisis legacy. However, going forward, a more risk-focused attitude is essential to ensure that 'whistle-blowing' would occur when a buildup of systemic risk takes place. The forward-looking risk assessment would benefit from the regular use of analytical tools such as the heat map and the FLESB, which recently have become an integrated part of Financial Stability Report. Similarly, CNMV's Bulletin aims at explaining how various risk factors—both external and domestic—affect market activity. However, further efforts would be helpful to understand how market developments may impact financial stability as a result of leverage buildup, liquidity transformation, and increasing foreign exposures. In sum, the mindset should shift to focus more on the 'unexpected loss' of tail-risk events, which in turn requires a better understanding about the transmission of systemic risk and the resilience to shocks.

15. Additional capacity development would be helpful to enhance the comprehensiveness of the analytical framework. During the course of the FSAP exercise, the authorities have expanded the capacity to analyze intra-system interconnectedness (cross-sectoral exposures and interbank linkages) and conduct stress testing (bank solvency stress testing for overseas subsidiary operations and bank liquidity stress testing). However, additional efforts to embrace a more macrofinancial approach would be useful, particularly to better understand the interaction between existing vulnerabilities and risk factors and the relevant risk transmission and amplification channels. A greater focus on 'connecting the dots' would also help ensure that systemic risk assessment captures all relevant aspects that matter for financial stability. Box 1 presents selected thematic financial stability issues that could be analyzed more comprehensively, some of which have been covered in BdE's Financial Stability Report

16. Access to information is generally sufficient for conducting systemic risk surveillance, but some gaps remain. Data collection similarly takes place along the sectoral lines. Necessary information for supervisory purposes is collected and shared among the relevant financial sector authorities. The legal framework underpins information sharing between the competent authorities so that the assigned functions can be fulfilled, but the difficulty of sharing granular data for systemic risk analysis may arise as the scope of surveillance activity is not well-defined. BdE has access to extensive data for conducting macrofinancial analysis, while CNMV can monitor real-time developments in key financial markets. However, data on interbank and cross-sectoral exposures should be obtained and analyzed on a more regular basis. For the latter, collaboration among BdE, CNMV and DGSyFP is essential to put together complete information on cross-holding of assets and liabilities by banks and nonbanks, ownership structure of key financial assets, and nature of non-traditional banking activity. Additional data collection efforts are desirable to improve the monitoring of banks' liquidity risk and the capacity to stress test banks' overseas operations. In line with the ESRB's recommendation, BdE is taking an ambitious project on operationalizing detailed information on the real estate market.

Box 1. Thematic Financial Stability Issues

Spain's financial system could be exposed to multifaceted stability factors given the current macrofinancial conditions, structural characteristics, and domestic and external risk factors. Important thematic financial stability issues, some of which have been covered in BdE's Financial Stability Report, could be analyzed more deeply:

- **Banks' holding of sizeable legacy assets could weigh on profitability and heighten credit risk.** Notwithstanding falling problem assets and relatively high provisioning coverage, carrying sizeable nonperforming assets creates two sources of vulnerabilities—greater credit losses in the face of adverse macrofinancial developments and reduced profitability following rising funding costs. The reduction of legacy assets could also become more challenging if the housing market recovers more slowly or unevenly across regions.

- **Banks' low profitability would force changes on business models and complicate adjustments on other fronts.** Pressures on profitability are relatively strong in Spain, owing to the prevalence of adjustable-rate mortgage contracts, and the decline in lending activity. As post-crisis restructuring has made Spanish banks relatively cost-efficient, boosting profitability will likely require increasing non-interest income, potentially contributing to greater risks borne by banks (e.g., market and conduct risks). Low profitability could also slow the cleanup of legacy assets and make it more difficult to raise capital if needed.

- **Banks remain exposed to macrofinancial vulnerabilities.** Given relatively strong sovereign-banking linkages, a large negative net IIP, high public debt, and still weak corporate and household balance sheets, adverse shocks could result in substantial credit and market losses. Deterioration in the real estate market and the small and medium-sized enterprises sector could also create funding shocks through the negative impact on covered bonds and securitized products. Furthermore, forthcoming regulatory initiatives may require additional capital and/or adjustments of the liabilities structure, complicating banks' ability to provide credit.

- **Nonbanks—in particular, insurance companies—are also vulnerable to the continuation of low interest rates and compressed risk premiums.** Some insurance companies are struggling to meet their underwriting commitments, as their assets-liabilities matching is not adequate. In response to low interest rates in Europe, investment funds have more actively searched for yield. As a result, the holding of foreign assets has increased in recent years, potentially inducing greater inward cross-border spillovers.

- **Intra-system interconnectedness is cemented by the use of capital markets by financial institutions to raise financing, place investment, and manage risk.** Cross-sectoral linkages now arise from funding activity, as banks have increasingly used securitization as a funding mechanism rather than a risk transfer instrument and covered bonds have become the main venue to tap market and ECB funding. Some banking groups carry out a universal banking business model, with significant insurance and asset management businesses. As a result, shadow banking activity takes place within the banking system, although some large banking groups are not subject to enhanced conglomerate supervision.

- **Cross-border interconnectedness is substantial largely due to overseas operations of the two international banks.** The globally-diversified retail banking business model operating through standalone subsidiaries has served both banks well, with overseas operations underpinning strong group-wide profitability. The resilience of these two banks could be tested, as macrofinancial developments in some key host countries have deteriorated, along with a less favorable outlook in other locations.

D. Recommendations

17. The overall systemic risk surveillance framework should cover all important sources of systemic risks. As outlined in the section on Spain-specific characteristics, three factors could significantly affect financial stability:

- **Real estate boom-bust cycles.** Since the 1970s, real estate boom-bust cycles had been an integral part of all the three financial crises in Spain. Rigorous macrofinancial analysis, including on housing market dynamics, household and corporate balance sheets, credit cycles, and macro imbalances, would be particularly important.

- **Inward spillovers through financial channels.** Notwithstanding the benefit of diversified overseas profits, the performance of international banks could be affected by macrofinancial developments in key host countries. The sensitivity to shifts in global financial conditions due to the large negative net IIP also implies greater market risk faced by financial institutions. Proper monitoring of potential inward spillovers is therefore necessary.

- **Intra-system interconnectedness.** Although intra-system interconnectedness appears relatively limited at the moment, it could easily become a blind spot. Significant inter-agency efforts are required to actively monitor common exposures, cross-sectoral linkages, and risk transmission through markets.

18. Conducting early warning exercises could help increase the focus on risks and the ability to 'connecting the dots.'[10] The purpose of the exercise is to assess overall financial stability and identify key risk factors. The exercise should be conducted regularly, possibly twice a year, to help set the priorities for systemic risk surveillance. The exercise could aim at producing a financial stability map, which depicts the evolution of multifaceted risks and vulnerabilities, as well as a risk assessment matrix, which draws a list of key risk factors and summarizes an assessment of their likelihood and impact. Operationally, the exercise would be primarily guided by the early warning system (see Paragraph 21) that would flag important macrofinancial vulnerabilities and/or indicate the current level of financial stress. The exercise should also incorporate risk analysis produced by the working groups (see Paragraph 19) and focus on 'connecting the dots' to ensure that all relevant macrofinancial linkages and interconnectedness within the financial system are captured.

19. An inter-agency mechanism should be put in place to form a common view regarding financial stability for the entire system. At the moment, policy coordination can take place at a high level given the cross directorship at the governing boards of BdE and CNMV (including participation of the Treasury). Going forward, the national macroprudential authority (still to be established) will naturally provide a platform to integrate systemic risk surveillance performed by individual agencies. In the interim, it would be useful to create inter-agency technical working

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[10] For additional detail on early warning exercises, see "The IMF-FSB IMF Early Warning Exercise—Design and Methodological Toolkit" (IMF, 2010).

groups led by relevant competent agencies to agree on surveillance frameworks, co-develop necessary analytical tools, and jointly conduct systemic risk monitoring and assessment.[11] These working groups could cover the areas of: (i) macrofinancial risks and vulnerabilities, (ii) financial market developments, (iii) banking system, (iv) nonbanks and shadow banking, and (v) interconnectedness.

20. In view of achieving more effective systemic risk surveillance, some reorientation within BdE appears necessary. Among all relevant agencies, BdE would likely need to bear a lion share of surveillance responsibility given its comparative advantage of understanding macrofinancial perspectives and its banking oversight responsibility. Within BdE, a more integrated approach for conducting systemic risk monitoring and assessment would be desirable, potentially led by the Directorate General Financial Stability, Regulation and Resolution—already in charge of macroprudential oversight in accordance with BdE's current mandate. The analytical focus of existing macrofinancial analysis should also be re-oriented towards financial stability. Outside BdE, additional resources are needed to expand DGSyFP's technical capacity for systemic risk surveillance, while there is a scope for cooperation between BdE and CNMV in some areas such as macroeconomic analysis and market monitoring.

21. The technical capacity for systemic risk monitoring and assessment could be further strengthened. Appendix I presents an overview on key surveillance activity carried out by individual agencies together with some specific recommendations. Key priorities include:

- **Early warning system.** The system could comprise two main parts—one that identifies macrofinancial vulnerabilities that could lead to a crisis in the next few years; another that gauges the current stage of financial stress. For the former, BdE's analytical framework for calibrating the macroprudential policy stance (particularly, the CCB) provides a good starting point as it has a built-in feature to identify a buildup of systemic risk. The existing framework could be expanded to more comprehensively capture (i) financial soundness of corporates, households, and the government, (ii) macro imbalances and inwards spillovers, and (iii) leverage and liquidity of banks and nonbanks, as well as shadow banking activity. For the latter, BdE's systemic risk indicator and CNMV's financial market stress indicator already serve this purpose. Additional indicators could be developed to capture joint stress of financial institutions. As byproducts, the early warning system could provide input to the construction of a risk dashboard and a financial stability map.[12]

- **Macroprudential stress testing.** Regular stress testing could be used to identify systemic risk and assess financial institutions' resilience, with no supervisory actions necessarily being

[11] These inter-agency working groups could be created by a memorandum of understanding.

[12] The risk dashboard could comprise aggregated sectoral indicators as well as most relevant indicators to support ongoing systemic risk monitoring efforts. The financial stability map could be constructed based on a set of early warning indicators, although the focus would be on instability (i.e., deviations from trends) rather intensity (i.e., strong movements in the direction associated with the buildup of systemic risk). For additional detail on country financial stability map, see "Ms. Muffet, the Spider(gram) and the Web of Macro-Financial Linkages," (IMF WP 14/99).

adopted based on stress test results.[13] Improvement in the monitoring of banks' liquidity risk and medium-term funding challenges is essential. The current stress testing framework could be extended to account for second-round effects, solvency-liquidity links, interbank contagion, and cross-sectoral interconnectedness. Given significant international banking operations, the design of macrofinancial scenarios for stress testing exercises would require a macro model that can generate global scenarios consistently for all key host countries. The sophistication of the solvency bank stress testing module for overseas subsidiary operations could be further refined given the need to properly monitor the performance of major subsidiaries of international banks. Similarly, the liquidity stress testing of major overseas subsidiaries should be conducted regularly as some of them independently tap wholesale and/or foreign-currency funding.

- **Macrofinancial analysis.** Given that mortgage lending forms the largest portfolio of banks' lending, effective monitoring of risk-taking activity associated with the real estate sector is critical. First, the assessment on whether house prices are aligned with fundamentals would help detect bubbles. Second, the analysis of loan-level information on loan-to-value (LTV) and debt service-to-income (DSTI), including some sensitivity analysis with respect to household income, interest rates, and house prices, could be useful particularly for calibrating macroprudential policy during future credit upswings. Third, the analysis of firm-level balance sheets to monitor the evolution of financially vulnerable companies (i.e., with excessive leverage, low debt serving capacity, and weak profitability) would help ensure that corporates are not overly stretched, especially those in the construction and real estate sectors that traditionally tend to be more highly leveraged.

22. Additional efforts could be made to close data gaps and enhance inter-agency information sharing for systemic risk surveillance. In addition to enhancing the surveillance on interbank exposures, cross-sectoral linkages, and banks' liquidity risk, ongoing efforts to monitor and close data gaps are important to ensure effective systemic risk surveillance as data issues will naturally arise. While inter-agency information sharing mechanisms exist, including through the existing coordination body—Comité de Estabilidad Financiera (CESFI), the scope will need to be broadened so that more granular data could be shared for systemic risk analysis. In particular, the abovementioned inter-agency working groups should have access to necessary data. Furthermore, given the existence of granular loan-level information and firm-level financial statements,[14] a fuller use of these data could help identify pockets of vulnerabilities in the household and corporate sectors, as well as in mortgage lending.

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[13] For additional detail on macroprudential stress testing, see "Macrofinancial Stress Testing—Principles and Practices," (IMF, 2012).

[14] Household-level detailed information about representative households' financial situation is also available through the conduct of the Survey of Household Finances triennially.

23. Financial Stability Report could become a more effective communication tool that warns the public about systemic risk.[15] The main purpose of the report is to provide a frank assessment on potential financial stability concerns. To better fulfill this objective, the report could aim at presenting (i) key macrofinancial vulnerabilities that could support a buildup of systemic risk, (ii) important risk factors, both domestic and external, including their likelihood and how they would interact with existing vulnerabilities, and (iii) impact of the identified risk factors if they were to materialize, especially in terms of the financial system's resilience. A brief discussion of policy actions to be taken to mitigate systemic risk could also be useful. This approach would enable the report to take a more critical view without creating unwarranted market reactions. While the report should focus on the system-wide trend, it may be necessary to highlight differences within the system in certain cases in which pockets of weaknesses have systemic implications.

CONDUCT OF MACROPRUDENTIAL POLICY

A. Experiences

24. Spain is well known for the application of dynamic provisioning since 2000. The dynamic provisioning requirement, which was implemented through the accounting rule, aimed at accounting for the increase in credit risk during credit cycle upturns to bolster banks' ability to cope with materializing losses during subsequent credit cycle downturns (Saurina, 2009). In retrospect, dynamic provisioning put banks on a stronger foot to deal with credit losses at the initial phase of the crisis, with general provisions peaking in early 2007. However, dynamic provisioning, which was the only policy tool (and the only macroprudential measure), appeared insufficient in moderating strong credit growth and curbing the real estate sector boom in light of too loose monetary conditions and distortionary tax benefits. In May 2016, BdE Circular 4/2016 was adopted, as steps to align the prudential requirement with the European framework and prepare for the implementation of the IFRS 9.[16] As a result, the dynamic provisioning requirement no longer existed as of October 2016.

25. As the national designated authority for exercising macroprudential powers regarding banking based on the CRD IV, BdE has implemented the mandatory tools. Since January 2016, BdE has set the CCB, which continues to be at zero given that the credit cycle downturn has not fully recovered. BdE has also designated six Spanish banks as other systemically important institutions (O-SIIs), one of which is a global systemically important institution (G-SII). These O-SIIs are subject to additional capital requirements in the range between 0.25 and 1 percent of risk-weighted assets, with a phased-in period until the beginning of 2019. BdE is of the view that the maximum capital

[15] While the recommendation is largely based on BdE's Financial Stability Report, it should be viewed as a recommendation regarding the report on financial stability in Spain, which should be just one publication that covers the entire financial system.

[16] The IFRS 9 leads to a new approach to calculate credit loss provisions, which would be based on expected loss rather than incurred loss (the current approach).

buffer for O-SIIs should not exceed the relevant capital buffers for the Spanish G-SII for consistency between different types of capital buffers, with the G-SII being regarded as the most systemic institution in Spain. In addition, BdE contends that the use of structural tools at the time when credit growth remains anemic after the crisis should account for the overall stance of cyclical measures.

26. CNMV and DGSyFP have some macroprudential responsibilities. CNMV is in charge of setting the macroprudential capital buffer requirement for investment firms.[17] CNMV has not explicitly set the CCB for investment firms, while no Spanish investment firms should be considered as an O-SII. Under exceptional circumstances, CNMV can introduce short selling bans; during 2011-12 the short selling bans on Spanish listed shares were imposed owing to extreme market conditions.[18,19] DGSyFP contributes to the identification of global systemically important insurers under the FSB's coordination.

B. Toolkit

27. The macroprudential toolkit for banking is essentially based on the CRR/CRD IV framework. In Spain, Law 10/2014, which transposed the CRD IV, and Royal Decree 84/2015 establish the legal basis for BdE to apply macroprudential tools in the CRR/CRD IV on all credit institutions that cover banks, saving banks, and credit cooperatives.[20,21] The existing toolkit thus comprises mostly capital-related tools—countercyclical capital buffers, capital buffers for systemically important institutions, systemic risk buffers, sectoral capital requirements (e.g., risk weights and minimum loss given default (LGD) floors), Pillar 2 requirements, and leverage ratio. Liquidity measures, such as the liquidity coverage ratio (LCR) and the net stable funding ratio (NSFR), are also incorporated in the CRR. Moreover, the so-called "flexibility package" in accordance with article 458 of the CRR provides a framework to impose stricter prudential requirements in terms of sectoral risk weights, liquidity measures, large exposures, and interbank exposures, as well as greater public disclosure requirements. Appendix II summarizes the macroprudential toolkit under the CRR/CRD IV framework.

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[17] Certain investment firms are not subject to the macroprudential capital buffer requirement. These entities include investment firms that neither trade on own accounts nor make any underwriting commitment, as well as small and medium-sized investment firms.

[18] During 2011–12, bans were imposed on transactions in securities and other financial instruments that resulted in a short position in Spanish listed shares.

[19] After the European short selling regulation (Regulation (EU) No 236/2012 of the European Parliament and of the Council) was adopted in March 2012, the imposition of short selling bans is subject to a consultation process with the ESMA. If the ESMA is of the view that such bans are inappropriate, the national competent authority is still able to impose them but needs to provide the rationale publicly.

[20] The ECB could employ the "topping-up" powers for these CRR/CRD IV macroprudential tools in accordance with article 5 of the Single Supervisory Mechanism (SSM) Regulation. The SSM Regulation refers to the Council Regulation (EU) No 1024/2013.

[21] Though under the regulatory perimeter of the CRR, Instituto de Crédito Oficial is not subject to macroprudential tools based on the CRD IV.

28. The national legal basis for the use of borrower-based tools has not been developed. The legal framework to impose outright and/or proportional limits on LTV, DSTI or debt-to-income (DTI) ratios does not currently exist. However, Law 2/1981, as amended by Law 41/2007, which regulates the mortgage market, prescribes some requirements of mortgage loans that would be eligible to be included in the collateral pool for covered bond issuances. These requirements do not appear to affect banks' ability and/or willingness to provide mortgage lending with LTV ratios above the limits.[22]

29. Some existing prudential tools for nonbanks under the remit of CNMV and DGSyFP could be used to mitigate systemic risk. The legal basis for setting the macroprudential capital buffer requirement for investment firms rests on Law 10/2014 (preamble) and the Consolidated Text of the Securities Market Law (article 196),[23] enabling CNMV to employ countercyclical capital buffers, capital buffers for systemically important institutions, and systemic risk buffers. The framework for some of the macroprudential tools envisaged by the ESRB for nonbanks already exists in Spain. In particular, CNMV can impose liquidity requirements, leverage and exposure limits, and restrictions on redemption, on investment funds, as well as short selling bans (in accordance with the EU regulation; see Footnote 17). Regarding insurance, the assets/liabilities matching requirement had been in place well before the adoption of the Solvency II regime.

C. Operational Framework

30. BdE has put in place an operational framework for conducting macroprudential policy under its remit. Within BdE, the Financial Stability and Macroprudential Policy Department in Directorate General Financial Stability, Regulation and Resolution is in charge of carrying out financial stability analysis and calibrating the macroprudential policy stance. Noteworthy aspects of the operational framework are:

- **Systemic risk surveillance.** Macrofinancial analysis, financial market monitoring, and payment systems oversight are shared responsibilities of two Directorate Generals—Economics, Statistics and Research; and General Operations, Markets and Payment Systems.[24] Systemic risk analysis related to banking is also contributed by Directorate General Banking Supervision.

- **Policy calibration.** BdE has developed a heat map of early warning indicators to help guide the calibration of the macroprudential policy stance (particularly, the CCB) in Spain. Furthermore, five important third-country jurisdictions (i.e., outside the EU) in which the CCBs should be

[22] For residential mortgage loans, the limit on LTV ratio is 80 percent, which could be increased to 95 percent if there are guarantees on credit risk provided by other financial institutions. For commercial real estate mortgage loans, the limit on LTV ratio is 60 percent.

[23] The Securities Market Law (originally, Law 24/1988) has been amended on many occasions. To incorporate all these amendments, an official Consolidated Text was approved in 2015.

[24] In May 2017, Associate Directorate General International Affairs (a separate unit hitherto) was brought under Directorate General Economics, Statistics and Research.

monitored closely are identified given the sizeable exposures of Spanish international banks. BdE has designated G-SIIs in coordination with the FSB while applying the EBA guidelines to identify O-SIIs. BdE also analyzes broader financial stability issues, but additional work is required to support the calibration of other macroprudential tools.

- **Decision-making process.** Directorate General Financial Stability, Regulation and Resolution is responsible for making a proposal for macroprudential policy to BdE's Executive Commission for deliberation and decision-making. In accordance with Law 13/1994, the Executive Commission has full authority to adjust the policy stance given no necessity for adopting a BdE Circular.[25]

- **Communication.** In addition to Financial Stability Report, BdE has timely published all decisions regarding the CCB and capital buffers for G-SII and O-SIIs through issuance of press statements.

- **Coordination.** Coordination on policy issues is done at the weekly Executive Commission, while information exchange could take place more informally at the daily Operations Meeting chaired by the Governor and comprising the Deputy Governor and all Directorate Generals. However, a regular discussion on financial stability is not part of the meeting agenda of the Executive Commission and the Governing Council, in contrast to a regular update on macrofinancial developments in Spain and abroad. The Financial Stability Report Drafting Committee also provides another coordination platform, though mostly for producing Financial Stability Report.

31. Extensive notification and consultation requirements to European institutions are in place regarding the use of macroprudential tools in the CRR/CRD IV. National authorities are required to notify relevant European institutions their intention to implement macroprudential measures under the CRR/CRD IV framework (see Appendix II for more details). The notification requirement is particularly important to help coordinate policy actions to limit cross-border policy leakages on the one hand and to ensure the appropriate use of macroprudential tools in the single market on the other. In addition, the consultation with the ECB becomes an integral part of the policymaking process given its "topping-up" power. When national authorities intend to undertake a measure, the ECB shall be notified ten days in advance of the relevant decision. The ECB can object the proposed measure within five days, with the reasons being stated. Under such circumstances, national authorities shall duly consider the ECB's reasons prior to proceeding with the initial decision as appropriate. A similar consultation process applies to the ECB's decision to impose more stringent measures.

32. CNMV is developing a framework to operationalize its macroprudential oversight. CNMV has already carried out a significant amount of systemic risk surveillance, with some measures being taken to address the identified financial stability concerns. However, the CRR/CRD IV macroprudential tools have not been employed,[26] and a framework to calibrate these tools

[25] The Law 13/1994 is the law that prescribes the autonomy of BdE, along with its objectives, functions and powers.

[26] Essentially, no CRR/CRD IV macroprudential tools appear necessary for investment firms at the moment given the credit cycle (similar to credit institutions), the insignificance of real estate exposures held by investment firms, and no existence of systemically important investment firms.

remains to be developed. Within CNMV, Directorate General Policy and International Affairs leads the work on monitoring macrofinancial developments and analyzing market activity. To this end, CNMV has developed a risk dashboard that captures macroeconomic, credit, market, and liquidity risks, as well as a financial market stress indicator. Macroprudential decisions are expected to be made by CNMV's Board, but the decision-making responsibility could be delegated to CNMV's Executive Committee.

33. DGSyFP has a limited contribution to macroprudential oversight so far. DGSyFP has mainly contributed to EU-wide systemic risk monitoring and assessment, including the stress testing exercise carried out by the EIOPA. The macroprudential policy framework for insurance neither exist yet in Spain nor at the European level.

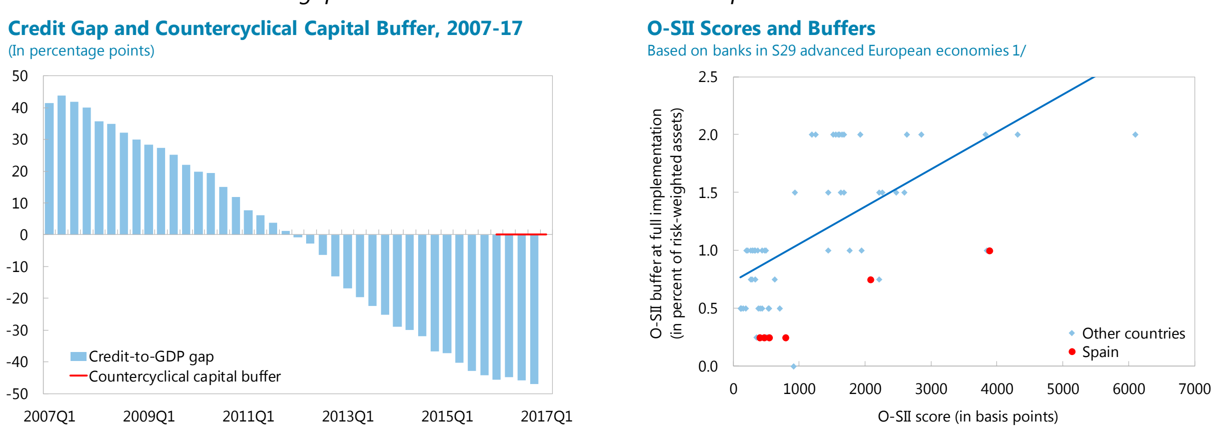
D. Assessment

34. In the post-crisis period, BdE has conducted macroprudential policy appropriately to deal with systemic risk in the cyclical dimension. BdE relies on a wide range of indicators in addition to the credit-to-GDP gap for calibrating the CCB, which has been set at zero since January 2016, consistent with the credit cycle and the situation of system-wide leverage and liquidity. BdE also takes costs and benefits into consideration when implementing macroprudential measures. However, the use of capital buffers for O-SIIs should aim at addressing structural aspects of systemic risk, including those related to interconnectedness and contagion. At the moment, capital buffers for Spanish O-SIIs appear to be generally lower than their European counterparts with similar systemic importance from each jurisdiction's point of view (i.e., O-SII score, which is based on size, interconnectedness, substitutability, and complexity) (Figure 3).

Figure 3. Capital Buffers

CCB is set at zero in Spain given the large negative credit gap.

O-SII buffers for Spanish banks are generally lower compared with banks with similar O-SII scores.



Sources: ESRB; and IMF staff estimates.

1/ Excluding Denmark and the United Kingdom, as O-SII buffers are set at zero.

35. Misaligned incentives that contributed to households' excessive indebtedness and a strong real estate sector boom have been removed. Since 2013, tax incentives—deductibility of interest expenses in the personal income tax regime and benefits associated with capital gains from property sales—have been eliminated. These changes should reduce incentives to accumulate debt and engage in speculative real estate investment. In addition, the regulatory and governance frameworks for saving banks have been revamped, removing the influence of Autonomous Communities on channeling banks' financing to regional infrastructure development projects.

36. The existing macroprudential toolkit may not be sufficient to handle systemic risk that Spain will likely face. Spain does not have a number of instruments that are typically regarded as macroprudential tools for banks (see Appendix III for more details). Many European countries have taken steps to develop the legal basis for implementing borrower-based tools, such as limits on LTV, DSTI, and LTI ratios, and liquidity measures, such as limits on noncore funding, in national legislation. Given the real estate boom-bust cycles, the need for more effective tools to manage systemic risk related to real estate exposures appears essential. Furthermore, it is important to recognize that the lengthy notification procedure at the European level for the use of the "flexibility package" might complicate the timely action that national authorities wish to undertake.

37. Potential policy leakages appear limited, but a vigilant monitoring is important going forward. Domestically, the provision of financing to corporates and household could be carried out by credit institutions, credit financial intermediaries, and investment firms,[27,28] with different regulatory requirements. In particular, the CCB for credit institutions (set by BdE and the ECB) could be different from the CCB for investment firms (set by CNMV). In the cross-border dimension, potential policy leakages have been limited by the subsidiary model of Spanish international banks. The mandatory reciprocity of CCBs under the Basel III framework will also help limit regulatory arbitrage.

38. BdE has put in place an adequate framework to operationalize macroprudential oversight under its remit, but this relatively new system has not been fully tested. Despite the lack of a well-specified mandate (i.e., objectives and functions), BdE's implementation of macroprudential policy so far, albeit based on fairly limited experiences, appears broadly in line with the best international practice. Appendix IV provides a detailed assessment on BdE's macroprudential oversight framework based on the ESRB recommendations. Notwithstanding its strong technical capacity and analytical sophistication, BdE has so far focused its financial stability analysis mainly on the banking system, in part due to the lack of a broader financial stability mandate. Additional efforts should be devoted to expand its macroprudential surveillance to cover the areas of macrofinancial linkages and intra-system interconnectedness.

[27] Credit financial intermediaries are non-deposit-taking institutions whose main businesses involve consumer financing, as well as leasing and factoring activities. Currently, their total assets amount to about 4 percent of domestic banking system assets.

[28] Investment firms, in principle, could invest in securities issued by corporates using own accounts. However, investment firms mostly perform the function of brokers and dealers.

39. BdE's operational framework could be further enhanced to benefit from incorporating external views into policymaking and raising the importance of financial stability analysis internally. Given that financial stability issues cut across various sectors in the economy and segments within the financial system, views from the relevant agencies, such as CNMV, DGSyFP and the Treasury, would be useful for the conduct of macroprudential policy regarding banking. BdE should also inspire to provide intellectual leadership on financial stability matters similar to what it has already contributed in the area of macroeconomic policies. However, this new role requires BdE to better leverage its expertise in macrofinancial analysis and banking sector oversight by adopting a more integrated approach to systemic risk monitoring and assessment that currently take place at different Directorate Generals within BdE. In addition to a more effective internal platform to coordinate and discuss financial stability matters, high-quality macrofinancial surveillance that is carried out mainly to guide macroeconomic policymaking would need to be extended and integrated to support financial stability analysis.

E. Recommendations

40. The macroprudential toolkit should be expanded, particularly to include more effective tools to deal with risks associated with real estate exposures. In particular, Spain should develop a legal basis for imposing limits of LTV, DSTI and DTI ratios, as well as on amortization period. The legal basis for these borrower-based tools should be applicable to all types of financial institutions to prevent regulatory arbitrage. An early adoption of these measures ahead of the real estate sector boom could help contain excessive leverage and indebtedness. A consideration could be made to require banks to assess the sensitivity of borrowers' debt servicing ability to rising interest rates. Spain should also stand ready to augment the toolkit as the European macroprudential policy framework evolves. In addition, a careful monitoring to regulatory arbitrage is needed given the existence of credit financial intermediaries that are not regulated under the CRR/CRD IV framework.

41. BdE's operational framework could be further strengthened to more effectively play a leading role in systemic risk oversight. Key considerations, some which involve an upgrade in the institutional arrangements, include:

- **BdE should be given a broader financial stability mandate.** This would help raise the prominence of financial stability surveillance at BdE. The mandate would underpin BdE's role in conducting systemic risk monitoring and assessment to support the proposed Systemic Risk Council (see further discussion in the next section on Institutional Arrangements). The broader mandate, along with an appropriate accountability framework, should increase BdE's 'willingness to act' as a central bank who leads systemic risk surveillance with a risk-focused mindset.

- **A more integrated approach for performing systemic risk surveillance should be developed.** In particular, macrofinancial analysis, particularly on financial soundness of corporates, households, and the sovereign and on the real estate and mortgage markets, as well as monitoring of financial markets and payment systems, should become an integral part of the systemic risk surveillance framework. Given the importance of banks in Spain's financial system, the framework should also focus on intra-system interconnectedness surrounding the banking system.

- **The Financial Stability and Macroprudential Policy Department should be made an anchor body to lead and coordinate systemic risk surveillance within BdE.** Under the current organizational arrangement, its staff could co-produce certain surveillance output with staff from other Directorate Generals. Over time, an exercise could be taken to assess the efficiency of the organizational arrangement so that necessary adjustments could be made.

- **An internal financial stability committee within BdE should be established.** The committee, potentially being chaired by the Governor and comprising all relevant Directorate Generals, will become a dedicated body to discuss financial stability issues, contemplate policy options, and advise BdE's policymaking body on macroprudential measures.

- **Decision-making could benefit from external views.** A regular update on financial stability issues, in addition to macrofinancial developments in Spain and globally, could become an integral part of the meeting agenda of the Governing Council and the Executive Commission. In addition, Law 13/1994 could be amended so that macroprudential policy decisions under BdE's remit are deliberated at the Governing Council, enabling BdE to account for the views of CNMV and the Treasury when performing its macroprudential oversight function.[29]

42. CNMV should develop an analytical framework to guide the implementation of prudential tools with the objective of addressing systemic risk. Building on its impressive efforts to monitor financial market developments, CNMV should analyze how various prudential requirements could be used to deal with abnormal market conditions and mitigate systemic risk stemming from market activity. In this context, a fuller use of regulatory information in addition to market data could help strengthen the current analytical framework.

INSTITUTIONAL ARRANGEMENT

A. Current Situation

43. The institutional setup for macroprudential oversight in Spain has been largely influenced by the development of the European framework. In the EU, the macroprudential policy framework is shaped by the implementation of the CRR and the CRD IV that prescribe the macroprudential toolkit. For technical matters, the EBA and the ESRB have been instrumental in developing methodological guidelines on how to approach systemic risk monitoring, calibrate macroprudential tools, and identify O-SIIs. Furthermore, the ESRB has issued recommendations on how to set up a national macroprudential authority, which would in turn define the institutional arrangement for systemic risk surveillance, macroprudential policymaking, and inter-agency

[29] Views of the insurance authority should also be recognized. The current institutional architecture in which DGSyFP is part of the MoE is not conducive for DGSyFP to be represented in BdE's Governing Council.

coordination at the country level. In Spain, which has a bank-dominated financial system, the macroprudential policy framework for banking has already been developed, with BdE exercising macroprudential powers regarding banking based on the CRR/CRD IV framework as the national competent and designated authority. CNMV has broadly similar macroprudential powers regarding investment firms. However, Spain has not yet set up a national macroprudential authority, and hence lacks a body responsible for overseeing financial stability for the entire system.

44. The macroprudential policy framework envisages the shared responsibilities between national authorities and European institutions, with the former supposedly bearing the primary responsibility. The framework aims at striking a fine balance among the necessity of macroprudential policy to safeguard financial stability at the country level given that overall financial conditions are significantly influenced by monetary policy set by the ECB, the integrity of the single market in which prudential norms should be harmonized to create a level playing field, and the effectiveness of macroprudential tools in light of potential policy leakages across national boundaries given a high degree of cross-border financial linkages. With these considerations, the arrangement features:

- **The ESRB as the main coordination platform.** The ESRB plays a leading role in systemic risk surveillance within the EU, along with the three European financial sector authorities—EBA, EIOPA, and ESMA, with input from national authorities. The ESRB has also become a main point that gathers information on macroprudential policy implementation, which proves useful for coordinating policy actions to mitigate cross-border policy leakages. As the main European financial stability watchdog, the ESRB can make recommendations on a "comply-or-explain" basis to national authorities and relevant European bodies.

- **The ECB as the bank supervisor in the banking union.** The competency of macroprudential policy for the banking system is shared between national authorities and the ECB. With the "topping-up" power, the ECB can impose more stringent measures under the CRR/CRD IV framework than those applied by national authorities. Hence, the use of such macroprudential tools is subject to the notification and consultation process with the ECB. The "topping-up" power enables the ECB to ensure that appropriate measures are taken to safeguard financial stability in the banking union.

- **The "flexibility package."** The macroprudential toolkit under article 458 of the CRR, as well as the safeguard of its use, is designed to deal with the abovementioned considerations. The use of macroprudential tools in the "flexibility package" is thus subject to a rather extensive notification process and a tacit approval by the European Council given its veto right.

- **Primary responsibility of national authorities.** The European framework predicates that maintaining financial stability is primarily the responsibility of national authorities, which are expected to take initiatives to adopt necessary measures. The main roles of the ECB and the ESRB are to ensure the consistency of policy across countries and enhance cross-border coordination. In addition, additional macroprudential tools, which are not prescribed in the CRR/CRD IV framework, could be developed in national legislation.

45. The coordination body—CESFI—was established in 2006 to promote inter-agency collaboration on maintaining financial stability and managing a financial crisis. Created based on a memorandum of understanding, this body serves as a financial stability committee, which is chaired by the State Secretary for Economy and Business support of the MoE and comprises the Vice Governor of BdE, the Vice Chair of CNMV, and the Director General of DGSyFP. CESFI is supposed to meet at least twice a year and could meet at any time deemed necessary by the chair, but there have been no meetings since 2013. The key functions of CESFI are to facilitate exchange of information among the four agencies on financial stability matters, to strengthen crisis preparedness including development of contingency plans and conduct of crisis simulation and stress testing exercises, and to coordinate the management of a financial crisis with a potentially systemic impact.

B. Assessment

46. Though enabling BdE to conduct macroprudential policy adequately, the current institutional arrangement should be further strengthened to be more conducive to detecting and mitigating systemic risk. With the bank-dominated financial system, the current macroprudential policy framework, which builds on BdE's competency and expertise, appears broadly sufficient to manage systemic risk emerging at banks. Going forward, challenges are three-fold. The ability to act could be constrained by the inadequate macroprudential toolkit and the potential constraint on sharing information. The willingness to act should be bolstered by strengthening the financial stability mandate and putting in place an appropriate governance and accountability framework. Inter-agency coordination needs to be enhanced to overcome the lack of the system-wide perspective to financial stability.

Ability to act

47. The lack of effective macroprudential tools, particularly to deal with risks stemming from the real estate sector, could pose a major challenge to policymakers. As pointed out in paragraphs 36 and 40, Spain should develop a legal basis for applying additional macroprudential tools in national legislation. To ensure effective enforcement and communication, there is a strong advantage for the rule-making power to be assigned to the relevant sectoral authorities—tools that involve banking activity (e.g., limits on LTV, DSTI and DTI) should be given to BdE. It is noteworthy that the ultimate policymaking regarding certain macroprudential tools could be assigned to a different body that might be better informed to make such decisions.

48. The potential constraint on sharing information to perform systemic risk assessment should be addressed. The current legal framework underpins information sharing between the competent authorities essential for fulfilling the assigned functions. However, no agencies are explicitly tasked with the systemic risk surveillance responsibility, and the scope of such surveillance is not well-defined. Hence, the existing legal basis should be clarified so that necessary data can be shared in carrying out systemic risk monitoring and analysis, in addition to performing well-understood assigned duties such as conglomerate supervision. The information sharing arrangement should also be extended to the proposed Systemic Risk Council and its secretariat.

Willingness to act

49. BdE should be given a broader financial stability mandate to underpin its macroprudential oversight function. As a principle, macroprudential policy should be aimed at mitigating systemic risk to safeguard financial stability. The broader financial stability mandate would help reorient BdE's focus to carry out macrofinancial analysis, which is at the moment primarily for supporting the macroeconomic policy agenda, to guide the calibration of macroprudential policy. A clear mandate is also particularly important given that BdE has multiple responsibilities, such as prudential and conduct oversight for banks, that may give rise to conflicts of interest. The mandate, however, should be assigned together with a more robust accountability framework.

50. The design of the macroprudential authority and the overall policy framework should carefully pay attention to the governance structure and accountability arrangement. A clear mandate would help lay out appropriate governance for policymaking. The mandate should be well-prescribed in terms of objectives, functions, and powers. This is particularly important in the context of Spain given that macroprudential oversight likely involves multiple agencies. Hence, the functions of individual agencies should be clearly defined to avoid overlapping of responsibilities and promote inter-agency collaboration. The assignment of powers over macroprudential tools should also strike a balance between preserving the autonomy of the relevant agencies and bolstering the accountability of all parties involved. In addition, the macroprudential authority should report to Parliament, with the accountability framework potentially comprising publication of statements ranging from observations to warnings and recommendations.

51. The mandate of CNMV and DGSyFP should also be modified to support the proposed Systemic Risk Council in maintaining financial stability. CNMV's main objective is to ensure the transparency of activities and the protection of investors in the securities market, with responsibilities to supervise market activity, conduct market surveillance, and promote the disclosure of necessary information. DGSyFP is the authority within the MOE in charge of supervising insurance companies to protect the rights of policyholders, insured persons and beneficiaries and to promote the development of insurance business. When performing its supervisory function, DGSyFP should also give some consideration to financial stability.

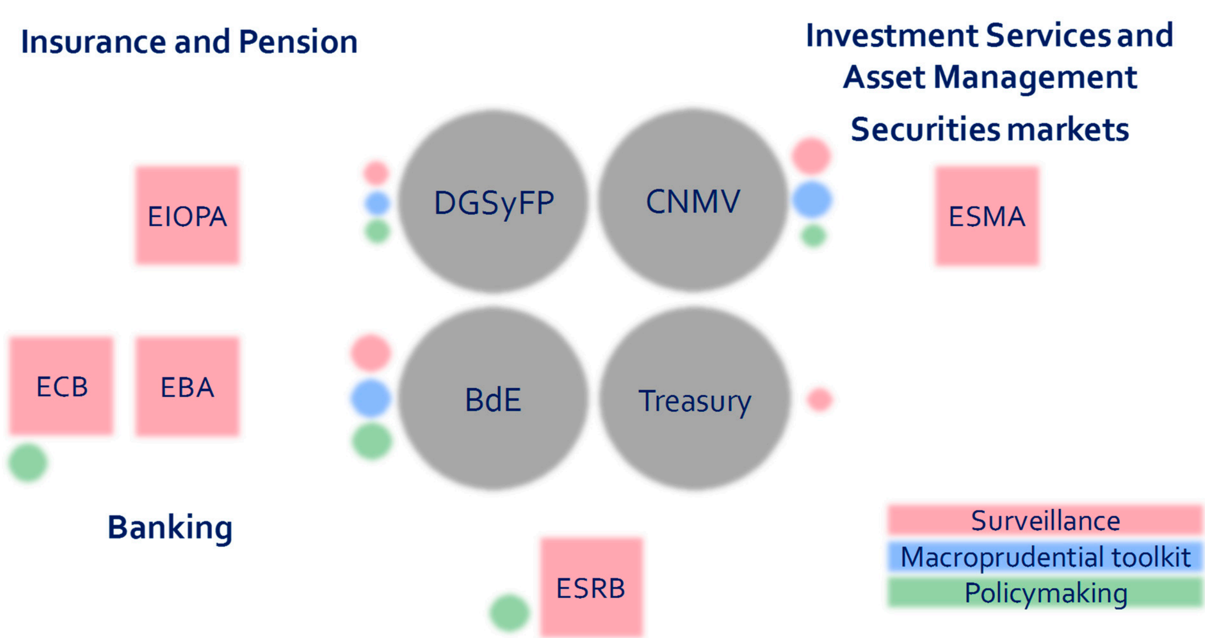
Inter-agency coordination

52. Effective inter-agency coordination mechanisms are important due to the nature of the sectoral approach to financial sector oversight in Spain. The institutional architecture for financial sector oversight is largely organized along sectoral lines. Responsibilities are divided between three agencies. BdE has responsibility for the banking sector, DGSyFP oversees insurance and pension fund business, and CNMV is the capital markets regulator. Each agency has wide-ranging responsibilities from prudential and conduct oversight to consumer protection and accounting rules. These supervisory agencies are also tasked with some resolution responsibilities, which are shared with the Executive Resolution Authority (FROB, which initially stood for Fondo de

Reestructuración Ordenada Bancaria). Although an inter-agency coordination platform exists in the form of CESFI, no meetings have been held in the post-crisis period.

53. Spain has not yet established a macroprudential authority that would bring a system-wide perspective to the monitoring, assessment and mitigation of systemic risk. This is notwithstanding the recommendation of the ESRB in November 2011 that all EU Member States appoint authorities to be responsible for managing systemic risk. The monitoring and assessment of systemic risk continues to be carried out largely along sectoral lines by BdE, CNMV and DGSyFP in their respective areas of responsibilities. BdE, as the central bank, also produces macrofinancial analysis, monitors financial market developments, and oversees payment systems. In addition, the Treasury monitors macrofinancial developments, especially those related to the government debt market. While BdE, CNMV and DGSyFP have effectively contributed to EU-wide systemic risk surveillance led by the ESRB and the European financial sector authorities, there is no overarching framework that draws these various analyses together and formulates policy actions to address emerging systemic threats in Spain.

Figure 4. Institutional Architecture for Systemic Risk Oversight



Source: IMF staff.

Note [1]: The size of color dots denotes the relative importance of a particular function performed by the agency. [2] **BdE**: Banco de España; **CNMV**: Comisión Nacional del Mercado de Valores; **DGSyFP**: Dirección General de Seguros y Fondos de Pensiones, within the Ministry of Economy, Industry and Competitiveness (MoE); **Treasury**: General Secretariat of the Treasury and Financial Policy, under the MoE; **EBA**: European Banking Authority; **ECB**: European Central Bank; **EIOPA**: European Insurance and Occupational Pensions Authority; **ESMA**: European Securities and Markets Authority; **ESRB**: European Systemic Risk Board.

C. Recommendations

54. A Systemic Risk Council should be established to underpin the overarching framework for maintaining financial stability. The Council should be set up, ideally in legislation, to enhance inter-agency coordination on matters relevant for financial stability, including systemic risk surveillance and prudential policies, with key following features:

- **Mandate.** The Council's ultimate objective is to safeguard the stability of the entire financial system. The Council should play the role of the macroprudential authority, with responsibilities of monitoring and assessing systemic risk with the aim of mitigating the financial system's exposure to emerging risks and enhancing its resilience to shocks.

- **Membership.** The Council's core membership should comprise the heads of the three agencies with direct financial sector oversight responsibilities—BdE, CNMV and DGSyFP—as well as the General Secretary of the Treasury. Participation of the Treasury is important as policy responses needed to address identified systemic risk may require a legislative change. Once established, FROB and FGD may participate in the Council on an as-needed basis, subject to appropriate governance arrangements.[30]

- **Structure.** The Council would naturally be chaired by the BdE Governor, who is a member of the General Board of the ESRB, with full voting rights; BdE is also the national competent and designated authority for exercising macroprudential powers in the banking sector under the CRR/CRD IV. The secretariat of the Council could be housed at BdE to leverage on BdE's analytical capacity and expertise; however, other member agencies should participate in the work of the secretariat. Essentially, the secretariat could coopt experts from other agencies as needed. The secretariat should directly report to the Council.

- **Powers.** The Council would not have regulatory powers in its own right, but would be given authority to issue statements—ranging in force from observations, to warnings, and, where appropriate, to recommendations. These statements should aim at summarizing the main discussion of the Council's meetings, which should take place regularly.[31] An observation would indicate the Council's assessment that the risk of unfavorable systemic developments may be rising; a warning would indicate the Council's identification of a clear buildup of systemic risk that should be mitigated; and a recommendation would indicate the Council's proposal to financial sector authorities and/or government bodies for policy action that could counter identified systemic risk.

- **Accountability.** The Council should be held accountable to Parliament, including submission of its flagship report. Over time, as the Council arrangement becomes more

[30] This could be done by invitation when matters relevant to the operation of these agencies are under consideration. Furthermore, FGD should participate in the Council only after its governance structure and operational capacity have been strengthened. See Technical Note on Bank Resolution and Crisis Management Frameworks.

[31] Given the need to calibrate the CCB every quarter, there is a merit for the Council to meet at least once in each quarter. Additional meetings can be held as needed.

mature, this report could be a single authoritative commentary on financial stability in Spain, signed off by all participating members. It is also useful that the Council's recommendations should be made on a "comply-or-explain" basis, under which the recommendations must be implemented (comply) or the relevant party must explain why they are not being implemented (explain). This mechanism would help bolster accountability of all parties involved while preserving autonomy of the independent agencies that are advised to take certain policy actions.

55. The mandate of individual financial oversight authorities should be amended to support their macroprudential oversight function under leadership of the Systemic Risk Council. As the European macroprudential policy framework evolves, Spain may need to designate the relevant agencies, such as BdE, CNMV and DGSyFP, to exercise additional powers. In doing so, it is important that the objective of the additional functions is to safeguard financial stability. Additional macroprudential tools either established in national legislation or developed under the European framework should be given to the relevant sectoral financial oversight authorities to ensure effective enforcement and communication. The existing legal basis should be clarified so that necessary data can be shared among the relevant agencies to perform systemic risk monitoring and analysis.

Appendix I. Overview of Systemic Risk Monitoring and Assessment Conducted by Spanish Authorities

Agency	Current practice	Recommendations
Macrofinancial analysis		
BdE	Analysis of corporate financial soundness • Monitor aggregate indebtedness and debt burden	Extend the scope to assess vulnerabilities in the corporate sector, e.g. using the debt-at-risk approach to analyze firm-level data Monitor large corporates whose defaults may affect financial stability
BdE	Analysis of household financial soundness • Monitor aggregate indebtedness and debt burden	Extend the scope to assess vulnerabilities in the household sector, e.g. using the debt-at-risk approach to analyze household-level data Utilize loan-level information to monitor multiple-loans borrowers
BdE	Analysis of the real estate and mortgage markets • Monitor house price dynamics • Assess potential house price disequilibrium • Monitor construction activity • Monitor banks' exposure to the real estate sector	Utilize loan-level information to monitor potential excessively risky lending (e.g., with high LTV, DSTI, or LTI) Further analyze debt burden associated with mortgages with respect to household income, interest rates, and house prices Extend monitoring and analysis of house price dynamics and disequilibrium to the regional level
BdE, MoE	Analysis of the sovereign financial soundness • Analyze fiscal policy and public debt sustainability	Use market-based information to infer market perception about sovereign financial soundness Analyze banking-sovereign linkages, including fiscal contingencies associated with the financial system
BdE	Analysis of the credit cycle and the situation of system-wide leverage and liquidity • Develop a heat map to help guide the calibration of the macroprudential policy stance (particularly, the CCB)	Adjust the heap map so that indicators capture intensity rather than instability to better measure the credit cycle Analyze the interaction between credit conditions and macroeconomic developments, including macro imbalances
BdE, CNMV, Treasury	Analysis of macrofinancial developments in Spain and globally • Set the context of analysis in Financial Stability Report (BdE), and Bulletin and Financial Stability Note (CNMV) • Monitor cross-border financial linkages	

Agency	Current practice	Recommendations
Macrofinancial analysis		
BdE	Analysis of macrofinancial developments in key host countries of Spanish international banks • Monitor financial market developments and banking system's soundness • Monitor performance of individual banks	Augment analysis of Spanish banks' performance with supervisory insight to better assess resilience to adverse macrofinancial developments Develop the capacity to design global scenarios consistently across relevant countries for the stress testing exercise
Monitoring of financial market developments		
BdE, CNMV	Monitoring of disruptions in financial markets • Develop the systemic risk indicator (BdE) and the financial market stress indicator (CNMV)	
CNMV, Treasury	Monitoring of market activity • Monitor real-time developments in key financial markets • analyze market activity in detail, covering equity and fixed-income markets, as well as key market participants (e.g., investment firms and investment funds) • Monitor market financing of financial institutions (e.g., covered bond issuance and securitization activity) • Analyze activity in the government bond market	Analyze financial stability risks with a fuller use of regulatory information (in addition to market data) Analyze how prudential tools (under CNMV's remit) could be used to mitigate systemic risk related to market activity
Monitoring of financial market infrastructures		
BdE	Monitoring of payment systems	
CNMV	• Monitoring of central counterparty clearing in coordination with BdE • Monitoring of central securities depositories • Monitoring of trading venues	
Assessment of banks' performance and resilience		
BdE	Analysis of banks' performance • Monitor system-wide solvency and liquidity conditions	Focus on differences in performance across banks to identify potentially weak banks from a top-down approach

Agency	Current practice	Recommendations
Assessment of banks' performance and resilience		
BdE	Bank stress testing • Conduct solvency stress tests, with a fairly sophisticated framework for domestic banking operations • Conduct liquidity stress tests	Conduct macroprudential stress tests to guide policy Strengthen the stress testing framework to incorporate second-round effects, solvency-liquidity links, interbank contagion, and cross-sectoral interconnectedness Increase the sophistication of the stress testing module for overseas subsidiary operations Further refine the liquidity stress testing framework, including collection of necessary data
Assessment of nonbanks' performance and resilience		
DGSyFP	Analysis of insurers' performance • Monitor individual entities' solvency • Coordinate EIOPA's stress testing exercise	Develop the stress testing capacity, at least to support validation of bottom-up results
CNMV	Analysis of behavior of investment firms and investment funds • Monitor asset allocation, with a focus on financial stability implications • Administer stress tests performed by investment firms and investment funds	Develop the stress testing capacity to assess operational risk of investment firms and liquidity risk of investment funds, to support systemic risk surveillance and validation of bottom-up results
Assessment of intra-system interconnectedness and cross-sectoral contagion		
BdE, CNMV, DGSyFP	Monitoring cross-sectoral linkages • Monitor cross-sectoral claims and common exposures • Monitor market financing of financial institutions (e.g. covered bond issuance and securitization activity)	Continue monitoring on a regular basis Identify key contagion channels Use supervisory insight to better understand risk transmissions within financial conglomerates
BdE, CNMV	Analysis of market-based systemic risk indicators • Develop the CoVAR model	Develop a framework for analyzing joint stress of financial institutions
Formulation of holistic views regarding financial stability		
BdE, CNMV, DGSyFP	Early warning system • Develop a partial early warning system (for calibrating the macroprudential policy stance (particularly, the CCB))	Expand the early warning system to more comprehensively capture (i) financial soundness of corporates, households, and the government, (ii) macro imbalances and inwards spillovers, and (iii) leverage and liquidity of banks and nonbanks, as well as shadow banking activity
BdE, CNMV, DGSyFP	Financial stability map and heat map • Develop a heat map to present different types of risks	Develop a comprehensive financial stability map to present a holistic view regarding financial stability Develop a risk assessment matrix

Appendix II. Macroprudential Toolkit under the CRR/CRD IV Framework in Spain

Tool	Legal basis	Notification requirements					Comments
		EBA	EC	ECB	ESRB	Others	
Tools for credit institutions Under the responsibility of BdE and the ECB; For the CRR tools under article 458, BdE is the competent authority until the creation of the national macroprudential authority (Royal Decree 84/2015: first transitional provision).							
Countercyclical capital buffer (CCB)	CRD: 130,135-140 Law 10/2014: 45	-	-	√	√	-	
Capital buffers for G-SIIs	CRD: 131 Law 10/2014: 46	√	√	√	√	-	
Capital buffers for O-SIIs	CRD: 131 Law 10/2014: 46	√	√	√	√	-	
Systemic risk buffers	CRD: 133-134 Law 10/2014: 47	√	√	√	√	-	For buffers up to 3 percent, notify the EBA, the EC, the ESRB, and other member states one month in advance. For buffers between 3 and 5 percent, need an affirmative recommendation from the EC; If the EC recommendation negative, can proceed after providing a justification to the EC.
Pillar 2 liquidity requirements	CRD: 105 Law 10/2014: 42	√	-	√	-	-	
Other macroprudential use of Pillar 2	CRD: 105 Royal Decree 84/2015: 76	√	-	√	-	-	
Additional measures: "flexibility package"	CRR: 458	√	√	√	√	C, EP	Notify the C, the EBA, the EP, and the ESRB one month in advance, with a justification for why other available measures may not be sufficient; The C may adopt an implementing act to reject the proposal.
Higher risk weights and stricter criteria for real estate exposures	CRR: 124	√	-	√	-	-	
Higher LGD floors for real estate exposures	CRR: 164	√	-	√	-	-	

Tool	Legal basis	Notification requirements					Comments
		EBA	EC	ECB	ESRB	Others	
Tools for certain investment firms Under the responsibility of CNMV. Based on the preamble of Law 10/2014, CNMV is the designated authority.							
Countercyclical capital buffer (CCB)	CRD: 130,135-140 Law 24/1988: 196	-	-	-	√	-	
Capital buffers for G-SIIs	CRD: 131 Law 24/1988: 196	√	√	-	√	-	No investment firms are designated as G-SIIs.
Capital buffers for O-SIIs	CRD: 131 Law 24/1988: 196	√	√	-	√	-	No investment firms are designated as O-SIIs.
Systemic risk buffers	CRD: 133-134 Law 24/1988: 196	√	√	-	√	-	Same procedure as above.
Higher risk weights and stricter criteria for real estate exposures	CRR: 124	-	-	-	-	-	Not applicable as investment firms are banned from holding real estate exposures.
Higher LGD floors for real estate exposures	CRR: 164	-	-	-	-	-	Not applicable as investment firms are banned from holding real estate exposures.
Notes: (i) C=European Council; EC=European Commission; EP=European Parliament; (ii) Regarding the notification to the ECB, shall notify the ECB ten working days in advance. If the ECB objects, shall state its reasons within five working days. The member state shall duly consider the ECB's reasons prior to implementing the measure. The ECB can exercise the "topping-up" powers.							

Appendix III. Availability of Typical Macroprudential Tools for Banks in Spain

Tool	Availability	Additional comments
Tools dealing with broad-based credit risk		
Countercyclical capital buffer (CCB)	√	
Leverage ratio	√	The 3 percent minimum requirement to become binding from 2018
Dynamic/general provisioning requirement	×	No longer available as of [October 2016]
Limit on growth of overall credit	×	
Tools dealing with credit risk from the household sector		
Sectoral capital requirement	√	In the form of higher risk weights, stricter lending criteria and higher LGD floors for real estate exposures
Sectoral provisioning requirement	×	
Limit on growth of certain credit	×	
Limit on LTV, DSTI, or DTI ratios	×	
Amortization requirement	×	
Tools dealing with credit risk from the corporate sector		
Sectoral capital requirement	√	In the form of higher risk weights, stricter lending criteria and higher LGD floors for real estate exposures
Sectoral provisioning requirement	×	
Limit on growth of certain credit	×	
Limit on LTV or debt service coverage ratios	×	
Tools dealing with liquidity risk		
Liquidity buffer requirement	√	In the form of the liquidity coverage ratio (LCR) requirement *To ensure adequate holding of liquid assets to cover potential funding outflows*
Stable funding requirement	√	The legal basis for the net stable funding ratio (NSFR) requirement already provided by the CRR *To ensure adequate use of stable liabilities to fund illiquid assets (e.g., limit on loan-to-deposit ratio)*
Liquidity levy	√	Potentially, in the form of Pillar II liquidity requirement *To reduce reliance on non-core funding (potentially differentiated by maturity, currency and source)*

Tool	Availability	Additional comments
Tools dealing with liquidity risk		
Reserve requirement	×	*To reduce reliance on some funding types such as nonresident or foreign-currency funding*
Limit on open foreign-exchange position	×	*To contain foreign exchange risk*
Outright limit on foreign-currency funding	×	*To reduce reliance on certain foreign-currency funding*
Tools dealing with structural risk		
Capital buffers for systemically important institutions	√	Existing capital buffers for both G-SII and O-SIIs
Higher loss absorbency requirement	√	In the form of systemic risk buffers
Limit on certain exposures	√	In the form of limit on large exposures *To limit concentration risk, which may involve large exposures of a particular lender*
Structural limit on certain activities	×	

Appendix IV. Assessment of BdE's Macroprudential Oversight Framework Based on the ESRB Recommendations

The following assessment is only specific to BdE's macroprudential oversight remit as the national designated and competent authority for exercising powers related to the CRR/CRD IV.

Criteria	ESRB assessment[1]	FSAP assessment
A.1. A broad definition of macroprudential objectives encompassing both structural and cyclical elements is adopted.	Partially compliant	Although a formal definition has not been adopted, the conduct of macroprudential policy is appropriately tackling cyclical and structural elements of systemic risk.
A.2. Macroprudential policy is initiated by the macroprudential authority or follows up ESRB recommendations.	Partially compliant	BdE has implemented some macroprudential measures and actively adopted ESRB recommendations.
B.1. A single macroprudential authority is designated and a clear decision-making process is established.	Partially compliant	BdE is the national designated and competent authority regarding banking in Spain, with the ECB possessing the "topping-up" power.
B.2. Coordination mechanisms among relevant national bodies having a material impact on financial stability is established.	Inaction insufficiently explained	A national macroprudential authority, which would help anchor inter-agency coordination, has not been established.
B.3. The central bank plays a leading role in macroprudential policy.	Materially non-compliant	BdE is the national designated and competent authority.
B.4. The macroprudential authority cooperates with authorities in other countries, particularly the ESRB.	Non-compliant	BdE actively participates in the ESRB.
C.1. The Macroprudential authority is entrusted with a detailed minimum list of tasks.	Partially compliant	The institutional framework has not been fully developed. BdE does not have an explicit financial stability objective.
C.2. The macroprudential authority has timely access to all relevant national data and information, including from micro-supervisory authorities, and can share such material.	Partially compliant	BdE, as the bank supervisor, has full access to supervisory data of banks.
C.3. The macroprudential authority participates directly or indirectly in the identification of systemically important financial institutions.	Partially compliant	BdE has designated six O-SIIs.

[1] Based on the ESRB's June 2014 follow-up report on its recommendation on the macroprudential mandate of national authorities (ESRB/2011/3).

Criteria	ESRB assessment	FSAP assessment
C.4. The macroprudential authority has control over appropriate macroprudential instruments.	Materially non-compliant	BdE has all macroprudential tools in the CRR/CRD IV. The legal basis for the use of borrower-based tools has not been developed.
D.1. Macroprudential decisions and policy strategies should be widely publicized.	Materially non-compliant	BdE has published all macroprudential policy decisions.
D.2. The macroprudential authority has the power to make public and private statements on systemic risks.	Partially compliant	BdE's Financial Stability Report could be used to more proactively express financial stability concerns.
D.3. The macroprudential authority is ultimately accountable to the legislature.	Partially compliant	BdE is not accountable to the legislature regarding its systemic risk oversight.
D.4. The macroprudential authority and its staff are legally protected when acting in good faith.	Fully compliant	...
E.1. The macroprudential authority is operationally independent, particularly with respect to political bodies.	Fully compliant	...
E.2. Financial arrangements do not jeopardize the conduct of macroprudential policy.	Fully compliant	...

Appendix V. Functions and Powers of the ECB and the ESRB Regarding Macroprudential Oversight

The ECB and the ESRB both exercise macroprudential oversight functions, each within the remit of their respective mandates and with different powers. The ECB's macroprudential mandate covers the banking sector in countries that participate in the SSM, whereas the ESRB's scope comprises the financial system as a whole, including financial markets and nonbanks, and for the entire EU. While the ECB has the "topping-up" power over the set of macroprudential tools available in the CRR/CRD IV, the ESRB only has the powers to make recommendations to the relevant agencies.

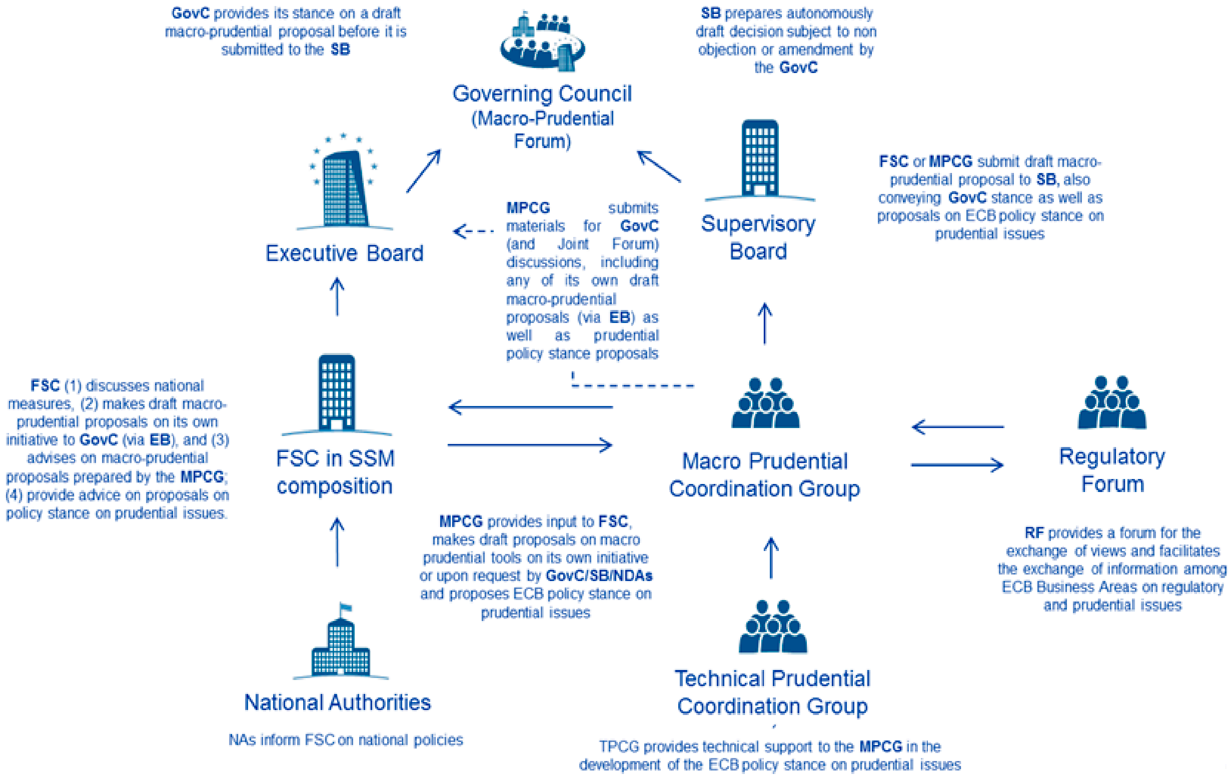
For the SSM countries, the competency for macroprudential policy regarding banking is shared between national authorities and the ECB. The SSM Regulation confers to the ECB specific powers over the macroprudential tools for banks under the CRR/CRD IV framework. For these macroprudential tools, such as the CCB, the ECB must be notified in advance and can apply more stringent measures than those applied by national authorities (so-called "topping-up" power). The ECB can relax the more stringent measures set by it, but cannot impose less stringent requirements than those set nationally. For macroprudential tools that are not part of the CRR/CRD IV, such as limits to LTV, DSTI, or LTI ratios, the ECB can suggest national authorities to implement these measures, and national authorities are obliged to fully inform the ECB about the use of macroprudential tools developed in national legislation.

The ECB's internal governance of its macroprudential mandate is complex, with its Governing Council the ultimate decision-making body (Appendix Figure 1). The Governing Council decides on macroprudential measures based on a proposal by the Supervisory Board, which in turn formulate its decisions based on the initiative and analytical input of the Financial Stability Committee and the Macroprudential Coordination Group. The Financial Stability Committee brings together high-level representatives of national authorities, and provides the platform to establish a common ground in macroprudential policy across the SSM countries.

The ESRB is tasked with monitoring and identifying systemic risk in the EU financial system, but has no direct powers to impose specific measures. The ESRB can issue non-binding warnings and recommendations on a "comply-or-explain" basis to: the EU as a whole; one or more Member States; and one or more of the European and/or national supervisory agencies, including the ECB in its supervisory role. According to the CRR, the ESRB would also be required to issue opinions on specific measures in the "flexibility package" (under article 458) upon a notification by national authorities; such specific measures would be ultimately subject to approval from the European Council.

The ECB cooperates closely with the ESRB, by coordinating the macroprudential agenda and work plans. Among other things, this cooperation aims at ensuring that spillovers across sectors and between SSM and non-SSM countries are duly considered. The ECB also provides administrative and logistics support to the ESRB Secretariat.

Appendix Figure 1. The Coordination Mechanism within the ECB Regarding Macroprudential Oversight



Source: ECB.

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