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RESEARCH AT THE BANK OF ITALY
DIRECTORATE GENERAL FOR ECONOMICS, STATISTICS AND RESEARCH
NEWSLETTER

Contents

Highlights

Workshop on 'The economics of occupational licensing'

(Rome, 8 November 2019)

The workshop focused on the effects of occupational licensing on labour market outcomes and service quality. Professor Morris Kleiner (University of Minnesota) opened the workshop with a broad overview of the research on the topic, looking at the experience of different countries. Other leading scholars presented their research on the effects of regulation on wages, the quality of professionals, labour market outcomes and productivity. In a closing roundtable, experts and policymakers from the European Commission, the OECD, the Italian Antitrust authority and the Bank of Italy discussed the political economy of regulation and the challenges stemming from digitalization.

The presentations are available here.

Conference on: 'Recent trends in firm organization and firm dynamics: determinants and future challenges'

(Rome, 9-10 December 2019)

The conference was organized in collaboration with the Banque de France, Sciences Po, EIEF and CEPR and took place in Rome. It featured 11 presentations, 8 poster sessions and 3 keynote speeches, given by Jan Eeckhout (UPF Barcelona), Thierry Mayer (Sciences Po) and Stefanie Stantcheva (Harvard). The event covered four main sets of issues. First, the evolution of market power, its measurement, determinants and implications for growth, wages and the labour share. Second, the consequences of globalization for firm organization and market structure. Third, the relevance of selected determinants of firm performance (credit, firm ownership and management, aggregate uncertainty, regulation). Finally, the consequences of taxation for innovative effort, R&D investment, and location decisions.

The full programme is available here.

Conference on: 'Recent Advances in Macroeconomics'

(Rome, 13-14 December 2019)

On 13-14 December, EIEF hosted the conference '**Recent Advances in Macroeconomics**'. The conference was funded by the Starting Grant awarded to Luigi Paciello by the European Research Council for his project 'Macroeconomic Dynamics with Product Market Frictions'.

The programme is available here.

Forthcoming events

2nd Biennial Bank of Italy and Bocconi University conference on 'Financial stability and Regulation'

(Rome, 19-20 March 2020)

The Bank of Italy and Bocconi University – BAFFI CAREFIN are organizing the second biennial conference on 'Financial stability and Regulation'. The event will take place this year on March 19-20, at the headquarters of the Bank of Italy in Rome. The aim of the conference is to bring together leading world scholars and policymakers in order to discuss topics related to financial stability, financial sector regulation and the use of macroprudential policies. Patrick Bolton (Columbia Business School and Imperial College), Christine Parlour (Berkeley Haas) and Hyun Song Shin (Bank for International Settlements) have kindly agreed to deliver the keynote lectures.

The call for papers is available here.

Workshop on: 'Human Capital'

(Rome, 20 March 2020)

The Bank of Italy is pleased to announce a one-day workshop on "Human Capital" to be held in March 20, 2020. The workshop aims at providing leading researchers in the field of education and human capital an opportunity to present their theoretical and empirical research. The keynote lecture will be given by Simon Burgess (University of Bristol). The scientific committee is composed by: Marco Bertoni (Padova University), Domenico Depalo (Bank of Italy), Maria De Paola (University of Calabria), Marta De Philippis (Bank of Italy), Michele Pellizzari (University of Geneve), Enrico Rettore (Trento University) and Daniela Vuri (Tor Vergata University). For any inquiry please send an email to human_capital@bancaditalia.it.

The call for papers is available here.

'Princeton/Warwick/Utah Political economy conference'

(Rome, 20-21 March 2020)

On 20-21 March, EIEF will host the annual Conference on Political Economy organized by the Department of Politics at Princeton University along with the Department of Economics at the University of Warwick and the Department of Finance at the University of Utah. The workshop builds on previous successful meetings held annually since 2013.

The programme is available here.

Seminars at the Bank of Italy

Seminars at EIEF

Research Highlights

Latest Working Papers

No. 1265: **Public credit guarantees and financial additionalities across SME risk classes** (February 2020)

Emanuele Ciani, Marco Gallo and Zeno Rotondi

In this paper we study the functioning of the Italian public guarantee fund ("*Fondo Centrale di Garanzia*", FCG) for small and medium enterprises (SMEs). Using an instrumental variable strategy, based on FCG eligibility, we investigate whether the guarantee generated additional loans and/or lower interest rates for SMEs. Unlike previous literature, by focusing on the lending activity of a single large Italian lender, we control for the probability of default as assessed by the bank's internal rating model, and we examine whether the effects of the guarantee differ across firms belonging to different classes of risk. We find that guaranteed firms receive an additional amount of credit equal to 7-8 percent of their total banking exposure. We also estimate a reduction of about 50 basis points in interest rates applied to term loans granted to guaranteed firms. The effects on credit availability are concentrated in the intermediate class of solvent firms, i.e. those that are neither too safe nor too risky. Conversely, interest rate effects are present in all classes, except for the least risky firms. Finally, we observe a stronger impact of the guarantee for solvent firms with a longer relationship with the bank, questioning the ability of very young firms to reduce financial frictions.
Full text (pdf)

No. 1264: **The impact of TLTRO2 on the Italian credit market: some econometric evidence** (February 2019)

Lucia Esposito and Davide Fantino

This paper evaluates the impact of the second series of Targeted Longer-Term Refinancing Operations (TLTRO2) on the amount of credit granted to non-financial private corporations and on the interest rates applied to loans in Italy, using data on credit transactions, bank and firm characteristics and a difference-in-differences approach. We find that TLTRO2 had a positive impact on the Italian credit market, encouraging medium-term lending to firms and reducing credit interest rates. While firms overall benefited from TLTRO2 irrespective of their risk category and size, we document heterogeneous treatment effects. Regarding firms' risk category, the effects on credit quantities are larger for low-risk firms while those on credit interest rate are larger for high-risk firms. Regarding firms' size, smaller firms benefited the most both in terms of amounts borrowed and interest rates. Furthermore, our evidence suggests that monetary policy transmission of TLTRO2 is stronger for banks with a low bad debt ratio in their balance sheets.
Full text (pdf)

No. 1263: **Rising protectionism and global value chains: quantifying the general equilibrium effects** (February 2019)

Rita Cappariello, Sebastián Franco-Bedoya and Gianmarco Ottaviano

Quantifying the effects of trade policy in the age of 'global value chains' (GVCs) requires an enhanced analytical framework that takes due account of the observed international input-output relations. However, the existing quantitative general equilibrium models generally assume that industry-level bilateral final and intermediate trade shares are identical, and that the allocation of imported inputs across sectors is the same as the allocation of domestic inputs. This means applying two proportionality assumptions, one at the border to split final goods and inputs, and another behind the border to allocate inputs across industries. In practice, neither assumption holds in the available input-output data sets. To overcome this limitation in the existing models, we consider a richer input-output structure across countries and sectors that we can match with the actual structure reported in the input-output tables. This allows us to investigate the relationship between the effects of changes in trade policies and GVCs. When we apply the enhanced quantitative general equilibrium model to the assessment of the effects of Brexit, we find trade and welfare losses that are substantially larger than those obtained by previous models. This is due to the close integration of UK-EU production networks and implies that denser GVCs amplify the adverse effects of protectionist trade policies.
Full text (pdf)

Latest Working Papers

No. 1262: **Capital inflows to emerging countries and their sensitivity to the global financial cycle**
(February 2019)

Ines Buono, Flavia Corneli and Enrica Di Stefano

We study how the effect of global and domestic factors on capital flows towards emerging economies has changed in the last 25 years. We find that both the global financial crisis and the so-called 'taper tantrum' event, when investors perceived the end of the US Federal Reserve's unconventional monetary policy, triggered changes in the sensitivity of capital inflows to their main drivers. In particular, we provide evidence that during the period between the global financial crisis and the taper tantrum, international investors devoted less attention to domestic factors. Nevertheless, the taper tantrum marked the beginning of a new phase, characterized by increased sensitivity to both global factors and domestic vulnerabilities.
Full text (pdf)

No. 1261: **The real effects of land use regulation: quasi-experimental evidence from a discontinuous policy variation** (February 2020)

Marco Fregoni, Marco Leonardi and Sauro Mocetti

We provide quasi-experimental evidence of the effects of a relaxation of land use constraints on local economic activity. We exploit the fact that in 1999 the central government imposed fiscal rules on municipal governments and in 2001 it relaxed them for municipalities with less than 5,000 inhabitants. First, we show that municipalities rely on the urbanization revenues that they collect from issuing building permits to avoid fiscal distress and to finance current expenditure. The rise of building permits is concentrated in the non-residential market and is stronger after 2003, when urban revenues were allowed to pay for municipalities' current expenditures. Second, we exploit this de facto reduction of firms' entry barriers to examine downstream effects. We find a positive impact on employment growth and firms' entry that is concentrated in non-tradable sectors.
Full text (pdf)

No. 1260: **Demand for safety, risky loans: A model of securitization**
(February 2020)

Anatoli Segura and Alfonso Villacorta

We build a competitive equilibrium model of securitization in the presence of demand for safety by some investors. Securitization allows to create safe assets by pooling idiosyncratic risks from loan originators, leading to higher aggregate loan issuance. Yet, the distribution of loan risks out of their originators creates a moral hazard problem. An increase in the demand for safety leads to a securitization boom and riskier originated loans. When demand for safety is high, welfare is Pareto higher than in an economy with no securitization despite the origination of riskier loans. Aggregate lending expansions driven by demand for safety may, paradoxically, lead to riskier loan issuance than expansions driven by standard credit supply shocks.
Full text (pdf)

No. 1259: **Energy costs and competitiveness in Europe**
(February 2020)

Ivan Faiella and Alessandro Mistretta

The worldwide upswing in energy prices recorded in the last decade has placed decarbonization strategies, and their potentially negative consequences for firms' costs and competitiveness, at the centre of the European policy debate. We evaluate the relevance of energy policies for competitiveness by augmenting the standard analysis, largely based on labour costs, with a Unit Energy Cost (UEC) indicator. We analyse how the UEC evolved in different countries and industries and we assess its main drivers (prices, energy intensity, sector composition). Modelling the relationship between foreign sales and the UEC in a gravity model setup, we find that an increase in UECs reduces bilateral exports; the largest negative effects are obtained when limiting the analysis to euro-area countries. Our results strengthen the case for pursuing further integration of European energy markets (as provided for in the Energy Union and Winter packages) to ensure that the ambitious long-term European decarbonization targets do not have a negative impact on the euro-area industry's ability to compete worldwide.
Full text (pdf)

Latest Working Papers

No. 1258: **Corporate leverage and monetary policy effectiveness in the Euro area** (December 2019)

Simone Auer, Marco Bernardini and Martina Cecioni

We analyze the relationship between the degree of indebtedness in manufacturing industries and the response of their economic activity to monetary policy shocks in the euro area. The financial accelerator mechanism suggests that, the higher the leverage, the more sensitive production is likely to be to a monetary impulse. However, according to recent theoretical studies, this relationship could be attenuated at high levels of indebtedness by more severe financial constraints. The paper provides empirical evidence of a non-linear relationship. For low leverage values, the relation is positive: more highly indebted industries adjust their production more markedly in response to a monetary policy shock. At sufficiently high levels of indebtedness, this relationship weakens to the point of changing sign. The attenuation is particularly evident in the short term and in the negative phases of the industrial production cycle.

Full text (pdf)

No. 1257: **Labour productivity and the wageless recovery** (December 2019)

Antonio M. Conti, Elisa Guglielminetti and Marianna Riggi

Since the Global Financial Crisis, the reaction of wages to changes in employment has been weaker than before. This paper proposes an explanation based on the change in the response of labour productivity (output per worker) to an increase in employment - from a mute reaction to a negative one - induced, in turn, by the more prolonged cyclical phase. A theoretical model suggests that the longer the cyclical phase, the fewer incentives firms have to change the intensive margin of labour instead of the number of employees (labour hoarding). Hence, the reaction of productivity to changes in demand, which is procyclical in the face of transitory shocks, becomes countercyclical when there are persistent shocks to demand, dampening the response of wages to employment. The empirical analysis validates the findings of the theoretical model.

Full text (pdf)

No. 1256: **Corporate default forecasting with machine learning** (December 2019)

Mirko Moscatelli, Simone Narizzano, Fabio Parlapiano and Gianluca Viggiano

This work compares the accuracy of statistical models usually employed to forecast corporate defaults, such as the logit regression, with a set of machine learning models, such as random forest and gradient boosted trees. Machine learning models provide substantial gains in forecasting accuracy, relative to statistical models. This advantage is substantial when only a limited information set is available, such as financial ratios or geo-sectoral information. Using a comparative static exercise, we evaluate the consequences of employing estimated probabilities of default on the allocation of credit. Results shows that machine learning credit ratings would imply lower credit losses for lenders and an increase in the overall supply of credit.

Full text (pdf)

No. 1255: **The loan cost advantage of public firms and financial market conditions:evidence from the European syndicated loan market** (December 2019)

Raffaele Gallo

Public firms generally obtain significantly lower borrowing costs compared to private companies because they have greater bargaining power and being listed is associated with greater transparency. This work verifies whether the loan cost advantages of public borrowers depend on financial market conditions. The analysis employs a sample of syndicated loans granted to European public and private companies between 2004 and 2016. The results show that the loan cost advantage of public borrowers declines after a rise in financial instability, measured by the VSTOXX index. The effect can be explained by the weakening in the bargaining power of public firms and in the information benefits of being listed on a market due to a worsening of financial market conditions.

Full text (pdf)

Latest Working Papers

No. 1254: **The effects of bank branch closures on credit relationships** (December 2019)

Iconio Garrì

The paper studies the impact of the closure of bank branches on existing credit relationships, using a sample of closures that took place between 2010 and 2014. The evolution of the credit relationship before and after the branch closure is compared with that of credit relationships with similar characteristics and regarding branches near to the closed ones.
A branch closure increases the probability of credit relationships terminating. The increase is greater as the distance from the other branches of the same bank increases, for less important// significant credit relationships and depending on how easy it is for the firm to move its account to another bank. Only in the case of small firms and of short-term loans does the higher probability of a relationship terminating lead to a decrease in the availability of total credit, moreover of a temporary nature.
Full text (pdf)

No. 1253: **Place-based Policy and Local TFP** (December 2019)

Giuseppe Albanese, Guido de Blasio and Andrea Locatelli

This paper estimates the impact of the European regional development fund (ERDF) on the growth of total factor productivity in the local labor markets (LLMs) of Southern Italy between 2007 and 2015. The use of LLMs as units of observation allows us to account for possible externalities (spillovers and agglomeration economies). While the effect of the European regional development fund on firms' productivity was nil on average, we find some heterogeneity between items of expenditure. Infrastructure spending (about half of the total) had a positive impact, while spending on firm subsidies (20 per cent) and on purchases of goods and services (30 per cent) did not. European spending was more effective in areas characterized by better institutional quality and a higher degree of urbanization.
Full text (pdf)

No. 1252: **The cost of steering in financial markets: evidence from the mortgage market** (December 2019)

Leonardo Gambacorta, Luigi Guiso, Paolo Emilio Mistrulli, Andrea Pozzi and Anton Tsoy

The paper investigates how banks affect the welfare of consumers when they provide advice to those who have to choose between a floating or fixed rate mortgage. Using a structural model estimated on Italian data, this study verifies whether banks' consultancy activities have a differentiated impact on customers that depends on their financial sophistication. The analysis shows that consultancy activities have a heterogeneous impact on consumers' welfare, depending on their level of financial sophistication. Although it may not always be oriented to the maximization of customers' benefits, banks can nonetheless provide useful information to less sophisticated customers, who are more exposed to the risk of taking bad financial decisions. For this type of customer, a financial education campaign that improved their financial competences, would lead to important welfare gains.
Full text (pdf)

Other recent Working Papers

October 2019 — November 2019

No. 1251: Non-standard monetary policy measures in the new normal
Anna Bartocci, Alessandro Notarpietro and Massimiliano Pisani

No. 1250: Debt maturity and firm performance: evidence from a quasi-natural experiment
Antonio Accetturo, Giulia Canzian, Michele Cascarano and Maria Lucia Stefani

No. 1249: Long-term unemployment and subsidies for permanent employment
Emanuele Ciani, Adele Grompone and Elisabetta Olivieri

No. 1248: Loss aversion in housing assessment among Italian homeowners
Andrea Lamorgese and Dario Pellegrino

No. 1247: IMF programs and stigma in Emerging Market Economies
Claudia Maurini

No. 1246: Financial development and growth in European regions
Paola Rossi and Diego Scalise

No. 1245: Credit supply, uncertainty and trust: the role of social capital
Maddalena Galardo, Maurizio Lozzi and Paolo Emilio Mistrulli

No. 1244: Shifting taxes from labour to consumption: the efficiency-equity trade-off
Nicola Curci and Marco Savegnago

No. 1243: Cross-country differences in the size of venture capital financing rounds. A machine learning approach
Marco Taboga

No. 1242: Financial conditions and 'growth at risk' in Italy
Piergiorgio Alessandri, Leonardo Del Vecchio and Arianna Miglietta

No. 1241: Fiscal devaluation and labour market frictions in a monetary union
Lorenzo Burlon, Alessandro Notarpietro and Massimiliano Pisani

No. 1240: Youth drain, entrepreneurship and innovation
Massimo Anelli, Gaetano Basso, Giuseppe Ippedico and Giovanni Peri

No. 1239: Bank credit, liquidity and firm-level investment: are recessions different?
Ines Buono and Sara Formai

No. 1238: What do almost 20 years of micro data and two crises say about the relationship between central bank and interbank market liquidity? Evidence from Italy
Massimiliano Affinito

No. 1237: A profit elasticity approach to measure banking competition in Italian credit markets
Michele Benvenuti and Silvia Del Prete

No. 1236: Forward-looking effective tax rates in the banking sector
Elena Pisano and Ernesto Zangari

No. 1235: The real effects of 'ndrangheta: firm-level evidence
Litterio Mirenda, Sauro Mocetti and Lucia Rizzica

No. 1234: Forecasting with instabilities: an application to DSGE Models with financial frictions
Roberta Cardani, Alessia Paccagnini and Stefania Villa

No. 1233 News and consumer card payments
Guerino Ardizzi, Simone Emiliozzi, Juri Marcucci and Libero Monteforte

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No. 545: **The climate risk for the finance in Italy** (February 2020)

Ivan Faiella and Danila Malvolti

The increasing attention paid to the possible consequences of climate change for the financial sector has strengthened international cooperation on green finance, with initiatives from both the industry and the institutions. International surveys show that so far there has been no adequate growth in awareness of the risks linked to climate change and the opportunities linked to the transition towards a low carbon economy. Evidence acquired on Climate-Related Financial Risk (CRFR) disclosure in Italy has confirmed the same conclusions. We have therefore identified three steps with the aim of encouraging financial institutions to take CRFR into account in their corporate risk management strategies: 1) create a information hub to gather the information required for assessing the CRFR; 2) compile a list of the information not yet available; 3) define standard methodologies that allow the climate scenarios to be part of the decision-making processes of financial institutions.
Full text (pdf)

No. 544: **Corruption red flags in public procurement: new evidence from Italian calls for tenders** (February 2020)

Francesco Decarolis and Cristina Giorgiantonio

This paper contributes to the analysis of quantitative indicators (i.e., red flags or screens) to detect corruption in public procurement. Expanding the set of commonly discussed indicators in the literature to new ones derived from the operating practices of police forces and the judiciary, this paper verifies the presence of these red flags in a sample of Italian awarding procedures for roadwork contracts in the period 2009-2015. Then, it validates the efficacy of the indicators through measures of direct corruption risks (judiciary cases and police investigations for corruption-related crimes) and indirect corruption risks (delays and cost overruns). From a policy perspective, our analysis shows that the most effective red flags in detecting corruption risks are those related to discretionary mechanisms for selecting private contractors (such as the most economically advantageous offer or negotiated procedures), compliance with the minimum time limit for the submission of tenders and subcontracting. Moreover, our analysis suggests that greater standardization in the call for tender documents can contribute to reducing corruption risks. From a methodological point of view, the paper highlights the relevance of prediction approaches based on machine learning methods (especially the random forests algorithm) for validating a large set of indicators.
Full text (pdf)

No. 543: **Online banking services and branch networks** (February 2020)

Amanda Carmignani, Marco Manile, Andrea Orame and Marcello Pagnini

Notwithstanding internet banking is now widely used by retail customers, little is known about its effect on the banking industry. In this paper we study how internet banking relates to branching policies in Italian local credit markets. Focusing on the period 2012-2015, we show that branch closures were more intense for those local markets and banks where the diffusion of digital banking services was higher.
Full text (pdf) in Italian only

No. 542: **An assessment of recent trend in market-based expected inflation in the euro area** (December 2019)

Marcello Pericoli

Break-even inflation, i.e. the inflation rate expected by a risk neutral investor, is composed of a pure expectation of inflation and an inflation risk premium, required by investors to hold assets whose value can be eroded by the price level growth. The work aims to compare the estimates of the two components of euro area break-even inflation obtained using alternative methodologies. The methodology used by the Bank of Italy, which uses the yields of nominal government bonds and those indexed to consumer prices, shows that the decline in break-even inflation observed since October 2019 is mainly

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attributable to the decrease in inflation expectations against a stable premium for risk; conversely, the methodology that uses inflation swaps attributes the decline in break-even inflation to the decrease in the risk premium.
Full text (pdf)

No. 541: **The effectiveness of the ECB's asset purchases at the lower bound** (December 2019)

Giuseppe Grande, Adriana Grasso and Gabriele Zinna

Term premiums in the euro area are at historically low levels and this may lead to think that there is no room for further decline. From a theoretical and empirical point of view, this study analyzes the extent to which the resumption of net purchases of government bonds by the Eurosystem could exert a new downward pressure on term premiums and long-term interest rates in the euro area when the short rate is at the effective lower bound (ELB). Theory suggests that, by extracting duration from the market, the central bank can reduce term premiums. However, at the ELB, duration is no longer sufficient to assess the impact of purchases. Empirically, we show that further purchases are less effective the more the shadow rate is below the ELB and the lower the volatility of long-term yields. Nevertheless, they are still effective. As the duration held by investors can be decreased, the analysis suggests that there is room to reduce yields.
Full text (pdf)

No. 540: **Why do banks close? The geography of branch pruning** (December 2019)

Paolo Emilio Mistrulli, Luca Antelmo, Maddalena Galardo, Iconio Garrì, Dario Pellegrino, Davide Revelli and Vito Savino

This paper investigates the drivers of bank branch closures since 2008. The main aim of the paper is to assess how the proximity of branches, both from the same bank and from competing banks, and the characteristics of the local market, have had an impact on how banks restructured their branch network.
The probability that a bank branch is closed down is higher for smaller branches, for those with a low activity per employee. It also increases in the proximity to other branches, competitors' included, and it is larger in areas where the presence of small firms is low, the broadband internet is more diffused and for those banks that have more accumulated ICT capital - which both facilitates the use of remote interaction with customers - and for larger banks and those intermediaries that are more oriented to wholesale funding.
Full text (pdf)

No. 539: **Female labour supply in Italy: the role of parental leave and child care policies** (December 2019)

Francesca Carta

The paper provides a descriptive analysis of the labour market condition of Italian women and of the main policies aimed at helping parents - and especially mothers - to achieve a satisfactory work -family balance. We focus on those policies more widely adopted in developed countries, i.e. the parental leave and child care systems, whose inadequacy is often cited as an explanation for the low female labour supply in Italy. We conclude by drawing some policy recommendations.
Based on the features of the existing public policies aimed at helping parents to reconcile work and family responsibilities and on the international empirical evidence, we conclude that there is scope to foster quality child care support to further improve female labour supply in Italy. Moreover, increasing the length of paternity leave, which is currently only five days, may help to rebalance the domestic workload between genders and overcome stereotypes.
Full text (pdf)

No. 538: **Public works in Italy: time to completion and its determinants** (December 2019)

Carla Carlucci, Cristina Giorgiantonio and Tommaso Orlando

This paper analyses the overall duration of public works projects in Italy, as well as that of the individual phases of their realization, using

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data from the Agency for Territorial Cohesion on projects undertaken under EU cohesion policies. Focusing on projects managed by municipalities in southern Italy, it also explores the relationships between time to completion and some characteristics of the administrative and institutional environment. More than 40 per cent of the total time to completion is devoted to the design phase. A significant contribution to overall duration comes from a set of 'ancillary activities' of an administrative nature. Time to completion is significantly associated with variables such as the characteristics of the workforce employed by local administrations and the composition of local political bodies. The type of procedure used for awarding the contracts, on the other hand, does not influence time to completion significantly.
Full text (pdf) in Italian only

No. 537: **Frontier and superstar firms in Italy** (December 2019)

Francesca Lotti and Enrico Sette

Using data from the universe of Italian corporations between 1995 and 2016 this paper identifies high productivity firms, known as 'frontier firms', and analyses their key characteristics, productivity dynamics, and their economic weight as measured by sales and employees. Frontier firms in Italy are characterized by a higher investment rate, profitability and capital intensity. We detect persistence in the status of frontier firms. In manufacturing, Italian firms are a long way from the global productivity frontier. Since the financial crisis, productivity in the service sector has started to lag behind with respect to the global.
Full text (pdf)

No. 536: **The 'Margin Call'. Export experience and firm entry into new export markets** (December 2019)

Matteo Bugamelli, Andrea Linarello and Roberta Serafini

This work studies the micro determinant of aggregate exports growth in Italy between 2000 and 2015 and characteristics affecting the probability that an already-exporting firm enters a new destination market.
During the period 2001-2015, the intensive margin (i.e. exports of products already sold to markets already served) and, to a lesser extent, net market entry (i.e. accessing new export markets with products already sold in other export markets) have been the main drivers of export growth. Firm-destination specific dimensions, such as the distance between the new market and the closest market already served by the firm and the contiguity between the two, play an important role in explaining the decision to enter new destination markets.
Full text (pdf)

No. 535: **Two tales of foreign investor outflows: Italy in 2011-2012 and 2018** (December 2019)

Valerio Della Corte and Stefano Federico

The work provides a descriptive analysis of two recent episodes of capital outflows from Italy: the first during the peak of the euro-area sovereign debt crisis in 2011-2012 and the second in connection with the tensions on the Italian bond market in 2018. The work also examines the portfolio choices of euro-area investors in the 2009-2018 period with the aim of assessing possible differences among holder sectors in times of financial stress. The 2018 episode differed substantially from that of 2011-2012: sales of Italian securities by foreign holders were more limited and Italian banks' net foreign borrowing increased. Extending the analysis to the euro area shows that during periods of severe turmoil on the sovereign market, all categories of foreign investors tend to reduce their exposure, unlike resident investors.
Full text (pdf)

No. 534: **A two-tier system for remunerating banks' excess liquidity in the euro area:aims and possible side effects** (December 2019)

Alessandro Secchi

The note analyses the functioning and possible side effects of the two-tier system of

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remuneration of banks' excess reserves adopted in September 2019 by the Governing Council of the ECB. This measure aims at reducing the possible risks of the negative interest rate policy for the lending channel of monetary transmission. The note also describes the first effects of the introduction of this new monetary tool. The calibration of the parameters of a two-tier system is a complex exercise aimed at preserving banks' ability to provide credit to the economy, while guaranteeing the smooth functioning of the money market. Its introduction has so far resulted in a more even distribution of liquidity across euro-area banks and countries and has taken place without any significant tensions in short-term interest rates. This suggests that no major cross-country fragmentations exist at this stage in euro-area money markets.

Full text (pdf)

Other recent Occasional Papers

June 2019 — July 2019

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Massimo Coletta and Raffaele Santioni

No. 532: Bad loan closure times in Italy
Emilia Bonaccorsi di Patti; Cristina Demma, Davide Dottori and Giacinto Micucci

No. 531: Modelling households' financial vulnerability with consumer credit and mortgage renegotiations
Carmela Aurora Attinà, Francesco Franceschi and Valentina Michelangeli

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Giovanni D'Alessio

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Francesco Vercelli

No. 525: Innovations in the governance of State-owned museums and management of cultural heritage: some evidence from a survey of the Bank of Italy
Luigi Leva, Vanessa Menicucci, Giacomo Roma and Daniele Ruggeri

No. 524: The management of the artistic and cultural heritage in Italy: international comparisons, territorial differences, problems and prospects
Enrico Beretta, Giovanna Firpo, Andrea Migliardi and Diego Scalise

No. 523: Business travels, multinational firms and international trade
Francesco Bripi

No. 522: How frequent a BEER? Assessing the impact of data frequency on real exchange rate misalignment estimation
Claire Giordano

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Alessio Ciarlone

No. 520: Capital and public investment in Italy: macroeconomic effects, measurement and regulatory weaknesses
Fabio Busetti, Cristina Giorgiantonio, Giorgio Ivaldi, Sauro Mocetti, Alessandro Notarpietro and Pietro Tommasino

No. 519: Italy's international trade in services: a story of missed growth?
Alessandro Moro and Enrico Tosti

No. 518: Wages and prices in the euro area: exploring the nexus
Antonio M. Conti and Andrea Nobili

No. 517: Development of a cyber threat intelligence apparatus in a central bank
Pasquale Digregorio and Boris Giannetto

No. 516: Anchored or de-anchored? That is the question
Francesco Corsello, Stefano Neri and Alex Tagliabracci

No. 515: Upwind sailors. Financial profile of innovative Italian firms during the double -dip recession
Daniele Pianeselli

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Notes on Financial Stability and Supervision

No. 18: **Bad loan recovery rates in 2018** (December 2019)

A.L. Fischetto, I. Guida, A. Rendina, G. Santini and M. Scotto di Carlo

This note updates to 2018 the estimated bad loan recovery rates already published for the period 2006-2017. Moreover, the note illustrates the results of the yearly survey on NPL sales, conducted by Bank of Italy starting from 2016. The data, together with some detailed breakdowns that are commented on but not reproduced in this text, are available in digital format.
The analysis reached the following main conclusions:

- In 2018 the overall amount of bad loan positions derecognized from the banks financial statements (hereinafter referred to as 'closed') rose further, reaching €78 billion (€43 billion in 2017, €17 billion in 2016). The increase is entirely attributable to sales on the market, which rose from 33 to 67 billion, while the bad loan positions that were closed using standard recovery procedures remained substantially stable at around €11 billion. Overall, the value of closed positions was higher than that of newly-classified bad loans (€19 billion), partly as a result of the reduction of the latter.
- Increases were recorded in the recovery rates of bad loan positions both for those sold on the market (from 26 to 30 per cent) and for those closed using standard recovery procedures (from 44 to 46 per cent); the gap in the recovery rates obtained through standard procedures and sales remained high. Despite the significant increase in the share of sales on the market (86 per cent of the total, compared with 76 per cent in 2017), the average recovery rate rose to 33 per cent (30 per cent in 2017).
- The average recovery rate for bad loans secured by collateral was 38 per cent, increasing for the positions that were sold (from 33 to 35 per cent) while falling for positions that were closed using standard recovery procedures (from 55 to 52 per cent).
- For the unsecured positions, the average recovery rate was 22 per cent. This rate rose for bad loans either sold to third parties (from 18 to 19 per cent) or closed using standard recovery procedures (from 31 to 36 per cent).
- The speed of disposal of bad loans grew significantly. The ratio of the value of bad loans closed each year to the stock outstanding at the start of the period, which in 2013 had reached a low of 6 per cent, rose to 50 per cent in 2018 (23 per cent in 2017).
- The price of the bad loans sold in 2018, calculated on the basis of the annual survey conducted from 2016 on a very large sample of transactions, increased to 23 per cent of the gross book value at the time of the sale (17 per cent in 2017). The price averaged 34 per cent for bad loans secured by collateral and 10 per cent for the others. It is worth recalling that part of the difference between the recovery rates and sale prices stems from the fact that recovery rates (which are higher) take account of the cash flows ('partial' recoveries) collected in the period prior to the closure of the position. Overall, the indications arising from this survey are in line with the results obtained through the Central Credit Register data, as described above.

Full text (pdf)

No. 17: **A note on the effects of residential property price growth on bank profitability** (December 2019)

Raffaele Gallo and Francesco Palazzo

We explore the relationship between the real estate cycle and profitability of European banks. From 2010 to 2018, the divergent real estate dynamics across European countries explain nearly one fourth of the profitability gap between banks established in countries with a sluggish real estate market and those located in the other countries.
As a counterfactual exercise, we estimate that the average ROE of Italian banks in 2010-18 would have been about 1.6 percentage points higher if real estate prices in Italy had grown on average at the same pace as the median European country. Finally, we find that banks established in countries that have been experiencing a sustained upswing in the real estate sector have not increased their capital position in response to the potential overheating of their domestic real estate sector.

Full text (pdf)

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Authors' names in boldface: Bank of Italy

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