Abstract. In the first part of this paper we realise a brief introduction of the changes and challenges that transformed the society and the banking sector, eight years after the beginning of the financial and economical crisis. In the first part we emphasize some of the most relevant trends and their role and impact in shaping the banking industry, post financial crisis. Digitalisation, regulations, customers are changing the banking business model, creating also new opportunities for banks. The second part of the paper presents the main pillars of a new and sustainable banking model, providing valuable insight into the latest topics and questions from the industry. The society changed due or via the technological wave, we insist on the strategic importance of choosing a balanced mix of ingredients when designing and implementing a new banking model, in a sustainable manner.

Keywords: banking model, digitalisation of financial services, credit deleveraging, NPLs, customer behaviour, regulations, Fintechs, communication systems.

JEL Classification: E51, F42, G01, G21, G23, G28, G38, M15.
I. Introduction

Eight years from the beginning of the economical and financial crisis, eight years full of changes and challenges, eight years full of integration and disintegration in building a new vision in banking and financial services.

The financial crisis made bankers/regulators reflect and try to act better considering: short term and long term approach and consequences; simplicity of customers’ needs and complexity/sophistication of banking and financial solutions/alternatives; mix of Human Capital and Technology; financial education that matters both for the staff of the banks and for the customers.

During those eight years a lot of efforts have been done for adaptation, adjustments in order to screen the new ingredients of a dynamic global society, in an interconnected world.

Trust remain the main challenge for a new but sustainable banking business model. Trust should be regained and consolidated.

The society as a whole is being transformed, so does the banking and financial industry. There are fundamental changes in the way the customers make payments, borrow money, design financial plans for their future, invest, make placement of their resources.

By learning and transferring into practice the lessons from the crisis, major changes can be performed.

Analysing the banking market, we may observe different business models, different types of banks, different interpretations and implementations of regulations (e.g. of Basel regulations).

We will reflect to the main trends, connected especially with the external world of a bank but also to several important pillars of a new banking model, connected especially with the organization of banking business, with the internal affairs of a bank.

We will explore the topics mainly from a European perspective.

II. New trends in banking and financial sector

The main outputs of the financial crisis represent in fact trends changing the banking business models: 1) the digitalisation agenda, 2) the regulatory change, 3) change in customer behaviour, 4) credit deleveraging, 5) the development of alternative funding channels.

We will refer to this diverse mix of trends that is reshaping the banking model in a structural manner.

A key point within the digitalisation agenda is the customer, that is experiencing different devices for day-today business, and is willing to do the same also for banking operations. Distance banking services, applications and platforms offered via mobile and other smart devices, digital bank branches, card less ATMs, smart Customer Relationship Management systems connected and interconnected with different platforms, providing also behavioural analysis of the customers, online credit applications and processing, are
included within this technological trend, having a strong impact on banking business. All the relevant processes within a bank are changed, with accent on speed, reliability, access to interconnected platforms, availability 24/7/365, security.

The relationship management activity of the banking clientele requires innovation, creativity but also clear procedures and support systems to analyse relevant information about customers, competitors, markets, as banking is mainly, an information business. The dynamics in customer relationship management determines organisational and technological developments and changes (Rajola, 2012).

On the transactional and operations side, banks may buy or develop strategic partnerships with technology companies. Payment systems, banking transactions and operations are the main beneficiaries of digitalisation, determining reduction of costs and increase in transparency and tracking of data. Via cooperation, banks may develop and operate a common technological infrastructure where every participating bank may develop additional services, in order to define competitive advantages and to deliver financial solutions to the customers.

Mobility of the customers, the need to work and travel outside of their home countries, the global migration tendencies determines changes in payments and operations systems of the banks. Manuel Orozco (2013) reflected in his study on migration and remittances the existence of common patterns in behavior of the migrants. Regulations, economical developments within specific regions, dynamics in the home countries of the migrants are influencing as well the money transfer solutions, involving directly or indirectly the banking systems. Banks may plan strategically to benefit but also to support, via financial services, those migration trends, as remittances are representing important flows of capital. Another aspect to be considered is the average length of time, ranging from one to seven years during which migrants remit money, varying on the specific areas where they are working and sending money (Orozco, 2013).

Another significant trend is the regulatory frame, that involves a wide range of new regulations, starting in 2009, after the G20 meeting. From compliance, risk management, Know Your Customer to capital reserves of the banks, the regulatory trend implies deep reorganisation of the banking business: e.g. Solvency II, the resolution mechanisms introduced by the Bank Recovery and Resolution Directive (BRRD), Single Supervisory Mechanism (SSM), Single Resolution Mechanism (SRM), Capital Requirements Directive IV (CRD IV) and Capital Requirements Regulation (CRR), Minimum Requirement for own-funds and Eligible Liabilities (MREL). The reporting performed by the banks should be done quicker and is more complex. The organisation of bank’s activity suffered changes, revealing a shift from sales/commercial towards compliance and risk. The changes are reflected differently for large, systemic banks and for small banks. In accordance with industry representatives, regulations trying to adjust "to big to fail" may induce "to small to survive". Throughout the world, the pressure to conserve capital to meet new regulatory requirements caused the structural changes of banking business models. For example universal banks abandon certain territories, asset classes and markets and design a new business model.
The trend that determines in fact the transformation of the banking industry is based on promoting innovation and access to new products and services. Security, data protection and high levels of customer protection are also parts of the new regulations frame. One frequent topic related to the regulations frame for banks and for non-bank competitors (e.g. financial technological companies called Fintechs), is represented by the condition to assure the same rules for the same service, for all players in the financial markets.

Regarding the trend represented by the change in customer behaviour, relevant consequences are increasing importance of customer satisfaction, the availability of financial services, the competition from other non-bank institutions. Customer satisfaction in banking should be considered more than a simple marketing policy, the bonuses of the staff being linked directly with customer satisfaction indexes, not with the amount of money that the bankers are „selling” via banking products and services. Relevant instruments and techniques from other sciences, such as psychology, sociology, economics are used more and more in banking industry. Behavioural analysis of the customers provides in-depth knowledge to support cooperation between the bank and the customer.

Blythe and Megicks (2010) analysed the complexity of the planning process regarding the customers and the importance to consider all sets of actions, reactions for a given set of circumstances, trends in order to converge with the customer expectations and to capitalise on them.

The information systems about the customer profile, the behaviour of the customer and the motives that drives the customer to make deposits, to invest money, to contract a mortgage loan in order to buy a house are relevant for the strategies of the banks, emphasizing that the customer took the lead in driving changes.

The dynamic global environment offers complex and difficult choices, especially when considering financial planning and financial resources, both for individuals and companies. Change in customer behaviour reflected the deviations of the customers from the standard models but also the limits of those models and the need to take also into consideration relevant emotional and social factors.

The deleveraging trend (identifying assets to hold, restructure or sell) is determined by banks that have been lowering their high pre-crisis leverage levels and are preparing for stricter regulatory capital requirements. Studies\(^1\) on the deleveraging trend reflect basically three ways in which banks can deleverage: by raising capital, by reducing (risk – weighted assets), or restricting lending. The regulatory changes in Europe focus on the high levels\(^2\) of Non-Performing Loans (NPL’s) in the European Banking system. There are concerns that Non-Performing Loans keeps down credit growth, keeps down investors appetite for business perceiving non-realistic estimations, affects bank profitability and reduces overall economic recovery. At the global level, in 2014, Eurozone included the highest percent of NPL’s, as reflected within the following graph. At the European level, a strong activity of selling portfolios of loans started in 2014 (as Eurozone had the highest percent of NPLs, around 9%) and increased significantly in 2015 (almost doubled) and 2016. UK, Italy, Ireland and Spain dominates the transactions\(^3\) with NPL’s.
New pillars of the banking business model or a new model of doing banking?

International NPL’s ratios (data at the end of 2014)

The trend represented by the development of alternative funding channels was generated by the shrinking of banking sector activity and the opportunity that new forms to take over the financial needs of the society. Relevant factors that favour this trend are related to the increased pressure from regulators, asking for more capital and inducing higher costs to comply, but also to the efforts to regain back the confidence from customers. Another driver for alternative providers of services is technology, that is changing the transactional banking and relationship banking models. Innovation is also favouring the development of alternative funding channels, new solutions such as Peer to Peer lending platforms, payments ecosystem, automated investment advice, crowdfunding models registering significant progress.

According to Andrew Haldane\(^4\) of the Bank of England, Peer-to-Peer lending activity (e.g. equity crowdfunding, invoice trading, Peer to Peer consumer lending, Peer to Peer business lending, others) that was above 1 billion GBP in 2012 increased up to 3 billion GBP in 2014, as per the data at the end of 2014. This trend may contribute to increasing availability and convenience of finance, as well as reducing intermediation costs. As Haldane presented, the unit cost of US financial intermediation seems to be unchanged over a century, income from finance simply rises and falls with the value of assets, suggesting a huge amount of rent-extraction. Technology and innovation might contribute to reduce the costs but also transform the quality of lending, using “big data” support within the bank analysis processes.

Competition and cooperation are driving the alternative funding channels development. Non-bank and non-traditional actors, start-up technology companies, giant global companies (e.g. Apple, Google) are competing and/or cooperating with the banking sector. New developments (e.g. Bitcoin), e-commerce solutions (e.g. PayPal), induce a mix of threats and opportunities to the banking industry.

Global banking strategies have considered economies of scale and the combination of retail, investment and overseas banking as key drivers for their banking models. Technologies based on the principle of decentralization and block-chains and competition from other counterparties put pressure on banks to redesign their business models. Banks are
developing cooperation with Technological Laboratories, Business Accelerators, are creating venture capital funds in order to benefit of innovation and technological progress. From the Fintech companies, banks may expect competition but also cooperation.

The development of alternative funding channels may support financing different segments of banking clientele, such as Small and Medium Enterprises (SMEs). SMEs that typically do not get funding from banks, due to their specificities, may get funding from Fintechs. In some countries from the euro area, smaller firms find access to bank credit more restrictive than pre-crisis\(^5\). Considering the above mentioned innovative financing solutions, Fintechs may also contribute to making SMEs shares more tradable, developing the capital markets as well.

From a historical perspective, European financial system is “banco centric”. The structure and business culture of European societies are based on banking sectors. Post crisis evolutions, including the development of alternative funding channels, new forms of equity participation, new non-bank actors, new co-financing solutions, enable the system to change and become more sustainable.

### III. Pillars for a new banking business model

The main trends in banking and financial sector, derived from the external world of a bank, are influencing significantly the bank’s activity. We will also present several pillars, from the internal organisation of the bank, that could shape a new and sustainable banking model: a) **Personnel – Human Capital**; b) **ITC infrastructures**; c) **Internal procedures and work-flows**; d) **Communication policy and protocols**. The integration of these pillars within the activity of the bank based on a long term forward looking approach will enable further synergies for the banking business.

a) **Personnel – Human Capital**

The personnel of the bank should manage both traditional relationships and digital relationships with the customers.

The interaction between Human Capital and technology is changing considerably the way of doing banking. The engineering of a new banking model takes into consideration to mix, in a balanced manner, people, competencies, new functions, applications, technologies, blended platforms. Designing the right profiles and selecting the right people represent relevant aspects for a new a sustainable banking model. Banks are competing on talents with other industries that are developing very fast. A key point within a new banking business model are the clients: internal clients of a bank- the personnel and external clients of a bank – the customers.

Banks should transform the personnel into valuable assets, in order to create really meaning full relationships with customers. People that are working in a bank personalise the relationships with the customers, contribute to rebuilding trust. The answer to the question: “What is the value of creating openness via communication, technology, if we do not trust each other?” is not simple.
Within the new banking model, it is relevant that banks to struggle, do the research and answer to questions such as: “what are the real issues customers cares about?”. Due to the technological developments, staff of the banks see their customer less.

Inside the banks, the functional shift from controlling to collaborating will add value to the relationships between departments and people.

More and more banks are using hybrid models, both human advice and Robo advice, in accordance with the preference of the customer. Although the principal benefit of digitalization is cost, we believe that the real driver for a bank is human capital, “trained and transformed”, adapted to the new realities and prepared to serve and to build, in a creative and sustainable fashion, long term traditional and digital relationships with the customers.

b) ITC infrastructures

Banks have always used ITC infrastructures and systems to gather data from the customers, to analyse data and report, to provide services to customers, to make payments, to send encrypted messages, to process financial transactions.

Digitalisation, electronification of financial services are moving very fast, shaping the banking industry. Another strong component linked with the banking activity is the risk component, strong evolutions are especially on the cyber risks. Banks must develop risk management policies and tools, including the IT risk management framework, IT disaster recovery and business continuity planning, IT change management.

Among the key elements that contribute to a structural change in ITC infrastructures of the banks are: speed, security, availability and cost. Most of the world’s top 100 banks have been involved in pilot projects to implement new technologies, in order to secure communication, provide faster payments to the customers, use data mining in order to increase the quality of banking analysis.

The new ITC architecture involves deep changes for all the major activities within a bank, allowing knowledge to be distributed to all levels of the organization. The quality of the cooperation and the quality of the “translations” between the business/commercial, where the interaction with the customer is reflected and the support/the back office, where the data is processed represent a milestone for the new banking model. Answers to questions such as: what is the level of personnel necessary for the IT functions of a bank? or what can be externalized? gives valuable input for a new banking model that is willing to use technology in order to add value to the work of the people and to the customers.

Due to the low interest rates, banks should switch from incomes mainly from interests to incomes mainly from fees and this drives new changes for the business model, add additional services that need to be supported by the ITC systems.

The ITC architecture should be redesigned in order to insure integrity of data, to identify what are the assets that really matters, to ring fence them and protect them. The ITC infrastructure needs to be modular, to make sure that further developments, new platforms will be supported in this changing environment.
For example, in retail banking, a decade ago, a key word was prevention; nowadays in retail, a strategic aspect are recovery plans (e.g. “2h recovery plans”), resilience to cyber attacks; the entire banking organization should be built resilient.

A new and sustainable banking business model, considering all this developments, should separate customer data from all the production systems and all the communication systems. Regarding the contact/interaction with the customers, partners, the bank must sell all the products and services via all the possible channels.

c) Internal procedures and work-flows
Due to the external trends presented above, such as digitalisation, deep change in regulatory frame, change in customer behaviour, credit deleveraging, development of alternative funding channels, banks faced a huge amount of work after the financial crisis but also a huge amount of challenges. All the major banking models were affected by the crisis and changed by the post crisis new situations and trends: retail banking, corporate banking, investment banking(6), private banking/wealth management.

The concern for reshaping internal activities in a bank involves new procedures and work-flows: for credit analysis, risk management, sales of banking products and services, payments systems of a bank, consultancy and advice to the customers (offered by bankers or by Robo-advisors), processing of financial transactions, Know Your Customer procedures etc.

Top aspects that need a special attention from the banking side, being part of the new banking model are: transition planning, better access to better data, quick operational programs to disburse resources, better tools to gather and filter information, customer due diligence. Banks should also share information about threats and should test the collective approach of a continuity plan.

The procedures and work-flows within a new and sustainable banking business model should define clear roles and responsibilities, flexible interdepartmental teams to address border line issues and to avoid building silo cultures, top-down responsibility and quick reaction/decision making processes. Within the business continuity plans, banks should include and sign protocols with strategic partners, in order to insure support in crisis situations. Banks may outsource some business functions but may not outsource the risks.

d) Communication policy and protocols
Communication in banking represents a strategic management tool, a critical one, it is no longer just a part of the marketing policy mix. A new banking business model should handle and insure a successful transition from traditional communication functions to real time communication via computers, other electronic systems, devices, techniques, that have changed everything in society, both banking and human relationships.

Banks benefit of large quantities of information and data, the concern is how to organise and use the data, making sure to communicate all the relevant actions to the customers and to capture their imagination.

Communication policy must be based on unity of command and coordination of all communication efforts.
A new communication strategy determines a reengineering for the entire banking organisation. The communication protocols include support and management of multiple systems: product driven system, distribution and channel system and the customer driven system.

Banks communicate with all the relevant stakeholders (authorities, regulators, customers, institutional partners and investors) and benefit, via technology of a continuous dialogue with the counterparties. Communication within the new banking business changes, instead of talking at the customers the banks should listen to the customers, earn the attention of the customers.

The crisis showed that it is far better for banks to initiate the „conversation” than to pick it up on halfway through. Social media, social connected networks have given customers an influential tool to share information, to put pressure on banks in order to provide quality services.

The new banking business model should include crisis communication scenarios, to consider and test various variables, as catalysts for a crisis. Basically, all the alternative planning activities of a bank, business continuity activities must include also communication alternative scenarios, policies and protocols to enable a consistent and coherent reaction of a bank when a crisis situation occurs.

Conclusions

The academic discussion over the banking sector business model is old and complex, but always generator for progress.

Relevant trends, such as digitalisation, change in regulations and customer behaviour, credit deleveraging, development of alternative funding channels, impacted the banking sector and the existing banking models: the need to integrate technology and to develop strategic digital relationships with the customers, the need to almost double the banks equity capital since the crisis, the need to adjust standard economical models with behavioural analysis and to consider the client as the main driver for change in banking, the restructure of bank’s balance sheets by lowering the leverage levels, the need to redesign banking activity, to cut costs and to compete or cooperate with Fintechs, within the new realities of the financial world.

Transparency, authenticity, speed and delivery are rules for a new banking business model, in order to reset bad memories and regain trust. Via innovative technology, banks that are merging large relationship networks must communicate and be engaged in valuable dialogue with the customers.

Innovation/change is part of the new normality. The digitalisation of financial services is no longer optional, traditional patterns in customer behaviour, work-flows and processes have changed. Educational sales of banking products and services should be a permanent concern within the new banking business model.

A new and sustainable banking business model should mix Human Capital and technology, in order to do “real time” monitoring, learn, adapt and support the dynamic needs of the customers, at the highest standards. Risks, including cyber but also other asymmetric risks must
be clearly assessed, monitored and managed, within a new risk and resilience paradigm, including also detailed business continuity action plans and communication protocols.

Notes

(1) As presented in “Bank deleveraging, the move from bank to market-based financing, and SME financing” by Gert Wehinger, senior economist in the Financial Affairs Division of the OECD Directorate for Financial and Enterprise Affairs.

(2) According to the European Banking Authority, the levels of non performing exposure remains highly variable for across different countries, ranging in June 2015 from 49.6% in Cyprus to 1% in Sweden.

(3) As reflected by the study “Deloitte Deleveraging Europe 2015-2016”, published by Deloitte.


(6) Goldman Sachs has started to offer online savings accounts that can be opened with a deposit of just $1, with interest rates about 100 times better than those at big US retail banks like Wells Fargo or Bank of America; For almost 150 years, Goldman Sachs had prospered by getting close to people of power and influence: wealthy institutions, multinationals, rich families; as Ben McLannahan wrote in the Financial Times: „Goldman Sachs: a play for the 99%”.

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