

ITALY: SELECTED ISSUES



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July 2016

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June 21, 2016

Approved By
The European Department

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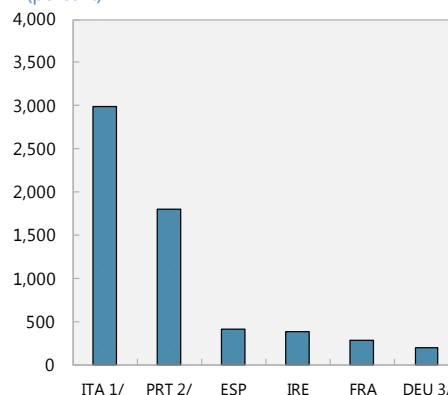
PROFITABILITY AND BALANCE SHEET REPAIR OF ITALIAN BANKS¹

Elevated levels of nonperforming loans (NPLs) are weighing on bank profitability in Italy. This paper analyzes the conditions under which Italian banks can earn sufficient profits to grow out of their asset quality problems, re-build capital buffers, and finance the real economy, taking account of continued pressures from high provisioning and operating costs and declining net interest margins from negative policy rates. A bottom-up analysis of the 15 largest Italian banks suggests that restoring sustainable profitability depends heavily on the growth outlook. Many banks are expected to become more profitable as the economy recovers, but their capacity to lend depends on the size of their capital buffers. However, a number of smaller banks face substantial profitability pressures, highlighting the need to reduce the large stock of NPLs and for further cost cutting and efficiency gains.

A. Background

1. Italian banks face significant asset quality challenges and low profitability. In 2015, total NPLs reached about 18 percent of total loans (over €360 billion), and profitability was relatively low compared to other EU banks with return on equity averaging 3.1 percent. Although recent data suggest that NPLs appear to be stabilizing and that profitability has started to improve, the high stock of NPLs and the associated need for provisioning have dragged down banks' earnings capacity,² which in turn has limited the buildup of capital buffers and slowed the repair of balance sheets. Alongside anemic demand, impaired balance sheets have weighed down credit growth and the economic recovery. There is also a risk of amplifying asset

Loan Loss Reserves/Net Income, end-2015
(percent)



Sources: Haver. Note: 1/ 2015 Q2 2/ 2015 Q3. 3/ 2014.

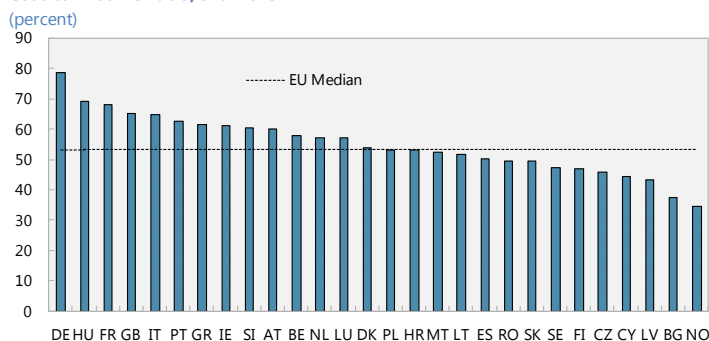
¹ Prepared by Andreas (Andy) Jobst and Anke Weber. We thank staff from the Supervisory and Economics Departments of the Banca d'Italia as well as Rishi Goyal, Phakawa Jeasakul, Kenneth Kang, Dermot Monaghan, Hiroko Oura and Camelia Minou for their helpful comments and suggestions. We are also grateful to staff from the Directorate General for Macro-Prudential Policy and Financial Stability and the Directorates General Micro-Prudential Supervision I to IV at the European Central Bank (ECB) for their feedback on parts of this analysis, which was used in the 2016 Art. IV Consultation Staff Report for the Euro Area.

² The chart showing loan loss reserves is based on publicly available data reported by Haver. The heterogeneity of the banking sector in different countries and variations in country coverage influences the conclusions that can be drawn from a cross-country comparison.

quality challenges in instances where profitability of new lending is insufficient to offset the declining interest income from the existing loan book.³

2. Repairing bank balance sheets is a policy priority, not least to facilitate new lending and support the incipient economic recovery. The cross-country experience of growing out of a debt overhang is generally that the economy grows, e.g., from an export-led recovery that increases the capacity of borrowers to service their obligations or reduces the relative share of impaired assets on bank balance sheets; or the economy inflates, reducing the real value of impaired claims; or the public sector bails out the banking sector. Within the euro area, neither inflation nor public sector bail-outs appear feasible, putting the onus on other approaches to invigorate the “self-healing powers” of a highly cyclical and fragmented banking system—such as facilitating bank consolidation and paving the way for cost-cutting, reforming insolvency regimes to enable workouts, and setting up other mechanisms to assist banks (e.g., GACS and Atlas, see Box 1).⁴ Crucial to the success of these approaches, however, is the ability of banks to be profitable to absorb the cost of reforms and build capital buffers to increase lending and enhance their resilience.

Cost-to-Income Ratio, end-2015



Sources: EBA Risk Dashboard.

3. This paper evaluates quantitatively the current and prospective profitability of Italian banks and draws conclusions about the factors likely to drive the repair of the banking sector. It asks the following questions:

- How profitable is extending credit for the 15 largest Italian banks that are supervised by the Single Supervisory Mechanism (SSM) under current funding and lending conditions?
- By how much would profitability of current lending improve if all of the 15 largest banks were able to achieve a cost structure similar to the EU average or median?

³ There are also structural needs for more bank capital as a result of ongoing regulatory reform and supervisory actions at a time when operating profitability remains low. Italian banks will need to raise their bail-inable liabilities to meet the requirements of the new bank resolution regime. Banks in resolution can only receive state funding after 8 percent of liabilities have been “bailed-in.” In addition, banks are currently permitted more lenient risk-weights than under Basel rules, suggesting further capital needs when the more restrictive use of internal models for both credit and operational risk is finalized later this year.

⁴ The legislative reforms introduced in August 2015 and May 2016 are important steps that can help speed up insolvency processes and enforcement, especially for new lending going forward (Garrido, *forthcoming*).

- What is the likely impact of the ECB's TLTRO II on funding and lending rates, and how does it affect or improve banks' prospects for profitability?
- How will the profitability of new lending evolve under alternative growth projections given the lending-based business model of Italian banks?
- Do banks for which lending is still profitable under conservative provisioning have enough capital to lend and support the recovery (and, thus, strengthen their own resilience as a result)?

4. The paper is organized as follows: Section B describes the data and methodology used. Section C presents the results, taking stock of the profitability of lending of Italian banks under current conditions and under an ECB TLTRO II scenario. It also presents some analysis of the profitability of new lending going forward under alternative growth scenarios and examines available capital buffers for potential loan growth. Section D offers policy considerations.

B. Data and Methodology

5. The paper uses publicly available data from the SNL database of S&P Global Market Intelligence for the 15 largest banks in Italy that are supervised by the SSM. These banks account for about 60 percent of system-wide assets.⁵ End-2015 quarterly data from SNL are used or, if not available, the latest available annual data.⁶

- For each of the 15 banks, profitability is calculated as the net return on equity (RoE)⁷ based on net interest margins (NIMs), commissions/fee income, and operating expenses in the reported profit and loss statement of each bank, after accounting for firm-specific capitalization.⁸ The net RoE in year t is thus calculated as

$$\frac{(1 - \tau)}{\text{CAR}_t \times \text{RWA}_t} \left(\left(\frac{\text{net interest income}_t + \text{fees and commissions}_t}{\text{average assets}_t} \right) \left(1 - \frac{\text{operating cost}_t}{\text{net income}_t} \right) - \text{LLP}_{t-1}^* \right),$$

⁵ Specifically, the following variables from SNL are used or constructed: net interest income/average assets, cost of funds, cost-income ratio, CAR ((Tier 1 capital + Tier 2 capital)/total risk-weighted assets), credit risk-weighted assets, fee and commission income/operating income, total gross loans, loan loss provisions/operating income, and net operating income.

⁶ For the quarterly cost-to-income ratios, we use the minimum of Q3 2015 and Q4 2015 since profit and loss statement data for several banks in the sample had been impacted by extraordinary contributions to the national resolution fund in Q4 2015. For the time series analysis, we exclusively use annual data. The results from our analysis of bank profitability as of end-2015 are thus mildly influenced by the choice of data frequency with our annual estimates for net RoE for the largest Italian banks being a bit lower than if we used 2015 quarterly data but the overall conclusions of the paper still hold.

⁷ The term "return on equity" is used as a generic reference to leveraged income, with equity referring to CAR.

⁸ A tax rate τ of 35 percent is assumed for all banks.

where τ is the tax rate, LLP* denotes the soon-to-be-adopted forward-looking provisioning standard⁹ (based on expected rather than incurred losses)¹⁰ implied by the average risk-weighted assets (RWA) reported by each bank for end-June 2015 in the recent *Transparency Exercise* of the European Banking Authority (EBA), and CAR denotes the capital adequacy ratio to determine the implicit regulatory leverage.

- Using historical bank level data, we also compare lending spreads (derived from NIMs) and provisioning expenses contemporaneously to assess *ex post* whether banks would have been able to maintain their profitability under expected loss provisioning in the face of rapidly rising asset impairments over the last 10 years (between 2006 and 2015) so that

$$\text{actual lending rate}_t - \frac{1}{(1 - \tau)} \underbrace{\left(\text{lending spread}_t + \frac{\text{fees and commissions}_t - (\text{operating cost}_t + \text{LLP}_{t-1}^*)}{\text{operating income}_t} \right)}_{\text{minimum lending rate}} \geq 0. \quad ^{11}$$

Beyond the 15 banks, the latest system-wide data from the Bank of Italy (2014) are also used to draw lessons (as of end-2015, there were over 640 banks in the Italian banking system, of which 33 were cooperative banks and 365 were mutual banks). For the forward-looking analysis, lending rates are considered variable and adjust to the current marginal policy rate and the expected term spread compression consistent with the estimates in Elliott and others (2016).

6. Corresponding to the questions above, the following analyses are conducted to evaluate the impact of different variables on profitability:

- Loan loss provisions (LLPs).* Current and prospective provisioning affect projections of banks' earnings. In the first analysis below, forward-looking LLPs that reflect expected losses are used, along with reported LLPs (using data from SNL on provisions relative to operating income). Forward-looking LLPs are calibrated to the default risk of the overall loan portfolio (consistent with a forward-looking accounting approach according to the forthcoming IFRS 9 accounting standard), which was obtained from the granular firm-specific credit risk weights published by

⁹ The calculation of the LLP is shown in Annex, Box A1. We also perform the same calculation for reported LLP for robustness. For actual provisions, end-Q3 2015 was chosen where available (otherwise annual 2015 data were used) since most banks reported significant one-off increases in LLPs due to the ECB's on-site requests or management decisions to increase coverage during the last quarter of 2015.

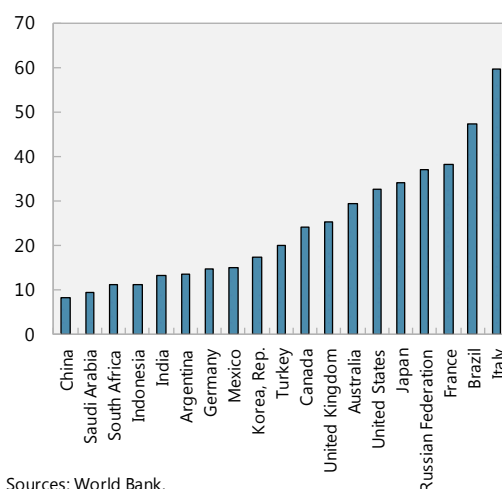
¹⁰ Under the forthcoming IFRS 9 standard, for loans where no significant increase in credit risk has (yet) occurred, provisions are set to the expected losses in the next 12 months. However, if a "significant increase in credit risk" is deemed to have occurred, provisions increase such that losses expected from events over the lifetime of a loan are provisioned against.

¹¹ The lending spread is defined as the difference between the loan rate and the cost of funding; the RWAs underpinning the calculation of expected loss provisions (LLP) were obtained from each bank's public accounts at end-2015 (rather than the EBA 2015 Transparency Exercise) in order to maintain data consistency relative to the previous years during which separate data on RWAs was not available.

the European Banking Authority's latest Transparency Exercise (EBA, 2015) (with a cut-off of end-Q2 2015).¹² In most cases, the forward-looking LLPs are higher than reported LLPs.

- Operating costs.** Recent reforms to consolidate banks would need to generate sizable cost savings. Italian banks have relatively high operating costs related, e.g., to their business models (they devote a larger part of their assets to lending to households and firms than in other countries) and the high number of branches per capita. Operating costs for the Italian banking system overall are marginally higher than the weighted average of EU banks (65 percent compared to 63 percent) (Bank of Italy, 2016) but significantly higher than the EU median (53 percent). Moreover, there is considerable variability of cost structures with some sample banks reporting significantly higher operating costs than others. The paper investigates how profitability changes if the cost-to-income ratio for each of the 15 largest banks declined to (i) the EU weighted average or (ii) the EU median, with the exception of a small number of banks whose cost-to-ratios are already below that benchmark.¹³

Commercial Bank Branches per Capita
(Per 10,000 adults, 2014)



Sources: World Bank.

- ECB's TLTRO II.** To investigate the effect of credit easing on the profitability of lending, a scenario is constructed in which all Italian banks are assumed to participate in the ECB's new targeted longer-term refinancing operations (TLTRO II) as of June 2016. It is further assumed that all banks cease to remunerate deposits, reducing their funding cost to as low as the ECB's marginal refinancing rate (MRO) of zero percent.¹⁴ At the same time, lending rates are considered variable that adjust in response to the decline of the marginal policy rate (i.e., ECB deposit rate) and the historical pass-through of term premia to NIMs. These effects are estimated to lower the NIMs of Italian banks by 11 basis points on average (Elliot and others, 2016).¹⁵

¹² If not available, the average for the Italian banks is used from the EBA 2015 exercise or reported provisioning from SNL, when the latter exceeds the estimated provisioning costs.

¹³ Out of the 15 sample banks, this applies to 5 and 3 banks for the EU-weighted average and median, respectively.

¹⁴ Realigning the cost of refinancing to the marginal policy rate under TLTRO II (if banks meet a defined minimum rate of net lending growth) facilitates the pass-through of bank funding conditions to the real economy by encouraging more lending; it also helps maintain bank profitability, especially in countries where banks face high cost of risk and have refrained from lowering lending rates to preserve profit margins without jeopardizing their deposit base.

¹⁵ This assumption generalizes changes in the cost of funding, which might overstate the actual benefit from improved funding conditions in some countries. For instance, in the case of Italy, only the largest banks in the sample can access capital markets, and many (smaller) banks are faced with a relatively more challenging liquidity situation.

- *Macroeconomic conditions.* Three alternative macro assumptions are considered for assessing the impact of changes to the growth outlook on bank profitability: (i) staff's *baseline scenario*, (ii) a *severe downturn scenario*, in which real GDP growth declines by more than 2 percentage points over the first two years (but recovers above baseline after that), and (iii) a *stagnation scenario* in which annual GDP growth is one-half of that in the baseline scenario (Annex, Figure A3). This forward-looking analysis is completed for the main components of net operating income (net interest margins) and asset impairments of the overall banking system keeping all other profit and loss elements unchanged, using the latest (2014) system-wide data from the Bank of Italy. The historical sensitivity of loan default probabilities to nominal growth is used to forecast changes in expected loss provisions,¹⁶ consistent with staff estimates of the relevant macro scenarios for Italy.¹⁷ Future lending rates and funding costs are aligned to projected changes in short- and long-term interest rates over a five-year forecast horizon, accounting for the funding mix of Italian banks at end-2015,¹⁸ while a gradual phase-in of TLTRO as a funding source is assumed.
- *Capital.* Finally, the paper investigates the amount of new bank lending that can be supported by available capital buffers. Even if lending were profitable, capital buffers may be adequate for only a certain quantum of new lending. To this end, the available capital buffer is calculated, taking into account Pillar I and II capital requirements under the recent ECB's *Supervisory Review and Evaluation Process* (SREP). Potential net loan growth is then calculated assuming unchanged CAR and overall credit quality of the loan portfolio and a minimum capital buffer of 2 percentage points over the minimum of 12.7 percent.

C. Results

Profitability of Current Lending and Provisioning Levels

7. Current lending is profitable for the larger sample banks—including under the assumption of forward-looking provisions¹⁹—but some smaller banks are likely to continue

¹⁶ However, the impact of low (real) interest rates on the debt repayment capacity of borrowers is not considered in the current environment of low inflation and monetary accommodation. A decline in the default rates could actually reduce the flow of provisions, which would help stabilize the amount of LLPs.

¹⁷ Probabilities of default (PDs) are taken from Garrido and others (*forthcoming*). The correlation of nominal growth with corporate PDs is estimated at 72 percent. The estimated corporate loan PD for 2014 is 1.8 percent.

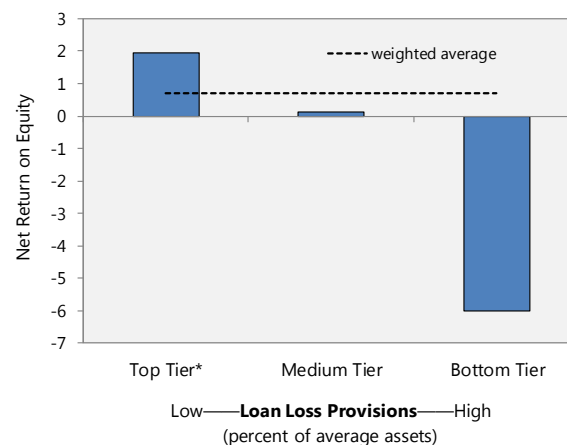
¹⁸ Staff also assumes that, in the stagnation and downturn scenarios, spreads are 75 bps wider than in the baseline scenario.

¹⁹ This reflects expected losses extrapolated from the default risk of the current loan portfolio (consistent with the forthcoming accounting standard IFRS 9). The assumption of forward-looking provisions using past loan performance reflected in RWs assumes that (i) banks do not change their loan origination to improve the average credit risk of their banking book, and (ii) the debt service capacity of borrowers remains unchanged relative to the historical experience.

generating losses, owing to low interest earnings (including from high NPLs) and high operating costs.

- Under expected LLP, current lending by about half of the banks in the sample—about 83 percent of the banking sector in terms of total outstanding loans—generate profits amounting to a system-wide weighted-average annual net return on equity (RoE) of 0.7 percent at end-2015. However, a disaggregated analysis reveals that a number of smaller banks (representing about one-eighths of total loan volume of all banks in the sample) are likely to experience losses. While the cost of funding is broadly comparable to those in other euro area countries, the high level of LLPs in relation to net income reveals the fundamental problem of lack of profitability in core business caused by high provisioning expenses and operating costs.

Italy: Estimated Net Return on Equity of Current Lending and Expected Loss Provisions
(percent), end-2015 1/



Sources: Bloomberg L.P., SNL and IMF staff calculations. Note: */ The sample was split into three tiers (of 5 banks each), ordered by expected loss provisions (end-Q3 2015), weighted by total loans.

- The calculations above are robust to the use of reported provisioning according the existing accounting standard (IAS 39), and confirm that several smaller banks face particular challenges.* For the 15 largest banks, the weighted average net RoE improves to 2.1 percent, but three smaller banks (accounting for about 5 percent of the outstanding stock of loans in Italy) still generate losses from current lending (Figure A2). For the system of a total of over 640 banks, the net RoE is somewhat lower at -1.6 percent in 2014 according to the latest available data published by the Bank of Italy (and rises to 1.4 percent if projected to 2015 consistent with the performance of the 15 SSM banks in the sample).²⁰ These results highlight that there are a number of smaller banks in the system with weaker asset quality and lower profitability than the 15 SSM banks.

8. In that regard, in recent years, the deterioration of asset quality in the Italian banking sector seems to have outpaced sustainable provision coverage. Extending the analysis to historical data for the 15 sample banks—and assuming that banks would set aside provisions according to expected losses²¹—suggests that, since 2012, lending rates on average were far below what would have been required for banks to fund sufficient loan loss reserves *ex post*. Or put differently, if credit conditions reflected subsequent loan performance, the rise of NPLs (and resultant provisioning needs) in the past would have implied a higher minimum lending rate for

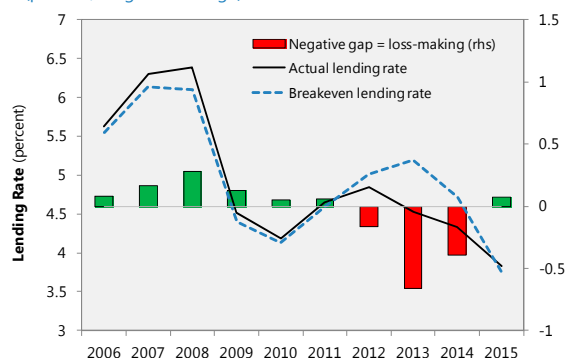
²⁰ 2015 is an estimate based on 2014 system-wide data and 2015 data for the SSM. The actual RoE of the system amounted to 2.6 percent in 2015 according to recently released data.

²¹ Note that the application of expected loss provisioning is not permitted under current accounting principles but helps illustrate how a rapid decline of loan performance could result in sizable adjustments to provisioning rates *ex post*, putting increasing pressure on interest rate margins from new lending.

banks to maintain their profitability.²² The picture looks somewhat better based on reported provisioning, although the general trend is the same (Figure A2). Past lending growth seems to have been associated with higher NPLs and, thus, lower net RoE for smaller banks on average (Garrido and others, *forthcoming*). A high degree of banking sector competition in an environment of excess supply might also have contributed to lower lending rates than what would have been warranted by banks' existing cost structure and risk tolerance.

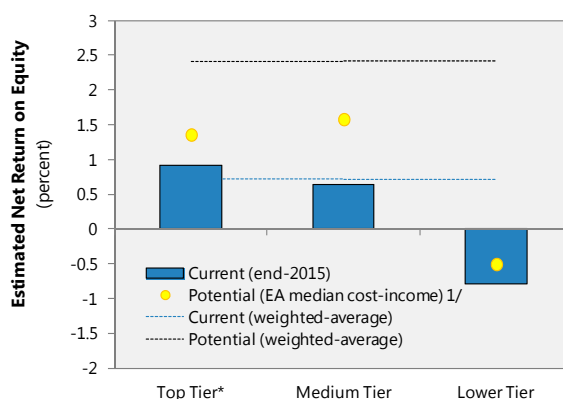
9. Greater operational efficiency and incentives to raise loan loss reserves in good times would help enhance the resilience of the banking sector. The conclusion of this partial equilibrium analysis is not that raising lending rates or tightening credit standards would have solved the profitability problem, as doing so would have dragged down real economic activity, in turn further worsening bank asset quality and raising funding costs. Rather, alternative solutions are needed, such as significantly lowering costs and enhancing provisioning standards. Improving the operational efficiency of all 15 SSM banks to the euro area weighted average cost-to-income ratio of 63 percent would result in a significant improvement of banks' earnings capacity from current (and future) lending, improving the weighted average net RoE by more than 40 percent. If Italian banks were able to improve operational efficiency to that of the EU median (53 percent), the weighted average net RoE would triple.

Italy: Difference between Actual and Breakeven Lending Rates for Sample Banks (Expected Loss Provisioning)
(percent, weighted average) 1/



Sources: Haver, SNL and IMF staff calculations. Note: 1/ weighed by total loans (as of end-2015); expected loss provisions derived from risk-weighted assets (RWAs) as per methodology described in Annex, Box A1.

Italy: Estimated Net Return on Equity of Current Lending (with and without improvement in cost efficiency)
(percent, end-2015)



Sources: SNL and IMF staff calculations. Note: The sample was split into three tiers (of 5 banks each), ordered by RoE and weighted by total loans; 1/ assuming that all banks improve their cost-income ratio to the euro area median (53 percent).

²² This analysis of a "break-even lending rate" assumes a contemporaneous relationship between lending rates and loan performance. In reality, the assessment of whether lending rates are adequate to break even requires a comparison of them with the (ex post) default rate of the underlying loans. Since repayment arrears (and corresponding provisioning expenses) in a given year are largely attributable to loans that were originated much earlier, a cohort analysis for different loan vintages (at different maturity tenors) would acknowledge the inherent time lag of how loan origination affects provisioning. However, given that both actual lending rates and asset quality of most Italian banks have continuously declined over the last four years, the application of contemporaneousness is analytically expedient and consistent with a medium-term assessment of profit sustainability.

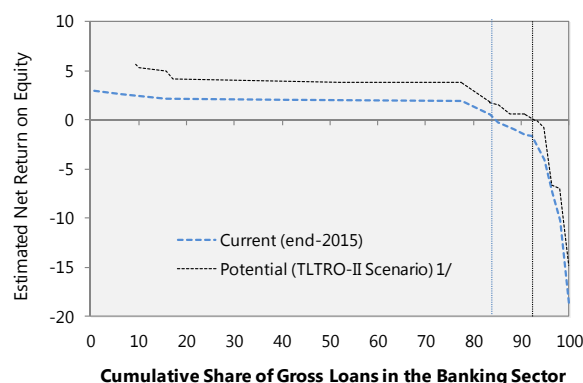
Potential Impact of Monetary Easing

10. Credit easing would improve overall bank profitability, but it is not expected to materially alter the negative earnings outlook for some smaller Italian banks.

The ECB's TLTRO II facilitates the pass-through of lower bank funding costs to credit supply while mitigating the potentially adverse impact of negative rates on banks' profitability. We find that the weighted-average net RoE improves to 2.8 percent under expected loss provisioning, assuming sufficient loan demand. However, for one-third of the banks in our sample, current lending would still be unprofitable. Using reported provisioning improves overall system profitability to a weighted-average net RoE of 4.0 percent, but there are still some banks with weak profitability and three banks that generate sizable negative returns from current lending (Figure A2).

Italy: Estimated Net Return on Equity of Current Lending under Expected Loss Provisioning (with and without funding benefit due to TLTRO II)

(percent), end-2015 1/



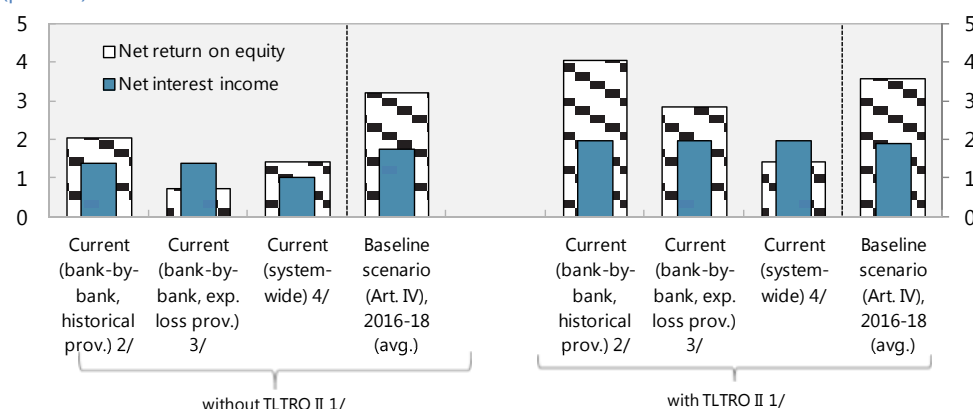
Sources: SNL and IMF staff calculations. Note: 1/ Funding rate at MRO (0%) via TLTRO II (and full rollover of existing TLTRO); any new deposits at 0%; lending rates adjust according to marginal policy rate (since end-2015: -20 bps) and expected pass-through from term spread compression at historical elasticity of NIMs banks maintain their capital ratio as of end-2015.

11. These results suggest that there is significant heterogeneity among the SSM banks.

There are some relatively profitable banks both under current conditions and TLTRO II; some banks that generate little or slightly negative profitability from lending under current conditions but may be helped by monetary accommodation (e.g., TLTRO II) and improvements in operational efficiency; and some banks that would experience very negative profitability even under optimal funding conditions.

Italy: Estimated Net Return on Equity from Current Lending and New Lending under Baseline Scenario (with and without funding benefit from TLTRO II) 1/

(percent)



Sources: SNL and IMF staff calculations. Note: 1/ Funding rate at MRO (0%) via TLTRO II (and full rollover of existing TLTRO) any new deposits at 0%; lending rates adjust according to marginal policy rate (since end-2015: -20 bps) and expected pass-through from term spread compression at historical elasticity of NIMs banks maintain their capital ratio as of end-2015; 2/ end-2015 and historical prov.=backward-looking provisioning (IAS 39); 3/ expected loss provisioning (consistent with IFRS 9); and 4/ based on aggregate data reported by Banca d'Italia for end-2014, projected for 2015 as starting point for the scenario-based analysis.

Profitability of New Lending Under Different Scenarios

12. Current profitability challenges reflect the pro-cyclical nature of Italian banks' business model. Italian banks devote a large part of their assets to lending to household and firms; among the latter, small and medium-sized enterprises (SMEs) play a more important role than in other countries, which imposes a more rigid cost structure and limits the extent to which banks can seize scale economies. Thus, the lending-based business model accounts for an important part of the low profitability, with banks performing worse in recessions. Conversely, improvements in the growth outlook might change the profitability for Italian banks considerably—and potentially more so than for peers in more heterogeneous financial systems.

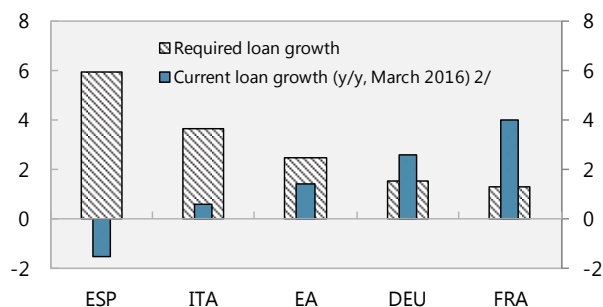
13. A scenario-based assessment of profitability suggests profitable new lending in the near term, but only a significant reduction of NPLs and robust growth would help shore up the resilience of the banking sector (Figure A3).

- Results under staff's *baseline scenario* show that banks would, on average, make profits from new lending over the next five years (even under conservative provisioning). The projected average annual net RoE of 3.2 percent over the next three years would, however, remain far below the pre-crisis average of 13.8 percent.
- Under the *downside and stagnation scenarios*, the projected average annual net RoE for the banking sector would decline to –8.4 and 0.8 percent, respectively, over the next three years. Default risk would overwhelm any benefit from risk mitigation over the short and medium terms.

Credit Growth and Capital Buffers

14. For larger, more profitable banks, higher credit growth is crucial to improve bank profitability in an environment of declining interest rates. Given the wide deposit base of Italian banks and the high proportion of variable rate loans, the extent to which deposit rates are sticky has a direct impact on how the low interest rates affect bank profitability. Thus, even if Italian banks were to fund themselves increasingly via money markets, lower wholesale funding costs will benefit only new lending and does not offset the negative impact of lower rates on existing loans if credit growth is insufficient. As noted earlier, the ECB's recently expanded asset purchase program and the negative marginal policy rate have flattened the yield curve and are estimated to lower the NIM of Italian banks by 11 basis points on average (Jobst and Lin, 2016). For banks to maintain profitability over the

Annual Loan Growth Required to Maintain Current Net Interest Margin, end-2015
(y/y percent change) 1/



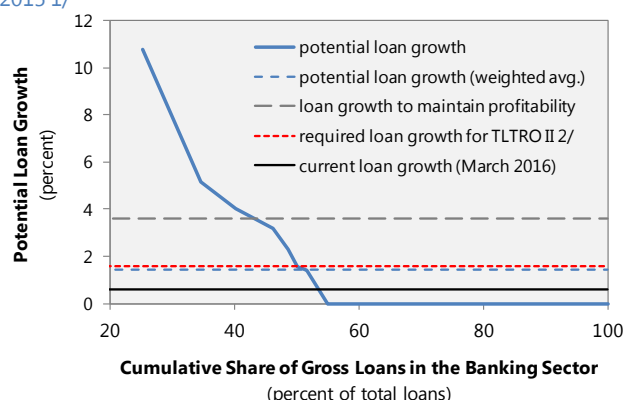
Sources: Bloomberg L.P., EBA Transparency Exercise (2015), ECB, SNL, and IMF staff calculations. Note: 1/ based on the historical pass-through of policy rates and the elasticity of net interest margins to changes in term premia between Jan. 2010 and Feb. 2016; total mortgage and corporate loans at end-2015 to EA residents.; scenario is based on the estimated impact of the increase of monthly asset purchases (until Sept. 2017) by the ECB and a reduction of the deposit rate by 10 bps (as per ECB decision on March 10).

amortization period of their current loan book, this potential reduction in the NIM implies *ceteris paribus* a need for higher lending growth by at least 3.6 percent annually (or about 3.0 percentage points above current credit growth).²³ Hence, lower profitability from financial intermediation—amplified by current structural challenges affecting bank performance—might override possible mitigating effects from higher asset prices and pricing frictions.

15. From a macroeconomic viewpoint, capital and/or credit demand may not be high enough to allow sizable new lending to help banks maintain profitability. Most banks

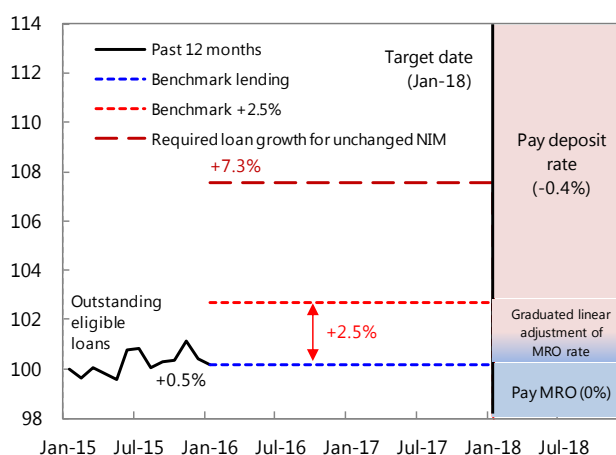
exceed the regulatory capital adequacy requirements; thus, from a prudential viewpoint, there is no need for further capital. But while most banks would generate profits from current lending, capital buffers may suffice to support only a limited amount of new lending, constraining the capacity of viable banks to increase profitable lending and rebuild their capital buffers in order to enhance their *ex ante* resilience to shocks. Indeed, assuming no change to the current capitalization or credit quality of loan portfolios (under the benign assumption that banks exhaust available capital buffers, including any managerial buffers above the regulatory minimum), only a few banks that generate profits from current lending also hold sufficient surplus capital in excess of the regulatory minimum to extend new loans (text figure). On average, potential loan growth would amount to 1.4 percent, which is close to the benchmark lending rate required to access TLTRO II funding (see

Italy: Potential Loan Growth Exhausting Available Capital Buffer
(percentage share of total loans), ordered by relative share, end-Q3 2015 1/



Sources: Bloomberg L.P., EBA, ECB, SNL and IMF staff calculations. Note: 1/ assumes unchanged capital adequacy ratio (CAR) and overall credit quality of loan portfolio, subject to a capital buffer of 2 percentage points over the minimum of 12.7% (based on Pillar I (4.5%), capital conservation buffer (2.5%), and Pillar IIA and IIB requirements of 2.7% and 3.0%, respectively); 2/ lending growth needs to be 2.5% (or higher) over a two-year period for banks to access TLTRO II funding from the ECB at the marginal policy rate (i.e., deposit rate).

Italy: Required Lending for TLTRO-II Benchmark
(Jan. 2015=100)

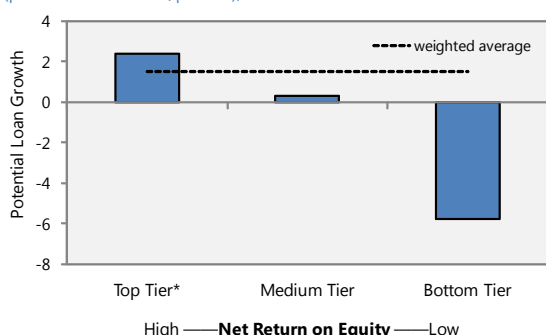


Sources: Deutsche Bank, ECB, and IMF staff calculations.

²³ Note that this analysis assumes that other sources of income as well as operational and provisioning costs remain unchanged. Lower interest rates increase the debt repayment capacity of borrowers and might actually reduce provisioning costs going forward. Similarly, increasing asset prices can result in valuation gains that help improve NIM. However, given the large share of lending in total banking sector assets, the re-pricing effect from a decline in policy rates (and its impact on term spreads) is likely to be the dominant factor determining changes in bank profitability.

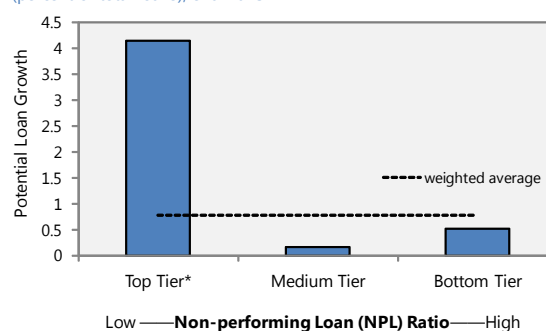
text figure) at most favorable terms (i.e., at the ECB's deposit rate of currently –0.4 percent). However, this theoretical maximum remains far below the rate of 3.6 percent required to maintain currently profitability in light of declining NIMs. Moreover, the continued lack of sufficient credit demand could further delay the improvement of banks' earnings capacity, especially for those banks that struggle with high levels of impaired assets (text figures below).

Italy: Potential Loan Growth Exhausting Capital Buffer and Estimated Net Return on Equity of Current Lending 1/2/
(percent of total loans/percent), end-2015



Sources: Bloomberg L.P., EBA, ECB, SNL and IMF staff calculations. Note: */ The sample was split into three tiers (of 5 banks each), ordered by estimated net return on equity, weighted by total loans; Sources: SNL and IMF staff calculations; 1/ based on expected loss provisioning; 2/ assumes unchanged capital adequacy ratio (CAR) and overall credit quality of loan portfolio, subject to a capital buffer of 2 pcp over the minimum of 12.7% (based on Pillar I (4.5%), capital conservation buffer (2.5%), and Pillar 2A and 2B requirements of 2.7% and 3.0%, respectively).

Italy: Potential Loan Growth Exhausting Capital Buffer and Asset Quality 1/
(percent of total loans), end-2015



Sources: Bloomberg L.P., EBA, ECB, SNL and IMF staff calculations. Note: */ The sample was split into three tiers (of 5 banks each), ordered by reported NPLs (end-2015), weighted by total loans; Sources: SNL and IMF staff calculations; 1/ assumes unchanged capital adequacy ratio (CAR) and overall credit quality of loan portfolio, subject to a capital buffer of 2 pcp over the minimum of 12.7% (based on Pillar I (4.5%), capital conservation buffer (2.5%), and Pillar 2A and 2B requirements of 2.7% and 3.0%, respectively).

16. Moreover, higher loan growth will not solve the profitability challenge of a number of smaller banks in Italy. As noted earlier, high expected provisions against the backdrop of low interest earnings and high operating costs imply that new lending is unlikely to ameliorate losses or cost pressures, under the given conservative provisioning standards going forward. Indeed, the market pressures witnessed since early 2016 appears to reflect investor discomfort with prospects of some banks to be able to get ahead of their profitability challenge, barring strong action, such as for instance on accelerating the disposal of the high stocks of NPLs.

D. Policy Recommendations

17. Profitability in Italy's banking system remains weak, reflecting elevated NPL levels, low interest earnings, and relatively high operating costs. High levels of NPLs restrict banks' ability to supply credit to the real economy and support the economic recovery, while reduced bank profitability inhibits a timely repair of balance sheets through retained earnings. Although actions by the ECB have helped improve funding conditions, the results in this paper point to significant heterogeneity among the banks in our sample. A number of banks can profitably support new lending, although the amount of new lending is generally constrained by existing capital buffers. However, some banks are likely to continue struggling to be profitable—even under extremely favorable funding conditions due to the ECB's monetary easing and/or after considering

improvements in operational efficiency—not least because profitability of new lending is insufficient to offset the declining interest income and high provisioning cost associated with the existing loan book.

18. Without countervailing policy measures, the combination of high NPLs and low profitability in Italy will continue to weigh on the recovery. Even if demand for credit were to be lifted from its currently subdued levels, banks' capacity and willingness to lend are likely to remain modest, particularly as needed provisioning could continue to exert notable downward pressure on profitability going forward. This would weigh on the pace of economic recovery. Reducing NPLs significantly is therefore crucial to spur lending, especially to SMEs that are more reliant on bank financing. Further, "unclogging" the bank lending channel would enhance the transmission of monetary policy to the real economy. Resolving impaired loans would also encourage corporate restructuring and allow the debt of viable firms to be restructured, while accelerating the winding-down of non-viable firms. However, there is still a significant pricing gap between the net book value and the market price of NPLs due to a depressed housing market and structural deficiencies that slow the recovery of collateral for distressed assets. The lengthy foreclosure process has made it difficult for Italy's banks to sell NPLs because investors value loans by discounting future cash flows (with larger haircuts required the longer the average time for foreclosure); this has been amplified by the absence of a developed market for distressed debt providing a benchmark for pricing NPLs.

19. The authorities are taking steps to address structural obstacles to NPL resolution to enhance the resilience of the banking sector. A recently issued decree law aims to reduce the long average foreclosure time by simplifying bankruptcy procedures and speeding up the recovery of collateral, although this is likely to impact new NPLs and thus would be expected to have its full impact only gradually over time. The time period for the tax deductibility of write-offs and provisions was shortened from five years to just one year. In addition to reforms in the areas of insolvency and bank corporate governance, the establishment of an industry-sponsored backstop fund for recapitalization of troubled banks and for investment in distressed assets (Atlante) and agreement with the European Commission on a scheme for NPL securitization (GACS) can help overcome some of the obstacles to resolving current asset quality challenges (Box 1).²⁴

20. Accelerating NPL resolution can help raise bank profitability and stimulate lending. Banking supervisors should engage banks to provide credible plans to reduce significantly the NPLs overhang over the medium term. At the same time, other complementary measures can support these efforts and enhance the resilience of the banking sector to shocks. Enhanced supervision, advancing insolvency and enforcement reforms, and the facilitation of distressed debt markets will help tackle the large stock of NPLs. Building on recent reforms of large cooperative and mutual banks, the viability of banks not subject to the ECB's comprehensive assessment should be assessed, with follow-up actions in line with regulatory requirements.

²⁴ In addition, the ECB-Banking Supervision's Task Force on NPLs has concluded its data collection effort and is expected to provide detailed guidance on the asset impairment challenges of directly supervised banks, including Italian institutions. Furthermore, the Bank of Italy has recently launched a new periodic survey to gather detailed information on the stock of bad debts, the related collateral and guarantees, and recovery procedures.

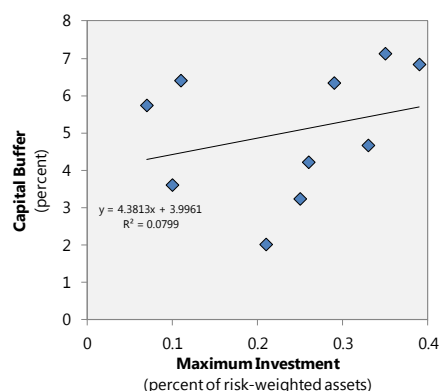
Box 1. Italian NPLs: Recent Government Initiatives

The Italian authorities recently launched a mechanism, called GACS, to guarantee investment-grade NPL securitization transactions; while private sector actors created an investment fund, called Atlante, to backstop capital issuance of smaller (distressed) banks and possibly buy junior tranches of NPL securitization transactions. In addition, the authorities also adopted a series of measures aimed at expediting foreclosures on NPLs to corporate and small and medium-sized enterprises (SMEs).

Garanzia Cartolarizzazione Sofferenze (GACS). In late January 2016, the Italian authorities agreed with the European Commission on a mechanism for government guarantees to the securitization of impaired assets. The mechanism provides government guarantees for the securitization of bad loans. The authorities had initially sought to create a system-wide asset management company (AMC), but were unable to overcome concerns related to state aid restrictions on public sector support to banks that are not in resolution or restructuring outside stress periods. Under GACS, banks can sell their bad loans at market values to special purpose vehicles for their eventual sale to markets. They can buy public guarantees for the senior tranches of securities issued against these bad loans, as long as these tranches are rated as investment grade. Since the guarantees are priced at market terms based on expected losses, they do not imply any public support subject to EC approval under EU State aid regulations. The full impact of the agreed mechanism is unclear at this moment. Market

participants (JP Morgan, 2016; Deutsche Bank, 2016) expect it to have a positive though modest impact. This is because the transfer price for securitizing NPLs with government guarantees via GACS does not seem sufficient to close the pricing gap between the market value and their carrying value in banks' books (market participants estimate the pricing gap to be around 20 percent, while GACS is expected to close this gap by around 2–3 percentage points only). This highlights the importance of some of the additional reforms in the insolvency framework and other economic measures (Aiyar and others, 2015).

Italy: Contribution to Atlas Fund and Capital Buffer 1/ (percent), end-March 2016



Sources: SNL and IMF staff calculations. Note: 1/ Capital buffer is approximated as the difference between CAR and SREP.

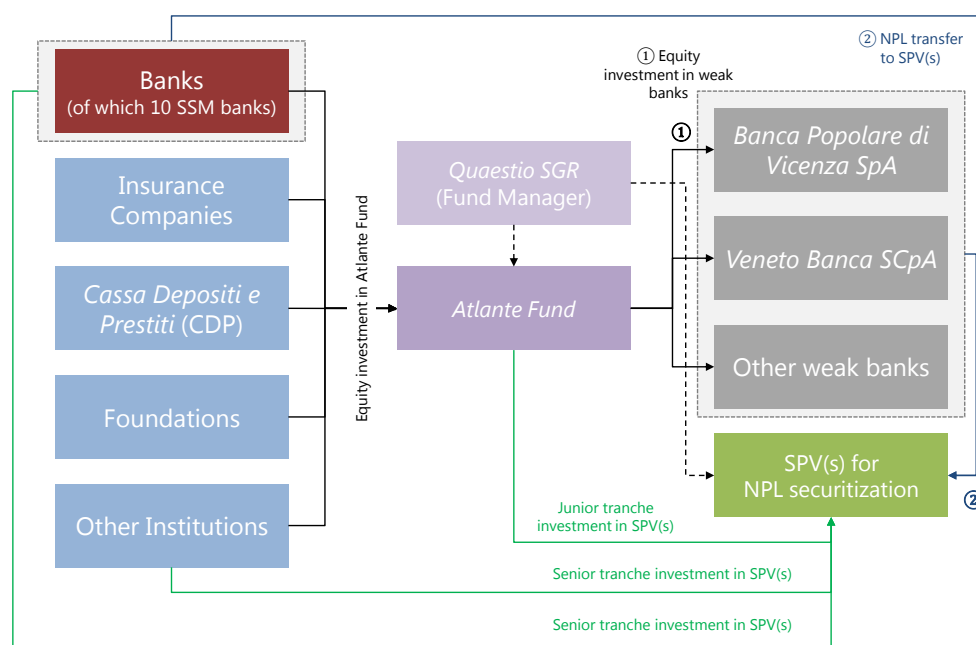
Overview of Contributions to the Atlas Fund

Sample firms	Maximum investment		CAR	SREP 1/	Cost of Funds
	In EUR mln.	In percent of RWAs			
Intesa Sanpaolo SpA	1,000	0.35	16.6	9.50	1.0
UniCredit SpA	1,000	0.26	14.2	10.00	1.0
Unione di Banche Italiane SpA	200	0.33	13.9	9.25	0.8
Banca Popolare dell'Emilia Romagna SC	100	0.25	12.5	9.25	0.8
Banca Popolare di Milano Scarl	100	0.29	15.4	9.00	1.2
Credito Valtellinese Società Cooperativa	60	0.39	15.1	8.30	0.9
Banca Monte dei Paschi di Siena SpA	50	0.07	16.0	10.20	1.2
Banca Popolare di Sondrio SCpA	50	0.21	11.3	9.25	0.8
Banco Popolare Società Cooperativa	50	0.11	15.9	9.50	1.1
Banca Carige SpA	20	0.1	14.9	11.25	1.3
Banca Popolare di Vicenza SpA	—	—	8.1	—	1.2
Credito Emiliano SpA	—	—	14.8	—	0.6
Iccrea Holding SpA	—	—	13.0	—	0.8
Mediobanca	—	—	16.1	—	1.6
Veneto Banca SCpA	—	—	9.1	—	1.4
Subtotal	2,630				
<i>Non-sample firms</i>					
Cassa Depositi e Prestiti (CDP)	500				
Società per La Gestione di Attività S.G.A.	500				
Poste Vita	300				
Generali	200				
Allianz	100				
Other firms (not confirmed)	1,900				
Total	6,000				

Sources: Autonomous Research, Bloomberg L.P., ECB, Moody's Investor Service, and IMF staff calculations. Note: CAR=capital adequacy ratio. 1/ The Supervisory Review and Evaluation process (SREP) refers to bank-specific capital requirement defined by the ECB as part of the SSM. UniCredit's SREP figure includes a capital buffer of 25 bps as global, systemically important bank (G-SIB).

Box 1. Italian NPLs: Recent Government Initiatives (concluded)

Atlante Fund. In April 2016, the largest Italian banks, nonbank financial institutions and banking foundations, with minority participation (8 percent) by the mostly publicly-owned Cassa Depositi e Prestiti (CDP) created a fund to act as a backstop facility for ongoing banks' capital increases. That is, the fund will be a buyer of last resort, and could also buy non-investment grade tranches of NPL securitization transactions, while senior tranches might be more easily sold to the other institutional investors. The fund can also invest in real estate assets. The fund managed to collect €4.25 billion by April 29, 2016. Unicredit SpA and Intesa Sanpaolo SpA disclosed that they would each take a €1 billion stake in the fund, the largest among the participating banks (see table below). Note that the capital impact of contributions scales to the available capital buffer after application of SREP requirements (see chart). Atlante invested €1.5 billion of its resources in the capital raising by Banco Popolare di Vicenza, taking over 99 percent stake in the bank in May 2016. Banks are requested to deduct the amount invested in Atlante from regulatory capital; however, the impact on capital ratios is estimated to be modest.



Enhanced debt enforcement. On April 29, the Italian authorities adopted a series of measures aimed at expediting foreclosures on NPLs to corporate and smaller and medium-sized enterprises (SMEs). The three main changes to the current foreclosure process: (i) a new type of loan contract that will allow banks to sell real estate collateral even if borrowers are subject to insolvency proceedings (so creditors do no longer have to wait for the completion of a lengthy insolvency process before repossessing collateral); (ii) creditors and borrowers can renegotiate existing loan agreements so that this new provision applies to outstanding loans; and (iii) bankruptcy hearings can be done remotely via the internet. The government estimates that it will take less than a year to collect collateral under the new framework.

Appendix

Box A1. Calculating Forward-Looking Provisions Based on Risk-Weighted Assets

We estimate forward-looking (expected loss) provisioning LLP^* by aligning loan loss provisions (relative to operating income) to the average risk density of the current loan portfolio, so that

$$\frac{\text{loan loss provisions}}{\text{net operating income}} = (0.00092 \times RWA^2 - 0.06 \times RWA + 1.662) \times \frac{\text{loss given default}}{100}.$$

For the historical analysis of provisioning rates (and as benchmark for reported loan loss reserves), we obtain the RWA of performing credit exposures as of end-June 2015 from the recent EBA Transparency Exercise (with the exception of Banca Monte dei Paschi di Siena SpA and Banco Popolare Società Cooperativa for which data from the SNL database were used). For the forward-looking analysis based on different macroeconomic scenarios, we calculate the RWAs of the aggregate loan portfolio of each bank for a given probability of default (PD) using the credit risk assessment for loans under the internal ratings-based approach (IRB) of the Basel III framework (BCBS, 2005) based on¹

$$RWA = K \times 12.5 \times EAD$$

where

$$K = LGD \times \left[N \left(\sqrt{\frac{1}{1-R}} \times G(PD) + \sqrt{\frac{R}{1-R}} \times G(0.999) \right) - PD \right] \times \frac{1+(M-2.5)b}{1-1.5b} \quad (1)$$

$$b = (0.11852 - 0.05478 \times \ln(PD))^2$$

and

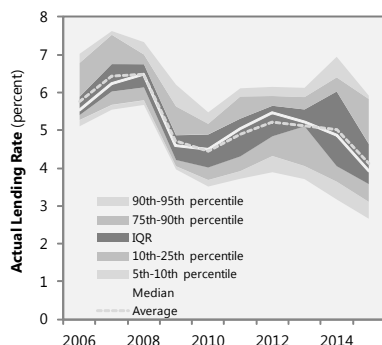
$$R = AVC \times \left(0.12 \times \frac{1-e^{-50 \times PD}}{1-e^{-50}} + 0.24 \times \left(1 - \frac{1-e^{-50 \times PD}}{1-e^{-50}} \right) \right).$$

$N(x)$ and $G(z)$ denote the cumulative distribution function and the quantile function of the standard normal distribution; LGD is the loss given default; EAD is the exposure at default; AVC is the asset value correlation, takes the value $AVC = 1.25$ if the company is a large regulated financial institution (total asset equal or greater to US\$100 billion) or an unregulated financial institution regardless of size; else $AVC=1$. For our analysis, we set $AVC=1$ and $LGD=45$ percent. For simplicity (and due to data constraints regarding the weighted-average maturity of the loan portfolio), we ignore the maturity adjustment in the specification above by removing the term $\frac{1+(M-2.5)b}{1-1.5b}$ (which transforms the formula in equation (1) to that used for the assessment of residential mortgage exposures but retains the AVC term for the determination of the correction factor R).

¹ Owing to absence of granular data on the maturity of the loan portfolio, this simplified approach was chosen (without loss of generality).

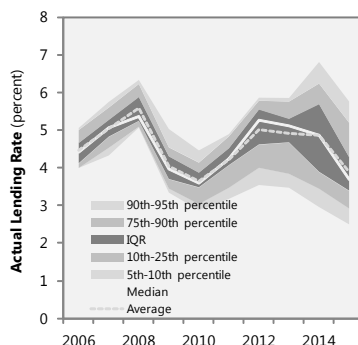
Figure A1. Italy: Estimated Actual and Break-even Lending Rates

Italy: Dispersion of Breakeven Lending Rate of Sample Banks (Expected Loss Provisioning)
(percent) 1/



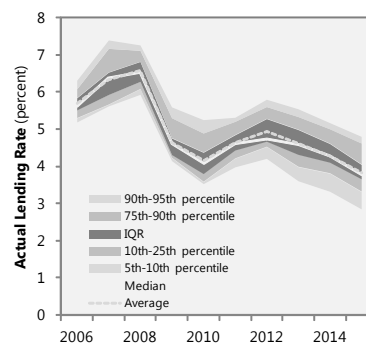
Sources: Haver, SNL and IMF staff calculations. Note: 1/ expected loss provisions derived from risk-weighted assets (RWAs) as per methodology described in Annex, Box A1.

Italy: Dispersion of Breakeven Lending Rate of Sample Banks (Reported Provisioning)
(percent)



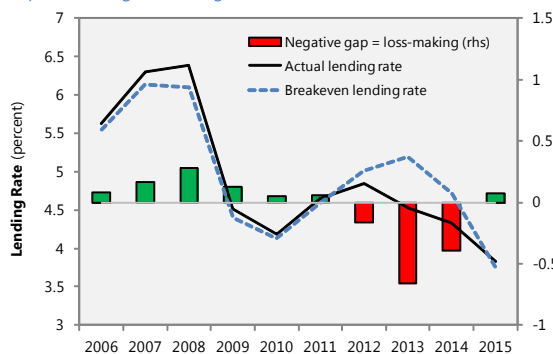
Sources: Haver, SNL and IMF staff calculations.

Italy: Dispersion of Actual Lending Rate of Sample Banks
(percent)



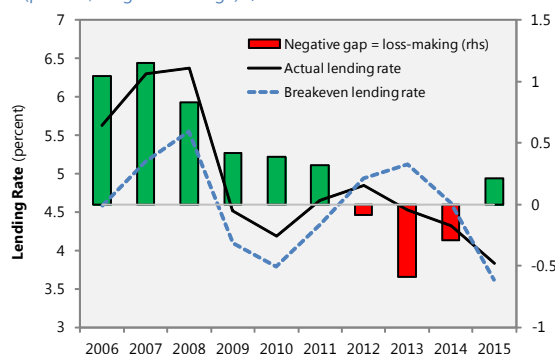
Sources: Haver, SNL and IMF staff calculations..

Italy: Difference between Actual and Breakeven Lending Rates for Sample Banks (Expected Loss Provisioning)
(percent, weighted average) 1/



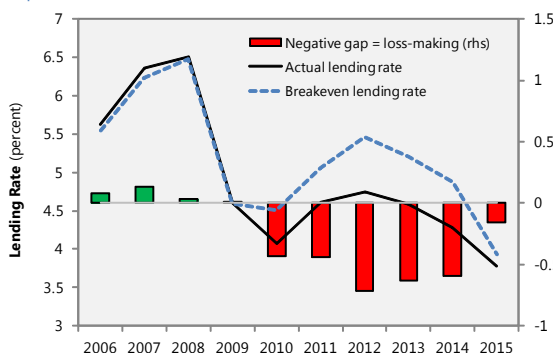
Sources: Haver, SNL and IMF staff calculations. Note: 1/ weighted by total loans (as of end-2015); expected loss provisions derived from risk-weighted assets (RWAs) as per methodology described in Annex, Box A1.

Italy: Difference between Actual and Breakeven Lending Rates for Sample Banks (Reported Provisioning)
(percent, weighted average) 1/



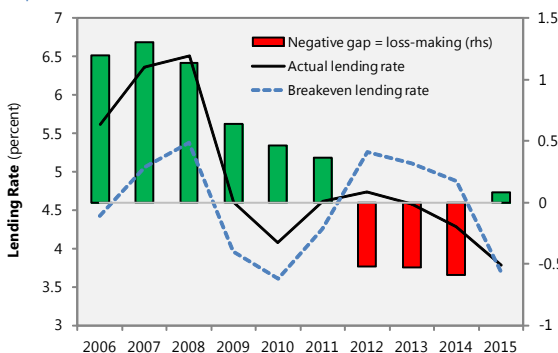
Sources: Haver, SNL and IMF staff calculations. Note: 1/ weighted by total loans (end-2015).

Italy: Difference between Actual and Breakeven Lending Rates for Sample Banks (Expected Loss Provisioning)
(percent, median) 1/



Sources: Haver, SNL and IMF staff calculations. Note: 1/ expected loss provisions derived from risk-weighted assets (RWAs) as per methodology described in Annex, Box A1.

Italy: Difference between Actual and Breakeven Lending Rates for Sample Banks (Reported Provisioning)
(percent, median)

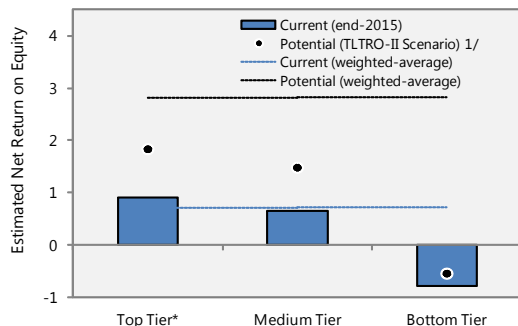


Sources: Haver, SNL and IMF staff calculations.

Figure A2. Italy: Profitability under Reported and Forward-looking Provisioning

Italy: Estimated Net Return on Equity of Current Lending under Expected Loss Provisioning (with and without funding benefit due to TLTRO II)

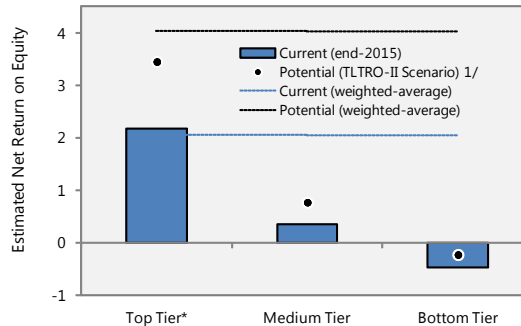
(percent), end-2015



Sources: SNL and IMF staff calculations. Note: */ The sample was split into three tiers (of 5 banks each), ordered by RoE and weighted by total loans; 1/ Funding rate at MRO (0%) via TLTRO II (and full rollover of existing TLTRO); any new deposits at 0%; lending rates adjust according to marginal policy rate (since end-2015: -20 bps) and expected pass-through from term spread compression at historical elasticity of NIMs banks maintain their capital ratio as of end-2015.

Italy: Estimated Net Return on Equity of Current Lending under Reported Provisioning (with and without funding benefit due to TLTRO II)

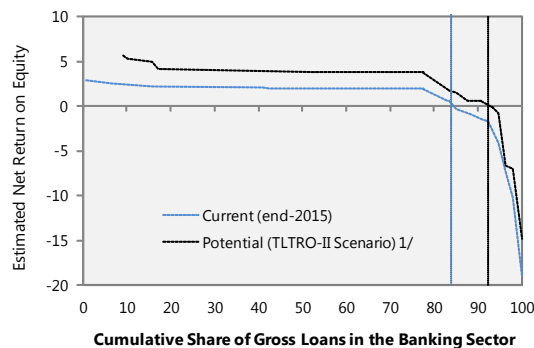
(percent), end-2015



Sources: SNL and IMF staff calculations. Note: */ The sample was split into three tiers (of 5 banks each), ordered by RoE and weighted by total loans; 1/ Funding rate at MRO (0%) via TLTRO II (and full rollover of existing TLTRO); any new deposits at 0%; lending rates adjust according to marginal policy rate (since end-2015: -20 bps) and expected pass-through from term spread compression at historical elasticity of NIMs banks maintain their capital ratio as of end-2015.

Italy: Estimated Net Return on Equity of Current Lending under Expected Loss Provisioning (with and without funding benefit due to TLTRO II)

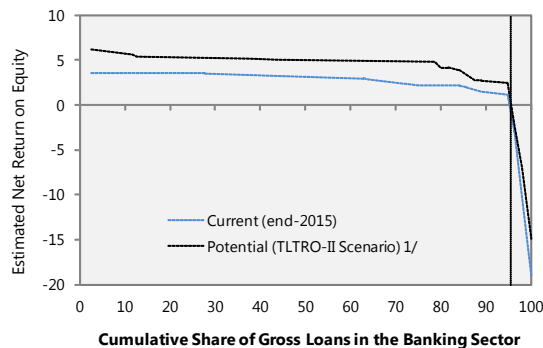
(percent), end-2015 1/



Sources: SNL and IMF staff calculations. Note: 1/ Funding rate at MRO (0%) via TLTRO II (and full rollover of existing TLTRO); any new deposits at 0%; lending rates adjust according to marginal policy rate (since end-2015: -20 bps) and expected pass-through from term spread compression at historical elasticity of NIMs banks maintain their capital ratio as of end-2015.

Italy: Estimated Net Return on Equity of Current Lending under Reported Provisioning (with and without funding benefit due to TLTRO II)

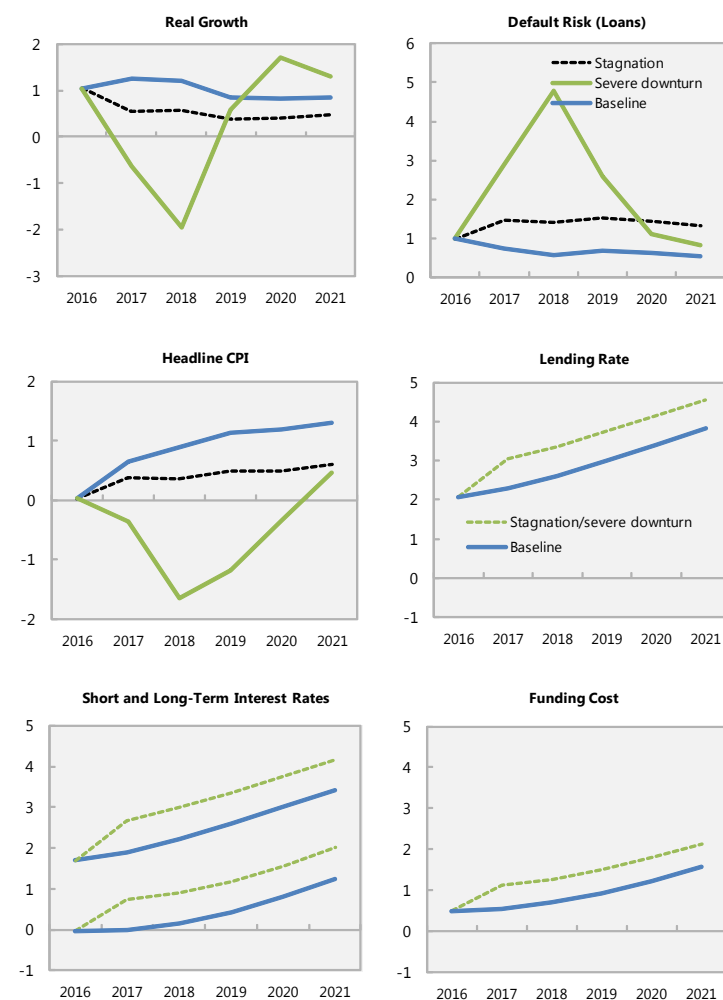
(percent), end-2015 1/



Sources: SNL and IMF staff calculations. Note: 1/ Funding rate at MRO (0%) via TLTRO II (and full rollover of existing TLTRO); any new deposits at 0%; lending rates adjust according to marginal policy rate (since end-2015: -20 bps) and expected pass-through from term spread compression at historical elasticity of NIMs banks maintain their capital ratio as of end-2015.

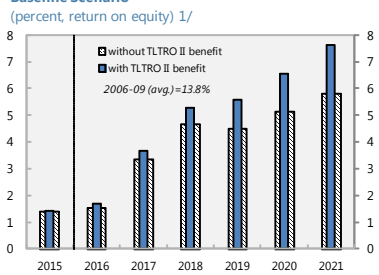
Figure A3. Italy: Aggregate Profitability under Different Macro Scenarios

Italy: Macro Scenario Assumptions
(percent), end-2015



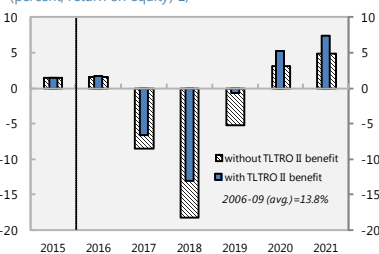
Sources: IMF staff calculations.

Aggregate Profitability from New Lending with Expected Loss Provisioning under the Baseline Scenario
(percent, return on equity) 1/



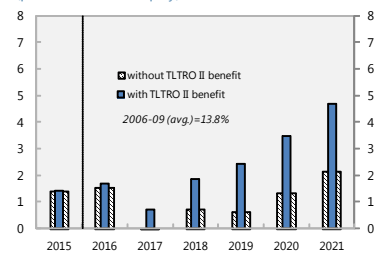
Sources: Bloomberg L.P., EBA Transparency Exercise (2015), ECB, SNL, and IMF staff calculations. Note: 1/ The lending rate, funding costs and the provisioning rate are calibrated to the baseline scenario; TLTRO II is assumed to lower funding costs to 0% and NIMs are reduced by 11 bps due to the recent ECB easing measures.

Aggregate Profitability from New Lending with Expected Loss Provisioning under the Downside Scenario
(percent, return on equity) 1/



Sources: Bloomberg L.P., EBA Transparency Exercise (2015), ECB, SNL, and IMF staff calculations. Note: 1/ The lending rate, funding costs and the provisioning rate are calibrated to the adverse scenario; TLTRO II is assumed to lower funding costs to 0% and NIMs are reduced by 11 bps due to the recent ECB easing measures.

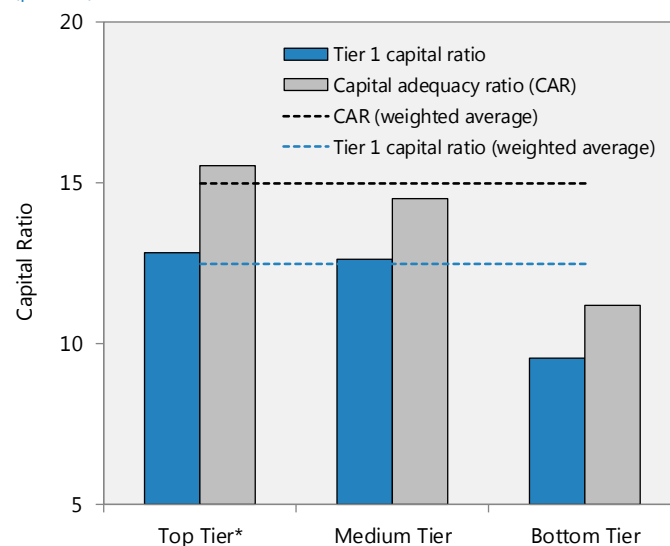
Aggregate Profitability from New Lending with Expected Loss Provisioning under the Stagnation Scenario
(percent, return on equity) 1/



Sources: Bloomberg L.P., EBA Transparency Exercise (2015), ECB, SNL, and IMF staff calculations. Note: 1/ The lending rate, funding costs and the provisioning rate are calibrated to the adverse scenario; TLTRO II is assumed to lower funding costs to 0% and NIMs are reduced by 11 bps due to the recent ECB easing measures.

Figure A4. Italy: Bank Capital under SREP**Italy: Bank Capitalization**

(percent), end-2015



Sources: SNL and IMF staff calculations. Note: */ The sample was split into three tiers (of 5 banks each), ordered by the capital adequacy ratio (CAR), weighted by total loans.

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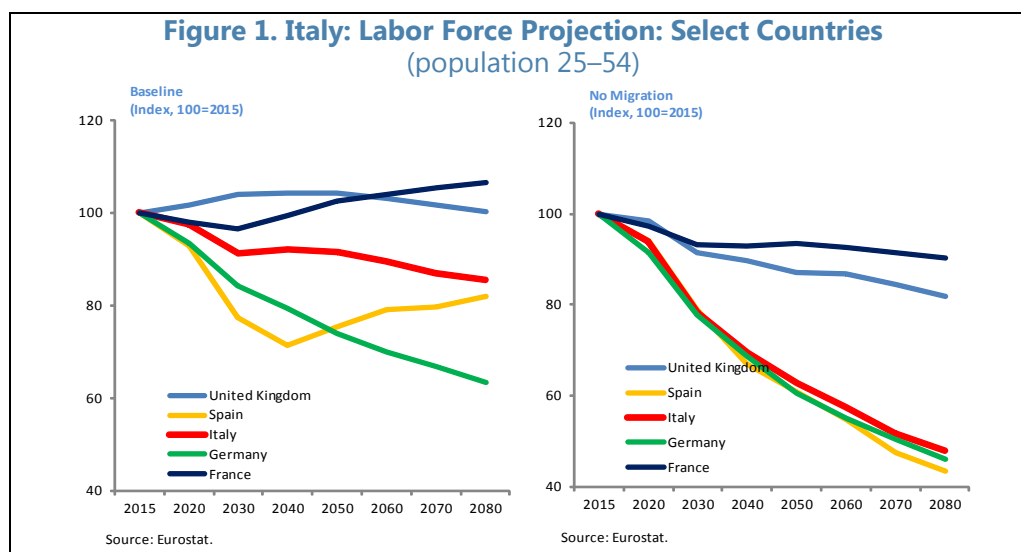
FEMALE LABOR FORCE PARTICIPATION IN ITALY: DRIVERS AND BENEFITS¹

This paper examines the scope for increasing women's role in the formal economy and the potential benefits of closing gender gaps in the Italian labor market. Low female labor force participation in Italy is not necessarily the result of unconstrained choice. Insights from existing studies and evidence from Italian provinces suggest a substantial role for policies, such as removing fiscal disincentives and enhancing the supply of child- and elderly-care services to support women's decisions to enter the labor market. Having more women in the labor force paves the way for increased diversity in senior corporate positions, which may bring further economic benefits. New evidence from 300,000 firms in Italy suggests that the higher presence of women in senior corporate position is tied with stronger corporate profitability, particularly in sectors with larger shares of women in the labor force and with a higher demand for creativity and innovative capacity.

A. Introduction

1. Italy's population is aging, and productivity growth has declined significantly.

According to Eurostat forecasts, Italy will have more than 2 million (or 8 percent) fewer workers in 2040 relative to current levels. Without migration, the decline is expected to be significantly larger at more than 30 percent. This could have a sizable impact on Italy's potential growth, which had fallen even prior to the Global Financial Crisis, reflecting a sharp drop in productivity growth. With output per worker rising a mere 3.5 percent since Italy's adopted the euro in 1998, the prospects for labor productivity growth offsetting the decline in the number of workers in the future are not very bright.



¹ Prepared by Petia Topalova.

2. Raising women's involvement in the formal labor market could help mitigate these trends. Even though women in Italy are just as likely as men to receive secondary and tertiary education, their contribution to the formal economy is far below its potential. In 2014, only 76 women were working for every 100 men of prime working age. Moreover, working women supplied significantly fewer hours of work than men. In senior corporate positions, the gender gap is even more glaring. In a sample of more than 300,000 Italian firms across all sectors of the economy, only 23 percent of senior manager and corporate board positions were held by women in 2013. Closing gender gaps in the labor market could bring significant macroeconomic benefits by increasing labor supply and potentially improving firm performance.

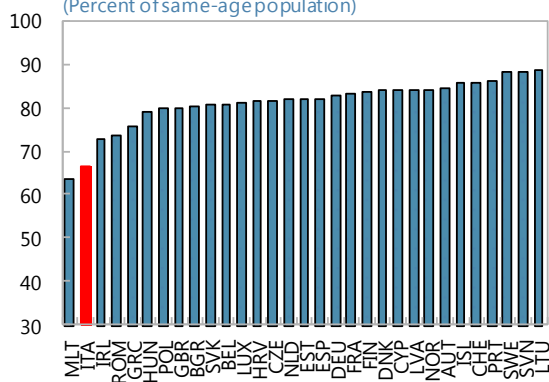
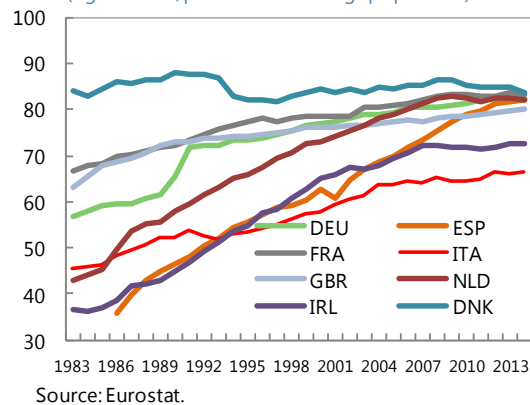
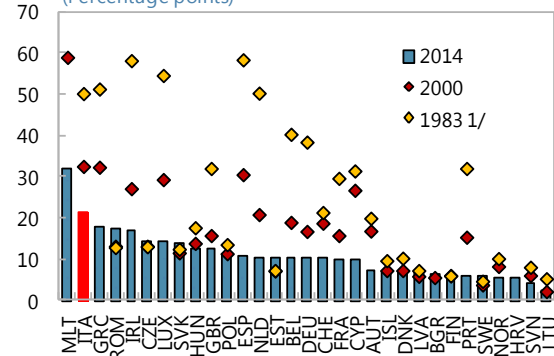
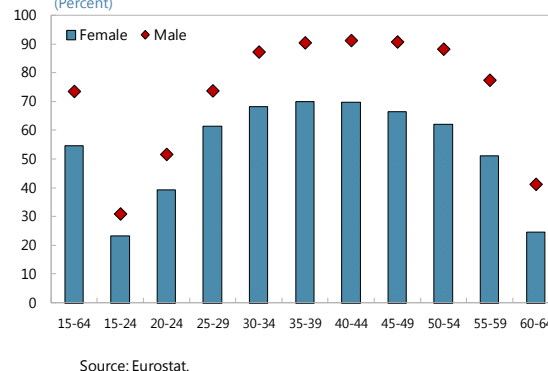
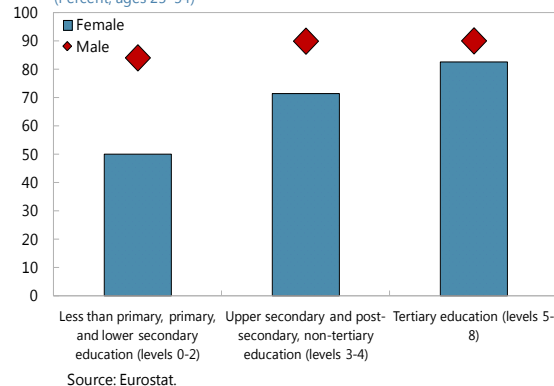
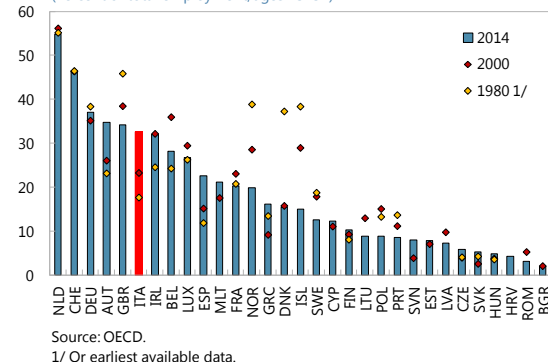
3. This paper examines the scope for increasing women's role in the formal economy and the potential benefits of closing gender gaps. After taking stock of the evolution of female labor supply, we focus on the role of policies in raising female employment, drawing on insights from existing analytical studies and evidence from Italian provinces. We then discuss the likely benefits of raising women's involvement in the labor market through its effect on labor supply and possible improvement in firm financial performance. To shed light on the latter, we present new empirical evidence on women's representation in senior corporate positions and financial performance across 300,000 firms in Italy.

B. Female Labor Force Participation in Italy

4. Italy has one of the lowest rates of female labor force participation in Europe. In 2014, only 66 percent of working age women (25–54) either had or were actively searching for a job, the second lowest rate in Europe after Malta (Figure 2, Panel 1). Moreover, compared to other European economies, progress in raising female labor force participation has been limited. While in most advanced economies female labor force participation rates are converging to those in Nordic countries (e.g., Spain, Netherlands, and Ireland), in Italy the process of convergence has been notably slower (Figure 2, Panel 2).

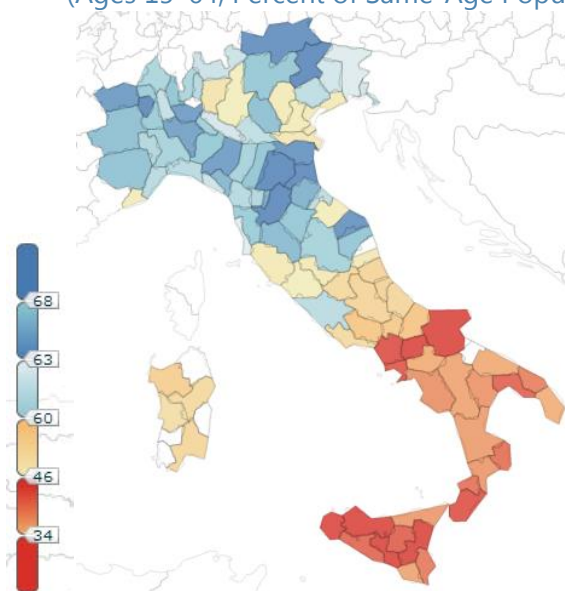
5. The low involvement of women in the labor force has given rise to a sizable gender gap in the labor market. In 2014, the difference between male and female participation rates was more than 20 percentage points, surpassed only by Malta. The participation gap widens with age, suggesting that few women return to the labor market even when their children leave home. The gender gap is also most pronounced among those with lower levels education, with women 34 percentage points less likely to be employed or looking for a job than men. Among the population with tertiary education, the gender gap is less than 8 percentage points.

6. Even when women participate in the labor market, they are often employed at less than full time. About one-third of female workers in Italy are employed part time. Consequently, they tend to work on average 33 hours per week, compared to 40 hours worked by men. The gender gap in working hours develops early in women's careers and has a persistent impact over time for married women with children: while the average number of working hours by married women with no children remains broadly constant through their working life, for married mothers of two it almost halves when we compared the 40–44 cohort to the under 30 cohort.

Figure 2. Italy: Selected Female Labor Force Participation Indicators*Italy has one of the lowest FLP rates in Europe...***Female Labor Participation Rate in 2014, 25–54**
(Percent of same-age population)*... the rate of increase in FLP has been slow.***Evolution of FLP: Select Economies**
(Ages 25–54, percent of same-age population)*The gender gap remains quite sizeable...***Labor Force Participation Gap, Male-Female, 25–54**
(Percentage points)*The gap is largest for the 40–59 age group...***Italy: Labor Force Participation by Age and Sex**
(Percent)*...and among those with lower education.***Italy: Labor Force Participation by Education and Sex**
(Percent, ages 25–54)*Part-time employment has become more prevalent.***Female Part-Time Employment**
(Percent of total employment, ages 25–54)

7. There is very large variation in women's involvement in the labor market across Italian provinces. In the Northern part of the country, participation rates among women aged 15–64 are on par with the activity rate of women in Germany, United Kingdom and Austria at around 65–70 percent. There are certain provinces in the South, however, where less than 40 percent of women in that age group are working or actively looking for a job (Figure 3).

Figure 3. Italy: Female Labor Participation Rates Across Provinces
(Ages 15–64, Percent of Same-Age Population, 2014)



Source: Istat.

C. Drivers of Women's Participation in the Labor Market

8. Both individual characteristics and policies shape a woman's decision to work.

When making the decision to join the labor force, women compare the value of home production relative to the return from working outside the house (Becker, 1965). The return to household work typically increases with the number of children or elderly women care for, while higher education raises the potential earnings from joining the labor force. Gender attitudes and beliefs about women's role in society are important drivers as women's labor supply as they shape the disutility of working outside the house from violating personally held beliefs or social norms (Fernandez, 2013).² However, recent analysis, which relies on detailed micro data to fully account for individual attitudes and choice, confirms that for European women, the decision to work is shaped to a significant extent by policies (Christiansen and others, 2016a).³ Specifically,

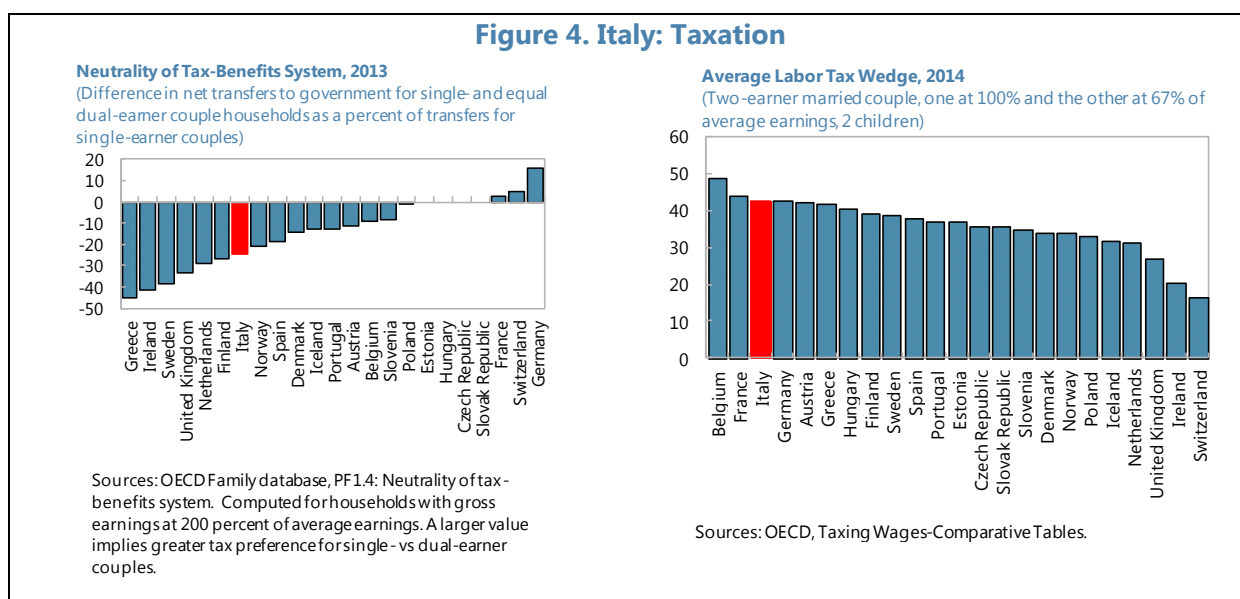
² Social norms influence to a great extent female labor force participation in Italy, due to women's traditional role as primary care providers for children and older members of the family (OECD, 2015; Colonna and Marcassa, 2015).

³ For cross country evidence on the determinants of female labor force participation, see also Jaumotte, 2003; Thévenon, 2013; Duval and Bassanini, 2005; and Bick and Fuchs-Schündeln, 2014, among others.

tax policies can create strong disincentives against work.⁴ The provision of services that make it easier for women to combine a job with household and care responsibilities can support women's choice to return to market work.

Taxation

9. In Italy's case, removing fiscal disincentives for married women could strengthen women's attachment to the labor force. At a quick glance, with its system of individual taxation, Italy does not stand out in an international context as having particularly strong disincentives for the second earner in the family to join the labor force. Italy's tax benefit system favors dual-earner couples over single-earner couples to a greater extent than in other European countries (see OECD Family Database, Neutrality of Tax Benefit systems, and Figure 4). However, as emphasized by Colonna and Marcassa (2015), tax credits for dependent spouse and children and universal cash transfers for children increase the fiscal burden of low income households and the marginal tax rate of women married to low income or unemployed men. Estimating a structural model of female labor supply, Colonna and Marcassa (2015) demonstrate that moving (in a revenue neutral fashion) to a system of working tax credits (similar to the Earned Income Tax Credit in the United States and the British Working tax credit) combined with cash transfers that are independent of the total household income would raise the employment rate of married women by 1.5 percentage points.



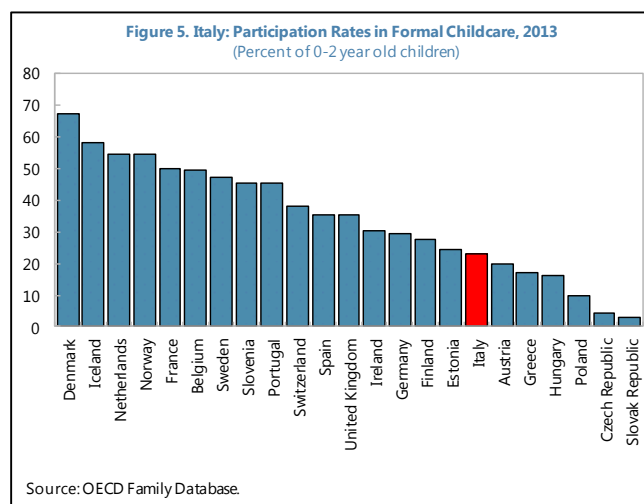
10. Durable reductions in labor taxation could also bring more women into the labor force. The attractiveness of entering paid work for potential second earners does not merely depend on the incentives within the tax benefit system to share paid work within households, but

⁴ See Marino and others, 2016 for details.

also on the absolute financial gains second earners can make from being in work. And in that respect, Italy stands out in an international context. For a two-earner couple with two children, the average tax wedge stood at 42.4 percent in 2014, the third highest in Europe (Figure 4). Such high levels of taxation could be a significant deterrent for women's labor force participation, in light of the greater female labor supply elasticity with respect to income (see Keane, 2011, for a review of the literature). Recent measures have reduced significantly the effective labor taxation for low income workers for the 2015–2018 period, though social security exemptions are temporary. To bring more women in the labor force, durable reduction in labor taxation may be needed.⁵

Childcare and Elderly Care Support

11. Access to affordable childcare is limited in Italy. Italy spends relatively little on family benefits, including childcare, relative to other countries in Europe, with 2011 public spending amounting to 2 percent of GDP, compared to an average of 2.8 for European economies (OECD, Social Expenditure Database). Enrollment rates in formal childcare are also low. In 2013, less than a quarter of Italian children aged 0–2 were enrolled in formal childcare (Figure 5).⁶ Some suggestive evidence that the low provision of such services may affect women's labor supply can be gleaned from the large variation across provinces in Italy. Using data on activity rates and various measures of the provision of childcare in 2007 at the province level, we find strong correlation between the gender gap in labor force participation and the availability of childcare services (measured as spending on childcare services per capita, share of kids enrolled in childcare services, and the efficiency of childcare provision, as computed by Giordano and Tommasino (2013) (Table 1). This correlation persists even after controlling for some of the standard determinants of labor supply, such as the education gap between genders, marriage and fertility rates in the province, the overall level of development and the share of services in the regional economy. Higher spending on childcare seems to be associated with higher female



⁵ The Parliamentary Budget Office (PBO) estimates that the 80 Euro bonus for low income workers, changes to IRAP rates and the temporary social security exemption for new hires under open-ended contracts have reduced the tax wedge from 48 percent to 33.4 percent for women employed at the average wage, and from 44 to 20.6 percent for women earning two-thirds of the average wage (Parliamentary Budget Office, 2014). The 2016 Stability law introduced a less generous temporary social security contributions cut for newly-hired workers in 2016, which should raise the tax wedge relative to PBO's calculations.

⁶ According to a special survey on Conciliation between work and family in 2010 by ISTAT, excessive cost and lack of available childcare services were the main reasons given by respondents with care duties for why they do not provide more labor (EurWork, 2012).

labor force participation (i.e., lower gender participation gap) especially in regions where the demand for female labor is greater (proxied by the share of employment in the services sectors or knowledge intensive industries), suggesting that the observed correlation may not just reflect an equilibrium outcome but may signal a constraint for women's labor supply.

12. Improving access to affordable child- and elderly care is essential in supporting Italian women in the work force. Beyond the correlations at the provincial level discussed above, Carta and Rizzica (2015) provide compelling evidence that female labor force participation in Italy is highly sensitive to childcare costs.⁷ Using the sudden expansion in the availability of cheaper public childcare and discontinuities in the rules that determine access to pre-kindergarten, Carta and Rizzica (2015) demonstrate that increasing the provision of low cost childcare led to significant increases in the participation of Italian mothers in the labor market and female employment due to the decline in women's reservation wage. These effects were particularly pronounced for married and less-educated women, categories among the most underrepresented in the labor force.

Table 1. Italy: Gender Participation Gap and Childcare Availability: Evidence from Provinces

	(1)	(2)	(3)	(4)	(5)	(6)
Public spending on childcare	-1.6404*** (0.4873)			-1.1879** (0.4644)	6.9202 (4.2274)	6.0463* (3.1585)
Number of children enrolled in childcare		-1.8045*** (0.5899)				
Efficiency of childcare spending			-3.9284** (1.6534)			
Share of Employment in Services * Public Spending on Childcare					-11.7619* (5.9917)	
Share of Employment in Knowledge Intensive Services * Public Spending on Childcare						-23.0023** (9.7332)
Area fixed effects	N	N	N	Y	Y	Y
Observations	95	95	95	95	95	95
Adjusted R-squared	0.6544	0.6543	0.6293	0.6988	0.7024	0.7053

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

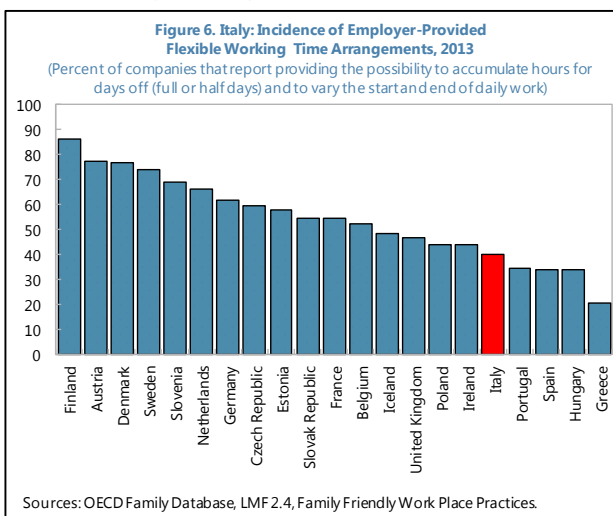
Note: ISTAT, Giordano and Tommasino (2013) and IMF staff estimates. The gender participation gap is defined as the male activity rate (aged 15-64) minus female activity rate in the same age group. Public spending on childcare and number of children enrolled in childcare is in logs and is scaled by the population in the province. Efficiency of childcare spending is defined as in Giordano and Tommasino (2013). The data is from 2008. All regressions control for the average fertility rate, marriage rate and gender education gap in the province, as well as the regional GDP per capita and the share of employment in services.

⁷ See also Blau and Robins (1988) and Akgunduz and Plantenga (2011) for a review of the literature; and Chiuri (2000), Del Boca (2002), Marenzi and Pagani (2005), Bratti and others (2005), and Bratti and Staffolani (2012) for further evidence from Italy.

Workplace Flexibility

13. In addition to childcare support, flexible working arrangements can also help parents reconcile work and care responsibilities (OECD, 2015). In Italy,

about 40 percent of companies included in the European Company Survey report having family friendly workplace arrangements, namely, the possibility for workers to vary the start and end of their working hours and accumulate hours for days off (Figure 6). In that regard, the recently introduced provisions in the Jobs Act for improving work-life balance and enhancing the flexibility of the work place are a step in the right direction.

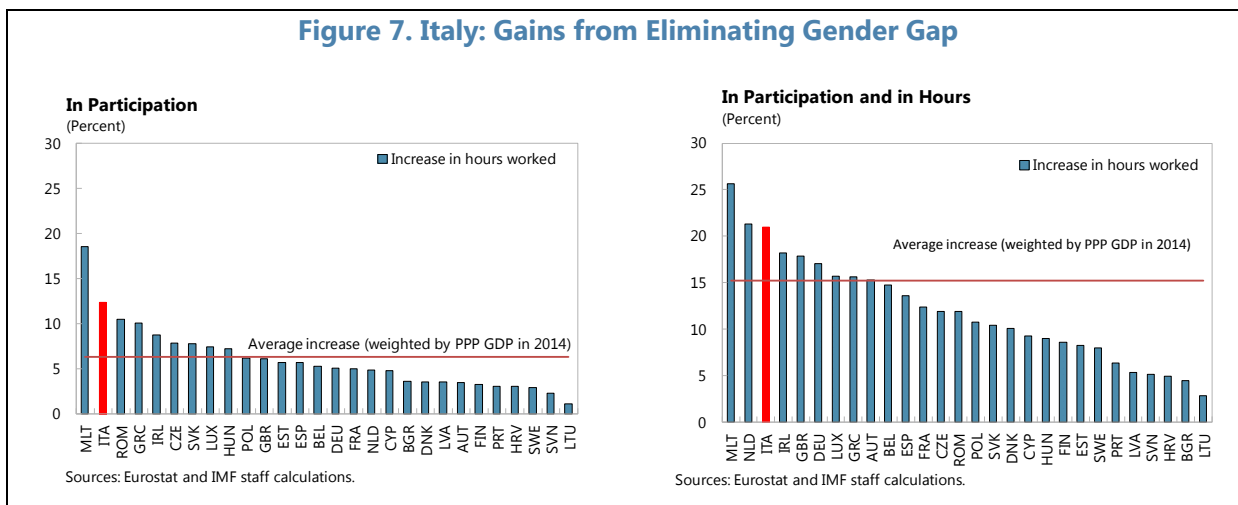


D. Benefits of Raising Female Labor Force Participation

Labor Supply

14. Closing the gender participation gaps could significantly boost Italy's labor supply. As an illustrative exercise, Christiansen and others (2016c) compute the increase in overall labor supply from raising women's participation rates to be equal to those of men assuming population and unemployment rates, as well as male labor force participation rates remain constant. Closing the gender participation gap would increase Italy's labor supply by 12 percent. The impact could be as large as 20 percent if the gap in hours worked were also eliminated (Figure 7). The resulting increase in Italy's measured potential output from the higher labor inputs will be sizable.

Figure 7. Italy: Gains from Eliminating Gender Gap



Improving Firm Performance

15. Strengthening the attachment of women to the labor force could help build the pipeline of women for senior corporate positions, which might bring additional benefits.⁸

Greater diversity in senior positions, including along gender lines, might improve corporate performance to the extent that it fosters complementarities in skills, generates knowledge spillovers, stimulates critical and creative thinking, makes the workplace more enjoyable or stimulates demand.⁹ Given well-documented differences in preferences and behavior along gender lines, important complementarities may also arise between the managerial style of men and women.¹⁰ Furthermore, with the rise of women in the labor force, increasing their representation in senior positions would mitigate demographic difference between managers and subordinates, which could enhance workers' productivity (Giuliano and others, 2012).

16. Nevertheless, existing evidence on the impact of gender diversity on firm performance is inconclusive.¹¹ Influential work by McKinsey (2007) and Catalyst (2007) documented a strong positive association between the representation of women on the boards of Fortune 500 companies and corporate performance. However, later studies, which plausibly identify the causal impact on firm performance of raising the share of women in corporate boards, have challenged this early evidence (see, for example, Ahern and Dittmar, 2012). Common to all studies is an important limitation: data availability typically constrains the analysis to publicly listed companies in individual countries. The resulting small sample sizes make it hard to detect a statistically significant effect of gender diversity, particularly if its magnitude is small. Evidence from Italy is also mixed. Across 80,000 manufacturing firms in 2004 and 2011, Castaglione and others (2014) find a positive correlation between the presence of female managers and firm labor productivity. Bianco and others (2012) on the other hand found no correlation between a firm's Tobin's Q and the gender diversity of the board in a sample of 262 firms listed on the Italian stock exchange. Finally, Flabbi and others (2014) using matched employer-employee panel data from about 850 manufacturing firms find a strong positive effect on the interaction between having a female CEO and the share of female workers in the firm on firm's output per worker and TFP.

⁸ Christiansen and others (2016b) uncover a strong positive correlation between the share of women employed full time and the presence of women in senior corporate positions across European countries. This pattern suggests that one of the potential causes for the persistent gender gaps in senior positions may be the limited supply of women willing and/or able to take such positions.

⁹ Female managers could be better positioned to serve consumer markets dominated by women (CED 2012; CAHRS 2011). Greater gender diversity would increase the heterogeneity in values, beliefs and attitudes, which would broaden the range of perspectives (OECD, 2012) and stimulate critical thinking (Lee and Farh, 2004).

¹⁰ See Croson and Gneezy (2009) for a review of the literature on gender differences in preferences and other factors that might affect managerial style. McKinsey (2007, 2009) argue that certain leadership behaviors were seen more often in women than men, namely, people-development, setting expectations and rewards, providing role models, and participative decision-making.

¹¹ See Rhode and Packel (2014) for a survey of the literature on the gender composition of boards and financial performance.

17. New empirical evidence suggests a strong positive association between firms' financial performance and gender diversity in senior positions in Italy. Using a sample of more than 300,000 firms with at least two members in the senior management team or corporate board in Italy from the Bureau Van Dijk's Orbis database, we compare financial outcomes of firms within narrowly defined sectors based on the gender diversity of the senior management team and the corporate board in 2013 (see Christiansen and others, 2016b, for a similar study across 34 European economies).¹² Specifically, we estimate the following regression model:

$$y_{in} = \beta * sh_wmn_{in} + \gamma * x_{in} + \alpha_n + \varepsilon_{in} \quad (1)$$

Where y_{in} is the return on assets (ROA) of firm i , in industry n (measured as net income over total assets, profits before taxes over total assets and earnings before interest and taxes over total assets); sh_wmn_{in} is the share of total members of senior management or the company board who are women; x_{in} are firm specific controls (indicators for the size of the firm, firm age, the number of directors/senior managers, and tangible assets); α_n denotes the full set of roughly 700 industry fixed effects. Across all measures, higher share of women in the decision-making team is associated with better financial performance (Table 2). Given the average size of the senior team and the average share of women in it, the correlations imply that exchanging just one male member with a woman would be associated with a 10–14 basis points higher ROA.

18. Greater female representation could shape firm performance through two channels. Since firm performance and gender composition of its board and senior management are jointly determined, it is difficult to give a causal interpretation to the positive association uncovered.¹³ To shed light on the underlying mechanisms, we use a simple difference-in-difference strategy inspired by the Rajan and Zingales (1998) approach. Our identifying assumption is as follows: if women in senior positions can help improve firm performance, their impact must be stronger in industries with:

- *More women in the labor force.* Certain industries are significantly more likely to employ women (an assumption that is standard in theories of gender and the labor market and is well documented in the data).¹⁴ It is reasonable to expect that these industries may benefit more from gender diversity in senior positions. Women in leadership positions may be more

¹² We focus on the sample of firms that report having at least two members in the senior management/board since we are interested in examining the role of gender diversity in senior positions, rather than documenting differences in male vs female entrepreneurs. Economic theory provides some clear channels through which gender diversity may benefit firms which do not extend to single-manager firms.

¹³ The Orbis database does not provide consistent information on changes in the board or management team over time, which precludes us from examining how an increase in the prevalence of women correlates with changes in firm performance. In the cross section, the share of women in management may be correlated with numerous unobserved characteristics of the firm, which affect its financial performance. It is also difficult to distinguish whether greater presence of women improves firm performance or better performing firms are simply able to attract more women.

¹⁴ See, for example, Galor and Weil (1996); Black and Juhn (2000); Alesina and others (2013); Do and others (2016).

likely to support family-friendly changes in corporate policies or serve as role models for other women, thereby raising the productivity of female workers. Women managers may also be better able to match female workers to tasks in the firms, as demonstrated by Flabbi and others (2014) in the case of Italy. Women's leadership style could be more effective in female-dominated or female-oriented settings (Eagly and others, 1995).

- *Greater demand for creativity and critical thinking.* A sizable literature has argued that the benefits of workforce diversity depend on sectoral characteristics.¹⁵ Extending the arguments of this literature to diversity in senior positions, it follows that sectors characterized by complex tasks and innovative output - such as high-tech manufacturing and knowledge-intensive services industries - stand to benefit more from greater diversity to the extent that such diversity increases the set of ideas and potential solutions.

19. We find evidence of both of these channels at work. As a first pass, we simply examine whether the role of women in senior positions in shaping corporate financial outcomes varies across different sectors. Estimating equation (1) for four broad economic sectors reveals that the positive association between the share of women and ROAs is significantly stronger for firms in the services sectors (Table 3), where an additional woman in a senior position, keeping the size of the board unchanged, is associated with a 23 bps higher ROA. In manufacturing, an additional woman is associated with only 6–9 bps higher ROA, while in the trade and construction sectors the estimated coefficients are even smaller and not statistically different from zero.

20. To examine more rigorously our hypotheses, we estimate the following equation:

$$y_{in} = \delta * SEC_n * sh_wmn_{in} + \beta * sh_wmn_{in} + \gamma * x_{in} + \alpha_n + \varepsilon_{in} \quad (2)$$

Where SEC_n is alternatively (i) the female intensity of the sector to which the firm belongs, and (ii) an indicator for whether the sector is a high-technology or knowledge-intensive sector.¹⁶ Table 4 presents the main findings from this exercise. For both the female intensity and knowledge-intensity, we find a positive and statistically significant coefficients on the interaction with the share of women in senior positions. For a firm operating in a sector with female intensity at the 75th percentile of the distribution (where women comprise about 52 percent of the workforce), the expected boost to ROA if a man were to be replaced by a woman in the senior team is estimated to be about 20 bps. In sector at the 25th percentile of the distribution of female

¹⁵ Prat (2002) and Jehn and others (1999) examine the role of sectoral characteristics, such as the complexity of tasks, in shaping optimal labor diversity. Garnero and others (2014) provide empirical evidence on the heterogeneous effects of workforce diversity across sectors in Belgium.

¹⁶ Female intensity is measured as the share of female workers in total employment across 61 distinct ISIC Rev. 3 manufacturing sectors using UNIDO Industrial Statistics Database averaged over all countries and years for which such data are available. OECD annual labor force employment statistics are used to construct female intensity of the remaining non-manufacturing sectors. We use Eurostat's taxonomy of high- and medium-technology manufacturing sectors and knowledge-intensive services at the NACE 3-digit level.

Table 2. Italy: Share of Women in Senior Positions and Firm Financial Performance

Sample ^{1/}	At least 2 people			At least 3 people			At least 4 people		
ROA based on	Net income	Profit BT	EBIT	Net income	Profit BT	EBIT	Net income	Profit BT	EBIT
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Share of women in senior positions	0.0038 *** (0.0015)	0.0047 *** (0.0019)	0.0033 * (0.0018)	0.0072 *** (0.0017)	0.0089 *** (0.0021)	0.0078 *** (0.0021)	0.0116 *** (0.0021)	0.0160 *** (0.0026)	0.0146 *** (0.0023)
Observations	308,033	307,215	306,998	171,973	171,660	171,581	84,655	84,537	84,546
Mean dep. variable	0.002	0.018	0.027	-0.001	0.014	0.023	0.000	0.014	0.022
Mean share of women	0.23	0.23	0.23	0.23	0.23	0.23	0.21	0.21	0.21
Mean N senior positions	3.36	3.37	3.37	4.44	4.45	4.45	5.93	5.93	5.94
Increase in ROA (basis points)	11	14	10	16	20	18	19	27	25
Note: All regressions include industry fixed effects, indicators for firm size, firm age, and control for the log of firm's fixed assets and number of senior positions. Robust standard errors are clustered at the industry level.									
^{1/} Sample includes all firms with at least two, three or four members in senior positions in columns (1)-(3), (4)-(6) and (7)-(9) respectively.									

Table 3. Italy: Share of Women in Senior Positions and Firm Financial Performance: Sectoral Differences

Sample	Services			Manufacturing			Trade			Construction		
ROA based on	Net income	Profit BT	EBIT	Net income	Profit BT	EBIT	Net income	Profit BT	EBIT	Net income	Profit BT	EBIT
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(7)	(8)	(9)
Share of Women in Senior Positions	0.0081 *** (0.0023)	0.0086 *** (0.0029)	0.0079 *** (0.0028)	0.0022 (0.0019)	0.0031 (0.0024)	0.0016 (0.0025)	0.0013 (0.0022)	0.0003 (0.0026)	0.0010 (0.0025)	-0.0004 (0.0040)	0.0014 (0.0051)	-0.0023 (0.0048)
Observations	100,163	99,661	99,577	60,608	60,544	60,535	56,692	56,545	56,472	76,126	76,027	75,980
Mean Dep Variable	-0.002	0.016	0.024	0.009	0.027	0.038	0.002	0.017	0.029	0.002	0.015	0.025
Mean Share of Women	0.26	0.26	0.26	0.22	0.22	0.22	0.24	0.24	0.24	0.20	0.20	0.20
Mean N Senior Positions	3.54	3.54	3.54	3.61	3.61	3.61	3.21	3.21	3.21	2.89	2.89	2.89
Increase in ROA (bps)	23	24	22	6	9	4	4	1	3	-1	5	-8
Note: All regressions include industry fixed effects, indicators for firm size, firm age, and control for the log of firm's fixed assets and number of senior positions. Robust standard errors are clustered at the industry level.												

intensity (where women comprise just a quarter of the labor force, the boost to ROA would be less than 1 bps.¹⁷ Similarly, an additional woman in a senior position is associated with a 30 bps higher ROA in a high-tech manufacturing sector or a knowledge-intensive services industry, while in the remaining sectors, the boost to ROA is only 4 bps and not statistically distinguishable from zero.

Table 4. Italy: Share of Women in Senior Positions and Firm Financial Performance: Role of Female- and Knowledge-Intensity						
ROA based on	Net income	Profit BT	EBIT	Net income	Profit BT	EBIT
	(1)	(2)	(3)	(4)	(5)	(6)
Share of Women	-0.0058 *	-0.0049	-0.0082 **	0.0015	0.0019	0.0008
in Senior Positions	(0.0030)	(0.0036)	(0.0037)	(0.0017)	(0.0022)	(0.0021)
Share of Women * Female Intensity	0.0242 ***	0.0243 ***	0.0292 ***			
	(0.0072)	(0.0087)	(0.0088)			
Share of Women *				0.0090 ***	0.0111 ***	0.0099 ***
High Tech/Knowledge Intensity				(0.0031)	(0.0040)	(0.0039)
Observations	308,033	307,215	306,998	308,033	307,215	306,998
Note: All regressions include industry fixed effects, indicators for firm size, firm age, and control for the log of firm's fixed assets and number of senior positions. Robust standard errors are clustered at the industry level.						

21. It is important to emphasize that these findings are sensitive to the measure of firm performance used. As in the broader European sample, the results are robust to various empirical modifications. Results are robust to various treatments of outliers, and to using alternative years for the firm financial data. However, unlike in the broader European sample of firms as reported in Christiansen and others (2016b), we do not find the same pattern if we focus on labor productivity (defined as output per worker) as an alternative measure of firms' performance. While this may appear at odds with the findings on financial performance, it may simply reflect the different choices made by female managers. For example, using the introduction of gender quotas in Norway, Matsa and Miller (2013) find that firms affected by the quota undertake fewer workforce reductions than comparison firms, increasing relative labor costs and employment levels. Similarly, during the Great Recession, Matsa and Miller (2014) discover that female-led private firms in the United States were significantly less likely to downsize their workforce. As such, our findings are consistent with the existing evidence associating female business leadership with increased labor hoarding. However, we also document that this management style does not come at the expense of lower profitability.

E. Conclusion

22. The contribution of women to the formal Italian economy is far below its potential. Female labor force participation has been increasing steadily over the past three decades. However, it remains very low relative to other advanced economies, and relative to participation rates of men. With only 67 percent of prime-aged women currently working or actively looking

¹⁷ These findings are similar to Flabbi and others (2014).

for a job, Italy has significant scope to expand its labor supply and lessen the economic impact of the downward demographic pressures it is set to experience in the future.

23. For Italy's women, low labor force participation is not necessarily the result of unconstrained choice. While social norms and individual preferences are undoubtedly important factors in women's decision to join the labor force, there is ample evidence that policies can relax some of the unique constraints faced by women. As demonstrated by Colonna and Marcassa (2015), reducing fiscal disincentives for women to join the labor force through a revenue neutral reform of the existing system of tax credits for dependent children and spouse and universal cash transfer could help bring more women into the workforce. Reducing durably Italy's very high labor tax wedge should also disproportionately incentivize women to opt for market work, due to their higher elasticity of labor supply with respect to income. Finally, the dramatic regional disparities in female labor force participation suggest that changes in taxation only may have limited effect, if not accompanied by an increase in the availability of high-quality and affordable childcare and elderly care services. Greater flexibility in work arrangement could also help women combine job and household responsibilities.

24. In addition to removing fiscal disincentives and strengthening the provision of complementary services, reducing structural rigidities in product and services markets could facilitate women's entry into the labor force. As demonstrated in Bassanini and Duval (2006), excessive regulation tends to restrict the supply and drive up the prices of services such as childcare and household services. Restricted opening hours of shops, for example, could make it difficult for women to reconcile work and family life. Also, by hindering the growth of the service sector, excessive regulation may limit the creation of employment opportunities for women. More generally, female employment would benefit from structural reforms (such as product market deregulation, cleaning up bank balance sheets, insolvency and judicial reform) that facilitate reallocation of resources and ultimately raise demand for labor.

25. More women in the labor force could lead to greater gender diversity in senior corporate positions, which may have further economic benefits. New evidence from more than 300,000 listed and unlisted companies in Italy suggests that the higher presence of women in senior executive positions and in companies' boards is tied with stronger corporate profitability. This positive association is particularly pronounced in industries that employ more women and in industries with greater demand for the creativity and critical thinking that diversity in general may bring. To the extent that higher representation of women in senior positions improves corporate sector profitability, it would help support corporate investment and productivity, mitigating the slowdown in potential growth.

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