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THE CENTRAL BANK'S ROLE IN MACROPRUDENTIAL POLICIES

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Introduction

"There have been three great inventions since the beginning of time: fire, the wheel and central banking"

Will Rogers, american comedian

If we assume that Will Rogers' joke has some foundations of truth, and we consider that on the first two inventions have already been written as much as possible, there is still a lot to be said about central banks. In an interview in September 2007, the former European Central Bank (ECB) chairman Jean Claude Trichet compared the central bank to a hospital saying: "A central bank has an intensive care unit where occasionally people who are victims of road accidents, a place where angioplasty or a bypass is applied[...], but these activities, even if crucial to the functioning of the system, represent only a minimum part of his mission. Central banks are mostly formed by an army of physicians looking at radiographs and are engaged in simple consultations"[1] . The previous statement, with a comparison that can be understood by everyone, also makes us understand how the central bankers see their work: a constant monitoring of the economy, always ready to intervene where needed.

Following the recent economic crisis, the international authorities have further focused attention on the safety of the financial system: to strengthen its resilience to shocks in order to ensure its stability over time is the main challenge that they pose today. The key question is to understand how this goal can be best achieved. The definitive answer depends on the way in which financial instability is considered, what it is considered to be the cause and the implications.

It is precisely in this context that a new term in economic language begins to emerge from, the meaning and origin still unclear: the term "macroprudential". Its origins seem to date back to the late 1970s, it was used in works and studies concerning international bank loans. Initially used mainly within important financial institutions, such as the Bank for International

[1] Internazionale, I banchieri centrali più potenti, n.1155, 27 maggio 2016

Settlements and the Basel Committee, it has recently become a public domain in recent times, gaining ever-increasing popularity.

Macroprudential analysis focuses on the study of the stability of the financial system as a whole, paying particular attention to the relations between the institutions that are part of it. That is why this approach becomes a key element within the framework of international economic policies: in order to further consolidate the financial system, thus reducing the instability and hence the likelihood of future economic crises, it is necessary to strengthen the macro-prudential supervision and consequently banking regulation. This work outlines a number of important concepts that try to make clarity on the subject. In the first chapter, macro-prudential policies are defined by comparing micro-prudential policies. The objectives of both are also explained and through a historical account the birth and dissemination of the term are reported.

The second chapter begins with a description of the institutional set-up of the macroprudential authorities, i.e. those institutions tasked with ensuring stability within the financial system, and then continuing to define the indicators necessary for systemic risk assessment and the main instruments macro-prudential policy avails itself. In this chapter, the interactions between macroprudential policy and monetary policy are analysed. These policies are able to influence each other, producing side effects that may interfere with the achievement of the set goals, but if properly combined, they produce better results than those who pursue a single policy applied separately.

In the third chapter the focus is on the role that the Central Banks have played during and in the aftermath of the crisis as Central banks, since their establishment, played a key role in the economy of the states. Initially set up to guarantee the issue of banknotes and coins, an old prerogative director, subsequently held other key functions such as the payment system guarantee and the management of monetary policy.

In the fourth and last chapter I am going to analyse the behaviour of national legislations in general and of the Italian legislation in particular regarding the implementation of these policies.

Macro-prudential policy is an integral ingredient of any policy framework to address the stability of the financial system as a whole. The practical implementation of macro-prudential policy requires a clear institutional framework with adequate flexibility – both at the European Union and national levels. A strong macro-prudential mandate is necessary to give authorities incentives and powers to address systemic risks.

1- LESSONS FROM THE CRISIS

Overview

The Financial System is a complex architecture that allows economic operators - businesses, households, public administrations and others - to transfer resources, make payments and manage the various risks. The authorities responsible for financial stability have the task of ensuring the proper functioning of the system. The latter can be defined as "financially stable" if it facilitates the allocation of resources in space - hence between sectors and between geographical areas - and if in time it allows for adequate pricing of financial assets.

A stable system must also limit the concentration of risks by allowing them to be managed using the right tools, and must continue to operate even in the presence of unexpected and adverse events. Financial stability is of crucial importance in the context of the Financial System and also of the economy in general. With the growth in the number of financial institutions operating in more than one country, the stability has taken on a worldwide significance.

Within this chapter, the causes of the contemporary crisis will be summarized, with the aim of framing the heart of the elaborate in the best possible way.

It is the end of 2009 when the case of Greece crashes; the newly established government had in fact radically revised its budget estimates, Europe called for immediate action. Meanwhile, repeated ECB interventions had brought Eurozone rates down to 1% and stock quotes had reacted with a comeback that almost promised. However, between October 2009 and June 2010, a phenomenon that still characterizes the markets was consolidated. In fact, there was a recession of the markets, but it was followed by a resumption of the US share, while the crisis became more and more European and EU markets lost ground. At the beginning of 2010 they began to cripple the economies of Portugal and Spain. The ECB was in charge of the Securities Markets Program, which allowed it to intervene in the government securities market, but the interventions were very limited because Germany and other member countries ferociously opposed the European debt-sharing that it could follow.

The BCE directorate announced stricter rules on bank collateral and in the summer stress tests were published on major European banks. In November 2010, Ireland also asked Europe for help. At the end of the year, the permanent-state fund was designed. In April 2011 Portugal also called for help to Europe, curiously in the same month the Trichet BCE raised interest rates of

1.25%. In November Mario Draghi became the new president of the European Central Bank. That year, the European Council approved an important reform of European economic governance known as the six-pack: in practice, European states undertook budget and public budget controls by adopting a rigorous policy.

It is the end of 2011 when interest rates fell by 1%, against Mario Draghi's decisions. The second package of aid for Greece is launched in December and European leaders launch the "fiscal compact". However, in July 2012, Cyprus's crisis asks for aid to the European Union after Greek debt losses have hit its banking system. In those days, Spain also faces the need for restructuring of its banking sector, the Eurogroup is said to be available in a full, but conditioned, intervention. Faced with fears of a Eurozone crush, "the ECB is ready to do whatever it takes to defend the euro", the Central Bank rejects speculative push on the collapse of the euro and builds a strong anti-crisis barrier gives a new orientation to all debates on the sovereign debt crisis in the Eurozone. Central banks have resources for unlimited definition, and almost always the speculators that have challenged it have been defeated.

On September 6th, 2012, the BCE articulates its intervention by announcing Outright Monetary Transactions (OMT). Meanwhile, at the push of the European Commission, a Banking Union project is under way to ensure a systemic approach to financial crises in the Eurozone. Among the pillars of this ongoing project is the attribution to the ECB of a unified supervisory power over European "systemic" banks. In March 2013 aggravated the conditions of the Cypriot financial system, the role of the ECB also appears to be fundamental. Faced with Nicosia's uncertainties and fear of a delay in operations, Eurotower threatens to block the Emergency Liquidity Assistance (ELA) system on March 25th, 2013, unless an agreement on an economic return plan of the country. In other words, the ECB threatens to cut funds to the banks of the country if it does not make immediate decisions. Subsequently, a forced withdrawal will be made on deposits over 100,000 euros, a conversion into bank bonds, a merger of the country's second bank in the first and other very tough measures for Cyprus. The fact that the Cypriot model is to be considered an example (negative) for the rest of Europe is still debating today. But this time this was really a political[2] issue.

[2] Borsa Italiana

General observations

Underlying the sovereign debt crisis, there is the massive sales of bonds issued by Italy, Spain, Portugal, Ireland and Greece, who have been forced to pay such high interest rates for refinancing themselves from being unsustainable in the short term. The centre of the crisis lies in the accession of these countries to the European currency, and therefore the interconnection between the national crises and the rest of the euro area is very high.

It should be specified that the European Monetary Union is not alongside the European tax union and consequently countries with the same system are free to apply the measures they prefer in terms of spending and taxation, although, since the Maastricht Treaty of 1992, they are committed to contain the expense and the indebtedness. The limits of such a set-up were fully reflected in the Greek case when too generous salaries and pensions in the public sector emptied the boxes, but Athens could not print money and thus solve the problem, since by adhering to the euro, had delegated monetary sovereignty to the ECB.

But not only the divisions between fiscal and monetary policy have contributed to the crisis, others have been the general aggravation of public budgets due to the interventions demanded by the subprime mortgage crisis, the recession triggered in the western world as a result of that crisis, the lack of confidence in European economic construction by many financial operators, especially Anglo-Saxons, and the consequent downward speculation, the spread of CDS "naked" as very efficient and inexpensive instruments but not at all transparent to take bearish positions, the unprecedented cautiousness of the rating agencies, who then slander in the opposite direction, deciding frequently downgrades in the eurozone that accentuate the pessimism of the operators.

Furthermore, there are peculiar reasons for each state involved. For decades, Italy has a public debt of more than 100% of GDP, while the real economy is stagnant (which reduces revenue) and tolerates huge tax evasion; Greece has led to irresponsible fiscal policy; Portugal has spent too much on public officials; Irish governments have been heavily involved in saving the banks exposed in their country's real estate bubble; and the weaknesses of the Spanish banking system emerged. The financial crisis caused a crisis of the real economy of the European countries involved because of the measures imposed by governments to streamline budgets, i.e. higher taxes and lower costs. The real economy suffered also due to the greater caution of banks, which, having bought large volumes of national public debt, suffered losses due to its lesser value. This is especially the case in Italy and Spain. The sovereign debt crisis has become, by contagion, a banking crisis, generating fears and distrust, creating an economic situation where private people prefer to save rather than buy and invest. It should be noted that low or negative income growth decreases tax revenue because the rates apply to a lower taxable amount. On the other hand, the crisis could be an opportunity to implement economic and administrative reforms that had been postponed for long[3].

All of the public interventions set up to counter the crisis were not evaluated by financial operators as resolutive, as the internal coherence of European construction was questioned. The crisis affecting Europe is quite different from the American one, as it is characterized by excessive money creation, uncontrolled financial innovation, and confidence in the self-regulatory capabilities of the market. The nature of European problems, however, is rooted in defects, as there are no major parts of the European building as regards public budgets and financial regulation and supervision that support the pillar of the single currency.

In the summer of 2011, various signs of slowing global growth, fears of repercussions on public accounts in the absence of solidity in the banking sector and uncertainties regarding the involvement of the private sector in resolving the debt crisis in Greece have favoured the escalation of voltages. This has led to a worsening assessment of creditworthiness of sovereign issuers, which has been reversed and extended to the banks in the countries in which the assets were publicly traded. Moreover, the collection becomes more and more burdensome up to the tightening. In the last quarter of 2011, the uneven nature of monetary conditions in the euro area is also underlined as the stepping-up of capital outflows from the countries most affected by the crisis and a clearer segmentation of bank bills across national borders increased the risks of a Banking system crises, causing serious macroeconomic consequences, whereby from August to October 2012, the ECB Governing Council announced that it would continue to provide plentiful liquidity to the banking system by extending the duration of the refinancing operations to Longer term up to one year, and subsequently restarting the purchase of government securities under the Securities Markets Program. Between November and December, official interest rates were reduced by 50 basis points altogether; the one on the main refinancing operations was raised to 1%. Two new three-year refinancing operations were also

[3] Rossi. La crisi globale ed europea, le politiche per la stabilità finanziaria. Banca d'Italia. Capri, 15-16 giugno 2012.

announced, with the full amount of the required amounts being extended, extended the range of eligible assets in the refinancing operations and halved the mandatory reserve ratio by 1%.

Through the two three-year operations, the Eurosystem enters the gross fund area banking system for approximately EUR 1,000 billion (over 500, net of lower demand in other short-term transactions). Liquidity entered circulates within the area, affecting the functioning of the markets, returns and, in the prospect, removing obstacles to normalizing credit conditions. The transmission of monetary policy returns to be more uniform. From the summer of 2011, governments and European authorities also took new steps to tackle the worsening of the crisis, new fiscal control measures, a new financial assistance plan for Greece, expand flexibility and capacity Of EFSF / ESM intervention, one-year advance of ESM operation (1 July 2012). Also in 2012, the six-pack economic governance reform, which includes the strengthening of the Stability and Growth Pact, comes into force. The Fiscal compact (Treaty on Stability, Coordination and Governance in the Economic and Monetary Union) was signed. This treaty engaged the signatories to incorporate in national legislation, preferably at the constitutional level and within one year of its entry into force, a standard which provides for the achievement and maintenance of the budget balance in structural terms. This rule was also included in the Italian Constitution in April 2012. In Italy, the new government strengthens, adjusts public accounts and initiates structural reforms aimed at reviving the growth potential of the economy, although these Because of widespread resistance to the political system, but they have managed to achieve the important result of calling into question the atavistic public and private sector operating mechanisms that have hindered growth in our country for several years. In March 2012, market tensions again rose for a number of reasons, but particularly because of uncertainties about the functioning of the Spanish financial institutions. But Spain is just the drop that overflows the pot, as the incompleteness and inconsistencies of European construction are in the search for investors and international financial markets, who wonder how much the will of the citizens and European governments to preserve the single currency, as these doubts must be resolved in a decisive, consistent and timely manner[4].

[4] Rossi, La crisi globale ed europea le politiche per la stabilità finanziaria, 2012

Interventions and countermeasures at the rise of the crisis

European Recovery Plan

On 26th November 2008, the Commission sent a communication to the European Council which recalled the importance of European action during the crisis, subsequently, on 2nd December, the European Council approved the European Economic Recovery Plan, which foresees a stimulus for the European economy of 1.5% of European GDP. The preamble to the proposal by the President of the Commission Barroso acknowledged the gravity of the crisis with these words: "*The moment for truth for European governments and institutions comes when they are in the most difficult circumstances*". [5]

The Plan was divided into three pillars: a new financial market structure at European level, measures to manage the impact of the crisis on the real economy and a comprehensive response to the financial crisis. The European Economic Recovery Plan was based on: an injection of purchasing power to stimulate demand and restore confidence, a direct short-term action to strengthen European competitiveness and principles of solidarity and social justice.[6] The plan therefore presented itself as a macroeconomic manoeuvre to tackle the crisis and set up: "an immediate financial incentive of € 200 billion (1.5% of EU GDP), consisting of an increase in the budget of the To 170 billion euro (about 1.2% of EU GDP) and EU funding for immediate actions of about 30 billion euros (about 0.3% of EU GDP) ".[7]

Real economy support was related to various areas of intervention that include monetary and credit aspects, fiscal policies to be implemented under the Stability and Growth Pact, and finally the stimulus for employment.[8] The required effort went beyond the EU's borders by supporting global solutions involving close international macroeconomic cooperation[9]. On November 15, the G20 Heads of State, the United Nations Secretary - General, the IMF Director, the World Bank President, the President of the European Commission and the Chairman of the Financial Stability Forum adopted a statement on financial markets, Global economy, which concerns the strengthening of national and international structures for the prevention of the crisis and the

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5 European Commission, "Comunicazione della Commissione al Consiglio Europeo- Un piano europeo di ripresa economica" Bruxelles, 26.11.2008 COM (2008) 800, Preambolo di Josè Manuel Durao Barroso.
6 European Commission, General Report on the Activities of the European Union – 2008, Directorate-General for Communication Publications, Bruxelles (2009), p.35 - 36
7 Commissione Europea, "Comunicazione della Commissione al Consiglio Europeo- Un piano europeo di ripresa economica" Bruxelles, 26.11.2008 COM (2008) 800, p. 6
8 ibidem, pp. 6-18
9European Commission, General Report on the Activities of the European Union – 2008, Directorate-General for Communication Publications, Bruxelles (2009), p.35

economic recovery[10]. On 26 January 2009, the European Commission adopted a number of decisions to strengthen the coordination of the European financial market. On February 25, the de Larosière Report was published: in October of the previous year, the President of the Barroso Commission established an ad hoc committee to deal with its drafting. The report analysed and defined the future European regulation of the financial sector.

The de Larosière Report

In 2009, the last Community actions took shape: the most important were the publication of the de Larosière Report and the entry into force of the Lisbon Treaty. The report reported that the work was constantly updated based on the needs of the crisis, and stated: "Regulatory and financial supervision has proved too weak or has given the wrong incentives. Globalization of markets has accelerated the contagion. Opacity and complexity have worsened the situation." For this reason, the requested action should have been national, European and global.

The purpose of the Report was to present a new regulatory program that would reduce the risks and improve the stability of financial markets, and coordinate more closely the vigilance and improve the future management of the crisis.[11] In this regard, the creation of a parallel banking system was proposed in a way that the financial sector was more transparent, efficient and controlled. There was also an emphasis on the set of necessary rules for the proper functioning of the single financial market. The European Parliament and the Member States were invited to support the process of standardization. It is worth noting Recommendation No. 13 of the report that reads: "*The Group calls for the implementation of a uniform and functional crisis management framework in the EU: [...] all relevant EU authorities should be equipped with appropriate and equivalent tools Crisis prevention and crisis intervention*". The editors of the report legitimized the European institutions to intervene in a timely manner to the crisis; decisions on anti-crisis measures were mainly taken by the EU Council to ensure its speed and homogeneity. The Larosière report did not quite understand this, since the Central Bank was in charge of anti-crisis intervention, in this sense its main task was to oversee the financial stability of the euro area. In addition, the possibility of creating a micro-prudential supervisory system

[10] Gysi, H., Kindler, M., Dobbins, M., Chronology of the Financial Crisis USA – Europe – Switzerland, MLaw. 2010 svizzera p. 65

[11] de Larosièere Committee, “The High Level Group on Financial Supervision in the EU – chaired by Jacques de Larosière”, p. 3, Bruxelles 25 Febbraio 2009p. 4.

was introduced: the European System of Financial Supervision, in which three potential authorities cooperated. The process of establishing the European Supervisory System was distinguished in two phases, the first concerned preparation for the same from 2009 to 2010 which provided for initial harmonization of the rules; The second phase concerned the real establishment of the mechanism between 2011 and 2012.

The Lisbon Treaty comes into force

On December 1st, 2009, the Treaty of Lisbon officially entered into force and made some significant changes to the institutional processes to make them more democratic. Citizens gained more power through the European Citizens Initiative, which would have allowed them to raise issues of public interest. The national parliaments were given the opportunity to influence the inputs of the European decision-making process. As far as the European Council was concerned, some important areas of its competence no longer needed unanimity but only of the qualified majority for their approval; Furthermore, the institutional process seemed to become more democratic through the introduction of the President of the European Council, elected by the Council, with the purpose of giving more visibility to EU actions. Lastly, social rights care was intensified by common policies.[12] The treaty found numerous difficulties after its preliminary approval and its entry into force was threatened by the non-membership of some member states. The Treaty institutionalized a dual structure, with two different procedures for training and approval of measures: Article 289 of the TFEU provides for the ordinary legislative procedure[13] (its description is referred to Article 294). It also provides: "In specific cases provided for in the Treaties, legislative acts may be adopted on the initiative of a group of Member States or of the European Parliament on a recommendation from the European Central Bank or at the request of the Court of Justice or the European Investment Bank".[14] This was the second forecast that allowed states to use a procedure that excluded the participation of European institutions from the decision-making process. Until 2009, however, the measures taken to counteract the crisis were envisaged by the ECB and the Commission, the two

[12] De Larosièere Committee, "The High Level Group on Financial Supervision in the EU – chaired by Jacques de Larosière", p. 3, Bruxelles 25 Febbraio 2009, p. 81
[13] The ordinary legislative procedure consists in the joint adoption of a regulation, a directive or a decision by the European Parliament and the Council on a proposal from the Commission. This procedure is defined in Article 294 (Article 289.1 of the TFEU)
[14] Article 289, paragraph 4 TFEU

institutions represent the technical element of the European Union: thanks to this feature their intervention is faster and more effective.

The European stability programs

Meanwhile, the budget deficits of European countries increased so much that the Commission was pushing for a disciplinary action against the six most indebted States on 18 February.[15] The financial sector crisis had forced European states, particularly those most affected, to draw on from state funds for refinancing. In this way the crisis also became a matter of budget. Standard and Poor's degraded the Spanish economy from AAA to AA + due to stagnation of the country.[16] In June the first signs of suffering came from Latvia, the effect was so profound to scare the fear of a new storm in Eastern Europe.[17] The international summits sought new solutions and on April 2nd, the G20 Heads of State decided to set up a Financial Stability Board working with the International Monetary Fund to intervene promptly on macroeconomic and financial risks.[18] In May, The Commission began to examine a financial sector reform that would also incorporate the establishment of the new European Systemic Risk Board chaired by the ECB's President to examine threats to financial stability. The European Council in June welcomed the proposal, and on 23rd September the Commission established the new system.[19] The EU Council discussed the establishment of European authorities supervising prudential parameters, and in December the ECOFIN Council agreed on the approach of the European Banking Authority (EBA), the European Insurance and Occupational Pensions Authority (EIOPA), and the European Securities and Markets Authority (ESMA)[20].

The three new authorities came under the new European financial supervision system in line with the points outlined by the Larosière report. They were responsible for monitoring specific European sectors and thus highlighting the possible risks in a timely manner but working. The new programs and new authorities were important for defining the strategies to be undertaken

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15 Banca Centrale Europea, Date fondamentali della crisi finanziaria (da dicembre 2005) (Home > The European Central Bank > Timelime of the financial crisis). https://www.ecb.europa.eu/ecb/html/crisis.it.html
16 Gysi, H., Kindler, M., Dobbins, M., Chronology of the Financial Crisis USA – Europe – Switzerland, MLaw. 2010 p. 45
17 Banca Centrale Europea, Date fondamentali della crisi finanziaria (da dicembre 2005) (Home > The European Central Bank > Timelime of the financial crisis). https://www.ecb.europa.eu/ecb/html/crisis.it.html
18 Gysi, H., Kindler, M., Dobbins, M., Chronology of the Financial Crisis USA – Europe – Switzerland, MLaw. 2010 p. 84
19 European Commission, General Report on the Activities of the European Union – 2009, Directorate-General for Communication Publications, Bruxelles (2010), p. 21
20 Ibidem

and for preventing macroeconomic or financial imbalances in European countries and especially in the Euro area. The worsening of the crisis brought to light the important differences between the Eurozone states. On 3rd February, the European Commission approved the plans of Greece.[21] The Monetary Union was seriously threatened by the fragile markets and the budget deficits difficult to manage (a contagion is feared against Portugal and Spain).[22] No effective solution seemed to come from the European institutions, it was unclear which authority and which decision-making mechanism should have been addressed.[23] Indeed, in the Treaties there was no precise description of the Union's action in the event of a crisis, the ordinary legislative method was too slow (also because of the time taken by the national States), the only solution seemed to be opting for a special method that would require the participation of the Council and of the member states: the intergovernmental method that could have provided more timely, albeit less democratic action.

A few days after the approval of the Greek austerity plan began protests in the capital: On 24th February Athens was blocked by a twenty-four-hour strike by public employees[24]. A month later, European leaders and the IMF pledged to secure Greece's financial support if it had asked for it.[25] Less than a month later, Greece requested the intervention of eurozone countries and the International Monetary Fund A € 110 billion fund was available, granted only under strict and stringent conditions, which included a program of structural reforms and continuous monitoring.[26] The loan package was granted on May 10 after the approval of the Commission and the ECB.[27] On the weekend before the adoption of the intervention for Greece, from 7th to 9th May, efforts by the European institutions and representatives of the member countries led to the development of two temporary support programs: the European Financial Stabilization Mechanism (EFSM) And the European Financial Stability Facility (EFSF), which would have

[21] Banca Centrale Europea, Date fondamentali della crisi finanziaria (da dicembre 2005) (Home > The European Central Bank > Timelime of the financial crisis). https://www.ecb.europa.eu/ecb/html/crisis.it.html
[22] Ibidem
[23] Tony Barber, Clear Words Needed This Week from EU Leaders on Greek Crisis, 8/02/2010, Financial Times, (ft.com>comments>blogs) http://blogs.ft.com/brusselsblog/2010/02/08/clear-words-needed-this-week-fromeu-leaders-on-greek-crisis/
[24] Gysi, H., Kindler, M., Dobbins, M., Chronology of the Financial Crisis USA – Europe – Switzerland, MLaw. 2010, pg. 92-93
[25] Gysi, H., Kindler, M., Dobbins, M., Chronology of the Financial Crisis USA – Europe – Switzerland, MLaw. 2010, p. 94
[26] 9 Commissione Europea, General Report on the Activities of the European Union – 2009, Directorate-General for Communication Publications, Bruxelles (2010), pp. 8-12
[27] Banca Centrale Europea, Date fondamentali della crisi finanziaria (da dicembre 2005) (Home > The European Central Bank > Timelime of the financial crisis). https://www.ecb.europa.eu/ecb/html/crisis.it.html

available a total of 500 billion euro, to which the 250 available from the International Monetary Fund would be added[28].

Stability programs had a duration of three years and their main function was to ease the financial pressure on the Euro zone countries that were affected by elevations of sensitive bond yield. On May 12th, the Commission proposed a strengthening of economic governance which introduced the consolidation of monetary and economic union rules by strengthening the Stability and Growth Pact.[29] The proposal also included alignment of national budgets and policy planning through the "European Semester", institutionalized by the Treaty of Lisbon.[30] It was underlined the importance of setting up a new and more effective method of surveillance covering the coverage of budgets and the lack of competitiveness.[31]

The European Financial Stabilisation Mechanism (EFSM)

The fund was made up of 60 billion euros administered by the European Commission (payment and opening of credit lines) which could have been requested by all Member States. Its purpose was to restore financial stability to raise funds in the markets to be allocated to the recipient state.[32] However, the allocation of funds was constrained by the Council's decision[33] on a proposal from the Commission. Funds were also funded and administered by IMF programs.[34].

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[28] Commissione Europea, General Report on the Activities of the European Union – 2009, Directorate-General for Communication Publications, Bruxelles (2010), p.9

[29] 3 Commissione Europea, General Report on the Activities of the European Union – 2010, Directorate-General for Communication Publications, Bruxelles p. 12-13

[30] Ivi p. 14

[31] Ivi p. 15

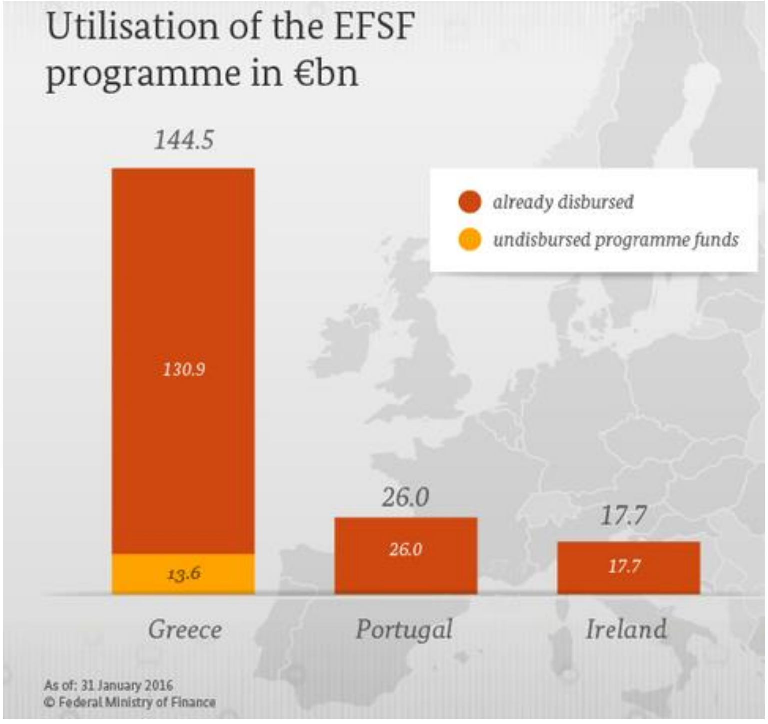
[32] Commissione Europea, General Report on the Activities of the European Union – 2010, Directorate-General for Communication Publications, Bruxelles, p. 10.

[33] Consiglio Europeo, Preambolo del regolamento (UE) n 470/2010 del Consiglio che istituisce un meccanismo europeo di stabilizzazione finanziaria, 11 Maggio 2010, punto 6

[34] Commissione Europea, General Report on the Activities of the European Union – 2010, Directorate-General for Communication Publications, Bruxelles (2011), p.10

The European Financial Stability Facility (EFSF)

The mechanism could have dispensed up to € 440 billion in the event of a default of any of the eurozone nations to improve its budget deficit. Debt management created a specific financial vehicle that faced financial difficulties by securing loans in the event of financial difficulties. The loan was guaranteed by members of the euro area and Poland and Sweden. Although the program was a necessary measure for the rescue of the most indebted states, it was built outside of the European Union's architecture and was in fact administered by a private law vehicle: its introduction is considered to be orthodox even though it was a fundamental tool for stability. The first EU interventions already begin to come from the point of view of the transition from the Community method to the intergovernmental method, due to the lack of mechanisms and structures that can intervene in such cases. The above-mentioned stability plans (EFSM and EFSF) were temporary until a European strategy for replacing them was drafted. From July 2012 it has been replaced by the European Stability Mechanism.

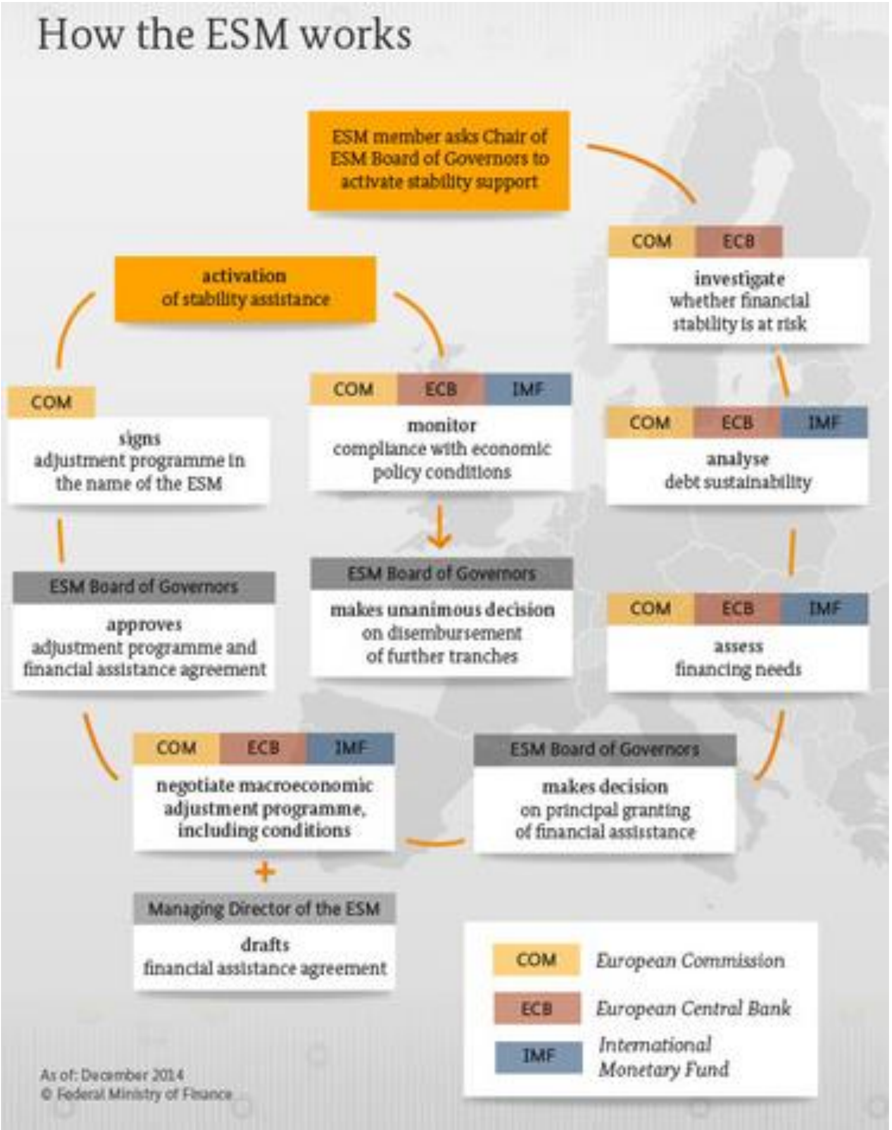


The European Stability Mechanism

The Mechanism was officially defined by the treaty signed on 11 July 2011 by the Finance Ministers of the 17 euro area members. The granting of loan and financial assistance under the aegis of the mechanism is subject to strict conditions which include a macroeconomic adjustment program and an analysis of the sustainability of public debt conducted by the Commission with the IMF and the ECB.[35] The new mechanism followed the temporary predecessor (EFSF), and continued to be characterized by a wide margin of discretion left to the international task force. The intervention did not only involve the European Commission

[35] Commissione Europea, General Report on the Activities of the European Union – 2011, Directorate-General for Communication Publications, Bruxelles (2012), pp. 17-18

and the ECB, but also the International Monetary Fund (an international institution that has nothing to do with the institutional structure of the EU) which provided assistance and funds for the rescue of Countries at risk.



Deepening the stability programs

The loan program for Greece was already operational when on the 5th August the Commission Delegations and the International Monetary Fund went to Athens to evaluate the Greek recovery program: the delegation remained positively impressed by progress in the Structural reforms.[36] Quarterly assessments would continue in the years to come by monitoring the macroeconomic values of the country. On November 17th, the European Parliament and the EU Council of Ministers agreed on the guidelines for supervising the financial system and the establishment

[36] Press Release August 5, 2010 - Declaration by the European Commission, the ECB and the IMF on the first evaluation mission in Greece.

of the European Systemic Risk Board and the three new supervisory authorities in banking, insurance and speculative sectors. Greece was not the only one in need of support for European mechanisms, and on November 21st, the Dublin government also called for financial support, and the next day, the EU and the IMF agreed on a nation-wide assistance program for a period of three years.

It is interesting to note that with the advent of the crisis most of the major decisions were made in the European Council or, increasingly, among the Heads of State of the Euro Group. This is because the crisis strongly attacked the common currency, both to ensure a timely intervention, but also to the progressive removal of the will of the States from the interest of the Union. The Heads of State and Government of Europe met in Brussels on 28th and 29th November and agreed on strengthening European economic governance, referring to the Stability and Growth Pact principles, and decided to establish a permanent mechanism for Crisis management. The macroeconomic surveillance system was characterized by a great innovation that allowed to detect imbalances, risks and divergences in competitiveness. Additionally, the tax liability of States in the event of a breach of the Stability Pact would be punished with progressive sanctions that could have hit them even in advance.

The permanent stability management mechanism referred to above came into effect even though a treaty change was needed: for this purpose, the President of the Council, Herman Van Rompuy, opened consultations.[37] On the same days, the Union, the Monetary Fund and the Central Bank agreed on financial assistance of 85 billion euros to be given to Ireland after the country's request was made shortly before 22nd November.[38] During the December Board, Eurozone ministers decided to replace the loan to the countries at risk, EFSF, with the new European Stability Mechanism (ESM) since mid-2013. The Mechanism replaced the temporary measures previously granted during summits Heads of State and Government of Euro Zone Countries; and consisted of a plan of financial aid granted to countries under difficult conditions provided they meet strict conditions.[39]

[37] General Secretariat of the Council , European Council 28-29 October Conclusions, Bruxelles (30 November 2010).
[38] European Central Bank, Fundamental dates of the financial crisis (December 2005) (Home > The European Central Bank > Timelime of the financial crisis). https://www.ecb.europa.eu/ecb/html/crisis.it.html
[39] European Commission, General Report on the Activities of the European Union – 2010, Directorate-General for Communication Publications, Bruxelles (2011), pp. 8-11

Convergence and Stability Programs

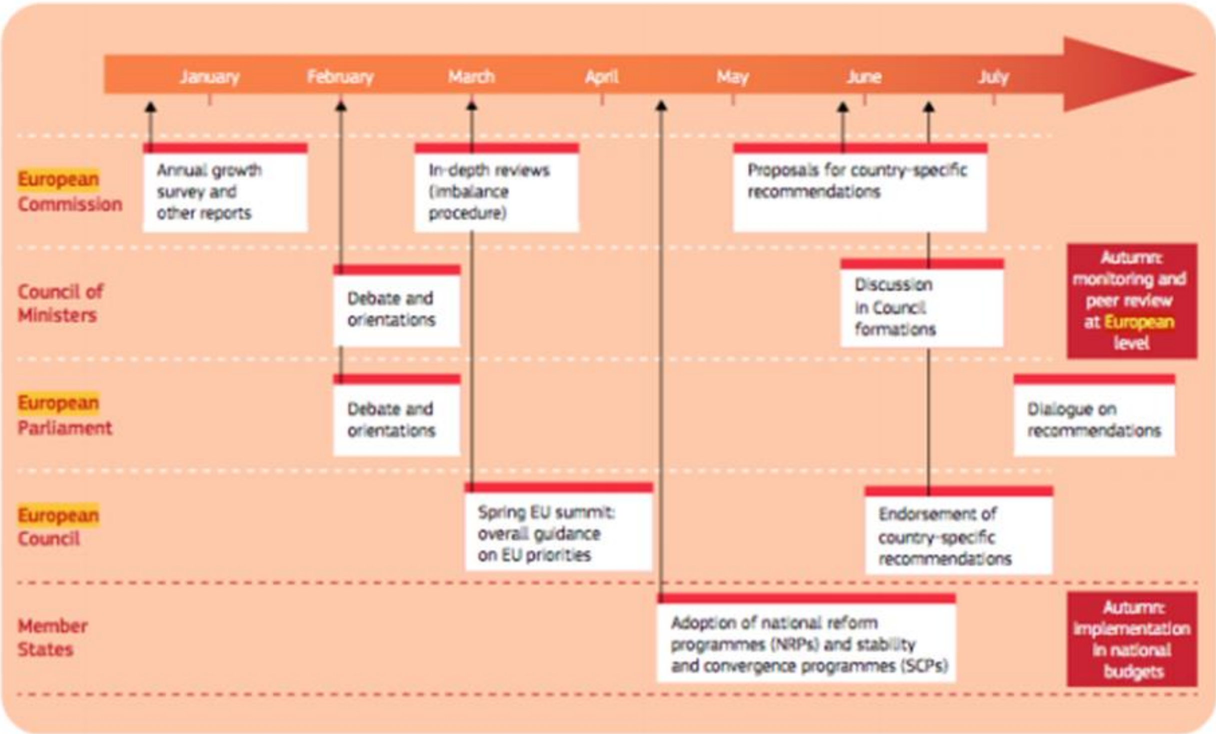
Every April, EU Member States are required to lay out their fiscal plans for the next three years. This exercise is based on economic governance rules in the Stability and Growth Pact, which aim to prevent the emergence or exacerbation of fiscal difficulties.[40]

We can consider the end of 2010 and the beginning of 2011 as a watershed of the crisis measures. In the previous period, EU interventions were characterized by measures that only aimed to contain the damage caused by the crisis (for example, the EFSM and EFSF stability mechanisms were functional for restoring the public finances of defaulting countries). These programs had important consequences both on the EU architecture (so much so as to make it necessary to modify treaties that would allow action to save states) and on the lives of its citizens. With the introduction of the European Semester and the European Stability Mechanism, the measures are part of the organization and its future institutions.

The next paragraphs are devoted to their description and analysis.

[40] European Commission website

How does the European Semester work:



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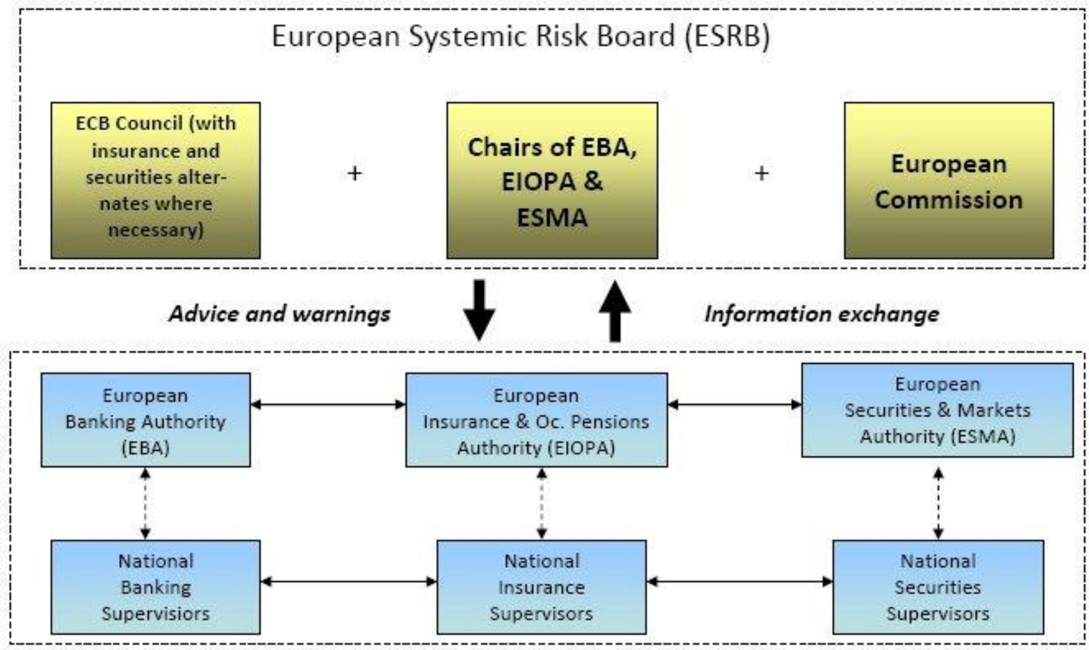
By analysing national budgets, the Member States and the Commission will have to focus on the five macro-macro indicators of the European Strategy for 2020 (Employment, Research, Greenhouse Gas, Education and Social Inclusion). The first European semester began in January 2011 and included the Stability and Growth Pact, structural reforms of the European Strategy 2020 and the new macro-financial imbalance mechanism. The priority objectives of the European Semester are to better manage and monitor the budgetary policies that are being discussed at a European level. Every year, the Commission will prepare an annual growth analysis that will be discussed later in the European Council in the spring. The European Council will outline the guidelines and decide on the economic challenges to be faced. The Member States then draw up a national reform plan to be submitted to the Commission by April. If this is not sufficient, the Council of Ministers may draw up specific guidelines for each country on a recommendation from the Commission.[42] The European Semester definitely

[41]European Commission, General Report on the Activities of the European Union – 2011, Directorate-General for Communication Publications, Bruxelles p. 31
[42] European Commission Europea, General Report on the Activities of the European Union – 2010, Directorate-General for Communication Publications, Bruxelles (2011), p. 14

confined one of the most important competences of the national parliaments to the management of the public budget. Not only did the austerity programs imposed on heavily indebted states have profound repercussions on citizens but also the role of national parliaments was delimited by European convergence measures.

European checks and supervision

The new year opened with the establishment of three new supervisory authorities to oversee three major sectors: the banking sector (EBA - European Banking Authority based in London), the financial one (ESMA - European Securities and Markets Authority (Paris-based markets) and the insurance company (EIOPA - European Insurance and Occupational Pensions Authority and headquarters in Frankfurt am Main). The authorities, which were mentioned shortly[43], would monitor the microeconomic indicators of Countries, the issue of these three authorities focuses on the lack of unity that should be achieved so that vigilance is efficient and effective. As previously pointed out, the semi-annual controls of the default countries to which EFSM loans were granted are all carried out by a Commission (the Troika), composed of members of the ECB, the Commission and the IMF.



In early 2011, convergence towards choices that are of a technical nature was reconfirmed and that they involved monitoring which, although it continues, does not have the specific features

[43] the authorities provided by the de Larosiére Report, see paragraph III section A.

for the prior recognition of a future crisis. It is certainly difficult, if not impossible, to predict an economic crisis with sufficient advance, but the mechanisms put in place by the Union do not seem to have this purpose.

The European Commission adopted the first Annual Growth Survey that marks the beginning of the European Semester, which led to the development of specific measures for less stringent nations.[44] On January 18th, European Finance Ministers identified the goals and challenges for Stronger co-ordination and a more significant reform of European economic governance.[45] The key measures of 2011 provided three priorities: macroeconomic stability, labor market reforms measures to facilitate growth.

Shortly thereafter, on 11th March, 23 countries of the Union (the Eurozone countries with six other countries: Bulgaria, Denmark, Lithuania, Latvia, Poland and Romania) signed the Euro Plus Pact. The Pact envisaged strengthening political engagement among countries on competitiveness, employment, sustainability of public finances and strengthening of financial stability.[46] A new state called for the European aid program: Portugal submits the request on 6th April, approximately one month after the aid is granted and the relevant conditions fixed.[47] On 3rd June and 14th July, however, the delegation of ECB experts, the European Commission and the International Monetary Fund carried out its periodic assessments of the performance of the financial and economic sectors in Greece and Ireland.[48] Supervision was continuous and seemed to produce positive results. Let us not forget, however, that the member countries have long sought to limit the Union's actions and competencies but ended up being trapped in their own reservations when they agreed that financial problems were entrusted to a technical and international task force. The previous year the Commission had drawn up and presented a package of six proposals to strengthen the financial framework of the Stability and Growth Pact. These six proposals, known as Six-Pack, were voted in Parliament on September 28th, adopted by the Council on 8th November. The package entered into force on 13th December 2011.[49]

[44] European Commission, General Report on the Activities of the European Union – 2011, Directorate-General for Communication Publications, Bruxelles (2012) pp. 8-10
[45] Ivi pp. 153-160
[46] European Commission, General Report on the Activities of the European Union – 2011, Directorate-General for Communication Publications, Bruxelles (2012) pp. 10-11
[47] ECB, Fundamental dates of the financial crisis (since December 2005) (Home > The European Central Bank > Timelime of the financial crisis). https://www.ecb.europa.eu/ecb/html/crisis.it.html
[48] Ibidem
[49]European Commission, General Report on the Activities of the European Union – 2011, Directorate-General for Communication Publications, Bruxelles (2012) p. 13

The Six Pack

The Six Pack had three main objectives: deepening financial coordination, anticipating and correcting macroeconomic imbalances, strengthening the financial system in itself. For the last point, a mechanism of progressive sanctions was introduced for the most disagreeable states and a process that included the adoption of the Commission's recommendations unless they were rejected by the Council's (Qualified Countervailing) majority. The package Provided for a new important procedure to correct macroeconomic imbalances, based on the analysis of potential risks: the examination of the Council's study could have led to the development of recommendations by the countries concerned. In November The Commission indicated two further proposals for strengthening economic surveillance to integrate the Six-Pack. The proposals included the presentation of the budgets of the Eurozone states to the Commission from which it would have drawn up an opinion. The European Commission could then have requested a revision of the accounts in case of sharp contrast to the convergence parameters and European objectives. The proposals also included a more incisive monitoring of countries with high deficits or at risk of financial instability. The transfer of competences to the EU increases both in number and in depth. During the crisis, the states preferred to surrender the management of certain areas of their competence to the Union. The states became caught up in their own reserves and ended up selling to the EU through a process that does not appeal to any democratic body.

Coordination of budgetary policies

At the end of the year, during a summit of Eurozone leaders, a new budget agreement was drafted, which included closer coordination between budgetary policies. The Treaty on Stability, Coordination and Governance in the European Monetary Union, better known as Fiscal Compact, would be reached more than three months later and enforced compliance with the golden rule of balance. Coordination of budgetary policies through the European Semester and the imposition of the budget balance seemed to be essential in order to avoid the imbalances that threatened the stability of the euro area. We can deduce that 2011 was characterized by a stronger involvement of the European Commission, which is again recognized the powers to control compliance with the treaties and new treaties concerning the macroeconomic sector. Moreover, the measures taken under the Euro Plus Pact concerned strengthening and deepening the economic and financial coordination of the Eurozone countries. Focus no longer concerned the entire Union, but only the single currency and the countries that adopted it: the strong financial imbalances due to the deficits of some countries endangered the euro, which previously had the peculiarity of permanent stability. Afterwards, the nations that adopted the cone realized that they were close to interdependence, which with the crisis could have led to catastrophic outcomes if they were not exploited in the right way.

The Single Supervisory Mechanism

In September, the Commission proposed the establishment of a Single Banking Supervision Mechanism (SSM), the project became part of the reform of the European financial system and sought to reach in the near future Full banking union. The project established the ECB's recruitment of supervisory tasks to maintain the stability of the financial sector.[50] The system was composed of the ECB and the banking authorities of the acceding States (not just those in the euro zone but also those who wished to be part of it). The supervisory role entrusted to the European Central Bank was completely disengaged from its monetary tasks. However, the European Banking Authority (EBA) retained its specific expertise.[51]

The European Stability Mechanism and Six Pack come into force

On October 8th, the European Stability Mechanism came into force, which included diversified intervention tools including: the possibility of lending in an economic adjustment program, the sale of debt securities on primary and secondary markets, the provision of preventive assistance with credit lines, and finally also financial recapitalization by means of loans to the governments of the Member States[52].

The new mechanism was thought to be permanent and would serve in the future to resolve any crisis with various tools. The action of the Union was delayed, the mechanism was activated after more than five years from the outbreak of the US crisis and three years after the failure of the European public deficit deficits and the incomplete monetary union. Ten years after its entry into force, the euro still had incomplete management and monitoring structures due to the reservations put in place by the states of the Union. The European Commission published the annual growth survey for the year 2013 on 28th November, thus beginning a new European

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[50] Ivi p.38
[51] European Commission, General Report on the Activities of the European Union – 2012, Directorate-General for Communication Publications, Bruxelles (2013) p. 39
[52] Ivi p. 28

semester with a view to co-ordination between the economic policies of European countries.[53] On the same date, the Commission's Blueprint on the European Monetary Union (EMU) was also published, which was a major contribution through thorough analysis and suggestions.[54]

One of the key points was to strengthen the role of Parliament as part of the democratization of the Union. Later, during the European Council in December, European leaders also recognized the importance of Parliament's involvement in the European decision-making process.[55] Indeed, the crisis has highlighted some inconsistencies and structural gaps in European architecture, where no Democratic deficit: Parliament has been given powers to make it a second legislative chamber of equal importance to the Council thanks to the expansion of its spheres of competence[56], despite these results its participation in the new challenges posed by the crisis is marginal.

Six-Pack package proposals came into force during the year, which included, inter alia, the establishment of a completely innovative approach to economic imbalances (the Macroeconomic Imbalance Procedure): characterized by forecasting and monitoring imbalances The method provided for the analysis of a wide range of macroeconomic and microeconomic indicators in the European countries of the previous three years.[57] Economic governance in the euro area was also strengthened by two additional regulations (the so-called "Two-pack"): the first of the two Related to the surveillance procedure of Member States at risk, linking the context of the Treaties to the financial assistance procedures granted through ESM. The second one concerned the harmonization of the adoption of national budgets: with the new legislation, the provisions of the European Semester and the specific recommendations would be more easily followed by the States.[58] The year 2012 was full of challenges and new regulations that concerned above all Coordination between the economic policies of the Eurozone states. The crisis gave rise to a strong shock to European integration, especially

[53] Ivi p. 219
[54] Ivi p. 16-17
[55]European Commission, General Report on the Activities of the European Union – 2012, Directorate-General for Communication Publications, Bruxelles (2013) pp. 16-17
[56]The Lisbon Treaty attributes new areas of competence to Parliament and the new Article 9A paragraph 1 states: "The European Parliament exercises, together with the Council, the legislative function and the budgetary function. It exercises control and advisory functions under the conditions established by the treatments. It elects the President of the Commission "
[57]European Commission , General Report on the Activities of the European Union – 2012, Directorate-General for Communication Publications, Bruxelles (2013), p. 32
[58] Ivi pp. 14-16

concerning harmonization: from state budgets, economic policies, common economic growth objectives and new surveillance and control systems reserved for technical bodies of the Union.

Preliminary considerations

All of the public interventions put in place to counter the crisis were not evaluated by financial operators as resolutive, as the internal coherence of European construction was questioned. The crisis affecting Europe is quite different from the American one, as it is characterized by excessive money creation, uncontrolled financial innovation and self-confidence in the capacity of the market.

The nature of European problems, has its roots in defects, as there are no major parts of the European building as regards public budgets and financial regulation and supervision that support the pillar of the single currency.[59] A teaching that comes from the global crisis and still has to be studied and deepened is the importance and the value of the stability of the financial system and how this is intertwined with the rules of conduct of monetary policy and macroprudential. This stability must be pursued with targeted policies, of macro-prudential nature, that is to contain systemic risk (i.e. the risk that the insolvency of a financial institution creates a domino effect that leads to the insolvency of other financial institutions threatens the stability of the entire financial system).[60]

The crisis has taught that macroprudential policies, underestimated until a few years ago, are of fundamental importance as they interact in a complex manner with monetary policies; it is possible to outline this interaction, considering in the first place that the mandate of a modern central bank, in particular the Eurosystem's primary objective, that is to maintain stable prices over time. Secondly, it must be emphasized that a stable macroeconomic and financial environment is conducive to the effective transmission of monetary policy impulses, facilitating the pursuit of the objective of price stability.

The crisis of recent years shows how monetary policy manages to influence different variables, such as the prices of financial and real assets and the conditions of supply and credit of the economy, whose trend is of fundamental importance to maintain financial stability.

[59] Tosato, Gian Luigi. "How to pursue a more efficient and legitimate European economic governance." *IAI, IAI Working Papers* 16.03 (2016).
[60] J. Hull 2012

2- MACRO-PRUDENTIAL REGULATION

Origins of the term

It is not easy to establish precisely when the term "macro-prudential" has been used for the first time. According to the documentation of the Bank for International Settlements, its first appearance in an international context took place in 1979, during a meeting of the Cooke Committee[61].

"The Chairman [W P Cooke, Bank of England] said that microeconomic problems (which were of concern to the Committee) began to merge into macro-economic problems (which were not) at the point where micro-prudential problems became what could be called macro-prudential ones. The Committee had a justifiable concern with macro-prudential problems and it was the link between those and macro-economic ones which formed the boundary of the Committee's interest."[62]

Though the term was new, the underlying concept was not. The authorities were increasingly concerned about the implications that rapid growth in lending to developing countries could have for macroeconomic and financial stability, and were examining policy options to address them. In 1978, the International Regulations Bank had prepared a document on the consequences of the rise in the price of oil for financial institutions and for the soundness of the international banking system, which would be discussed at the Euro-Currency Standing Committee ECSC[63]. The outcome of that discussion had been an ECSC report, finalised in July 1978, that highlighted precisely this link between prudential regulation and macroeconomic concerns, and thus anticipated the statement by Cooke without actually using the term "*macroprudential*"[64].

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[61] The forerunner of the present Basel Committee on Banking Supervision, BCBS, its aim was to improve international cooperation in terms of banking and supervisory practices.
[62] Informal Record of the 16th meeting of the Committee on Banking Regulations and Supervisory Practices held in Basle on 28 and 29 June 1979 (BS/79/42), BIS Archives [henceforth BISA] – Banking Supervision, Informal Record, file 2.
[63] Renamed the Committee on the Global Financial System (CGFS) in 1999
[64] Specifically, the July 1978 ECSC report reads: "The Committee considers that between the purely macro-economic issues and the purely prudential questions, which are the business of national supervisory authorities and of the Cooke Committee, there are a range of issues where the two fields overlap." See Euro-currency Standing Committee, "Chairman's report on policy problems related to the growth of the Euro-currency market and international bank lending since the oil price increase", p 12, in BISA 7.18(15) – Papers Lamfalussy, LAM20/F56.

The second appearance of the term "macroprudential" is in a background document, produced by the Bank of England, for a working party chaired by Alexandre Lamfalussy, BIS Economic Adviser and Chairman of the ECSC[65]. The document, dated October 1979, examines the use of prudential measures as one of several alternative ways to constrain lending. It contrasts the microprudential approach typical of the regulation and supervision of individual banks with a macroprudential one. Specifically: *"Prudential measures are primarily concerned with sound banking practice and the protection of depositors at the level of the individual bank. Much work has been done in this area – which could be described as the 'micro-prudential' aspect of banking supervision. […] However, this micro-prudential aspect may need to be matched by prudential considerations with a wider perspective. This 'macroprudential' approach considers problems that bear upon the market as a whole as distinct from an individual bank, and which may not be obvious at the micro-prudential level."*

The document notes three examples of how the micro-prudential perspective may fail to take full account of larger macroprudential concerns. First, while the growth of each individual bank may look sustainable, that of aggregate lending may not be. Second, perceptions of risk may be inadequate, narrowly focusing on the (past) performance of individual sovereign loans rather than on the broader risk of sovereign borrowers. Third, individual banks tend to regard interest rate risk as critical and underestimate the importance of liquidity (funding) risk, which necessarily calls for a market-wide perspective[66]. Calls for a market wide perspective the term "macroprudential" appeared no fewer than seven times in the fourteen-page final report of the Lamfalussy Working Party to the G10 Governors[67]. The report also stressed the "importance of effective supervision of the international banking system, from both the micro-prudential and the macro-prudential points of view". However, the term did not survive in the press communiqué that followed the G10 Governors' meeting in April 1980 and, as a result, it did not emerge in the public domain. Nor did the communiqué make any reference to measures to constrain the growth of international bank lending per se. Rather, it stressed "the importance of maintaining the soundness and stability of the international banking system" and the intention "to strengthen regular and systematic monitoring of international banking developments",

[65] "The use of prudential measures in the international banking markets", 24 October 1979, pp 1–2, in BISA 7.18(15) – Papers Lamfalussy, LAM25/F67.

[66] Possible prudential measures to constrain lending included restrictions on banks' foreign exchange and country exposures, on capital (capital ratios), on maturity transformation and on entry. It was argued that these restrictions "could be a useful approach to ensure that the growth of international lending markets is soundly based", with "some, albeit modest" constraining influence on lending growth

[67] "Report of the Working Party on possible approaches to constraining the growth of banks' international lending", 29 February 1980, in BISA 1.3a(3)J – Working Party on constraining growth of international bank lending, vol 2

including through improvements in international banking statistics. One factor supporting this outcome was the reluctance of the Cooke Committee to use prudential measures with a macroprudential focus[68].

The first appearance of the term in a public document dates back to 1986, in a report by the Euro-Currency Standing Committee, "R*ecent Innovations in International Banking*"[69]. The paper analyzes innovations that financial transformations have led to in the international economic system, such as the significant increase in the number of daily transactions, the growing global integration of markets and the increasing capital mobility. The new economic instruments, in addition to increasing the efficiency of financial markets, also raised the risks within the system as a whole.

Therefore, central banks were required to intervene in order to mitigate the negative effects of such innovations through monetary and macroprudential policies that promote "*the security and soundness of the vast financial system and payment mechanisms*" (BIS 1986). In the following period, the term continued to be used in internal documents of the Bank of International Settlements and of the ESC. It was then used to indicate policies aimed at improving the stability of the economic system, focusing in particular on the links between institutions and markets.

Objectives of macro-prudential policies

The main objective of macroprudential policies can be expressed simply, it is to promote the resilience of the financial system so that the latter can perform its functions and meet the needs of the real economy. More precisely the aim of macroprudential policy is to prevent and manage systemic risk with the aim of avoiding a systemic crisis.

Macroprudential authorities have been established with the aim of pursuing the stability of the financial system, and this is due to the idea that at the beginning of this crisis there is the lack of authority with this particular mandate. These authorities aim to put in place the policy choices aimed at minimizing systemic risk. The search for indicators which would allow the activation

[68] Committee on Banking Regulations and Supervisory Practices, "Report on the use of certain prudential measures to constrain the growth of banks' international lending", February 1980, in BISA 7.18 (15) – Papers Lamfalussy, LAM25/F67.
[69] Piet Clement 2010 "The term Macro-prudential: origins and evolutions"

of those choices, made to prevent and \ or contain the crisis, has provided results not encouraging, with the exception of the indicators based on credit growth.

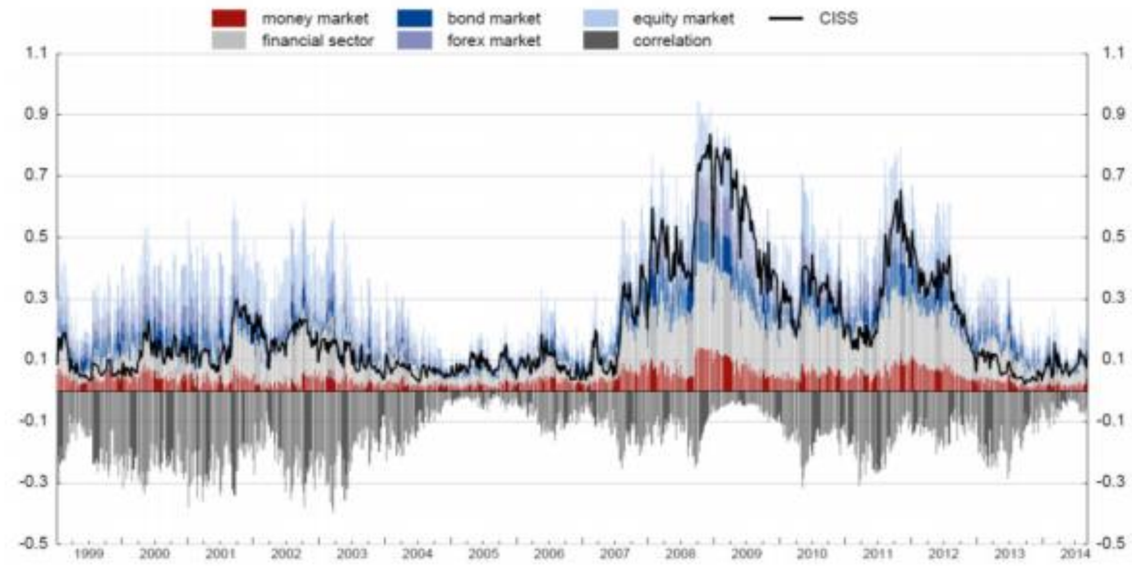

Fig. Aggregate systemic stress indicator for the euro area countries. Source CERS, Risk dashboard.

As said by J. Lepetit (2010), “systemic crisis is a rupture occurred in the operation of financial services, caused by partial or complete degradation of the financial system and having a general negative impact on the real economy.”

Macroprudential policy should be understood as the analysis aimed to test the stability of the financial system as a whole. The "macro-prudential policies" expression has enjoyed real popularity as a result of the crisis and is now used to refer to a number of policy measures that have no end as the first directly to the financial stability of the system; although, technically, only the tools that are used with the explicit primary objective of promoting the overall stability of the financial system and that have a direct impact on financial stability should be considered "macroprudential".

The debate on macro-prudential policies is based on the idea that there is a legal vacuum: no authority has been explicitly entrusted to control systemic risk and it is believed that this has played an important role in the financial crisis. Various sectors of the financial system often fall under the responsibility of different authorities, making it difficult to conduct a thorough analysis of this risk. These considerations led to the creation of new institutions to preserve financial stability (in the EU, the European Systemic Risk Council, the United States, the

Financial Council), or the strengthening of the powers of the existing ones (the Bank of England the responsibility for macroprudential policy) has been assigned.

With reference to the macro-prudential policies a debate has developed about their institutional structure on the one hand and their other operational framework. This discussion comes even before the crisis, but has developed and refined below it. The first area of debate concerns the possible interactions and / or conflicts with other actions of policy makers (we shall see, later on, that there are scenarios in which macroprudential and monetary policies uncooperative may lead to conflict and instability), the architecture of responsible macroprudential authorities, mandates, the aspects of governance and accountability; the second area is devoted to the identification of the final and intermediate objectives, the most suitable set of tools, the method of operation and evaluation of the policies adopted. To date this debate does not boast too many points of agreement and this is due to several reasons: the first of which is linked to the objectives themselves of macroprudential policy.

Even if it is clear that macroprudential policies aims to mitigate systemic risk, the problems stem from the strict definition of this risk since this is a different size not uniquely measurable, making structured to isolate the intermediate objectives and consequently select the most appropriate instruments for achieve them. Second, macroprudential policies have important interactions with other policies (monetary, fiscal, micro-prudential, competition, management and resolution), for which the evidence is not always unique. There are studies in this regard but the results obtained have empirical nature, they are missing, that is, a theoretical and analytical framework that would allow us to understand the problem in its generality.

About the systemic risk just mentioned, we can identify at least two of its dimensions: a time and a sectoral one. The temporal dimension refers to the evolution of risk over time, with particular reference to the financial cycle characterized by expansions and recessions, and the processes of reciprocal amplification between the system and the real economy. This is also known by the name of "procyclicality" of the financial system. From a supervisory point of view, to oppose the pro-cyclical forces, the institutions are taken, during the times of prosperity, to lay the foundations to cope with periods of crisis, through the accumulation of counter-cyclical capital buffers, which will then be released to occurrence, thus succeeding in guaranteeing some stability to the system. The transverse dimension describes how risk is distributed within the financial system at any instant in time. in this case the focus is on the interconnections between financial institutions of the system. This involves the setting of prudential tools in compliance with the systemic importance of each institution and their contribution to the overall risk. The institutions whose failure would be more destructive to the system will be subject to stricter regulation.

Implementing such macroprudential policies is not an easy matter as this process takes place in a scenario in which the various sources of systemic risk are combined and often that happens in unknown ways. Macroprudential policies therefore require the ability to assess and measure a priori systemic risks, so their action must inevitably be preventive, they should be able to exercise before the crisis occur. In the first case, the macro-prudential policy should counter the pro-cyclicality of the financial system[70] in the second, it must intervene with regulatory instruments that make the financial system as much as possible to infections refractory part thereof on the other.

Another lesson of this crisis is that macroprudential policies, so important but so undervalued until a few years ago, have complex interactions with the monetary policies, critical to financial stability. The adoption of macro-prudential policies influences the behaviour of the financial system, thereby altering the monetary policy transmission mechanism; the latter should take into account the impact of such interventions on asset prices and yields.

Stabilizing the financial system, an effective macro-prudential policy that eases the tasks of monetary policy in many ways, is to limit the economic fluctuations going to reduce the frequency and intensity of the financial turmoil and improves the effectiveness of monetary policy by not allowing such financial turbulence to reduce the impact of changes in official interest rates. And what is perhaps more important, to help lessen the pressure on monetary policy will reduce interest rates in order to counter threats to financial stability in the downturn.

The international landscape of macroprudential authorities that have been created is varied in recent years: we simply quote the Financial Stability Oversight Council (FSOC), the Financial Policy Committee (FPC), the European Systemic Risk Board (European Systemic Risk Board, ESRB). These authorities alongside global bodies such as the Financial Stability Board (FSB) and the IMF.

[70] The financial system tendency to widen cyclical fluctuation

Interactions with other policies

There are, besides monetary policy, many policies that can interact with or condition the use of macroprudential policies. These include fiscal, microprudential, and other structural policies. I review the research in these areas briefly. Fiscal policy. Tax policies can contribute to systemic risk when they encourage leverage, as when interest payments are tax deductable, or affect asset prices[71]. Macroprudential authorities have therefore an interest in the correction of such biases. Even when not contributing directly to risks, taxes can affect the conduct of macroprudential policies. Real estate taxes (property taxes, stamp duties) can be capitalized into house prices (e.g., Van den Noord, 2005), making (future) tax policies possibly relevant for financial stability. Since various Pigouvian taxes and levies can address systemic externalities (IMF 2010), coordination between macroprudential and fiscal agencies may be needed. Little is known though on the quantitative importance of these aspects. And fiscal policy in the aggregate matters as it can counter (or be a source of) procyclicality. Microprudential. Macroprudential policies presume effective microprudential regulation and supervision. Most often, when conducted properly microprudential objectives will be aligned with macroprudential policies, but there can be conflicts[72]. This is most clear in bad times when a macroprudential perspective may suggest relaxing regulatory requirements – as they impede the provision of credit to the economy or contribute to fire-sale effects, while the microprudential perspective may seek to retain or tighten requirements – so as to protect the interest of depositors of individual banks or investors. In good times, conflict of interests are less likely, e.g., both authorities will ask banks to build up buffers, but the macroprudential perspective will likely still call for greater prudence. Some of this conflict is institutionally related. For example, accounting indicators, more often used by microprudential authorities, likely give a more positive picture of an institution's balance sheet in boom time than a system's view would. While recognized, how to address these issues largely remains an open question. And, as also argued by Jeanne and Korinek (2013), an ex-post strategy of cleaning up after a crisis can be part of an efficient approach to "managing" risks, thus calling for crisis management to coordinate with ex-ante policies other than structural policies. Conflicts can also arise in the design of structural policies, as when risks arise from how microprudential

[71] De Mooij, Ruud A., and Michael Keen. "Debt, taxes, and banks." Journal of Money, Credit and Banking 48.1 (2016): 5-33.
[72] Osinski, Jacek, Katharine Seal, and Mr Lex Hoogduin. Macroprudential and microprudential policies: toward cohabitation. No. 13-15. International Monetary Fund, 2013.

policies are conducted. For example, a very high loan to value ratio is likely to increase the incidence of real estate booms. Even when set optimally from a microprudential perspective, capital requirements can increase overall procyclicality. Or a public safety net, including deposit insurance, while reducing the risk of runs on individual institutions, can give rise to greater system risks[73]. The use of ratings may introduce (more) procyclicality (Amato and Furfine, 2004). And accounting rules aimed at greater transparency and fostering more market discipline can mean more procyclicality as chances of fires-sales increase when institutions mark asset to market. Also, by affecting incentives for risk-taking, there can be an inverse U-shaped relationship between bank competition and financial stability[74]. And house price developments will be importantly affected by land use and construction policies. These examples show that macroprudential policies need to be coordinated with many policy areas, in part as the need for them arises exactly from these other policies.

International financial and policy spillovers

The de-facto international financial integration of most countries affects the desired use of and effectiveness of macroprudential policies. Given financial integration, cross border spillovers may arise when the financial cycle is in an upswing in one country but in a downswing in another, or if countries are or are not using macroprudential policies.[75] The cycle appears largely driven by conditions in major advanced countries, thus, it is not obvious that the commonality itself or addressing it from the major countries' perspectives alone is optimal for all countries. Regardless, being financial integrated means countries have less control over their own financial stability. Policy spillovers can also arise when countries vary in policies or calibrations to deal with similar risks, or in policy effectiveness.

When policies are not effective at the source country to stem risks related to outflows, recipient countries can be negatively affected if they cannot stop inflows. Spillovers can arise when institutions adjust to local restrictions by decreasing or increasing cross-border activities. Spillovers can also arise when institutions from country A reduce cross-border flows to country B in response to its rules and increase flows to country C. Even though the scope for policy

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[73] Anginer, Deniz, Asli Demirguc-Kunt, and Min Zhu. "How does deposit insurance affect bank risk? Evidence from the recent crisis." Journal of Banking & finance 48 (2014): 312-321.

[74] Allen, Franklin, and Douglas Gale. "Competition and financial stability." *Journal of Money, Credit, and banking* 36.3 (2004): 453-480.

[75] We can assume different types of international spillovers, but the focus here is on financial and policy spillovers. Furthermore, many policy spillovers can be positive, as when risks are reduced or better diversified when one system becomes more stable due to macroprudential and other policies.

spillovers is large, the case for international coordination and cooperation depends on the presence of negative externalities. Building on this, Korinek[76] argues that spillovers can lead to inefficiencies under three circumstances: if policies are “beggar-thy-neighbor;” if policy instruments to deal with externalities operate imperfectly; and if global markets are incomplete or restricted.

While there can be some limited scope in principle, policy coordination is hard in practice. And indeed so far, coordination has been limited, with instruments and mechanisms only defined for the countercyclical and systemic capital surcharges in Basel III. While more progress can be envisioned, policy spillovers are likely to remain. For individual countries, CFM tools may then sometimes be part of a useful policy response. This raises how to coordinate between Capital Flow Management policies (CFM) tools and macroprudential policies. Here Korinek and Sandri[77] provide a useful dichotomy: macroprudential policies should address externalities related to domestic credit and CFM tools those related to exchange rate movements. How to make this operational, however, remains to be determined.

The elements that make macroprudential policies effective

The application of macroprudential policies requires a well-defined governance mechanism, but the considerable differences between the countries suggest the absence of an undifferentiated approach: the institutional arrangements are in fact built on the basis of the specific background of each nation. Nevertheless, it was concluded that the effectiveness of such policies is achieved more easily by providing the authorities concerned a clearly defined and realistic purpose.

In many jurisdictions, an important role in the decision-making process lies with the supervisory and supervisory authorities, which possess the appropriate skills and information. However, such authorities may be less familiar with macroeconomic considerations as they tend to “*focus on the security and solidity of individual intermediaries rather than on the system as a whole*”[78], leading to generation of conflicting situations when the micro and macro-prudential prospects should require diverging action. On the contrary, central banks *“are in a better position to understand the behaviour of the markets and the links between the financial system and the real*

[76] Korinek, Anton, and Alp Simsek. "Liquidity trap and excessive leverage." The American Economic Review 106.3 (2016): 699-738.
[77] Korinek, A., and D. Sandri. "Macroprudential regulation or capital controls." (2014).
[78] Bank of International Settlements, 2010

economy"[79]. Indeed, central banks, having more incentives to use the instruments available for macro-prudential purposes, are the main players in taking discretionary measures in response to signs of financial turmoil.

Provision of new, appropriate institutional structures bringing together the macroeconomic and central bank core competencies and the prudential ones of the supervisory and financial regulatory authorities would be desirable in order to further develop the prudential macro-prudential framework.

In the European Financial Supervisory System, the main institutions involved in the macro prudential front are the European Systemic Risk Board CERS, the ECB and the NCA Competent National Authorities. National governments are required by the ESRB to explicitly foresee macro-prudential work within the legislative framework. This involves the election of an independent national authority at a national level, with appropriate powers and tools to attain the objectives of the macro-prudential policies that must be specified above. The authority will be called upon to account for its operation, "it may be autonomous or have the form of a committee composed of authorities with financial stability competencies within which the central bank should have a leading role.

A comprehensive framework for systemic risk monitoring is important to make macroprudential policies work. To assess the accumulation of risk over time, authorities typically examine certain aspects including economic system vulnerabilities generated by excessive growth in total credit or asset price; the sectoral fragility resulting from credit growth to the domestic sector or from increases in the exposure to the business sector; and those arising from the accumulation of currency misalignment and maturities within the financial sector.

Regarding the "cross-dimension", the estimation of the fragility related to the distribution of risk within the financial system at any given time is done by monitoring the risks arising from the connections between the major classes of intermediaries and market infrastructures. At the same time, the impact of any of these institutions on the issue as a whole should also be taken into account.

While well-known and well-experienced instruments such as inflation indices, economic activity measures are available for monetary policy goals, systemic risk measures are at a less advanced stage. Indeed, systemic risk, in addition to being very difficult to define, is also very

[79] Ibidem

difficult to measure and predict. This is mostly due to the elusive nature of the phenomenon. As explained by Angelini[80], in the financial sphere, systemic risk may arise and spread within a particular class of financial institutions (i.e. bank branches), between companies in different sectors (i.e. the default of an investment company may be transmitted to other intermediaries), between markets (a stock market collapse, currency crisis, interbank market failure), between two geographic areas (national vs. international crises), market infrastructure (central counterparties, wholesale payment systems). For such reasons predicting causes of financial instability is very complicated. Macroprudential authorities must therefore face many problems: how to trigger cost-effective tools without clear warning signals of the problems that are being prevented? How to account for actions in the absence of good measure of the effects of the implemented policies?

Leading Indicators

Empirical evidence shows that over periods of excessive credit growth are followed by economic crises and rapid fall in property and financial assets prices. A number of anticipatory indicators, which are able to signal the risks with sufficient advance to take countermeasures, are considered to be useful in assessing the vulnerability of the system before the appearance of the first signs of crisis.

Additional indicators have been proposed to the risks generated by the fragility of the corporate sector, as well as liquidity[81] and exchange rate[82]. Since the individual reporting performance of any indicator is imperfect, a number of indicators are generally used to evaluate systemic risk entities for a potential source of vulnerability. Additional indicators may include leverage measures (ratio used to measure a company's indebtedness)[83], as well as the burden of domestic debt service and the interest coverage ratio[84] of firms, also considering their evolution in stress,

[80] Angelini, Paolo. "Le Politiche Macroprudenziali: Una Discussione Dei Principali Temi (Macroprudential Policies: A Discussion of the Main Issues)." (2015).
[81]Liquidity risk is, in the context of a credit transaction, the risk that the debtor will not be able to meet his monetary obligations in the contracted times
[82] The currency risk is related to the possibility that a change in the value of the exchange rate between two currencies generate a loss of purchasing power of the currency held and a subsequent reduction in the value of loans
[83] The formula for the calculation of leverage is as follows: = leverage (equity capital + borrowed capital) / equity. If the value is equal to 1 it means that the company has no debt, that has not had recourse to outside capital. If the result is greater than 2 it means that the capital is lower than that of the third party.
[84] The Interest coverage Ratio is used to determine how easily a company can pay interest on outstanding debt. The interest coverage ratio may be calculated by dividing a company's earnings before interest and taxes (EBIT) during a given period by the amount a company must pay in interest on its debts during the same period.

such as rising interest rates or deteriorating corporate earnings. In addition, specific macro-prudential stress tests specifically designed can help assess the ability of the system to continue to operate in a variety of adverse economic and financial conditions, thus complementing the use of forward-looking indicators. Stress tests are a simulation technique that seeks to measure the vulnerability of a financial system, a group of banks or a single bank, to extreme, but possible events. They have been elaborated since the underestimation of the risks arising from "unpredictable" events and their impact on banks and the system is often the source of financial crises. Such events, if they occur, have very negative effects on banks' solvency and system stability. The main objectives of these prudential measures are: to assess the availability of key or systemic banks, to estimate the fragility of the financial system.

These measurement methods, including leading indicators, cannot, however, be used mechanically, since no rule can always be effective at all times. There will inevitably be a degree of discretion (a discretionary approach). This gives policy makers the flexibility they need to take advantage of a wide variety of risk indicators and to make subjective predictions about systemic risk evolution. It also allows to adapt the responses to the nature of accumulated risk and vulnerabilities, to the extent that they can be detected in real time. Finally, discretionary measures are more difficult to circumvent than more predictable rules and notes.

Macro-prudential instruments

Experience suggests that a broad range of tools may be necessary to achieve macroprudential policy goals, and these tools must be able to address the range of potential vulnerabilities both in the temporal and transverse dimensions. A key part of developing macroprudential instruments is to adapt existing microprudential tools, such as strong prudential standards (for example, requirements to hold high capital and liquidity buffers) and limits on activities that increase systemic vulnerabilities and risks. These standards and limits might be occasionally varied, or adjusted in a countercyclical manner, especially with a view to leaning against the financial cycle. When that is the aim, the instruments would be adjusted dynamically in response to changing assessments of financial risks. Adjustments would need to occur both on the upswing, when vulnerabilities are building, and on the downswing, when risks of a destabilising credit contraction are rising.

Existing microprudential instruments could be used for promoting financial system resilience. They can be recalibrated to limit the financial system's exposure or vulnerability to shocks. Instruments in this category include capital and liquidity requirements with a "buffer" character, limits on leverage in particular types of lending contract, constraints on currency mismatches, or measures that strengthen financial infrastructure. **Table 1** shows some examples of macroprudential instruments, categorised by the main risk factors they influence or constrain, and by the component of the financial system they work in. Leaning against the financial cycle requires instruments that can be varied actively and calibrated quantitatively. They might apply narrowly to sectors where systemically relevant imbalances are developing, or more broadly to intermediaries and markets across the financial system when financial excesses are more generalised. Ideally, the instruments should be effective in leaning against both the upswing and the downswing. In the latter phase, their task would be to avert a generalised fall-off in risk appetite and credit. Few potential instruments appear to exist with these characteristics, but work is under way in international forums to develop them. The Basel Committee on Banking Supervision is considering the introduction of measures to promote the build-up in good times of capital buffers that can be drawn down in periods of stress.[85] And in a recent report on how haircuts and margining practices can exacerbate procyclicality, the CGFS discussed the possible use of countercyclical add-ons to supervisory haircuts that could be used to vary capital requirements on secured lending.

Table 1

Macroprudential instruments by vulnerability and financial system component

		Financial system component				
		Bank or deposit-taker		**Non-bank investor**	**Securities market**	**Financial infrastructure**
		Balance sheet*	**Lending contract**			
Vulnerability	**Leverage**	• capital ratio • risk weights • provisioning • profit distribution restrictions • credit growth cap	• LTV cap • debt service / income cap • maturity cap		• margin/haircut limit	
	Liquidity or market risk	• liquidity / reserve requirements • FX lending restriction • currency mismatch limit • open FX position limit	• valuation rules (eg. MMMFs)	• local currency or FX reserve requirements	• central bank balance sheet operations	• exchange trading
	Interconnectedness	• concentration limits • systemic capital surcharge • subsidiarisation				• central counterparties (CCP)

* Capital and other balance sheet requirements also apply to insurers and pension funds, but we restrict our attention here to the types of institutions most relevant for credit intermediation.

[85] See "Consultative proposals to strengthen the resilience of the banking sector announced by the Basel Committee", Basel Committee on Banking Supervision press release, 17 December 2009.

Table 2

Macroprudential aims within the overall objective, and instruments: a stylised comparison

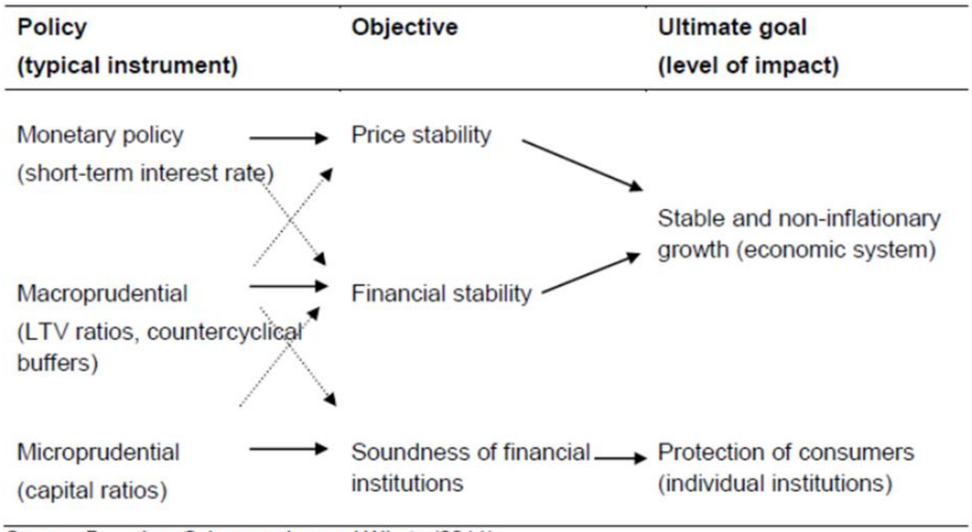
	Aim	
	To enhance financial system resilience to shocks	**To moderate the financial cycle**
General approach to achieving aim	Recalibrate micro tools taking into account systemic risk	Use tools dynamically in response to the financial cycle
Key features of instruments	May be macro- or micro-style (ie institution-specific elements in application and calibration)	Tend to be macro-style: broad application, eg across all banks or markets
Frequency of adjustment	Generally less frequent or might be one-off (eg in response to structural changes in the financial system), but frequent review and adjustment also possible	Tend to be periodically reviewed and more frequently adjusted, in response to fluctuations in the financial cycle

Table 2[86] shows some broad differences in the style of macroprudential policy that might correspond to the two aims outlined above. In practice, shades of grey will exist, of course. Some instruments and styles could be applied towards both aims. For example, LTV ratio caps could be set at a certain level or norm (for instance, 80%) and left there. They would in this case contribute mostly to the aim of enhancing financial system resilience, but they might also act as automatic stabilisers, thus helping to moderate the financial cycle. If policymakers wanted to enhance the latter effect, such caps could be adjusted around their norm in a countercyclical manner.

The financial system crisis of 2007-2009 has stimulated a wide range of analyses and, relating to the latter, proposals to improve and enhance prudential supervisory profiles. The content of these suggestions is different for Europe and America, which is justified by the fact that financial systems are not all the same, for example, the "mediation market" is far more extensive in the US than it is in Europe[87].

[86] Hoogduin, Lex. "Macroprudential instruments and frameworks: a stocktaking of issues and experiences." *BIS report submitted by the Committee on the Global Financial System* 38 (2010).
[87] Goodhart, Charles AE. "Money, credit and bank behaviour: need for a new approach." *National Institute Economic Review* 214.1 (2010): F73-F82.

Figure 1: Policy framework for the financial and economic system



Source: Based on Schoenmaker and Wierts (2011).

Apparently, the simplest solution to contain systemic risk is to force all major players in the financial system to increase capital, compared to what is already provided by the micro-prudential rules. This additional capital leads to an increase in the marginal cost of credit activity and therefore reduces the leverage effect. The amount of this additional capital should be set by the central banks that should make their decisions using two steps: the central bank first determines the operational objectives of its countercyclical policies, so that it is based on measurements of the credit offerings surplus in relation to the long-term trend. Subsequently, the same bank determines the additional capital that must be held by all major banks in the system to limit an excessive credit. Total additional capital is then divided between the system's institutions based on their overall systemic risk. Three are the main criteria to do this:

i) the equity coefficient (ERC),

ii) maturity mismatch

iii) the growth rate of credit granted by the single bank compared to the total credit offered in the economy.

In a more general, or theoretical, sense, the tools of the macroprudential regulation have the purpose of achieving intermediate objectives, then choosing the tools of macroprudential policy is closely related to the definition of such goals. Their application should follow efficiency and effectiveness criteria. Empirical results show that these tools respect the efficiency criterion, that is, they are able to produce the desired effects, but are not unambiguously true if they also comply with efficiency, that is, they achieve their goals by minimizing the costs and consequences associated. An "effective" tool is the one that has the capacity to face market failures and achieve intermediate and final goals; an instrument, however, is "efficient" if it achieves these goals but does it minimize costs, therefore, continuing to contain systemic risk, promotes long-term economic growth. Macro-prudential policy tools can be classified, for example, by following a criterion related to the operation of such tools.

Classification takes place according to different criteria proposed in the literature and we look back[88]:

1. Aggregate approach tools and targeted approach. Aggregate tools are those that aim to reduce the imbalance and risk of the entire financial system. Think of, in the case of generalized credit bubbles, anti-cyclical capital buffers, liquidity and reserve requirements. Targeted instruments (also called "sectoral") are aimed at addressing the risk that emerges in a specific system of the financial system, for example. that of real estate credit in the case of so-called loan-to-value (LTV)
2. Instruments that influence market structures, those acting on brokers' balance sheet amounts and the characteristics of financial transactions[89]. There are mainly two budget areas of the intermediaries involved in the macro-prudential policy instruments, as evidenced by the so far-known experiences. These areas are: credit and liquidity. In the case of credit-related instruments, we can further distinguish: i) instruments aimed at influencing the behaviours of lenders, such as anti-cyclical capital ratios, leverage limits, variable provisions, limits to net foreign currency position, the ceilings for credit growth and the loan-to-deposit ratio (LTD); ii) tools that focus on the borrower's behaviour: limits on LTV and LTI parameters. With reference to the instruments related to liquidity, we speak of limitations to net foreign currency positions, limitations in changing maturities and liquidity reserves.

The instruments that may affect terms and conditions of financial transactions primarily concern loans; for example, they aim to reduce the amount of mortgage loans that is high in relation to the value of real estate (LTV) or income (LTI). They also concern the imposition of minimum margins on guarantees and derivative transactions. Price based instruments and quantity based instruments. Another classification is based on price and quantity variables:

[88] Angelini *et al.* 2013; Davis e Karim 2009; Panetta 2013; Borio 2010
[89] BoE 2011

a) Those prices based: capital and liquidity coefficients, taxation of some financial transactions.
b) Those based on mortgage lending limits (LTV or DTI); requirements for secured financial transactions.

Complementary tools of macro-prudential policies

The European Systemic Risk Board (ESRB) published on June 30th, 2015 the document "A review of the macroprudential policy in the EU one year after the introduction of the CRD / CRR" in which it presents an analysis of the use of policy tools macro-prudential by the states of the European Union. The European legislator has provided for a macro-prudential framework for the banking sector at European level, where specific instruments are foreseen for the additional capital reserves. This new approach has the task of replacing the core of banking supervision from the single lender to the banking sector in its entirety, placing that of financial stability as the ultimate goal of its action.

	Micro-prudential	Macro-prudential	
Eu level	EBA	**European systemic risk board** (General Board composition)	
	ESMA EIOPA Joint Committee of the ESAs	Chairperson EBA ESMA, EIOPA EU Commission member, ATC Chair, ASC Chair and 2 Vice-Chair Governor EU **non euro-area** NCBs	*Without voting rights* EFC President high-level representative per **non euro-area** Member State of national supervisory authorities
Euro-area level	**SSM**	Governors **euro area** NCBs, ECB (president and vice-president)	high-level representative per **euro-area** Member State of national supervisory authorities
National level	Competent or supervisory authorities in Member States	**NDAs ex CRDIV/CRR** National macro-prudential authorities ex **ESRB recommendation ESRB/2011/3**	

The table above shows the macroprudential framework according the institutional set-up.

Considering this new objective, the economic reason behind the introduction of these new regulatory instruments concerns the need, highlighted in the most severe phase of the financial crisis, to alleviate systemic risks arising from "pro-cyclical" behaviour of agents of the economic system in the expanding phases of the financial cycle. With the April 2013 CERS \ 2013 \ 2001 Recommendation, the ESRB goes on to define systemic risks and list it, in which we find: - the risk of high levels of credit expansion and leverage; - the risk of a marked misalignment of maturities and low market liquidity; - the risk posed by the concentration of exposures is direct or not; the risk associated with a failure to maintain the infrastructure of the financial system; - the risk of moral hazard. In addition to what is said there are a number of complementary tools, we should mention the following:

a) Dynamic Provision: The objective of dynamic provisioning is to avoid large fluctuations in the provisions and, consequently, to reduce their impact on the financial results of banks. Some countries, including Spain and Portugal, have already introduced dynamic provisioning in their banking systems. So far, the effect of this measure is difficult to evaluate. On the one hand, the measure does not appear to have reduced the propensity to excessive risk assumption during the Spanish real estate boom. On the other hand, this measure seems to have increased the resistance of the banking sector during the crisis. Therefore, it is to be said that, according to some authors, the effectiveness of anti-cyclical measures - capital coefficient or dynamic provisioning - remains to be demonstrated. (Caprio, 2010)
b) Using stress tests: This is to check the banks' ability to respond to exogenous shocks. The use of these tests has the advantage of developing a "risk culture" in financial institutions and also enhancing a better knowledge of risk profiles by the regulator. What this tool fails to consider are endogenous risk factors, which are the core of systemic crises.
c) Charging the financial system ": different governments, the International Monetary Fund and the European Commission have proposed to tax financial institutions - more specifically a bonus tax in France and the United Kingdom, one on exceptional withdrawals in the United States, a tax on assets financial advised by the IMF, a tax on financial transactions promoted to the EU, etc. etc. These proposals are geared towards pre-financing costs, reducing the size of the financial sector and changing banks' behaviour in the sense of stimulating them to greater caution. With the Fourth Capital Requirements Directive 2014 and the CRD4 \ CRR Regulation, a wide range of macro-

prudential instruments have been introduced in Europe. The anti-cyclical capital reserve is an additional asset requirement that authorities can modify over time by increasing the capital required by banks to counteract excessive credit growth and reduce it in negative cycle phases. The goals of this measure are the stabilization of the credit cycle and the strengthening of banks' assets in the expansive stages of the cycle to better address the negative. Typologies of non-variable instruments over time are the capital reserve and the system capital reserve. CRD4-CRR package includes other tools aimed at limiting overheating episodes of the housing market by acting on demand for loans.

These types of tools have been used countercyclically in the past in industrialized countries, but a more in-depth knowledge of their effects comes from the latest experiences in developing countries. An example of the application of industrialized countries is what happened in Spain with the mechanism of "dynamic provisions" that involves the accumulation of bank capital when there is a high growth in employment, even in the USA, for example, use of the mandatory reserve, ceilings on deposit rates or credit growth. In Europe, with the application of CRD4-CRR, a significant phase of experimentation has begun. In the European Union, less than 50 macro-prudential measures have been put in place for the whole of 2014. Similar measures were also implemented by non-EU countries, for example in 2013 Switzerland introduced counter-cyclical buffer, 1% of risk-weighted assets, increased to 2% at the beginning of the following year.

There are significant differences among the countries of the Union about the adoption and the type of macro-prudential instruments. A first group of states, including Denmark, Slovakia, Sweden and Great Britain, has put in place a series of measures, in particular the anti-cyclical and conservative capital reserves, liquidity constraints limits, leverage financial and industry risk weightings - and a second group comprising the Germans, the Spanish, the French, the Portuguese and the Austrians, characterized by a regulatory framework of the less developed one. Italy, unfortunately, is part of the second group since it has only implemented the capital reserve foreseen by the Bank of Italy since January 2014. In accordance with the rules laid down in Circular no. 285, concerning bank supervision provisions, is required for consolidated banking groups and banks not belonging to these groups to apply a further capital coefficient of 2.5%. If banks fail to comply with this rule, the distribution of dividends, variable remuneration and other factors affecting the formation of supervisory capital will be prohibited. It is foreseen that these must also establish measures to restore the required capital reserve.

In general, we can safely say that the macro-prudential framework is going to expand. Indeed, since January 2016, it was envisaged that all Italian banks should adopt the anti-cyclical capital reserve governed by CRD IV. In addition to what is said, namely the mandatory implementation of the CRR\CRDIV package, there is no evidence of greater consolidation of the national macroprudential framework. To date there are no further regulatory proposals aimed at extending and / or integrating the range of macro-prudential instruments available to the authorities.

The possible reasons for preventing the application by the EU of a more developed and organic macro-prudential policy are various and indicated by the ESRB: the views on the effective effectiveness of such instruments, those linked to the establishment of a specific macro-prudential authority that deals with their realization and those based on fragility in the financial cycle. The real obstacle to the implementation of this policy is the failure to approve a national macro-prudential authority, which was expressly requested by the ESRB with the third recommendation of 2011. Although it is plausible to foresee that this authority will be effectively established (as a Standing Committee it is also clear to the present that the lack of such an institution does not allow the realization of a genuine national macroprudential policy, that is, with a high degree of reaction to systemic risks. Another impediment concerns current credit market conditions in Italy. Indeed, credit supply to businesses is still in a downturn, which implies that the application of additional macro-prudential instruments in this business could further aggravate the credit supply situation, adversely affecting economic recovery. Given the criticisms put forward, the poor adoption by the Italian legislature of a small macroprudential framework is to be considered justified. Nevertheless, it is useful to point out that there is a possibility that the benefits to credit institutions resulting from the non-application of such instruments could be overruled by the costs associated with financial shocks and unexpected shocks. Going to define a more solid and organic macro-prudential framework would provide the Italian banking system with greater resilience and response capability when faced with the emergence of systemic risks.

Rules vs discretionality

A key and critical aspect of macroprudential policy is the implementation and regulation of its intervention tools. The starting point is that macroprudential policies should, as has already been emphasized, primarily predominantly nature, and not a posteriori type of interventionism. Considering this, the use of tools can be defined by a rule-based reference framework or it may be based on discretionary behaviours of authorities. The tools discussed above in the macroprudential policies can be static or time-varying. The latter can be either automatic or the kind of ones that are subject to discretion by the macro-prudential regulators. The first ones are triggered by certain thresholds of selected indicators, with the aim of preventing financial fragility situations; the seconds that are activated when the threat of systemic shock begins to be concrete.

Identifying the occurrence of financial instability before they actually occur is one of the main difficulties for macroprudential authorities, which is the justification behind the use of static tools. This difficulty is related to the fact that these are rare events for which there is not even a large historic series as a reference. This reality and the frequent ineffectiveness of preventative measures lead some authors to think that if we are to prevent financial crises, then we need to implement tools that act automatically. Distortions of financial activity and the creation of incentives to circumvent the rules would be the problems associated with the rigid application of the instruments, as this rigidity might be counterproductive in relation to the different phases of the economic cycle. Hence a key element in the use of the instruments of macroprudential policy lies in the calibration of these tools and in public communication to the regulatory policy undertaken. The alternative is to use the other types of instruments, that is, those of a time-varying nature. Considering the scenario, the issue of the discretion of the authorities is of central importance.

We can consider unconventional cases: the degree of minimum discretion, that is, nothing, so the measurements are automatically triggered when and if the indicators go beyond the thresholds of attention, this is the so-called rule based calibration; and the other limit case, when the discretion is total, that is when decisions about the intervention are fully in the hands of the judges of the macro-prudential authorities. In this regard, think of a fairly typical tool, the anti-cyclical buffer of Basel III; in this case, the regulatory authorities determine whether and how to activate this capital ratio - which however may vary between 0 and 2.5% of risk-weighted assets (RWA) - and this decision is based on the dynamics of relationship between credit and gross domestic product. There are also contraindications regarding the use of time-varying instruments, especially in the two extreme cases considered. If you consider the first limit case, i.e. when there is no discretion and the macro-prudential regulation snaps automatically in response to the overcoming of predefined thresholds and restrictive response measures are applied, all the assumptions are configured to have system critiques about the measuring the risk that triggered the intervention of the authorities. On the other hand, in the other extreme case, the one with a wide discretion in decision making, the regulator is exposed to a strong pressure from the "lobby" involved, which can lead to tolerant behaviours by the authorities, setting the risk of regulatory capture from part of who is set.

The best solution is identifiable as an intermediate path between zero and absolute discretion. This solution can be configurable in the introduction of a solid fixed-baseline, time-invariant baseline policy, upon which discretionary time-varying interventions, when the situation requires and permits. The fixed base aims to stabilize the balance in normal times; the second type of action, based on a maneuvered discretion, is based on an overall assessment that considers all available information. The aim is not to limit a priori the discretionary intervention but to calibrate it in relation to the circumstances. In this way, we overcome the problem associated with the definition of rules that are either totally mechanical or totally discretionary. By doing this it becomes possible to link the protection of natural conditions of stability with the possibility of adjusting and personalizing macroprudential interventions, depending on the structural evolution of the financial system and the modification of the sources of risk.

3- THE CENTRAL BANKS' ROLE IN MACRO PRUDENTIAL POLICIES

Central Bank's independence, transparency and responsibility

The 2007 crisis, due to its gravity, has had a major impact on all fields of the classical economy, and many scholars, a decade since its inception, still analyse the causes and motivations that led to what has been Defined as "the second great recession". Monetary policy, the policy governing the money market, has been called into question to help find a solution to the crisis, although it alone cannot solve all the problems that have arisen. Central bankers were for this reason under the spotlight, with an ever-wider audience listening to their decisions. Therefore, in parallel with their operational choices, almost everywhere they started to reflect on their communication strategies used to eliminate the uncertainty that the crisis had generated. Thus, in the boards and the governing council, the central bankers had to deal not only with macroeconomic projections and inflation rates, but with communication in the strict sense. The reason they did this is because the decisions taken are only effective if they are communicated in the right way.

Central banks, since their establishment, played a key role in the economy of the states. Initially set up to guarantee the issue of banknotes and coins, an old prerogative director, subsequently held other key functions such as the payment system guarantee and the management of monetary policy. Today, these institutions continue to exist, although their nature has changed over time. For example, in the case of European central banks, there has been a gradual transfer of many of their powers in monetary policy in the strict sense to supranational authorities, first of all the ECB. Many others continue to maintain their authority, such as the Bank of England (BoE), the Federal Reserve of America (Fed) and the Bank of Japan (BoJ). Independence from political power and government is also a key requirement to allow central banks to operate without losing their credibility in the markets. Independence also makes them less subject to political influences that could leverage monetary policies to obtain short-term benefits at the expense of long-term stability. For this reason, central banks have been equipped with accountability tools in the last few years, enabling them to respond in the best way to the increasing demands of transparency from economic operators.

As for the aspect of responsibility for citizenship, it is worth remembering that central banks are independent, and their governors are not subject to elections by citizens, but are generally designated by national governments, where there is not a negative opinion from the management bodies of the same bank. This aspect is particularly delicate, and independence from political power has been increasingly recalled by governors of several central banks, with two reasons: to "defend themselves" from the sometimes excessive interference of political power and to demonstrate absolute autonomy at the time of Implementation of monetary policy choices. In recent years, more and more often, central bankers have been pointing to this autonomy.

It should be remembered that monetary policy cannot solve a crisis on its own but, as classical macroeconomics teaches, can only deliver tangible results in the presence of tax policies that go in the same direction[90]. Tax policies are, however, exclusively the responsibility of national governments, creating a dualism which, in the absence of coordination between the institutions, can be an obstacle to achieving the objectives. The objectives of the central banks can be multiple. Price stability is present in all the mandates, which means maintaining a level of inflation that is neither too slow to slow the economy nor too high to lead to a hyperinflation situation. Other possible targets are the reduction of unemployment, the promotion of the country's economic growth, and the active support of investments through the reduction of interest rates. What are the channels for the transmission of monetary policy? Mainly, central banks operate by modifying official interest rates, with direct influence on interbank and indirect interest rates on interest rates decided by banks for their operations. The second channel is to influence the expectations of economic operators, thus changing interest rates over the medium to long term.

Furthermore, the central bank can also "drive" future inflation expectations, and if it has a high credibility, it can anchor them. The third channel is what, due to expectations, impacts on asset prices, making them grow or decrease. Consequently, decisions on savings and investments may also vary, with effects on aggregate demand and hence on economic growth. Lastly, the last channel is the banking one, where with the change in the interest rate, one can adjust the amount of money that is being delivered to consumers in the form of a loan.

[90] Chubb, John E., and Terry M. Moe. Politics, markets, and America's schools. Brookings Institution Press, 2011.

As already said, the financial system is a complex architecture which enables the economic operators - businesses, households, governments, and others - to transfer the resources, make payments and manage the various risks. The authorities responsible for financial stability have the task of ensuring the proper functioning of the system. The latter can be defined as "financially stable" if it facilitates the allocation of resources in space - then between sectors and between geographical areas - and if time allows the formation of fair prices of financial assets. A stable system must also limit risk concentration allowing their management also using appropriate means and must continue to operate even in the presence of unexpected and adverse events.

Financial stability is crucial in the context of the financial system and also the economy in general. With the growth in the number of financial institutions operating in more countries, the aforementioned stability has taken on a global significance. To protect the financial system and ensure its stability must identify the main sources of risk and different vulnerabilities with the aim to sensitize all stakeholders, including, most importantly, the supervisory authorities.

As mentioned in the first chapter, a teaching that comes from the global crisis and still has to be studied and deepened is the importance and the value of the stability of the financial system and how this is intertwined with the rules of conduct of monetary policy and macroprudential. This stability must be pursued with targeted policies, of macro-prudential nature, that is to contain systemic risk.

Macroprudential authorities have been established with the aim of pursuing the stability of the financial system, and this is due to the idea that at the beginning of this crisis there is the lack of authority with this particular mandate. These authorities aim to put in place the policy choices aimed at minimizing systemic risk. The search for indicators which would allow the activation of those choices, made to prevent and \ or contain the crisis, has provided results not encouraging, with the exception of the indicators based on credit growth.

Considerations on financial stability for monetary and macroprudential policy

The Banking Union was a vigorous response to the financial crisis. It is based on three pillars: the SSM, the only mechanism for bank crisis resolution and the harmonization of deposit guarantee systems. It was established, following the financial crisis, with the objective of restoring confidence in the European banking sector and strengthening financial integration between the member countries. Its ultimate goals are to safeguard financial stability and efficient allocation of resources in the euro area in order to support economic growth. In such a context, the new macro-prudential supervision system plays a key role. The crisis has shown that, by focusing only on the solidity of individual intermediaries, supervisory authorities may underestimate the risks to the stability of the financial system as a whole. Macroprudential policies aim to mitigate fluctuations in the financial cycle both in the expansive and in the contraction phases, carrying out anti-cyclical action to prevent systemic risks. The set of tools available to supervisors is wider today, but also more complex.

The objectives of microprudential and macroprudential policies tend to be aligned during the cyclical expansion phases, but may sometimes diverge during the contraction phases. When the economy is weak, it becomes more difficult to find the right balance between micro and macro-prudential policies. In my opinion this is the main challenge the authorities face today in Europe. There is a wide variety of macro-prudential tools that could be used, depending on the type of system vulnerability factors and on the basis of which financial system sectors refer. A categorization proposed by the "Commitee on the Global Finacial System" in 2012 includes countercyclical capital buffers, industry capital requirements, margins and haircuts, and LTV and debt/credit ratios, although some of these countercyclical instruments are new and not widely used . This therefore also implies that their effectiveness in terms of risk mitigation capacity is still little known.

A 2012 empirical study conducted by Kuttner and Shim[91] on the use of the above-mentioned macro-prudential instruments in 57 countries from 1980 to 2012 focuses on the effects of the LTV and debt/ credit ratios, showing that these can mitigate the rise in the price of houses and reduce credit growth. The authors document 662 actions, but about one-third of them have been

[91] Kuttner, Kenneth, and Ilhyock Shim. "Taming the real estate beast: the effects of monetary and macroprudential policies on housing prices and credit." of: Heath, Alexandra, Packer, Frank, & Windsor, Callan (eds), Property Markets and Financial Stability. Sydney: Reserve Bank of Australia (2012): 231-259.

used only in five countries, making their results not applicable to the whole of the countries, given the diversity of different financial systems. According to the authors, macro-prudential structural policies can be considered exogenous for monetary policy, as they generally do not vary with the economic cycle, as opposed to cyclical ones that have an endogenous nature with monetary policy.

A simple approach to the interaction between cyclical macroprudential policy and monetary policy might suggest that these may be severed by *Tinbergen*[92]. We should consider the following: monetary policy should focus closely on macroeconomic objectives, such as the trade-off of inflation and real activity. Conditioned by monetary policy, this macroprudential approach could be used to mitigate vulnerabilities to achieve an adequate systemic level. However, this reasoning neglects two major interactions between macroprudential and monetary policies: on the one hand, cyclical macroprudential policies not only affect vulnerabilities but also financial conditions so as to influence monetary policy trends. On the other hand, a second interaction occurs because of shadow banking. Macroprudential policies could potentially shift the brokerage to the shadow banking system, leaving unclear effects on financial conditions.

During the recovery phases, following a recession or a crisis, macroeconomic objectives are aligned with macroprudential objectives - such as inflation - and actual business tends to be suppressed exactly when the risk in the financial and banking sector is lower. We could therefore conclude that the macroprudential and monetary policies should be considered jointly, exploiting their interdependence. This report has been studied by Farhi and Tirole (2009, 2012) concluding that such a relationship exists and that well-calibrated macro-prudential policies would help to increase welfare levels. A more general theory concerning the interdependence of macroprudential, fiscal and monetary policies was elaborated by Brunnermeier and Sannikov (2011, 2014). This theory underlines the importance of spillover effects that link price stability, financial stability, fiscal stability and the difficulty of separating stability definitions. The authors argue that in the absence of clear priorities, additional problems could arise between price stability and financial stability.

An important study on the report under consideration in this section of the work was carried out by Panetta (2014), which argues for a stronger complementarity between monetary policy

[92] Which states that a static and deterministic economic policy model admits a univocal solution when the predetermined number of target variables is equal to that of the instrument variables

and the macro-prudential policy in the euro area due to its structural characteristics and the fact that these policies are, in that area, conducted in a wider and more effective manner. The fact that macro-prudential instruments belong to a purely bank type and that banks are of crucial importance in the financing of the economy of the area determines the previously noted. The heterogeneity of economic and real estate cycles cannot be considered in the conduct of monetary policy, therefore macroprudential regimes can be used effectively in the prevention of financial imbalances. The adoption of expansive macro-prudential policies has been hampered by various factors, first of all by an insufficient capital reserve by banking systems in most European countries during the pre-crisis period. In the EU, this situation may have recently changed due to three reasons: (i) the increase in the degree of capitalization of the banking system, according to the EBA among the major European banks, the share of those with a CET 1 ratio that exceeded 10% was 93% in June 2014 versus 33% in December 2009. (ii) the decline in credit to the private sector, albeit at a reduced rate. We note that the credit gap / GDP gap is strongly negative for most of the union countries. (iii) Actual and expected inflation continued to decline, fueling risks of disenchantment of expectations and a period of real deflation. This trend was contrasted by the European Central Bank with the Quantitative Easing program.

Today's knowledge of macroprudential instruments and links to monetary policy shows how unequivocal the separation between the two policies is concerned. Indeed, the combination of the two is effective in reducing the risks of deflation. We can say that it would be desirable to use macroprudential policy in an expansive and anti-inflationary perspective, but that thesis remains ostracized to today in the countries of union. One of the reasons behind this is the technical difficulty of aligning macroprudential capital requirements since the countercyclical capital reserve is not active in most countries. At present, monetary policy is the only one capable of fighting deflation and the risks of financial instability.

The European System of Central Banks

The ESCB is established by the Treaty of Maastricht (Article 106), with the following mandate (Article 105):

- Maintaining price stability
- support the EU's general policies, compatible with the first objective
- acting in accordance with the principle of an open market economy and free competition

And the following tasks (Article 105):

- carry out foreign exchange transactions with non-EU currencies
- hold and manage official foreign exchange reserves
- promote the smooth functioning of payment systems
- Contributing to the prudential supervision of credit institutions and the stability of the financial system

The ESCB is made up of the national central banks of all EMU countries, to which are added those of the EU countries that have not adopted the euro and the ECB. The latter, established by art. Article 8 of the Treaty of Maastricht, a sovereign legal entity with its registered office in Frankfurt, holds the exclusive power of issuing the euro, is the depository of its legal value as a means of payment and is the operational and operational ESCB.

The body chairing the ESCB is the General Council composed of the President and Vice-President of the ECB and the governors of the national central banks. This extended composition also allows for collaborative relationships between non-euro area countries and examines the conditions of countries that are not yet part of the single currency to verify their degree of convergence. The General Council has the main task of examining the overall economic performance of the Union and offering general indications. It also participates in the ECB's advisory functions, shares the responsibility in the area of statistics collection and helps in the drawing up of reports with which the ECB reports to the European Parliament, the Commission and the Council.

The Governing Council, through the governors of their respective national central banks, is participating in the EMU in a strictly reserved manner by a Governing Council. This is the most important decision-making body. It is convened about twice a month in Frankfurt, with decisions and supervision regarding monetary policy, interest rates, reserve constraints, system liquidity management, and all other matters pertaining to the performance of Obligations which are attributed to the ESCB by the Maastricht Treaty. It is always up to the body in question to decide on the internal organization of the ECB and its decision-making bodies by approving its regulations.

When adopting monetary policy decisions and those related to other tasks, the Governing Council takes into account the developments of the euro area as a whole. It is important to emphasize that, regarding EMU countries, their respective national central banks play a subordinate role in the conduct of monetary policy. Since governors participate in the Governing Council, once decisions have been taken and enforced by the ECB, national central banks have no other power to implement autonomous measures or maneuvers. Their only task is to participate, according to well-defined and regulated operating modes, in the implementation of the decisions taken in Frankfurt[93].

The ECB is in turn led by a collegiate body, the Executive Committee. It is composed of the President (currently Mario Draghi), the Vice-President and four members appointed jointly by all the governments of EMU countries after consulting the European Parliament and the Governing Council of the ECB. Their term lasts eight years and is not renewable at maturity. Members of this body enjoy mandatory custody guarantees similar to those provided for governors of the national central banks, may be declared resigned only by the Court of Justice, at the request of the Executive Board or the Governing Council, when no longer exist the necessary conditions for their duties or have been admitted to gross negligence. The Executive Committee must implement monetary policy decisions and provide the national central banks with the most appropriate instructions to implement them, and it must manage current affairs, administration, staff and so on. Decisions are taken with the favourable vote of the simple majority of the voters and in case of equality the vote of the president prevails.

[93] At the time of the launch of the ESCB, a very important area was preserved in which national central banks retained their autonomous power almost intact, namely the regulation and supervision of the national banking system. Following the 2008-09 global financial crisis and its consequences on banking systems in most European countries, this national sovereignty reserve has become problematic, as European banking systems are increasingly integrated, the number of Banking secrets with vast international ramifications, while regulatory and supervisory powers have been fragmented into the old national boundaries now obsolete. Governments have therefore agreed to start the transfer of the banking and supervisory system of all EMU to the ECB, the so-called "Banking Union", which took place in 2014.

The Fundamental Principles of the European Central Bank

As mentioned above, the ECB (the Executive Board of the ESCB) is the real operating and operational focus of the system, so that EMU's monetary policy is under the direct responsibility of the Frankfurt Institute. From this point of view, the ECB is directly comparable to other major central banks in the world, such as the US Federal Reserve or the Bank of England. However, unlike all other consuls, the ECB is guarded by the more advanced and bold supranational political and economic entity that Europe has ever conceived so far. It is therefore understandable that a long and intense preliminary work has been dedicated to the idea of this new institution.

During the ECB's design, two possible models were considered: the "Anglo-French" and the "German". The main differences of these two models mainly concern two aspects: the persuasive objectives, and the institutional aspects of its functioning.

A central bank that adopts the Anglo-French model aims to achieve several goals such as price stability, economic cycle stabilization, maintaining a high level of employment, financial stability and so on. While from the point of view of the institutional aspects of its operation, a central bank adopting this type of model operates more or less close to the government in office.

A central bank adopting the German model from the point of view of the objectives is mainly concentrated on price stability, to which the others are subordinated. From the point of view of the institutional aspects of its operation, such an organized central bank has no influence on politics, it is an independent institution. As for the ECB, the German model was chosen, embodied by the Federal Bank of Germany (Bundesbank). This was for several reasons.

The first was that, as mentioned in the previous historical review, Germany and its central bank had become the winning models during the severe turmoil of the '70s and' 80s. Many politicians, economists, and much of Germany's public opinion were convinced Europeans (especially in view of the longing for reunification with East Germany), but not to give up their currency, their central bank, and the economic and monetary stability that They had guaranteed them in the decades following World War II. To mitigate the perception that the creation of the euro had only disadvantages for Germany, it was thought to draw the new monetary institutions according to the German model.

The second reason was offered by developments in macroeconomic and monetary studies. Which led to the delimitation of the role of monetary policy within the objectives of price stability and the economic cycle through the control of aggregate demand, from broader visions to include employment and growth. Some scholars showed data that as much as a central bank operated in concert with the government, and had broad goals for employment and growth, the worse results were in terms of inflation. These results seemed to be in line with the theory that the attempt to use monetary policy to achieve permanent increases in Gross Domestic Product and employment above potential has, in the long run, only inflationary effects.

Under the auspices of these factors, the Treaty of Maastricht received and drafted a central bank model that was certainly inspired by (and from) Bundesbank, but with further accentuations.

Firstly, this inspiration is evident in the determination of the mandate of the ESCB mentioned above, which sees price stability as a priority objective, to which other economic policy objectives are subordinated. Secondly, the ECB's institutional design is based on three principles consistent with the framework outlined above, namely:

- Independence, as far as nomination and governance mechanisms are concerned.
- Autonomy, in the implementation of goals
- responsibilities, i.e. reporting to the constitutional bodies

The definition of the independence of a central bank and its "gradation" has been the subject of numerous debates. Over time, we have tried to provide quantitative indices that would give a degree of independence to central banks. The underlying hypothesis that led these studies was the existence of a negative relationship between independence and inflation. A first attempt was made in 1988 by Bade and Parkin[94], which focused on two aspects to observe how much a central bank was independent of their respective government:

- the relationship between central bank and government in formulating monetary policy
- procedures for appointing the central bank's board of directors[95].

[94] de Haan, Jakob, Donato Masciandaro, and Marc Quintyn. "Does central bank independence still matter?." (2008): 717-721.

[95] There is a third point pointed out by Bade and Parkin to measure the autonomy of monetary authorities and consist of financial and administrative relationships between central bank and government. However, this point indicates the financial autonomy of the central bank by the government, and not political autonomy, and hence for brevity has been excluded.

Taken these two aspects as a point of reference for, the two authors build their index of political autonomy on the basis of three criteria in the form of a question:

1. Is the Central Bank the ultimate political economic authority?
2. At the Governing Board of the Central Bank participate representatives of the Government (with or without voting rights)?
3. In the board of directors at least half the members are appointed independently of the government?

Grilli et al.[96], as a condition of independence, put the complete absence of government members in the Council, while Bade and Parkin demanded that the government be simply in a minority within the Council. Grilli pose a fundamental subdivision of the concept of independence, distinguishing political independence, namely "the ability of monetary authorities to choose their final goals", from economic independence, or "autonomy of a central bank in choosing monetary policy instruments". To quantify political independence, Grilli et al. evaluate three aspects:

1. the procedure for appointing members of the central bank's governing bodies;

2. the relationship between these bodies and the government (in the formulation of politics

monetary);

Central bank formal responsibilities (policy objectives)

These three aspects are in turn divided into evaluation criteria. If the first two aspects are common, though more in detail, to those outlined by Bade and Parkin, the third, about the formal responsibilities of BC, is an innovation. Economic independence, on the other hand, is distinguished by two aspects:

1. the influence of the government in determining how many resources and under what conditions to borrow from the central bank, ie the influence of the government on the creation of currency;

[96] Grilli, Vittorio, Donato Masciandaro, and Guido Tabellini. "Political and monetary institutions and public financial policies in the industrial countries." *Economic policy* 6.13 (1991): 341-392.

2. the nature of monetary instruments under the control of the central bank

The Treaty of Maastricht provides that "neither the ECB nor a National Central Bank or members of their respective decision-making bodies may seek or accept instructions from Community institutions, bodies, governments of the Member States or any other body. " In this way, in order to resume the words of Padoa-Schioppa, "the Treaty has subtracted money management from the policies directly conducted by the government, and hence from the pressures of the daily political process."[97] The above analysis immediately highlights the ratio of independence, the" pressure of the political process "on the monetary authorities.

The ECB is therefore a highly independent central bank from the political point of view. In its autonomy, the ECB has set itself the objective of maintaining the price increase (the average inflation rate of the member countries) within the limit of 2% per annum. Responsibility requires that the ECB takes account of its work to other EU institutional bodies (but not individual national states). This principle aimed at countering the broad margins of independence and autonomy enjoyed by the ECB. However, according to many scholars, the Treaty of Maastricht has remained too vague or shy on this front. For example, the President of the ECB is required to hold (or may be called to hold) hearings before the European Parliament, but it is not at all clear how this institution can "question" or challenge its action, and with what consequences.

The degree of accountability of the European Central Bank

The Oxford English Dictionary defines accountable as "*obliged to give a reckoning or explanation for one's actions; responsible*". De Haan and Eijffinger (2000), drawing on this definition[98], divide the concept of accountability into three main areas:

1. Decisions on the explicit definition and hierarchy of monetary policy goals;
2. transparency of monetary policy;
3. who holds the ultimate responsibility for monetary policy.

[97] Padoa-Schioppa, 2004, p. 61

[98] De Haan and Eijffinger evaluate in this case the accountability that Morlino (2006) calls "horizontal" or "inter-institutional", that is, an institution's control over another, and not between elected and voter (vertical accountability).

For the two authors, in a democratic society, decisions about the central bank's goals should be the prerogative of democratically elected politicians. In the case of the ECB, this criterion is not satisfied. The ECB has been given the primary objective (and hence the hierarchy at the statutory level) of price stability. However, this objective has been specified quantitatively by the ECB itself. As De Grauwe wrote, it was the same ECB who defined "what is meant by 'price stability'. So, in a sense, it was the ECB itself to define the clauses of the contract with the politicians"[99].

Transparency also plays a key role in defining the accountability of a central bank. Fitoussi and Creel (2002, p.39) consider the transparency of a central bank ideally designed to remove "the ambiguities present between the bank and the public, whether they relate to economic information, objectives or monetary policy strategy". According to De Grauwe, who shares the definition of Fitoussi and Creel, "given the high degree of independence it enjoys, the ECB should voluntarily meet the public more than other central banks do[100]". In this regard, the publication of the "Monthly Bulletin", in which the ECB publicly explains in detail the policies it pursues, and the press conferences of the governor following every monthly session of the Governing Council, in which the decisions taken are explained and motivated. The fact that the ECB publishes its reports more often than required by art. 15.1 of its Statute ("The ECB compiles and publishes reports on ESCB activities at least every three months") shows how "seriously considers the issue of transparency[101]". However, the ECB does not publish the minutes of the meetings or publicize the vote within the Governing Council. With regard to these two areas, talking about transparency is more complex. As far as the minutes are concerned, they may not say much more about press conferences or other tools adopted for more direct and synthetic communication to the public. Secondly, their publication could undermine the free discussion within the Council. As far as votes are concerned, this could seriously undermine the credibility of the central bank when it comes to the knowledge that a certain policy has been adopted with a very narrow majority of votes.

The last aspect, ultimate responsibility for monetary policy, touches three crucial elements. The first is the ECB's report with the European Parliament (EP), the only European institution directly elected by the citizens. According to Buiter (1999), it is essential that the EP has a controlling role on the ECB. Indeed, "the legitimacy of the ECB depends on what it is actually

99 De Grauwe, 2012, p. 197
100 Ibid., p. 198
101 De Haan e Eijffinger, 2000, p. 399

accountable to the EP"[102]. Usually, in fact, national parliaments have the ultimate responsibility for monetary policy. The fact that the parliament may change the statute of the central bank causes the latter, albeit very independent, to conduct monetary policy in line with the preferences of elected parliamentarians. This is not the case with the ECB, whose status is a protocol to the Treaty of Maastricht, and can only be modified by the unanimity of all EU member states, including those not part of the Eurozone. Therefore, the implications are very different for the hearings of the President of the US Federal Reserve, which has before him an institution (the Congress) that can change with a simple majority the statute of the central bank which he presides, compared to those of the President Of the ECB, held in front of a parliament that cannot modify it in any way[103]. Fitoussi and Creel attach even greater importance to the EP, which, according to them, not only should have this prerogative on the statute, but also the power to determine the monetary policy objectives of the ECB[104].

The ECB should also be accountable to the government - itself responsible for the EP - which should be able to influence the behavior of the central bank. The government should therefore enjoy a mechanism that will allow it to overcome the ECB and interfere with its choices.

According to De Haan and Eijffinger, if the conditions and the circumstances within which the government can impose on the ECB are explained in detail, and if transparency is guaranteed in the procedure, then the negative effects described by PBT and PT as a result of the abuse would be avoided Governmental for electoral purposes. The limits of this aspect, as it turns out, lie in the absence of a European institution equivalent to a national government.

The third and last area concerns the dismissal procedure, i.e. the procedure to bring the Governor of the ECB down before the expiry of his mandate. This ex post accountability mechanism[105] should function as a sanction following a poor performance of the central banker. An example of such a mechanism is the Policy Target Agreement that the Governor of the Reserve Bank of New Zealand stipulates with the New Zealand Finance Minister: In this type of contract, the two institutions set an inflation target that the governor is required to reach. In case of bankruptcy, the latter will be forced to resign.

[102] Buiter, 1999, p. 200.
[103] De Grauwe, 2012, p. 196
[104] For the two authors, the benefits of this institutional change are many, but only two of them are mentioned here.
[105] The EP and Government's control described above are also in relation to the policies outlined by the ECB for the future. The dismissal procedure acts instead ex post, ie when the negative performance has now taken place, and not before.

The democratic deficit

The democratic gap that the ECB is forced to fill is better known as a democratic deficit. Majone[106] describes the democratic deficit as a set of problems (technocratic decision-making, lack of transparency, inadequate public participation, excessive use of discretion, inadequate control mechanisms and accountability) generated by the delegation of powers to institutions such as Independent central banks. The democratic deficit, for Majone, "refers to the problems of legitimacy [...] of those institutions which, by their structure, are not directly responsible (accountable) in the face of electors or their elected representatives".

As already told, the ECB is an institution that national governments have decided to delegate monetary policy, depriving sovereignty of this sphere, which is therefore managed at a supranational level. To better understand the costs of delegation to the ECB, it is useful to use the principal-agent framework used in political science to study the delegation of responsibility to specific actors. In this model, the main one is the one who, democratically elected by the citizens, initially holds the executive power (national governments). He may decide to delegate part of his power, in this case monetary policy, to an agent (ECB), which is entrusted with the responsibility to achieve a given objective (price stability). In an ideal scenario, the agent has the same primary preferences. But, as Hix and Høyland[107] point out, "a similar agent in practice is impossible to find." The agent, having preferences other than the main one, tends to perform a certain policy by shifting it from the one desired by the principal. This process is called policy drift, or "policy deviation".

As noted by De Grauwe[108], "the more a political power delegates, the more effective must be the control over the exercise of delegated power". So, if the government is to define which inflation rate the central bank should pursue, control over it will be less. On the contrary, if the central bank, as in the case of the ECB, is also delegated the power to choose which rate of inflation to pursue, control over it will have to be stronger. Always De Grauwe: "The reason is that if the government is fully accountable to the electorate, it cannot afford to delegate the power received without maintaining control over how to exercise that power." This control is

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[106] Majone, Giandomenico. "Europe's 'democratic deficit': The question of standards." *European law journal* 4.1 (1998): 5-28.
[107] Hix, Simon, and Bjørn Høyland. *The political system of the European Union*. Palgrave Macmillan, 2011.
[108] De Grauwe, Paul. "The fragility of the eurozone's institutions." *Open Economies Review* 21.1 (2010): 167-174.

necessary to make the ECB accountable, that is, it is responsible for its decisions in the face of democratically elected governments.

The optimum relationship between independence and accountability

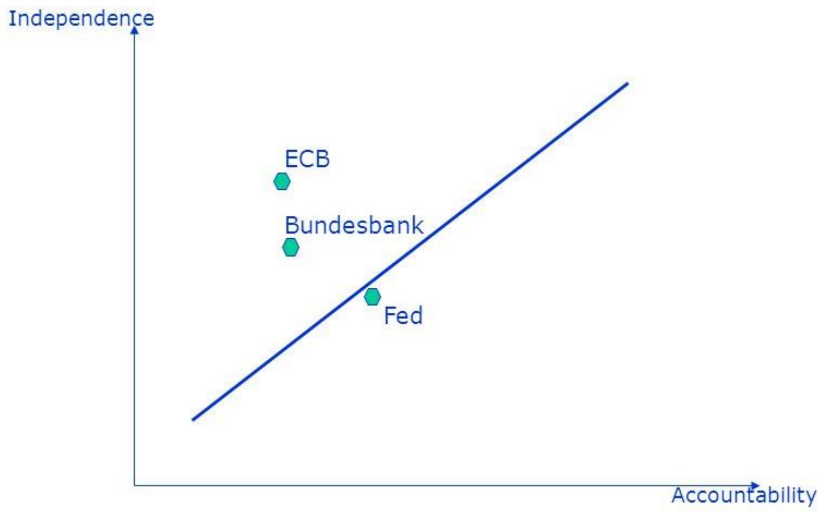
The current ECB model is highly independent, and this is characterized by technical policy-making: imposing on governments a goal, the central bank has the task of pursuing it as efficiently as possible. In this way, the actions of the central bank are not legitimate in any way at a democratic level, and this represents a serious deficit. This deficit is even greater if one considers, as Stiglitz[109], that "the elected government is inevitably responsible (accountable) for [economic] performance, have any actual power over a key element such as monetary policy". Ideally, the model opposite to that of the ECB would not present this critical: the central bank would be heavily dependent on the government elected by the people, which would influence its conduct. This model of democratic policy-making would guarantee European governments, and therefore their citizens, to assert their differences in terms of economic culture, from which the ECB is, as we have seen, distant. Nonetheless, the democratic model has costs. First, it involves very high decision-making costs: to pursue a monetary policy that puts together the preferences of 18 countries characterized by very different cultures would require many discussions and losses. For example, Germany and the Netherlands should give up the low inflation they want to adjust to the preferences of the European average. In this way, the governments of these two countries apply a policy contrasting with the will of citizens from which they were elected.

The democratic central bank model is therefore able to bridge the democratic deficit of the ECB, but it is not the only one. The ECB could in fact maintain its independent structure, but be subject to greater control by democratically elected institutions. The solution of the central bank accountable, therefore, is preferable to that of the democratic central bank. In addition to eliminating the democratic deficit that distinguishes it, the ECB would not suffer losses in terms of political independence, and therefore efficiency in maintaining price stability.

[109] Stiglitz, Joseph. "Distinguished lecture on economics in government: the private uses of public interests: incentives and institutions." *The Journal of Economic Perspectives* 12.2 (1998): 3-22.

Nevertheless, the differences in economic culture would still be represented by those institutions democratically elected by all the member countries (eg the European Parliament) responsible for controlling the ECB's work.

De Grauwe[110] outlines a Cartesian plan useful for the understanding the level of accountability the ECB should achieve.



With accountability on absences and independence on the ordinates, the optimum relationship between independence and accountability is given by the sloping straight line of 45 ° which divides the dial into two.

Each point in the line represents an optimal solution, where accountability and independence are equally balanced. Obviously, the chart does not provide information about the central bank's "optimal model". In other words, the graph does not say how much it should be independent or accountable, but how much, given these two variables, is unbalanced towards one or the other. Balance between these two variables is an important requirement of both democracy and efficiency, as it indicates how much a very central bank should be accountable and legitimately democratized, and vice versa as a highly accountable central bank should be independent and therefore efficient in pursuing its goal.

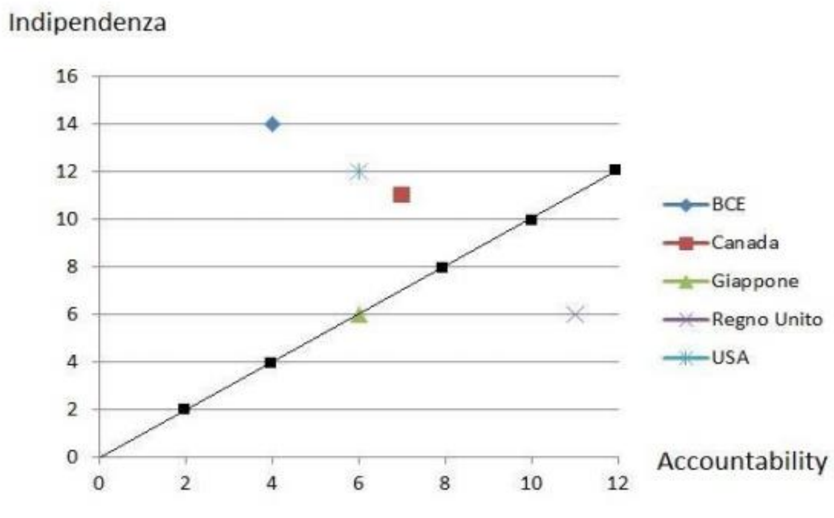
Allowing central banks to be instrument independent, i.e., to control the setting of monetary policy instruments, can help insulate them from short-run pressures to exploit the Phillips-curve

[110] De Grauwe, Paul. "In search of symmetry in the eurozone." (2012)

tradeoff between employment and inflation and thus avoid the time-inconsistency problem.[111] Evidence supports the conjecture that macroeconomic performance is improved when central banks are more independent. When central banks in industrialized countries are ranked from least legally independent to most legally independent, the inflation performance is found to be the best for countries with the most independent central bank.

Although there is a strong case for instrument independence, the same is not true for goal independence, the ability of the central bank to set its own goals for monetary policy. In a democracy, the public exercises control over government actions, and policymakers are accountable, which requires that the goals of monetary policy be set by the elected government. Although basic democratic principles argue for the government setting the goals of monetary policy, the question of whether it should set goals for the short-run or intermediate-run is more controversial. For example, an arrangement in which the government set a short-run inflation or exchange rate target that was changed every month or every quarter could easily lead to a serious time-inconsistency problem in which short-run objectives would dominate. In practice, however, this problem does not appear to be severe because, for example, in many countries in which the government sets the annual inflation target, the target is rarely changed once price stability is achieved.

In the next picture it is possible to observe the distance of the ECB and the central banks of Japan, UK, USA and Canada.



[111] For an example of how the time-inconsistency problem can be modeled as resulting from political pressure, see Mishkin and Westelius (2008). Instrument independence also insulates the central bank from the myopia that can be a feature of the political process. Instrument independence thus makes it more likely that the central bank will be forward looking and adequately allow for the long lags from monetary policy actions to inflation in setting their policy instruments.

The only central bank that is in the best position is the Japanese one (Independence 6, accountability 6). The ECB, due to its very high level of independence, and the degree of accountability of the same low level, is the most "unbalanced" central bank, and therefore far from the optimum line. De Grauwe points out that this is "contrary to the theory outlined above that accountability should go hand in hand with the degree of independence[112]".

The ECB's gap is due to the fact that the power it has delegated to governments is disproportionate to the controls it is subject to, thus making it a little accountable institution. The problem is therefore not independence in itself, but the fact that it is not offset by an equally high level of accountability. There are, however, some peculiarities that cannot be solved by a simple reform of the ECB's statute. The absence of a central European government, for example, is an important shortcoming in this regard, and can only be filled through a strong political drive involving all the member countries. The presence of a democratically legitimate government capable of influencing the nomination of the ECB governor would certainly help transfer part of this democratic legitimacy to the operation of the central bank. At the statutory level, however, changes are possible that make the ECB more accountable. As far as the objectives were concerned, the lack of a detailed and quantitative explanation in the Statute was underlined. The fact that price stability means "annual growth in the Harmonized Index of Consumer Prices (HICP) for the euro area less than 2%" is the result of ECB discretion, which has defined Its objective without submitting it to the approval of a democratic institution. Fitoussi and Creel[113] argue that this lack could be filled by giving the European Parliament the right to define the meaning of “price stability”. The mechanism conceived by the two authors is inspired by the Policy Target Agreement of the Reserve Bank of New Zealand, with the difference that the quantitative target would be chosen by Parliament, elected directly by European citizens, and not by the government. The introduction of this mechanism would not require a review of the Maastricht Treaty, which does not define price stability, but "it would probably require the creation of a new treaty and / or a unanimous decision of the European Council”.

Regarding transparency, as has been said, the situation is controversial: making internal voting to the Governing Council could seriously undermine the decisions taken by the ECB. However, the Bank of England's experience seems to confirm that this opening strategy, so-called "open

[112] De Grauwe, 2012, p. 196
[113] Fitoussi e Creel, 2002, p. 47

mouth operation[114]", has better impact on the financial markets than the secrecy strategy adopted by the ECB on verbal and voting. Lastly, the theme of the ultimate responsibility for monetary policy can be linked to the measure proposed by Fitoussi and Creel regarding the objectives. To give the European Parliament the right to define price stability means giving it the opportunity to change it. To give the European Parliament the right to define price stability means giving it the opportunity to change it. In its hearings, the Governor of the ECB should explain and justify monetary policy choices in front of an institution that is able to change its statute, at least in terms of objectives. This would certainly affect the margin of discretion that the ECB Governor would allow, especially if he believes that a certain policy or performance may not be shared by the majority of Parliament.

The legal framework for European banking supervision

Banking regulations has undergone a profound change process for the past decade. To be interested were mainly European banks which, with the introduction of the European Banking Union, saw a marked change in the structure and structure of the regulation. The changes also concerned the Basel rules, with the launch of the third agreement.

The process of regulatory change cannot, however, be considered a work done. There are many missing, or misguided elements that make the European banking market uneven and still highly segregated.

A sound legal basis is essential for good vigilance. In addition to other policy areas, banking supervision has a wide range of interests that are well protected by legislation. In the absence of a clear legal basis, the authorities tend to be naturally cautious in the exercise of their powers. This is far more true for a multinational authority whose legal base is more complicated by the combination of European and national standards. For the Single Supervisory Mechanism, this means taking into account 19 different legal systems. Our supervisory decisions apply European laws where they exist and are directly applicable, as in the case of the Capital Requirements Regulation (CRR). National legislation is relevant when European law does not cover certain areas or is made up of directives, such as the Fourth Capital Requirements Directive IV (CRD IV), which operate through national transposing laws.

[114] Gutherie e Wright, 2000.

The existence of transposal acts and other national laws leaves room for differences between the various jurisdictions. Often, as it can be expected given their national origin, these differences alter the level playing field in favour of national priorities. There are therefore limits to the extent to which equality of treatment in European banking supervision can be ensured even in the presence of a single authority. In order to alleviate this problem, the boundaries of European law must be progressively moved forward, in favour of rules directly applicable to those concerned. To some extent this is happening, but the process takes time and may sometimes have considerable resistance.

The EU institutions are currently engaged in a thorough review of the legal framework of the Union for the banking sector, on the basis of proposals made last autumn by the European Commission. This review is important for several reasons. First, the existing legislation was introduced before the start of the banking union and therefore the review offers the opportunity to adapt it to the new reality. Secondly, given that most of the standards have been introduced or revised in response to the financial crisis, it is useful to point to the progress made towards the goal of making banks more solid and secure.

Some changes aim to translate into important European standards relevant international standards that, in the right direction, guide the prudential approach to greater attention to risks. These include, in particular, the net stable funding ratio, the leverage ratio and the substantial review of the prudential treatment of the Fundamental Review of the Trading Book. Moreover, also the implementation of international standards for loss-absorbing capacity (TLAC) and the review of European Compensation, Minimum Requirement for Own Funds and Eligible Obligations liabilities, MREL). Including these elements in the legal framework is another step forward to ensure that banks have the resources to absorb losses when they reach the point of non-viability, minimizing the use of public funds in crisis management.

The proposals also introduce innovations to improve the structural capability of the banking system. Among these figures is the granting of moratorium powers to the single supervisory mechanism to allow temporary suspension of payments, if necessary at certain stages of the crisis, to safeguard financial stability and protect certain classes of creditors. It is also suggested to create a new non-privileged senior bank debt category, with lower rank than other senior liabilities, to increase deposit security in the resolution process. The proposals could go even further, setting up a preferential scheme for all depositors. This would help to preserve the economic and social function of bank deposits, reducing the risk of contagion.

Thirdly, the Commission proposes to regulate the presence of banks domiciled outside the EU that have subsidiaries in the euro area; this is a matter of particular importance in the eyes of Brexit. These parties would be asked to set up an Intermediary Parent Undertaking (IPU) in the Union, thus ensuring supervision by a single authority. Lastly, the ECB fully supports the proposal to grant derogations to the application of capital and liquidity requirements within banking groups operating on a cross-border basis in the EU. It is a proposal consistent with the purpose of banking union because it promotes resource-efficient management at group level and banking integration.

Conversely, there are areas in which the Commission's proposals could be improved. One of these concerns the discretion in matters of vigilance. The proposals circumscribe the power of the supervisory authority to establish capital requirements under the second pillar, too rigid. The proposed framing of second pillar decisions in technical standards issued by the European Banking Authority EBA may prove excessively restrictive, limiting the flexibility of supervision.

Another point concerns harmonization. As I have already said, establishing equal treatment is impossible if single supervision is to apply different legal frameworks between countries. The legislator can be of assistance by extending the scope of the rules directly applicable or leaving the margins of flexibility inherent in the legislation in the hands of the supervisory authority.

The behaviour of central banks in the face of the crisis

Central banks have a crucial role to play in crisis management and, in particular, in ensuring the stability and smooth functioning of the financial system[115]. Preparations beforehand, in association with other government bodies, are of crucial importance in ensuring the crisis does not spin out of control. Central banks must also have flexibility and, where necessary, be strengthened in their flexibility and powers to act to deal with unexpected and rapidly changing circumstances. This includes not only the traditional instrument of Lender of Last Resort, but also the powers to deploy unconventional monetary instruments like those used in recent years. Supportive actions by central banks can be useful, but there are serious risks involved if governments, parliaments, public authorities, and the private sector assume central bank

[115] Fundamentals of Central Banking: Lessons from the Crisis, Group of Thirty, 2015

policies can substitute for the structural and other policies they should take themselves. The principal risk is that excessive reliance on ever more central bank action could aggravate the underlying systemic problems and delay or prevent the necessary structural adjustments.

One thing is for sure, the crisis has called for massive monetary intervention around the world. Specifically, it is possible to consider the financial crisis in the light of two phases: the first phase ranges from 2007 to 2009, which in large lines has appeared equally in the world with fairly similar responses, the second phase ranging from 2010 to 2012, which is denoted by having assumed unique features in the euro area. When the crisis broke out in 2007, the ECB and the FED responded immediately by cutting interest rates to zero and adopting a number of policies that could be termed unconventional and in October 2007, the international banking sector was dragged into the vortex of the crisis Liquidity and financing that had a profound effect on capital balance, redditiveness and operational capability. Investment banks are absorbing many of the products resulting from the securitization process by internalizing their loans for a second time, and the effort to contain the crisis was largely entrusted to the monetary policy authorities. Central banks began to refinance troubled banks through last-resort loans and open market operations. In this regard, the European Central Bank, on the one hand, continued to pursue its usual open market operations and to deal with the crisis only increased the amount of loans by reducing their cost in relation to the lower quality of collateral and extending it maturity. These measures have had a clear impact on the balances of the two central banks, which have experienced a considerable expansion. The resulting expansive impact on money supply raises concerns about the implications that this may have on price dynamics in the future.

Interventions aimed at ensuring the stability of the financial system eventually interfere with monetary policy. On the other hand, the effectiveness of central bank interventions has been very limited. Presumably, the increase in funding granted by central banks, by their very nature, has been able to reduce liquidity risk but have had little impact on credit.

Responding to the financial crisis, the European Central Bank had to protect the banking sector from illiquidity, acting as ‘intermediary of last resort’. But due to an intense relation between banks and governments in the euro area and a dysfunctional fiscal policy the central bank had also to counteract private deleveraging. This activity lend it the image of assisting governments which were perceived as being over-indebted. So, the assignment of roles to monetary policy and fiscal policy was blurred.

It would have been the role of governments or – on the European level – the ECOFIN Council to take responsibility for the legacy of high public debt. The ECB's asset purchase programmes have given temporary relief, but in the end it will not resolve the moral hazard problem in public finance. That requires new institutions but also a coherent political will. A monetary union like the EMU explicitly excludes exchange rate changes as a political instrument following an intention to replace currency competition by cooperation. This intention seems to be out of the minds of European governments. It has to be reminded that joint risk-taking in public finance is part of that co-operation.

After the introduction of the aforementioned new supervisory mechanism, the first finding is that, from an operational point of view, the new crisis management mechanism worked. The actors involved (the ECB, the Single Resolution Committee, the European Commission and the national authorities at various levels) have collaborated effectively and rapidly, with procedures that have proved functional in the acute phases of the crisis. This was not a priori discounted, considering in particular the complexity of some procedures, the extremely tight times (in one case the resolution took place overnight during the week instead of the weekend as it is the norm) and the large number of subjects involved.

It is important to emphasize that the risks of contagion have not materialized. Some observers have suggested that banking crisis management arrangements, with rules that explicitly involve creditors in sharing the burdens and which protect taxpayers more explicitly than in the past, could undermine operators' confidence and constitute a source of systemic risk. On the contrary, we found that in general a loss of confidence in the banks perceived as weak was accompanied by a strengthening and not by a weakening of competing banks, indicating that market discipline worked.

Recent cases have confirmed that the correlations between the risks between the different components of the budget may increase in times of crisis[116]. As there are risks of contagion among banks, there may also be risk transmission within a bank, between different segments of its budget. This correlation can be accentuated in banks with a strong local or regional vocation. This is because in these banks the pool of investors, custodians and depositors is more limited and the three figures tend to coincide. Failure to distinguish between the actors involved may give rise to conflicts of interest. In this context, governance issues are more complex and their

[116] Acharya, Viral V., et al. "Measuring systemic risk." The Review of Financial Studies 30.1 (2017): 2-47.

effects more difficult to control. Irregularities such as financing for the purchase of treasury shares become more likely.

Those who coordinate the management of the crisis must have the vision together and balance different needs in a balanced way. It has to work in record time with the correct synthesis of different priorities: financial stability, taxpayers' protection, property rights, legal certainty, credibility of the reference framework and the institutions involved. In the presence of state aid, this role has naturally been carried out by the European Commission's competition authority. Not all crises, however, involve State aid, and State aid control is also not the only consideration in facing a banking crisis. It may be useful to reflect on how to define a more consolidated European framework for bank crisis management, taking also the best practices at international level.

4- HOW DID NATIONAL LEGISLATIONS FOLLOW THESE PROPOSALS?

Macroeconomic stabilization through national budgets

In the euro area, in the absence of a federal budget, aggregate fiscal policy is the result of the various national fiscal policies. The challenge then is to make sense of these combined national policies[117], for three different reasons:

- Monetary and fiscal policies interact: when fiscal policies are loosened, demand and thereby inflation expand, which might trigger a monetary policy tightening. National fiscal policies therefore affect other member states via the reaction of monetary policy.
- Fiscal policy may supplement monetary policy. When monetary policy is constrained by the zero lower bound, fiscal policy would need to be activated to increase inflation and demand. In such a situation, the sum of national fiscal policies becomes particularly important.
- National fiscal policies have direct cross-border effects. In normal times, these direct demand spillovers are limited and depend on the size and the openness of the economies concerned. At the zero lower bound, however, a fiscal stimulus in one country has unambiguous effects in neighbouring economies. This externality is generally not taken into account at national level.

These three effects provide strong arguments in favour of coordination of fiscal policy by the 19 euro-area member states, and between them and the ECB. For instance, significant fiscal consolidation in several member states, as happened in constrained countries in 2012, in a situation of negative GDP growth and decelerating inflation, should have been accompanied either by a fiscal expansion elsewhere or an easing of monetary policy in order to stabilise euro-area wide inflation. When monetary policy is at the zero lower bound, coordination of fiscal policies becomes crucial in order to prevent a deflationary spiral[118]. It is then a matter of collective choice about who should do how much in terms of fiscal stabilisation policy, beyond the more structural policies that matter for inflation.

[117] Bénassy-Quéré, Agnès, Xavier Ragot, and Guntram Wolff. "Which Fiscal Union for the euro area?." Notes du conseil d’analyse économique 2 (2016): 1-12.
[118] Hommes, Cars, Domenico Massaro, and Isabelle Salle. "Monetary and Fiscal Policy Design at the Zero Lower Bound: Evidence from the Lab." CeNDEF working paper 15-11 (2015).

Fiscal policy coordination has proved unsatisfactory since the inception of the euro. The euro area's fiscal policy has not played its macroeconomic stabilisation role since 2008, except in 2009 and 2011. Hence, the overall macroeconomic performance of the euro area and the persistently low euro-area inflation rates are in our view enough of reason to argue for an improved system. The European governance toolkit does not presently allow a desirable aggregate fiscal stance to be distributed across the different national budgets of member states.

The pro-cyclicality of fiscal policy in the euro area is not a pure result of the crisis. On average from 1995-2008, both the fiscal impulse and the discretionary parts of fiscal policy were expansionary in upturns and contractionary in downturns. This feature is not specific to the euro area: United Kingdom, Canada and Australia also display pro-cyclical policies. However, the United States, Japan and Switzerland proved able to carry out counter-cyclical policies. Fiscal stabilisation is not an easy task, but the euro area seems to be particularly bad in its decision-making process: discretionary fiscal stabilisation seems not to work, while counter-cyclical automatic stabilisation only partially compensates for pro-cyclical discretionary policy.

The political economy approach to fiscal policy can easily explain why discretionary fiscal policy is mostly pro-cyclical: in an upturn, there are strong political incentives to spend the windfall gains, rather than to curb government debt; and because the debt has not been curbed, fiscal space is lacking in the subsequent downturn to support the economy through more government deficits. The question then is whether and how fiscal union could change this situation, in which the SGP has failed. Since national budgets are likely to remain prominent in the foreseeable future, we start by examining stabilisation capacity at the national level before moving to possible euro-area wide tools.

In order to prevent financial bubbles, micro and macro prudential policies will have a significant role to play. It would be naive however to believe that micro and macro prudential policies will be able to eliminate the possibility of financial crises in the future, which brings us to the need for safeguard of the public finances in the event of a financial crisis. The new EU bank resolution procedures, which involve extensive bail-in before public money can be tapped, are a first solution. Breaking the sovereign-bank feedback loop will however require further action[119], including the diversification of banks' sovereign exposures, a European deposit guarantee scheme, an effective, common fiscal backstop and, more generally, a harmonisation

[119] Altavilla, Carlo, Marco Pagano, and Saverio Simonelli. "Bank exposures and sovereign stress transmission." (2016).

of legal and procedural frameworks that also feed the loop. The hope that bail-in alone will eliminate the fiscal implications of systemic financial crises is naïve, because the bail-in tool is far less effective in a systemic crisis.

Finally, in order to ensure sound public finances, the combination of fiscal rules and advisory fiscal councils has an important role to play to improve fiscal policy, and in particular to reduce the deficit bias. Fiscal councils also make it possible to implement more 'intelligent' fiscal rules in a credible way.

Several euro-area countries will have to bring down their debt ratios in a low-growth environment, which is very difficult and might entail self-defeating fiscal retrenchment. Moreover, the political cycle or the expectation of a future bail-out might reduce the willingness of some governments to cut their debts. To make rules binding in all circumstances, it would thus be necessary at some point to make debt restructuring really happen in case of insolvency. Hence, the key issue is not so much to introduce an explicit debt restructuring mechanism, but rather to make debt restructuring possible in practice when a government is insolvent.

The crisis has shown that a common currency without a common fiscal policy is not viable. However, moving the euro area into a fully-fledged federation will take a long time, should it happen at all. In the meantime, it is urgent to reinforce the ESM, possibly to extend its remit, and to correct the tendency of national fiscal policies to be pro-cyclical, both in good times and in bad times.

The fact that the effectiveness of both fiscal and monetary policies are completely reversed in the world where private sector is minimizing debt compared with the world where private sector is maximizing profits suggests that there are two phases to macroeconomics, the normal world and the world of balance sheet. So, in a normal world, private sector balance sheets are healthy and businesses seek to maximize profits and there are not State aids. The monetary policy is highly effective because of a forward-looking corporate sector with a strong appetite for funds and fiscal policy should be avoided because of its potential to crowd out private investment. The situation is reversed in an economy in balance sheet recession: private sector firms have sustained damage to their balance sheets as a result of the fall in asset prices and are focused on shoring up their balance sheets by minimizing their liabilities, with a large number of firms trying to minimize debt all at the same time the economy heads toward a depression. Now, monetary policy is ineffective because firms are all rushing to pay down debt and private sector demand for funds is non-existent. The government has to borrow and spend the savings generated by the private sector so that household savings and corporate debt repayments can be returned to the income stream. Thus, fiscal policy is essential and in this world there is no danger of crowding out because private sector will be paying down debt instead of borrowing money to invest.

All the macroeconomic models are based on the assumption that the economy is in a normal world and most policy interventions presume that private sector is trying to maximize profits. Hence, the recommended response to this recession consists in a more activist monetary policy and reductions in the fiscal deficit to prevent crowding out. But monetary policy is ineffective when there are no private-sector borrowers, and attempts to reduce the budget deficit will only hurt the economy and increase the deficit in a balance sheet recession.

We need of a complete "general theory" covering both the normal world and the world in balance sheet recession.

In this last chapter I am going to analyse the behaviour of national legislations in general and of the Italian legislation in particular.

Macro-prudential policy is an integral ingredient of any policy framework to address the stability of the financial system as a whole. The practical implementation of macro-prudential policy requires a clear institutional framework with adequate flexibility – both at the European Union and national levels. A strong macro-prudential mandate is necessary to give authorities incentives and powers to address systemic risks. While the debate on the practical arrangements for macro-prudential policy is still ongoing, national governments currently building a macro-prudential policy framework have various options to choose from.[120]

In response to the financial crisis, identifying and reducing the risks to the financial system as a whole has become a priority for policy-makers. A broad consensus has emerged on the need for macro-prudential policy, which seeks to limit system-wide risks. The next step is the practical implementation of macroprudential policy. As a starting point, this requires the presence of an adequate institutional framework. macro-prudential policy also has an important national component. First, because systemic risks can arise at the national (or sectoral) level, as financial cycles and the structural characteristics of financial systems typically differ between countries, and thus may require a different policy response. Second, because the responsibility for the adoption of the measures necessary to maintain financial stability lies first within

[120] Posch, Michaela, and Remco Van der Molen. "The macro-prudential mandate of national authorities." Macroprudential Commentaries", Issue 2 (2012).

national frameworks. Moreover, financial crises typically have a substantial impact on national public finances. Therefore, the effectiveness of macro-prudential policy in Europe depends not only on the institutional structure at the EU level, but also on the institutional frameworks and policy mandates at the level of individual Member States.

The financial cycle is not homogeneous across the various Euro area countries: macroprudential policies adopted at the national level could counterbalance the action of the single monetary policy. Frameworks for the interactions of macro with microprudential policy, arising from the fact that the ECB is responsible for both, must be constructed by the Governing Council, which will have a prominent role in matters related to macroprudential policy while attempting to avoid possible tensions between the two prudential policies.

The allocation of supervisory tasks between the ECB and the national authorities has been devised in accordance with precise criteria, which allow to balance the need to ensure the unity of the system and to maintain the benefits of operational decentralization. For the purposes of ordinary supervision, two documents (the framework regulation and the supervisory manual) provide the general framework for the purpose of ensuring the coherence and effectiveness of the system as a whole.

These include the ordinary supervision of compliance with the prudential discipline, qualitative components (organization, corporate governance, remuneration), quantitative (capital requirements, risk concentration, liquidity, leverage) and disclosure to the public; conducting the prudential review and assessment process and stress testing; consolidated and supplementary supervision on financial conglomerates; rehabilitation plans and early intervention measures; some tasks regarding macroprudential supervision.

For "relevant" banks these tasks will be concretely carried out by the ECB using the c.d. Joint Supervisory Teams (see below), mainly supported by national authorities. This means that, in fact, the latter will retain a fundamental role - for the purposes of instructors - also with reference to "relevant" banks. In the case of "less significant" banks, it will be the task of the national authorities to carry out these same checks on their own.

On-the-spot supervision: the Single Supervisory Mechanism

The new SSM is the the result of a considerable effort aimed at harmonizing the different national approaches. It will be subject to a permanent update to allow it to be refined on the outcomes of its first application (ie phase-in phase) and alignment with the international evolution of practices and regulation. The ultimate goal is to define a "structured path" analysis which allows to ensure both high quality supervision standard is a "common meter" in the evaluation and action of supervision for all intermediaries SSM. The SSM will publish some of the contents of the Manual in order to meet the requirement of disclosure and accountability vis-à-vis supervised brokers and third parties.

The Italian supervisory practices - which follow an Organic Approach approved in 2008 and which have recently been positively assessed by the IMF - have inspired the structuring of the SSM review and prudential assessment process. Recognizing many of the elements that characterize the country's supervisory processes, the Manual follows a consolidated and risk-based approach; will also take into account, when assessing the risk profile of intermediaries, prospect elements (forward looking); will be characterized by the integration between remote and on-site surveillance, the integrated use of micro and macro prudential supervision instruments, a close link between intermediary evaluation and corrective actions.[121]

The application of the principle of proportionality is a key factor in increasing the intensity of supervisory activity and ensuring efficient use of resources. A minimum level of "engagement" on all intermediaries will be ensured, with adequate control of the components of the banking group in relation to their relevance and their level of problematicness and / or possible impact on financial stability in the event of default.

The Joint Supervisory Teams (JST), responsible for day-to-day supervision of relevant banks, will be the main vehicle for cooperation between the national authorities and the ECB and the first interlocutor of intermediaries; will essentially represent the evolution of the college of supervisors, the operational tool up to now used for conducting supervision on a transnational basis, enabling the implementation of an integrated approach to cross-border supervision.

The composition of the JST reflects the principle of proportionality (the number of resources will be graded based on the risk profile, the size and geographical distribution of the supervised broker) and that of multinationality (employees of several supervisory authorities are expected

[121] Bank of Italy https://www.bancaditalia.it/compiti/vigilanza/normativa/consultazioni/2013/reg-UE-575-quadro-generale/Doc_consultazione.pdf

to participate , not necessarily "territorially" competent on the group and its subsidiaries); appropriate organizational efforts will be identified to minimize the risk of "capture" by supervised entities through rotation mechanisms in liability roles.

The state of the art in Italy after the report of the European Systemic Risk Board

The ESRB urged Member States to define a legal framework endowing the macroprudential authorities with all the tools necessary for effective macroprudential policy. The institutional changes should be enacted at legislative level; the macroprudential authority should be an authority, not just an internal advisory body, and as such at the very least have a “voice”, i.e. the power “to make public, as well as private, statements on systemic risk”; more specifically, it should have a say in defining the regulatory perimeter (to plug legal loopholes, especially vis-à-vis shadow banking) and in the designation power, namely the identification of “the financial institutions and structures that are systemically important for the respective Member State”; there should be a steady interchange of information between macro and micro prudential authorities, including data on individual financial institutions; it should control appropriate instruments for achieving its objectives, under the policy and technical guidelines set forth in the later ESRB Recommendation No. 2013/1; possibly, the macroprudential authority and its staff should be legally protected against liability for actions taken in good faith. The ESRB recommendation provoked material changes in national institutional architectures.

At the end of 2013, Member States seemed divided between those that wanted to entrust the macroprudential mandate directly to the central bank and those oriented to a board comprising all the main financial authorities, with the central bank’s role varying from controlling or leading in most cases to mere membership, which means non-compliance with the recommendation of a leading role; difficulties were identified in securing independence from governments. The recommendation raised further important issues, including the very desirability of macroprudential authorities at national level, the degree of coordination among national macroprudential policies at EU level, the balance between EU-wide consistency and national flexibility in the design of the macroprudential authorities, and the impact on the mandate of central banks.

It was uncertain whether the ESRB’s mandate was restricted to analysis of systemic issues or also extended to institutional issues potentially relevant to countering systemic risk. The Board took the latter path in the Recommendation on national macroprudential mandate, which recognised that when the ESRB was established the EU framework on macroprudential policies was largely incomplete not only from a policy perspective but also from a legal perspective and that the legal and institutional set-up is a pre-condition of effective macroprudential policy. Indeed, there are no legal impediments to the ESRB's dealing with institutional issues.

Various arguments could have been adduced for the ESRB's call for the establishment of macroprudential decisional centres at national level. For instance, most of the relevant factors are found at national level, as the sovereign debt crisis proved, and action must be prompt and as close as possible to them. Also, creating a single authority to handle all macroprudential issues EU-wide is not an easy matter. Hence, the ESRB recommended that there should be macroprudential authorities at national level and that they should be equipped with all the necessary tools, both from a legal and from a policy and analytical perspective. Although implementation was slow because legislation was necessary.

According to Bini Smaghi, Italy is the pivot on which the fate of Europe is based for a number of reasons. First of all the size, Italy is the third economy of the euro. The developments in our economy have direct effects on the rest of the system. If Italy recovers, it takes over the entire euro area. Italy is too big to fail on its own, but it is too big to be saved from the rest of the system. Therefore, Italy is under constant scrutiny by governments, financial markets, and international institutions. And it receives continual recommendations to act quickly and reverse the route, which often irritates and is interpreted with unintended interference. The second reason is that Italy is going through a crisis that has lasted for years. Even before the global crisis, it was the country that grew less in the world after Haiti, due to stagnant productivity and a sluggish economic system. From the outbreak of the crisis, the Italian GDP fell by 9%, industrial production by 25%, fixed investment fell by almost 30%. The most recent indicators, albeit indicating a stabilization, show a substantial inability to recover, especially in comparison with countries such as Spain, Portugal or Ireland. The alarming unemployment, especially among youth, is an example. Under these conditions, the social security system is in danger of being no longer sustainable.

The third reason, which mostly affects those watching from outside the country, is the growing aversion to European institutions. Since being one of the most favourable countries in Europe, Italy has become one of the most Eurosceptic ones. This is mainly due to three problems: the lack of awareness of the gravity of the problem, the lack of consensus on the analysis of the factors that have caused the crisis and the measures to be taken out, and the widespread tendency in the country to blame their own evils to others. As far as the first issue is concerned, although aggregated data clearly shows the decline of the country, the temptation to ignore the danger signs is widespread, with anecdotes and success stories, as if the success of a few could mask the danger, the failure of the set.

On the causes of the decline in the country, international analyses periodically point out all sectors where Italy has accumulated delays, from school to job market, from corruption to tax evasion, from crude care to poor competition in services. As far as the remedies to be put in place to get out of the crisis, it does not take much to understand that they are the reflected image of the above analyses. We repeat as a refrain that reforms need to be made, without, however, following a list of concrete measures to be implemented. It is actually the cue for shifting the talk about the need to "beat the punch in Europe" in order to be able to spend more, for example in public investment, even though we can not get them in time and cost us the triple of the other countries.

The main source of concern for those who look Italy from outside, from governments to international institutions, from investors to commentators, is precisely the inability of the country to understand that the problems are mainly of internal origin. And that to solve them there is a need for profound reforms that have a radical impact on the economic system. As long as Italy does not change, it is difficult to create the preconditions for making significant progress in the European integration process. Given the high level of Italian public debt and low growth in the country, the sustainability of public finances is under constant review, as well as the potential effects of contagion on the banking system.

Under these conditions, it is practically impossible to discuss fiscal union. Any proposed public or private risk-sharing proposal creates the suspicion that the goal is to socialize past debts. They contribute to reinforcing skepticism, contradictory opinions expressed by most parties in Italy, to question the Fiscal Compact and at the same time promote the Eurobonds. One cannot be surprised if these positions are interpreted by other countries as the opportunistic desire to create more public debt by discharging the risk of others.

In 2013, the European Union has begun to implement economic policy coordination more geared to structural reforms to boost competitiveness and growth. Even in the field of public budgets, the emphasis is on their structural quality and focus not only on the austerity of the balances alone. It is a change designed in 2012 with a strong contribution from the Italian government. Yet in Italy it was not understood and the reforms did not find sufficient consensus. The Monti government has fallen and after a difficult transition that also required early elections, it was the Letta government that has to deal with the issue of structural reforms within the European framework. But the Italian political framework has remained characterized by continued political instability. Think about the two key moments of economic co-operation with the Commission, the spring phase of the so-called 'European Semester' 2014, in which governments submit medium-term programs and receive judgments and recommendations from Brussels, and the late autumn phase when, according to new procedures, governments present the Stability Laws, that is, the budgets, the multi-annual economic and financial decisions on which the European authorities have to pronounce before national parliaments. Well, the spring phase saw, indeed, the program signed by the decayed government, in charge of ordinary administration. The European Council's evaluation and recommendations came to an end even after two months from the settlement of Letta, a government without a detailed program and considered provisional and limited for its purposes. As far as the end of the year, the debate on the Stability Law, both in Rome and in Brussels, has begun in a controversial phase of parliamentary work, ingested by a thousand issues, including nothing less than the reforms of the electoral law and the constitution. It started just when most of one of the two major coalition parties went to the opposition, and in the other they struggled not completely serene for leadership. So that the Commission's attempts to move the emphasis from mere austerity to deficit-size reforms to competitiveness and growth could not be taken advantage of. An attempt that neither national politics nor public opinion has taken clear and appreciated. The evidence is the declarations and recommendations that Italy has officially received from Brussels. In June, our exit from the excessive deficit was decided, crowning Monti's efforts to bring it substantially below 3% of GDP.

But Italy was allowed to get back to 3% by repaying the debts of the public administration. And the June resolutions ended with six recommendations: only the first mentioned the deficit in insisting because we actually put the decisions in practice; the other five concerned various reform fronts to revitalize the country's competitiveness and growth. They ranged from the efficiency of public administration and coordination between the various levels of government, regulatory simplification, bank governance to financial market reform, the advancement of labor market reforms to liberalization and the ways of delivering public services. The fifth recommendation concerned the quality of taxes and began drastically: taxation shifted from labor and capital to consumption, property and environmental conservation. But Italy has not been able to follow this different focus of European surveillance. Reforms have not been accelerated. Sensational was the disobedience to the request to reform the taxation: indeed, we have insisted in seeking to reduce the property tax and avoid the VAT increase at the cost of postponing and make laughable the contraction of that at work. The design of the new Stability Law, which we presented in November, has not convincingly incorporated a structural reform program. And it is especially for this reason that has received criticism from the Commission.

There are significant differences among the EU countries on the adoption and kind of macro-prudential instruments nature. A first group of countries, including Denmark, Slovakia, Sweden and the UK, has put in place a number of measures in particular the anti-cyclical reserves and conservative capital, limits on liquidity requirements, the lever financial and risk weights of industry- and a second group which includes, the Germans, the Spanish, the French, the Portuguese and the Austrian, characterized by a regulatory framework for the above theme less developed.

Italy, unfortunately, is part of the second group as it has so far only implemented the conservation reserve of capital provided by the Bank of Italy in January 2014[122]. In accordance with the rules laid down in the circular n. 285, about the regulatory provisions for banks, is required to consolidated banking groups and banks do not form part of these groups, to apply an additional capital ratio of 2.5%. If banks do not respect this rule will not distribute dividends, variable remuneration and other factors affecting the formation of the regulatory capital. It is expected that this fact should also be made for measures to restore the buffer request.

The powers of the Bank of Italy in macroprudential policies are governed by European law. The Capital Requirements Directive (CRD4) and the Capital Requirements Regulation (CRR) EU / 2013/575 on access to business and prudential supervision of credit institutions and investment firms govern a set of more circumscribed of macroprudential instruments that competent or designated national authorities can take to prevent or mitigate the systemic risk to the banking sector. With the implementation of the CRD4, the Bank of Italy will be the designated authority to activate such instruments for our country, with the power to apply measures such as anti-cyclical capital reserves and those for institutions of systemic importance at global and national level. The Bank of Italy may also use non-harmonized instruments such as LTV or LTI and take measures to cope with systemic risks that originate from other financial intermediaries and the markets it controls.

[122] Schuermann, Til. "Stress testing banks." International Journal of Forecasting 30.3 (2014): 717-728.

The macro-financial indicators developed by the Bank of Italy are aimed at monitoring the risks arising from the international economy, the real estate sector, households and businesses; the performance of financial institutions (the trend and quality of credit provided to the economy, pricing conditions, liquidity, maturity transformation, profitability and capitalization); the liquidity conditions and orderly functioning of the markets. When signs of danger emerge from the indicators, potentially hazardous areas are subject to further insights.

The Italian legal responsibility for the protection and the achievement of financial stability is legally assigned to the Bank of Italy. The latter shall carry out its tasks, as well as through the exercise of micro-prudential supervision, macro-prudential policies aimed at activating complex of the national system. Community legislation highlights a number of macro-prudential instruments for the banking sector that the national regulator can be used, or as a preventive measure or the order to mitigate the risks to the stability of the system. Wanting to pursue aforementioned stability, in addition to its powers of local authorities to adopt macroprudential type instruments, the European regulation assigns to the ECB responsible for coordination of the national authorities and some powers of intervention on strengthening the macroprudential measures taken by national competent bodies to the banking sector.

The Bank of Italy is a member of the European Systemic Risk Board (ESRB) and participates in the Financial Stability Board (FSB), which includes representatives of the main authorities responsible for financial stability of many advanced and emerging countries and institutions responsible for determination of financial standards. The above-mentioned Council manages the work of the financial authorities and other international bodies in order to promote the implementation of regulatory policies and effective supervision, going to contribute to the achievement of global financial stability. The Bank of Italy is assigned, by the Union, the power to activate macroprudential instruments in the banking sector, and tools such as capital reserves in cyclical and capital buffers for systemic credit institutions, domestic and otherwise. The Bank of Italy may require higher capital requirements for banks - for exposures taking into specific areas - and can use macroprudential instruments not harmonized by EU legislation with the aim of preventing and\or manage risks to the stability of financial system. The responsibilities assigned to central banks for safeguarding financial stability is large in all countries, regardless of their institutional structure. Their role derives from the control function of payment systems, both the prerogative to determine the final loan disbursement instance, both the supervision at the level of the banks that are issuing authorities in various countries[123].

The debate about the practical effectiveness of macroprudential policy and the need for improvement has a relatively minor importance for Italy. A proof of this is that the Bank of Italy has produced in the last three years major studies about the operation of this policy, with regard to its economic dynamics and its legal parties. This shows that there is a high confidence in their role and a strong awareness of the cyclical nature of the fact that macroprudential policy can have on the financial cycle.

The real obstacle to the implementation of this policy is the lack of approval of a national macro-prudential authority, which was specifically requested by the ESRB with the third recommendation of 2011. Although one may expect that this authority will actually be established (as an independent committee that responds to the Bank of Italy) is also obvious that today the lack of such an institution, does not allow the holding of a genuine national macro-prudential policy, that is, with a high capacity the onset of reaction of systemic risks. Another obstacle concerns the current conditions in the credit market in Italy. In fact, the credit supply to businesses is still in a contraction phase which implies that the application of additional macroprudential instruments in this situation, could further aggravate the situation in credit supply, adversely affecting the economic recovery.

Panetta[124] argues that in the euro area structural factors make monetary and macro-prudential policies more complementary than elsewhere, and macroprudential instruments are in principle more powerful, and therefore more important. This is primarily due to the fact that the macro-prudential instruments so far used are predominantly banking and that banks play a particularly important role in financing the economy of the area. Secondly, the area consists of economies characterized by still relatively heterogeneous economic and real estate cycles. In a context in which monetary policy cannot take these diversity into account, specific macro-prudential regimes for each country can effectively be used to prevent real financial imbalances. In summary, the interactions between macroprudential policies and monetary policy are clearly present but not yet well understood. The novelty of the matter makes both theoretical and empirical analysis still at an early stage. Moreover, it is evident that, if not properly coordinated,

[123] Italy, Netherlands and US

[124] Angelini, Paolo, Stefano Neri, and Fabio Panetta. "The interaction between capital requirements and monetary policy." Journal of money, credit and Banking 46.6 (2014): 1073-1112.

two policies with such strong interactions can easily come into conflict. This potential conflict requires institutional arrangements that favor coordination and (c) short-term interest rate response to a real-time negative shock (d) short-term interest rate response to a negative shock of financial nature (a) Reaction of production to a negative shock of real nature (b) production reaction to a negative financial shock.

The analytical scheme for analysing macroprudential policies is still lacking. Among the practical problems that macro-prudential authorities have to solve are the choice between two or more instruments with presumably similar effects (is it better to activate a capital reserve or a limit on LTV?), Calibration of instruments (the capital reserve should be maintained unchanged or increased? and how much?), evaluating interactions with other policies. Empirical developments in this field are outweighed by theoretical developments. An ideal theoretical apparatus should be sufficiently simple to allow a correct understanding of the underlying mechanisms, but also quite realistic to be used for operational purposes and to provide concrete guidance to the authorities. It should also incorporate the distortions that macro-prudential policy seeks to aggravate, externalities associated with systemic risk. However, it is very difficult to combine these features into one model. None of the existing analytical systems can incorporate all the many forms of systemic risk. Numerous recent contributions include systemic externalities, but are too stylized for positive and operational analysis. By contrast, other models (such as the one derived from the example discussed in the previous paragraph) are for this purpose, but do not incorporate externalities. Theoretical literature in macro-prudential science is in rapid development, but is still at an early stage.

From the available studies, the following conclusions can be drawn. First, credit growth periods may be induced by negative externalities; this provides a theoretical basis for countercyclical macroprudential policies. Secondly, there are many areas of uncertainty about the mechanism of transmission of these policies (effective effectiveness in the presence of specific macroeconomic shocks, potential unwanted effects and unexpected reactions by financial intermediaries that can undermine the impact of the measures). Third, macroprudential policies that are also aimed at counteracting financial tensions appear to be preferable to traditional ones, which pursue only inflation targets and economic growth. These considerations suggest that although the two objectives (price stability and financial stability) correspond to the two institutional instruments (macroeconomic and monetary policy), a rigid separation between the two policies does not seem desirable.

There is now consensus on the argument that monetary policy plays a role in countering the development of financial imbalances, and not only in attending the ex post consequences, although it is not easy to define in detail how this should be done. The institutional architecture for financial stability in Europe is complex. The micro-prudential function involves three European authorities - EBA, ESMA and EIOPA - and the relevant national competent authorities (ANCs). On the macro-prudential front, the main players are the European Systemic Risk Board (CERS), the ECB and the NCA.

The system began to change in the years immediately following its introduction. One major change was the Recommendation on national macro-prudential authorities published by the ESRB in December 2011. The Recommendation requires national governments to explicitly foresee the macro-prudential role in their legislative system: (i) specifying the objectives of macro-prudential policies; (ii) designating an ad hoc authority at national level, assigning them the appropriate powers and tools to achieve their goals, guaranteeing its independence and calling it to account for its work.

The authority may be independent or have the form of a committee, composed of authorities with responsibilities for financial stability, in which the central bank should have a leading role. A second Recommendation of June 2013 requires the national authorities to define the intermediate objectives of their macro-prudential policies and the means to pursue them. In Italy, the national macro-prudential authority has not yet been created.

Considering the presented problems, the lack of adoption by the Italian legislature, a small macro-prudential framework is considered justifiable. Despite this, it is useful to point out that the possibility exists that the advantages for banks resulting from non-application of these instruments, may be cancelled by the costs related to financial and unanticipated shocks. Going to lay a more solid macro-prudential framework and organic, it would ensure the Italian banking system greater resilience and ability to react if you were sitting in front of the emergence of systemic risks.

Currently there is a consensus that the goal of financial stability must be reached a level of stability in the provision of financial services (such as loans, insurance, payment, etc.) throughout the economic cycle that will support the economy in the achievement of maximum sustainable economic growth. We have financial stability when the financial system operates with no significant failures or adverse events on the development, past and future, the economy as a whole, and when this system shows a high degree of resilience to potential shocks. It differs from analysis of this stability as the study of financial markets, macro-economic developments and potential sources of systemic risk arising from the relationships between the vulnerabilities of the financial system and potential shocks emanating from various sectors of the economy. Even the definitions just given shows the strong bond of the objective of financial stability with those of macroprudential policy: the work of these policies is to ensure that the financial system does not become so fragile and vulnerable to systemic shocks that would lead to crisis of ' entire economic system.

Considering the above said analysis of the financial system is aimed at the identification and study of the factors of vulnerability that can be formed in the system and, therefore, could reduce its degree of resilience to potential shocks. If it is true that all economic policies, whether fiscal, monetary or structural, can help to promote and achieve financial stability, macroprudential policy was developed with the explicit and primary goal of ensuring the stability of the financial system as a whole and to prevent the accumulation and materialisation of systemic risks. This objective is twofold: on the one hand aims to reduce the procyclicality of the financial system, which does not mean eliminate financial cycles since these, to some extent, are a normal reflection of economic activity, the purpose of macro-prudential policy is to to avoid the excessive volatility of such cycles. On the other hand, this policy seeks to enhance the resilience of the system as a whole, that is, its ability to absorb financial or economic shocks without major repercussions. Macroprudential policy seeks to limit collective default, reducing the likelihood and impact of systemic failures, indeed they are a response to oversight too focused on individual institutes, as micro-prudential approaches have highlighted disadvantages such as the application of the same standards regardless of the impact that a single institute's failure might have on the financial system. On the contrary, the macro-prudential approach takes into account the procyclicality of the financial system.

Conclusions

The crisis has had its epicentre in the US financial markets. However, due to the size of the European banking sector and its global investment, and particularly in the US markets, the crisis was immediately exported to Europe. Here, it has amplified and changed in a crisis of public finances due to the bonds between banks and states. The trade-off between economic efficiency and financial stability has also been tightened. If banks were not made safer and stronger, the vicious circle of banks-states would have caused a worse financial collapse. In order to repair the system and prevent future collapses, the European institutions have promoted a broad, uniform and homogeneous reform of the supervision, resumption and rescue of the banking sector in the Member States.

The regulation of the new financial system is basically pivoted on three main concepts. Firstly, European legislation, rather than the national transposition of the directives. Secondly, the ex-ante prevention of instability, rather than ex post saving with public money. Thirdly, the greater integration of the Eurozone, greater supervision and accumulated capital for resumption and rescue. What was the impact of such reforms? The state of bank capital has significantly improved and contributed to stabilizing the economy. This has broken the vicious economic circle that had led the financial sector to drain public resources. In other words, the reform of the financial regulation, focusing on the three aspects above, has eliminated the cause of the recession and restored the growth potential of the financial system. This was a necessary, but not enough, condition to bring the real economy back to the right track. The new European Regulatory Framework will succeed in boosting growth, creating employment and ultimately reducing income inequalities only if supported by further structural reforms on supply and demand for the real economy.

Preserving macroeconomic and financial stability requires the intervention of macro-prudential policies, whose goal is to limit systemic risk as much as possible, both in its temporal dimension, connected with procyclicality and transversal, linked to the distribution of risk within the system (i.e. between financial intermediaries, markets and infrastructures). In order to counteract the pro-cyclical forces, it is necessary to adopt different supervisory measures based on the trend of the system: financial institutions are induced during the growth period to accumulate anti-cyclical assets that will then be used to cope with the unfavourable economic phases, to fortify the resistance of the system in the face of tensions. This approach also contributes to preventing excessive credit expansion and unsustainable dynamics of asset prices.

In the "transversal" view, the setting of prudential instruments depends on the systemic relevance of each institution and the relations between them. The ultimate aim is therefore to promote stability of the financial system as a whole, and not necessarily that of individual institutions within it. In this regard, micro-prudential policies should be tackled in order to minimize idiosyncratic risk. As Crockett says[125] the distinction between micro- and macro-prudential policies is to be referred to the objectives rather than the means used to achieve them, and the main challenge is to achieve a better balance in their use in order to successfully coordinate the two perspectives.

Systemic risk is not easy to evaluate, and it is therefore complicated for the authorities to set the precise timing and intervention arrangements in the absence of clear predictive signals. For this reason, some anticipatory indicators were designed to assess system vulnerabilities prior to the appearance of the first crisis signals, but since the individual reporting performance of any indicator is imperfect in assessing the extent of systemic risk for a potential source of vulnerability is generally used more than one indicator.

The harm done to the global economy by financial instability prompted a policy movement for reregulation, so that financial stability can now be considered as a public good to be adequately promoted and protected. Macroprudential regulation and supervision, far from being the panacea for financial crises, is understood to be the necessary complement to microprudential regulation and supervision and to monetary and fiscal policy in countering present-day financial instability, within an economy based on regulated markets. In this sense the macroprudential approach bridged a perceived gap between central banking conceived of as monetary policy and microprudential supervision.

Like monetary policy, macroprudential policy relies on macro-analyses, while also touching upon many of the ratios used in microprudential supervision. A challenge calling also for legal expertise is keeping the tools within the technical realm of prudential instruments. As we have seen, in the West the prudential framework is now being redirected to focus on systemic risk. A macroprudential authority may have powers ranging from collecting information to

[125] Blundell-Wignall, Adrian, and Caroline Roulet. "Macro-prudential policy, bank systemic risk and capital controls." OECD Journal: Financial Market Trends 2013.2 (2014): 7-28.

“designation power” for systemically important institutions and utilities to rulemaking and calibration of supervisory tools.

The tools that these policies make use of are numerous and each has a specific function. Some do not know the effects well yet. Many tools can be targeted at specific areas, but this must be done with caution in order to consolidate the systemic nature of macro-prudential measures.

The sectoral approach is considered to be a limit to these policies focusing mainly on the banking sector, overlooking activities that are not related to it, such as the public sector, which can in itself be a source of systemic risk.

The decision-making power over these measures is entrusted to specific authorities, in most cases these are central banks but are joined by the supervisory and supervisory bodies. A certain degree of operational autonomy and discretion is paramount because each country has its own personal background. Institutional arrangements therefore reflect national specificities. It is also important that the authorities favour cooperation and coordination between macro-prudential and monetary policies that can support and complement each other. As a matter of fact, the implementation of each of the two policies can cause side effects and affect the achievement of the other's goals, but if properly combined they produce better results than those who pursue a single policy applied separately.

At this point, there is no doubt that prudential macro policies must be part of the solution to the perpetual quest for lasting financial stability. The Italian economic recovery can be accelerated if Italian and European economic policies are working to launch supply policies aimed at promoting structural change in the country, and demand-driven policies to boost investment and employment. Italy must therefore adopt a serious reform program as soon as possible, beginning with those that have an immediate impact on growth and employment. Measures must particularly affect the labour market, competition, justice and bureaucracy. The objective must be to align the Italian system with the European benchmarks. One must therefore question the role that Italy can play to start a virtuous circuit, its economy and the Continent.

Bibliography

- Angelini, P., (2015), “Le politiche macroprudenziali: una discussione dei principali temi”, Banca d’Italia Occasional Papers no. 271, Banca d’Italia, Roma.
- Rossi. La crisi globale ed europea, le politiche per la stabilità finanziaria. Banca d’Italia. Capri, 15-16 giugno 2012.
- High-Level Group On Financial Supervision In The Eu, Chaired by Jacques de Laroisière, REPORT, Brussels, 25 February 2009 (de Larosière Report).
- Bank Of International Settlements – Committee On The Global Financial System, Macroprudential instruments and frameworks: a stock-taking of issues and experiences, CGFS Publications No 38, May 2010.
- Fitoussi, Jean-Paul. "After the cash changeover." (2002).
- Tosato, Gian Luigi. "How to pursue a more efficient and legitimate European economic governance." *IAI*, *IAI Working Papers* 16.03 (2016).
- Creel, Jérôme, Thierry Latreille, and Jacques Le Cacheux. "Le Pacte de stabilité et les politiques budgétaires dans l'Union européenne." *Revue de l'OFCE* 5 (2002).
- Basel Committee On Banking Supervision, Report and Recommendations of the Cross-border Bank Resolution Group, March 2010.
- Banca dei Regolamenti Internazionali, (1986), “Recent innovations in international banking”, report preparato da un gruppo di studio riunito dalle banche centrali dei paesi del G10, aprile 1986, Basilea.
- Banca dei Regolamenti Internazionali, (2010), “La politica macroprudenziale e la prociclicità”, in *8Oesima Relazione annuale*.
- Chwieroth J. – Danielsson J., Political challenges of the macroprudential agenda, 6 September 2013, at www.voxeu.org.
- D’ambrosio R., Le Autorità di vigilanza finanziaria dell’Unione, in Diritto della banca e del mercato finanziario, 2011 (it.).
- D’ambrosio R., Due process and safeguards of the persons subject to SSM supervisory and sanctioning proceedings, Banca d'Italia, Quaderni di ricerca giuridica della Consulenza legale, No 74, December 2013.
- Draghi M., Considerations on the ESRB review, Letter of 8 July 2013.
- European Systemic Risk Board, Report on the European Commission’s banking union proposals, drafted by André Sapir, Martin Hellwig and Marco Pagano of the Advisory Scientific Committee of the ESRB, October 2012.

- Banca dei Regolamenti Internazionali, Fondo Monetario Internazionale, Financial Stability Board (2016), "Elements of Effective Macroprudential Policies – Lessons from International Experience", lavoro di gruppo, 31 agosto 2016.
- Teixeira P.G., The Single Supervisory Mechanism: Legal and Institutional Foundations, Quaderni di ricerca giuridica della Banca d'Italia, n. 75, March 2014.
- Angeloni, Ignazio. "European macroprudential policy from gestation to infancy." *Financial Stability Review* 18 (2014).
- Caruana, Jaime, and Benjamin H. Cohen. "Five questions and six answers about macroprudential policy." *Banque de France, Financial Stability Review* 18 (2014)
- Osinski, Jacek, Katharine Seal, and Mr Lex Hoogduin. *Macroprudential and microprudential policies: toward cohabitation*. No. 13-15. International Monetary Fund, 2013.
- Dyson, Kenneth, and Ivo Maes, eds. *Architects of the Euro: Intellectuals in the Making of European Monetary Union*. Oxford University Press, 2017.
- Borio, C., (2003), "Towards a macroprudential framework for financial supervision and regulation?", BIS Working Papers no. 128, Banca dei Regolamenti Internazionali, Basilea.
- European Systemic Risk Board, The ESRB Handbook on Operationalising Macro-Prudential Policy in the Banking Sector, March 2014.
- Borio, C., (2015), "Macroprudential policies: what have we learnt?", contributo presentato durante la conferenza della Banca d'Italia su *Micro and Macroprudential Banking Supervision in the Euro Area*, 24 novembre 2015, Università Cattolica del Sacro Cuore, Milano.
- Clement, P., (2010), "The term "macroprudential": origins and evolution", in *BIS Quarterly Review*, marzo 2010, pp. 59--67, Banca dei Regolamenti Internazionali, Basilea.
- Comitato di Basilea per la vigilanza bancaria, (2010), "Basilea 3 – Schema internazionale per la misurazione, la regolamentazione e il monitoraggio del rischio di liquidità", Banca dei Regolamenti Internazionali, Basilea.
- Crockett, A., (2000), "Marriyng the micro- and macroprudential dimensions of financial stability", discorso presentato durante l'undicesima edizione della Conferenza internazionale delle autorità di vigilanza bancaria, 20-21 settembre 2000, Basilea.
- Borio, Claudio EV, and Ilhyock Shim. "What can (macro-) prudential policy do to support monetary policy?." (2007).

- Anginer, Deniz, Asli Demirguc-Kunt, and Min Zhu. "How does deposit insurance affect bank risk? Evidence from the recent crisis." *Journal of Banking & finance* 48 (2014).
- Beau, Denis, Laurent Clerc, and Benoit Mojon. "Macro-prudential policy and the conduct of monetary policy." (2012).
- Unsal, D. Filiz. *Capital flows and financial stability: monetary policy and macroprudential responses*. No. 11-189. International Monetary Fund, 2011.
- Angelini, Paolo, Stefano Neri, and Fabio Panetta. "Monetary and macroprudential policies." (2011).
- Bailliu, Jeannine, Cesaire Meh, and Yahong Zhang. "Macroprudential rules and monetary policy when financial frictions matter." *Economic Modelling* 50 (2015)
- Smets, Frank. "Financial stability and monetary policy: How closely interlinked?." *International Journal of Central Banking* 10.2 (2014).
- Fondo Monetario Internazionale, (2012), "The interaction of monetary and macroprudential policies – background paper", documento preparato da un team guidato da Erlend Nier, che comprende Heedon Kang, Tommaso Mancini, Heiko Assia, Francesco Columba, Robert Tchaidze, e Jerome Vandenbussche, 27 dicembre 2012.
- Fondo Monetario Internazionale, (2013), "The interaction of monetary and macroprudential policies", documento preparato da uno staff coordinato da Stijn Claessens e Karl Habermeier e composto da Erlend Nier, Heedon Kang, Tommaso Mancini-Griffoli e Fabian Valencia, 29 gennaio 2013.
- Montanaro, E., (2014), "Significato e obiettivi degli stress test", Università di Siena, scuola di economia e management.
- Nier, E., Kang, H., (2016), "Monetary and macroprudential policies – exploring interactions", in *BIS Papers no. 86*, pp. 27--38, Banca dei Regolamenti Internazionali, Basilea.
- Noyer, C., (2010), "Monetary policy and macroprudential policy", discorso presentato durante la conferenza *The future of monetary policy*, 1 ottobre 2010, Roma.
- Shin, H. S., (2015), "Macroprudential tools, their limits and their connection with monetary policy", contributo presentato all'IMF Spring Meeting *Rethinking macro policy III: progress or confusion?*, 15 aprile 2015, Washington.
- Visco, I., (2011), "Key issue for the success of macroprudential policies", in *BIS Papers no. 6O*, Banca dei Regolamenti Internazionali, Basilea.
- SOROS George, La crisi globale e l'instabilità finanziaria europea, 2012, Hoepli, Milano.

- Napoletano, Giuseppe. *Legal aspects of macroprudential policy in the United States and in the European Union*. Banca d'Italia, 2014.
- Agénor, Pierre-Richard, Koray Alper, and Luiz A. Pereira da Silva. "Sudden floods, macroprudential regulation and stability in an open economy." *Journal of International Money and Finance* 48 (2014)
- Agénor, Pierre-Richard. "Understanding the links between Macroprudential Regulation, Financial Stability, and Growth." (2016).
- Blanchard, Olivier, Giovanni Dell'Ariccia, and Paolo Mauro. "Rethinking macroeconomic policy." *Journal of Money, Credit and Banking* 42.s1 (2010).

Other references

- Banca dei Regolamenti Internazionali, (2016), “Countercyclical capital buffer (CCyB)”, https://www.bis.org/bcbs/ccyb/
- Borsa Italiana, (2014), “Loan-To-Value ratio”, http://www.borsaitaliana.it/notizie/sotto-la- lente/loan-value-182.htm
- Il Sole 24 ORE, “Carry trade”, http://www.ilsole24ore.com/art/SoleOnLine4/100- parole/Economia/C/Carry-trade.shtml?uuid=1d9190a4-5803-11dd-93cb-a54c5cfcd900DocRulesView=LiberofromSearch
- Lionello Luca, Il nuovo ruolo della BCE nella crisi del debito sovrano europeo, 2015, num. 1-2, pag. 17, http://www.thefederalist.eu/
- Bank of Italy https://www.bancaditalia.it/compiti/vigilanza/normativa/consultazioni/2013/reg-UE-575-quadro-generale/Doc_consultazione.pdf
- ECB https://www.ecb.europa.eu/ecb/html/crisis.it.html

Abstract – The Central Bank's role in macroprudential policies

Following the recent economic crisis, the international authorities have further focused their attention on the safety of the financial system to strengthen its resilience to shocks in order to ensure its stability over time is the main challenge that they pose today. The key question is to understand how this goal can be best achieved. The definitive answer depends on the way in which financial instability is considered, what is considered to be the cause and the implications.

It is precisely in this context that a new term in economic language begins to emerge from the meaning and origin still unclear: the term "macroprudential". Its origins seem to date back to the late 1970s, it was used in works and studies concerning international bank loans. Initially used mainly within important financial institutions, such as the Bank for International Settlements and the Basel Committee, it has recently become a public domain in recent times, gaining ever-increasing popularity.

Macroprudential analysis focuses on the study of the stability of the financial system as a whole, paying particular attention to the relations between the institutions that are part of it. That is why this approach becomes a key element within the framework of international economic policies: in order to further consolidate the financial system, thus reducing the instability and hence the likelihood of future economic crises, it is necessary to strengthen the macro-prudential supervision and consequently banking regulation. This document outlines a number of important concepts that try to make clarity on the subject. In the first chapter, macro-prudential policies are defined by comparing micro-prudential policies. The objectives of both are also explained and through a historical account the birth and dissemination of the term are reported.

The second chapter begins with a description of the institutional set-up of the macro-prudential authorities, ie those institutions tasked with ensuring stability within the financial system, and then continuing to define the indicators necessary for systemic risk assessment and the main instruments macro-prudential policy avails itself. Here are analysed the interactions between macroprudential policy and monetary policy. These policies are able to influence each other, producing side effects that may interfere with the achievement of the set goals, but if properly combined, they produce better results than those who pursue a single policy applied separately.

In the third chapter the focus is on the role that the Central Banks have played during and in the aftermath of the crisis as Central banks, since their establishment, played a key role in the

economy of the states. Initially set up to guarantee the issue of banknotes and coins, an old prerogative director, subsequently held other key functions such as the payment system guarantee and the management of monetary policy.

In the fourth and last chapter I am going to analyse the behaviour of national legislations in general and of the Italian legislation in particular.

Macro-prudential policy is an integral ingredient of any policy framework to address the stability of the financial system as a whole. The practical implementation of macro-prudential policy requires a clear institutional framework with adequate flexibility – both at the European Union and national levels. A strong macro-prudential mandate is necessary to give authorities incentives and powers to address systemic risks.

The Financial System is a complex architecture that allows economic operators - businesses, households, public administrations and others - to transfer resources, make payments and manage the various risks. The authorities responsible for financial stability have the task of ensuring the proper functioning of the system. The latter can be defined as "financially stable" if it facilitates the allocation of resources in space - hence between sectors and between geographical areas - and if in time it allows for adequate pricing of financial assets.

A stable system must also limit the concentration of risks by allowing them to be managed using the right tools, and must continue to operate even in the presence of unexpected and adverse events. Financial stability is of crucial importance in the context of the Financial System and also of the economy in general. With the growth in the number of financial institutions operating in more than one country, the stability has taken on a worldwide significance.

All of the public interventions put in place to counter the crisis were not evaluated by financial operators as resolutive, as the internal coherence of European construction was questioned. The crisis affecting Europe is quite different from the American one, as it is characterized by excessive money creation, uncontrolled financial innovation and self-confidence in the capacity of the market.

A teaching that comes from the global crisis and still has to be studied and deepened is the importance and the value of the stability of the financial system and how this is intertwined with the rules of conduct of monetary policy and macroprudential. This stability must be pursued with targeted policies, of macro-prudential nature, that is to contain systemic risk.

The crisis of recent years shows how monetary policy manages to influence different variables, such as the prices of financial and real assets and the conditions of supply and credit of the economy, whose trend is of fundamental importance to maintain financial stability. The main objective of macroprudential policies can be expressed simply, it is to promote the resilience of the financial system so that the latter can perform its functions and meet the needs of the real economy. More precisely the aim of macroprudential policy is to prevent and manage systemic risk with the aim of avoiding a systemic crisis. Macroprudential policy should be understood as the analysis aimed to test the stability of the financial system as a whole. The "macro-prudential policies" expression has enjoyed real popularity as a result of the crisis and is now used to refer to a number of policy measures that have no end as the first directly to the financial stability of the system; although, technically, only the tools that are used with the explicit primary objective of promoting the overall stability of the financial system and that have a direct impact on financial stability should be considered "macroprudential".

The debate on macro-prudential policies is based on the idea that there is a legal vacuum: no authority has been explicitly entrusted to control systemic risk and it is believed that this has played an important role in the financial crisis. Various sectors of the financial system often fall under the responsibility of different authorities, making it difficult to conduct a thorough analysis of this risk.

Implementing macroprudential policies is not an easy matter as this process takes place in a scenario in which the various sources of systemic risk are combined and often that happens in unknown ways. Macroprudential policies therefore require the ability to assess and measure a priori systemic risks, so their action must inevitably be preventive, they should be able to exercise before the crisis occur. In the first case, the macro-prudential policy should counter the pro-cyclicality of the financial system[126] in the second, it must intervene with regulatory instruments that make the financial system as much as possible to infections refractory part thereof on the other.

Stabilizing the financial system, an effective macro-prudential policy that eases the tasks of monetary policy in many ways, is to limit the economic fluctuations going to reduce the frequency and intensity of the financial turmoil and improves the effectiveness of monetary policy by not allowing such financial turbulence to reduce the impact of changes in official

[126] The financial system tendency to widen cyclical fluctuation

interest rates. And what is perhaps more important, to help lessen the pressure on monetary policy will reduce interest rates in order to counter threats to financial stability in the downturn.

The international landscape of macroprudential authorities that have been created is varied in recent years: we simply quote the Financial Stability Oversight Council (FSOC), the Financial Policy Committee (FPC), the European Systemic Risk Board (European Systemic Risk Board, ESRB). These authorities alongside global bodies such as the Financial Stability Board (FSB) and the IMF.

There are, besides monetary policy, many policies that can interact with or condition the use of macroprudential policies. These include fiscal, microprudential, and other structural policies. I review the research in these areas briefly. Fiscal policy. Tax policies can contribute to systemic risk when they encourage leverage, as when interest payments are tax deductable, or affect asset prices. Macroprudential authorities have therefore an interest in the correction of such biases. While there can be some limited scope in principle, policy coordination is hard in practice. And indeed so far, coordination has been limited, with instruments and mechanisms only defined for the countercyclical and systemic capital surcharges in Basel III. While more progress can be envisioned, policy spillovers are likely to remain.

The application of macroprudential policies requires a well-defined governance mechanism, but the considerable differences between the countries suggest the absence of an undifferentiated approach: the institutional arrangements are in fact built on the basis of the specific background of each nation. Nevertheless, it was concluded that the effectiveness of such policies is achieved more easily by providing the authorities concerned a clearly defined and realistic purpose.

In many jurisdictions, an important role in the decision-making process lies with the supervisory and supervisory authorities, which possess the appropriate skills and information. However, such authorities may be less familiar with macroeconomic considerations as they tend to "*focus on the security and solidity of individual intermediaries rather than on the system as a whole*"[127], leading to generation of conflicting situations when the micro and macro-prudential prospects should require diverging action. On the contrary, central banks *"are in a better position to understand the behaviour of the markets and the links between the financial system and the real economy"*[128]. Indeed, central banks, having more incentives to use the instruments

[127] Bank of International Settlements, 2010

[128] Ibidem

available for macro-prudential purposes, are the main players in taking discretionary measures in response to signs of financial turmoil. A comprehensive framework for systemic risk monitoring is important to make macroprudential policies work. To assess the accumulation of risk over time, authorities typically examine certain aspects including economic system vulnerabilities generated by excessive growth in total credit or asset price; the sectoral fragility resulting from credit growth to the domestic sector or from increases in the exposure to the business sector; and those arising from the accumulation of currency misalignment and maturities within the financial sector.

While well-known and well-experienced instruments such as inflation indices, economic activity measures are available for monetary policy goals, systemic risk measures are at a less advanced stage. Indeed, systemic risk, in addition to being very difficult to define, is also very difficult to measure and predict. This is mostly due to the elusive nature of the phenomenon. For such reasons predicting causes of financial instability is very complicated. Macroprudential authorities must therefore face many problems: how to trigger cost-effective tools without clear warning signals of the problems that are being prevented? How to account for actions in the absence of good measure of the effects of the implemented policies?

Experience suggests that a broad range of tools may be necessary to achieve macroprudential policy goals, and these tools must be able to address the range of potential vulnerabilities both in the temporal and transverse dimensions. A key part of developing macroprudential instruments is to adapt existing microprudential tools, such as strong prudential standards (for example, requirements to hold high capital and liquidity buffers) and limits on activities that increase systemic vulnerabilities and risks. These standards and limits might be occasionally varied, or adjusted in a countercyclical manner, especially with a view to leaning against the financial cycle. When that is the aim, the instruments would be adjusted dynamically in response to changing assessments of financial risks. Adjustments would need to occur both on the upswing, when vulnerabilities are building, and on the downswing, when risks of a destabilising credit contraction are rising.

Existing microprudential instruments could be used for promoting financial system resilience. They can be recalibrated to limit the financial system's exposure or vulnerability to shocks. Instruments in this category include capital and liquidity requirements with a "buffer" character, limits on leverage in particular types of lending contract, constraints on currency mismatches, or measures that strengthen financial infrastructure. Apparently, the simplest solution to contain systemic risk is to force all major players in the financial system to increase capital, compared to what is already provided by the micro-prudential rules.

In general, we can safely say that the macro-prudential framework is going to expand. Indeed, since January 2016, it was envisaged that all Italian banks should adopt the anti-cyclical capital reserve governed by CRD IV. In addition to what is said, namely the mandatory implementation of the CRR\CRDIV package, there is no evidence of greater consolidation of the national macroprudential framework. To date there are no further regulatory proposals aimed at extending and / or integrating the range of macro-prudential instruments available to the authorities.

The possible reasons for preventing the application by the EU of a more developed and organic macro-prudential policy are various and indicated by the ESRB: the views on the effective effectiveness of such instruments, those linked to the establishment of a specific macro-prudential authority that deals with their realization and those based on fragility in the financial cycle. The debate on the concrete functionality of macroprudential policy and on the need for improvement has a relatively minor importance for Italy. A proof of this is that the Bank of Italy has produced important studies over the past three years about the functioning of this policy, with regard to its economic dynamics and its legal parts. This shows that there is a high level of confidence in their role and a strong awareness of the anti-cyclical effects that macroprudential policy may have on the financial cycle. The real obstacle to the implementation of this policy is the failure to approve a national macro-prudential authority, which was expressly requested by the ESRB with the third recommendation of 2011.

The allocation of supervisory tasks between the ECB and the national authorities has been devised in accordance with precise criteria, which allow to balance the need to ensure the unity of the system and to maintain the benefits of operational decentralization. For the purposes of ordinary supervision, two documents (the framework regulation and the supervisory manual) provide the general framework for the purpose of ensuring the coherence and effectiveness of the system as a whole.

These include the ordinary supervision of compliance with the prudential discipline, qualitative components (organization, corporate governance, remuneration), quantitative (capital requirements, risk concentration, liquidity, leverage) and disclosure to the public; conducting the prudential review and assessment process and stress testing; consolidated and supplementary supervision on financial conglomerates; rehabilitation plans and early intervention measures; some tasks regarding macroprudential supervision.

The powers of the Bank of Italy in macroprudential policies are governed by European law. The Italian legal responsibility for the protection and the achievement of financial stability is legally assigned to the Bank of Italy. The latter shall carry out its tasks, as well as through the exercise of micro-prudential supervision, macro-prudential policies aimed at activating complex of the national system. Community legislation highlights a number of macro-prudential instruments for the banking sector that the national regulator can be used, or as a preventive measure or the order to mitigate the risks to the stability of the system.

The Bank of Italy is assigned, by the Union, the power to activate macroprudential instruments in the banking sector, and tools such as capital reserves in cyclical and capital buffers for systemic credit institutions, domestic and otherwise. The responsibilities assigned to central banks for safeguarding financial stability is large in all countries, regardless of their institutional structure. The analytical scheme for analysing macroprudential policies is still lacking. Among the practical problems that macro-prudential authorities have to solve are the choice between two or more instruments with presumably similar effects (is it better to activate a capital reserve or a limit on LTV?), Calibration of instruments (the capital reserve should be maintained unchanged or increased? and how much?), evaluating interactions with other policies. Empirical developments in this field are outweighed by theoretical developments. An ideal theoretical apparatus should be sufficiently simple to allow a correct understanding of the underlying mechanisms, but also quite realistic to be used for operational purposes and to provide concrete guidance to the authorities. It should also incorporate the distortions that macro-prudential policy seeks to aggravate, externalities associated with systemic risk. However, it is very difficult to combine these features into one model. None of the existing analytical systems can incorporate all the many forms of systemic risk.

From the available studies, the following conclusions can be drawn. First, credit growth periods may be induced by negative externalities; this provides a theoretical basis for countercyclical macroprudential policies. Secondly, there are many areas of uncertainty about the mechanism of transmission of these policies (effective effectiveness in the presence of specific macroeconomic shocks, potential unwanted effects and unexpected reactions by financial intermediaries that can undermine the impact of the measures). Third, macroprudential policies that are also aimed at counteracting financial tensions appear to be preferable to traditional ones, which pursue only inflation targets and economic growth. These considerations suggest that although two objectives (price stability and financial stability) correspond to the two institutional instruments (macroeconomic and monetary policy), a rigid separation between the two policies does not seem desirable.

Considering the presented problems, the lack of adoption by the Italian legislature, a small macro-prudential framework is considered justifiable. Despite this, it is useful to point out that the possibility exists that the advantages for banks resulting from non-application of these instruments, may be cancelled by the costs related to financial and unanticipated shocks. Going to lay a more solid macro-prudential framework and organic, it would ensure the Italian banking system greater resilience and ability to react if you were sitting in front of the emergence of systemic risks.

In order to counteract the pro-cyclical forces, it is necessary to adopt different supervisory measures based on the trend of the system: financial institutions are induced during the growth period to accumulate anti-cyclical assets that will then be used to cope with the unfavourable economic phases, to fortify the resistance of the system in the face of tensions. This approach also contributes to preventing excessive credit expansion and unsustainable dynamics of asset prices.

Like monetary policy, macroprudential policy relies on macro-analyses, while also touching upon many of the ratios used in microprudential supervision. A challenge calling also for legal expertise is keeping the tools within the technical realm of prudential instruments. As we have seen, in the West the prudential framework is now being redirected to focus on systemic risk. A macroprudential authority may have powers ranging from collecting information to "designation power" for systemically important institutions and utilities to rulemaking and calibration of supervisory tools.

The tools that these policies make use of are numerous and each has a specific function. Some do not know the effects well yet. Many tools can be targeted at specific areas, but this must be done with caution in order to consolidate the systemic nature of macro-prudential measures.

As a matter of fact, the implementation of each of the two policies can cause side effects and affect the achievement of the other's goals, but if properly combined they produce better results than those who pursue a single policy applied separately.

At this point, there is no doubt that prudential macro policies must be part of the solution to the perpetual quest for lasting financial stability. The Italian economic recovery can be accelerated if Italian and European economic policies are working to launch supply policies aimed at promoting structural change in the country, and demand-driven policies to boost investment and employment. Italy must therefore adopt a serious reform program as soon as possible, beginning with those that have an immediate impact on growth and employment. Measures must particularly affect the labour market, competition, justice and bureaucracy. The objective must be to align the Italian system with the European benchmarks. One must therefore question the role that Italy can play to start a virtuous circuit, its economy and the Continent.