



ITALY

FINANCIAL SECTOR ASSESSMENT PROGRAM

TECHNICAL NOTE—SYSTEMIC RISK OVERSIGHT FRAMEWORK AND MACROPRUDENTIAL POLICY

August 2020

This Technical Note on Systemic Risk Oversight Framework and Macroprudential Policy for Italy was prepared by a staff team of the International Monetary Fund. It is based on the information available at the time it was completed in February 2020.

Disclaimer:

This document was prepared before COVID-19 became a global pandemic and resulted in unprecedented economic strains. It, therefore, does not reflect the implications of these developments and related policy priorities. We direct you to the [IMF Covid-19 page](#) that includes staff recommendations with regard to the COVID-19 global outbreak.

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July 17, 2020

TECHNICAL NOTE

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This Technical Note was prepared in February 2020, before the global intensification of the COVID-19 outbreak. It focuses on Italy's medium-term challenges and policy priorities and does not cover the outbreak or the related policy response, which has since become the overarching near-term priority.

Prepared By
**Monetary and Capital Markets
Department**

This Technical Note was prepared by IMF staff in the context of the Financial Sector Assessment Program in Italy. It contains technical analysis and detailed information underpinning the FSAP's findings and recommendations. Further information on the FSAP can be found at <http://www.imf.org/external/np/fsap/fssa.aspx>

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Glossary

BdI	Banca d'Italia
CBL	Consolidated Banking Law
BCBS	Basel Committee on Banking Supervision
CCFS	Coordination Committee for Financial Stability
CCyB	Countercyclical Capital Buffer
CLF	Consolidated Law on Finance
CONSOB	Commissione Nazionale per le Società e la Borsa
COVIP	Commissione di Vigilanza sui Fondi Pensione
CRD	Capital Requirements Directive
CRR	Capital Requirements Regulation
CSFS	Committee for the Safeguard of Financial Stability
DSTI	Debt service-to-income
EA	Euro area
EBA	European Banking Authority
EBIT	Earnings Before Interest and Taxes
ECB	European Central Bank
EIOPA	European Insurance and Occupational Pensions Authority
EEA	European Economic Area
ESMA	European Securities and Markets Authority
ESFS	The European System of Financial Supervision
ESRB	European Systemic Risk Board
EU	European Union
FSAP	Financial Sector Assessment Program
FSR	Financial Stability Report
GDP	Gross Domestic Product
GFC	Global Financial Crisis
CoVaR	Conditional value-at-risk
G-SII	Global Systemically Important Institutions
HQLA	High quality liquid assets
IVASS	Istituto per la Vigilanza Sulle Assicurazioni
LCR	Liquidity Coverage Ratio
LGD	Loss given default
LTV	Loan-to-value
MEF	Ministry of Economy and Finance
NCA	National Competent Authority
NFC	Non-financial corporation
NPL	Nonperforming loan
NSFR	Net Stable Funding Ratio
ORSA	Own Risk and Solvency Assessment
OSII	Other Systemically Important Institutions
SRB	Single Resolution Board

SyRB	Systemic Risk Buffer
TLTRO	Targeted longer-term refinancing operations
TTP	Transitional measures on technical provisions
VA	Volatility adjustment

EXECUTIVE SUMMARY¹

Macroprudential oversight in Italy combines local elements with the European framework. At a local level, financial stability is a shared responsibility between Banca d'Italia (BdI), which is the national central bank and the prudential authority for banks and other financial institutions, the markets authority, Commissione Nazionale per le Società e la Borsa (CONSOB), the insurance supervisor, Istituto per la Vigilanza Sulle Assicurazioni (IVASS), and the pension funds supervisor, Commissione di Vigilanza sui Fondi Pensione (COVIP).² Each authority exercises its responsibility within a combination of sectoral and activity boundaries and the BdI plays a leading role in surveillance and coordination. Within the European framework, the BdI is both the national competent authority and the designated authority for the macroprudential tools considered under the Capital Requirements Regulation (CRR) and the Capital Requirements Directive IV (CRD IV), which are implemented and activated following the processes described in these regulatory texts and the guidelines provided by the European Central Bank (ECB) – within the competences assigned to it by the SSM Regulation – and the European Systemic Risk Board (ESRB). The ubiquitous role of the BdI on both fronts eases the challenges posed by the coexistence of these two frameworks.

Italy should establish a national macroprudential policy authority. While the existing coordination arrangements seem to have worked so far, they do not provide formal ways to resolve eventual differences across agencies on the need or course of action. The designation of a national macroprudential policy authority, either a single institution or a board, would address this issue and could also help filling potential data gaps. As recommended by the ESRB, such authority would make recommendations to financial sector authorities under a “comply or explain” mechanism. Given the breadth of the BdI’s mandate, its role as national designated authority under CRR / CRD IV, and its extensive experience in systemic risk surveillance, the BdI should play a leading role.

Authorities should incorporate the Systemic Risk Buffer (SyRB) into the macroprudential toolkit and ensure that the regulatory framework permits a quick deployment of borrower-based measures if they were needed in the future. The SyRB described in CRD IV has not been introduced in the Italian macroprudential framework. An argument supporting the incorporation of this macroprudential tool into its toolkit would be its flexibility, which can be used to mitigate systemic risks unaddressed by other tools, even though the toolkit presently available to policymakers is already quite broad. Furthermore, while household- and housing-related risks are currently low in Italy, borrower-based tools, such as restrictions to loan-to-value (LTV) and debt service-to-income (DSTI) ratios could become valuable as the cycle turns. The experience from other countries indicates that it may take time to add them to the toolkit if legal action is needed and calibration is required. Thus, although the Italian legal framework grants BdI broad ability to use its supervisory and regulatory powers for macroprudential purposes, it is important to ensure that the

¹ This note has been prepared by Claudio Raddatz. Contributions from Chikako Baba, Dulani Seneviratne, Juno Xinze Yao, and Yizhi Xu, and editorial assistance from Sihem Benamara and Daniela Santos are gratefully acknowledged. The author would also like to thank the Italian authorities for excellent discussions and engagement.

² Even though COVIP does not have a clear financial stability mandate, it contributes to the oversight in Italy.

regulation establishing the structure of and the operating procedures for those tools is issued so as to allow for a quick deployment if needed. It is advisable to take these actions during periods where risks from this sector are limited.

Financial stability surveillance and assessment is strong, but it would benefit from a more prominent discussion of systemic risk and a more regular use of prospective simulations for the banking sector.

Surveillance and assessment are based on state-of-the-art quantitative techniques and expert judgement and cover many sectors of the Italian financial system. Nonetheless, the analysis of the FSR, the main vehicle for communicating authorities' views on financial stability risks, could be usefully complemented by regular discussions of systemic risk that take into consideration the interconnections between sectors arising, for instance, from their relevant sovereign exposures. The regular incorporation of simulations for the banking sector would also help assessing prospective risks faced by this key part of the Italian financial system.

Authorities could consider using prudential policies to moderate the sovereign-financial nexus, carefully phasing them in to avoid possible market disruptions.

From a cyclical perspective, the macroprudential policy stance seems adequate. According to macrofinancial indicators, the Italian economy is beyond the point of a preemptive cyclical accumulation of buffers, which is consistent with Bdl decisions to keep the CCyB at zero. Nonetheless, as shown by the stress test results, the large sovereign debt holdings of Italian financial intermediaries make them vulnerable to a sovereign shock and could exacerbate the feedback effect to the real economy. Authorities should consider prudential policies that encourage banks to diversify their sovereign holdings, thus limiting further concentration of exposures, and build capital buffers that incorporate the risk posed by their holdings of sovereign debt. On the macroprudential front, a carefully calibrated SyRB that considers the concentration of the exposures could help. Other prudential measures like the use of Pillar II or the use of risk weights based on concentration limits could also be explored.³ It is important, however, that these policies be designed to avoid procyclical effects and be sufficiently phased-in to avoid any possible disruptions to sovereign debt markets and banks' lending. The benefits of such a policy should be in all cases weighted against the costs that it might entail, particularly if adopted in an uncoordinated fashion vis-à-vis the major European and global partners.

Bdl should consider raising O-SII buffers with an adequate phase-in period. Both, fully-loaded and transitional buffers of Italian O-SIIs are at the lower end of their European peers. Overall CET1 capital levels of Italian O-SIIs are also comparatively low. This suggests that the current levels may not provide adequate protection against the systemic consequences of the failure of these institutions. Authorities should review the adequacy of these buffers, and if the conclusion of this review indicates the need for an increase of current levels, consider raising them with an adequate phase-in period that allows for their organic accumulation through internal resources and avoids procyclicality.

³ The use of risk weights based on concentration of exposures is not possible under EU regulations.

Table 1. Italy: Recommendations on Strengthening the Systemic Risk Oversight Framework and Macroprudential Policy Actions

Recommendations and authorities responsible for implementation	Timeframe *
Main recommendations	
Establishing a macroprudential policy authority (MEF, Bdl, IVASS, CONSOB, COVIP)	ST
Incorporate the CRD IV Systemic Risk Buffer and borrower-based tools into the regulation and macroprudential toolkit (Bdl)	ST
Consider implementing prudential policies to moderate the sovereign-bank nexus with an appropriate phase in period to avoid possible market disruptions (Bdl)	MT
Evaluate the adequacy of O-SII buffers and if deemed necessary consider raising them with an adequate phase-in period (Bdl)	ST
Other recommendations	
Advance in defining intermediate objectives for financial stability mandate (IVASS, CONSOB)	ST
Map macroprudential policies and tools (Bdl, IVASS)	ST
Strengthen communications on financial stability mandate, surveillance, and actions (Bdl, IVASS)	ST
Expand discussion of systemic risk in the FSR (Bdl)	ST
Make more frequent use of prospective simulations for the banking sector in the FSR (Bdl)	ST

* ST = Short Term (within 1–2 years); MT = Medium Term (within 3–5 years).

OVERVIEW

1. The Italian financial system is largely bank dominated, but insurance and other intermediaries play a meaningful role and have been recently growing. At almost 400 percent of GDP, the assets of Italian financial intermediaries are sizeable although below some other advanced economies (Figure 1, panel 1). As in many European countries, the system is bank dominated and banks' assets represent about 65 percent of the total financial assets held by Italian intermediaries. Nonetheless, this share has been declining slightly since 2011, while insurance assets have increased from 10 percent to 15 percent of total financial assets, and those of investment funds and other financial intermediaries from 15 percent to 18 percent (Figure 1, panel 2).⁴

2. The Italian system of regulation and supervision combines sectoral and functional characteristics. The Bdl regulates and supervises banks and investment firms, but also exercises prudential regulation and supervision of asset managers, mutual funds, and market infrastructures. CONSOB focuses on transparency and market conduct of banks performing investment services, investment firms, asset managers, mutual funds, and market operators and participants, including issuers of public securities. IVASS supervises insurers, both in prudential and consumer protection aspects. COVIP supervises pension funds.

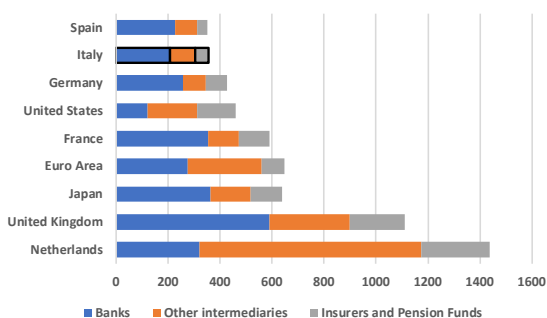
3. Italian government securities structurally represent a large share of the portfolio of all Italian financial intermediaries. While subject to some cyclical fluctuations, and declining in recent years, central government securities represented 13 percent of total financial assets of Italian intermediaries at the third quarter of 2018, which is much higher than the 5 percent observed in the Euro Area (Figure 1, panel 3). The relative importance of sovereign securities has been increasing for Italian banks, reaching about 10 percent at end-2018, and while recently declining for insurance companies, other financial intermediaries, investment funds, and pension funds, government securities represent about 37 percent, 3 percent, 20 percent, and 19 percent of their financial assets, respectively (Figure 1, panel 4).⁵ From a slightly different perspective, the picture is very similar, with Italian financial intermediaries holding the lion share of the stock of government securities (37 percent), followed by the rest of the world (33 percent) and the Bdl (20 percent).

⁴ Figures included in this technical note use data available as of March 2019. While the broad patterns described in the various figures are still valid, some of the actual figures may have changed as a result of recent developments in the Italian financial system.

⁵ Strictly speaking, the figures reported for banks in this paragraph correspond to those for monetary and financial institutions, which also include "Cassa depositi e prestiti", a state owned commercial financial institution, among others.

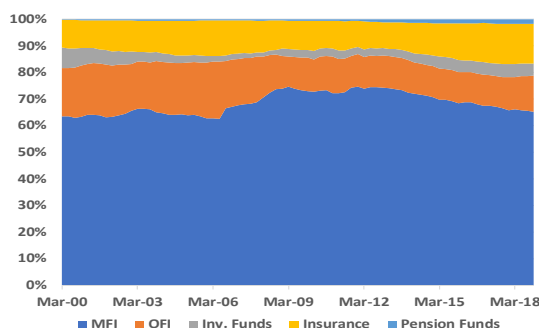
Figure 1. Financial Structure

1. Total assets of financial institutions (in percentage of GDP, Dec. 2017)



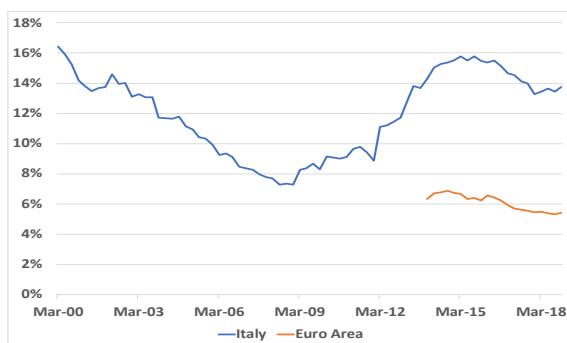
Sources: Financial Stability Board and IMF staff calculations

2. Total financial assets of intermediaries (in percentage of total financial assets of the system)



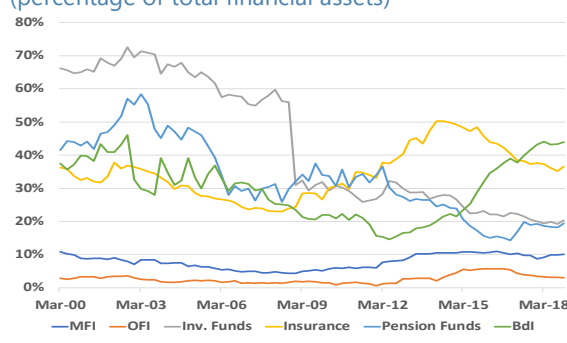
Sources: Banca d'Italia flow of funds data and IMF staff calculations

3. Italian govt. securities of financial intermediaries (percentage of total financial assets)



Sources: Financial Stability Board and IMF staff calculations

4. Italian government securities of Italian intermediaries (percentage of total financial assets)



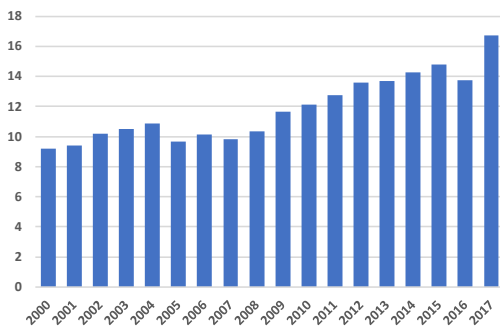
Sources: Banca d'Italia flow of funds data and IMF staff calculations

4. The Italian financial system has been gradually recovering from the events of 2008–2012 but remains vulnerable. The global financial crisis (GFC) of 2008 and the European sovereign debt crisis in 2011–12 had strong consequences for the Italian economy and financial intermediaries, especially banks. Non-performing loans skyrocketed, profitability declined, and credit weakened. The slow macroeconomic recovery experienced between 2014 and 2018 helped banks regain some strength. Capital ratios increased, reaching their highest levels in 17 years, although they remain below EU averages (Figure 2, panel 1). NPL ratios declined significantly since their 2015 high, as well as the migration of loans to non-performing status, but the overall level of gross NPLs remained high at 9.5 percent of loans at the third quarter of 2018 (Figure 2, panel 2). Profitability has been low and volatile, with ROE recently reaching 7 percent after several years in negative territory and below the estimated cost of equity capital (Figure 2, panel 3). Weak profitability is specially challenging for medium and small banks, which also have relatively high operational costs. Liquidity, as measured by the LCR and NSFR, is high partly because of the ECB’s targeted longer-term refinancing operations (TLTRO) and the ensuing large sovereign holdings that constitute high-quality-liquid-assets (HQLA) under Basel III rules (Figure 2, panel 4).

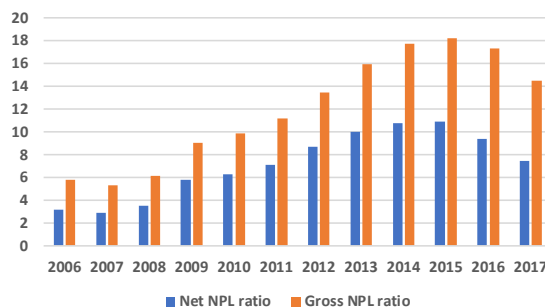
5. Credit has slowed down and contracted in some segments. After growing at double-digit rates before the GFC, credit experienced a double-dip contraction and has declined as a share of GDP by more than 10 percentage points since 2012 (Figure 2, panel 5). Lending to corporates stabilized in 2016 with growth rates hobbling around zero since then. Household credit has recovered faster, especially consumer credit, but growth remains relatively anemic (Figure 2, panel 6). This in a context of very low GDP growth.

Figure 2. Banks and Credit Indicators

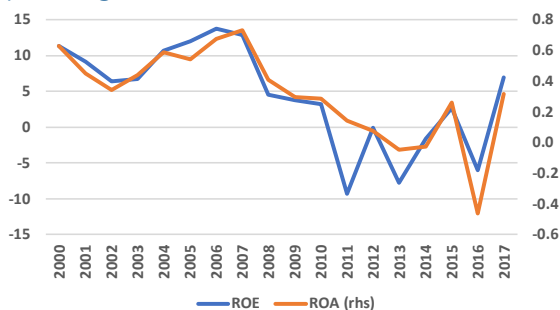
1. Total capital ratio (percentage)



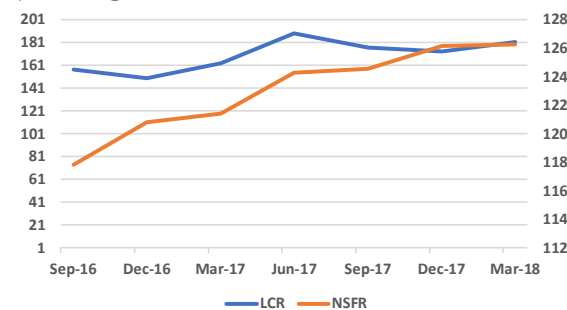
2. Gross and Net NPLs (percentage of total customer loans)



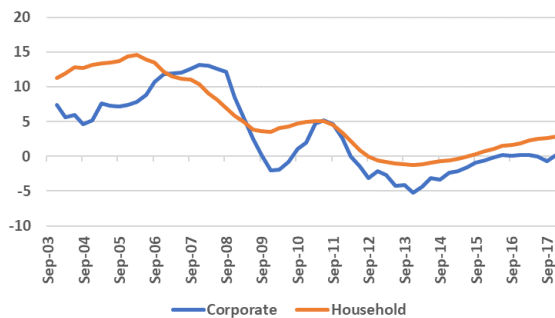
3. Profitability: Returns on Equity and Assets (percentage)



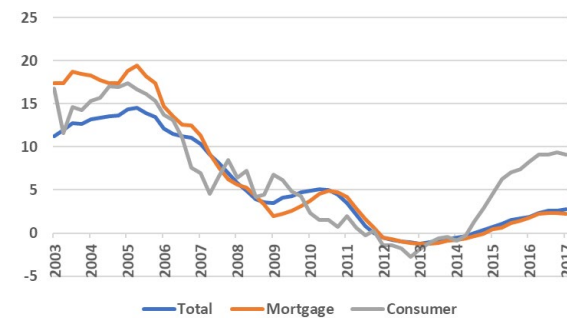
4. LCR and NSFR (percentage)



5. Credit growth. Households and Non-fin. Corp. (percentage)



6. Household credit growth (percentage)



Sources: Banca d'Italia and IMF Staff Calculations

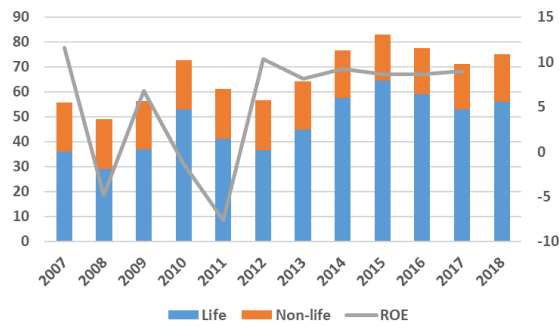
6. Beyond banks, insurance companies and asset managers have also recovered from the impact of the crisis, although recent events have affected their performance. Insurance premiums and profitability have stagnated in the last four years (Figure 3, panel 1), liquidity has declined compared to 2016, and solvency has recently declined after experiencing a sustained increase since 2016 (Figure 3, panel 2). Asset managers experienced outflows and negative returns during 2011 and early 2012, closely tracking movements in sovereign spreads (Figure 3, panel 3). After various years of recovery experiencing significant inflows, mutual funds again experienced some outflows and negative returns during 2018. Open-ended mutual funds have large liquidity buffers relative to redemptions (Figure 3, panel 4), which are mostly concentrated in Italian government bonds.

7. Households remain resilient and risks from the housing sector are low. However, the corporate sector shows some signs of vulnerability. Household net wealth is high at almost six times annual GDP at the end of 2017—the latest date available, despite the slight decline observed with respect to the previous year. Household debt to GDP is among the lowest in the EU and has remained largely unchanged between 2012 and 2018 (Figure 4, panel 1). Debt service to income ratios declined across households between 2012 and 2016 (last year of household survey) and aggregate indicators suggest the trend has persisted (Figure 4, panel 2). Loan to value ratios for mortgage credit are relatively low, at 65 percent, after having consistently increased from below 60 since 2013 (Figure 4, panel 3). After a period of rapid growth before 2008, prices of residential and commercial real estate have declined, with only some recent weak stabilization observed in residential prices (Figure 4, panel 4). Corporate leverage has declined across firms (Figure 4, panel 5) and the Interest Coverage Ratio (the EBIT to interest expense ratio) has increased because of the policy driven low cost of funding observed in recent years. Median firm profitability has rebounded in recent years and it is approaching pre-crisis levels.⁶ NPL ratios remain high for firms in the construction sector, and debt at risk remains sensitive to adverse shocks in the cost of funding (see Technical Note on the Corporate Sector in this FSAP).

⁶ See Figure 30 of Technical Note on Systemic Risk Analysis and Stress Testing of the Banking and Corporate Sector.

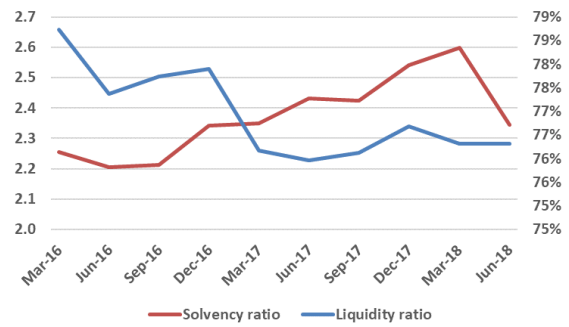
Figure 3. Insurers and Asset Managers

1. Italian insurers premia and ROE
(billions, percentage)



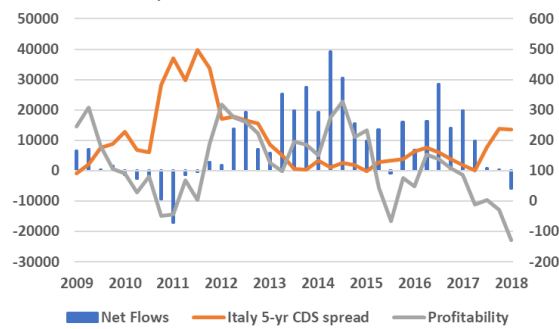
Sources: IVASS (2018). Cumulative premia at second quarter each year. ROE and equity to assets reported end-of-year.

2. All Insurers: Solvency and liquidity ratios
(times, percentage)



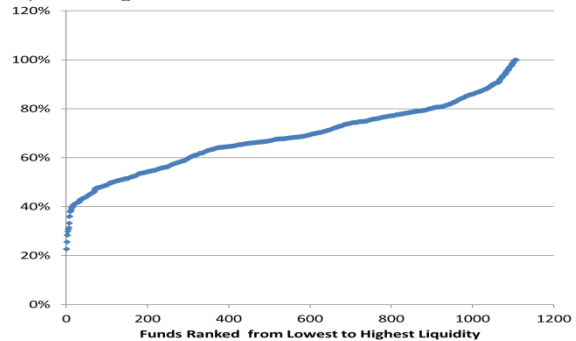
Sources: IVASS. Weighted median ratios across all insurers reported

3. Italian asset managers performance
(billions, basis points)



Sources: Assogestioni and staff calculations.

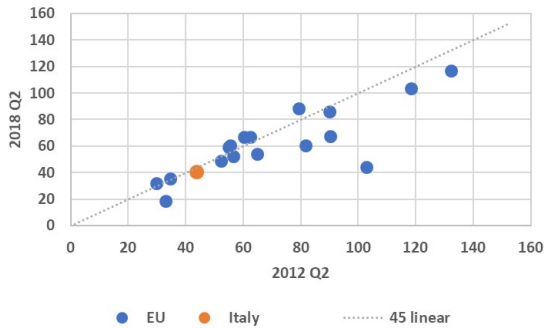
4. Italian asset managers liquidity
(percentage)



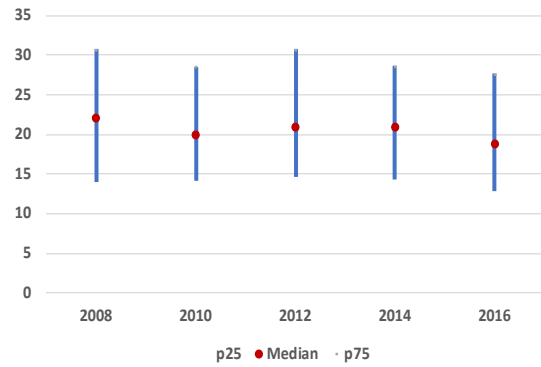
Source: Banca d'Italia.

Figure 4. Household and Non-Financial Corporations

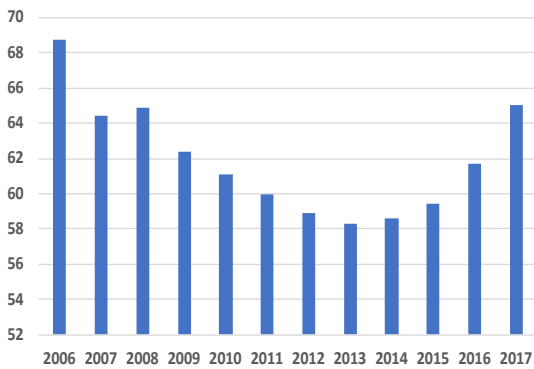
1. Household debt to GDP (2018 and 2012) (percentage)



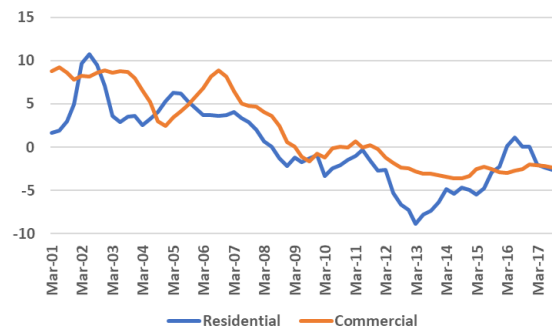
2. Household debt service to income distribution (percentage, households with mortgage loans)



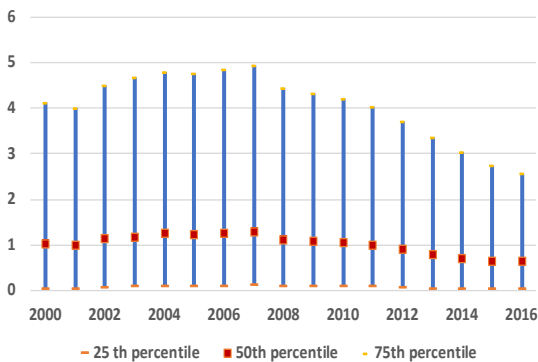
3. Loan-to-value ratio, residential properties (percentage)



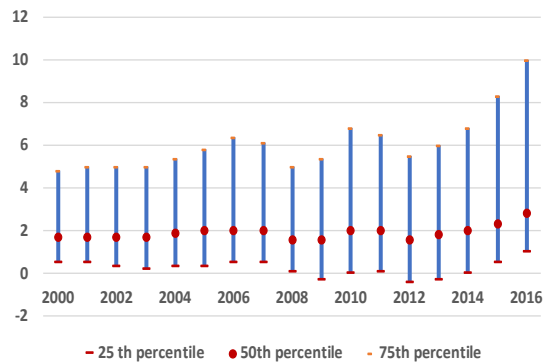
4. Residential and commercial real estate prices (growth rate, percentage)



5. Leverage (debt to equity), Non-fin. Corp. (times)



6. EBITDA to interest expenses, Non-fin. Corp. (times)



Source: Banca d'Italia

INSTITUTIONAL ARRANGEMENT

A. Current Situation

8. **Responsibility for financial stability is shared between the Bdl, IVASS and CONSOB.**

The law assigns a clear and broad financial stability mandate to the Bdl in all its regulatory and supervisory activities.⁷ IVASS is also charged with a financial stability mandate, although the law subordinates it to the primary objective of ensuring suitable protection to the insured.⁸ The consolidated law on finance establishes financial stability as one of the five objectives of the supervision of all entities and activities (such as banks performing investment services, investment firms, asset managers, mutual funds, trading venues, etc.) and designates the Bdl and CONSOB as supervisors. Nonetheless, the law also assigns the responsibility for risk containment to the Bdl and the responsibility for transparency and proper conduct to CONSOB.⁹ Moreover, COVIP, the pension fund supervisor, even if lacking a clear financial stability mandate, contributes to the financial oversight in Italy.

9. **For Bdl, IVASS and CONSOB, financial stability is not the unique mandate, and the balance across mandates is achieved internally.**

The Bdl is also the microprudential supervisor, which could create a tension between the more procyclical nature of this mandate with macroprudential measures aimed to release buffers in difficult times. In addressing this tension, according to the Bdl, macroprudential considerations have a prominent role. For IVASS, the law clearly subordinates the financial stability mandate to the protection of the insured. In the case of CONSOB, the law provides that, in achieving the objectives established by the law (which include financial stability), its responsibility lies in transparency and market conduct.

10. **Bdl is both the national competent authority and the designated authority for the macroprudential powers under the CRR CRD IV, a responsibility shared with the ECB.**

The European bank solvency regulation, established in the CRR CRD IV package, makes several macroprudential tools available to member countries, and establishes a framework that seeks to balance flexibility in their application with the need for harmonization within the banking union. Member countries designate competent authorities that are responsible for following the required processes and guidelines for the activation and calibration of these measures, and the notification to EU authorities. Under the SSM Regulation (EU Regulation No 1024/2013), the ECB has been assigned specific powers in the field of macroprudential policies. In particular, the ECB is responsible for assessing macroprudential measures adopted by national authorities in the countries subject to ECB Banking Supervision. The framework grants the ECB top-up powers, by which it can, for instance, set

⁷ Article 5 of the Consolidated Banking Law (CBL) requires all credit authorities, which include the Bank of Italy, to consider the overall stability competitiveness and efficiency of the financial system in exercising their supervisory powers.

⁸ Article 3, Code of Private Insurance.

⁹ See Article 5, Consolidated Law on Finance.

up higher levels for the macroprudential buffers established by the member country if these are judged inadequate.¹⁰ At the European level, the Macroprudential Forum, which brings together the ECB's Governing Council and the Supervisory Board, meets regularly to maintain a common understanding of the situation in the financial sector.

11. Bdl has defined clear intermediate objectives in operationalizing its macroprudential policies. These correspond to mitigating and preventing excessive credit growth and leverage, excessive maturity mismatch and market illiquidity, limiting direct and indirect exposure concentrations, limiting the systemic impact of misaligned incentives and reducing moral hazard, and strengthening the resilience of financial infrastructures. These objectives follow closely the recommendations by the European Systemic Risk Board (ESRB).¹¹ Other agencies have not officially defined intermediate objectives related to financial stability yet, however IVASS states that it is closely following those identified by EIOPA¹² in order to develop a harmonized macroprudential framework for the Italian insurance sector.

12. Communication and coordination among the Italian authorities on financial stability risks and decisions is achieved through various mechanisms. The Coordination Committee for Financial Stability (CCFS) of the Bdl is an internal committee for discussion about the state and risks faced by the Italian financial system. It meets three times a year, is chaired by a member of the governing board and attended by senior staff from several directorates of the Bdl, including the Resolution and Crisis Management unit. High-level staff from IVASS are usually invited. Internal minutes of this committee, summarizing their discussions and any recommendations are sent to the board of Bdl for information and, if needed, approval. Staff from Bdl and CONSOB meet on an ad-hoc basis and maintain ongoing communications on various issues related to their joint supervisory responsibility for securities and markets, although there is no regular dedicated platform to discuss financial stability issues.¹³ Staff from various agencies also meet on an ad-hoc basis in preparation of discussions for the international fora. Other coordination instances, such as the committee for the safeguard of financial stability (CSFS), chaired by the MEF, have not met regularly in recent years.

¹⁰ The ECB has the power to apply, if deemed necessary, more stringent measures than adopted nationally to address risks to financial stability. The powers are based on Article 5 of the SSM Regulation and Article 13h of the Rules of Procedure of the ECB (ECB/2014/1), OJ L 95, 29.3.2014. For a detailed description of the notification and authorization process for the different macroprudential measures, as well as the top-up powers of the ECB, see IMF (2018).

¹¹ ESRB (2013).

¹² In its 2018 publications and in the Option to the Commission calling for advices on the review of Solvency II directive EIOPA identified the following main intermediate objectives: 1) ensure sufficient loss absorbing capacity and reserving; 2) discourage excessive involvement in certain products and activities; 3) discourage excessive level of direct and indirect exposure concentration; 4) limit procyclicality and 5) discourage risky behavior.

¹³ Some supervisory and regulatory actions by Bdl and CONSOB are subject to mutual checks and balances. Various MoUs have been issued describing processes, a joint regulation, and areas of respective actions. These MoU also define two standing committees for coordination on regulation and supervision, the Strategic Committee and the Technical Committee, which meet as required.

13. Communication and coordination with the European authorities take place in multiple fronts. The Italian authorities actively participate in the different bodies that are part of the European System of Financial Supervision (ESFS). The Bdl, CONSOB, IVASS and COVIP maintain communications with EU institutions in matters of their competence through their participation in the governance and committees of the European Banking Authority (EBA), European Securities and Markets Authority (ESMA), and European Insurance and Occupational Pensions Authority (EIOPA), respectively. The Bdl is also a voting member of the ESRB, with the other agencies participating in a non-voting capacity. The framework for the macroprudential measures under the CRR-CRD IV also establishes the frequency with which the national competent authority (NCA) should make decisions regarding various macroprudential measures and set up clear procedures for the notification of the measures to different authorities and their approval or objection by the board of the ECB.¹⁴ Furthermore, in discharging their mandate, the NCAs are expected to follow the recommendations issued by the ESRB, which also regularly evaluates the extent of compliance with such recommendations.

14. All agencies have broad powers to gather information to accomplish their mandates and are required to share information with each other. In exercising its functions, including macroprudential surveillance, the Bdl can request any necessary information from banks and investment firms.¹⁵ In exercising its responsibility for financial stability, it can also request information from asset managers, mutual funds, trading venues, and all other entities and activities covered by the Consolidated Law on Finance (CLF).¹⁶ The law assigns similar powers to IVASS and CONSOB in the exercise of their mandates and responsibilities.¹⁷ Furthermore, the law explicitly mandates the cooperation between agencies in exercising their functions, including through the open exchange of information.¹⁸ The information gathered can be shared with the relevant European bodies. Information on unregulated entities, such as households and unlisted firms, is harder to access and is obtained through surveys and commercial databases.

15. As the NCA, the Bdl has hard powers to activate and calibrate the macroprudential tools contemplated under the CRR CRD IV. In doing so, it is expected to follow the guidelines issued by the ESRB and ECB, aimed at ensuring the harmonization of measures within the banking union. The sole exception is the SyRB, which has not been incorporated in local regulation. The Consolidated Banking Law (CBL) gives Bdl broad powers to issue regulation for the containment of risk, including for macroprudential purposes, and the CLF also gives the Bdl powers to set prudential

¹⁴ National authorities must notify the ECB when they intend to implement or change a macroprudential measure. The ECB assesses the planned measures and can object to them. National authorities consider the ECB's comments before proceeding with the decision. The ECB may also, apply higher requirements for capital buffers than those applied by the national authorities and apply more stringent measures aimed at addressing systemic or macroprudential risks

¹⁵ Articles 51, 53, and 109 of the CBL.

¹⁶ Article 6-BIS (1) CLF.

¹⁷ Article 6-BIS (5) CLF and Article 47-quarter Code of Private Insurance.

¹⁸ Article 7 (5) CBL and Article 4 (1) CLF.

limits to entities and activities regulated under its purview (e.g., asset managers, mutual funds, alternative investment funds)¹⁹ There is no direct reference in the legal framework to borrower-based macroprudential measures beyond the general powers assigned to Bdl, or precedent of their use with macroprudential purposes. IVASS has hard powers in applying prudential measures to insurers, some of which could have a macroprudential role. In the current framework where each authority uses its hard powers individually and there is no formal macroprudential policy authority, there is no scope for the use of soft powers, such as comply or explain mechanisms.

16. The regulatory perimeter is broad. Italy has a broad definition of regulated entities, which covers all those that originate credit, regardless of the form of financing. All banks, including cooperatives and credit unions, investment firms, and issuers of electronic money are regulated under the CBL. The code of insurance regulates the provision of all insurance and reinsurance services and incorporate prudential criteria. The CLF covers investment services, collective asset management services and products (including mutual funds and crowdfunding platforms), trading venues, central counterparties, central security deposits, and the issuers of securities. Given the objectives established by the law, prudential criteria could be applied to the regulation of these entities and activities. On the other hand, the entities and activities subject to regulation and supervision are comprehensively listed in the corresponding legal bodies.

17. Resources for systemic risk oversight are mostly adequate. The Bdl and IVASS have dedicated staff for financial stability analysis and surveillance. In the Bdl, two directorates are directly involved in systemic risk oversight and macroprudential policy decisions, and two other directorates collaborate and participate in the discussions. IVASS has one division focused on macroprudential analysis for the insurance sector. Given its focus on market conduct, CONSOB does not have dedicated staff for financial stability analysis, although broad market trends are analyzed by its research department.

18. Accountability is exercised through annual reports required by law, various publicly available documents, websites, and ad-hoc presentations to other government bodies. The bylaws of the Bdl, IVASS, and CONSOB requires them to publish annual reports of activities.²⁰ The reports of the Bdl and IVASS have sections dedicated to financial stability and macroprudential surveillance. The launch of Bdl reports usually takes place in the ordinary meetings of shareholders. By June each year, IVASS submits to Parliament and the Government a report on activities conducted during the previous year, following to this communication IVASS reports are launched in an event with representatives of other agencies and the industry. On occasion, the reports may also be presented to the government. In addition, the Bdl publishes a semi-annual financial stability report (FSR), where it shares with the public its views on the financial stability risks faced by the Italian financial system and on policy issues, and which also includes a section devoted to describing the macroprudential policies taken by the Bdl during the interim period between FSRs. The launch of the FSR is on occasion accompanied by events with financial analysts. The list of policy decisions is

¹⁹ Articles 5, 53 and 53-ter of CBL and Article 6 (1) CLF.

²⁰ Article 4, CBL.

also made public through the website of the Bdl. There is no channel regularly aimed to general audiences.

B. Assessment and Recommendations

19. The coexistence of the local and European framework for financial stability poses some challenges that are eased by the leading role assigned to the Bdl and the bank-based nature of the financial system. While there is a single designated authority and established processes for the macroprudential policies under CRR CRD IV, the general mandate for financial stability at the national level is dispersed across agencies with multiple mandates and without a formal forum for coordination devoted to this mandate. The challenges posed by the local architecture are largely overcome by the ubiquitous role of the Bdl—the institution with the clearest and broadest mandate for financial stability and the designated authority under CRR CRD IV—and by the relevance of the CRR CRD IV macroprudential package in a bank-based system like Italy. The Bdl plays a leading role on financial stability analysis and its internal CCFS is a useful coordination instance with IVASS.²¹ In parallel, the Bdl and CONSOB have taken multiple steps to enhance their coordination and communication. The importance of banks in the Italian financial system makes the bank-oriented macroprudential policies of the EU framework especially potent and the clarity on their institutional framework minimizes potential conflicts across agencies.

20. Italy should establish a national macroprudential policy authority. Following the ESRB recommendations on the above,²² the Italian Parliament passed a delegation law in 2016, giving a mandate to the Ministry of Finance to create a macroprudential policy authority within a year. Despite negotiations and agreement across agencies about the composition and functioning of the authority, the legislative decree was not issued, and the mandate expired. However, the current system, which largely relies on informal coordination across agencies, could affect the willingness to implement preemptive macroprudential actions, especially in cases of disagreement about their need across authorities. Furthermore, the changing nature of the financial system may require macroprudential policies beyond the banking sector. Even in cases where the current legal setting gives powers to the Bdl to regulate non-banks for financial stability purposes, a coordinated action with other responsible agencies would be desirable, and a lack of agreement could lead to inaction in the implementation of macroprudential actions in absence of a formal authority that could rapidly coordinate views, settle disputes, and issue recommendations. The creation of a formal national macroprudential policy authority would address the issues aforementioned and could also help with filling potential data gaps. The macroprudential policy committee considered in the delegation law of 2016 would fill this role and the advanced discussions on its implementation could be promptly resumed and finalized in a legal text. As recommended by the ESRB, a new body would make recommendations to members under a “comply or explain” mechanism. Given the breadth of the Bdl’s mandate, its role as national designated authority under CRR CRD IV, and its extensive

²¹ Coordination with IVASS is eased by the shared governing body of the two institutions.

²² See ESRB (2011).

experience in systemic risk surveillance, the Bdl should have a leading role in this body and its role as national designated authority should be preserved.

21. A clearer map between macroprudential objectives and tools would enhance accountability and the willingness to act. The Bdl is the only agency that has established intermediate objectives for its financial stability mandate, making it more concrete and enhancing accountability. Nonetheless, the map between objectives, indicators, and tools could be enhanced, especially for those objectives that go beyond mitigating excessive credit growth and the systemic impact of misaligned incentives (tackled through the CCyB, GSII, and OSII). For instance, while Bdl's objectives include limiting direct and indirect exposure concentration, it has not explicitly declared how these exposures are assessed, and what tools could be deployed if they were judged to be excessive.²³ While the activation of a tool should not be mechanically linked to specific indicators and can affect various objectives, the establishment of a map between intermediate objectives and specific instruments would not only help staff think in advance of policy options when facing emerging vulnerabilities but would also enhance accountability and communications when these tools are eventually activated. A clear example comes from the current practices for the activation of the CCyB, which is linked to a specific objective, combines quantitative indicators and judgement, and has a clear communication and accountability framework to increase the willingness to act. Beyond the Bdl, IVASS and CONSOB should advance in clearly identifying the intermediate objectives behind their financial stability objectives.

22. Authorities should consider strengthening communications to enhance awareness of their financial stability mandate, surveillance, and actions. The release of written reports and description of actions through the institutional websites is a valuable resource for informed parties but may not be sufficient to raise awareness of the financial stability mandate, surveillance and actions taken by financial sector authorities among other branches of government or the general public. This awareness and the vigilance that society may exert in the accomplishment of the financial stability mandate is important for accountability and can strengthen both the willingness and the ability to act.

23. The formal incorporation of the SyRB and taking the necessary steps for the incorporation of borrower-based measures to the macroprudential toolkit would enhance the ability of Bdl to tackle a broader set of risks. As part of CRD IV, the implementation of the SyRB requires action by member countries. The Bdl did not incorporate the SyRB to its norms because of a perceived lack of clarity about the necessity of this buffer. Nonetheless, the broad nature of this buffer allows for its flexible deployment, and countries have used it to tackle various types of

²³ Recent analysis from Bdl has produced forward looking indicators that could be used to assess risks arising from exposure concentration in the corporate sector (see Accornero et al. 2018). Other indicators could be developed for exposure concentration in other sectors and indirect exposure concentration through the holding of similar assets.

systemic risks that are unaddressed by other tools (see Box 1).²⁴ Borrower-based tools, such as restrictions to LTV and DSTI ratios, could become valuable as the financial cycle turns. The current legislative framework does not explicitly cover borrower-based measures, but it grants Bdl the ability to use its broad supervisory powers for macroprudential purposes.²⁵ Nonetheless, before actually using that power, Bdl should issue secondary regulation establishing the structure of and the operating procedures for those measures. Because of the difficulties in calibration, a gradual implementation is desirable, which also suggests that early availability is useful.

SYSTEMIC RISK SURVEILLANCE

A. Current Situation

24. The Bdl conducts regular and sophisticated financial stability assessments. The main vehicles for surveillance are the FSR and the newly-created risk dashboard.

- *The semi-annual FSR describes the current state of the Italian financial system and the prospective risks it faces.* The report is the outcome of a process of analysis and discussion starting a few months before its publication and involving staff from various directorates of the Bdl and IVASS, coordinated through the CCFS. It covers the global and local macrofinancial environment, the evolution of real estate markets, the financial vulnerability of households and non-financial corporations, trends in monetary and financial markets, banks' solvency, liquidity, and profitability, and indicators from the insurance and asset management industry from a largely sectoral perspective. The report maintains its structure across issues, which eases comparability. The overall assessment combines information from multiple indicators, sophisticated models, and expert judgement. Models combining macroeconomic indicators and granular microeconomic data from household surveys and non-financial corporations are used to simulate the vulnerability of these sectors to adverse scenarios. IVASS contributes with indicators and models of risks faced by the Italian insurance sector based on their own surveillance activities (see below).
- *The newly-developed triannual risk dashboard summarizes multiple indicators to provide a panoramic view of the vulnerability of the Italian financial system.* The state-of-the-art dashboard was first issued in February 2018 and has been incorporated into the systemic risk surveillance framework. An internal note for discussion on risks to financial stability based on the dashboard is issued three times a year. Its goals are to contribute to monitoring the level and direction of systemic risk and inform the macrofinancial debate. It incorporates about 80 indicators along

²⁴ Current discussions at the EA level point towards a more flexible use of the Systemic Risk Buffer to be applied also to sectoral exposures. The introduction of SyRB into the Italian legal framework should ensure consistency with the outcome these discussions.

²⁵ The ECB has called for the implementation of legislative frameworks for borrower-based measures in all euro area countries in its 2016 statement on Macroprudential policies (ECB, 2016). The ECB has also made a call for adding borrower-based instruments to the EU legal framework (ECB, 2016b).

nine categories of risks,²⁶ uses various statistical and pre-determined thresholds to assess whether each indicator is flagging heightened risks and relies on statistical techniques to compute aggregate indicators of risk along key dimensions.

25. IVASS also conducts regular quantitative and qualitative systemic risk assessments and CONSOB elaborates a market risk dashboard. IVASS produces a quarterly risk dashboard for the insurance sector that follows and customizes the methodology used by EIOPA. It relies on many indicators to assess risks faced by the sector in eight categories. Like the approach used by the Bdl's dashboard, the level of each indicator flags vulnerabilities that are summarized in an aggregate measure of risk in each of the eight categories. IVASS also conducts quarterly surveys to relevant institutions representing about 80 percent of the sector, collecting quantitative information on certain exposures (e.g., exposure to minibonds) and changes in investment strategies, business mix, etc. These surveys are also used to collect information on ad-hoc issues of contingent relevance, such as cyber risks or exposures to virtual currencies, climate change risk. These activities are complemented with monthly liquidity monitoring, top down stress tests and sensitivity analysis, and systematic analyses of ORSA and SCR reports. These various analyses of the systemic risks faced by the Italian insurance sector contribute to forming the view that is shared and discussed with the Bdl for inclusion in the FSR. CONSOB produces a risk outlook containing a chart pack with information on market trends and indicators, including measures of market liquidity and spillovers, for equity and bond markets, as well as key indicators for solvency and profitability of non-financial corporations and banks. CONSOB used to publish its risk outlook, but there has been no publicly available version of it in the last two years.

26. The Bdl regularly conducts in-depth analyses of certain topics of interests and develops sophisticated models that are incorporated into systemic risk surveillance. A recent example is the detailed analysis of the consequences of an increase in sovereign spreads on the solvency ratios and liquidity indicators of Italian banks and insurance companies. Furthermore, detailed models have been built to estimate the share of vulnerable households and firms, as well as risks coming from the real estate sector, among many others. The model for households uses microeconomic data from the latest household surveys that are extrapolated imputing debt dynamics and econometric relations between household income to macro aggregates. The model for non-financial firms uses rich micro data from a commercial provider, Cerved, to estimate detailed relationships between firms' profitability, interest expenses, and macro aggregates. These models are used to assess the current share of vulnerable households (those with a ratio of debt service to income above 30 percent and disposable income below the median) and the share of corporate debt at risk (those with negative operating income or with a ratio of net interest expenses to net operating income above 50 percent) and to project them in different adverse macroeconomic scenarios. For the real estate sector, the Bdl has conducted a detailed analysis of the early warning properties of multiple price and credit indicators to forecast the flow of bad loans and NPLs from

²⁶ The nine dimensions correspond to interlinkages, credit risk, macroeconomic risk, funding risk, market risk, solvency and profitability in the banking sector, solvency and profitability in the insurance sector, risks related to the asset management industry, and risks related to central counterparties.

residential and commercial real estate loans.²⁷ Other detailed and sophisticated models have been built by Bdl staff and incorporated in the FSR.

27. The significant exposure of Italian financial intermediaries to Italian sovereign assets results in interconnections across sectors through common exposures. While direct linkages across Italian financial intermediaries are limited, their common exposure to Italian sovereign assets creates indirect linkages where movements in sovereign spreads simultaneously affect large parts of the financial system and the real economy (see Technical Note on Risk Analysis in this FSAP). For instance, sovereign CDS spreads explain about 60 percent of the variation of CDS spreads of Italian financial intermediaries (including banks, insurance companies, and asset managers), and the passthrough coefficient from sovereign to financial firms is close to 1.²⁸ This comovement may limit the ability of one type of intermediary to step in when others are facing troubles associated with this type of risk.

28. Connectedness across financial intermediaries has increased in recent years and large non-banks contribute significantly to the volatility of other intermediaries. The share of variance in stock market returns and volatility that can be explained by other firms is a well-established measure of connectedness, first proposed by Diebold and Yilmaz (2009). According to this measure, equity return, and price volatility connectedness of Italian financial intermediaries has increased since 2015 (Figure 5, panel 1).²⁹ The connectedness indices for Italian financial intermediaries, averaging about 75 percent, are high compared to those estimated for other countries.³⁰ While the overall picture is similar across the two measures, the increase in volatility connectedness is particularly marked in recent years. Connectedness is not only the result of shocks to large banks propagating to other banks and financial institutions. While the largest Italian banks are among the largest contributors to overall connectedness, large insurance companies and asset managers are also among those with the largest contributions (Figure 5, panel 2).

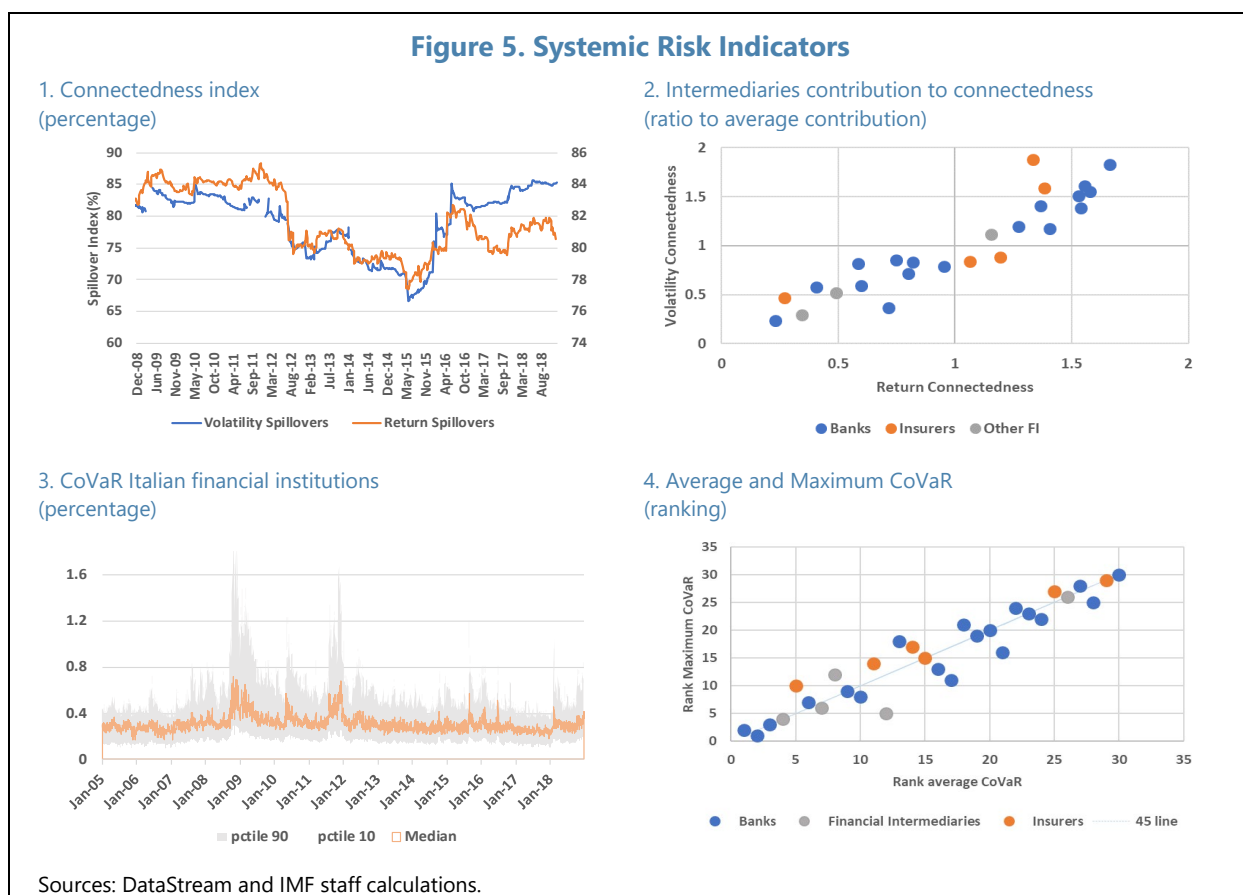
²⁷ See Michelangeli and Pietrunti (2014) for details on the household model, De Socio and Michelangeli (2017) for corporate vulnerability, and Ciocchetta and others (2016) for real estate related risks.

²⁸ This comes from a simple panel regression with firm fixed effects of the 5-year CDS spreads of 8 Italian financial sector firms covered by Credit Edge against the 5-year CDS spread of the Italian sovereign. Calculations were conducted by the FSAP. It is important to notice that the correlation of CDS with sovereign risk is likely to go beyond the financial sector and likely also applies to non-financial companies. The latter correlation could come from the relation between sovereign risk and macroeconomic activity, but also from a financial channel arising from the relationship with the CDS spreads of financial institutions mentioned above.

²⁹ This result comes from applying the Diebold-Yilmaz (2009) methodology to weekly returns and weekly return volatility to the set of listed financial sector Italian firms from Datastream with at least 10 years of data. See Technical Appendix for further details.

³⁰ For instance, Jentsch and Steinmetz (2016) estimate a 47 percent connectedness index for German banks in 2008, a period of heightened connectedness. Demirer et al. (2018) document a level of about 20 percent for within country connectedness for a large set of banks. Nonetheless, Diebold and Yilmaz (2014) estimated an overall connectedness of about 78 percent for the largest US banks between 1999 and 2010, similar to the values obtained for Italian financial intermediaries.

29. Another measure of systemic risk, the conditional value-at-risk (CoVaR) of the Italian financial system, has increased in the last year and non-banks also have significant contributions to systemic risk.³¹ The CoVaR of an Italian financial institution indicates the change in the value-at-risk (at 5 percent) of the Italian financial system when that institution experiences distress (as measured by the institution’s value-at-risk) relative to normal times (as measured by the institution’s median performance). Thus, CoVaR is a measure of tail risk comovement across financial institutions, and it usually spikes during crises. The median CoVaR for Italian financial intermediaries, as well as the overall distribution of this indicator, has increased during the last year from a level of about 20 to 40 daily basis points, similar to that observed in late 2012 (Figure 5, panel 3).³² In Italy, intermediaries with the highest average and maximum CoVaR include not only the largest banks, but also insurance companies and asset managers (Figure 5, panel 4). For instance, both the average and maximum CoVaR of Generali is larger than those of Unicredit, the only Italian globally systemic bank.



³¹ This analysis benefited from the code and data compiled by Yizhi Xu and Dulani Seneviratne and follows the methodology outlined in Adrian and Brunnermeier (2016). See the Technical Appendix for further details.

³² While the calculation of CoVaR controls for the aggregate state of the economy, including the level and term spread of sovereign rates, CoVaR in Italy positively correlates with the CDS spreads of the Italian sovereign, with the latter explaining about 50 percent of the variance of the median Italian CoVaR and 30 percent of the 90th percentile of CoVaR. This indicates that the contribution of systemic risk of Italian financial intermediaries increases during periods of heightened sovereign risk.

B. Assessment and Recommendations

30. Systemic risk surveillance in Italy is sophisticated and timely and follows a sectoral approach. Staff from the Bdl and IVASS use state-of-the-art quantitative techniques to evaluate the current state of the financial system and assess prospective risks and combine these analyses with qualitative insights and expert judgement in forming a view of systemic risk. The Bdl regularly works on building and refining their statistical and econometric models to sharpen its view of financial stability risks. Systemic risk surveillance covers many sectors of the Italian financial system and relevant dimensions of risk in a comprehensive manner. Surveillance is conducted and discussed regularly throughout the year and shared with the public twice a year in the FSR. The overall assessment is prospective, and simulations and scenario analysis are regularly used for real estate, corporate, and household sectors, and sometimes also for banks and insurance companies.

31. The sectoral approach could be complemented by a more prominent and regular discussion of systemic risk in the FSR, including that related to the financial system's exposure to the Italian sovereign. The analysis of the risks faced by the different sectors of the Italian financial system in the FSR could be usefully complemented by adding measures or discussions of systemic risk that take into consideration the interconnections between these sectors. The November 2018 FSR provided in-depth analysis of the potential impact of an increase in sovereign spreads in various providers and users of credit, such as banks, insurance companies, and non-financial corporations. The analysis highlights that, while direct linkages between Italian credit providers are limited, they are interconnected through their common exposure to the sovereign. In this environment, the overall stress to the financial system of a scenario affecting these assets would likely be higher than the sum of the stress affecting each sector. The risk dashboard of the Bdl contains some useful indicators of interlinkages that could be expanded and systematically discussed in the FSR, the main vehicle for communication and accountability of financial stability risks. Potential avenues of expansion are the inclusion of non-banks (e.g., life insurance companies and large asset managers) in the calculation of delta CoVar, tracking measures of connectedness, and gathering available indicators of the exposure to government assets of all financial intermediaries in the interlinkages component of the dashboard, and computing measures of portfolio similarity within and across sectors. Including measures of interconnections through CCPs would also help broadening the view of systemic risk.

32. The regular incorporation of simulations for the banking sector would help in assessing prospective risks faced by this key part of the Italian financial system. The importance of banks for the Italian financial system makes it especially relevant to have a clear sense of their resilience to specific risk factors. The EBA stress tests, which are applied to systemic banks in the EU and EEA every two years using a common scenario, could be complemented with single factor simulations that could provide a view of the resilience of the whole Italian banking sector to Italy-specific risks on a more frequent basis. While the communication of these exercises needs to be carefully crafted, it would provide a systematic way of assessing and communicating the resilience of the Italian banking sector to relevant risks. The November 2018 FSR is a useful reference where the Bdl assessed the potential consequence of an increase in government spreads

in Italian banks' solvency and liquidity. Other EA jurisdictions, such as Austria, Germany, and Spain, regularly use these types of simulations or even fully fledged top down stress tests in informing their views of systemic risk in their financial stability reports.

MACROPRUDENTIAL INSTRUMENTS AND ACTIONS

A. Current Situation

33. The macroprudential toolkit is essentially based on the banking tools established in CRR CRD IV. Circular 285 of the Bdl transposes to local regulation the macroprudential tools established in the European directive: the countercyclical capital buffer (CCyB)—including mandatory reciprocity, and the buffers for global and other systemically important institution (G-SII and O-SII buffers). The toolkit also includes the measures covered in CRR: higher risk weights and higher LGD floors for real estate exposures, and the so-called flexibility package Art 458 CRR (e.g., sectoral capital requirements, limits to large exposures, risk weights for certain sectoral exposures) that, as part of an EU regulation, do not require local transposition. All these measures apply to Italian banks on a residency basis (local banks, and subsidiaries of EU and non-EU banks). Other bank-based measures with some macroprudential elements such as the LCR, NSFR, and limits to the leverage ratio also apply to Italian banks. The SyRB, which is part of CRD IV but is not a mandatory buffer, has not been transposed to the Italian regulation.

34. Macroprudential tools for non-banks are in principle available but have not been formally recognized as part of the toolkit nor used with these purposes. This applies to macroprudential tools aimed to address systemic risks in asset managers, insurers, households, and non-financial corporations:

- *Asset managers:* The Bdl has issued detailed regulation for the management of collective investment vehicles in Italy, which sets minimum levels of capital for asset managers and restrictions to the investment activities of various types of collective investment vehicles, including different types of open- and closed-ended mutual funds.³³ These restrictions include concentration limits, limits to the use of derivatives, borrowing limits, and some restrictions to the securities lending activities. The type of restrictions and their limits vary by type of fund. While these limits are microprudential in principle, they could be used with macroprudential purposes, to the extent that they limit interconnections and constrain leverage and liquidity transformation. Existing concentration limits can contain contagion by reducing interconnections arising from common exposures, but the regulation does not yet set overall constraints to leverage (constraints in borrowing, use of derivatives, and repo operations are not targeting a maximum level of overall leverage) nor does it impose minimum liquidity buffers, although funds investing more than 20 percent in illiquid assets are required to take a closed-ended form, and managers and authorities can temporarily suspend redemptions. Nonetheless, the legal

³³ Regulation is compiled in the Regulation for the Collective Management of Savings (issued January 19, 2015; modified December 23, 2016).

basis for adopting additional measures is in place, so only a regulatory change would be required.

- *Insurers:* At a global level, the macroprudential framework and tools for the insurance sector are still debated. In Europe, EIOPA recently issued a series of reports laying a framework for the identification of systemic risks in insurance, discussing the potential role of existing tools within Solvency II in addressing systemic risk, and the need for additional tools and their likely form. The ESRB also recently issued a report on possible macroprudential measures for insurers.³⁴ In Italy, IVASS oversees the local implementation and supervision of Solvency II regulatory framework that applies to Italian insurance. Among the measures that could limit procyclicality according to EIOPA (2018), the extension of the recovery period, the prohibition of certain activities or products in case of financial stability concerns, the volatility adjustment (VA), and the transitional measures on technical provisions (TTP) are currently available in Italy. IVASS can also set limits in emergency situations to the technical bases used for calculation of premium rates and guaranteed rates in life assurance products. Nonetheless, it should be noted that most of these measures limit procyclicality in the downside rather than the upside.³⁵
- *Households:* The main tools for taming excessive household borrowing and its potential consequences for financial stability are the so-called borrower-based measures, such as limits to LTV and DSTI ratios, and sectoral capital requirements. Sectoral capital requirements for banks is part of the CRR CRDIV framework, and as such is already part of the toolkit. Borrower-based measures are not part of the current macroprudential toolkit, and the legal framework does not explicitly refer to them, which could complicate their implementation with macroprudential purposes if necessary and result in legal challenges and delays.
- *Non-Financial Corporations:* As it is the case in most European countries, in Italy there are currently no macroprudential tools aimed at limiting vulnerabilities in non-financial corporations or building buffers related to them, although it could be possible to do it through the application of the Art. 458 of the CRR.

35. The countercyclical capital buffer has remained at zero since its implementation.

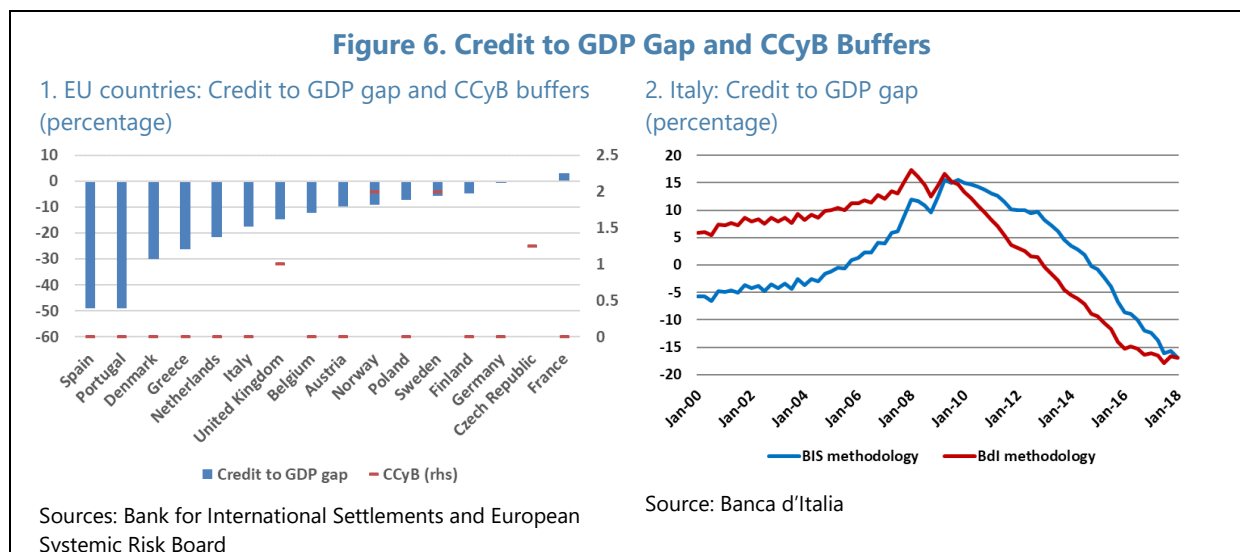
Following CRDIV requirements, Bdl conducts a quarterly assessment of the adequacy of the CCyB and communicates its decision to the ECB and ESRB. The methodology for the assessment follows ESRB recommendations, with some methodological modifications aimed to better capture the Italian credit cycle.³⁶ Information from various quantitative indicators, including the estimated credit gap, is complemented with expert judgement from staff from various directorates of the Bdl to

³⁴ See EIOPA (2017, 2018) and ESRB (2018b).

³⁵ A law enacted after the closing of this technical note (l.n. 58/2019) has broadened IVASS macroprudential intervention powers. Under this new law, IVASS may, if the situation requires and with the aim to safeguard the stability of the financial system as a whole and to counter systemic risks, take preventive and corrective measures including, among others, the temporary restrictions or deferral of some kinds of operations or options that the policyholders may carry out.

³⁶ See Bologna and others (2015).

reach a recommendation on the activation and calibration of the buffer, which is subject to Board approval.³⁷ Following this process, the CCyB has been kept at zero since its implementation in 2015. Although, as explained above, many quantitative and qualitative factors enter in the decision, a simple look at the traditional credit gap and credit growth indicators suggest that the credit cycle has remained on a weak phase in the last five years, which is consistent with the decision to maintain the buffer at zero (Figure 6). Additionally, the EU framework includes mandatory recognition of CCyB rates set by member countries and sets a process for recognizing and setting CCyB rates for exposures to material third countries.



36. One Italian bank has been designated as GSII and, for 2019, three banks are classified as OSII. The Bdl follows the methodology recommended by the Basel Committee on Banking Supervision (BCBS) and by EBA to compute the systemic scores of banks classified as globally and locally systemic (GSII and OSII), respectively. Both methodologies consider a series of dimensions for systemic importance, such as size, complexity, etc.³⁸ A score is computed for each of these dimensions, based on a series of indicators, and a final score is calculated as the average of the individual scores. Banks with total scores above a pre-defined threshold are in principle identified as systemic, although judgement can also be used in the process. Finally, the scores are used to calibrate the buffers. For GSII, the mapping between the scores and buffers is defined annually by the BCBS and the bar for adjustments based on supervisory judgement is high. For OSII, the

³⁷ The assessment is based on a measure of the credit gap, which is complemented with other macrofinancial indicators including the unemployment rate, nominal growth in bank credit to the non-financial private sector, measures of credit quality, and estimates of price gaps and real property prices. Experts from the financial stability directorate evaluate all these pieces of information to make a recommendation to the CCFS, which brings together expertise from staff members from different directorates, including supervision, to make a proposal to the board, which takes the final decision.

³⁸ The BCBS methodology for G-SIIs considers 5 dimensions: size, cross-jurisdictional activity, interconnectedness, substitutability/financial institution infrastructure, and complexity. The EBA Guidelines for O-SIIs consider four dimensions: size, importance, complexity/cross-border activity, and interconnectedness.

bucketing process is determined by the national authorities, although the ECB has defined minimum buffers for various ranges of scores. Based on these methodologies, Unicredit is currently the only Italian GSII and is also an OSII together with Intesa Sanpaolo and Banca BPM.³⁹

37. Systemic buffers for Italian OSII are currently the minimum levels recommended by the ECB and are to be met over a phase-in period. The Bdl follows a cluster analysis method to map banks' scores into a set of buckets, which are then assigned a buffer level. While this approach results in a larger number of buckets than those considered in the ECB floors, the calibration is such that each Italian bank is currently assigned a buffer equal to the corresponding ECB floor for its score (see Table 1 and Figure 7, panel 1). The buffers consistent with the current score are phased-in over a 4-year period to be completed by 2022. The use of phase-in periods for buffers is widespread in many countries. Indeed, the GSII buffers defined by the BCBS are expected to be met by 2020 although in the EU the phase-in period ends earlier in 2019. Nonetheless, the length of the transition in Italy for OSII buffers is among the longest in the EEA.^{40, 41} The current calibration sets the OSII buffer of Unicredit, the single Italian GSII, at 1 percent—its current GSII buffer—at the end of the phase-in period. The OSII buffers of the other two Italian OSII fall below that level. From an economic perspective, this calibration implies that the systemic importance of the GSII for its home country (reflected in its OSII buffer) is equal to or lesser than that for the global economy (reflected in its GSII buffer). It is important to acknowledge, however, that Italy is not the only country where G-SIIs have the same G-SII and O-SII buffers, as the same situation is observed in France and Spain, and the UK has not implemented O-SII buffers. On the other hand, other EEA countries, such as Norway and Sweden have had O-SII buffers above G-SII ones.

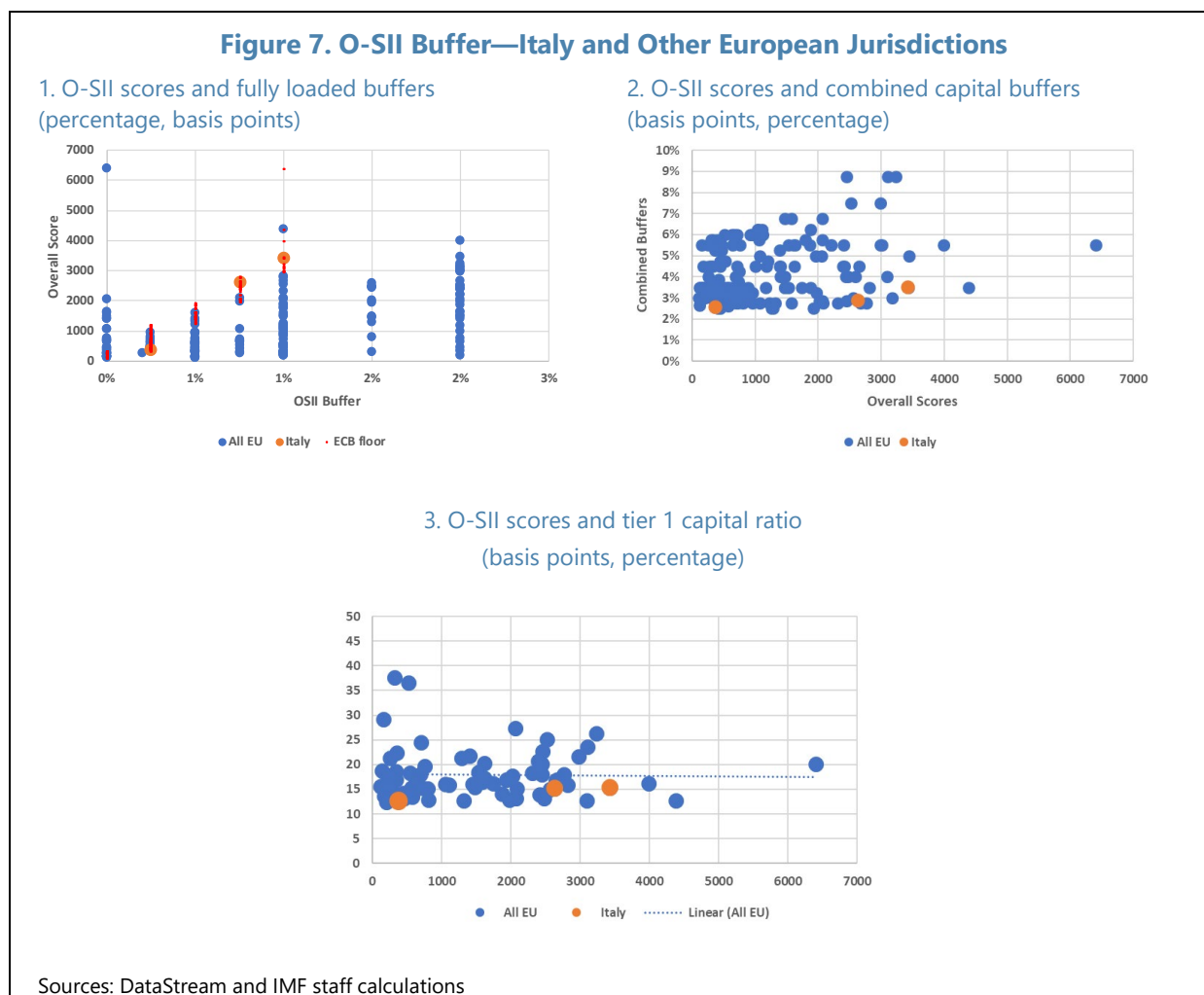
38. The Bdl has not reciprocated macroprudential measures adopted by other EU countries because of no material exposure of Italian banks. The effectiveness of a macroprudential measure is reduced if foreign banks expand their lending either directly or through branches. To reduce these potential leakages, the ESRB has set up a process for the reciprocity of measures across member countries. A member country taking a macroprudential measure may ask other member countries with material exposure to its jurisdiction to reciprocate the measure and ask for extra buffers for their relevant exposure. Until end-2018, the ESRB issued recommendations for reciprocity for measures adopted by Belgium, Estonia, and Finland. Based on the assessment of the materiality of exposures of Italian banks, the Board of Bdl decided not to reciprocate on these measures, and it permanently reassesses the exposures of Italian banks to these countries.⁴²

³⁹ Until 2018 Banca Monte di Paschi di Siena was also classified as locally systemic.

⁴⁰ For Unicredit and Intesa Sanpaolo the phase-in period ends in 2021, and for Banco BPM in 2022. Among the 31 countries surveyed by ESRB (28 EU countries plus Iceland, Liechtenstein, and Norway), only 10 countries have phase-in periods as long (or longer) than Italy. And four of them use the SRB in lieu of the OSII (see ESRB, 2018a).

⁴¹ While the phase-in period could be motivated by giving banks time to accumulate the buffers without negative consequences for the economy, it should be noticed that a failure to meet the buffers do not require raising new capital, but only results in restrictions to the distribution of dividends.

⁴² Materiality criteria are defined by the activating member country and can be modified by ESRB. Absolutes and relative exposures are usually considered, such as 1 billion euros or 1percent of risk weighted assets.



39. Vulnerabilities from the household and housing sector seem currently contained. Household debt in Italy, at about 60 percent of disposable income, is low compared to other European countries. Average LTV ratios of newly-originated mortgages in Italy are relatively low, at 65 percent, although they have been increasing rapidly by 7 percent in the last five years, getting back to the levels observed in the two years before the GFC (Figure 4). There is however no data on the distribution of loan-to-value ratios across households to assess the presence of pockets of vulnerability. Data on debt-service-to-income is available from household surveys, which are conducted every two years. The latest available survey was conducted in 2016. The distribution of DSTI among households with mortgage loans shows a relatively low mean of about 20 percent and a 75 percent percentile below 30 percent. While still most mortgages in Italy are at variable rate, the reference rate for these loans is Euribor, which limits the interest risk faced by households in case of a sudden increase in Italian sovereign spreads.

40. Vulnerability indicators for the corporate sector have improved but the sector remains sensitive to shocks. While vulnerability indicators for the corporate sector, such as leverage, and debt-service-to-income ratios have improved in recent years, the sector remains more indebted than the euro area average, and net financial assets at -112 percent of GDP. Also, as demonstrated

in corporate stress tests conducted in this FSAP, the corporate sector remains vulnerable to macroeconomic and interest rate shocks. As in all European countries, the capital held by banks for exposure to SMEs is lower than recommended by the current Basel rules (due to change). But given the concentration of vulnerabilities in small firms in Italy, the levels of capital held for this sector could be challenged in a stress scenario.

B. Assessment and Recommendations

41. The authorities should incorporate the SyRB into the macroprudential toolkit and ensure the regulatory framework permits a quick deployment of borrower-based measures, were they to be needed in the future. Unlike the other macroprudential buffers provided for in the CRD IV, the introduction of the SyRB in the national legal frameworks is not mandatory and no action has been taken in Italy to incorporate it. The less prescriptive nature of this buffer allows for a flexible application against several types of systemic risks that cannot be adequately addressed with other tools, for instance sovereign risk concentration. Borrower-based tools, such as restrictions to LTV and DSTI ratios, could become valuable as the financial cycle turns, and experience indicates that it may take time to add them to the toolkit if legal action is needed and calibration is required. The legal framework does not make direct reference to borrower-based macroprudential measures, but it grants Bdl the ability to use its broad supervisory powers with macroprudential purposes. Nonetheless, it is important to ensure that the secondary regulation establishing the structure of and the operating procedures for those tools can be timely issued. Furthermore, because of the difficulties in calibration, a gradual implementation is desirable, which also suggests that early availability is useful.

42. From a cyclical perspective, the macroprudential policy stance seems adequate. Economic and credit growth remain weak. Estimates of the credit gap clearly show it in negative territory for the last few years and without strong signs of trending upward. Other macroeconomic indicators, including employment, credit growth across sectors, and movements in commercial and real estate prices also support the above. This is consistent with the decisions of the Bdl to keep the CCyB at zero.

43. Nonetheless, several structural vulnerabilities remain elevated and the adequacy of the current buffers needs to be assessed. The high exposure of banks and other financial intermediaries to the sovereign may put the overall financial system under strain should the market assessment of the fiscal situation worsen. The financing cost of the cyclically weak non-financial corporate sector would also be affected, adding challenges to financial intermediaries, as discussed in the stress tests conducted in this FSAP.

44. Authorities could consider using prudential policies to moderate the sovereign-bank nexus, with gradual phasing-in to minimize potential disruptions to markets. Banks hold sovereign debt to support liquidity management and the operation of payment and settlement systems, and to fulfil prudential requirements. However, as shown by the stress tests results, the large sovereign debt holdings of Italian banks make them vulnerable to a sovereign shock and could

exacerbate the feedback effect to the real economy.⁴³ Against this backdrop, the authorities could consider implementing prudential policies that encourage banks to diversify their sovereign holdings, thus limiting further concentration of exposures to the sovereign, and build capital buffers that incorporate the risk posed by their holdings of sovereign debt. A carefully calibrated SyRB that considers the concentration of the exposures could be a useful option. This macroprudential tool could be complemented with other, non-mutually exclusive approaches, such as (i) Pillar II supervisory measures, or (ii) the establishment of positive risk weights for banks' sovereign exposures and capital surcharges reflecting the concentration of these exposures, which are currently not part of the European regulatory framework and would require an agreement within the EU.⁴⁴ Irrespective of the specific instrument, policies should be designed to avoid procyclicality and be gradually phased in to minimize potential disruptions to financial markets. Beyond the banking sector, the favorable treatment of sovereign exposures in the calculation of regulatory capital requirements for insurers in Solvency II may also lead to excessive sovereign debt holdings. The current discussion in EIOPA on macroprudential tools for the insurance sector mentions concentrated exposures as a source of systemic risk that may require enhanced monitoring and macroprudential policy actions. Going ahead, IVASS should explore options for the implementation of further macroprudential measures to limit the risks coming from concentrated exposures to sovereign risk, if such concentration grows further.

45. Overall buffers and capital ratios for Italian O-SIIs are low compared to other similar European banks. The Bdl should keep monitoring their adequacy to ensure that they reflect the systemic nature of these institutions. Current OSII and overall buffers (the sum of the G-SII, O-SII, and SyRB) of Italian banks at their transition levels are at the lower part of the distribution across European banks with a comparable overall score (Figure 7, panels 1 and 2).⁴⁵ The incorporation of a SII buffer to the Basel III framework after the GFC aims to internalize the externalities that large and complex institutions have on the financial system and reduce moral hazard (BCBS, 2012). Thus, the buffers should in principle be proportional to the importance of institutions for systemic risk. Since such determination is challenging, in practice countries use a bucketing system that maps scores to buffers. Nonetheless, the low relative position of Italian buffers relative to peers that use the same methodology for the assessment of systemic importance, and the similarity of G-SII and O-SII buffer of the largest Italian bank, despite its OSII score been an order of magnitude larger than its G-SII score suggests that the current calibration of buffers might not fully account for the systemic importance of these institutions. Authorities should evaluate the adequacy of the O-SII buffers and consider the case for raising them with an adequate phase-in period that minimize potential disruptions to financial markets.

⁴³ The current regulatory treatment under international standards which are reflected in CRD IV and CRR (zero risk weights; exemption from concentration limits) provides incentives for sovereign holdings.

⁴⁴ Among these options, a systemic risk buffer has the added benefit of being potentially more countercyclical than risk weights on exposures, and more transparent than Pillar 2 measures.

⁴⁵ This figure also highlights the high degree of dispersion in the mapping between O-SII scores and buffers across EA jurisdictions. This is acknowledged by the ECB, which is assessing the need for further harmonization in the implementation of this buffer.

Box 1. Use of the Systemic Risk Buffer in Europe

The Systemic Risk Buffer (SyRB) is one of the macroprudential tools introduced in CRD IV. It is aimed to address systemic risks of a long-term non-cyclical nature that are not covered by other tools in CRR. Nonetheless, it is very flexible regarding the type of vulnerabilities it may cover, and its scope of application. For instance, it can address vulnerabilities of the whole financial sector or part of it and can apply equally to all institutions or vary across them depending on their contributions to the risk being targeted.

So far, most EU jurisdictions have transposed this tool to their local regulation, except for Ireland and Italy. Furthermore, as of December 2018, and 15 jurisdictions had an active SyRB (see Figure 1). Among

these jurisdictions, the size of the SyRB is large compared to other buffers, averaging about 2 percent (considering the midpoint of the range), and with 8 countries setting maximum rates of 3 percent and one at 5 percent.

The use of the SyRB in the EU follows a series of rules and procedures, among them:

- It cannot address cyclical risks, or risks that can be adequately covered by the other tools in the CRR CRD IV framework.¹
- It cannot top-up the SII buffers, but it can replace them if higher. Similarly, it cannot be used on top of SII buffers, even if the risk targeted is different, unless the SyRB targets only domestic exposures.²
- It can cover more than one type of risk, but the implementation process should be such a single buffer is calculated for each institution.
- Authorities must notify the ECB and ESRB of their decision to activate the SyRB, clearly explaining the nature of the systemic risk it aims to address and the scope of application. To the extent that the proposed buffer is not above 3 percent there is no further notification or approval.³
- The calibration of the SyRB should be evaluated at least every two years.

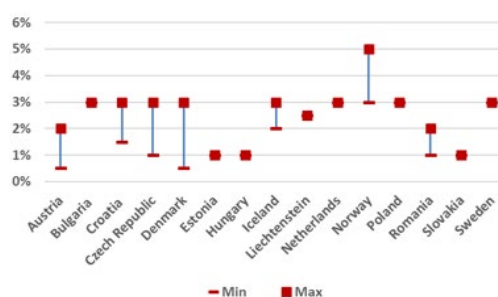
Because of its flexibility, countries have used the SyRB to address a variety of systemic risks. The flexible nature of this tool is an important advantage that permits its fine-tuning to country-specific circumstances to a larger extent than other tools in the CRR CRDIV package. Countries that have activated the SyRB have done so for a variety of reasons (see Table 1) that can be roughly grouped into:

¹ ESRB guidelines ask authorities to consider why the existing instruments are insufficient, individually or in combination to address the identified systemic risk.

² Article 133, CRD IV

³ Above that level, activation may require authorization of the European Commission and the opinion of the EBA and ESRB, depending on the scope, geographic exposure and the level of the SyRB.

Figure 1: Systemic Risk Buffers in the European Union



Source: ESRB

Box 1. Use of the Systemic Risk Buffer in Europe (continued)

- Substituting or complementing for the O-SII buffer in countries where the size of the banking sector relative of the economy leads authorities to consider that the 2 percent cap on the O-SII is inadequate (Austria, Croatia, Czech Republic, Denmark, Netherlands)
- Address structural risks arising from banks' similarity in business models and concentration of exposures arising from emerging European economies (Austria) and from limited diversification of the local economy (Estonia, Iceland, Norway, Slovakia, Sweden)
- Increase resilience to external shocks in economically and financially open smaller and relatively undiversified European countries (Estonia, Liechtenstein, Norway, Poland, Slovakia)
- Other vulnerabilities, such as macroeconomic structure (Bulgaria), commercial real estate (Hungary), high levels of NPLs (Romania).

Thus, while there is no current precedent of using the SyRB to address risks arising from the sovereign-bank nexus, there are many precedents of using it to deal with risks arising from concentrated banking exposures to certain sectors and ESRB (2018) explicitly mentions the SyRB as one of the tools available to limit these types of risks. Furthermore, recent political agreement on the capital requirement directive reached by EU ambassadors in February 2019 allows for a more flexible use of the buffer (see [Council of the European Union](#), 2019).

Table 1. Systemic Risk Buffer in European Union Countries

Country	SyRB	Motivation
Austria	13 banks: 0.5%–2%	The large size of the banking sector, high exposures towards emerging market economies in Europe, low levels of own funds in comparison to credit institutions with similar business models and their specific ownership structures
Bulgaria	All banks: 3%	Increase resilience of the banking sector in a context of a currency board and impact for monetary and fiscal policy.
Croatia	All banks: 1.5%–3%	Build buffers based on the nature, scope, and complexity of institutions
Czech Republic	5 banks: 1%–3%	Suppress the systemic risk arising from the destabilization of relevant banks
Denmark	7 banks: 0.5%–3%	Build buffers against an institution's contribution to systemic risk: relative size in terms of assets, loans, and deposits
Estonia	All banks: 1%	Small size and openness of the Estonian economy, lack of diversity in the credit portfolios of the banks and the relatively small financial assets held by households.
Hungary	1 bank: 1%	Exposures to commercial real estate
Iceland	All Banks: 2%–3%	Prevent or limit the impact of long-term non-cyclical systemic risk. Homogeneous structure of the economy, dominated by relatively few sectors leads to increased local risk, calls for higher capital requirements than stipulated in the international regulatory framework.

Box 1. Use of the Systemic Risk Buffer in Europe (concluded)

Table 1. Systemic Risk Buffer in European Union Countries (concluded)

Country	SyRB	Motivation
Liechtenstein	3 banks: 2.5%	The small and open nature of the economy makes it structurally vulnerable to unforeseen negative external shocks, amplified by the high proportion in Private Banking/ Wealth Management of international client and the very bank-centered financial sector.
Netherlands	3 banks: 3%	Systemic risk resulting from SII
Norway	All banks: 3%-5%	Structural vulnerabilities in the Norwegian economy and financial system. Such as one-sided industry structure relatively pronounced cyclical fluctuations, high levels of household debt, housing market pressures and a closely interconnected financial system dependent on foreign capital.
Poland	All banks: 3%	Poland is highly interconnected with many economies of the EU, and is still often perceived as an emerging market, which could amplify any external shocks in a current environment of large downside risks to growth
Romania	24 banks: 1%-2%	Risks arising from NPLs. NPLs might rise again, and banks may not be able to clean up their balance sheets amid uncertain economic environment.
Slovakia	3 banks: 1%	Topping up O-SII for domestic exposures. Perceived vulnerability from small open economy nature and lack of internal diversification.
Sweden	4 banks: 3%	Size, interlinkages, and concentration of common exposures of Swedish banks. Swedish market remains characterized by large, interlinked banking groups operating in a concentrated market with similar business models, assets, and exposures. This means that the potential impact and negative effects for the real economy in Sweden which could result from the failure of any one of these groups could be serious.

Table 2. O-SII Buffers—Italy and ECB Floors

Italy		ECB floor	
Score range	Buffer	Score range	Buffer
>= 4,000	1.25percent	>=2,900	1.00percent
3,000-3,999	1.00percent	1,950-2,899	0.75percent
2,000-2,999	0.75percent	1,250-1,949	0.50percent
1,000-1,999	0.50percent	350-1249	0.25percent
350-999	0.25percent		

Source: ESRB and ECB.

I. Technical Appendix

Connectedness

Estimates for connectedness follow the methodology of Diebold and Yilmaz (2009). The methodology was applied to weekly returns and volatility estimates of Italian financial intermediaries. The sample of intermediaries corresponded to those classified in the financial sector by Datastream. The sample was depured by keeping only active firms with at least 10 years of data and dropping some firms focused mainly on real estate investments to keep a set comprising firms operating mainly in banking, insurance, and asset management. The variance decompositions come from a model with 2 lags and using generalized impulse responses. Results with longer lags yield qualitatively similar results, as well as those with sub-sets of financial intermediaries. The time series of connectedness comes from sequentially estimating the model on rolling windows of 200 weeks. The values are reported for the ending date of the window.

The contributions to return and volatility connectedness were computed based on the spillover table for the period 2004-2018 (based on a balanced panel determined by the shortest asset manager data series). For each institution, its relative contribution is computed as the ratio of the contribution of that institution to the variance of other institutions to the average contribution of all institution to other's variances. A ratio above (below) 1 indicates that a given institution contributes more than average to outward spillovers.

CoVaR

The estimation of CoVaR follows closely the approach of Adrian and Brunnermeier (2016). The different variables used in the estimation have been adapted to similar Italian or European series. The financial sector indicator corresponds to the FTSE financial sector index, Following Adrian and Brunnermeier (2016), the calculation of CoVaR controls for aggregate factors, including the changes in the 3-month Italian T-bill rate, the change in the term spread between the 10 year Italian BTP and 3-month Italian T-bill, the Italian 3-month interbank spread, the change in 10-year corporate spreads at the European level (Bloomberg-Barclays index), the change in Italian MSCI stock market return, the change in the VIX, and the excess return of the corporate relative to the real estate sector measured by European level indexes of each sector (STOXX and MSCI respectively). Data was obtained from Bloomberg and Datastream. The sample of financial sector firms is the same used in the interconnectedness analysis, although the estimation of CoVaR is based on daily return data.

As in Adrian and Brunnermeier (2016), CoVaR reported corresponds to the change in conditional VaR of the Italian financial system (at 5th percent) when an institution's return moves from its conditional median to its conditional 5th percentile. Average and maximum CoVaR of each institution are computed over the sample period and institutions are ranked in each dimension. A higher ranking indicates a larger value

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