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RESEARCH AT THE BANK OF ITALY
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NEWSLETTER

Contents

Highlights

2nd Annual Workshop of the ESCB Research Cluster 1 on Monetary Economics

(Rome, 11-12 October 2018)

On October 11-12 the second edition of the **Annual Workshop of the ESCB Research Cluster on Monetary Economics** took place at Banca d'Italia.

The workshop featured presentations of high-quality papers on a wide variety of topics focused largely on the determinants and effects of low interest rates; the impact of both conventional and unconventional monetary policy measures; the interaction between monetary, fiscal and macroprudential policies; the optimal design of monetary policy in environments characterized by uncertainty, heterogeneity, financial market imperfections or international spill-overs. Many contributions analysed these issues from an empirical perspective, using both macroeconomic and microeconomic data, while others adopted state-of-the-art theoretical approaches.

The workshop benefitted from the participation of two world-leading scholars on monetary economics, such as Mirko Wiederholt (Science Po) and Pierpaolo Benigno (LUISS University), who presented their work on households and firms' inflation expectations at the zero lower bound and on a central bank theory of price level determination, respectively.

The programme, papers and slides are available here.

StaTalk on New Challenges in Official Statistics

(Rome, 9 November 2018)

On 9 November 2018 the Bank of Italy hosted a **StaTalk on 'New Challenges in Official Statistics'**. The event was organized jointly with the y–SIS Group and was endorsed by the Italian Economic Association (SIE).

The meeting was part of a series of 'StaTalks': free, one-day workshops on statistical topics whose seminars feature introductory tutorials and more advanced research topics.

The workshop covered statistical topics, including big data, machine learning, record linkage, and how these new methodologies impact on official statistics. Presentations were held by researchers from the Bank of Italy, Istat, and academia. In the final roundtable there was a productive discussion on the impact of the use of

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big data, on their privacy implications, and the use of administrative data in official statistics.

The conference programme is available here.

Workshop on Post Crisis Financial Regulation: Experiences from the Two Sides of the Atlantic

(New York, 30 November 2018)

To celebrate 100 years since the opening of the Banca d'Italia US office, on 30 November 2018 the Federal Reserve Bank of New York and Banca d'Italia jointly organized a workshop in New York on "post-crisis financial regulation". The goal of the workshop was to discuss differences in regulation between the United States and Europe, to examine gaps in the current regulation and the challenges to be addressed, and to raise awareness on the unintended consequences of regulation. In her introductory speech, Banca d'Italia Deputy Governor Valeria Sannucci focused on progress made and future challenges for the post-crisis financial regulatory framework. The main sessions featured presentations on market liquidity, bank funding, and capital requirements The final session was a policy-oriented panel during which academics and policy makers agreed that the banking system is healthier after post-crisis reforms but also highlighted the remaining challenges in the areas of crisis resolution, macroprudential policies, regulation of non-banks, and the collection and sharing of prudential information .

The programme is available here.

Banca d'Italia-LTI Conference on Evolving landscapes of bank and non-bank finance

(Rome, 7 December 2018)

On 7 December 2018 the Bank of Italy hosted the conference **Evolving landscapes of bank and non-bank finance**, co-sponsored by and organized in collaboration with the think tank Long-Term Investors@UniTo (LTI@UniTO).

The conference brought together researchers and industry experts to share views on the evolution of bank and non-bank finance and its implications for the real economy. The first session was dedicated to selected aspects of corporate financing choices: the role of collateral in firms' liability structure and the views of institutional investors on firms' capital structure decisions. The second session focused on recent developments exerting pressure on the banking sector: negative monetary policy rates, bank executive compensation regulation and the competitive threat posed by fintech operators. In between the two academic sessions there was a panel discussion, the theme of which was the role of institutional investors in ensuring an adequate supply of financial resources to the real economy.

The programme, along with links to the papers and the opening remarks of the panel session, is available here.

8th EIEF-UNIBO-IGIER Bocconi Workshop on Industrial Organization

(Rome, 20-21 December 2018)

On 20-21 December, 2018, EIEF hosted the "**8th EIEF-UNIBO-IGIER Bocconi Workshop on Industrial Organization**", jointly organized with the Bologna Center for Law and Economics (BCLE - University of Bologna) and IGIER-Bocconi. The workshop's aim was to strengthen the relationship between Italian economists working in the field of industrial organization (IO), both in Italy and abroad. The programme consisted of a small number of papers so that ample time was left for discussion and informal interaction. Contributions to theoretical and empirical IO were equally represented.

The programme is available here.

Highlights

17th Workshop on Macroeconomic Dynamics: Theory and Applications

(Rome, 21 December 2018)

On 21st December, 2018 LUISS University hosted the **17th Workshop on "Macroeconomic Dynamics: Theory and Applications"**. The event was jointly organized by LUISS University, EIEF and the Bank of Italy. The workshop brought together economists doing frontier research on dynamic macroeconomics. Both theoretical and applied contributions were equally represented .

The programme is available here.

Forthcoming events

BoI/CEPR/IZA Annual Symposium in Labour Economics 2019

(Rome, 13-14 June 2019)

We invite you to submit a paper or express interest in attending the 2019 Banca d'Italia/CEPR/IZA Annual Symposium on Labour Economics hosted by Banca d'Italia in Rome. The event will start on Thursday morning (13 June) and end on Friday afternoon (14 June). The goal of the symposium is to bring together leading economists working in any area of labour economics. We ask participants to stay for the entire duration of the conference to foster the desired interaction. The keynote speakers are Magne Mogstad (University of Chicago) and Amanda Pallais (Harvard University).

Travel and accommodation expenses will be covered according to CEPR guidelines. Meals taken during the conference will be covered for all participants.

The deadline for submissions is 6pm (GMT), Friday 15 February 2019. We aim to notify successful applicants by early March 2019 .

For further information see the call for papers webpage.

SEMINARS AT THE BANK OF ITALY

SEMINARS AT EIEF

RESEARCH HIGHLIGHTS

Latest Working Papers

No. 1209: **The added value of more accurate predictions for school rankings** (January 2018)

Fritz Schiltz, Paolo Sestito, Tommaso Agasisti and Kristof De Witte

Schools rankings based upon their added value, i.e. the learning progress registered by their students, are subject to large estimation errors. The paper shows how those errors may be reduced, comparing strategies purely based upon the enlargement of the information set about the students' starting point with those using machine learning techniques. A real life application to Italian middle schools is presented.

Machine learning techniques parsimoniously boost estimates' precision, providing a low-cost and more reliable alternative to the widening of the control variables set. The rankings precision improves particularly for the two extremes of the distribution, where the interest of the policy maker is concentrated in order to identify either very strong or very weak schools (to be made object, through tools which may differ according to the institutional and policy environment, of specific attention and supervisory efforts).

Full text (pdf)

No. 1208: **The economic effects of big events: evidence from the great jubilee 2000 in Rome** (January 2018)

Raffaello Bronzini, Sauro Mocetti and Matteo Mongardini

The intense competition between countries or single cities to host large events is also motivated by the expectation of economic benefits, which are however difficult to identify. The paper examines the short and long-term effects of the 2000 Jubilee by comparing the dynamics of some economic indicators of the province of Rome with those of comparable provinces not affected by the event.

The Jubilee has had slightly positive but transitory effects on the added value per capita; the employment rate has increased significantly and persistently. These dynamics were associated with a sectorial shift towards less productive economic activities. House prices have slightly increased in the peripheral areas of the city while tourist flows have grown only in the year of the event.

Full text (pdf)

No. 1207: **Do the ECB's monetary policies benefit emerging market economies? A GVAR analysis on the crisis and post-crisis period** (January 2018)

Andrea Colabella

This work estimates the effects of the ECB's monetary policies on a number of economies outside the euro area. A Global Vectorial AutoRegressive (GVAR) estimation technique is used, along with a novel database, including 31 advanced and emerging economies. As a proxy for the ECB's monetary policy stance, the Wu and Xia's (2016) shadow rate is employed, which makes a non-linear approximation of interest rate term structure.

Estimates find that tightening of the ECB's monetary policy brings about a permanent reduction of GCP in all the economies under scrutiny, although at a different extent according to countries' characteristics. Short-term interest rates also rise, but such an increase is less marked than that of the GDP and more limited, spatially and over time.

Full text (pdf)

No. 1206: **Machine learning in the service of policy targeting: the case of public credit guarantees** (January 2018)

Monica Andini, Michela Boldrini, Emanuele Ciani, Guido de Blasio, Alessio D'Ignazio and Andrea Paladini

The assignment of public credit guarantees is usually based on creditworthiness only. However, many financially sound firms may not need such support. The paper compares, in the 2011-15 period, the criterion used by the Italian Guarantee Fund with an alternative benchmark that, using machine learning methods, takes into account the probability that a given firm is credit constrained as well.

The use of machine learning methods could strengthen the positive impact of the public guarantee on the amount of loans granted to credit constrained firms, without increasing firms' default rate.

Full text (pdf)

Latest Working Papers

No. 1205: **Benefits of gradualism or costs of inaction? Monetary policy in times of uncertainty** (January 2018)

Giuseppe Ferrero, Mario Pietrunti and Andrea Tiseno

In recent years, structural factors, along with those related to the financial cycle, may have induced a change in parameters that are crucial for monetary policy, such as the natural interest rate and the slope of the Phillips curve. In this paper, the effects of increased uncertainty on these two parameters on the conduct of monetary policy are investigated. Should a central bank pursue a more or less aggressive policy than the optimal one absent uncertainty?

The results confirm that a pragmatic approach in monetary policy decision-making is appropriate. A gradual and prudent recalibration of the expansionary stance allows to reduce macroeconomic volatility under significant uncertainty on the monetary policy transmission mechanism and when positive shocks hit the most volatile components of the consumer price index.

Full text (pdf)

No. 1204: **Recent trends in economic activity and TFP in Italy with a focus on embodied technical progress** (December 2018)

Alessandro Mistretta and Francesco Zollino

This work analyses the determinants of growth for the Italian economy since the mid-1990s, focusing on the role of total factor productivity (TFP), which is calculated considering the changes that occurred in the composition of both the labour input (as we control for the different levels of skill across the labour force) and the capital stock (as it is made up of different assets each exhibiting different degrees of embodied technical progress depending on the time of installation).

TFP is confirmed to be the greatest drag on growth for the Italian economy in the last twenty years. TFP developments have also been affected by trends in capital accumulation: during the recession, the fall in investments delayed the regular replacement of old capital assets with new ones, which embody a more advanced technology; this significantly contributed to sharpening the decline in productivity. In recent years, the ongoing recovery in capital accumulation has on the contrary been fuelled by the recovery in the technical efficiency of capital, thus fostering the growth potential of the whole production system.

Full text (pdf)

No. 1203: **Firms' inflation expectations and investment plans** (December 2018)

Adriana Grasso and Tiziano Ropele

In this paper we use the information from the Bank of Italy's Survey on Inflation and Growth Expectations to examine the link between Italian firms' inflation expectations and their investment plans. Higher expected inflation stimulates capital accumulation by reducing the cost of loans in real terms; however, the overall effect on investments is made uncertain, a priori, by the interactions that inflation expectations may have with firms' balance sheet positions (for example, in terms of liquidity and debt levels).

We find evidence of a positive and significant relationship between firms' inflation expectations and their propensity to invest. After controlling for borrowing cost, which is confirmed to be negatively correlated with firms' investment plans, our findings also indicate that the expansionary effect of higher expected inflation is greater for more liquid or more indebted firms.

Full text (pdf)

No. 1202: **Is ECB monetary policy more powerful in expansions?** (December 2018)

Martina Cecioni

The paper studies whether the effectiveness of ECB monetary policy varies with the business cycle in the euro area (that is during recessions and expansions). It estimates the effects of short-term interest rate changes linked to monetary policy announcements on the response of output and inflation between 1999 and 2017.

The estimates show that the effects of monetary policy on prices and wages are stronger during expansions than during recessions, while the effects on output are broadly similar. This result holds when the business cycle is measured by indicators of the degree of resource utilization, as opposed to those based on output growth. The evidence is consistent with the existence of downward nominal wage rigidities.

Full text (pdf)

Other recent Working Papers

September 2018 — November 2018

No. 1201: Contagion in the CoCos market? A case study of two stress events
Pierluigi Bologna, Arianna Miglietta and Anatoli Segura

No. 1200: The effectiveness of capital controls
Valerio Nispi Landi and Alessandro Schiavone

No. 1199: Bank capital constraints, lending supply and economic activity
Antonio M. Conti, Andrea Nobili and Federico M. Signoretti

No. 1198: Macroeconomics determinants of the correlation between stocks and bonds
Marcello Pericoli

No. 1197: Fiscal policy in the US: a new measure of uncertainty and its recent development
Alessio Anzuini and Luca Rossi

No. 1196: Sovereign debt maturity structure and its costs
Flavia Corneli

No. 1195: Immigrants, labor market dynamics and adjustment to shocks in the Euro Area
Gaetano Basso, Francesco D'Amuri and Giovanni Peri

No. 1194: Potential output and microeconomic heterogeneity
Davide Fantino

No. 1193: The effect of grants on university drop-out rates: evidence on the Italian case
Francesca Modena, Giulia Martina Tanzi and Enrico Rettore

No. 1192: Exchange rate pass-through into euro area inflation. An estimated structural model
Lorenzo Burlon, Alessandro Notarpietro and Massimiliano Pisani

No. 1191: Debt restructuring with multiple bank relationships
Angelo Baglioni, Luca Colombo and Paola Rossi

No. 1190: Granular sources of the Italian business cycle
Nicolò Gnocato and Concetta Rondinelli

No. 1189: Nearly exact Bayesian estimation of non-linear no-arbitrage term structure models
Marcello Pericoli and Marco Taboga

No. 1188: Raising aspirations and higher education: evidence from the UK's Widening Participation policy
Lucia Rizzica

No. 1187: Competition and the pass-through of unconventional monetary policy: evidence from TLTROs
Matteo Benetton and Davide Fantino

Latest Occasional Papers

No. 483: **Zombie firms in Italy: a critical assessment** (January 2018)

Giacomo Rodano and Enrico Sette

Several recent works have studied the performance of firms in economic distress ('zombies'), identifying them on the basis of profitability measured net of depreciation and amortization. While theoretically reasonable, this approach has significant methodological flaws and may produce misleading conclusions, especially when used for international comparisons. This work evaluates the seriousness of these shortcomings.

The key results show that, compared with an alternative based on profitability gross of depreciation and amortization, the measurement typically used in the recent literature on zombie firms: i) is less able to predict future firm performance; ii) identifies those firms that invested heavily in previous years as zombies; and iii) is strongly affected by cross-country differences in the tax treatment of amortization.

Full text (pdf)

No. 482: **The determinants of foreign tourism demand: separating elasticities for the extensive and the intensive margin** (January 2018)

Emanuele Breda and Giacomo Oddo

This paper estimates the elasticities of Italy's foreign tourism demand to relative prices, nominal and real exchange rates. By separating total tourism expenditure into the number of arrivals and per-capita expenditure, the effects of the explanatory variables can be divided into an extensive and an intensive margin. This disaggregation helps to clarify the reasons behind the mixed evidence found in the literature and offers a richer interpretation of elasticities.

The elasticities of tourism expenditure to relative prices and to nominal and real exchange rates are negative and range from -0.5 to -0.7, in line with previous results found in the literature. The effect on expenditure is channelled mainly via the extensive margin (i.e. the number of arrivals). Southern Italy shows higher price elasticities than the rest of the country, signalling a higher exposure to the competitive pressures from other Mediterranean destinations.

Full text (pdf)

No. 481: **The use of cash in Italy: evidence from the ECB Study on the Use of Cash by Households** (January 2018)

Giorgia Rocco

The study investigates the use of cash and other payment instruments at points of sale (POS) in Italy. Data from the Italian sample of the Study on the Use of Cash by Households (SUCH) survey, conducted by the ECB in 2016, were analysed to estimate the number and value of cash transactions at POS and to collect information on consumer behaviour in choosing payment instruments.

The results show that around 86 per cent of payments were made in cash, 13 per cent with cards and 1 per cent with other payment instruments. Cash was mainly used for low-value payments, whereas other instruments were used more frequently for higher value transactions. The significant use of cash is explained by the fact that only transactions at POS, where the value of payments is typically low, were recorded in the diaries.

Full text (pdf) in Italian only

No. 480: **An early warning system for less significant Italian banks** (January 2018)

Fabrizio Ferriani (coordinator), Wanda Cornacchia, Paolo Farroni, Eliana Ferrara, Francesco Guarino and Francesco Pisanti

The study presents a model for the early identification of crisis situations in less significant banks under the direct supervision of the Bank of Italy. To this end, the model allows us to estimate the probability of a bank defaulting over a time horizon of 4-6 quarters. The objective of the study is to expand the set of methodological tools suitable for anticipating the emergence of potential crisis situations in banking institutions. The proposed model is calibrated based on an extended definition of possible bank crises. The analysis, based on a statistical approach, shows that the variables with the greatest forecasting power are related to the main risk profiles of individual banks: capital adequacy, credit,

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profitability, governance and control systems, and liquidity. The model can correctly classify between 80 and 90 per cent of institutions .
Full text (pdf)

No. 479: **Outline of a redistribution-free debt redemption fund for the euro area** (January 2018)

Marika Cioffi, Pietro Rizza, Marzia Romanelli and Pietro Tommasino

The paper analyses the creation of a European Redemption Fund, which mutualizes a sizeable fraction of euro-area countries' national public debts. The authors discuss the potential benefits in terms of lower systemic risks in the Euro area and outline what the Fund should be like in order to avoid cross-country transfers and ensure a relevant debt reduction in the medium term.
The paper argues that, if each country transfers a sizeable share of debt to the fund, financial stability of the euro area could be enhanced. At the same time, a yearly contribution linked to the amount of transferred debt and national GDP could be designed in such a way to ensure a relevant lowering of the debt over the medium term with no ex-ante cross-country redistribution. Incentives to fiscal discipline at the margin would not be weakened.
Full text (pdf)

No. 478: **The evolution of the occupational structure in Italy in the last decade** (January 2018)

Gaetano Basso

This paper describes the evolution of the occupational structure in Italy in the last decade and analyses whether job opportunities have been polarized towards low- and high-qualified occupations. In many advanced countries the occupational share and relative wages of low- and high-qualified (and low-pay and high-pay) occupations have increased in the last decades, while those of middle-qualified occupations have decreased.
In the period 2007-2017, employment in Italy grew among the lowest qualified occupations and declined among middle qualified jobs. On the contrary, wages increased for all occupations at the same rate. Thus, no clear evidence supports the hypothesis that automation technologies, which substitute for routine-intensive labour while complementing manual and analytical labour, are the main determinant of the occupational changes observed.
Full text (pdf)

No. 477: **The euro-area output gap through the lens of a DSGE model** (January 2018)

Lorenzo Burlon and Paolo D'Imperio

The paper provides a measure of the euro-area output gap based on an off-the-shelf new-Keynesian macroeconomic model with nominal frictions (DSGE). In this class of model, the output gap is defined as the difference between the actual output level and the one that would arise in the presence of flexible wages and prices.
Unlike the measures of output gap obtained through statistical filtering techniques, the model-based estimates are remarkably stable over time and hence they are less prone to ex-post revisions. According to our results, the euro-area output gap in 2016 was more negative than assessed by most economic analysts and institutions, but was consistent with the weak dynamic observed for labour costs and core inflation
Full text (pdf)

No. 476: **Education, income and wealth: persistence across generations in Italy** (December 2018)

Luigi Cannari and Giovanni D'Alessio

The paper examines the intergenerational persistence of economic conditions in terms of education, income and wealth, and the importance of starting conditions in explaining success in Italy. Italy is found to be among the countries exhibiting high intergenerational persistence of economic conditions; moreover, it has displayed an upward trend in recent years. The correlation between the years of education of younger generations and that of their parents is also higher than in the past. However, education today plays a smaller part than in previous decades in explaining the economic conditions of individuals, while the role of the social and family context is increasing.
Full text (pdf) in Italian only

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No. 475: **International tourism in Italy: recent trends, potential demand and a comparison with the main European competitors** (December 2018)

Emanuele Breda, Rita Cappariello and Valentina Romano

This work analyses the pattern of foreign tourists' expenditure in Italy (exports of tourism services) and of Italy's market share, providing a comparison with the other main euro-area countries. Based on data from the Bank of Italy's Survey on International Tourism, the study also presents a structural analysis of international tourists' flows and of the dynamics of foreign tourists' expenditure in Italy and in its macro-areas, considering the evolution of "potential" demand for tourism services.

Between 2010 and 2017 Italy's exports of tourism services increased at a higher rate than in the pre-crisis period; they showed a pattern similar to that of Germany and France but less dynamic than that of Spain. Since 2010 Italy's exports of tourism services have risen almost in line with potential demand, albeit with different patterns across macro-areas: stronger in the South and the Islands – the only area where receipts have grown more than potential demand - and in the North-West and relatively weaker in the Centre and in the North-East.

Full text (pdf) in Italian only

No. 474: **Local waste taxes in Italy: benefit or (hidden) wealth taxation?** (December 2018)

Rita Cappariello, Milan Damjanović, Michele Mancini and Filippo Vergara Caffarelli

Waste management can be financed through user charges, in the form of fees related to the amount of waste produced. Such fees would lead to positive effects for local public finance as well as for the environment. In Italy waste management is instead financed through a local tax (Ta.ri.), which is essentially a wealth tax. The paper examines Ta.ri. both from an efficiency and from an equity point of view, by means of a simulation using the Bank of Italy survey on household income and wealth.

Our results indicate that Ta.ri. cannot discriminate among families according to the amount of waste they produce and that this tax weighs more heavily on poorer families. If waste taxation were redesigned so as to become more similar to a fee, tax payers would be encouraged to be more responsible in their use of resources, and the regressive impact of the current system of taxation would then disappear.

Full text (pdf)

No. 473: **Invoicing currency and exchange rate pass-through: evidence from firm level analysis of Italian firms** (December 2018)

Alessandro Borin, Andrea Linarello, Elena Mattevi and Giordano Zevi

The paper analyzes how the choice of the invoicing currency used in international transactions by the Italian companies (euro, dollar, other currencies) influences the transmission of exchange rates shocks to their price strategies and business activity. It finds that the decision of fixing prices in a particular currency is connected to a number of firms' features (for example, its size and productivity); it follows that companies react differently to shocks on exchange rates.

After an exchange rate shock, companies invoicing in euro tend to not adjusting the price of exported goods and those that invoice in the currency of the foreign market do so only marginally. It follows that in the first case the shock is transmitted almost entirely to the prices in the countries of destination, inducing strong variations in the quantities sold; in the latter there are reduced effects on export volumes but the unit margins (in euro) fluctuate significantly.

Full text (pdf) in Italian only

No. 472: **Working in the gig economy. Evidence from the Italian food delivery industry** (December 2018)

Cristina Giorgiantonio and Lucia Rizzica

We examine the gig economy phenomenon. Specifically, we provide: i) an overview of the current debate on how to regulate this sector in terms of contractual working arrangements; ii) a review of the existing empirical evidence concerning the extent of the phenomenon and its main characteristics, both in Italy and abroad; and

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iii) a case study on the workers employed in the food delivery industry in Italy.
The evidence we collected shows that, as of today, the gig economy is a rapidly growing phenomenon, although still of a limited size. The workers involved are typically young and highly educated and generally use labour platforms to integrate other sources of income, or as a secondary activity. Amongst the Italian workers in the food delivery industry (totalling about 8,000), for example, 20 per cent have another job and 50 per cent are students.
Full text (pdf) in Italian only

No. 471: **The Irish GDP in 2016. After the disaster comes a dilemma** (December 2018)

Roberto Tedeschi

The paper examines the disruption of statistics that occurred with the publication of Ireland's 2015 GDP at +26.3 per cent year on year. The figure was greeted by international disbelief. Ireland's statistical authorities reacted with the publication, for the main aggregates, of modified data in parallel with the official ones, which were much less affected by the bias on value added. The bias resulted from the relocation in Ireland of a huge amount of intellectual property capital.
The large size of intellectual property capital and of some international transactions on goods for processing by multinational enterprises can severely bias statistics. To fix the link between statistical representation and economic fact means to depart from the legal form to let the substance prevail, i.e. depart from the description given by business reports and administrative data. The answer should be the outcome of a discussion between statisticians, economists and institutions.
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Other recent Occasional Papers

September 2018 — November 2018

No. 470: Household wealth in Italy and in advanced countries
Stefano Manestra, Giovanna Messina and *Diego Caprara, Riccardo De Bonis and Luigi Infante*

No. 469: How sow is the recovery of loans to firms in Italy?
Ginette Eramo, Roberto Felici, Paolo Finaldi Russo and Federico M. Signoretti

No. 468: EU-UK global value chain trade and the indirect costs of Brexit
Rita Cappariello, Milan Damjanović, Michele Mancini and Filippo Vergara Caffarelli

No. 467: Response burden and data quality in business surveys: the experience of Banca d'Italia
Marco Bottone, Lucia Modugno and Andrea Neri

No. 466: Weakness in Italy's core inflation and the Phillips curve: the role of labour and financial indicators
Antonio M. Conti and Concetta Gigante

No. 465: What's behind firms' inflation forecasts?
Cristina Conflitti and Roberta Zizza

No. 464: The taxation of savings: the Italian system and international comparison
Nicola Branzoli, Giovanna Messina, Elena Pisano, Giacomo Ricotti and Ernesto Zangari

No. 463: Forecasting house prices in Italy
Simone Emiliozzi, Elisa Guglielminetti and Michele Loberto

No. 462: Italian regions in global value chains: an input-output approach
Chiara Bentivogli, Tommaso Ferraresi, Paola Monti, Renato Paniccià and Stefano Rosignoli

No. 461: The Italian "employment-rich" recovery: a closer look
Giulia Bovini and Eliana Viviano

No. 460: Labour market conditions and wage inflation in CEE economies
Simone Auer

No. 459: The recent evolution of unemployment benefits in Italy
Federico Giorgi

No. 458: A survey of systemic risk indicators
Antonio Di Cesare and Anna Rogantini Picco

No. 457: Natural catastrophes and bank lending: the case of flood risk in Italy
Ivan Faiella and Filippo Natoli

No. 456: House prices in local markets in Italy: dynamics, levels and the role of urban agglomerations
Luca Casolaro and Cristina Fabrizi

No. 455: The effect of the Eurosystem expanded Asset Purchase Programme on inflation expectations: evidence from the ECB Survey of Professional Forecasters
Guido Bulligan

No. 454: Italian cities: definitions, characteristics and growth
Andrea Lamorgese and Andrea Petrella

No. 453: The tourist tax in the Italian municipalities
Laura Conti, Elena Gennari, Fabio Quintiliani, Roberto Rassu and Elena Sceresini

Notes on Financial Stability and Supervision

No. 13: **Bad loan recovery rates in 2017** (December 2018)

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

This note updates to 2017 the estimated bad loan recovery rates already published for the period 2006-16. The data, together with some detailed breakdowns that are commented on but not reproduced in this text, are available in digital format. Moreover, for the first time the note illustrates the results of the Bank of Italy's surveys on NPL sales that began in 2016, whose findings are in line with what can be inferred from the Central Credit Register.

Our analysis reached the following main conclusions.

- In 2017 the overall amount of closed bad loan positions reached its highest level since 2006 (€43 billion, as against €17 billion in 2016), mainly owing to the increase in sales on the market. For the first time, this value was higher than that of newly classified bad loans, in part thanks to the gradual reduction of the latter.
- Increases were recorded in the recovery rate of bad loan positions sold on the market (from 23 to 26 per cent) and of those closed using standard recovery procedures (from 43 to 44 per cent). However, as a result of the significant increase in the share of sales on the market (76 per cent of the total, compared with 45 per cent in 2016), the average recovery rate came to 30 per cent, as against 34 per cent in 2016. If the proportion of positions sold on the market had been similar to that of 2016, the average recovery rate would have been 36 per cent.
- The average recovery rate for bad loans secured by collateral came to 39 per cent. For the positions sold the rate fell (from 37 to 33 per cent) while for positions closed using standard recovery procedures it rose (from 54 to 55 per cent).
- For the unsecured positions the average recovery rate was 21 per cent. This rose from 15 to 18 per cent for bad loans sold to third parties and declined slightly for positions closed using standard recovery procedures (from 32 to 31 per cent).
- The gradual increase in the speed of disposal of bad loans has continued. The ratio of the amount of bad loans closed each year to the stock outstanding at the beginning of the period, which in 2013 had reached a low of 6 per cent, came to 23 per cent in 2017 (as against 9 per cent in 2016). The amount of positions closed using standard recovery procedures exceeded €10 billion.
- The price of the bad loans sold in 2017, calculated based on the annual survey conducted starting in 2016 on a very large sample of operations, was equal to 17 per cent of the gross book value at the time of sale (15 per cent in 2016). The price averaged 26 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 the former (which are higher) take account of the cash flows ('partial' recoveries) collected in the period prior to the closure of the position.

Full text (pdf)

Selection of Journal articles and books

Authors' names in boldface: Bank of Italy

Full list since 1990

Forthcoming

Accetturo A., **V. Di Giacinto, G. Micucci** and **M. Pagnini**, "Geography, Productivity and Trade: does Selection Explain Why Some Locations are More Productive Than Others?", *Journal of Regional Science*. (WP No. 910)

Alessandri P. and H. Mumtaz, "Financial Regimes and Uncertainty Shocks", *Journal of Monetary Economics.*

Andini C. and **M. Andini**, "Social Capital and Growth: Causal Evidence from Italian Municipalities", *Journal of Economic Geography*.

Aprigliano V., **G. Ardizzi** and **L. Monteforte**, "Using the Payment System Data to Forecast the Economic Activity", *International Journal of Central Banking*. (WP No. 1098)

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