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PUBLIC DEBT AND THE EURO: RULES AND ECONOMIC POLICIES

PAOLO BAFFI LECTURE

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1. Introduction

Good morning, everyone. It's an honor and a special pleasure for me to be here.

In every lecture, there is a perspective and a story. My perspective is that of someone who has been serving the Italian State as Minister of Economy and Finance since October 22, 2022. I began my institutional experience as a member of the Italian Parliament, where I have sat uninterruptedly since the distant 1996, and have served as Chairman of the Budget, Treasury, and Planning Committee of the Chamber of Deputies first from 2001 to 2006, and then from 2008 to 2013.

My story stems from the desire to share with you some reflections on what happens when a sovereign country simultaneously needs to manage a high stock of public debt and is part of a monetary union. Public debt and money are two sides of the same coin, because they represent two fundamental public goods, for each of us individually and for the community as a whole: the protection of monetary stability — that is, the value of money — and the value of savings.

It is a story whose main thread is a principle that every economic policymaker should always keep in mind. I like to state it by quoting Paolo Baffi, Governor of the Bank of Italy and a Bocconian — after whom this lecture is entitled — who in May 1978 wrote: "In a chain of social and political relations in a state of tension, money represents the weaker link, and monetary financing of the Treasury represents the breaking point of this link."[1]

Indeed, we will see that in order to protect the value of money and the value of savings, monetary and fiscal discipline must be pursued in parallel, and that the two forms of discipline are the end result of two intertwined factors: on the one hand, the design of rules; on the other, the design of policies, of the Treasury and the central bank.

To make the narrative nimbler, I will intersperse it with data and simple macroeconomic indicators. The aim is to recall analytical and empirical results, but also to call forth ever more effective research questions, whose answers can be useful to those in charge of economic policymaking.

But let me start from what I learned on the subject here, in these Bocconi classrooms, because those who don't know the past cannot understand the present. Applying this rule to my country, the story I will tell you is based on a fundamental concept, two main protagonists, and three watershed moments. The fundamental concept is the coherence of economic policy, and the factors on which it depends: rules and policies. The two protagonists are the government in office, or better yet, the Minister of Economy, and the Central Bank.

The three watershed moments are 1981, 1997, and the period from 2009 to 2020, which correspond to "funeral", "baptism", and long "illness", respectively. These are events that can shape not only the existence of each of us, but also the macroeconomic life of a country. An individual and a nation, after an illness, can go back to a healthy normality. Given equal luck, any return to normality is achieved through two virtues: strength of purpose and prudence of conduct.

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[1] Baffi (1977), p.33.

2. 1981. The crisis of fiscal dominance in Italy

Let's begin with the fundamental concept, which helps us answer the crucial first question: what do results in economic policy depend from? The answer we're interested in was formulated by economic analysis starting in the 1980s. In those years, research into what happens in a modern market economy was revolutionized by the concept of expectations, defined as rational.[2]

The fundamental idea was that all economic agents — households, firms, and operators in banking and financial markets — make their choices today based on expectations of what will happen in the economy tomorrow, having a general knowledge of how the economic system where they operate works, and in particular what is relevant about it.

Among the relevant phenomena, there is the design and implementation of economic policy. In turn, economic policy and its outcomes depend on the interplay of two factors: the strategies of those responsible for a policy, and the rules governing their actions.[3]

Here, the two main actors in our story come into play: the government in office and the central bank, with a second fundamental question: in defining strategies, what should be the objectives pursued by the executive branch and that special bureaucracy that deals with public money? Until the 1980s, the answer was unequivocal: the government in office should be responsible for all the choices of economic policy, having as its guiding principle stability in real variables — Gross Domestic Product (GDP) and employment — and nominal variables, too, the latter summarized by variations in consumer prices.[4] Finally, the government always and exclusively acts according to a perspective that coincides with that of collective welfare.

Regarding in particular the relationship between choices in matters of public spending and taxation — i.e. fiscal policy — the government in office was to be given maximum discretion in defining every choice, with a bureaucracy completely subordinated to it: the central bank.[5] Therefore, governments had to be able to determine the financing of any potential deficit between revenue and expenditure, choosing the optimal mix between two possible options: issuing interest-bearing government bonds — debt — or interest-free liabilities: public money- which is required by the economy because it is the mean for performing exchanges. The ultimate goal of government choices in terms of debt and money dynamics is to protect the value of savings — so-called fiscal discipline — and the value of money — monetary discipline.

Finally, the time profile of public debt is generally explained by two drivers: the first is the primary balance in public accounts, i.e., the difference between current revenues and current expenditures, net of interest payments; the second is the difference between the growth of the debt burden and

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[2] Muth (1961).

[3] Persson (1988), Persson and Tabellini (1990) and 1994), Cukierman (1992).

[4] Moreover, the government had to take into account that between the two types of stability mentioned above — real and monetary — there existed an inverse relationship, the so-called Phillips Curve, according to which every gain in terms of economic growth and employment entailed a corresponding cost in terms of inflation (Masciandaro, 1995; Gaiotti and Rossi, 2004). Given the imperfect flexibility of wages, monetary policy, at least from a cyclical perspective, has real effects, including on employment; see Gertler et al. (2008).

[5] Masciandaro (1995), Gaiotti and Rossi (2004), Masciandaro (2022). Given its subordinate status, the central bank may have had a degree of technical discretion, whose scope varied depending on the analytical perspective: higher in the so-called Keynesian view, and equal to zero in the so-called Monetarist view (Masciandaro, 1995; Gaiotti and Rossi, 2004; Masciandaro, 2022). In the traditional debate, there is no role for the framing of rules; for example, in the Monetarist perspective, since the central bank should not have any discretionary power at all, it cannot be granted any independence: see Friedman (1962).

the growth of national production.[6] Furthermore, the functioning of the two drivers can be intertwined: for example, a change in the primary balance, if it affects expectations, can be reflected in the trend of the cost of debt. Expectations can be decisive in determining the dynamics of debt, since they can trigger self-sustaining mechanisms driving its increase, which can lead to a full-blown crisis.[7]

The framework just described is defined as fiscal dominance:[8] the government decides first, establishing the current and future level of the budget balance; in the event of a deficit, the government also determines the composition of financing between debt issuance and monetization; the central bank simply implements the level of monetization requested by the government.[9] Therefore, the executive branch has complete control over fiscal policy and the corresponding creation of public debt and monetary financing.

This regime is consistent with the idea that the government in office, pursuing collective welfare, must be able to fully and systematically control the production of its liabilities, both of those yielding a return — debt — and those used as a means of payment — money.

The degree of fiscal dominance, as well as its macroeconomic effects, depends on the two factors mentioned above: the rules governing the relationship between the government and the central bank, which is the legal framework, that means how laws and regulations are actually written and implemented; and policies, i.e. the choices that governments and central bankers make in office.[10]

Under a regime of fiscal dominance, the central bank can influence overall money creation — both public and private, the latter produced by the combined banking activities of granting credit and collecting deposits — by making choices that can be more or less accommodating in relation the decisions made by the executive. The degree of monetary policy accommodation will depend, all other things being equal, on the combined motivations of the acting central bankers and the macroeconomic situation.

In our country, fiscal dominance characterized the institutional framework of relations between the Italian government and the central bank from the time of unification to our first watershed moment, the so-called "divorce" between the Italian Treasury and the Bank of Italy in July 1981.

The "divorce" meant a reform of the rules governing the relationship between the executive branch and the central bank, as technical body overseeing the creation of public money. **The "divorce" marked the**

[6] Bank for International Settlements (2023), page 57: Given the primary balance, the trend in the cost of debt can be approximated by the dynamics of the interest rate paid (the ratio between interest expenses and total outstanding debt), net of inflation and the real growth of the economy.

[7] Alesina et al. 1989, with an application to the case of Italy in the 1980s.

[8] From the standpoint of economic analysis, the notion of fiscal or monetary dominance may also be framed within the body of literature on the so-called "fiscal theory of inflation." According to this approach, irrespective of the institutional framework, the price level is ultimately determined by fiscal policy: Leeper (1991), Cochrane (2001), Woodford (2001), and more recently Leeper and Leith (2016), Bordo and Levy (2021), Bianchi and Melosi (2022), Bianchi et al. (2025).

[9] Sargent and Wallace (1981), Sargent (1982), Barro (1983), Kumhof et al. (2010).

[10] Sargent and Wallace (1981), Leijonhufvud (1983), Monti (1986). In general, fiscal dominance will be greater the more the incumbent government is able to determine: the level of interest rates; central bank purchases of government securities, both on the primary market, i.e. at issuance, and on the secondary market, i.e. through market trading; the level and composition of banks' reserve requirements; and any other measure that may, directly or indirectly, influence the financing of public deficits. Finally, fiscal dominance increases the fewer the constraints on the exchange rate dynamics of the national currency vis-à-vis foreign currencies.

end of the Bank of Italy's commitment[11] — undertaken in 1975 — to purchase government bonds that remained unplaced in market auctions[12]; this was "forced marriage".[13]

This commitment had allowed the Treasury to define, in a completely discretionary manner, both the amount — as large as desired — and the cost — as small as desired — of debt issuance, with one certainty: the central bank would in any case monetize the portion of debt issued which, with respect to market demand, had been found excessive in size and/or of insufficient remuneration.

But how did that reform come about? Nobel Prize winner Max Planck is credited with the saying that science progresses one funeral at a time[14]. If we apply Planck's Principle to the evolution of the monetary regime, the "divorce" can be explained as an institutional effect caused by the fact that increasingly worse macroeconomic results were attributed precisely to the design of the fiscal dominance rules, which therefore needed to be modified.

The starting point must be the consideration that starting in the mid-1960s, Italian governments implemented a kind of fiscal policy characterized by high budget deficits and, consequently, a growing level of public debt. The ratio of government deficit to GDP rose from 0.3 percent in 1960 to 10.8 percent in 1981. Public debt, also as a ratio of GDP, rose from 32.3 percent in 1960 to 58.3 percent in 1981.[15]

The imbalance in public accounts was associated with a worsening of both economic growth and inflation in the same years. Economic growth had fallen from 7.2 percent in 1960 to 0.9 percent in 1981; inflation had risen from 2.7 percent in 1960 to 18.7 percent in 1981.[16]

What of monetary policy? If we use the trends in interest rates, public money, and total money supply as indicators of the Bank of Italy's stance up until the "divorce," monetary policy was decidedly expansionary. Nominal reference interest rates ranged from 3.5 percent in 1960 to 19 percent in 1981. But to judge the performance of monetary policy, we must use the effective level of real interest rates, subtracting the corresponding inflation rate from their nominal level. Bearing in mind that monetary policy becomes more expansionary the lower the real level of interest rates is, this level went from 80 basis points in 1960 to minus 460 basis points in 1980, before rising back to 30 basis points at the end of 1981, after the "divorce."[17]

Data on the performance of public money, which has been available since 1963, went from 4.5 percent that year to 13.9 percent in 1980, while total money creation went from 13.7 percent in 1960 to 13.9 percent in 1980. To identify the actual monetary stance, one can use monetary excess — that is, the difference between the growth of money supply and the growth of the real economy — as an indicator of the degree of expansiveness of monetary policy. Well, in the time period considered, while for public

[11] The action of the Bank of Italy has been described both as an obligation, arising from a directive issued by the Interministerial Committee for Credit and Savings (Gaiotti and Rossi, page 37), and as a unilateral commitment on the part of the Bank itself (Visco 2022), pages 3-4.

[12] It should be emphasized that this commitment further accentuated the level of fiscal dominance already present in the Italian system through two provisions: since 1948, the Ministry of the Treasury could autonomously create public money for an amount of up to 14% of public expenditure, by means of an automatic current account at the Bank of Italy (the Treasury Account), which was only abolished in 1994; and since 1969, the Bank of Italy was allowed to purchase, at auction, government securities not placed on the market. Moreover, until 1992, changes in interest rates were decided by the Treasury, albeit upon proposal by the Bank of Italy.

[13] Monti (2021), page 77.

[14] Planck (1949).

[15] Gaiotti and Secchi (2012), Tavola 2A page 42.

[16] Gaiotti and Secchi (2012), Tavola 2A page 42.

[17] Gaiotti and Secchi (2012), Tavola 2A page.42.

money the monetary excess went from minus 160 basis points –a restrictive stance– to plus 1,020 basis points –a very expansionary stance– for the total money supply, it went from 650 basis points to 870 basis points.[18]

Finally, monetary excess can also be measured by the performance of the nominal exchange rate of the lira: against the dollar, the exchange rate was 149 in 1960 and reached 457 at the end of 1980:[19] in general, the more a currency depreciates, the more expansionary monetary policy is. Therefore, all the numbers depicted an expansionary monetary policy, but public money grew at a faster rate than the total money supply.

The reason? Upstream, there was monetary financing of public debt, made possible by the "forced marriage," which in turn produced excessive monetary expansion downstream. But to highlight the growing contrast between debt management and monetary policy, which these numbers fail to convey, it is necessary to describe the Bank of Italy's actions in the primary and secondary public bond markets.[20]

In the 1960s, the monetization of the deficit had declined, representing only 25.3 percent of total public money creation in 1967; it then ballooned, reaching 520.4 percent in 1980. The explosion in public money creation caused by growing public deficits was countered by the Bank of Italy, starting in 1975 — the year of the "forced marriage" — with secondary market operations — called "sterilization operations" — aimed at reducing the money supply by an amount equal to 240 percent of total public money creation; in 1980, the sterilization effort amounted to 429 percent.[21]

Looking back at those years, the central bank seemed to be suffering from a form of monetary "dissociation": first, Mr Hyde creates excess by monetizing the deficit on the primary market, then turns back into Doctor Jekyll and rushes to the secondary market to sterilize it. This apparent dissociation can be explained by fiscal dominance: the central bank was forced to monetize the deficit, and then tried to minimize the damage in terms of total money creation by resorting to the secondary bond market.

Furthermore, in an attempt to keep monetary and credit aggregates under control, the Bank of Italy systematically used direct administrative controls on banks' operations concerning the amount of credit and investment in government securities.[22] In other words, having increasingly less control over money creation upstream, it sought to remedy the situation downstream with direct controls on the actions of those creating private money, i.e. banks; a policy which is defined as financial repression.[23]

The "forced marriage" ended by virtue of an agreement reached in July 1981 between the Treasury Minister Beniamino Andreatta[24] — head of the government was then Giovanni Spadolini, also

[18] Gaiotti and Secchi (2012), Tavola 2A page 42.
[19] Gaiotti and Secchi (2012), Tavola 2A page 42.
[20] It should be recalled that, starting in 1969, the Bank of Italy has had the option of monetizing the public deficit by purchasing government securities at auction, and that starting in 1975 this option became a commitment, whereas in the secondary market the central bank's interventions remained entirely discretionary. Gaiotti and Secchi (2012), Tavola 2, page 26.
[21] It should be recalled that, starting in 1969, the Bank of Italy has had the option of monetizing the public deficit by purchasing government securities at auction, and that starting in 1975 this option became a commitment, whereas in the secondary market the central bank's interventions remained entirely discretionary. Gaiotti and Secchi (2012), Tavola 2, page 26.
[22] Gaiotti and Rossi (2004), page 27, Visco (2022), page 4; for the case of France, see Monnet (2014).
[23] Regarding financial repression, see Reinhart 2012, Reinhart and Sbrancia 2015, Monnet et al. 2019. For Italy, see Bruni and Porta (1979, Monti and Porta (1979), Battilossi (2003).
[24] Beniamino Andreatta, appointed in 1980 but active since 1973 in stressing the need to reconsider the growing tensions between fiscal and monetary policy (Ventresca, 2023, page 185; Gaiotti and Rossi, 2004, page 27), engaged with the central bank, first with Governor Paolo Baffi — see Archivio Storico della Banca d'Italia (1976),

president of this University — and Governor Carlo Azeglio Ciampi.[25] The accord was the final act of an exchange of letters between the two protagonists that had begun — according to the reconstruction offered by Il Sole 24 Ore[26] — as early as February 1981. This was a change in the monetary system.[27] For the first time, at least in Italy, the "funeral" of the regime of fiscal dominance was officiated. And people started talking of central bank independence.

3. 1997. The beginning of monetary dominance in Europe

The Italian case was not isolated. In the 1980s, the crisis of the system based on fiscal dominance affected all advanced countries, which had to grapple with the common problem of rising inflation in the absence of a corresponding increase in production and employment,[28] as it had occurred until then.

Regarding the link between fiscal policy and monetary policy in particular, the focus was on what became a necessary, albeit not sufficient, condition for the latter's effectiveness: the coherence of its design, which depended on the credibility[29] of those who managed it, especially in terms of attention to monetary stability; a quality billed as conservatism, which was to characterize the monetary decision-maker. The monetary decision-maker was not to be a politician, but a bureaucracy — the central bank — which was to be made independent from government power.[30]

In the history of economic thought, the issue of central bank independence had already emerged in the previous century,[31] but now it was back, driven by new motivations.[32]

How was this result achieved? The issue of credibility brought attention to the costs and benefits that can influence policymakers when making choices related to fiscal and monetary policies.[33] As previously noted, in traditional economic analysis, politicians always and exclusively operate within a horizon that coincided with that of collective welfare. In those years, a new perspective was added, which assumed that politicians could also operate within a more limited horizon — technically, short-sightedness — for electoral and/or ideological reasons.

But if politicians are short-sighted, they tend to overuse the monetary lever, as an expansion of public money can be the simplest way to address a number of macroeconomic imbalances: in the real economy, in public finance, in banking. The more the risk of monetary abuse is incorporated into the expectations of private operators, the more inconsistent monetary policy becomes: the end result is its own

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cited in Ventresca (2023), notes 64–65. Regarding Baffi's role in highlighting the importance of monetary stability, initially as an economist and later as governor, see Gaiotti and Rossi (2004, pp. 9, 15, 16) — and subsequently with Carlo Azeglio Ciampi, who succeeded Baffi in 1979. Regarding the alleged monetarism of Andreatta and Ciampi, see Monti (2021), p.77.

[25] Gaiotti and Rossi (2004), page 27, Gaiotti and Secchi (2012), page 38.

[26] Colombo and Marroni (2021). See also D'Adda (2021).

[27] Balducci (1985), Tabellini (1987), Masciandaro (1988), Goodman (1992), Gaiotti and Rossi (2004).

[28] The Phillips curve had disappeared from the empirical radar. What explains this? As already emphasized in the text, economic analysis had increasingly placed expectations at the center of attention (Kydland and Prescott, 1977; Barro and Gordon, 1983). In general, the prevailing behavioral hypothesis became that the more economic agents anticipate changes in aggregate demand, the less such changes have real effects and, at most, only nominal effects — and not necessarily in the intended direction or magnitude (Rogoff, 1985; Walsh, 1995).

[29] Regarding the importance of the relationship between central bank credibility and the effectiveness of monetary policy from the standpoint of economists, see Blinder (2000) and Mackiewicz-Lyziak and Metrak (2025).

[30] Fisher (1996), Taylor (1996) and King (1999); Masciandaro (2022).

[31] Thorton (1802) and Ricardo (1824).

[32] Masciandaro and Romelli (2015).

[33] Alesina and Tabellini (2007). Regarding the business cycle, national fiscal policies and central bank conservatism within a monetary union, see Bellifemine et al 2025.

ineffectiveness, meaning that at a minimum there is an increase in inflation and a devaluation of the exchange rate without any real benefit,[34] but there is also the possibility of recessionary effects.

In fact, it was highlighted how fiscal dominance can have consequences for the economic system through two channels: inflation[35] and exchange rate depreciation.[36] Furthermore, rising inflation can trigger, again through the channel of expectations, an increase in the interest rate required to place debt securities, triggering the aforementioned spiral mechanism between deficits and the cost of debt.

That mechanism, keeping economic growth equal, makes the stock of debt increasingly unsustainable, also affecting the likelihood of default for the sovereign state issuing it. Therefore, fiscal dominance is associated with fiscal indiscipline. Finally, there is also a possible link with the reduced capacity to address economic recessions: a high stock of public debt reduces the degrees of freedom for a countercyclical fiscal policy, diminishing its effectiveness.[37]

The conclusion was therefore that the fiscal dominance regime tended to produce negative macroeconomic effects. The institutional architecture needed to be modified, and a regime change was implemented: there was the move towards monetary dominance, characterized by the independence and transparence of the central bank.

Without ever excluding the strategic behavior of politicians in office,[38] it is therefore necessary for a politician to take the long-term perspective — like Beniamino Andreatta did in Italy in 1981,[39] or Gordon Brown did in the United Kingdom in 1997 — and set for themselves the goal of changing the rules of the game.

Changing the institutional framework towards monetary dominance meant changing the rules, so that the central bank would have to become more independent from the executive, and that there would be incentives for incumbent central bankers to take a conservative stance, that is, one primarily aimed at pursuing the right to protect the value of money, that is, monetary stability. At the same time, the central bank needed to be held accountable for its actions by the legislative branch, transparently, although according to a time-frame and in a manner that did not compromise its operational autonomy.

The independence and transparence of the central bank on the one hand, and conservative central bankers on the other became two sides of the same coin.[40]

At the same time, it is time to emphasize how the formal independence of a central bank — that is, independence as defined by law — may not coincide with its actual independence, that is, the independence perceived by markets, firms, and households — which is what matters for the mechanism of expectations — since the behavior of those who hold political power — which also

[34] Lucas (1972).
[35] For a recent analysis of the relevant literature, see Cevik and Miryugin (2023).
[36] Burnside et al. (2001), Daniel (2001), Corsetti and Mackowiak (2006), Annichiarico et al. (2011).
[37] Gallardo and Payà (2025).
[38] Lohmann (1992).
[39] Of course, the perspective of each actor — whether a politician or a central banker — may shift, including for strategic reasons. For example, in 1970 Beniamino Andreatta wrote that "there were no logical grounds [to justify] the independence of the central bank" (Gaiotti and Rossi, 2004, p. 9), only to later change his position, as previously noted.
[40] Regarding independence and transparency, see: De Haan (1997), Blinder (1998), Crowe and Meade (2008), Hasan and Mester (2008), Masciandaro et al. (2008), Masciandaro (2022).

includes the power to change laws — can affect the credibility of the central bank's actions, which is the necessary condition for the effectiveness of monetary policy.[41] We will return to this point.

Regarding the actual stance of central bankers, conservatism became a distinctive feature of monetary policy, particularly in Germany and the United States.[42]

The desired effect was to achieve greater monetary discipline,[43] thanks to the action of an independent central bank, without costs for economic growth.[44] Regarding the possibility of greater fiscal discipline, however, the assumption that the executive branch, deprived of the ability to monetize deficits, would calibrate its behavior in terms of public spending and taxation with a view to balancing the budget seemed possible,[45] but less likely.[46] In other words, a framework of more monetary dominance did not seem to automatically ensure a better coordination between fiscal and monetary policy. It was likely that specific rules had to be created for fiscal discipline[47] as well, as it indeed happened in the euro area.

The experience of those years, and also of subsequent years, starting with the events in this country, confirmed that a framework with central bank independence increases the likelihood of greater monetary discipline, but not necessarily of greater fiscal discipline.[48]

Returning to monetary policy, starting with Paolo Baffi's governorship, the primary objective of the Bank of Italy became disinflation, until the twin principles of central bank autonomy[49] and the priority of monetary stability.[50] became established as foundations of its action in the 1980s and 1990s. In previous decades, other guiding principles had prevailed. Until Guido Carli's governorship, the priorities had been capital and production growth,[51] with implications for the monetization of public deficits.[52]

In this regard, it should be emphasized that the attitude of all successive central bankers, at least until the launch of the monetary union, had to contend with two constraints. On the one hand, the Bank of Italy's overall structure, at least until its "divorce," placed it among the issuing institutions most

[41] Regarding central banks, since the 1990s economic analysis has introduced indicators of formal (de jure) independence based on assessments of the laws in force (see Romelli, 2022). At the same time, concerning actual independence, two main research areas have developed. On the one hand, attention has focused on the actual average tenure of a governor — see Klomp and De Haan (2010) — using the difference with respect to the formal term as a metric for measuring political pressure. On the other hand, indices of media pressure have been constructed, relying on textual analysis metrics of the interventions of politicians — whether direct or mediated by the press — concerning monetary policy and/or the central bank and its top officials, see Binder (2021).

[42] Gaiotti and Rossi (2004), p.16-17, Visco (2022), p.38.

[43] Persson and Tabellini (1993), Cukierman (1994), Reis (2013).

[44] Grilli et al. (1991), Alesina and Gatti (1995).

[45] Monti (1976) and (2021), p.76.

[46] Alesina and Tabellini (1987), Tabellini (1989).

[47] Regarding tax regulations: Milesi-Ferretti (2003), Debrun et al. (2008), Foremny (2014), Bergman et al. (2016), Badinger and Reuter (2017), Caselli and Reynard (2020), Gootjes and De Haan (2022).

[48] Burdekin and Laney (1988), Grilli et al. (1991), De Haan and Sturm (1992), Sikken and De Haan (1998), Burdekin and Laney (2016), Bodea (2013), Banerjee et al. (2023), Bodea and Higashijima (2017), Athanasopoulos et al. (2025), Kokoszczynski and Mackiewicz-Lyziak (2025).

[49] Ciampi (1981), p.40.

[50] Fazio (1993), p.27. From an analytical standpoint, the concept of an inflation target was gaining ground: Svensson 1997.

[51] Gaiotti and Rossi (2004), p.15, Visco (2022), p.2-3.

[52] Carli (1974), page 32. Furthermore, on the evolution of Carli's position regarding the advisability of monetizing the public deficit, see Monti (2021, pages 78–79). More generally, the non-prioritization of monetary stability in the definition of economic policy objectives, prior to the Great Inflation of the 1970s, characterized the broader landscape of advanced economies; for the case of the United Kingdom, see Bordo et al. (2025).

dependent on the decisions of the executive branch;[53] therefore, the Bank's leaders always had to factor in the objective function of the government in office. On the other hand, during the time period considered the overall macroeconomic scenario, both national and international, changed significantly.[54]

The change in objective was able to produce concrete and important results — the inflation rate returned to below double digits, at 8.6 percent in 1985 — thanks to the "divorce", which enabled the Bank of Italy to implement credible monetary tightening. This tightening, however, had an "asymmetric" characteristic, which is useful to remember for the purposes of this lecture: interest rates got much higher and total money creation declined, while public money creation remained constant.

The central bank continued to intervene in the secondary market for government bonds until 1994. This is an example of how, in a system with monetary domination, the central bank can decide to pursue a disinflationary objective by reducing inflation rates and money supply, but at the same time can operate in such a way as to avoid creating traumatic effects in terms of the Treasury's ability to finance itself on markets.

In fact, there was a coordination between monetary policy — whereby the central bank would not renounce to the newly regained effectiveness of its action — and fiscal policy, as the Treasury was given the option to adopt the market logic more gradually. We will return to this point.

In fact, there was a significant tightening of interest rates of over ten percentage points — which in real terms went from minus 460 basis points in 1980 to plus 640 basis points in 1985 — which was accompanied by a stationary trend in terms of public monetary excess. Monetary policy was balanced — it went from 1,050 basis points in 1980 to 1,180 basis points in 1985[55] — while total monetary excess decreased from 870 basis points to 770 basis points.[56] Furthermore, announcements on monetary growth were introduced in 1984.[57] Administrative controls were gradually abandoned during the 1980s.[58] Furthermore, maintaining constant monetary growth did not prevent the Bank of Italy from having occasional, yet significant, frictions with the Treasury.[59]

The reduction in fiscal dominance also had positive effects on the Italian lira's exchange rate. In those years, there was a lively debate about the appropriateness and ability of our country to participate in the European exchange rate agreement.[60]

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[53] Grilli et al. (1991).

[54] Regarding the debate concerning the stance of the Bank of Italy, see Monti (1983), Vaciago (1983), Salvemini (1985), Nardozzi (1986), Fratianni and Spinelli (1997), Favero and Spinelli (1999), Toniolo (1999). Regarding the evolution of economic analysis within the Bank of Italy, see Gaiotti and Secchi (2004), p. 10-14.

[55] Taking into account the changes in reserve requirement ratios: Gaiotti and Secchi (2012), Tavola 2A page 42.

[56] Gaiotti and Secchi (2012), Tavola 2A p.42.

[57] Gaiotti and Rossi (2004), p.30.

[58] Gaiotti and Rossi (2004), p.29, Visco (2022), p.6.

[59] What occurred at the end of 1982 was emblematic. The Bank of Italy raised interest rates, but the Treasury did not adjust the yield on its securities at issuance to reflect this increase; as a result, a share of government securities remained unsold on the primary market. The Bank of Italy refused to make the purchase to which, under the "pre-divorce" regime, it would have been obliged, leading to an insufficient placement of government securities and to tensions with the Treasury (Gaiotti and Rossi, 2004, page 28; Gaiotti and Secchi, 2012, pages 29, 63). At the same time, the degree of monetary dominance had increased, though not yet sufficiently to entirely avoid a forced fiscal monetization: in 1983, Parliament approved an extraordinary one-year advance in favor of the Treasury by the Bank of Italy (Gaiotti and Rossi, 2004, p. 29; Gaiotti and Secchi, 2012, p. 64). Regarding 1982, see Monti (2021), p. 77-78.

[60] Baffi (1989); Gaiotti and Rossi (2004), p. 18-25.

Sticking to a fixed exchange rate regime or making the central bank more independent are different ways, which can interact, of reducing the risk of fiscal dominance in a country.[61] During the period of full operation of the European Exchange Rate Mechanism (ERM), the performance of the lira benefited from the Bank of Italy's ability to implement disinflationary policy.[62]

The increase in monetary dominance brought about by the divorce allowed our country to implement a process of monetary discipline, whose final act was entry into the European Monetary Union in 1997.

From a regulatory perspective, Italy's entry into the euro area marked the beginning of a regime of monetary dominance, moreover of a transnational nature. Responsibility for monetary policy was assigned to the Eurosystem of national central banks, with the European Central Bank (ECB) at its apex. In establishing the objectives and instruments of monetary action, the ECB was created to be statutorily independent from either national governments or European political institutions; direct monetary financing of any public spending needs, both national and EU, was expressly prohibited.[63] Central bankers' conservatism was encouraged by enshrining into law that the primary objective of monetary policy should be monetary stability.

To reduce the risk that European central bankers' monetary conservatism would be tested by the need to care for the stability of banks and the financial system, the ECB was given no responsibility over supervision. In other words, it was deemed necessary to reduce the risk of so-called financial dominance, which occurs whenever the central bank's primary focus on monetary stability is influenced by preoccupations of financial stability.

Finally, to further reduce the risk of fiscal dominance, rules were established, as already mentioned, to regulate the public budgets of EU member states. This marked the "baptism" of the regime of monetary dominance in Europe, and the retreat of political interference.

4. From 2009 to 2020: Monetary exceptionalism in Europe, fiscal exceptionalism in Italy

But what were the effects of the new institutional framework on fiscal discipline? Changes in Italian fiscal policy had appeared in 1992.[64] In a macroeconomic environment also marked by the end of wage indexation agreements, fiscal policy adopted a very restrictive stance: a budget package equal to 6 percent of GDP that year brought the primary balance to a positive value for the first time in 30 years.

This began a trend that would continue until the pandemic recession of 2020, with the sole exception of 2009, the year of the Great Financial Crisis.[65] Furthermore, the growth of public debt declined.

To historically contextualize what happened with the introduction of the regime of monetary dominance in Italian public finance, it is useful to take a long-term perspective, using a historical reconstruction of Italian government finances from 1861 to 2007, on the eve of the Great Financial Crisis.[66]

[61] De Haan et al. (1993), Hayo and Hefeker (2002), Bodea (2010) and (2014), Ftiti et al. (2017).
[62] Gaiotti and Rossi (2004), p.19-25.
[63] See in particular the TFEU (Treaty on the Functioning of the European Union) Art. 123-125-127-282.
[64] Gaiotti and Rossi (2004), p.32.
[65] Visco (2022), p.6.
[66] Francese and Pace (2008), p.18-21.

The data tell us that Italy has always been a country structurally characterized by high public debt. Looking at the single data points, in a time series of 147 annual observations, the debt-to-GDP ratio exceeded 60 percent 71 percent of the time, and 100 percent 36 percent of the time.[67]

In terms of dynamics, four periods can be identified when the rate of accumulation of debt was particularly pronounced, forming debt "bubbles." Peaks in the first three bubbles respectively correspond to 1897, 1920, and 1943, the latter two being related to the world wars. These postwar bubbles deflated rapidly: the first thanks to the forgiveness of foreign debt, the second due to a flare-up in inflation.[68]

The fourth bubble began to inflate at the beginning of our story – specifically starting in 1963 – and reached its peak in 1994, when the debt-to-GDP ratio reached 130.8 percent.[69] In 2007, just before the Great Financial Crisis, that ratio had fallen to 103.4 percent.[70] In thirteen years, the debt-to-GDP ratio decreased by 27.4 percentage points. A further indicator of the behavior of a bond-issuing sovereign government is the cost of long-term indebtment: the lower the cost, the more credible the sovereign state is. Looking at the nominal rate on ten-year Italian treasuries,[71]the average value was 4.83 percent between January 1997 and January 2007.

Observing the coincidence between the rise of European monetary dominance and the decrease in Italian public debt spontaneously leads to the following question: what does it mean for a country with high government debt to enter a transnational monetary dominance regime, such as a monetary union?

The answer lies in a metaphor: it's equivalent to what a citizen does when taking out insurance coverage against one or more risks. Is it an optimal choice? It normally depends on two factors: how the insurance contract is written — the rules — and how the insured behaves — fiscal policy — but also the insurer — monetary policy.

From the perspective of a EU member state issuing its liabilities, the main risk to hedge against is instability of the monetary unit in which the value of those liabilities is defined. If a sovereign state issues its own debt, it is optimal from the perspective of collective welfare that the value of that debt be stable.[72]

Therefore, if I issue public debt in euros, it is in my country's interest that the euro have a stable value. Hence the strong hope that, in accordance with its mandate, the ECB will safeguard monetary stability, which means protecting the purchasing power of citizens and this includes the smooth functioning of the payment system. We will return to this point.

Note that I gave my answer from the perspective of the country's good, which is a general and long-term perspective. If I reasoned like a short-sighted politician, I would have a partisan and

[67] If the 17 observations covering the period from 2008 to 2024 are added to the historical series, the total number of observations increases to 164. Of these, the instances in which the debt-to-GDP ratio exceeds the 60% threshold amount to 125 (76% of the total), while there are 70 instances exceeding the 100% threshold (42% of the total); see FRED (2025), GGDTAITA188N series.

[68] Francese and Pace (2008), p.19-20.

[69] FRED (2025), GGDTAITA188N series.

[70] FRED (2025), GGDTAITA188N series.

[71] FRED (2025), IRLTLT01ITM156N series.

[72] In a monetary union, it is optimal for the single monetary policy to target the common inflation rate, while national fiscal policies should focus on stabilizing the business cycle and the efficient provision of public goods; see Galì and Perotti (2003), Galì and Monacelli (2008).

short-term vision: a burst of inflation, preferably unexpected, could be useful, since it would reduce the real value of debt. But inflation is an inefficient and unfair tax.

I like to use the words of two governors who found themselves operating in Italy during the period of fiscal dominance.[73] Inflation is inefficient because — Guido Carli said in 1962 — if I want "a growing share of savings" to be "channeled through bond underwritings," there is an "imperative need for a policy of monetary stability." Inflation is unfair because — as Paolo Baffi said in May 1977 — it is a "surreptitious and profoundly unjust tax, (...) having (only) contributed to filling the gaps caused by inefficiencies, waste, and misguided welfare intentions in the management of public affairs."[74]

The second risk that a country with high public debt must monitor is the trend in the nominal and real costs of its debt. In this case, being a member of a monetary union means expecting monetary policy, given the objective of monetary stability, to be defined and implemented with tools that reduce uncertainty, with positive effects both on the macroeconomic scenario in general and on the actual and expected profile of interest rates in particular. This point will also be returned to in the conclusions.

Furthermore, this cost must be evaluated net of the effect of the action of monetary policy on the central bank's balance sheet, because such action leads to accounting results. These accounting results can be positive or negative, and linked, for example, to the remuneration of bank reserves, or the distribution or not of profits, with knock-on effects on the government budget and therefore on the primary surplus.

Given the same risk of uncertainty, the cost of public debt will be associated with the trend in nominal and real interest rates, influenced by the central bank's decisions. A change in monetary policy stance will alter the potential impact on the cost of debt.

An immediate rule of thumb for assessing this impact is to look at the real rate implied by monetary policy. The simplest indicator is to calculate the difference between the nominal rate and actual inflation: if this difference is positive, zero, or negative, monetary policy will be restrictive, neutral, or expansionary, respectively.[75] As the central bank's expansionary stance increases, the potential effect on reducing the cost of public indebtment becomes larger.

Now: what happened in terms of monetary stability and the profile of nominal and real interest rates in the period from the beginning of the European monetary dominance regime to the Great Financial Crisis?

Let's start with inflation.[76] In our country, the inflation rate first reached double digits in the 1970s. In January 1973, inflation was 10.7 percent, while in January 1996, on the eve of the launch of monetary union, it was 4 percent; over the past twenty-three years, the average inflation rate was 10.6 percent. Regarding the volatility of inflation — measured by standard deviation — it averaged 5.8 percent.

With entry into the monetary union, from January 1997 to January 2007, the eve of the Great Financial Crisis, the average inflation rate was 2.2 percent, in line with the 2 percent value, which, despite changes

[73] Visco (2022), p.4-2.

[74] Baffi (1978), p.23.

[75] The implicit real interest rate of monetary policy is merely the simplest of the synthetic indicators of the degree of monetary policy restrictiveness. Traditionally, the differential between this rate and a long-term, or natural, real rate has been widely employed. More recently, however, the relevance of the natural rate for the assessment of monetary policy has become the subject of an intense and stimulating conceptual and empirical debate; see Borio 2024, Nuno 2025, Reis 2025.

[76] FRED (2025), FPCPITOTLZGITA series.

in its specific formulation over the years, can be considered the ECB's structural objective. Volatility fell to 0.36 percent.

With the monetary union, Italian inflation became significantly lower and more stable. Continuing the metaphor, the insurer kept their promise.

Let's move on to interest rates.[77] In the years from January 1973 to January 1996, the average reference rate for Italian monetary policy was 12.1 percent; taking into account the aforementioned average inflation rate of 10.6 percent, the real rate was positive and equal to 1.5 percent. However, compare data before the "divorce": between 1973 and 1981, the average inflation rate was 16.2 percent, while the average nominal rate was 11.3 percent; therefore, the real rate was negative and equal to 4.9 percent.

Thus, Italian monetary policy during the period of fiscal dominance, on average, produced interest rate conditions very favorable to the growth of public debt. After the "divorce," between 1982 and 1996, the average nominal reference rate was 12.6 percent, while the inflation rate was 7.2 percent, resulting in a positive real rate of 5.4 percent. With the reform that reduced fiscal dominance, the monetary policy stance reversed: from very lax to absolutely non-accommodating.

With entry into the monetary union, looking at the eurozone data from 1999 to 2007,[78] the average value of the monetary policy reference interest rate was instead equal to 3.01 percent; taking into account the aforementioned average inflation rate of 2.2 percent, the average real rate was positive and equal to 0.81 percentage points.

European monetary policy produced generally more disciplined interest rate conditions than the very accommodating ones that had characterized the Italian period before the "divorce," but less harsh than those necessitated by the Bank of Italy's subsequent disinflationary policy.

But then came a long period of "illness," marked first by the Great Financial Crisis of 2008-2009, then the sovereign debt crisis of 2011-2012, and finally the pandemic recession of 2020. The effect on economic policy in the euro area was to trigger, also by virtue of a change in the institutional framework,[79]a period of monetary exceptionalism which characterized the action of the ECB, but also of fiscal exceptionalism, which characterized the policies of member countries, Italy included.

On the monetary policy side, the ECB began a period of expansionary monetary policy in the euro area, both by making an extraordinary use of conventional instruments — such as changes in key interest rates, securities transactions on financial markets, and lending to banks — and by introducing the novelty of monetary announcements about future interest rates. Official rates were progressively reduced, until they explored the previously unknown territory of negative levels, while action in both financial markets and bank lending was characterized by unconventional interventions.

Monetary exceptionalism also sparked a debate on the desirability of monetary dominance, as interpreted by the ECB, which addressed the issue in a statement of its then president Mario Draghi in 2018.[80]

[77] FRED (2025), INTDSRITM193N series.

[78] ECB, Main Refinancing Operations, Data Portal long_20250729075300 series.

[79] Since 2014, supervisory responsibilities have been assigned to the ECB. Such an expansion of powers reduces the formal independence of a central bank, as it increases the likelihood that the objective of financial stability may come into conflict with that of monetary stability; see Grilli et al. 1991, Masciandaro and Romelli 2015, Romelli 2022.

[80] Draghi (2018).

What were the effects of monetary exceptionalism? Looking at inflation,[81] the average inflation rate in Italy from 2008 to 2020 was 1.20 percent — even lower than the previous period — while volatility — again measured by standard deviation — increased, averaging 1.18 percent.

Despite this extraordinary period, the euro's purchasing power was on average guaranteed, albeit with higher volatility. The insurer continued to keep its promise.

Looking at interest rates,[82] in the same period, the average value of the monetary policy reference rate was 1.92 percent; taking into account the aforementioned average inflation rate of 1.20 percent, the average real rate was positive and equal to 0.72 percentage points, lower than in the preceding period.

Previously, however, the big difference was in the injection of liquidity that the ECB operated through its operations on financial markets and with banks. Over the period under review, the size of the ECB's balance sheet increased tenfold.[83]

This is another example of "asymmetric" monetary policy, but which is the opposite of the one we have seen implemented by the Bank of Italy: in this case, the ECB kept real interest rates essentially in line, but exponentially increased public money creation. Overall, European monetary policy has become decidedly more lax.

Monetary exceptionalism has also been associated with fiscal exceptionalism. The phenomenon of fiscal exceptionalism has characterized the entire global economy since the Great Financial Crisis, accelerating in the aftermath of the Covid-19 pandemic, leading to the most significant, rapid, and widespread growth of debt since the 1970s.[84]

In Italy, in the thirteen years from 2007 to 2020, the debt-to-GDP ratio increased from 103.4 percent to 154.2 percent, a 49 percentage-point increase.[85] This figure represents the fifth "peak" in the time series of Italian public debt since unification.

Over the same period, looking at the nominal rate on ten-year bonds issued by the Italian Treasury,[86] from January 2007 to January 2020, the average value was 3.48 percent.

Compared to the previous period, the nominal cost of borrowing decreased by almost one percentage point, despite the increase in the volume of issuances. European expansionary monetary policy and the reduction in the cost of Italian public debt moved in the same direction.

Portraying fiscal exceptionalism as a single trend should not, of course, obscure the fact that the continued growth of debt was the end result of a series of economic policy choices, which were intended to respond to individual episodes of crisis. Each of these episodes had a different origin, and each time there was the possibility that fiscal policy could return to normal.

For example, in May 2018, the Bank of Italy offered a simulation showing how it would be possible to bring Italian public debt below 100 percent within a decade, starting from a debt-to-GDP ratio of nearly 132 percent,[87] a level similar to the fourth "peak" of 1994. But then came the virus: Italian public debt, as mentioned, reached its fifth historic "peak": the insured party once again engaged in overall fiscally undisciplined behavior. The return to normality had to be postponed again.

[81] FRED (2025), FPCPITOTLZGITA series.
[82] ECB, Main Refinancing Operations, Data Portal long_20250729075300 series.
[83] Cecchetti and Hilscher (2024), p.1.
[84] Kose et al. 2021.
[85] FRED (2025), GGDTAITA188N series.
[86] FRED (2025), IRLTLT01ITM156N series.
[87] Visco (2018), page 10.

The twin trends of monetary and fiscal exceptionalism have paved the way for a renewed questioning of the possible causal link between the two phenomena, particularly the possibility — and under what conditions — that a prolonged period of monetary expansion, even within the same institutional framework, could trigger — regardless of the central bank's intentions — phenomena of fiscal or financial indiscipline. In other words, the question arises as to how much a specific conduct by the insurer may have had a negative and undesirable collateral effect, namely undisciplined conduct by the insured.[88] Analytical and empirical discussion is lively and in full swing.[89]

5. Conclusions: in search of fiscal and monetary normalization.

After 2020, the global scenario has by no means returned to stability: a geopolitical crisis has begun, marked by two painful wars, the one in Ukraine and the one in the Middle East, which unfortunately are still ongoing. Uncertainty seems to have become an endemic feature of the macroeconomic scenario.

One reason is precisely the introduction of the geopolitical perspective into macroeconomic analysis by force. What is this? The simplest way to explain this is to note that so far, in today's lecture, the traditional macroeconomic perspective has been adopted: the choices of economic policymakers are exclusively geared towards achieving economic results. In more technical terms: economic policy aims to stabilize the economy across the economic cycle, thus minimizing volatility and uncertainty, along a long-term growth path.

In geoeconomics, the behavior of governments changes: economic policy can also be designed with a purely political objective, such as influencing the behavior of foreign countries, influencing the choices of their governments, as well as their markets, businesses, and citizens. The introduction of geopolitics affects established geometries, such as the relations between different geographical and political areas, such as Europe, the United States, Russia, China, and India.

Not only that: the objectives of specific economic policy tools can change. Consider the exchange rate. In the economic and institutional framework, we have operated within so far, exchange rates are flexible, allowing for autonomy the management of interest rates and the mobility of financial capital. Taking geopolitical perspective, both the exchange rate and controls on capital movements — think financial sanctions — can be directed to achieve broader political objectives.[90]

Consequently, it should be emphasized that the geopolitical perspective is increasingly being correlated with specific risks, which in turn have macroeconomic effects, with dedicated metrics.[91] But risk means uncertainty.

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[88] From the standpoint of the fiscal theory of inflation, the period from 2009 to 2021 — during which the ECB kept interest rates broadly constant for 12 years, while accumulating a portfolio of government securities amounting to one-third of the total — can be regarded as a case of active fiscal policy, given the deflation risk, accommodated by a passive monetary policy (Mackowiak and Schmidt, 2024). For an interpretation of the case of the US during the Covid period from the same perspective, see Bianchi and Melosi (2022).

[89] Blommestein and Turner (2011), Brunnermeier (2015), Barthelemy and Plantin (2018), Acharya (2020), Brunnermeier (2020), Monti (2021), Orphanides (2021), Boissay et al. (2023), Calomiris (2023), Alberola (2024), Benigno et al. (2024), Chrysanthakolpoulos and Tagkalakis (2024), Schmidt (2024), Schnabel (2024), Strauch (2024), Athanasopoulos et al. (2025), Bartels et al. (2025); Bajaro et al. 2025; Kaplan (2025).

[90] Regarding the relationship between currencies — particularly the dollar — and geopolitics, see Eichengreen (2025), Gensler et al. (2025), Leipziger (2025).

[91] Regarding the relationship between the economy and geopolitics, see Alonso -Alvarez et al. (2025), Clayton et al. 2025.

An indicator of the level of uncertainty characterizing economic policy for this country[92] shows that, compared to the period from the beginning of monetary dominance in 2007, during the years of exceptionalism until 2020, average uncertainty had increased by 21 percent, and then, in July this year, it had further increased by 33 percent.[93]

However, the general hope remained for a return to normalcy in economic policy.[94] What has happened in the meantime to monetary and fiscal discipline?

Starting with European monetary discipline, inflation suddenly began to rise in 2021. In December of that year, the ECB announced the start of a normalization process, which would first affect open market operations, then interest rates. In July 2022, the ECB definitively adopted a restrictive stance, raising official rates and modifying its strategy: no more monetary announcements on the future of interest rates, and decisions made meeting by meeting, based on available data. This strategy is still in place.

From January 2021 to January 2024, average Italian inflation was 4.16 percent.[95] The nominal reference interest rate for European monetary policy averaged 1.90 percent annually;[96] therefore, the real rate was negative, at -2.26 percentage points.

The sudden shift in nominal interest rates from expansionary to restrictive has changed the central banks' contribution to the government's finances, which has gone from positive to negative[97] — as it has been the case for Italy[98] — drawing the attention of macroeconomic analysis[99] and consequently negatively impacting the primary balance.[100]

Inflation in Italy returned below 2 percent[101] as of January 2024; overall, the disinflation process has been consistent with past experience.[102]

The return to monetary stability is excellent news, especially if it is confirmed in the coming months. As emphasized, monetary stability is a public good, which those issuing euro-denominated assets also benefit from. The ECB is responsible for safeguarding monetary stability.

However, the risks of this stability being undermined continue to be multiple, in terms that are both traditional and novel, starting with developments in the payment system, with next-generation innovations.[103]

The ECB has recently focused attention on the phenomenon of so-called private virtual currencies, which may pose a risk to monetary policy, especially in light of what is happening in other

[92] FRED (2025), ITEPUINDXM series.
[93] In the three periods 1997–2007, 2007–2020, and 2020–2025 (July), the index was respectively equal to 102.17, 123.65 and 165.36.
[94] Bank for International Settlements (2022), page 26.
[95] FRED (2025), FPCPITOTLZGITA series.
[96] ECB, Main Refinancing Operations, Data Portal long_20250729075300 series.
[97] Cecchetti and Hilscher (2024).
[98] In the case of the Bank of Italy, the gross operating income has followed the following trend, in millions of euros, for each reference year: + 10,756 (2019), + 10,196 (2020), + 9,181 (2021), + 5,860 (2022), - 7,125 (2023), - 7,319 (2024). Thus, losses were recorded in the last two years.
[99] Cavallo et al. (2019), English and Kohn (2022), Gopinath (2023), Cecchetti and Hilscher (2024), Adrian et al. (2025a) and (2025b), Kolasa et al. (2025).
[100] Bank for International Settlements (2023), page 57.
[101] FRED (2025), FPCPITOTLZGITA series.
[102] Panetta (2025), page 11.
[103] Bank for International Settlements (2025), page 77.

jurisdictions, starting with the United States.[104] It is in everyone's interest that vigilance remains high. It must never be forgotten that an insufficient presence of public money, whether in the traditional form of cash or digital money, poses a risk to the effectiveness of a range of public policies, both economic — such as payment system policy, monetary policy, competition policy, and consumer protection — and more general — such as safeguarding national security.[105]

At the same time, it was previously noted that issuers of euro-denominated liabilities can benefit from a reduction in uncertainty, including regarding the conduct of monetary policy, including the future path of interest rates. The uncertainty associated with the ECB's shift to a "meeting-by-meeting" approach has increased interest rate volatility.[106] In November 2024, at this university, the Governor of the Bank of Italy Fabio Panetta called for a return to a central bank strategy that would look forward, abandoning the "day-to-day" approach.[107] In this way, the central bank would once again become a transparent compass guiding household, firms, markets, and sovereign states. It is a hope I feel we can share.

More generally, remembering that transparence and independence are like a two-faced Janus, it is essential that the ways and times in which central banks report on their actions are up to date.

We use the extraordinarily contemporary words of Paolo Baffi in 1979: "The actions of central banks have emerged from silence, perhaps never to return to it: if that silence was once perceived as a guarantee of independence, today independence is achieved by explicitly reporting on one's actions."[108]

Today, the "perhaps" can and must be eliminated. Transparence strengthens the position of central bankers, especially at a time when political pressure can also be motivated by the aforementioned geopolitical perspective. Ambiguity can strengthen those who would like a more short-sighted and partisan monetary policy, reducing the effective independence of central banks.[109]

At the same time, staying relevant to the times is a challenge that also concerns the political class: reporting becomes a tool of transparency the more it is removed from a monologue and approaches a dialogue, in which the quality of the central banker's responses can only depend on the quality of the questions that representatives of the legislative and executive branches are able to pose.[110]

Turning to Italian fiscal discipline, in the period from January 2020 to January 2024, the debt-to-GDP ratio decreased from 154.2 percent to 135.2 percent, a decrease of 19 percentage points.[111] Over the same period, the nominal interest rate on ten-year Italian treasuries[112] averaged 2.38 percent. Compared to the exceptionalist period, the cost of borrowing has fallen by more than one percentage point, consistent with the reduction in volumes placed and despite the fact that European monetary policy had meanwhile shifted from expansionary to restrictive.

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[104] Lagarde (2025).
[105] Regarding the Euro area, see Cipollone (2025).
[106] Poli and Venturi (2025).
[107] Panetta (2024).
[108] Baffi (1979), page 26.
[109] The analysis of the relationship between political myopia and central bank independence has recently also been linked to the issue of populism: see De Haan and Eijffinger (2017), Rajan (2017), Goodhart and Lastra (2018), Rodrik (2018), Masciandaro and Passarelli (2019), Gnan and Masciandaro (2020), Jung (2025).
[110] Regarding the topic of the relationship between politicians and central bank transparency: see Schonhardt-Bailey (2013), Collignon and Diessner (2016), Fraccaroli et al. 2020, Ferrara et al. 2022.
[111] FRED (2025), GGDTAITA188N series.
[112] FRED (2025), IRLTLT01ITM156N series.

Overall, in 2024, the ratio of total public deficit to GDP was 3.4 percent, 40 basis points lower than the estimates in the Structural Budget Plan, and despite the weakening economic outlook and increased interest payments. The primary balance improved by 4 percent compared to 2023, returning to surplus for the first time since 2020.[113]

So, progress has been made. But the road is long, and we must be both wise and prudent to avoid going backward. Obstacles must be faced and overcome, even by moving like a crab, which perhaps proceeds sideways, but advances and does not retreats.

We must make the most of the knowledge we have, which I have tried to share with you in this lecture. The country needs discipline, both fiscal and monetary, to protect the value of money and savings. Discipline is always the result of two intertwined elements: the rules of the game and the behavior of the players.

Regarding the rules, in general, a structure of fiscal dominance increases the risks of both monetary and fiscal indiscipline, thus increasing the likelihood of inflation, recession, and a public debt crisis. The European system of monetary dominance is may be a necessary condition for stable discipline, but is certainly not sufficient: an appropriate conduct of policy is needed on the part of both the ECB and incumbent governments to effectively coordinate debt and monetary policies.

Let me conclude by extrapolating and adapting to today's context these words spoken by Paolo Baffi in May 1976: "Brilliant results (...) in terms of stability and development, rather than legislative formulations, must be ascribed to a climate of opinion (...) (and) to the maturation of analysis and experience."[114]

The climate of opinion must spread the principle that fiscal discipline is a country's virtue, which must be pursued, as I began, with the virtues of strength of purpose and prudence of conduct. Academia, as the driving force for the transmission of knowledge, can make a fundamental contribution to the diffusion of this principle.

Classrooms are the veritable and vibrant place where knowledge is shared and generations can meet. Any technological evolution, including the growing and increasingly complex intermeshing of so-called artificial intelligence and social networks, must be a tool to enhance sharing and encounters, never to replace them.[115] **This is why I am truly happy to be back here, dear students, as you are now where I once was. Thank you.**

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[113] Giorgetti (2025), p.1.

[114] Baffi (1976), p.43.

[115] Increasingly, the intertwining of technology and social networks is aimed at capturing the attention of users, and the effects do not necessarily benefit of the users themselves; see Loewenstein and Wojtowicz (2025).

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