IMF Country Report No. 17/321

SPAIN

FINANCIAL SYSTEM STABILITY ASSESSMENT

October 2017

This Financial System Stability Assessment paper on Spain was prepared by a staff team of the International Monetary Fund. It is based on the information available at the time it was completed on August 25, 2017.

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INTERNATIONAL MONETARY FUND

SPAIN

FINANCIAL SYSTEM STABILITY ASSESSMENT

August 25, 2017

Approved By
James Morsink and Philip Gerson

Prepared By
Monetary and Capital Markets Department

This report is based on the work of the Financial Sector Assessment Program (FSAP) missions that visited Spain in March and May 2017. The FSAP findings were discussed with the authorities in May and during the Article IV consultation mission in July 2017.

- The FSAP team was led by Udaibir S. Das, and included Liliana Schumacher (Deputy Mission Chief), Luis Alberto Cortavarria, Pierpaolo Grippa, Phakawa Jeasakul, Maral Shamloo, Cyril Pouvelle, TengTeng Xu, Wolfgang Bergthaler, and Apostolos Apostolou (all IMF); and Michael Deasy, David Hoelscher, John Laker, and Stuart Wason (all IMF external experts). Felipe Nierhoff and Lilly Siblesz de Doldan provided HQ-based technical support. The team met Minister of Economy Luis de Guindos, Banco de España (BdE) Governor Luis Linde, Securities Market Commission (CNMV) Chair Sebastián Albella Amigo, BdE Deputy Governor Javier Alonso, Secretary of the Treasury Emma Navarro Aguilera; officials and staff from their respective agencies, and from the Directorate General for Insurance and Pension Funds, the Ministry of Justice, FROB, SAREB, the Deposit Insurance Agency, and the ECB's Directorate General Micro-Prudential Supervision, and Directorate General Macro-Prudential Policy & Financial Stability; as well as representatives from banks, insurance companies, and professional associations. The team also benefited from discussions with select host country supervisors, and private sector analysts.

- Under the FSAP, the IMF assesses the stability of the financial system and not that of individual institutions. The assessments are intended to assist member countries identify key sources of vulnerabilities and systemic risk in the financial sector and implement policies to enhance resilience to shocks and contagion. Certain categories of risk affecting financial stability, such as operational or legal risk, or risk related to fraud, are not covered in FSAPs.

- Spain is deemed by the IMF to have a systemically important financial sector (SIFS) per SM/13/304 (11/15/2013). The stability assessment under this FSAP is part of bilateral surveillance under Article IV of the IMF's Articles of Agreement.

- This report was prepared by Udaibir S. Das, Liliana Schumacher, and the FSAP team.

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Glossary

AECR	Spanish Association of Credit Cooperatives (Asociación Española de Cooperativas de Crédito)
AML/CFT	Anti-Money Laundering and Counter-Terrorist Financing
AQR	Asset Quality Review
AUM	Assets Under Management
BdE	Bank of Spain (Banco de España)
BIS	Bank for International Settlements
BME	Bolsas y Mercados Españoles
BRRD	Bank Recovery and Resolution Directive
CCAA	Comunidades Autonomas (Autonomous Regions)
CCP	Central Counter Party
CCR	Capital Requirements Regulation
CET1	Common Equity Tier-1
CNMV	Comisión Nacional del Mercado de Valores (National Securities Market Commission)
CRR	Capital Requirements Regulation
CRD IV	Capital Requirements Directive
DGSyFP	Directorate General for Insurance and Pension Funds (Dirección General de Seguros y Fondos de Pensiones)
DNFBPs	Designated Non-Financial Businesses and Professions
DTA	Deferred Tax Asset
EBA	European Banking Authority
ECB	European Central Bank
EFSF	European Financial Stability Facility
EMIR	European Market Infrastructure Regulation
EIOPA	European Insurance and Occupational Pensions Authority
ESRB	European Systemic Risk Board
ESM	European Stability Mechanism
ESRB	European Systemic Risk Board
EU	European Union
FATF	Financial Action Task Force
FGD	Deposit Guarantee Fund (Fondo de Garantía de Depósitos)
FMSI	Financial Markets Stress Index
FROB	Spanish Executive Resolution Authority
FSAP	Financial Sector Assessment Program
FSB	Financial Stability Board
FSR	Financial Stability Report
GSIB	Global Systemically Important Bank
ICAC	Instituto de Contabilidad y Auditoría de Cuentas
IFRS	International Financial Reporting Standards
IPS	Institutional Protection Scheme

IT	Information Technology
LCR	Liquidity Coverage Ratio
LGD	Loss Given Default
LOSS	Ley 10/2014 de Ordenación, Supervisión y Solvencia de Entidades de Crédito (Law on the Regulation, Supervision and Solvency of Credit Institutions)
LSIs	Less Significant Institutions
ML/TF	Money Laundering and Terrorism Financing
MoE	Ministry of Economy, Industry, and Competitiveness (Ministerio de Economía, Industria y Competitividad)
MiFID	Markets in Financial Instruments Directive
MPE	Multiple Point of Entry
MREL	Minimum Requirement for Own Funds and Eligible Liabilities
MVTS	Money and Value Transfer Services
NCA	National Competent Authority
NIMs	Net Interest Margins
NPL	Nonperforming Loan
NSFR	Net Stable Funding Ratio
OCAP	Out of Court Agreements on Payment
P&A	Purchase and Assumption
PD	Probability of Default
PITPD	Point-in-Time Probability of Default
RDL	Royal Decree Law
RF	Resolution Fund
ROA	Return on Assets
ROAA	Return on Average Assets
ROE	Return on Equity
RRP	Recovery and Resolution Plan
RWAs	Risk-Weighted Assets
SAREB	Management Company for Assets Arising from the Banking Sector Reorganisation (Sociedad de Gestión de Activos Procedentes de la Reestructuración Bancaria)
SEP	Supervisory Examination Program
SEPBLAC	Spanish Financial Intelligence Unit
SI	Systemic Institutions
SICAV	Sociedad de Inversión de Carácter Financiero (Open-ended Investment Company)
SMEs	Small and Medium-sized Enterprises
SPE	Single Point of Entry
SRB	Single Resolution Board
SREP	Supervisory Review and Evaluation Process
SRM	Single Resolution Mechanism
SSM	Single Supervisory Mechanism
TD	Top-down stress test
TFS	Targeted Financial Sanctions
TLAC	Total Loss Absorbing Capacity

TLTRO	Targeted Longer-term Refinancing Operation
TFS	Targeted Financial Sanctions
TTCPDs	Through-The-Cycle Probability of Default
UMP	Unconventional Monetary Policy
VAR	Vector Autoregression

EXECUTIVE SUMMARY

Spain's banking system has been steadily progressing since the last FSAP. The authorities have made a significant reform effort. Together with the economic recovery, and support by the European Central Bank's (ECB) accommodative policies, the banking system has strengthened its solvency and advanced in reducing nonperforming loans (NPLs).

It is critical to keep the reform process moving and to build on the advances made during 2012–16. The four areas where momentum must endure are (i) accelerated cleanup of legacy bank assets, (ii) further improvement in bank profitability and capitalization, (iii) rigorous management of interest rate and liquidity risks; and (iv) reform of the institutional framework for financial oversight.

Completing the restructuring of bank balance sheets is a priority. At 70 percent of their 2013 peak, total problem assets (nonperforming loans and foreclosed property) remain high. The pace of reduction must lean on a tough stance on the implementation of the 2017 ECB guidance on NPLs. Targets should be ambitious and lack of compliance should carry consequences. Banks needing additional resources to support the cleanup should raise capital or explore other financing options. Market discipline will also become demanding as Spanish banks turn to tap wholesale funding once the ECB's Targeted Longer-Term Refinancing Operations (TLTROs) expire in June 2020.

Spanish banks will benefit from raising more high-quality capital, and further compressing operating costs. Going forward, this will help compensate for the phase-in of deductions under the Capital Requirements Regulation (CRR). As evidenced by the FSAP stress tests, additional capital would also help manage potential sharp increases in interest rates and government bond yields. To overcome structurally weak profitability, banks should continue to explore opportunities for consolidation and diversification. This may include, among others, shifts in business models, mergers, and further branch reduction. Given the retail orientation of Spanish banks, the quality of capital and cost factors will assume high significance as banks adopt a strategic approach on digitalization and competition from alternative financial services.

Enhanced monitoring and supervisory attention to interest rate and liquidity risks are merited. With the likelihood of monetary policy normalization over the medium term, financial stability and supervisory authorities should adopt a more conservative approach towards banks making high use of ECB support, and place supervisory premium on effective liquidity risk management. The interest rate channel also needs to be kept under close watch. Movements in the euro bond market and unexpected swings in financial market prices may trigger losses due to exposure to long-duration government bonds in bank portfolios.

Though not yet a strong source of systemic risk, focus on insurance, capital markets, and the credit cooperative sectors must intensify. Insurers need to adjust their balance sheets to contain interest rate risk. Reduced liquidity in certain segments of fixed-income markets could induce risk mispricing and warrant closer capital market surveillance. Credit cooperatives are long suffering from weak corporate governance with limited options to raise capital, and low loss-absorbing liabilities. A recent government initiative to incentivize higher mutualization of losses in the credit cooperative sector is welcome. If unsuccessful, the authorities should consider compulsory schemes to achieve similar goals.

The Spanish financial system is getting more exposed to contagion risks that need enhanced oversight and analysis including improvements in data collection. The growing cross border presence of Spanish banks provides welcome diversification effects, but brings along the need for continuing watch on inward and outward spillovers and amplification of the reputational risk channel. The small-sized but growing intra-system connectedness, important direct links between insurers and banks, significant presence in branch form of foreign banks, insurers, and investment firms, and the core role of the government bond market for banks, nonbanks, corporates, and foreign investors, could emerge as some new sources of contagion risk. The anticipated shifts in interest rate and liquidity conditions could revitalize risks arising from interconnectedness that are currently muted. Key data for this analysis include cross holding of assets by banks and nonbanks, the ownership structure of key financial assets, derivative exposures, and the overall size of non-traditional banking activities, including the rise in financial digitalization.

To effectively manage the aforementioned macrofinancial and structural challenges, stronger institutional foundations for financial oversight are a must. The independence, governance, forward-looking orientation, and analytical capacity need strengthening both within and across financial agencies. The recently announced proposals by the government to improve the framework for financial oversight must be implemented as a priority. The Bank of Spain (BdE)'s role should be bolstered by ensuring that all bank prudential matters not included in the Single Supervisory Mechanism (SSM) mandate are under its exclusive or prevalent control. The macroprudential toolkit would also benefit from further expansion to manage unexpected future vulnerabilities.

The FSAP's proposed establishment of a "Systemic Risk Council" (SRC) would considerably enhance Spain's capacity for systemic risk oversight and policy coordination. Chaired by the BdE governor and comprising the Treasury and relevant financial agencies, the SRC would be well placed to monitor and act on financial system activities relevant to Spain in an integrated manner. It would help Spain forge stronger partnerships and policy positions with the Banking Union supranational authorities.

Spain completed a timely transposition of the Banking Recovery and Resolution Directive (BRRD). It has publicly committed not to use public funds for bank bailout. The reform of a new category of senior non-preferred debt will support the implementation of the minimum requirement for own funds and eligible liabilities (MREL). Future action should be on developing a resolution strategy of less significant institutions (LSIs) with a low level of loss-absorbing liabilities. The Deposit Guarantee Fund (FGD) would benefit from enhancements to its revenue base and the payout system.

Table 1. Spain: Key Financial Stability Recommendations (Near term)/[1]		
To address crisis legacy issues and mitigate other risks to financial stability		
1	Enforce implementation of the ECB guidance on NPLs, including promoting banks' disclosure of targets and progress (paragraph 19)	SSM, BdE
2	Improve recovery of viable businesses by enabling the stay and involvement of public creditors in all pre-insolvency processes and enhancing the OCAP process for SMEs; strengthen commercial courts by resourcing them better (paragraph 21)	MoE, MoJ
3	Evaluate the scope for further banking consolidation through mergers, branch reduction, and business model adjustments (paragraph 22)	SSM, BdE
4	Monitor rigorously interest rate and bond market risks; ensure appropriate capital requirements to mitigate such risks (paragraph 23)	SSM, BdE
5	Improve liquidity monitoring, including by closing reporting gaps; critically review funding structures and policies of banks with excessive reliance on ECB's liquidity support; overall, place a premium on effective liquidity risk management by banks (paragraph 23)	SSM, BdE
6	Initiate, supervisory and prudential steps to reduce the mismatching of assets/liabilities in insurer balance sheets (paragraph 24)	DGSyFP
7	Foster development of market-based financing and supply of nonbank financial services for corporates and households (paragraph 25)	MoE, BdE, CNMV, DGSyFP
8	Enhance capacity to monitor and analyze macro financial linkages, intra-system connectedness, and cross-border spillovers; close data gaps (paragraph 31)	BdE with CNMV and DGSyFP
9	Review, as a priority, Sareb's medium-term financial outlook based on adverse scenarios; set up a tripartite committee (BdE, MoE, and FROB) to work out any needed mid-course corrections (paragraph 57)	MoE, BdE, FROB
To strengthen systemic and prudential oversight		
10	Set up a 'Systemic Risk Council' for inter-agency coordination on systemic risk factors, surveillance, and system-wide financial sector policies (paragraph 33)	MoE with BdE, CNMV, DGSyFP
11	Expand the macroprudential toolkit to include borrower-based tools (paragraph 39)	All authorities
12	Increase supervisory focus on corporate governance practices across all credit institutions, and the nonbank sector (paragraphs 46,51,52)	SSM, BdE, DGSyFP, CNMV
13	Assign the BdE full regulatory powers in matters not harmonized at the European level including authorizing mergers (paragraph 48)	BdE, MdE
To bolster crisis management, resolution, and safety nets		
14	Develop a credible resolution strategy for credit cooperatives and other Less Significant Institutions (LSIs); prepare recovery and resolution plans for significant insurance companies (paragraphs 63–64)	BdE, FROB, DGSyFP
15	Strengthen and upgrade the deposit guarantee scheme; create a protection scheme for insurance policyholders (paragraph 66)	FGD, MoE, DGSyFP
1/ In addition, the FSSA also has several other recommendations. These are important and could follow after consideration has been given to the "near-term" recommendations in this table.		

POST CRISIS: A NEW DIRECTION

1. The banking system continues to dominate the Spanish financial landscape (Figure 1). It is characterized by a universal banking model, retail orientation, and international expansion.

- As of end-2016, aggregated assets of financial institutions were about 360 percent of GDP; two-thirds belonged to deposit-taking institutions (Table 2). The share of financial assets abroad has grown to about 45 percent of total financial assets at mid-2016 (up from 20 percent at mid-2008), with exposures mostly to households and corporates. Spanish bank subsidiaries have become systemically important in Chile, Mexico, and Portugal, and are expanding in the United Kingdom, and the United States.

Significance of Spanish Banks for Host Countries (Percent)

Country	Share of Bank Assets Abroad	Share of Spanish Bank Assets in Host Countries' Banking Assets
UK	26.8	3.9
US	15.9	1.8
Mexico	8.9	37.7
Brazil	10.2	10.3
France	3.8	0.8
Portugal	3.5	14.3
Chile	4.2	25.3
Germany	3.8	0.8
Turkey	5.3	11.5
Italy	2.9	1.7
Rest of World	14.7	…

Note: As of 2016Q2 or latest available
Source: Bank of Spain

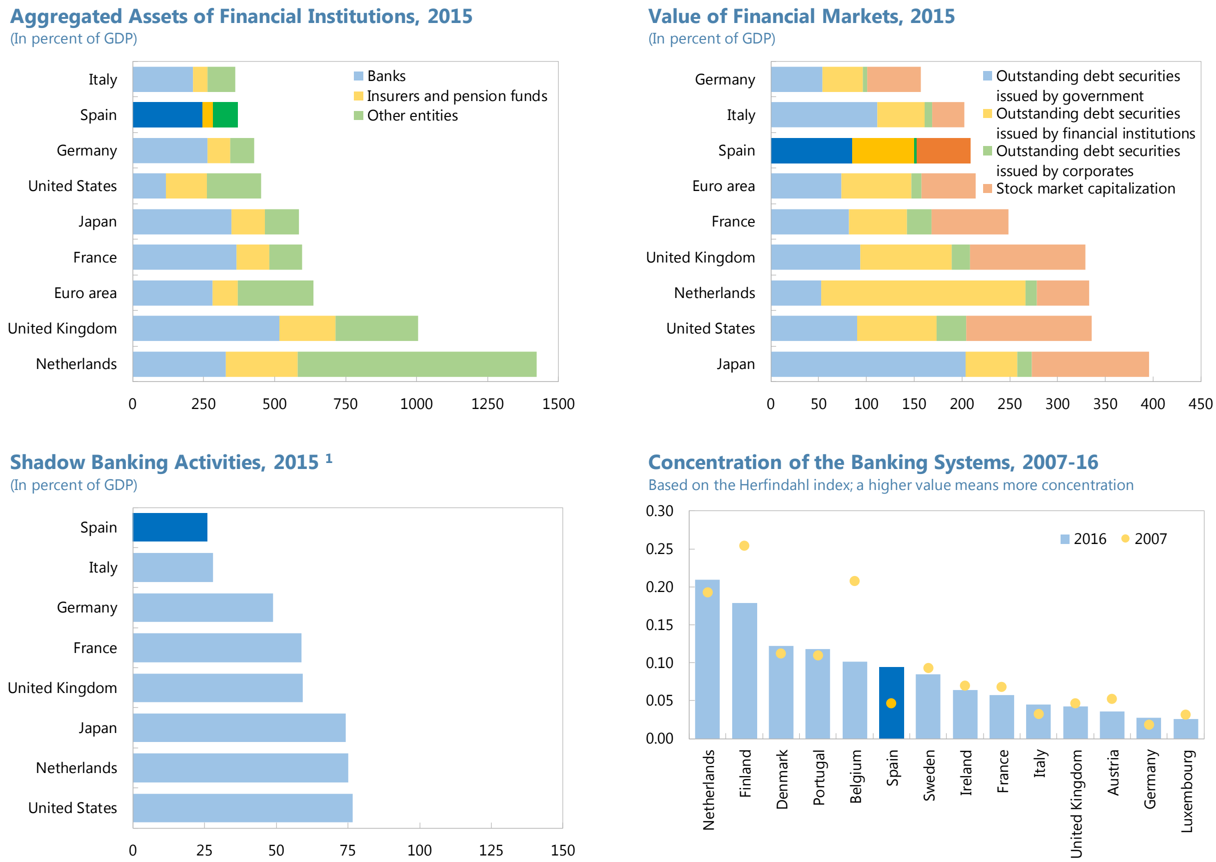
- As of July 2017, Spain had 13 significant institutions (SIs) of which one is a global systemically important bank (GSIB) and another one is a cooperative group. SIs represent over 90 percent of bank assets. Four SI-led groups are identified as 'conglomerates', though only two are under supplementary conglomerate supervision.

- The less significant institutions (LSIs) comprise 22 commercial banks, 2 small saving banks, and 43 credit cooperatives as of July 2017. With a market share of about 7 percent of assets, the cooperative sector is small but socially highly relevant and needing transformation.

2. The rest of the financial system includes insurers, pension and investment funds, and financial vehicle corporations, most of which are part of bank-led conglomerates. The insurance market is quite concentrated, and all the global systemically important insurers (GSIIs) are present. Fixed-income and mixed funds, SICAV funds, and money market funds are the largest mutual funds in terms of assets under management and mostly open-ended. The role and size of private pension funds is small but there is no risk of plan insolvency as most plans are defined contribution type. At a stable 25 percent of GDP, "shadow banking" is small when compared with other major euro area countries, and consists of collective investment vehicles with features that make them susceptible to runs; the rest (around 12 percent of shadow banking) is represented by asset-backed securities outside banking books.

3. Equity and bond financing are less significant than banks for domestic financial intermediation. Outstanding debt securities amount to about 150 percent of GDP, of which almost 60 percent are government bonds, while the rest is largely issued by financial institutions, including asset-backed securities. At about 60 percent of GDP, the total market capitalization of Spanish exchanges is smaller than major international stock markets. Spain is home to one central counterparty, BME Clearing.

Figure 1. Selected Advanced Economies: Financial System Structure



Sources: BIS, Debt Securities Statistics; Bloomberg; ECB, Banking Structural Financial Indicators; FSB, 2016 Global Shadow Banking Monitoring Report; IMF, World Economic Outlook database; and IMF staff calculations.

1/ Based on the FSB's economic function-based measure.

Table 2. Spain: 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.

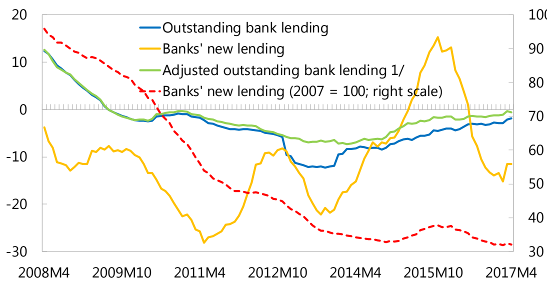
1/ Based on operations in Spain.

4. Since the 2012 FSAP, the macro financial conditions have become more supportive of financial system stability but remain challenging (Figure 2). Real GDP has likely surpassed its pre-crisis level in the first half of 2017 after four years of economic expansion. Macro financial imbalances have declined thanks to sustained current account surpluses and private sector deleveraging. Financial conditions are more favorable, with lending rates largely comparable with the euro area averages. Despite this, the country has a large negative net international investment position (86 percent of GDP), high unemployment (18 percent), and elevated public sector debt (almost 100 percent of GDP). House prices are recovering but remain well below pre-crisis levels, complicating efforts to reduce foreclosed assets. Low interest rates are also compressing bank net interest income.

5. Banks are not fully active yet in carrying out their intermediation function as credit continues to contract. This behavior reflects the still weak demand for bank based financing with corporates and households continuing to deleverage; the high unemployment rate; and corporates' shift to nonbank financing. Improving profit margins have also enabled corporates to finance new investment with retained earnings.

6. In the period, ahead, banks may confront macroeconomic uncertainties and balance sheet management challenges. Real GDP is projected to expand by 3.1 percent in 2017, and to average around 2 percent in 2018–22 with risks tilted to the downside. Over the next three years, the prospective termination of the ECB's TLTROS will expose banks to higher funding costs while the phase-in of deductions under the CRR will require more high-quality capital. Shifts in retail banking customer preferences resulting from digital finance will impose changes in bank business models.

Banks' Lending to Private Sector, 2008-17
(In percentage change; year-on-year)



Sources: BdE; Haver Anlaytics; and IMF staff calculations.
1/ The adjusted figure shows "effective flows", which comprise newly extended credit net of repayment (i.e., not includign write-offs or adjustments).

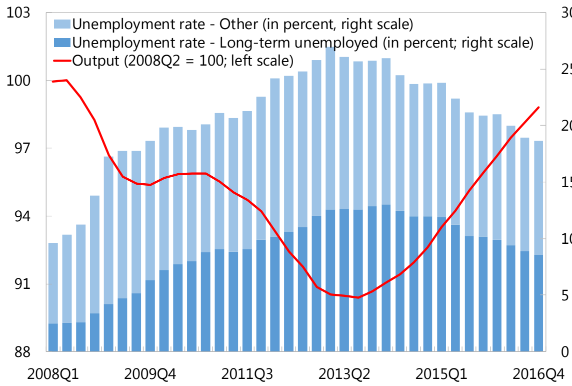
7. The 2012 FSAP recommendations have been mostly implemented (Appendix I). From a total of 18 key recommendations, only about 3 related to insurance oversight and independence of the securities market regulator (CNMV) are still in progress. The financial sector assistance program adopted in 2012, and the move towards the Banking Union also helped close several of the gaps in oversight and resolution.

8. Supervisory action has focused on reducing problem assets (nonperforming loans and foreclosed property) with the support provided by BdE's tools. Apart from two Royal Decrees issued in 2012 on the recognition of bank losses, the BdE introduced in 2013 a more conservative approach on loan classification, and recently amended its accounting rules for provisioning (Circular 4/2016). The latter provides guidance on the valuation of collateral and foreclosed assets, and initiates a transition towards the adoption of IFRS 9 in 2018. The BdE also created a real estate database and a technical group to help assess the consistency of asset valuation across banks. These efforts were supplemented with the ECB's guidance to banks on NPLs issued in March 2017 by which banks are expected to submit NPL reduction targets that are realistic but sufficiently ambitious. Spain also implemented major reforms of its insolvency regime.

Figure 2. Macrofinancial Developments and the Financial Cycle

Vulnerabilities arise from high unemployment …

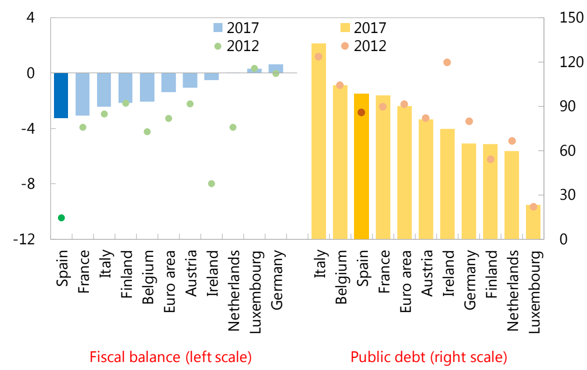
Output and Unemployment, 2008-16



…and high public debt, especially considering strong sovereign-bank linkages …

Fiscal Balance and Public Debt, 2012-17

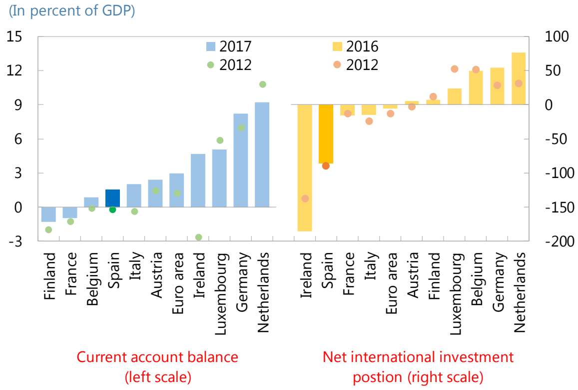
(In percent of GDP)



…and a sizeable net debtor position with the rest of the world…

Current Account Balance and External Position, 2012-17

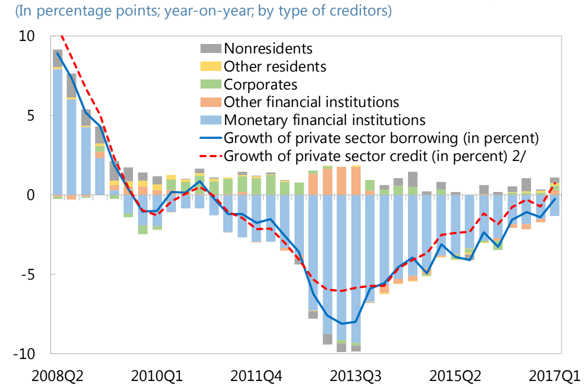
(In percent of GDP)



Banks' lending has fallen …

Contribution to Growth of Private Sector Borrowing, 2008-17

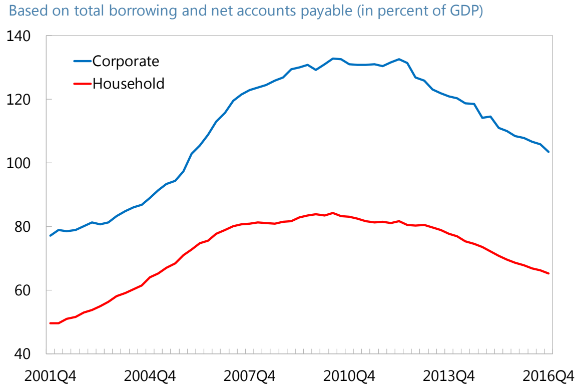
(In percentage points; year-on-year; by type of creditors)



…as corporates and households have continued to deleverage.

Corporate and Household Debt, 2001-16

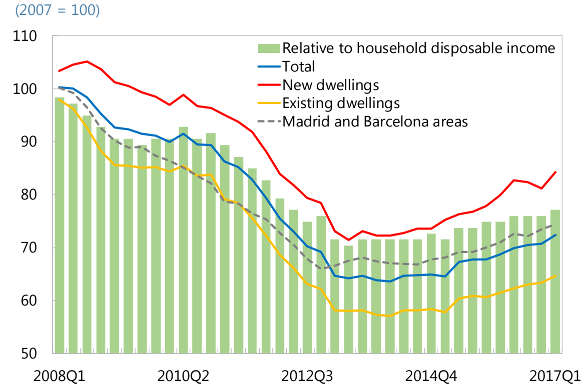
Based on total borrowing and net accounts payable (in percent of GDP)



House prices have started to recover, but remain well below pre-crisis levels.

House Prices, 2008-17

(2007 = 100)



Sources: BdE; Haver Analytics; IMF, International Financial Statistics and World Economic Outlook database; and IMF staff calculations. [1] Based on outstanding corporate debt securities relative to outstanding banks' lending to corporates. [2] Private sector credit only includes borrowing from resident credit institutions, debt securities issuance, and external borrowing by corporates. The adjusted figure shows "effective flows," which comprise newly extended credit net of repayment.

9. Domestic financial reform efforts have been ongoing, in part undertaken in the context of the Banking Union. The government has recently announced initiatives to modernize institutional arrangements, make the credit cooperative sector more resilient, and enhance disclosure requirements to prospective mortgage borrowers (see paragraphs 34 and 35). Spain has also transposed key European Union (EU) directives such as the Capital Requirements Directive (CRD) IV, and the BRRD. The first resolution of a publicly listed SSM supervised SI was undertaken under the BRRD in June 2017 (see paragraph 62).

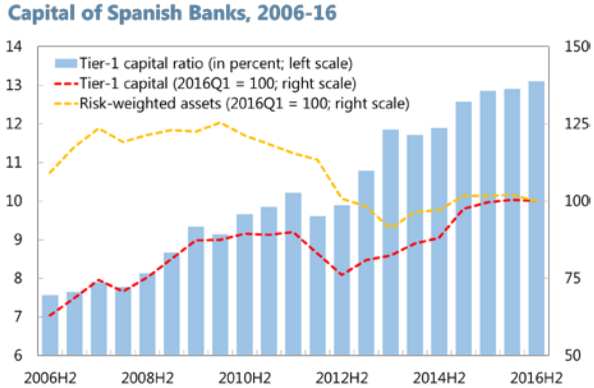
RISKS TO FINANCIAL STABILITY

A. Banking

10. The banking sector has become more resilient since the last FSAP. Most SIs have stronger capital and funding positions, reduced problem assets, and improved profitability. Bank consolidation continues with the recent purchase of a medium-sized SI by a GSIB, and the upcoming merger between two state-owned SIs. Another medium-sized bank has recently succesfully completed an initial public offering that helps repay state aid.

11. While strongly capitalized for the present, banks would benefit from more high-quality capital. The system's total capital ratio has increased from 11.6 percent at end-2012 to 14.8 percent at end-2016. However, common equity tier-1 (CET1) capital on a fully-loaded basis is relatively low. For SIs, the difference between fully-loaded and transitional CET1 capital ratios could be about 160 bps. The implementation of IFRS 9 could also require capital although transitional arrangements may limit the impact. Given their higher risk weight density, due to a more intensive use of the standardized approach, Spanish banks may be less impacted than some of the European peers by the introduction of floors on risk weights.

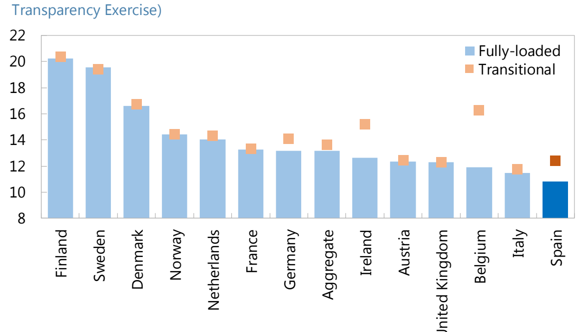
Capital of Spanish Banks, 2006-16



Sources: EBA, 2016 Transparency Exercise; and IMF staff estimates.

Common Equity Tier-1 Capital, 2016Q2

(In percent of risk-weighted assets; based on banks reported in the 2016 Transparency Exercise)

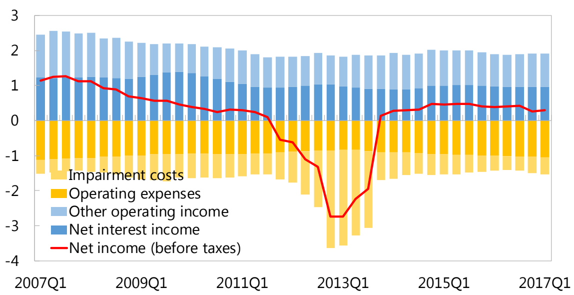


Sources: EBA, 2016 Transparency Exercise; and IMF staff calculations.

12. Low profitability will continue to challenge the business model of some banks. Profitability has recovered gradually since the crisis, but the return on equity remains below the cost of capital. Spanish banks' profitability is influenced by a mix of cyclical and structural factors, including the low interest rate environment, sizable NPLs, and relatively high excess capacity (branch density). The internationally oriented Spanish banks perform more strongly in net interest income compared with domestically oriented banks, mainly supported by their subsidiaries abroad (particularly in emerging markets). Many Spanish banks have carried out cost cutting measures since the crisis, including branch reduction. The number of bank employees per capita is now low, but branch density remains high in European comparison.

Profitability of Banks in Spain, 2007-17

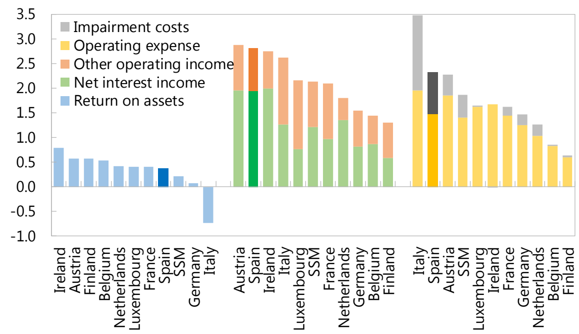
Net income in percent of average total assets



Sources: BdE; and IMF staff calculations.
Note: The aggregate figure of net income in 2011-12 is amplified by the segregation process of saving banks' busienss to newly-created banks.

Bank Profitability, Earnings and Expenses, 2016

(In percent of total assets)

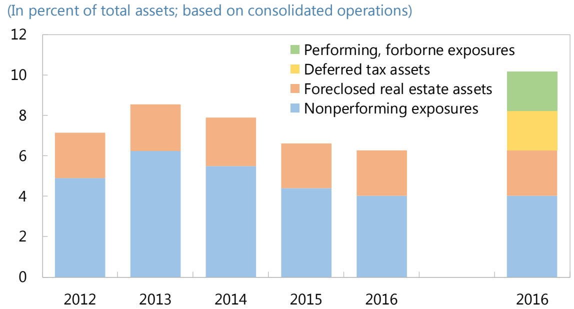


Sources: ECB, Supervisory Banking Statistics; and IMF staff calculations.

13. Problem assets (NPLs and foreclosed property) have been on a steady declining path but remain high. For consolidated operations, the NPL ratio for Spanish banks was 5.6 percent as of end-2016, close to the EU average. For banking business in Spain, the NPL ratio declined from its 2013 peak of 13.6 to about 9.25 percent at end-2016. However, total problem assets are still about 70 percent of their peak in 2013, and banks hold sizable performing restructured loans. Problem assets vary significantly in size across banks, and are concentrated in those with exposures to residential mortgages and real estate-related firms, whose NPLs represent about 57 percent of all NPLs.

Nonperforming, Forborne and Non-earning Assets of Spanish Banks, 2012-16

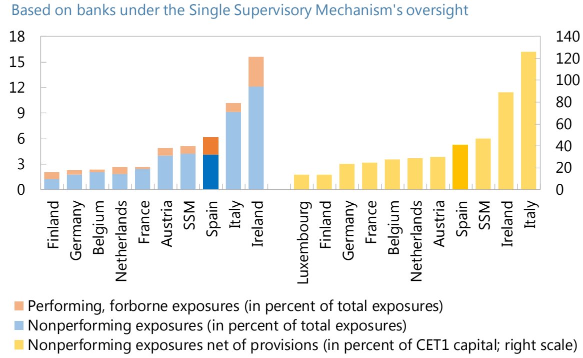
(In percent of total assets; based on consolidated operations)



Sources: Banks' reports; BdE; ECB, Supervisory Banking Statistics; IMF, Financial Soundness Indicators database; and IMF staff estiamtes.

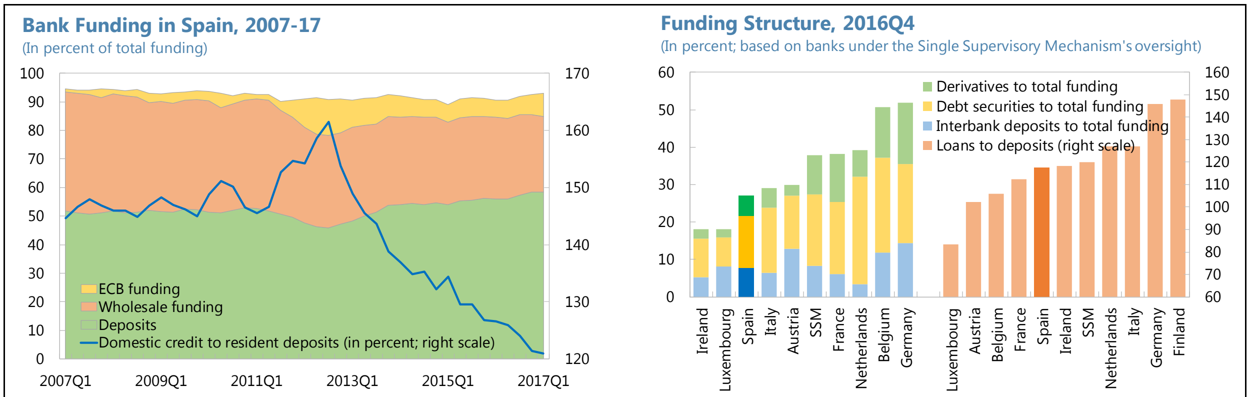
Performing Forborne and Nonperforming Exposures, 2016Q4

Based on banks under the Single Supervisory Mechanism's oversight



Sources: ECB, Supervisory Banking Statistics; and IMF staff calculations.

14. Overall bank liquidity is ample, but how, going forward, the liquidity strength will interact with lower access to the ECB funding is unclear. All banks had Liquidity Coverage Ratios (LCRs) above 100 percent at end-2016. There was no substantial shortfall in the LCR in foreign currencies. The Net Stable Funding Ratio (NSFR) did not reveal any excessive maturity transformation with a comfortable aggregate ratio of 111 percent. A cash-flow based analysis indicates that all banks would have enough liquid assets to cover net liquidity outflows from one week to more than a year. However, in the absence of ECB funding (which represents 6 percent of total funding on average and higher in the case of one SI), calculations suggest that aggregate NSFR would fall to about 97 percent, translating into a funding shortfall equal to 4.8 percent of GDP (the NSFR of the weakest SI would drop to 77.5 percent) based on end-2016 data.



Sources: IMF, International Financial Statistics; and IMF staff calculations.

Sources: ECB, Supervisory Banking Statistics; and IMF staff calculations.

15. As monetary conditions start to tighten and the ECB's TLTROs get closer to maturity in June 2020, banks will likely confront higher funding costs, and a reduction in readily available funding. Funding needs will also rise to meet growing credit demands of the Spanish economy over time. Some banks have used TLTRO funds to invest in long-duration government bonds to boost profits, thus assuming interest rate risk given uncertainties in the bond market. With a sizeable exposure to its own sovereign, Spanish banks are exposed to the macro-fiscal channels exogenous to them. At end-2016, Spanish banks' claims on its own sovereign was 11 percent of total assets, among the highest for major euro area economies (Box 1).

Resilience to Adverse Scenarios

16. A severely adverse scenario for the FSAP solvency stress tests combined some of the features of the 2012 banking crisis and a growth slowdown in countries in which Spanish banks operate. The narrative is driven by de-globalization initiatives, including the post-Brexit arrangements. Anticipating the impact of these initiatives, stock markets experience a sell-off in the near-term, there would be large capital outflows from Lain America and Turkey, motivated by political uncertainty, and a significant growth slowdown in the United Kingdom as the terms of Brexit become more clear. In addition, domestic consumption and investment would become weaker due to increased political uncertainty (Figure 3, Tables 3 and 4). The FSAP's 's top down (TD) stress test used supervisory information as of December 2016, and covered the 14 Spanish SIs in operation as of this date, while the authorities' TD stress tests covered most LSIs (Appendix Table 2).

17. The FSAP stress tests showed that a few SIs would struggle to remain resilient under the above mentioned severely adverse scenario. SIs would incur losses due to reduced net interest income and additional credit losses owing to rising funding costs and NPLs, respectively. Furthermore, interest rate risks would materialize, causing trading losses and negative valuation impacts (Figure 3). The SI's aggregate fully loaded CET1 ratio would decline from 10.9 to 7.4 percent (about 1 percent of GDP). On average, over the stress test horizon, credit risk accounts for a reduction in capital equivalent to 1.5 percent of risk-weighted assets (RWAs), followed by losses due to interest rate risk in the banking book (0.6 percent of RWAs) and losses due to a repricing of fixed income securities (0.4 percent of RWAs). No LSI would suffer any capital shortfalls under the authorities' TD stress test.

18. FSAP liquidity stress tests suggest that some SIs would face strains under severely adverse funding conditions. The tests used supervisory information as of December 2016.

- In case of retail and small business deposit withdrawals by 10 to 15 percent respectively and an (unlikely) reduction of ECB funding by 20 percent in a month, several SIs would fall below the LCR hurdle rate of 100 percent, although all of them would continue to meet the rate of 80 percent which is the binding regulatory level in 2017. This scenario would be in line with the most severe deposit run experienced by a Spanish bank from a historical perspective (prior to the June 2017 episode). No LSI would experience a liquidity shortfall under the authorities' stress test.
- In the case of a loss of unsecured wholesale funding by 70 percent, most SIs would have enough liquid assets to cope with net outflows. However, under an extreme liquidity scenario of a complete freeze of unsecured wholesale funding markets, a significant number of SIs would face liquidity shortfalls. The liquidity shortfall for LSIs would be very limited under the authorities' stress test.

Mitigating Banking Stability Risks

19. A tough stance on the implementation of the ECB guidance on NPLs is desirable. Ideally, in the case of Spain, the cleanup should be completed before the expiration of the ECB's long-term support. Targets to reduce problem assets should be ambitious and failure to comply should have prudential consequences. BdE should produce its own projections of property prices to assess banks' NPL reduction strategies. Disclosure of progress should be made mandatory under a standardized reporting form. Banks reporting a high migration of performing restructured loans into non-performing should be required to review their policies for loan classification.

20. Unrecoverable exposures must be fully provisioned. Analysis suggests that part of the corporate NPL stock may not be recovered and that banks would need to foreclose the underlying collateral. At end-2015, financially weak firms, when defined as those with negative equity, accounted for 7 percent of corporate debt, and 22 percent, when defined as those with earnings below interest expenses. For the real estate sector (which accounts for about 40 percent of NPLs), about 38 percent of debt was owed by firms that had been unable to generate earnings to cover interest expenses during 2013–15. While financially stressed households exist given their debt repayment obligations, their debts are mostly covered by assets, thus potentially limiting losses for banks.[1]

21. Further refinement of in-court and out-of-court processes would be helpful to support debt restructuring and recovery. While the revised Spanish insolvency regime is largely in line with international best practices, stakeholders continue to note the lengthy processes and the limited recovery for creditors. To reap full benefits—particularly for small and medium-sized enterprises (SMEs)[2]—the out-of-court agreements on payments (OCAP) process should be strengthened by facilitating coordination and promoting unified approaches among banks, for instance with respect to viability. Further, public creditors should also be stayed and affected in all pre-insolvency out-of-court procedures. A modern creditor class voting system with a cram-down mechanism should be introduced to ensure fair treatment among creditors and the restructuring of only viable businesses (those whose restructuring value exceeds their liquidation value). The institutional framework supporting insolvency and creditor rights has been strengthened but should be further reinforced with more resources.

22. Banks would also benefit from further cost cutting and branch consolidation, and more high-quality capital. A rationalization of the extensive branch network as well as potential adjustments in business models could help. This could include assessing the impact of digitalization and Fintech on retail financial services as well as benefits from non-interest income generating activities.[3] Supervisors should focus on viability of these business options and their impact, and how it might alter the domestic financial structure and competition. Banks should be encouraged to hold capital buffers to meet CET1 ratios ahead of transitional arrangements and to withstand macro financial shocks.

23. Augmented supervisory approach will be needed to control for emerging risks. Supervisors should ensure that banks' Pillar II requirements reflect banks' ability to withstand interest rate hikes and bond market yields. For interest rate risk, the 2017 sensitivity analysis that the ECB is conducting should help identify outliers and assess the quality of internal methodologies. For banks subject to excessive liquidity risk, efforts should be made to ensure the adequacy of good quality collateral for emergency liquidity assistance. Supervisors should also periodically review Spanish banks' plans for an unwinding of ECB funding operations and improve their liquidity monitoring by closing liquidity reporting gaps with an expanded harmonized EU bank reporting. Data needed to compute the maturity ladder should be collected on a regular basis.

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[1] See "Corporate and Household Balance Sheets: The Impact from Deleveraging," a *Selected Issues* for the 2017 Article IV consultation.

[2] There are 1.2 million nonfinancial corporations in Spain, of which 98½ percent are SMEs. The 3.8 million employees represent about one fifth of total employment. There are 1.9 million sole proprietorships with no employee.

[3] Digitalization and FinTech have started to impact Spanish banks, which could potentially provide cost saving solutions to banks, for example, through more cost-efficient payment system and back office operations.

Table 3. Spain: FSAP Risk Assessment Matrix

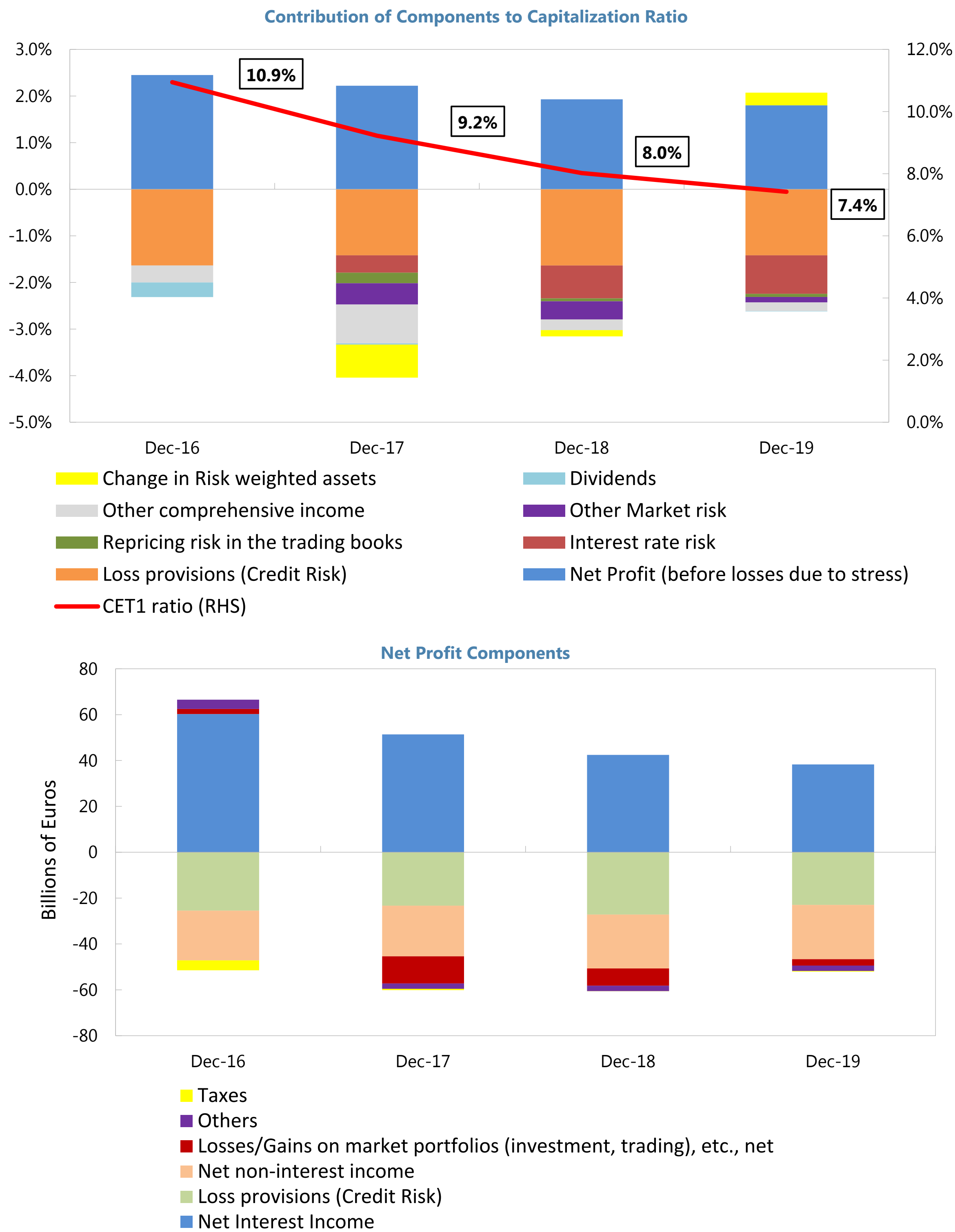
Source of Risks	Relative Likelihood	Impact and Transmission Channels
Weak economic growth due to internal and external factors This risk could materialize due to: • Weak demand in the euro area; • Weak implementation of domestic fiscal commitments and structural reforms or reversal of past policy achievements	**High** **High** **Medium**	**Medium/ High** These factors could cause a significant deviation of domestic GDP growth relative to baseline, leading to: • Prolongation of low interest rates environment and slowing external demand, affecting net interest income (NII). • Weakening of confidence, consumption and investment, which could adversely impact public debt dynamics, asset prices (collateral and foreclosed assets valuations) NPLs and provisions. • Lower demand for new credit, affecting NII.
Tighter and more volatile global financial conditions This risk could materialize due to: • Reemergence of financial stresses in Euro Area. • Financial markets front-loading the impact of retreat from cross-border integration initiatives in the US and Europe.	**Medium/High** **Medium** **High**	**Medium** These factors could cause a sharp rise in risk premia, and Spanish bond spreads, leading to: • Losses due to bond valuation. • Increase in funding costs, and subsequent lower credit growth. • Impact on confidence: access to market funding for weaker banks; slow pace of recovery of real estate prices.
Significant growth deterioration in countries with a large presence of Spanish banks This risk could materialize due to: • Capital outflows from large EMs. • Slowdown of the U.K. economy, as the terms of Brexit become more clear.	**Medium**	**Medium** • Direct impact on banks with significant interests in these countries via low profitability, asset quality and exchange rate depreciation which could weaken contributions to parents' capital buffers. • Reduction in external demand from the United Kingdom and euro area.

Table 4. Spain: Evolution of Main Variables Under the Solvency Stress Tests

In Percent (Unless otherwise specified)

	Baseline (from WEO)			Adverse Scenario		
	2017	2018	2019	2017	2018	2019
Real GDP (2016=100)	102.4	104.6	106.7	98.3	95.9	97.3
Short-term money market rate	0.1	0.1	1.0	0.8	1.3	2.2
Long-term government bond yield	2.2	2.7	3.1	3.7	4.4	4.4
Exchange rate (EUR/USD)	0.95	0.95	0.95	0.94	0.94	0.94
Equity price growth	13.9	0.0	0.0	-16.8	-10.5	-4.0
Inflation rate (CPI)	2.4	1.4	1.5	1.5	-1.5	-1.8
Unemployment rate	17.8	16.8	16.0	20.9	21.9	21.7
Nominal GDP growth	4.0	3.6	3.7	-1.0	-4.1	-0.5
Commodity price - Energy (Index 2005=100)	103	102	100	88	67	59
Commodity price - Non-energy (Index 2005=100)	143	141	139	131	115	107
Real Estate Price Growth	2.9	3.7	5.5	-2.0	-5.1	-0.8
Memo:						
Spread of short-term money market rate	0.0	0.0	0.0	0.6	1.0	1.0
Real GDP growth (in percent)	2.4	2.1	2.0	-1.7	-2.4	1.5

Figure 3. Significant Institutions—Decomposition of Solvency Stress Tests Results



Source: IMF Staff Calculations.

B. Nonbanks and Financial Markets

24. Systemic risks in nonbanks and financial markets are moderate (Figure 4):

- *The insurance sector appears solvent and profitable*. Room exists to improve the management of interest rate risk. Spanish life insurance products contain various interest rate guarantees in traditional life and annuity products. The European Insurance and Occupational Pensions Authority (EIOPA) stress test results revealed the need for better matching of assets and liabilities in Spain (and across the EU) insurers, even among those applying for the Matching Adjustment under Solvency II.
- *Redemption risks born by investments funds are low***.** During the crisis, the size of the industry fell one half from its peak because of redemption. Recently, funds have expanded and investments have been reallocated to foreign securities (more than 50 percent of mutual funds' assets under management AUM and more mixed funds (fixed income and equity) due to the low interest rate environment. This has reduced the share of illiquid assets at the expense of greater exposure to equity market volatility (Figure 4).
- Risks emanating from markets and investment management firms' activities are muted for the present. However, CNMV's market surveillance indicators point to illiquidity in certain segments of the secondary bond market, likely due to easy funding conditions, and potentially distorting risk pricing and undermining banks' ability to raise funding**.**

25. The Spanish authorities and the industry should actively consider expanding financial diversity and savings intermediation into insurance, pension, and asset management products. The domestic financial markets and nonbank financial institutions are less developed than banks and other European markets, depriving market participants from alternative mechanisms for risk-sharing and savings allocation that could provide buffers in times of a liquidity or a systemic stress.[4]

C. Key Risk Amplification Channels

26. Main sources of systemic interconnectedness risks are common exposures (particularly to government debt), the conglomerate structure, and cross-sectoral and cross-border claims. The government debt market is the most dominant source of common exposures (Box 1).[5] In 2016 banks and other financial institutions held Spanish government debt securities of around 15 and 10 percent of GDP, respectively, up from the low single-digit figures pre-crisis. This nexus is an important risk transmission channel for Spanish banks and the public sector. Conglomerates help to

[4] The pension reforms in 2011 and 2013 helped safeguard the public pension system's financial sustainability, but imply a significant reduction in pension benefits over time, giving rise to the need to further develop private pension funds. See "The Spanish Pension System: Challenges beyond Financial Sustainability", a *Selected Issues* for the 2017 Article IV consultation.

[5] Data on ownership of other major financial assets such as covered bonds and securitized assets were not available.

diversify risk but also increase cross-sectoral interconnectedness, and introduce another channel of potential contagion. Greater focus on group supervision—in particular, group risk management and related party investments—is warranted.

27. Interbank and cross-sectoral interconnectedness appear subdued but these linkages could become a prominent risk transmission channel as monetary policy normalizes and macro financial conditions become more favorable.

- The contagion risk in the domestic interbank market is contained because of limited exposures, largely due to ECB's long-term funding**.** Among the SIs, the five largest banks account for about 85 percent of interbank exposures. Using supervisory information, a domino-type SI network analysis found that no bank would fail if any of the SIs were to default on their interbank exposures.
- Among cross-sectoral links, exposures of insurers to banks are significant (Figure 6). This cross-sectoral interconnectedness has declined after the crisis as many banks sold insurance participations and originated fewer insurance products associated with mortgage loans. Exposures of banks to insurers or to mutual funds appear negligible at present. Consistently, using market-based measures of contagion, banks are found to be the source of (equity return) spillovers to insurance companies.

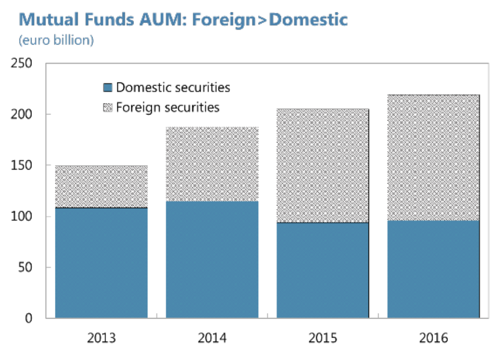
28. The largest inward cross-border spillover originates from countries in which Spanish banks have sizeable exposures. Network analysis using exposure data shows that credit and funding shocks from France, the United Kingdom, the United States, and Italy could cause significant inward spillovers to Spanish banks due to claims on the banking sector, while credit shocks from the United Kingdom, the United States, Latin America, and Turkey could impact Spanish banks through their sizable subsidiary operations (claims on the public and nonbank private sector) in these countries (Figure 6A). Market data analysis suggests strong indirect linkages between Spanish and other European banks, with banks from France, the United Kingdom, and Germany as important sources of return connectedness for Spain (Figure 7). The high degree of equity return connectedness among European banks could be attributed to the close balance sheet linkages as shown in the exposure data, and the similarity in bank business models, macro environment, monetary policy and financial regulations.

29. At this stage, the impact of Brexit on the Spanish financial sector is expected to be contained. Brexit could affect the Spanish financial sector through a few channels: (i) the presence of Spanish subsidiaries in United Kingdom, which account for about a quarter of two Spanish banks' assets; (ii) the use of London-based central counter parties (CCPs) for clearing purposes; (iii) debt issuance in London; (iv) the presence of U.K. insurer and other branches in Spain; and (v) relocation of non-EU banks' subsidiaries away from London to EU countries. The FSAP assessment is based on the results of solvency stress tests, as well as analysis made by banks and supervisors.

30. Spanish banks could also lead to sizable *outward spillover* to European banks and those in Latin America through both direct and indirect channels. For example, banks in France, Austria and Italy could be influenced by credit and funding shocks from Spain due to their claims on Spanish banks. In addition, credit shocks from Spain could generate sizable outward spillover to Dutch and French banks due to their exposures to the nonfinancial private sector in Spain, and Italian banks due to Italian banks' claims on the Spanish sovereign (Figure 6B). Credit shocks in Spain could also have significant outward spillover on bank credit in the United Kingdom, accounting for trade and financial linkages and macro-financial interactions. Furthermore, market data analysis suggests that the equity returns for banks in Mexico, Chile, Brazil, and Turkey are influenced by movements of Spanish bank share prices (Figure 7).

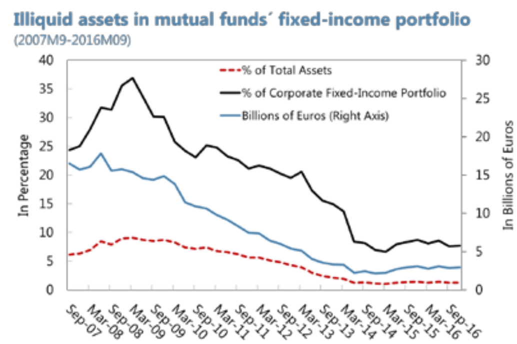
Figure 4. Financial Markets: Stress and Liquidity

Portfolio composition is switching to foreign…



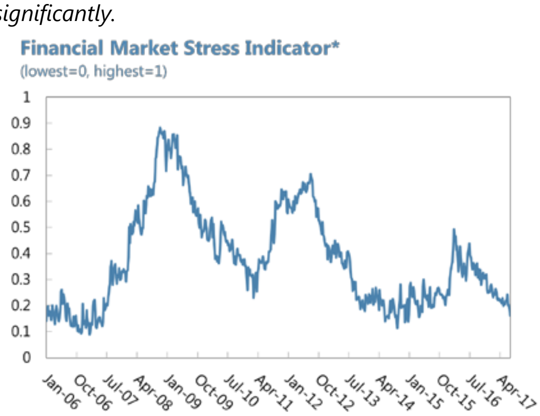
Sources: CNMV

and more liquid assets



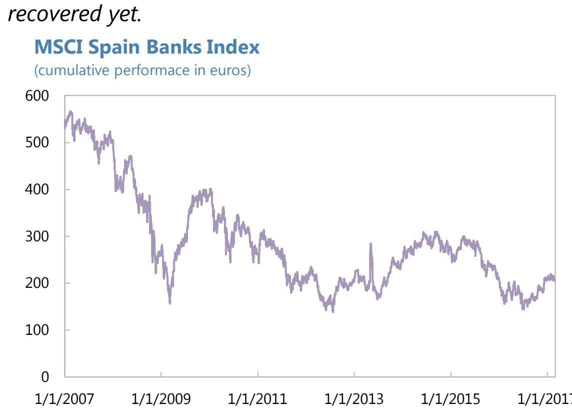
Sources: CNMV

While stress in financial markets has decreased significantly.



Sources: CNMV

.. financial institutions' equity prices have not fully recovered yet.



Sources: MSCI, DataSteram and IMF staff calculations

*Financial Market Stress Indicator (FMSI) represents a real-time measure of systemic risk, quantifying stress in the Spanish financial system and describing the contribution of each financial market segment (bond market, equity market, money market, financial intermediaries, forex markets and derivatives) to the total stress in the system. The methodology takes into account time-varying correlations between market segments (see Cambón and Estévez, 2015).
Sources: CNMV, FSB, and IMF staff estimates.

31. Cross-sectoral and cross-border linkages should thus become part of regular systemic risk surveillance. Interagency and supervisory college collaboration should be enhanced to implement a more holistic approach to the monitoring of markets and financial intermediaries. Key data to be collected and/or be readily available for analysis include cross holding of assets among banks or among banks and nonbanks, ownership structure of key financial assets, derivative exposures of financial institutions, and the overall size and risk of non-traditional banking activities within and outside banks to fully assess contagion effects.

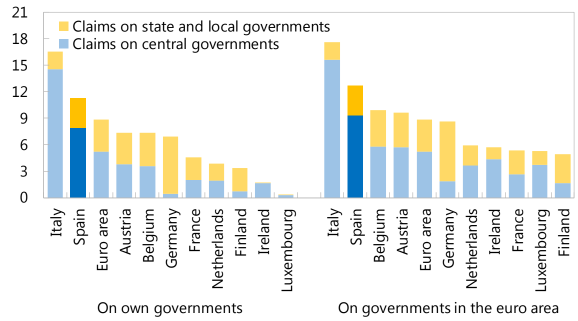
Box 1. The Bank-Sovereign Nexus

The link between the balance sheet of the sovereign and those of banks is a classic amplification mechanism. Channels work through actual exposures as well as through market perceptions of risk dependence between banks and the sovereign.

First, *bank exposures to the sovereign* through the holding of government bonds and other claims are the most direct link of the two sectors. Spanish banks' claims on its own sovereign amounted to 11 percent of total assets at end-2016. These sizeable exposures of Spanish banks to its own sovereign are higher than the euro area average at 9 percent of total assets, and only second to those of Italian banks among major euro area economies.

Claims on Government, 2016 [1]

(In percent of total assets of depository institutions)



Sources: IMF, International Financial Statistics; and IMF staff estimates.

[1] Include securities, loans, and accounts receivables.

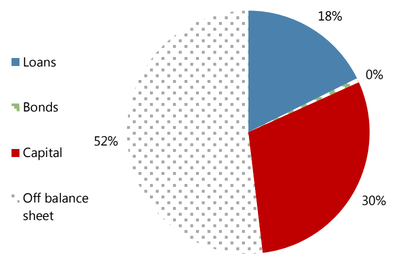
Second, sovereign's *contingent liabilities* in the financial sector represents another channel of contagion. The Spanish government provided guarantees on certain liabilities of banks during the crisis, with outstanding guarantees at about €1.06 billion at end-2016. It also guaranteed the entire senior debt issued by the company for the Management of Assets proceeding from Restructuring of the Banking System (Sareb) in the amount of €41.6 billion at end-2016 (about 4 percent of GDP). The government could also be called to disburse deferred tax credits, which are certain deferred tax assets (DTAs) that are eligible for CET1 capital, in the case that banks fail.

Third, the bank funding channel could reflect market perception of risk dependence between the financial and the government sectors, including potential state support to the financial system. Strong co-movement between bank equity indices and sovereign bond yields are observed, as lower sovereign ratings could weaken bank profits through valuation effects and funding costs, and affect investor confidence potentially related to concerns surrounding fiscal backstop. For example, a cointegrated VAR for the Spanish economy shows that a one-standard deviation positive shock to Spain's 10-year sovereign yield (around 50 basis points) is associated with a 4 percent decline in bank equity index in real terms in the first two quarters after the shock.

Figure 5. Cross-Sectoral Interconnectedness

While banks exposures to insurers are mild (around 1 percent of banks' total exposure) …

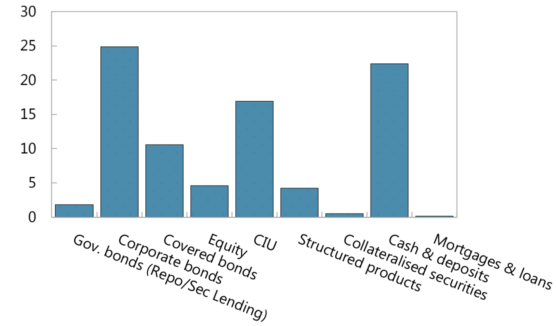
SIs exposure to insurance sector (2016Q2)
(percent of total exposure)



Sources: BdE

Insurance exposures to banks are significant (around 30 percent of insurance companies' total exposures)

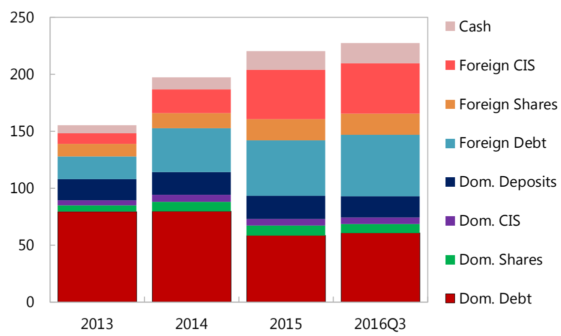
Insurance companies exposures to banks (2016)
(euro billions)



Sources: DGSFP

Mutual funds' investment in domestic deposits is about 1 percent of deposits and their domestic assets represent around 40 percent of AUM; yet the trend is to diversify abroad….

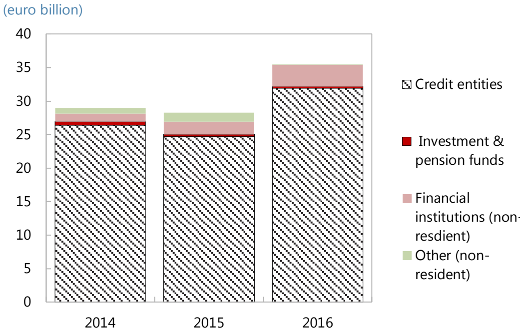
Mutual funds asset allocation
(euro billion)



Sources: CNMV

Risk transmission to banks from securitization appear mild: subscriptions by credit entities over the last three years represent about 1 percent of bank assets…

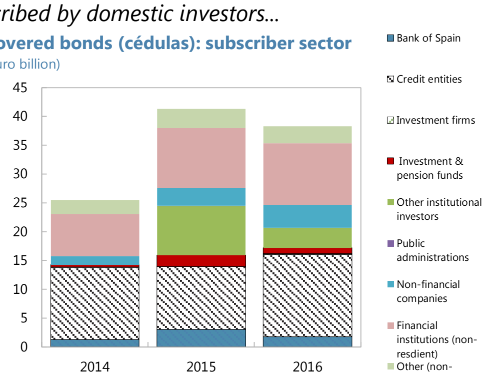
Securitization bonds (MBS and ABS): subscriber sector
(euro billion)



Sources: CNMV

There may be transmission through common exposures: about 65 percent of issuances over the last 3 years were subscribed by domestic investors…

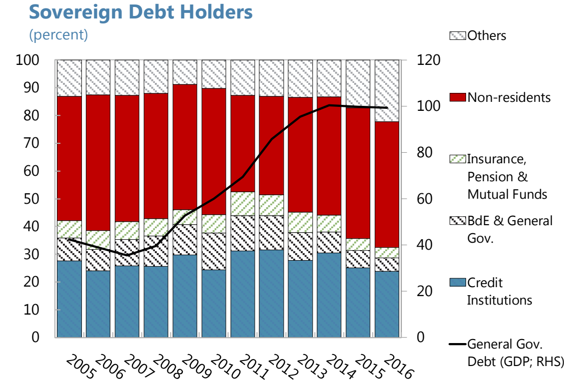
Covered bonds (cédulas): subscriber sector
(euro billion)



Sources: CNMV

Common exposure to the sovereign bond market remains the largest source of interconnectedness….

Sovereign Debt Holders
(percent)



Sources: : Spanish Secretariat of the Treasury, eurostat, and IMF calculations

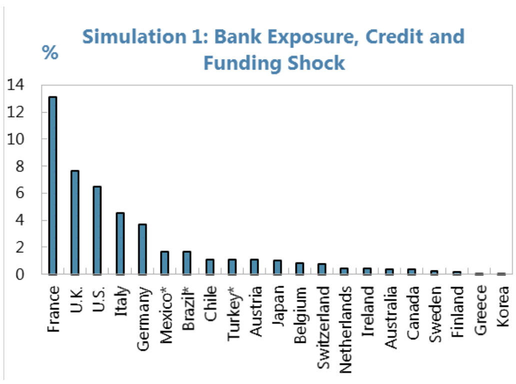
Sources: BdE, CNMV, DGSyFP, and IMF staff calculations.

Figure 6. Network Analysis: Inward and Outward Spillover

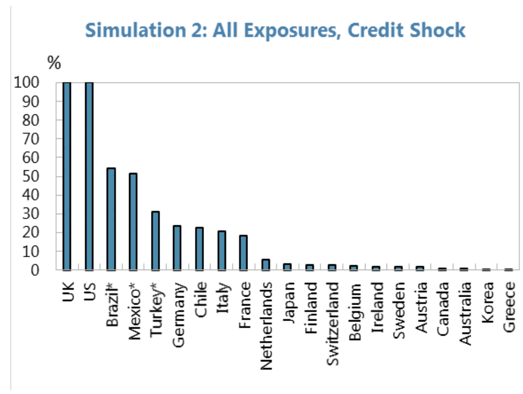
(Percentage of capital loss)

A. Inward Spillover to Spain by Source Country

Banks in France, the U.K, the U.S and Italy have the largest impact on the Spanish banking sector through interbank exposures….

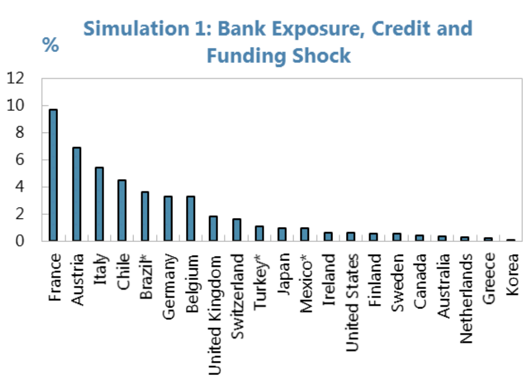


…once all exposures (including claims on banks, public and private sector) are included, Spanish banks' exposures in Brazil, Mexico and Turkey could be important sources of credit shocks.

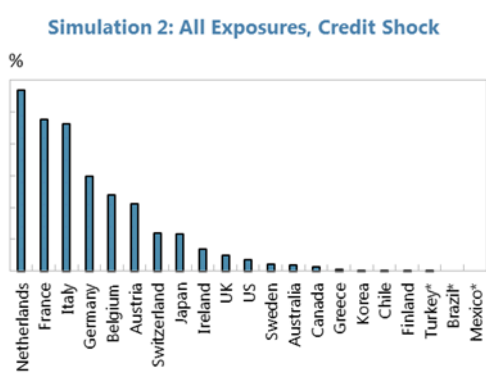


B. Outward Spillover from Spain by Destination Country

Credit and funding shocks in the Spanish banking sector have sizable impact on banks in France, Austria and Italy through interbank exposures…



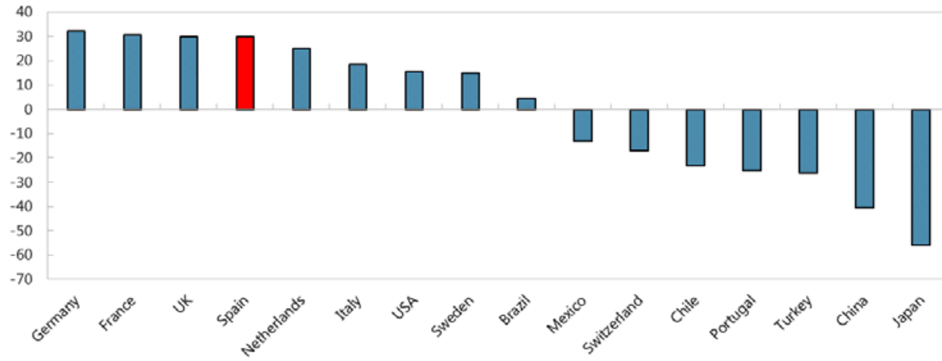
Similarly, European banks' exposures in Spain could imply considerable outward spillover to these countries once all exposures are considered.



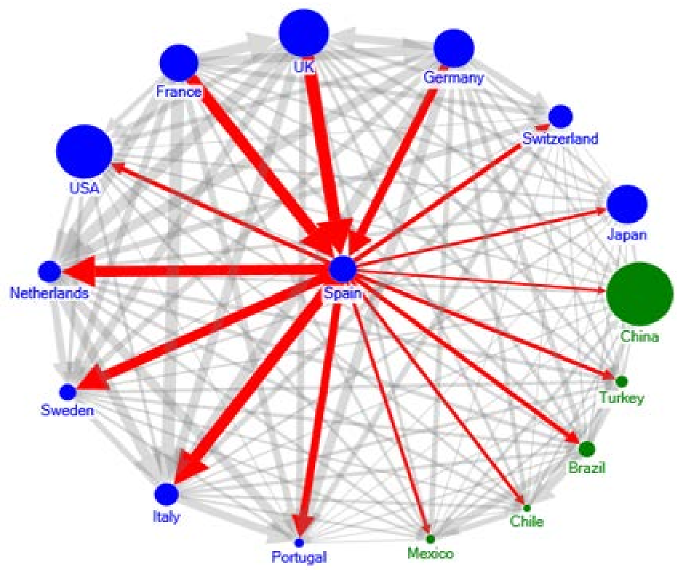
Source: IMF Staff Calculations. Results are based on the Espinoza-Vega and Sole (2010) approach and BIS Consolidated Banking Statistics (ultimate risk basis) for 2016Q2. Simulation 1 applies to reporting banks' exposure to foreign banks only, considering both credit and funding shocks. Simulation 2 captures the impact of credit shock to the total exposure of the banking sector, including claims to banks, government and the non-financial sector. Panel A on inward spillover captures the percentage of capital loss in the Spanish banking system due to credit (and funding) shocks originated in source countries. Panel B on outward spillover reflects the percentage of capital loss in destination country's banking system due to credit (and funding) shocks in Spain. An initial negative shock to a country's financial system could be propagated through the network of bilateral claims across countries, and could distress banking systems in other countries beyond the direct losses from the initial shocks.
Note: * Limited data availabilities for Turkey, Brazil and Mexico, which may underestimate the impact for these three countries.

Figure 7. Interconnectedness among Banking Indices

Net Directional Connectedness: Equity Returns of Banking Indices



Note: Full sample net connectedness (June 2005 to February 2017). Net directional connectedness is constructed as the difference between the total directional connectedness of country i to the system (the to-degree) and the total directional connectedness of the system to country i (the from-degree).



Note: Full sample return connectedness (June 2005 to February 2017). The blue and green nodes denote developed countries and emerging market economies, respectively. The thickness of the edges reflects total connectedness (both inward and outward) and the direction of the arrow captures the direction of net connectedness. The size of the nodes reflects asset size. Chart constructed with NodeXL. Source: IMF Staff Calculations based on the Diebold and Yilmaz (2014) methodology.

ADEQUACY OF THE INSTITUTIONAL ARCHITECTURE

32. **Spain's financial oversight architecture features a strong sectoral approach and active government involvement on some prudential policy matters (Figure 8).** Three separate agencies are responsible for the oversight of banking, insurance and pension fund, and capital markets, respectively. Government involvement through the Ministry of Economy, Industry and Competitiveness (MoE) takes the form of participation in the boards of BdE and CNMV; direct oversight of insurance and pension supervision through DGSyFP, a department within MoE; and involvement in general purpose accounting and auditing standards, and broad-based responsibility to determine the regulatory framework. On banking matters, supervision and resolution decision-

making responsibilities have shifted to the European level. The ECB and the Single Resolution Board (SRB) are directly in charge of SIs, with operational support from BdE (as the National Competent Authority) and FROB (as the National Resolution Authority along with BdE). For Spanish LSIs, BdE is directly responsible for their supervision and resolution under the general oversight of the ECB and the SRB.

33. To bolster systemic risk orientation in oversight and policy coordination, a "Systemic Risk Council" (SRC) should be established. Given the sectoral approach to financial sector oversight, it is critical that effective inter-agency mechanisms exist to share data and expertise, conduct surveillance, and take timely policy actions to safeguard domestic financial stability. In the case of Spain, cross-border risks would be an added systemic risk dimension. The SRC will provide a platform that brings together its core member agencies—BdE, CNMV, DGSyFP, and the Treasury. It should be chaired by the Governor of the BdE, the agency most suited to lead systemic risk monitoring and assessment, and supported by an inter-agency technical secretariat led by BdE. Naturally, the SRC would perform the national macroprudential authority role for the system as also advocated by the ESRB. Once established, the FROB and the FGD may participate in the SRC on an as-needed basis, subject to appropriate governance arrangements. While sectoral authorities will retain regulatory powers and prudential tools, the SRC should have a legislative mandate for maintaining overall financial stability and authority to issue statements—ranging in force from observations, to alerts, to warnings, to recommendations—on emerging threats to financial stability, buildup of systemic risks, and the needed remedial actions. An appropriate accountability framework should also be put in place to ensure the willingness to act by the SRC and its member agencies. Particularly, the SRC should be held accountable to Parliament for safeguarding financial stability, including submission of a revamped Financial Stability Report covering risks arising from all parts of the financial system and not just banks.

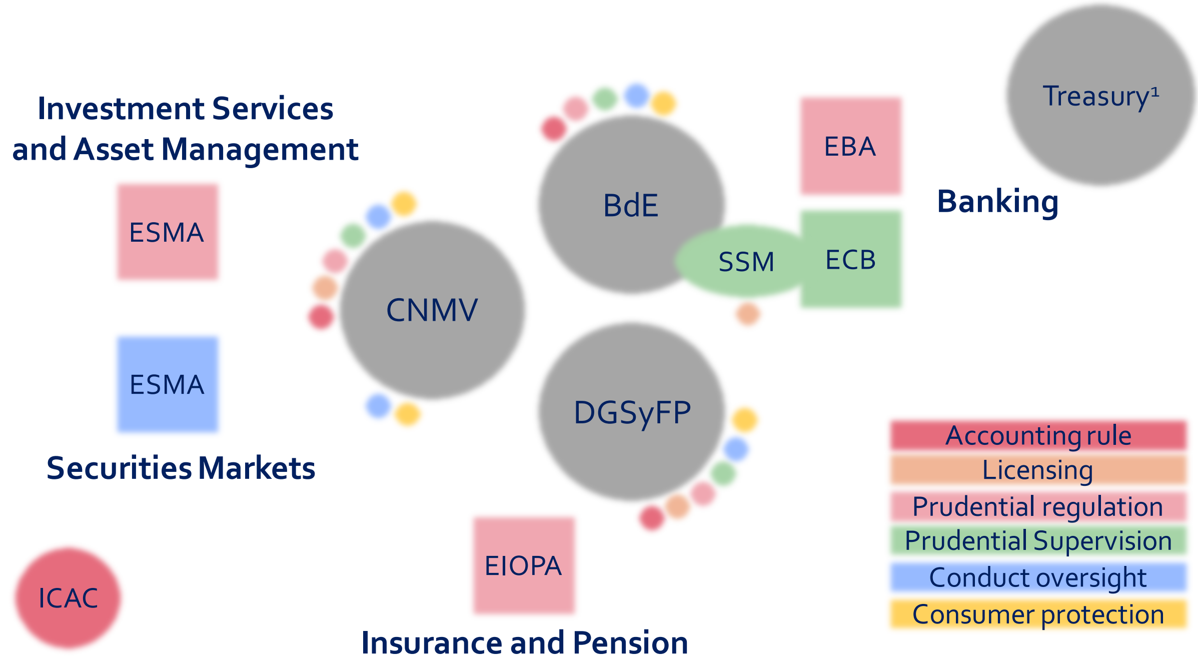
34. The government has recently announced several initiatives to enhance the architecture of financial sector oversight. These include the creation of an independent insurance and pension fund supervisory agency (which currently falls under the remit of the MoE); the reform of the appointment process of top management at the financial sector authorities; the introduction of single ombudsman scheme to handle consumer complaints related to financial products; and the transfer of responsibility for general purpose accounting standards-setting and auditor oversight from ICAC, an institute attached to the MoE, to CNMV.

35. The direction of the initiatives described above is welcome.

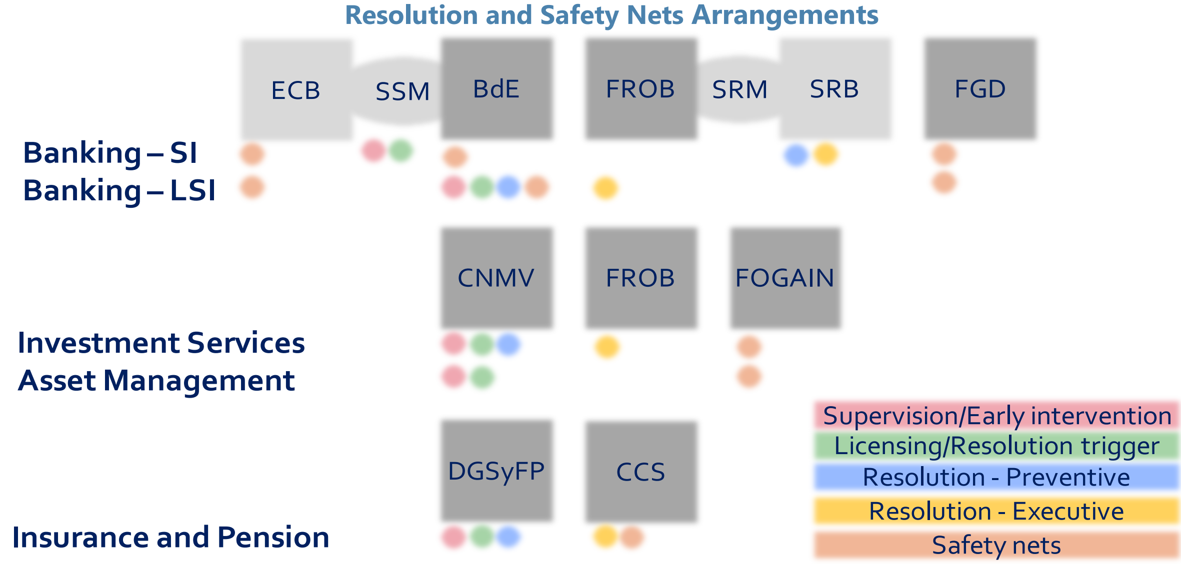
- The plan to create an independent insurance and pension authority was recommended in the 2006 and 2012 FSAPs, and the new authority should be able to fund its programs via fees levied on the industry.
- There is also merit in assessing the current system of accounting standards-setting for banks, insurers, and the broader financial sector. This should carefully evaluate the potential costs and benefits of having accounting standards-setting responsibilities in one place. Any arrangement must permit effective and accountable enforcement of robust prudential norms, implementation of IFRS 9, and avoidance of any potential conflict of interest.

Figure 8. Institutional Architecture

Financial Oversight Arrangements



Resolution and Safety Nets Arrangements



Source: IMF staff.

Note **BdE**: Banco de España; **CCS**: Consorcio de Compensación de Seguros; **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); **FGD**: Fondos de Garantía de Depósitos; **FOGAIN**: Fondo de Garantía de Inversiones; **FROB**: Fondo de Reestructuración Ordenada Bancaria; **ICAC**: Instituto de Contabilidad y Auditoria de Cuentas, attached to the MdE; **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; **SRB**: Single Resolution Board; **SSM**: Single Supervisory Mechanism.

1/ The Treasury is responsible for preparing legislative drafts for financial regulations for both prudential and conduct matters.

- An appropriate mechanism for information exchange should be established to ensure that any intelligence from patterns of consumer complaints, identified by the envisaged ombudsman, is not lost to the sectoral supervisors.

36. There is merit in eventually merging the preventive resolution (planning, eligibility) and executive resolution (implementation) roles into a single resolution authority. Preventive and executive roles for the resolution of banks and investment firms are divided between BdE and CNMV on the one hand, and FROB on the other. This could give rise to potential replication of work and coordination efforts.[6] In the medium term, the solution adopted should take into consideration, among other issues, effectiveness and accountability criteria as well as European arrangements. Irrespective of how such consolidation occurs, the FROB would remain a holding company for the failed institutions it currently manages (until they are resolved or sold), and its corporate character would need to undergo a change.

37. Over time, an integrated prudential oversight agency could become more compelling. Spain is one of only a few EU Member States to have maintained a sectoral approach. Other countries have responded to the increasing integration of financial markets and interconnectedness of institutions by pursuing supervisory convergence, through some form of unified or "twin peaks" model. In the short term and given other institutional priorities, such as the establishment of the SRC, a more cost-effective approach would be more active coordination and information exchange between the ECB, and the CNMV and the DGSyFP, through the BdE. International experience has amply cautioned that organizational costs and challenges of establishing such an agency are substantial. Also, that it takes time and cost for the integrated agency to build its reputation and credibility that are the hallmarks of effective financial stability oversight.

MACRO- AND MICROPRUDENTIAL OVERSIGHT

A. Macroprudential Oversight

38. Macroprudential oversight for banking is a shared responsibility between the BdE and the ECB. The BdE is the competent and designated authority for exercising macroprudential powers under the CRR and the CRD IV, while the ECB possesses the "topping-up" power. The BdE has put in place a framework for calibrating capital buffers and the macroprudential policy stance for the banking sector appears broadly appropriate. The countercyclical capital buffer is at zero given that a new financial cycle upturn has not started, with credit gap still negative 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.

39. 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

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[6] In the June 2017 bank resolution, the coordination worked smoothly and effectively.

handling systemic risk. As the pre-crisis experience illustrated, monetary conditions that were appropriate for the euro area 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, debt service-to-income, and amortization periods, should be actively considered. To ensure they are efficiently implemented, these borrower-based tools for banking should be assigned to the BdE.

40. A better mapping of systemic risk surveillance comprising all subsectors of the financial system and macrofinancial conditions is desirable. Currently, there are no mechanisms that bring together the risk assessments independently carried out by BdE and other sectoral authorities; and forming a comprehensive view on overall financial stability to 'whistle-blow' emerging systemic risks 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. This will require 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.'

41. Technical capacity to undertake the above is generally strong, but additional methodological work is needed. Spain has effectively contributed to EU-wide systemic risk surveillance, and BdE's Financial Stability Report shows analytical sophistication. BdE's existing macro financial analysis could help deepen the understanding of its linkages and financial stability issues. In collaboration with DGSyFP and CNMV, BdE should improve the early warning system, and macroprudential stress testing capacity to better identify macrofinancial vulnerabilities and account for second-round effects, solvency-liquidity links, intra-system contagion, and cross-border spillovers.

B. Microprudential Oversight

Banks

42. Since the last FSAP, fundamental improvements in the supervisory landscape have taken place, but four financial stability issues need further attention. These are closely linked to the risk channels and banking vulnerabilities discussed above. First, supervisors must be more demanding on bank risk management practices; second, stronger focus should be on governance and conduct issues; third, some of the preconditions for the conduct of effective supervision should be strengthened; finally, the reform of the credit cooperative sector should be completed.

43. Efforts must continue to address cases of misclassification and asset valuation. There is some evidence, based on on-site inspections and SREP reports, of NPLs classified as performing and forborne (restructured) loans classified as performing without meeting the necessary probation period required, and to a lesser extent of forborne loans' terms being generous and collateral valuation not being up to date.

44. The BdE and the government should consider whether maintaining the Royal Decree Laws that impose fixed provision levels for certain real estate exposures is still appropriate. Though necessary in 2012, they are now impeding BdE's ability to establish a provisioning policy in line with current developments in asset prices. Arbitrary rules in this area are also at variance with good accounting practice and contrary to IFRS.

45. Liquidity risk management needs special attention, supervisors should be watchful in this area, including the quality of liquid assets, the structure of liabilities, and hedging practices. While being monitored and banks communicating to the authorities their plans to reduce their reliance on ECB funding, banks do not feel any urgency to prepare for the ECB's unwinding of accommodative policies.

46. Despite good progress since the last FSAP, more remains to be done to align some banks' corporate governance to best practice. Greater attention is being given to governance by the ECB and the BdE in the SSM's supervisory programs, which should help address insufficient skills in some bank boards and board committees, particularly in the areas of internal audit and IT. Focus on risk management, however, is not always adequate and the internal audit function in some banks appears to be underdeveloped. Related-party requirements currently imposed on directors and senior management should be extended to significant bank shareholders and other significant interests held by such shareholders.

47. The transposition of the Mortgage Credit Directive into Spanish legislation will be an important step for better management of conduct risk. The need for a proactive approach to conduct risk has been highlighted by recent events. Cases of mis-selling by banks of mortgage products (interest rate floor clauses and allocations of mortgage expenses not adequately disclosed) have led to litigation and, in many cases, to redress of the damaged customers. Conduct and customer protection issues, in general, have impacted banks' reputation and profitability. The government is committed to enhance the transparency of the retail mortgage contract by introducing disclosure requirements in addition to those required by the Directive. The purpose is to ensure that borrowers get adequate information and understand the legal and economic consequences of mortgage contracts before signing. Controls by the notaries will also be reinforced.

48. Consideration should be given to ensure that all prudential issues not included in the SSM mandate are under the exclusive or prevalent control of BdE. There are still a few areas where BdE does not have the exclusive prudential role, such as authorizing mergers which is still under the responsibility of the MdE, while the BdE is required to provide its opinion. The BdE still does not have effective powers to promulgate prudential rules, a limitation largely mitigated by the introduction of the single rule book and the SSM, but still affecting residual areas such as implementing AML/CFT provisions.

Credit Cooperatives

49. A comprehensive reform of the credit cooperatives is long overdue. These institutions have low levels of loss absorbing liabilities and low ability to raise capital.

- To cope with these limitations, 25 credit cooperatives aggregated in two separate groups, one of which is an SI. The two groups have been authorized both as *Institutional Protection*

Schemes (IPS) and *credit institutions permanently affiliated to a central body.* These features basically mean that these groups can consolidate prudential ratios.

- Of the remaining credit cooperatives, 29 coops have formed the Asociación Española de Cajas Rurales (AECR), to achieve economies of scale through shared services such as IT and insurance, although members still observe prudential standards on a solo basis. AECR may, but is not obliged to, provide financial assistance to its members for which a centrally managed support fund has been set up. Recent distress at one credit cooperative entity belonging to this type of association illustrated weaknesses of such arrangement.[7]

50. The FSAP welcomes the recent government initiative to provide incentives to the remaining credit cooperatives to form an IPS with affiliation to a central body. If the industry fails to respond**,** reform in other jurisdictions may offer some guidance. For example, the recent Italian reform introduced the mutual banking group, consisting of a parent company incorporated as a joint-stock company and mutual banks affiliated to it under a cohesion contract. Membership of a mutual banking group is compulsory to obtain or keep authorization to operate as a mutual bank; those institutions not wishing to join a group could opt out under very stringent conditions.

51. Apart from banks, corporate governance of credit cooperatives also needs to be enhanced. Several weaknesses in corporate governance exist, including a lack of up-to-date expertise, underdeveloped risk culture, and long tenures of directors. BdE has started addressing these issues through, for instance, a more rigorous fit and proper regime, but firmer measures are required to bring other corporate governance requirements in line with best practice. Shares in credit cooperatives should be made subject to MiFID rules.

Insurance Companies

52. The implementation of the Solvency II regime requires changes in the current compliance-based supervisory culture. DGSFP is an effective insurance supervisor despite its resource constraints. However, the supervisory culture tends to be reactive or compliance-oriented, which is not consistent with Solvency II focus on market consistent valuation and the use of various judgement-based assumptions and risk measurement approaches. DGSFP should further develop its skills and proficiency in assessing the quality of insurer governance and risk management. These topics were also identified as needing improvement in the previous FSAPs.

C. Financial Integrity

Anti-Money Laundering and Counter-Terrorist Financing (AML/CFT)

[7] A recently approved Royal Decree-Law 11/2017 on urgent financial measures facilitates the creation of SIPs without affiliation, if they include the creation of an ex ante Fund with enough resources to address capital shortfalls and other adverse events. These amendments seek to foster the creation of these sort of SIPs, therefore contributing to enhancing the sector’s capacity to deal with adverse scenarios.

53. Spain has continued to make good progress in fighting money laundering and terrorist financing (ML/TF). The government has strengthened the AML/CFT regime since the 2014 evaluation,[8] notably by addressing deficiencies in the terrorist financing (TF) offense including with respect to the financing of foreign terrorist fighters. Laws and regulations to implement targeted financial sanctions (TFS) have been issued but have yet to result in domestic designations. The Spanish Financial Intelligence Unit (SEPBLAC) has increased supervisory resources, however, they remain insufficient considering the number of supervised entities. SEPBLAC increased monitoring designated non-financial businesses and professions (DNFBPs) which resulted in 55 inspections during 2015–16; it also conducted 10 inspections of money or value transfer services (MVTS) since 2014. Spain has also sanctioned DNFBPs and MVTS for failure to comply with AML/CFT requirements.

54. Spain must nevertheless continue to enhance its AML/CFT regime. Key steps include: implementing TFS without delay and without waiting for designations to be transposed into EU regulation; providing additional resources to SEPBLAC to strengthen AML/CFT supervision of all DNFBPs; enhancing the supervision of MVTS operating under EU passporting rules; and paying attention to the identification and sanctioning of unlicensed MVTS.

RESOLUTION, CRISIS MANAGEMENT, AND SAFETY NETS

A. Legacy Issues: SAREB and FROB

55. Sareb was successful in limiting the fallout from the banking crisis in 2012. Created in 2012, its objective was to deal with the management of about €106.5 billion of non-performing assets (€50.7 billion, after discount) in bank portfolios with a view to convert them into cash over a period of 15 years. Fifty-five percent of Sareb's capital belongs to Spanish companies (mainly banks and insurers) and to one foreign bank while the rest is owned by the Spanish government through FROB.

SAREB: Initial Balance Sheet
(In billions of euros)

Cash	4.8	Senior bonds	50.7
Loans	39.4	Sub. Debt	3.6
Real Estate Owned (REOs)	11.3	Equity	1.2
		Of which:	
		FROB	0.5
		Private	0.7
Total Assets	55.5	Total liabilities	55.5

Sources: Company reports and IMF staff estimates.

56. Since its creation, Sareb has strengthened its corporate governance, however its reported solvency has benefitted from special accounting treatment. The valuation of assets has been improved and the migration of Sareb's portfolio to the new servicers has been completed. During 2012–16, Sareb has sold assets and repaid senior debt by about 22 percent and 20 percent, respectively. It plans to repay FROB (its major shareholder) and private investors about 79 percent of

[8] In April/May 2014, Spain underwent an assessment by the Financial Action Task Force (FATF) against the prevailing standard, the FATF 2012 Recommendations, with a mutual evaluation report.

their original investment. As of end-2016, the Sareb's audited financial statements shows negative equity for €2.7 billion, however, for statutory purposes it reports equity resources of about €4 billion (capital plus subordinated debt) as unrealized losses for about €5.3 billion related to swap adjustments and impairment of assets do not count for corporate insolvency per the Spanish accounting rules and a Royal Decree, respectively.

57. Sareb's performance remains critical today in preserving financial stability going forward. It will be vital to ensure that its remaining liabilities (about 4 percent of GDP) remain manageable and do not become a source of macro financial risk. Sareb's challenges lie in forecasting cashflow generation through end-2027, which faces several implementation risks (especially over the next three to five years) including the materialization of assumptions on real estate prices[9] and sale volumes in a context of tough competition from banks, and increasing customer's preference for rentals. The BdE should challenge Sareb's cashflows projections based on its internal macroeconomic projections (including real estate prices, credit growth, and unemployment), as well as adverse scenarios. A tripartite group (the BdE, MoE, and FROB)—comprised by members independent of its Monitoring Commission—should be appointed to objectively analyze and identify any needed mid-term correction of Sareb's business plans.

58. Timely privatization of state-owned banks owned by FROB is also important. FROB, created in 2009, has been successful in restructuring about 40 institutions and still holds stakes in two SIs. In June 2017, a merger agreement was reached between two post-crisis state-owned SIs. This transaction will pave the way for divestment of public ownership in the new bank by the deadline that was extended to end-2019. Experiences in other countries have shown that bank privatizations may take longer than 24 months. Thus, to speed up the process the FSAP recommends an early involvement of an investment bank or consulting firm to support the privatization process.

B. Bank Resolution Framework

59. The transposition of the BRRD into Spanish law strengthened the resolution regime in Spain. The BRRD aims at minimizing the use of taxpayers' resources by envisaging a greater use of bailing in creditors. Out of the principal resolution tools introduced by the BRRD, Spain opted not to include the nationalization and use of government financing. As such, current tools comprise (i) sale of business, (ii) establishment of a bridge bank, (iii) asset separation, and (iv) bail-in. At the national level, resolution responsibilities are divided into preventive role under BdE and executive role under FROB.

60. Steps to operationalize resolution tools remain incomplete. FROB has the authority to exercise resolution tools, with no need for additional legal powers and regulations to operationalize them. While the mechanics of the bridge bank and asset separation tools are well established, financing the operations remains under review. The use of bail-in powers would be an important

[9] For example, the assumption that residential and commercial real estate prices would grow by about 60 percent, and land by about 95 percent in the next 10 years.

element of such tools. However, not all SIs in the Spanish market hold an adequate level of loss-absorbing debt instruments. Although MREL requirements (to be set by the resolution authorities) are still under development, smaller Spanish banks, which are predominantly deposit-funded, will face greater challenges given the need to raise proportionally more MREL-eligible debt and the difficulty to do so due to more limited access to capital markets.

61. A two-step resolution process is clearly established. In the case of SIs, both the ECB and the SRB have the power to determine whether an institution is failing or likely to fail, while in the case of Spanish LSIs, only BdE may make such a determination. Once it is determined that resolution rather than liquidation of the failing institution is appropriate, the relevant resolution authority (the SRB or FROB) prepares the resolution scheme, which requires an endorsement by the European Commission in the case of SIs. The supervisor also takes part in this process by jointly approving business plans (with the resolution authority) or by granting any other prudential authorization.

62. The June 2017 resolution of a publicly listed bank and SSM systemic institution was orderly. The immediate negative spillovers were limited, and financial stability was maintained. Importantly, the operation showed effective coordination between the Spanish and European authorities in executing the resolution under the BRRD. Neither depositors nor taxpayers were exposed to any loss in the resolution of Banco Popular, which was acquired by Banco Santander, a Spanish GSIB. The resolution raised some operational issues requiring further analysis by the Spanish National Resolution Authorities (NRA) and National Competent Authority (NCA) together with the European authorities. These relate to different aspects of supervision and early intervention measures, the preparation for resolution action and funding, and the roles of Spanish NCA and NRA going forward. The experience with Banco Popular demonstrates the suddenness with which underlying problems can develop into a terminal drain on liquidity, underscoring that speed is of the essence in resolving weaker publicly listed banks. The role of coordination and communication, and adequate supervisory and resolution tools are also critical. These issues will be carefully considered by the upcoming euro-area FSAP and the euro-area Article IV.

63. A strategy for the resolution of LSIs should be developed. Many of LSIs hold a low level of loss-absorbing debt instruments, thereby putting depositors at risk. Resolution tools for such institutions are limited. Acquisitions by other credit cooperatives or larger institutions are viable options, but the demand is limited in certain geographic regions. Consideration could be given to accelerating the placement of loss-absorbing debt instruments. Alternatively, a resolution fund, financed by the industry, might provide a source of financing for the smaller institutions. If still unresolvable, such institutions should be subject to enhanced supervision and tougher capital requirements.

C. Crisis Management

64. While the banking resolution regime has been strengthened, the broader crisis management framework could be further enhanced. Inter-agency coordination is essential to develop coordinated policy responses to systemic stress. Crisis simulations should be conducted at the individual agency level and as a coordinated exercise, with the latter to test information sharing and policy coordination. Recovery and resolution plans should also be prepared for significant insurance companies.

65. Further efforts are required to complete the recovery planning for LSIs. Recovery plans, prepared by the banks and reviewed by the supervisor, identify measures that will be taken when the institution is under distress but remains a "going concern." All SIs have submitted complete recovery plans, which will be updated at least annually. However, the progress on developing recovery plans for some LSIs is lagging, with fully approval being impeded by insufficient information to evaluate the plans. Priority should be given to approving recovery plans of institutions most at risk. The smaller LSIs that update plans every three years will need to be supervised carefully and when under stress have recovery plans updated.

D. Safety Nets

66. Safety nets should be strengthened, including the modernization of FGD and the establishment of a protection scheme for insurance policyholders. FGD would benefit from enhancements to its revenue base and the payout system. Both organizational and procedural changes will be needed for FGD to meet its objective of paying out deposits in seven working days, while an emergency liquidity facility for FGD could be introduced to ensure private sector confidence in the scheme. The quality of the deposit data should be regularly tested. The authorities should consider whether insurance policyholders, especially life insurance, should be afforded specific coverage guarantees in the event of insolvency.

Appendix Tables

Appendix Table 1. Implementation Status of 2012 FSAP Recommendations

RECOMMENDATIONS	STATUS
Overall Financial Sector Stability	
Finalize the recapitalization of banks based on an in-depth due diligence of the banks' loan portfolios (BdE, MdE).	**Implemented.** The recapitalization and restructuring of the banking sector in Spain took place in 2012 and 2013. A complete description of the process can be found in Banco de España's website: http://www.bde.es/bde/en/secciones/prensa/infointeres/reestructuracion/ It was based on a due diligence, undertaken in the framework of the Spanish MoU with the EU (Independent assessment of the solvency of the Spanish banking sector 2012). http://www.bde.es/bde/en/secciones/prensa/infointeres/reestructuracion/valoracionesind/ In addition, with the entry into force in 2014 of the Single Supervisory Mechanism (SSM), a due diligence of the European banks which were going to be supervised by the SSM was performed (Comprehensive assessment of the banking sector prior to the SSM). In this exercise, Spanish banks compared well with their peers; they did not present a capital shortfall, on the contrary, the margin by which they exceeded the thresholds set in the exercise was considered a comfortable one. http://www.bde.es/bde/en/secciones/prensa/infointeres/evaluacion-de-la/Resultados_de_l_5ab5dcc033d3941.html
Implement time-bound restructuring plans for banks reliant on state support, including measures to strengthen capital buffers, profitability, and governance practices (BdE)	**Implemented.** Please see the abovementioned reference to the recapitalization and restructuring of the banking sector in Spain.
Design and implement a roadmap to deal with banks' legacy assets (MdE, BdE)	**Implemented.** A description of legacy assets evolution and status can be found in the latest Financial Stability Report. http://www.bde.es/f/webbde/Secciones/Publicaciones/InformesBoletinesRevistas/InformesEstabilidadFinancera/16/FSRNovember2016.pdf In addition, the ECB has issued a Draft guidance to banks on non-performing loans, which includes different actions to reduce these assets further.

Appendix Table 1. Implementation Status of 2012 FSAP Recommendations	
RECOMMENDATIONS	**STATUS**
Overall Financial Sector Stability	
	https://www.bankingsupervision.europa.eu/legalframework/publiccons/pdf/npl/npl_guidance.en.pdf Finally, the recently approved changes to the accounting Circular of Banco de España (circular 4/2016) also include measures to foster the reduction of foreclosed assets, aligning their accounting value with their updated market value (fair value minus costs to sell).
Establish a reliable and publicly available land and real estate property sale price database, to be maintained by an official agency (MdE, BdE).	**Limited implementation.** There are databases elaborated by the Instituto Nacional de Estadística (National Statistics Agency) and the Ministry of Public Infrastructure (Ministerio de Fomento). The Ministry of Public Infrastructure calculates prices and an index from valuations for housing real estate and urban soil. http://www.fomento.gob.es/MFOM/LANG_CASTELLANO/ATENCION_CIUDADANO/INFORMACION_ESTADISTICA/Vivienda/Estadisticas/ INE provides a housing prices index derived from real transactions at regional level and other statistics such as foreclosures. http://www.ine.es/dyngs/INEbase/en/operacion.htm?c=Estadistica_C&cid=1254736152838&menu=ultiDatos&idp=1254735576757
Banking Oversight	
Change the legal regime to clearly prescribe the sole and exclusive roles of the BdE in prudential oversight of financial institutions, avoiding inconsistency in the division of responsibilities (MdE).	**Implemented by Law 10/2014.** The implementation of prudential rules has been done by the transposition of CRR-CRD IV. This transposition in Spain has been articulated in two stages: The first stage—comprising the more urgent changes required, including the exercise of certain options contained in the CRR—was completed, with the publication of Royal Decree-law 14/2013 and Circular 2/2014 of Banco de España and Circular 2/2014 of CNMV. The second stage involved the development of a Law (Law 10/2014), two Royal Decrees (Royal Decree 84/2015 and Royal Decree 358/2015) and the Circular 2/2016 del Banco de España.
Amend legislation to give BdE operational independence in its supervisory function in line with its independence as a central bank (MdE).	**Implemented by Law 10/2014.** According with EU prudential rules BdE has operational independence in its supervisory function and, henceforth, BdE belongs to the Single Supervisory Mechanism (SSM).

Appendix Table 1. Implementation Status of 2012 FSAP Recommendations

RECOMMENDATIONS	STATUS
Overall Financial Sector Stability	
Amend the current legal framework for banking supervision to provide BdE with effective powers to promulgate prudential rules and sanctioning (MdE, Government).	**Implemented**. Royal Decree Law 24/2012 and Law 9/2012 of 14 November 2012 on credit institution restructuring and resolution clearly separate the functions of Banco de España from those of the Ministry of Economy and Competitiveness in respect of the licensing and sanctioning of credit institutions, transferring to Banco de España those functions previously corresponding to the Ministry of Economy and Competitiveness on credit institutions. It came into effect on the 1st January 2013. In addition, Royal Decree-law 14/2013 modified Law 13/1994 of 1 June, by increasing the powers of Banco de España, to enable it to develop technical guidelines and binding answer queries, providing it with adequate instruments for interpretation and application of the rules of supervision. (Measures 13 and 24 of the MoU).
Require banks to value their real estate portfolios more frequently, especially during economic downturns, to ensure rapid adjustments to provisions (BdE).	**Implemented.** The abovementioned accounting Circular (Circular 4/2016) of Banco de España requires a more frequent update of the valuation of collaterals (i.e., annually for impaired loans).
Insurance Sector Oversight	
Increase resources to strengthen supervisory effectiveness (DGSFP, MdE).	**Implemented.** New software for different purposes related with supervision was acquired or developed. A new Deputy Directorate devoted specifically to Solvency II (Deputy Directorate General for Solvency) was set up. In addition, the Ministry of Economy and Competitiveness hired temporarily external advisory help for DGSFP. An effort has been made during these years to hire new insurance inspectors to balance, as far as possible, the number of insurance inspectors leaving the DGSFP.
Improve product disclosure requirements for life insurers (DGSFP).	**Implemented / In progress (at EU level).** In the area of information on life insurance products, it should be noted first that the national legislation has incorporated the Solvency II rules in the field of information to policyholders, as well as additional measures such as the obligation for the insurance undertakings to inform about expected profitability in life insurance products which generate mathematical provision (except for those in which the policyholder assumes the risk of the investment).

Appendix Table 1. Implementation Status of 2012 FSAP Recommendations	
RECOMMENDATIONS	**STATUS**
Overall Financial Sector Stability	
	Secondly, it should be noted that two projects coming from the EU will have a remarkable impact on this issue: 1) Directive 2016/97, on Insurance Distribution (IDD), which must be transposed to the Spanish regulation by February 2018. The European standard establishes special measures for investor protection in the marketing of life insurance with investment component (the so called PRIIPS), based on the provisions of the MIFID II Directive. 2) Regulation 1286/2014 (PRIIPS Regulation), a European standard supplementary to the IDD in relation to the marketing of life insurance products with an investment component, whose main objective is to regulate the key information document to be delivered to the retail customer in the phase prior to contracting the product. With the effective implementation of both standards, additional customer protection tools will be established in the short term in the area of information on life-saving insurance products.
Securities Markets Oversight	
Devote more resources to the supervision of investment services providers (ISPs), for on-site inspections (CNMV).	**Implemented.** The CNMV—the financial services regulator—has intensified the use of spot checks on issues of concern through on-site inspections as well as horizontal reviews. Other recent legislative initiatives (i.e., Law 5/2015) enable the collaboration of the CNMV with external consultants in certain issues such as the performing of supervisory activities of ISPs on unidentified basis, i.e., mystery shopping.
Strengthen the independence of the CNMV by removing (i) the role of the MdE in the authorization and sanctioning of ISPs; (ii) MdE representation in the CNMV board; and (iii) the need for pre-approval of the government for increases in human resources (MdE).	**Implemented.** (i) The Law 5/2015, of 27 April, on the promotion of business financing empowers the CNMV as the only authority responsible for the authorization and sanctioning of ISPs. **Implemented.** (ii) The representation of the Ministry of Economy—Treasury—and the BdE in the CNMV Board cannot be interpreted as a breach against the independence of the CNMV. On the contrary, this is a natural consequence of the distribution of power and the checks and balance system applied in Spain. Furthermore, day-to day technical matters are not referred to the Board and financial legislation is clear about the scope of regulatory measures that both the CNMV and the Ministry of Economy can take. In addition, as pointed out above, the CNMV has been empowered to authorize and sanction the ISPs.

Appendix Table 1. Implementation Status of 2012 FSAP Recommendations	
RECOMMENDATIONS	**STATUS**
Overall Financial Sector Stability	
	Limited implementation. (iii) The CNMV has been recently granted with greater administrative autonomy, among others, regarding recruitment. Nevertheless, this autonomy is limited to the possibility of replacing the employees who leave the CNMV with new staff (who are normally less-experienced). This means that the CNMV does not have autonomy to hire extra-staff, if needed. Moreover, the CNMV cannot independently decide on the salary policy of its staff and, consequently, cannot retain highly professional and experienced people that leave the CNMV in many cases to work for other Spanish administrative authorities (for example, BdE, or FROB). In addition, the CNMV is not able to hire experts from the market with experience in certain areas that would be useful for the CNMV to adequately perform its duties (especially when new competences are given to the CNMV). Moreover, the possibility to replace the employees who leave has only been used once and has been contested by the Spanish Government (in fact, a judicial process has been opened to clarify this aspect).
Use more proactively sanctioning powers about breaches of conduct obligations (CNMV).	**Implemented.** The CNMV has significantly increased the number of disciplinary proceedings in relation to breaches of market conduct regulation both in ISPs and credit institutions providing investment services.
Payments and Securities Systems Oversight	
Improve liquidity risk management of the central counter party (CCP) by regularly conducting stress-tests and providing access to central bank liquidity facilities (CNMV, BdE).	**Implemented by Regulation (EU) nº 648/2012 (EMIR).** BME Clearing—the Spanish CCP—has developed a framework for managing the liquidity risk in line with prescriptions of the EU regulation with Article 44 of EMIR on liquidity risk control and the subsequent CDR 153/2013 developing the requirements of that Article. In that context, the CCP has developed a stress testing program to ensure that its liquid financial resources are sufficient and take into consideration daily potential liquidity needs arising from the default of the two biggest clearing members to which the CCP is exposed and to the two biggest liquidity exposures (in accordance with Article 49 of EMIR).

Appendix Table 1. Implementation Status of 2012 FSAP Recommendations

RECOMMENDATIONS	STATUS
Overall Financial Sector Stability	
	The CCP's last update of this framework has been assessed in the context of the authorization of the extension of services to Interest Rate Swaps and equity segments, approved by the CNMV in July 2015. BME Clearing has access to intraday financing from the Banco of Spain-TARGET 2. In addition, BME CLEARING has a general agreement with three different banks (with access the TARGET2 overnight financing facility), by which the CCP could obtain liquidity in exchange of its collateral held by entering a repo transaction or by selling such collateral to them in the extreme situation of illiquid repo and bond markets. Finally, EMIR (Article 50) also contemplates the possibility to comply with liquidity requirements through arrangements with private banks.
Put in place coordinated contingency plans to deal with a potential financial failure of a CCP (MdE, CNMV, BdE).	**In progress (at EU level)** Articles 23 and 24 of EMIR Regulation establish the obligation for the competent authorities, the members of the ESCB and other relevant authorities to cooperate with each other; in the context of a CCP emergency. Further, the CNMV has set up a college of authorities under Article 18 of EMIR, which among others, is entrusted to ensure that procedures and contingency plans to address emergency situations exist. The college of BME Clearing adopted, in the context of the annual meeting in May/2016, an Emergency Protocol whose main aspects refers to: • The definition of an emergency, • The mechanism for the exchange of information, • The type of information to be exchanged, • The communication procedures. • And the need to conduct, at least annually, a simulation exercise. Also, the CCP is required to comply with capital and business requirements regarding the winding down or restructuring under EMIR in a manner consistent with the CPMI-IOSCO Principles for Financial Markets Infrastructures. As such, the CCP has identified the situations that may affect seriously its capacity to perform its critical and functions. The CCP has identified the steps it needs to implement to address the situations. The CNMV committed to duly inform the college and to activate the emergency protocol whenever a situation as described occurs.

Appendix Table 1. Implementation Status of 2012 FSAP Recommendations	
RECOMMENDATIONS	**STATUS**
Overall Financial Sector Stability	
	Despite the above, as commented, a specific resolution framework for CCPs is still been developed in the EU to complete the existing actions already taken.
Crisis Management	
Introduce special tools to resolve banks, such as prompt recapitalizations, purchase and assumption transactions, and bridge banks, as well as related provisions for overriding shareholders' rights and imposing losses on (left-behind) creditors (all agencies).	**Implemented by Law 11/2015 and Royal Decree 1012/2015.** The Law and the Royal Decree have transposed the EU resolution framework into the Spanish legislation. The new legal framework introduces a set of tools to facilitate the recovery and resolution of entities. The Resolution Authorities will have at their disposals several resolution tools (transfer of assets, bridge bank, asset management companies and bail-in), will elaborate resolution plans to plan the resolution of entities and will be able to adopt decisions to be applied by the entity even without the consent and the opposition of the shareholders. (Measure 6 of the MoU). Apart from bank resolution, please note that Law 11/2015 also empowers the CNMV, BdE and FROB to resolve failing banks and investment firms (IPS) in an orderly manner by protecting deposits and client assets (funds and financial instruments), among other resolution objectives. Particularly, the CNMV has been organized separately, as a supervisor which must assess the recovery plan and as a preventive resolution authority responsible, primarily, for evolving the resolution plan and cooperating, on the execution phase, with the FROB.
Further develop burden sharing mechanisms between the private and the public sector in the restructuring and resolution of banks, by clarifying the financial responsibilities of the FROB and of the FGD, including through a contingency credit line from the State to the FGD (all agencies).	**Implemented by Law 11/2015 and Royal Decree 1012/2015.** In line with the EU resolution framework, the Law and the Royal Decree include the bail-in tool by which the losses of the resolution will be imposed to shareholders and debtors to protect the public funds (Measure 5 of the MoU).

Appendix Table 2. Stress Test Matrix: Solvency and Liquidity (Using December 2016 Data)

Banking Sector: Solvency Risk			
Domain		**Assumptions**	
		Top-down by FSAP Team	Top-down by the BdE
	Institutions included.	• 14 SIs.	• 44 LSIs.
1. Institutional Perimeter	Market share	• 93 percent of total banking sector assets.	• 7 percent of total banking sector assets.
	Data and baseline date	• European reporting templates (FINREP and COREP). • Publicly available data from the 2016 EBA Transparency Exercise, and the 2016 EBA Stress Test. • Supervisory data from the BdE. • Other public data sources such as SNL and market data. • December 2016 data. • Consolidated.	• Publicly-available data. • Supervisory data, based on national reporting templates. • December 2016 data. • Individual and consolidated data.
2. Channels of Risk Propagation	Methodology	• Detailed balance sheet stress test, covering key risk-sensitive exposures. • Based on satellite models developed by the FSAP team. • For SIs, the stress test was conducted at the group/holding level, considering both domestic and foreign exposures.	• To the extent possible methodology was aligned with that of the larger banks. • The level of details on the stress test depended on data availability and relevance (e.g., certain market risks were not covered, and some foreign exposures were irrelevant).
	Satellite Models for Macro-Financial linkages	• For banks under Basel II standardized approach, the nonperforming loan ratios were projected by sector. For Internal Ratings-Based banks, the sensitivity of Probability of default (PDs) for various portfolios to macroeconomic cycles was	• To the extent possible, satellite models were aligned with those used for SIs. • For the small banks, the nonperforming loan ratios were projected by sector. • BDE methodology.

Domain		Assumptions	
		Top-down by FSAP Team	Top-down by the BdE
		calculated based on historical experience. • Lending rate and funding costs were estimated and projected based on various macro and financial factors such as Euribor, changes in sovereign yields, and changes in the VIX index. • NPLs assumed to not provide any accrued interest. • Expert judgment super-imposed.	
	Stress test horizon	• Three-year horizon: 2017–2019.	
3. Tail shocks	Scenario analysis	• Same scenario was used for SIs and LSIs. • "Baseline Scenario" based on the IMF October 2016 or January 2017 Update World Economic Outlook. Scenario 1: Financial stress in Europe • Assumes the realization of financial stability risks in the Euro Area with spillovers worldwide. • Includes an abrupt unwinding of financial risk taking and low secondary market liquidity in systemic advanced economies. • Assumes a reemergence of financial stress in high spread Euro Area economies, represented by an increase (and divergence) in long-term government bond yields and stock-market sell-off. Shocks include: • A tightening of financial conditions in systemic economies, represented by risk premium shocks and increases in long-term yields. • A credit cycle downturn in all emerging market economies and a disorderly deleveraging in China, represented by an increase in default rate on bank loans.	

Appendix Table 2. Stress Test Matrix: Solvency and Liquidity (Using December 2016 Data)

BANKING SECTOR: SOLVENCY RISK

Appendix Table 2. Stress Test Matrix: Solvency and Liquidity (Using December 2016 Data)

Domain		Assumptions	
Banking Sector: Solvency Risk			
		Top-down by FSAP Team	Top-down by the BdE
		• Suppressed economic risk taking worldwide, with private investment and private consumption declining in all economies. • Additional contraction in consumption and investment in Spain. Scenario 2: De-globalization and Stagnation in Advanced Economies: • Triggered by financial markets reactions to de-globalization initiatives in the short-term, and their dampening effect on growth in the medium-term. Sources of shocks: • Stock-market sell-off and heightened uncertainty regarding international trade and financial arrangements in the short-term. • Secular stagnation in the medium-term due to protectionist measures in Europe and the United States. • Large capital outflows from emerging markets. • Additional demand shocks in those countries with a significant Spanish bank presence. • Political uncertainty and roll back of reforms hit confidence and affect bond yields in Spain. Spain suffers additional pressure on public finances and an aggregate demand shock.	
	Sensitivity analysis	• For SIs, sensitivity tests evaluated direct and indirect effects of exchange rate shocks; direct and indirect effects of interest rate shocks; a decline in the prices of sovereign bonds and real estate; and failure of the largest to 10 largest corporate exposures	
4. Risks and Buffers	Risks/factors assessed	• Risks assessed include: credit (domestic and foreign exposures), market (equity risks, exchange and interest rates), sovereign, and interest rate risk in the banking book.	• Certain risks may not be applicable for the LSIs (certain market risks for example), or feasible to quantify given data limitations.
	Behavioral adjustments	• Balance sheet grows in line with nominal GDP with a floor set at 0.	• Balance sheet grows in line with nominal GDP with a floor set at 0. • Cooperatives' remuneration is paid out throughout the stress.

Appendix Table 2. Stress Test Matrix: Solvency and Liquidity (Using December 2016 Data)			
BANKING SECTOR: SOLVENCY RISK			
Domain		**Assumptions**	
		Top-down by FSAP Team	Top-down by the BdE
		• Dividends are paid out by banks that remain adequately capitalized throughout the stress. • Invariant asset allocation, i.e., no change in business models, lending standards, or investment pattern in response to shocks (over three years).	• Invariant asset allocation, i.e., no change in business models, lending standards, or investment pattern in response to shocks (over three years).
5. Regulatory and Market-Based Standards and Parameters	Calibration of risk parameters	• Where they exist, point-in-time PDs and loss given default (LGDs) are taken from supervisory data. Otherwise, proxies are used (such as Moody's KMV Expected default frequencies or supervisory TTC PDs transformed into PIT PDs after application of a conversion factor).	• For small institutions, point-in-time PDs and LGD estimates were used.
	Regulatory/ Accounting and Market-Based Standards	• CRD IV / CRR [fully loaded/phased-in] levels for CET1. • Capital shortfalls to be measured in terms of CET1, T1, total capital and the leverage ratio.	• CRD IV / CRR [fully loaded/phased-in] levels for CET1. • Capital shortfalls to be measured in terms of CET1, T1, total capital and the leverage ratio.
6. Reporting Format for Results	Output presentation	• System-wide capital shortfall • Number of banks and percentage of banking assets in the system that fall below certain ratios.	

Appendix Table 2. Stress Test Matrix: Solvency and Liquidity (Using December 2016 Data)

Banking Sector: Liquidity Risk			
Domain		Assumptions	
		Top-down by the FSAP team	Top-down by the BdE
1. Institutional Perimeter	Institutions included	• 14 SIs	• 44 LSIs
	Market share	• 93 percent of total banking sector assets	• Nearly 7 percent of total banking sector assets
	Data and baseline date	• Latest data: December 2016. • Source: supervisory data (COREP/FINREP). • Scope of consolidation: perimeter of individual banks.	• Latest data: December 2016. • Source: supervisory data (BdE). • Scope of consolidation: perimeter of individual banks.
2. Channels of Risk Propagation	Methodology	• An extended Basel III LCR scenario with variants (retail/wholesale shock). • A Basel III NSFR scenario. • A cash-flow based scenario analyzing different maturity buckets.	• An extended Basel III LCR scenario with variants (retail/wholesale shock).
3. Risks and Buffers	Risks	• Funding liquidity (liquidity outflows). • Market liquidity (price shocks).	• Funding liquidity (liquidity outflows)
	Buffers	• Counterbalancing capacity. • Central bank facilities.	• Counterbalancing capacity. • Central bank facilities.
4. Tail shocks	Shocks	• For LCR, see: BCBS (2013), The Liquidity Coverage Ratio and liquidity risk monitoring tools, Basel, January 2013. • For NSFR, see: BCBS (2014), Basel III: The Net Stable Funding Ratio—Consultative Document, Basel, April 2014.	
5. Regulatory and Market-Based Standards and Parameters	Regulatory standards	• Basel III liquidity standards for LCR and NSFR	
6. Reporting	Output presentation	• Liquidity ratios, disaggregated by type and size of bank • Counterbalancing capacity	

Appendix Table 3. Stress Test Matrix (STeM) for Interconnectedness Analysis		
Domain		**Framework**
Cross-border analysis	Data and Methodology	The FSAP team applies three main approaches to examine interconnectedness and contagion, based on cross border exposure and market data: <u>Espinoza-Vega and Sole (2010) methodology</u> • Examine cross-border banking sector exposures, with the BIS consolidated banking statistics (2016Q2) and regulatory capital data from FSI. • Two sets of simulations are considered in the analysis. • Simulation 1: Positions include bilateral bank exposures. Consider both initial credit and funding shocks to the banking sector. • Simulation 2: Positions include aggregated total exposures (bank, non-bank private sector and public). Consider the impact of credit shocks to total foreign claims. • List of countries for both simulations include: Australia, Austria, Belgium, Brazil, Canada, Chile, Finland, France, Germany, Greece, Ireland, Italy, Japan, Korea, Mexico, the Netherlands, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. <u>Diebold and Yilmaz (2014) methodology</u> • Examine the cross-border interconnectedness between the banking sector in Spain and others countries with strong financial and trade linkages with Spain. • The data was sourced from the MSCI Banking Indices and the DataStream banking indices from June 27, 2005 to February 24, 2017 at daily frequency. • Equity returns are computed as the average two-day log returns to control to the differences in trading hours due to time zones. • The interconnectedness measure is derived from the forecast error variance decomposition of the underlying VAR. <u>The Global VAR (2007) methodology</u> • Examine the cross-border impact of credit shocks, accounting for macro-financial interactions.

Appendix Table 3. Stress Test Matrix (STeM) for Interconnectedness Analysis

Domain		Framework
		• The data source includes Haver Analytics, IMF International Finance Statistics, DataStream, Bloomberg, IMF Direction of Trade Statistics and BIS Consolidated Banking Statistics. • The Global VAR model was estimated from 1979Q2 to 2016Q4, covering 33 countries. • Analyze the macro-financial impact of a credit shock in Spain and its cross-border implications.
Interbank market analysis	Data and Methodology	The BdE and the FSAP team conducted the interbank market analysis jointly. <u>Espinoza-Vega and Sole (2010) methodology</u> • Examine the interconnectedness among the 14 significant institutions (SIs) in Spain. • The source for the interbank bilateral exposure data and the regulatory capital data was the BdE (2016Q2). • Two sets of simulations are considered in the analysis. • Simulation 1: Positions include bilateral bank exposures. Consider both initial credit and funding shocks to the banking sector. • Simulation 2: Positions include aggregated total exposures (bank, nonbank private sector and public). Consider both initial credit and funding shocks to the banking sector.
Cross-sector analysis	Data and Methodology	<u>Diebold and Yilmaz (2014) methodology</u> Bank and insurance linkages within Spain • Examine the spillover risks among publicly listed Spanish banks and insurance companies • Use daily equity returns data from 11 October 2007 to 17 February 2017 for publicly listed Spanish banks and insurers. • Interconnectedness measure is derived from the variance decomposition of the VAR. <u>CNMV and BdE regulatory data on cross sectoral exposures</u> Bank, insurance companies and mutual fund linkages within Spain • Examine the cross exposures of Spanish banks, insurance companies and mutual funds • Use stress market indices to measure systemic risks as introduced by Cambón and Estévez (2015) and updated by the CNMV. • Use liquidity indices to measure illiquidity in fixed income markets as measured by the CNMV.

Appendix Table 4. Selected Economic Indicators

						Projections					
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Demand and supply in constant prices											
Gross domestic product	-2.9	-1.7	1.4	3.2	3.2	3.1	2.5	2.0	1.9	1.7	1.7
Private consumption	-3.5	-3.1	1.6	2.9	3.2	2.7	2.4	2.0	1.8	1.7	1.7
Public consumption	-4.7	-2.1	-0.3	2.0	0.8	0.7	0.7	0.7	0.7	0.3	0.3
Gross fixed investment	-8.6	-3.4	3.8	6.0	3.1	4.3	3.3	2.8	2.5	2.0	2.1
Total domestic demand	-5.1	-3.2	1.9	3.4	2.9	2.6	2.2	1.9	1.8	1.5	1.5
Net exports (contribution to growth)	2.2	1.5	-0.5	-0.1	0.5	0.5	0.3	0.2	0.2	0.2	0.2
Exports of goods and services	1.1	4.3	4.2	4.9	4.4	7.0	4.6	4.2	3.8	3.5	3.5
Imports of goods and services	-6.4	-0.5	6.5	5.6	3.3	5.9	4.0	4.1	3.7	3.3	3.3
Real GDP per capita	-3.0	-1.3	1.7	3.3	3.3	3.2	2.7	2.2	2.0	1.8	1.8
Savings-Investment Balance (percent of GDP)											
Gross domestic investment	20.0	18.7	19.4	20.1	20.4	20.6	20.7	20.8	20.8	20.8	20.9
Private	17.5	16.5	17.2	17.6	18.5	18.6	18.6	18.7	18.7	18.7	18.8
Public	2.5	2.2	2.1	2.5	1.9	2.0	2.1	2.1	2.1	2.1	2.1
National savings	19.8	20.2	20.5	21.4	22.3	22.4	22.6	22.7	22.8	22.8	22.9
Private	23.4	24.3	24.0	24.0	24.5	23.6	23.0	22.7	22.6	22.7	22.9
Public	-3.7	-4.0	-3.5	-2.6	-2.2	-1.2	-0.4	0.0	0.1	0.1	0.0
Foreign savings	0.2	-1.5	-1.1	-1.4	-1.9	-1.9	-1.9	-1.9	-1.9	-2.0	-2.0
Household saving rate (percent of gross disposable income)	8.5	9.6	9.0	8.2	7.7	7.4	7.5	7.6	7.7	7.9	8.0
Private sector debt (percent of GDP)	252.9	241.4	230.4	218.0	208.7	200.4	195.2	190.4	185.9	181.8	177.7
Corporate debt	167.8	159.6	152.8	145.3	139.4	135.5	130.7	127.2	124.4	121.9	118.7
Household debt	85.2	81.8	77.6	72.7	69.3	64.9	64.5	63.2	61.5	60.0	59.1
Credit to private sector	-9.9	-10.2	-6.5	-4.2	-4.1	0.9	1.4	1.4	1.5	1.6	1.7
Potential output growth	0.2	0.0	0.3	0.7	1.0	1.4	1.5	1.6	1.6	1.6	1.7
Output gap (percent of potential)	-6.1	-7.8	-6.8	-4.5	-2.3	-0.7	0.3	0.8	1.0	1.0	1.0
Prices											
GDP deflator	0.1	0.4	-0.3	0.5	0.3	1.2	1.5	1.7	1.6	1.7	1.8
HICP (average)	2.4	1.5	-0.2	-0.6	-0.3	2.0	1.4	1.7	1.7	1.8	1.9
HICP (end of period)	3.0	0.3	-1.1	-0.1	1.4	1.2	1.4	1.6	1.8	1.8	1.9
Employment and wages											
Unemployment rate (percent)	24.8	26.1	24.4	22.1	19.6	17.3	15.6	15.0	14.3	13.9	13.9
Labor productivity 1/	2.0	1.8	0.3	0.2	0.4	0.4	0.6	1.3	1.2	1.3	1.7
Labor costs, private sector	1.1	0.3	0.1	0.2	0.1	1.5	1.5	1.5	1.6	1.7	1.8
Employment growth	-4.3	-2.8	1.2	3.0	2.7	2.6	1.9	0.7	0.6	0.4	0.0
Labor force growth	0.0	-1.1	-1.0	-0.1	-0.4	-0.3	-0.1	-0.1	-0.1	-0.1	-0.1
Balance of payments (percent of GDP)											
Trade balance (goods and services)	1.5	3.3	2.5	2.4	2.9	2.9	3.2	3.3	3.5	3.6	3.7
Current account balance	-0.2	1.5	1.1	1.4	1.9	1.9	1.9	1.9	1.9	2.0	2.0
Net international investment position	-89.9	-94.3	-97.5	-91.3	-85.7	-79.9	-74.4	-69.3	-64.6	-60.1	-55.7
Public finance (percent of GDP)											
General government balance 2/	-10.5	-7.0	-6.0	-5.1	-4.5	-3.2	-2.5	-2.1	-2.0	-2.0	-2.1
Primary balance	-8.0	-4.1	-3.0	-2.4	-2.0	-0.6	0.0	0.3	0.5	0.5	0.5
Structural balance	-3.5	-2.5	-2.0	-2.4	-3.1	-2.6	-2.5	-2.5	-2.5	-2.5	-2.6
Primary structural balance	-0.5	1.0	1.5	0.6	-0.3	0.2	0.2	0.2	0.2	0.2	0.2
General government debt	85.7	95.5	100.4	99.8	99.4	98.5	97.1	95.6	94.3	93.2	92.2

Sources: IMF, World Economic Outlook; data provided by the authorities; and IMF staff estimates.

1/ Output per worker.

2/ The headline balance for Spain includes financial sector support measures equal to 3.7 percent of GDP for 2012, 0.3 percent of GDP for 2013, 0.1 percent of GDP for 2014, 0.05 percent of GDP for 2015, 0.2 percent of GDP for 2016, and 0.1 percent of GDP for 2017.

Appendix Table 5. Financial Soundness Indicators

(In percent; unless otherwise indicated)

	2010	2011	2012	2013	2014	2015	2016
Depository institutions							
Capital adequacy							
Regulatory capital to risk-weighted assets	11.9	12.1	11.6	13.3	13.7	14.7	14.8
Regulatory tier-1 capital to risk-weighted assets	9.7	10.2	9.9	11.9	11.9	12.9	13.1
Capital to total assets	6.1	5.9	5.8	6.8	7.2	7.4	7.8
Asset quality: Consolidated basis							
Nonperforming loans (in billions of euro)	119	153	180	210	188	159	143
Nonperforming loans to total loans	4.7	6.0	7.5	9.4	8.5	6.2	5.6
Specific provisions to nonperforming loans	65.7	56.9	68.4	56.8	57.7	44.0	42.4
Asset quality: Domestic operations							
Nonperforming loans (in billions of euro)	103	136	163	192	167	130	112
Nonperforming loans to total loans	5.8	7.9	10.6	13.8	12.6	10.2	9.2
Specific provisions to nonperforming loans	38.7	36.6	44.4	46.6	46.4	46.6	45.7
Exposure to businesses - Construction (in billions of euro)	422	389	294	232	196	175	157
o/w: Nonperforming (in percent)	13.5	20.8	28.5	37.3	35.6	28.3	26.5
Exposure to businesses - Other (in billions of euro)	554	541	495	456	452	444	425
o/w: Nonperforming (in percent)	3.7	5.0	8.6	12.5	11.7	9.6	8.4
Exposure to households - Home purchase (in billions of euro)	624	614	593	569	546	520	506
o/w: Nonperforming (in percent)	2.3	2.8	3.8	5.7	5.6	4.6	4.5
Exposure to households - Other (in billions of euro)	183	171	157	136	134	134	134
o/w: Nonperforming (in percent)	5.6	6.1	9.0	11.6	10.7	10.3	9.1
Earning and profitability: Consolidated basis							
Return on assets	0.5	0.1	-1.4	0.4	0.4	0.5	0.4
Return on equity	8.0	1.5	-21.0	5.4	5.7	7.1	5.5
Earning and profitability: Domestic operations							
Return on assets	0.3	-0.6	-2.7	0.1	0.5	0.4	0.3
Return on equity	5.6	-9.1	-43.6	2.0	5.9	4.9	3.1
Funding							
Loans to deposits 1/	144.8	145.3	132.4	118.3	114.5	110.0	105.7
Use of ECB refinancing (in billions of euro) 2/	70	132	357	207	142	133	140
In percent of total ECB refinancing operations	13.2	18.4	32.0	28.8	26.2	25.0	24.8
In percent of total assets of Spanish MFIs	2.0	3.7	10.0	6.6	4.8	4.7	5.1
Total assets (in percent of GDP)	295	294	316	284	266	247	233
Other financial institutions							
Total assets (in percent of GDP)							
Insurance companies and pension funds	33	33	36	38	38	37	...
Other institutions 3/	114	103	100	93	93	87	...
Shadow banking activity 4/	25	22	21	22	25	26	...
Corporate sector							
Debt (in percent of GDP)	181	176	168	160	153	145	139
Debt to total assets	55.3	53.4	51.4	47.7	46.7	43.7	43.4
Liquid assets to short-term liabilities	160.1	177.5	194.4	249.2	261.4	271.0	312.9
Household sector							
Debt (in percent of GDP)	88	86	85	82	78	73	69
Debt service and principal payment to disposable income	23.2	22.4	22.4	20.0	12.8	12.2	15.9
Real estate market							
House price (percentage change, end-period)	-1.9	-11.2	-12.8	-7.8	1.8	4.2	4.5
Housing completion (2007=100)	43	28	21	9	8	7	6
Property sales (2007=100)	57	47	43	42	43	46	51

Sources: Bank of Spain; Haver analytics; FSB, Global Shadow Banking Monitoring Report 2016; IMF, Financial Soundness Indicators database and World Economic Outlook database; and IMF staff estimates.

1/ Based on loans to and deposits from other resident sectors.

2/ Based on main and long-term refinancing operations, and marginal facility.

3/ Include public financial institutions, other financial intermediaries and financial auxiliaries.

4/ Based on FSB's economic-based shadow banking measure.