Giampio Bracchi, Umberto Filotto and Donato Masciandaro
(Edited by)

2016 REPORT ON THE ITALIAN FINANCIAL SYSTEM

THE ITALIAN BANKS: WHICH WILL BE THE "NEW NORMAL"?

Industrial, Institutional and Behavioural Economics

Contributors: B. Alemanni, P. Alessandrini, F. Arnaboldi, R. Ayadi, C. Bernardi, G. Boccuzzi, F. Bollazzi, M. Brogi, B. Bruno, A. Bucci, M. Caratelli, A. Carretta, D. Cucinelli, R. De Lisa, E. De Meo, A. De Nicola, M.L. Di Battista, L. Donato, V. Farina, L. Fattobene, G. Ferri, U. Filotto, M. Fratianni, A. Gervasoni, V. Lagasio, C. Lucarelli, G. Lusignani, M. Marchese, N. Marinelli, I. Marino, G. Mattarocci, P. Murro, L. Nieri, L. Papi, V. Pesic, M. Pini, Z. Rotondi, P. Schwizer, A. Scognamiglio, P. Uberti, C. Vasciaveo, A. Zazzaro, L. Zicchino

EDIBANK

This volume is in memory of
Franco Riolo who was the passionate creator
of the Report on the Italian Financial System

CONTENTS

INTRODUCTION. THE CHANGING FACE OF BANKING

Giampio Bracchi, Umberto Filotto and Donato Masciandaro

In the coming months the European Union will be characterized by four features: a fragile, prolonged and uneven recovery path for the real growth and employment, persistence of a strong monetary policy accommodation, a further implementation of the new supervisory architecture, and unfortunately a series of downside risks, triggered by structural trends – as migration – or historical event – as Brexit. In such as environment which will be the perspectives for the banks?

The 2016 Report on the Financial System investigates the key issues using the three different perspectives characterizing the approach that has been introduced from 2015: industrial, institutional and behavioural economics. The Report is organised as follows.

Part One offers updated and aggregate evaluations of the health state of the European and Italian banks and of the sustainability of their current business models. Then Part Two goes in depth in exploring crucial and controversial topics in the evolving state of the new and complex single supervisory architecture. Finally, Part Three presents the results that can be obtained applying the tools of behavioural economics to explore the relationships between banking, financial choices and the shape of the regulatory and supervisory setting.

As usual, it has to be mentioned that the views and the opinions expressed in the Report are those of the authors and do not necessarily represent those of the institution they are affiliated with.

The purpose of this introduction is to summarize the Chapters of the Report, emphasizing in particular the empirical analysis results.

1. BANKING INDUSTRY ECONOMICS

Banks' activity is strongly challenged by the macroeconomic, financial and regulatory environment emerging from the Global Financial Crisis (GFC). Anemic nominal and real growth, low interest rates, more stringent regulation on capital and liquidity, the need to decrease leverage for a number of banks, increased market scrutiny following the new rules on crisis management, have put in the recent years a strong pressure on the European banking system, opening the debate on the efficiency and sustainability of different bank business models (BBMS). In the early stages of the crisis, the banking system of countries, like Italy, in which the retail commercial bank model prevails, appeared to demonstrate greater resilience. However, in these same countries, with the severe downturn of their economic conditions, banks have subsequently revealed more critical areas.

Chapter One (De Meo, De Nicola, Lusignani and Zicchino) discusses if pre-crisis bank business models are sustainable, and introduces a new methodology to identify different business models and group European banks according to them. The chapter then analyses the relationships between business models and a set of bank performance indicators and how these links has changed over time. The authors obtain a series of interesting results.

Firstly, three different Bbms are identified – Retail, Investment and Diversified banks – and with novel methodologies each bank is assigned to its most likely business model to identify and evaluate the corresponding performance.

Second, given the abovementioned prior knowledge of individual banks' characteristics, the authors use supervised learning to classify banks in nine distinct Peer Groups (Pgs), based on criteria related to systemic relevance, operational complexity, business specialization and cross-border activity. At the European level, Non-Complex Retail Domestic banks represent the largest Pg, with banks mostly located in Italy and Portugal. The second most numerous Pg is the Complex Retail Domestic one, with banks mostly located in Italy and Germany.

Third, coming to the performance of different business strategies, the authors show that Retail banks were the best performers in the years preceding the Gfc. However, they had the worst return on assets at the peak of the Gfc in Europe, as higher government interest rate spreads determined lower credit demand, higher funding costs, higher capital requirements and lower profitability. Furthermore, retail banks experienced the most significant deterioration in credit quality, only partially offset by higher cost efficiency.

Moreover, retail banks that are operationally complex and international performed significantly better in the run-up of the Gfc. Also, and most importantly, Non-Complex Retail banks (both domestic and international), that is banks with less diversified sources of income and therefore mostly hit by the decline in credit demand and the deterioration in credit quality, had lower return of assets from 2011 to 2014.

Finally, the authors identify the relevant risk factors at the business model level. Economic growth, yield curve level and slope, and sovereign default risk are the main factors affecting bank profitability; among bank characteristics, size and credit quality are positive drivers of Retail banks return on assets, whereas exposure to financial markets, proxied by equity market returns, is a significant driver for Non-Retail (Investment and Diversified) banks. On top of that, at least for Non-Retail banks, there is some evidence that holding more capital is not harmful to bank profitability.

Our Reports of the last two years already investigated in depth a crucial indicator as the sharp decline in profitability of banks, showing it essential to rebalance costs and revenues and reconsider growth strategies. This is particularly true for the Italian banking system, which has experienced a long term fall in profitability since the early 1990's, producing a negative gap compared with other developed Euro Area countries. Even in the last three years, the generous Ecb refinancing schemes and the significant improvement in the Italian Government Bond market induced a rebound of profitability that was almost completely eroded by provisions for expected loan losses, due to the prolonged negative economic cycle. With these perspectives, the overall volatility of financial markets of the first half 2016 has hit European banks hard and Italian banks harder. Italian banks had come under intense pressure, losing more than 40% of their market value.

In this critical and evolutionary context, it becomes increasingly important assessing European and Italian Bbms and their profitability; two main questions must be answered: *i.* what drives profitability (in a low or negative interest rate environment such as the current one)? *ii.* are those profits sufficient and sustainable?

Chapter Two (Brogi and Lagasio) offers an additional contribution to the debate on Bbms and their profitability by slicing and dicing the profitability drivers of a sample of over 150 European banks, for a ten-year period, starting from the 30 banks which make up the Eurostoxx index. This enables us to use the market valuation of bank performance.

The most striking similarities in banks in the sample seem to be actually related to their Bbms; they have similar cost income ratios and are still all considerably dependent on interest income for their profitability.

Despite the progressive decrease in interest rates, sample banks managed to maintain their net interest income margin, while total operating income (inclusive of a more fluctuating non-interest income) dropped. However, operating cost containment enabled to maintain stable cost/income ratios. Lower profitability stemmed mainly from write-downs of loans. Size seems to be as significant as business model in explaining performance (measured both in terms of Roa and Roe). Moreover, based on this analysis, larger banks seem to be more profitable and at the same time present lower volatility in their results.

The starting point of Bbms analysis is the identification of the more profitable players which are then investigated to assess the key drivers for their profitability. However, the analysis does not lead to clearly identify a consistent set of best performers over the period. These findings need to be further investigated, but would suggest that structural reforms such as ring-fencing commercial banking activities would not necessarily lead to more stable banks but possibly to banks which could be easier to resolve.

A key issue for the present gradual economic recovery from the deep and protracted recession, is the availability of bank credit for valuable companies, and particularly for small well performing firms, that are commonly family owned.

In fact, Family Businesses (Fbs) represent the backbone of the productive system of Eu countries, and in particular of Italy. In this respect, in terms of percentage of total enterprises, the phenomenon looks quite important: in all the 19 Eu countries for which it is possible to build comparisons, the estimation on the presence of family businesses is at 2/3 or higher. In terms of individual countries, the index of the FBs reaches maximum values, above 90%, for Germany and Italy. Even more important is, however, the share of employees that belong to FBs in total employees. This comparison confirms and emphasizes the importance of family businesses in Italy, where FBs’ share would stand above 90%. Further, the FBs represent at least 60% of employees in the industry and services sectors. This would amount to a much bigger FB share in Italy than the 27% estimated in 2000 for the US.

Therefore, a crucial question is whether banks in Italy will be able to sustain FBs’ investments. In fact, Family Businesses are viewed with a degree of suspicion. Their family-based governance is often deemed to obstacle their ability to grow as well as to innovate and to export, in an economy where skill and capital are not deployed in the most innovative companies, and there are too many small, unproductive businesses that do not grow.

Chapter Three (Ferri, Murro and Pini), by using a detailed and freshly assembled database derived from an extensive survey to firms, test two crucial hypotheses: are banks less willing to lend to FBs? And: are the banks that use the transactional business model less able to lend to FBs?

The empirical analyses delivered nuanced results. Firstly, the data gathered suggest that in 2015 the phenomenon of credit rationing affected a significant 10% of the surveyed enterprises. At the same time, the authors found no evidence that rationing was systematically larger for FBs. However, closer inspection showed that family ownership does produce intensified credit rationing when the extent of relationship banking is weakened, *e.g.* when the set-up of banking relationships and/or the lending technology adopted by a firm’s main bank turn out inappropriate. Accordingly, for the FBs concentrating their banking relationships in one bank (two banks) credit rationing is significantly lower, whereas it is significantly higher at FBs diluting their relationships across two or more (three or more) banks. Also, credit rationing is lower for family owned firms whose main bank adopts a relationship lending technology, while it may be higher at the FBs whose main bank employs a transactional lending technology.

All in all, the empirical analyses suggest that a higher propensity to relationship banking appears essential to smooth out credit flows to family owned enterprises. Namely, the adoption of relationship lending technologies – identifying the propensity to relationship banking by a firm’s main bank – and the concentration of a firm’s relationships in at most two banks – pinpointing a firm’s propensity to engage in relationship banking – are key ingredients to spare heightened credit rationing for family owned enterprises. Nonetheless, it takes two to tango. While the demand for relationship banking by enterprises is under their own control, the supply of relationship banking by the banks rests with the banks. And the news on the latter is somewhat uncomfortable. In fact, given that more and more banks are moving from relationship to transactional lending technologies in order to cut their costs, and also following regulatory incentives, the obtained results suggest that FBs may be at risk of intensified credit rationing in the future. Should that scenario materialize, it would have strong policy implications. Some policy interventions like the deployment of public guarantees for lending to FBs might then be desirable to prevent suffocating the new investment cycle, that is so essential to consolidate the weak recovery of the Italian economy.

In addition, it could be added that our Report in the past years showed that small but performing companies, organized in districts or network agreements with common projects or services, have not generally experienced credit restrictions. Network agreements are a recent introduction in the Italian legal system, and this subject has raised a great deal of interest in the banking world too, which has investigated and it still investigating the possibility of giving a better rating to network members or to the network as an entity.

In and after the Gfc, an important part of capital in Italian banks is tied to non-performing loans (Npls), which on top of low rates are behind the low overall profitability of the system, as already highlighted in discussing the Report chapters. It has to be remarked that in Italy in middle 2016 doubtful Npl reached the gross level of 205 billion, of which 83 billion have not yet been written down (quadruple the 2008 level, 10% of total loans), and adding substandard, restructured and past due loans the gross level increases to over 350 billion (17% of total loans).

Bank's attempt to unload some of the Npls have largely flopped up to first half 2016, with the banks and potential investors – mainly private equity and vulture funds – far apart on valuations. Banks have collectively written down Npls to about 44% of their face value, but investors believe the true value is closer to 20%, implying an additional 40 billion Euro in write-downs. So, in turn, that will cause write-downs and open up new capital holes at the banks, raising the likelihood of additional capital calls. Hence, the level of capital, which seemed reasonable at the beginning of the Gfc, proved to be inadequate since 2011, and further injections of equity for an amount of over 50 billion already resulted necessary, under the pressure of the Ecb. The Italian government wants to inject state funds, but the amount required are important and such an injection is against the new Eu rules on state aid. Thus, the Italian government has activated a series of partial solutions since fall 2015, but with little success so far. The initiatives include incentives to encourage the creation of a Npls market, shorter bankruptcy procedures, government guarantees to offer liquidity support, new rules to push cooperative banks to merge and/or to go public, and a government orchestrated – but privately and mutually backed – 4 billion fund ("Atlante").

A number of studies have sought to explain the determinants of bank's weak asset quality and loan portfolio performance. It is well understood that a high level of Npls negatively affects banks' lending capacity, reduces their profitability and ability to raise new capital and, ultimately, threatens their stability. Even in the recent less severe period of the Gfc for the overall economy, total loans to corporate clients in Italy were reduced by over 1% per year, in spite of the massive injection of liquidity by the Ecb. At the same time, due to both pro-cyclicality of credit growth and anti-cyclicality of credit risk, in general those banks that during an economic downturn are more dynamic, *i.e.* lend more than the others, can expect to face a higher increase in Npls. However, the amount of risk results to differ significantly among banks in the same country facing the same macroeconomic conditions.

This evidence suggests that credit risk might not be driven exclusively by adverse macroeconomic conditions and an expansive credit policy, but that drivers might also to some extent include other bank-specific factors. According to bank management principles, differences between banks in credit risk levels depend mainly on the effectiveness of credit risk management, *i.e.* on the ability to screen and monitor borrowers more efficiently. Better credit allocation skills might allow some banks to sustain robust loan growth despite the economic downturn, without giving rise to an excessive level of risk.

In this direction, Chapter Four (Cucinelli, Di Battista, Marchese and Nieri) investigates the empirical relevance of bank-specific characteristics in determining the level of risk in bank loan portfolios. In particular, the authors analyze to what extent the amount of Npls is driven by the effectiveness of a bank’s risk management and its risk attitude, using a data set covering the period 2008-2014 for 177 banks from 14 European countries, accounting for about 63% of the European banking system’s total assets. The authors find significant evidence that the amount of Npls is higher for banks with a stronger risk attitude, but lower for those banks which, all else being equal, rely on an internal rating methodology which supervisory authorities have deemed sound and accurate and deserving of “validation”. Overall, the results confirm that more effective risk management helps to contain credit risk both during economic downturns and also when the bank had adopted an expansive lending policy in the previous years.

Reducing the excessive level of banks’ Npls has necessarily become a priority on the agenda of policymakers in Europe. The prolonged downturn has strongly contributed to the general deterioration of asset quality of European banks. Within the Euro Area, Npls are particularly elevated in Southern countries, notably Greece, Cyprus, Italy, and Portugal, with a total Npl to total asset ratio of more than 40% in the former two countries, and more than 15% in the latter two, that is nearly 10 times the level in the Us. Among publicly traded banks in the Eurozone, Italian lenders account for nearly half of total bad loans. Notwithstanding the large discrepancies across countries and across banks, bad loans remain a general problem for European banks, who compare unfavorably with Us banks.

Chapter Five (Bruno and Marino) explores the relationships between loan portfolio quality and lending in European banks in the period 2005-2014, and specifically after the onset of sovereign crisis in 2010.

The first results over the entire sample confirm that poor loan portfolio quality affects bank allocation strategies, leading to a lower loan growth rate and a lower total loans over total asset ratio. The most affected loan category is represented by residential mortgages. A higher Npl ratio is also associated with a greater amount of resources allocated to government bonds, which may suggest a flight to quality effect. During the Euro debt crisis, however, when sovereign risk has overall increased in European countries, the nexus between poor loan quality and government bonds turns negative for the whole sample and a substitution effect takes place, being government bonds replaced by residential mortgages.

Allowing for differences across regions in Europe, the chapter highlights that banks from distressed countries during the Euro debt crisis reduced loan growth rate and (to a lesser extent) the share of loans to total assets by more than banks from the whole sample. The impact is not equally distributed across loan categories, being the effect on residential mortgages strong and significantly positive.

The first five chapters of the Report have shown that today low interest rates have hit Italian banks especially hard because of their heavy focus on plain-vanilla lending activities, with relatively little in fee-generating activities such as asset management and investment banking. However, a financial activity that even in the GFC period continued demonstrating good profitability and contributed to improve the weak economic performance of Italian banks is wealth management, and particularly private banking. Private banking can be defined as the set of management services, administration and consultancy services for clients with dimensionally relevant assets.

However, despite this perimeter is substantially defined in literature, there is not today a universally recognized definition of private banking. In addition, it is necessary the definition of a business model, also concerning service and organization, which must be proper to the offer of the typical consulting support of private banking. It constitutes, in addition, object of debate the structure of a private banking institution, seen as an autonomous subject or incorporated in a bank group with management levers, as well as with a specific capital structure.

Considering such "criticalities" in the definition of the issues involved, Chapter Six (GERVASONI, BOLLAZZI and BUCCI) offers an innovative definition of private banking, applying it in the analysis of the Italian business model, and providing a comparison with the industry in some of the main countries geographically closer and relevant. The analysis allows to propose an indicator which can well represent and describe the overall trend of the sector of private banking, with specific reference to the Italian context.

2. INSTITUTIONAL ECONOMICS

The analysis of BBMS, that was illustrated in the first part of the Report, can contribute to a better understanding of financial and economic performance, risk behaviour, and governance at the banking system level, and constitutes an important tool for markets and regulators to assess the accumulation of risk for certain pre-defined financial businesses. It also serves to monitor banks' behaviours and their contribution to systemic risk, which can be useful from the regulatory and market discipline perspectives. From a regulatory perspective, it can allow early identification of the potential of regulatory arbitrage engaged by certain types of banks and hence their mitigation.

When a specific BBM tends to become a threat to systemic stability, macro-prudential regulators can act to prevent this threat, using appropriate mechanisms to curb excessive risk taking. From a market discipline perspective, analyzing business models requires more transparency from banks on their on-balance sheet and off-balance sheet risk exposures, especially when the multi-dimensional analyses prove to be insufficient to explain the behavioural change of individual banks within the same business model.

Banks may indulge in regulatory arbitrage to reduce the absorption of capital relative to their activities. Worries on this gained attention as evidence mounted of sizable dispersion in Risk Weighted Assets (RWAs) across otherwise similar banks. Regulatory arbitrage could jeopardize the effectiveness of regulation. Indeed, computing RWAs largely rests with individual bank regulatory accounting choices. If two otherwise equivalent banks in terms of risk profile report different RWA density, this may imply that one of the two found its way to underestimate risk and artificially reduce its capital requirements. Two issues emerge. First, fair treatment would be violated. Second, if arbitrage is widespread across banks in a country, that country will be prone to a higher systemic risk as compared to others. Unfortunately, though, little is known on the true size of regulatory arbitrage and its causes remain largely unexplored. The scant evidence descends from the fact that – in spite of the requirements of the third pillar of Basel II – availability of micro data is still largely lacking.

Chapter Seven (AYADI, FERRI and PESIC) has three main aims. First, the authors provide fresh evidence on different level of bank risk (measured by the distance to default) considering the possible specificities across business models of European banking. Secondly, those differences are explained via the adoption of IRB and RWA dispersion, which raises the suspicion of regulatory arbitrage to a different extent across BBMS. Third, the chapter shed light on whether and to what extent the degree of regulatory arbitrage varies across BBMS.

Economic recovery, though still very slow and uneven in the Euro Area, has been supported by several unconventional monetary measures enacted by the ECB, in addition to more conventional tools. The need to complement the more conventional policies stemmed from the fact that there was evidence of an impaired transmission mechanism, attributed to a rise in sovereign risk that, in the stressed countries, more than offset a reduction in policy rates. In order to ensure an adequate level of credit for the real economy, policy makers must consider and adequately forecast the effect of monetary policy actions that pass through banking intermediaries. Because of the need to comply with increasing capital requirements, introduced to enhance bank resilience and ensure financial stability, lending may have been less responsive to changes in the interest rate of the ECB and thus monetary policy may have had a weaker impact on general economic conditions.

The GFC brought the end of the liberalization myth and a return to a growing regulatory system with the expressed aim of reining in risk taking and restore stability in banking. A vast and complex regulatory system is bound to alter behaviour. The impact on the Italian banking system is an exemplar of the Euro Area's wider ills: the tension between rules made in Brussels and the exigencies of national politics, and the conflict between creditors and debtors.

Chapter Eight (ALESSANDRINI, FRATIANNI, PAPI and ZAZZARO) investigates how this new regulation will affect the structure of the banking system and, in particular, what asymmetric effects will emerge. Two come to mind.

The first asymmetry is on bank size. While stability comes with a cost, the working principle is that this cost should be distributed proportionately across different types and sizes of banking institutions. A uniform regulation may end up having asymmetric effects on different types and sizes of banks. This results from the fact that much of regulation is a fixed cost, which creates a proportionally higher burden on small banks than on large banks. Consequently, uniform regulation violates the principle of proportionality. Notwithstanding so the European Union, and Italy in particular, appear more concerned to achieve a massive consolidation process in banking with an attendant shift towards finance-based transactions. The chapter discusses if the policy against local banks' discrimination is supported by empirical evidence.

The second asymmetry of the new regulation is on regional areas. In less developed regions, banks face a higher proportion of riskier firms. Since these firms impose a higher consumption of bank capital, uniformly stricter capital-based rules are bound to amplify regional disparities. The chapter addresses the issue of whether local banks are as important for regional development as they had been in the past. On the basis of their analyses the authors cast doubts as to whether greater integration of European financial markets is best served by further bank consolidation.

Prudential regulation under the Banking Union seeks to influence the processes of risk-taking of financial institutions, through an increasing oversight on risk government and risk culture, in the belief that a sound, shared and effective risk culture is an essential tool for long term value creation and financial stability. The Comprehensive Assessment represented *de facto* the first opportunity for the comparison of the risk cultures of supervised banks and supervisors. The Basel Accord regulations for the banking sector define capital conservation rules, *i.e.* capital buffers, that can be used when losses are incurred. Policy makers and regulators have been long interested in the debate about the procyclical effect of the minimum capital requirements under the new regulatory framework (Basel III), whereas the empirical evidence on this topic is still scant.

The architecture of the Banking Union has been initially constructed on two pillars entrusted to different authorities: the Single Supervisory Mechanism (SSM), and the Single Resolution Mechanism (SRM) with the Single Bank Resolution Fund. Overall, the Banking Union has been strengthened with a considerable complexity of actors and procedures.

At the end of 2015, the package of new measures for resolution entered into force with highly innovative features, and they were immediately implemented in the case of four Italian banks in special administration, applying also the principle of "bailing in" creditors rather than billing the taxpayers. The application of those measures happened without a real clinical trial: in most countries bank bonds are held by big institutional investors, who know the risks and can afford the loss, but in Italy some 200 billion of banks bonds are held by retail investors, and this an enormous problem for bailing-in. There is no point in following rules to the letter, if doing so leads to create worst situations: to give the EU bail-in directive a greater chance of being implemented in future, it should probably be changed so that retail investors who already hold bank bonds are explicitly shielded.

Hence, it is now the right time to reflect by a far-reaching approach, that starts from a review of the new European system of resolution, also in comparison with the traditional Italian system of crisis management. In Chapter Nine (Donato, Rotondi and Scognamiglio) the analysis of the new system confirms the extreme complexity of the mechanism and the variety and impact of the available tools. The European directive organizes the articulation of public tasks for banking crises in three different phases: the ordinary course of business, the early intervention, and finally the situation of banks in distress or at risk of collapse; in the last one there are the conditions for resolution. In comparison with the traditional Italian system, the resolution architecture is characterized by a wide articulation of objectives to be achieved and of principles to be respected. The most controversial point appeared the bail-in, that has transferred the crisis risk from taxpayers to investors and big savers. In fact, the dismantling of the national protection network was not, in the meantime, balanced by the introduction of the planned European protection.

The chapter is focused on the resolution capacity of Italian banks. The empirical analysis is divided in two parts. First, by means of aggregate data the authors examine the capacity of the banking system, taken as a whole, to cope with potential resolutions with bail-inable liabilities, in the event of a systemic banking crisis. Second, by means of micro data the chapter develops an analysis of the drivers of bail-in contribution capacity of banks. The empirical analysis shows that lending-oriented banks feature a relatively lower bail-in contribution capacity. Moreover, resolution capacity increases with size, while income diversification is found neutral. On aggregate values, the authors find a contraction of resolution capacity of Italian banking system in recent years, similarly to what found for the European banking system. The overall results suggest that the new bail-in rules may imply a reassessment of the traditional retail business model towards greater income diversification, confirming the risk of penalising small businesses which are still the backbone of the Italian economy. As regards policy implications, the findings support, as the main option, the strategy of aggregations for strengthening the resolution capacity of the Italian banking system.

In June 2015 the Five Presidents Report proposed the launching of a European Deposit Insurance Scheme (Edis) as the third pillar of a fully-fledged Banking Union alongside bank supervision and resolution. As a further step, in October 2015 the Commission pledged to put forward a legislative proposal on Edis before the end of the year, with a view to creating a more European system disconnected from the sovereign, so that financial stability is enhanced and citizens can be certain that the safety of their deposits does not depend on their geographical location. Just one month later, the Commission presented its Edis proposal. This proposal is to be developed over time and gradually funded by domestic deposit guarantee schemes (Dgss). The Edis is expected to be fully funded by 2024, thus becoming the third pillar of the European Banking Union. Since its announcement, an extensive debate has started on the implications of the Edis proposal on potential risk mutualisation among Eu countries as well as on the operation of Dgss.

Chapter Ten (Boccuzzi and De Lisa) addresses the Edis debate and makes an analysis of the regulatory evolution of deposit insurance in Europe, in order to provide some contributions to the ongoing discussion and some policy suggestions.

First, given the current fragmentation of banking systems and the incomplete application of banks risks reduction measures, it could be appropriate to question whether the "full insurance" regime is the most convenient option. Perhaps "re-insurance"/"co-insurance", where the national DGSs share the deposit insurance responsibility with EDIS, might be better policy solutions to tackle moral hazard issues while keeping EDIS support. In this latter scenario, for example, national DGSs could be responsible for the first losses in minor crises, whilst EDIS could intervene as a European backstop in the presence of large shocks.

Second, the EDIS design of the reinsurance stage does not seem to be fully effective. During this phase, EDIS plays a minor role in supporting DGSs. The high level of resources to be used with priority by a DGS and the low degree of EDIS support mean that deposit insurance remains in substance a "domestic issue" and not a European one.

Third, there is a clear need to set up financial backstops or arrangements at EDIS level. In the absence of such a backstop, there is a risk that in a crisis, domestic authorities will have to support their banks, thus feeding the vicious circle of sovereign-bank risk and financial fragmentation.

During the GFC, Central Bank (CB) communication had a central role in influencing and orientating market expectations and thus economic outlook. Effective communication proved to be a key instrument: it increases CB's transparency, accountability and credibility, which in turn improve the ability to implement economic and monetary policy. Nowadays, CBs have a wide range of communication instruments to convey to the public relevant information, which varies from speeches, reports, statements, minutes and voting records and which have been found by empirical literature to impact on interest rate expectations. Despite the recent proliferation of studies on CB communication and transparency, there is no consensus on which are the 'optimal' level of transparency and the 'best' communication strategy. Given the functional and structural differences among the several CBs, to clarify this issue it is important to take into account the institutional environment in which the CB operates.

Chapter Eleven (CARRETTA, FARINA and FATTOBENE) investigates the CBs communication, focusing on the twitter social network. The authors examine the recipients, the topics and the weight in the network of the ECB and NCBs communications. In particular, a finding is that NCBs address their messages to international institutions, academics and researchers, newspapers and other media players which influence public opinion. The study of the content of the communication, conducted through the text analysis of their hashtags, reveals that banking supervision, inflation, Monetary Union and European economic integration, corporate governance and future scenarios are some of the most relevant areas of communication. Finally, the social network analysis visually shows the interactions among the different actors and their centrality in the interconnections, underpinning that ties are different in density and in nature.

3. BEHAVIOURAL ECONOMICS

While it has always been one of their main statutory tasks, after the financial crisis, investor protection has become one of the main concerns of regulators and legislators. In order to protect consumers from inappropriate choices while avoiding the introduction of prescriptive lists of allowed and banned products, a selective approach has been adopted in most countries. The governing principle of this approach is that only more experienced investors should be allowed to buy riskier products while the general public should be offered only safer and plain vanilla instruments.

Existing product governance regulation oblige both producers and distributors of financial products to declare clients' target groups they are willing to address with specific instruments. Academics but also practitioners have debated the appropriateness and effectiveness of these instruments as they often ignore behavioural biases.

Chapter Twelve (Alemanni and Uberti) contributes to this stream of research with a significant empirical investigation. Segmentation of investor groups involves identifying homogenous groups of customers who behave differently in respect to different financial instruments. Traditionally, the industry segmented individuals *en masse* on a relatively simplified basis: firstly, by defining three points of reference: amount of wealth, source of wealth and age of wealth. Secondly, within each commercial segment, individuals are clustered in terms of their supposed investment profile, measured in terms of financial knowledge, investment objective, risk tolerance and capacity. Both tiers of segmentation are under review because they fall short in the intent to create homogeneous groups of clients from a behavioural perspective.

The authors investigate more effective ways to deal with the definition of investment profile, or second tier segmentation. Using an extended sample, they relate investors' pension funds choices with their willingness to take risk recorded via a multi-variate psychographic questionnaire as investors risk taking attitudes differ upon several dimensions and loss aversion appears to be a major trait explaining risk capacity. The chapter's contributions are twofold: first, it adds to a small but dynamic literature investigating the interaction among different psychological traits and their impact on risk attitude; secondly, it provides useful and original insights for a behavioural segmentation of investors' profiles.

The findings in the chapter could be used by financial service companies to better implement product governance, to target their financial products to suitable investor segments and to market them more effectively. In general, questionnaires and fact-finds used by financial institutions and financial advisers need to ask questions which enable them to distinguish the customer's degree of loss aversion and well as their risk aversion. The results of this chapter indicate that this distinction is not an academic curiosity, but has real implications for individual investment behaviour.

Among the instruments which were recently introduced to strengthen the protection of consumers, easier, faster and cheaper redressing procedures have been identified as tools that have an immediate impact on specific complaints but that at the same time influence long term behaviours and strategies of financial intermediaries. Alternative Dispute Resolution (ADR) procedures represent the main solution adopted in developed economies in order to settle specific complaints that customers and financial intermediaries are not able to solve themselves.

Chapter Thirteen (FILOTTO, CARATELLI, MATTAROCCI and BERNARDI) analyses the Italian banking ADR known as the Arbitro Bancario Finanziario (hereinafter ABF) by the Bank of Italy. The ABF is a fast and very convenient solution for consumers: if the complaint falls within the ABF jurisdiction, it may be settled in a short time and at a negligible cost (20 Euro) especially when compared to the standard expenses of a legal procedure.

While motivated by the aim of cutting down the costs required to take legal actions (mainly for consumers), the regulator's choice to offer ABF access at a cost which is far below market could potentially represent an incentive for opportunistic behaviour; in fact appealing the ABF could be motivated by reasonable complaints not satisfied by the financial intermediary, but also by the customer's decision to appeal only because the track record of former decisions of the ABF favorable to consumers and not to banks.

After describing the main features of Italian ABF, the authors illustrate the functioning and procedures of the system. Using a proprietary database constructed considering all the appeals received by the ABF from January 2014 till December 2015 and collecting additional information from financial intermediaries who have joined the ADR system they develop a trend analysis to understand which are the most "popular" issues that are appealed and if ABF decisions have consequences in term of ex-post impact on behaviours of consumers and banks.

The results are absolutely clear: once a specific trend of ADR decisions is consolidated, the market – a definition which in this case entails clients but also consumer organizations, lawyers, as well as a variety of both non-profit and profit driven entities – will most likely concentrate upon issues which have already received a positive outcome from the ABF since the risk of finding the appeal rejected is extremely low. This fact causes on the one hand a distortion in the system as issues more frequently submitted to the ABF are not the ones that necessarily require attention but those with a higher chance of receiving a positive decision; on the other hand, this trend of the ABF will represent a market indicator that decision-makers will consider in their actions. As a matter of fact, the choice of settling a transaction and reaching an agreement could be affected by the threat of finding the original conditions changed by the ex post remedy enforced by the ABF. Also, the fact that the ABF's activity can be easily and significantly driven to focus on certain issues shows that it is vulnerable and subject to abuse; this is clearly harmful not only for the financial industry, but mainly for the market and for consumers which are deprived of the easy and convenient access to ADRS.

The previous study sheds some significant doubts on the ability of rules and regulations to protect consumers while at the same time preserving and enhancing the effectiveness of financial markets; if this is the case we should really be concerned about the real impact of laws in the real world.

In this perspective Chapter Fourteen (Filotto, Lucarelli and Marinelli) analyses debt decision making of individuals. As the soundness and sustainability of the personal and family financial situation is, and has for a long time, been considered a significant component part of social welfare, regulators in the Us, in the European Union and consequently in Italy, have addressed the issue of borrowing choices, with pervasive and detailed provisions.

The authors assume that the quantity and quality of information used in consumer credit markets – both demand and supply side – are able to influence some behavioural biases that may interfere with sound debt decision making. The combined effort of borrowers and lenders in exploiting “value” of information is assumed to enhance individual and social wellbeing. In this perspective, the authors apply a natural experiment, available in Italy, due to a reform of the consumer credit market. The Legislative Decree No. 141 of 13th August 2010 offers a cut-off date to test if enhanced information, requested by regulation as a key driver for the consumer credit market, is able to improve borrowing decision making.

The Chapter tests if this change of regulation has had an impact on consumer credit borrowers behaviour, on the basis of two main waves of transformation, related to the enhancement of information: on the one hand, the strengthening of pre-contractual information, and on the other hand, the introduction of a mandatory creditworthiness evaluation. Based on the existing literature, investigate if these regulatory changes have alleviated individual behavioural biases in favour of more widespread responsible borrowing. Understanding the efficacy of regulation to alleviate individual behavioural biases is considered a priority, in order to formulate policy measures addressed at providing competencies and tools that can help individuals to manage their resources appropriately and to take sound borrowing decisions.

The findings support that in the very short term, the law enforcement shows a reduction of bad behaviours toward loan requests, with a decrease of repetitions of loan requests when arguably induced by obstinacy behaviours. Moreover, in the medium term, the new consumer credit regulation has significantly improved customers’ repayment ability, enhancing the quality of credit distribution, with respect to the pre-law situation. Nonetheless, it has to be kept in mind that many pitfalls may interfere with the systematic and deterministic “better information-better behaviour” relationship. Missing this warning would imply the demolition of decades of behavioural studies that highlight the fragility of this link. Because of this the authors conclude that the undoubtedly positive results have been caused by the conjunct adaptation of behaviours on both the demand and offer sides of the consumer credit marketplace; improvement of behaviours is the very final outcome of an interactive process of information exchange, and also knowledge swap among borrowers and lenders, who undeniably share a common goal of improving their individual, but also common, well-being.

While the first three chapters of this Part analyze the different impacts of regulations, the final Chapter Fifteen (Arnaboldi, Carretta, Schwizer and Vasciaveo) is dedicated to culture and its implications. Despite it is widely acknowledged that "culture matters", as it is an essential force in shaping individual and group behaviour, the practical adoption of this holistic and sophisticated approach to firm governance still suffers from an objective difficulty in finding pragmatic guidance rules that can be implemented by bank top managers. When it comes to risk it is clear that moving from a formalistic approach to a substantial, wide, though complex, vision, highly increases the chances of avoiding a new financial crisis and to tune all the organization on strategic business objectives and corporate ethical values.

The authors investigate on this difficult but essential topic with the aim tackling the crucial issue of the low reliability of indicators. In the paper behavioural auditing models are applied in order to develop a new approach to the measurement and assessment of risk culture in financial institutions. Within the risk governance framework the internal auditing function has to systematically assess the risk culture of the institution, on behalf of the board and senior management, and demonstrate to supervisors that the institution is able to define its risk culture, document the material elements that support it and actively assess gaps and areas of concern to be addressed or enhanced. Internal auditors need to be comfortable in their understanding of risk culture, establishing a common risk language but, at the same time, keeping in mind that there is no one-size-fits-all solution to auditing culture. The institution's willingness to sufficiently document the elements supporting its risk culture should form part of the supervisor's overall assessment.

In cooperation with the Association of Italian Internal Auditors (Aiia), the authors conducted a survey addressing members of the association belonging to financial and banking institutions. The purpose of the survey was to evaluate the perception of internal audit representatives on key components of risk culture (Rc). The full extent of feedbacks collected through the survey support senior management's need to make further considerations on the adherence of a sound risk culture to "companies cultural practices".

In terms of robust Rc framework, even if some encouraging results have come up from the survey, a long path seems still to lie ahead in all four key areas identified by the Financial Stability Board. Furthermore, the development of such exercise would recommend opening the door to a more extensive use of the survey also across different company functions such as risk management, compliance, Hr functions and business. Such overview would provide the board with a deep insight of different company's perspectives and further hints on the prioritization of management's actions to steer across the company. This could significantly contribute to stability as cooperation between supervisors and auditors in the field of understanding and assessing risk culture of financial institutions can be considered a milestone to consolidate a stable Banking Union and to develop and enforce risk-conscious policies and practices in the banking industry.

In conclusion, in the 2016 Report the emphasis has been on the today most critical issues of profitability, low rates, Npls, sustainability of Bbms, complex and incomplete regulatory environment, consolidation, capital levels, bailing-in; however, it is necessary to always remember that in the next years the different BBMS will be widely and rapidly impacted by another factor, *i.e.* digital innovation. This will include rapid change in payments and the broader transformation in systems and services enabled by digital technologies. Banks have three to five years at most to become digitally proficient. Revenues and profits will migrate towards banks that successfully use digital technologies to automate processes, create new products, improve regulatory compliance, and disrupt key components of the value chain: many analyses suggest that digital laggards could see up to 35% of net profit eroded, while best performers may realize a profit upside of 40%. This is an additional and vital challenge for our banking system in the near future.

In the coming months the European Union will be characterized by four features: a fragile, prolonged and uneven recovery path for the real growth and employment, persistence of a strong monetary policy accommodation, a further implementation of the new supervisory architecture, and a series of downside risks, triggered by structural trends – as migration – or historical event – as Brexit. Which will be the perspectives for the Italian banks? The 2016 Report on the Italian Financial System investigates the key issues using three different perspectives: industrial, institutional and behavioural economics.

Part One offers updated and aggregate evaluations of the health state of the European and Italian banks and of the sustainability of their current business models. Part Two goes in depth in exploring crucial and controversial topics in the evolving state of the new and complex single supervisory architecture. Part Three presents the results that can be obtained applying the tools of behavioural economics to explore the relationships between banking, financial choices and the shape of the regulatory and supervisory setting.

In conclusion, in the 2016 Report the emphasis has been on the today most critical issues of profitability, low rates, NPLs, sustainability of business models, complex and incomplete regulatory environment, consolidation, capital levels, bailing-in. However, it is necessary to always remember that in the next years the different business models will be widely and rapidly impacted by the digital innovation. Banks have three to five years at most to become digitally proficient. Revenues and profits will migrate towards banks that successfully use digital technologies to automate processes, create new products, improve regulatory compliance, and disrupt key components of the value chain: many analyses suggest that digital laggards could see up to 35% of net profit eroded, while best performers may realize a profit upside of 40%. This is an additional and vital challenge for our banking system in the near future.

ISBN 978-88-449-1106-5

9 788844 911065

€ 35,00 200008840