

# Tommaso Padoa-Schioppa and the origins of the euro



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by Ivo Maes

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## **Abstract**

Tommaso Padoa-Schioppa was one of the great architects of the euro. He is remembered in particular as co-rapporteur for the Delors Committee and as a founding member of the European Central Bank's Executive Board. For Padoa-Schioppa, becoming Director-General of the European Commission's DG II (from 1979 to 1983), was a defining moment in his career and life. This period is the main focus of this paper. At the Commission, Padoa-Schioppa's main priority was the European Monetary System, which was launched in March 1979. He was closely involved in several projects to strengthen the EMS, to improve economic policy convergence and the position of the ECU. The other main objective for Padoa-Schioppa was the strengthening of DG II's analytical capacity, especially its model-building capacity and its links with the academic world. As such, he played a crucial role in the professionalisation of economics at the Commission and in preparing DG II for the important role it would play in the EMU process. At the Commission, Padoa-Schioppa became also immersed in several European networks. Of crucial importance here were his contacts with Jacques Delors. This would be of major importance for his further career, becoming one of the architects of the single currency.

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Key words: Padoa-Schioppa, Euro, EMS, EMU, Economic governance, European Commission

### **Corresponding author:**

Ivo Maes, NBB, Research Department, Robert Triffin Chair, Université catholique de Louvain, HUB and ICHEC Brussels Management School.

e-mail: ivo.maes@nbb.be.

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The views in this paper are those of the author and do not necessarily reflect those of the National Bank of Belgium or the Eurosystem. All remaining errors are the author's responsibility.

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## 1. INTRODUCTION

Tommaso Padoa-Schioppa (1940-2010) was a convinced European federalist. He was one of the great architects of the euro, the single currency. He is especially known as a co-rapporteur of the Delors Committee (1988-1989) and as a founding member of the Executive Board of the European Central Bank (1998-2005).

According to Jacques Delors, a close friend, action based on an exceptionally wide and rich analysis was typical for Padoa-Schioppa, "La pensée et l'action. Telle est la réflexion première qui me vient à l'esprit lorsque j'évoque Tommaso Padoa-Schioppa. La pensée est assise sur une culture exceptionnelle allant de l'histoire à l'économie, sans oublier la science politique et donc l'art de gouverner et les exigences démocratiques"<sup>1</sup> (Delors, 2011, 174).<sup>2</sup>

Padoa-Schioppa was an economist by training. And while he always maintained strong links with the academic world, he was essentially a very influential policy-maker. Lorenzo Bini Smaghi, his successor in the Executive Board of the ECB, described Padoa-Schioppa's very rich and eclectic style of economics thus: "Tommaso defined himself as a 'practioner', a policy-maker, but his action was always deeply and unambiguously grounded in economic thought. ... he shared Keynes' view that practical men are often slaves of some defunct economist. Even in his early years as an economist, he identified those risks of enslavement and then sought to free himself from them by way of his life-long policy engagement: the dichotomy between general economic equilibrium theory and monetary theory; the dichotomy between *Nationalökonomie* and international economy; and the dichotomy between economic theory and institutions. He always aspired to bring these dichotomies to an end, by properly integrating the monetary, international and institutional dimensions into his assessment of economic policy" (Bini-Smaghi, 2011).

At the core of Padoa-Schioppa's thinking was the importance of institutions. As emphasised by Visco (2011, 2), "Institutions and their design indeed constituted a leitmotif in his thinking, whether in connection with central banking, market infrastructures,

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<sup>1</sup> "Thought and action. Those are the first things that spring to mind when I recall Tommaso Padoa-Schioppa. The thought is based on an exceptional culture ranging from history to economics, not to mention political science and thus the art of governance and democratic requirements."

<sup>2</sup> Padoa-Schioppa would also become President of "Notre Europe" which was founded by Delors in 1996.

European integration or global monetary arrangements. He always stressed the need to clearly identify the nature and scope of the public good needed to be provided in order to design the most suitable set of rules and institutional framework case by case. At the same time, he had a dynamic view of issues and institutions: only by looking at underlying economic trends could one predict which new demands would drive the evolution of institutions in the future ... A fundamental insight of his - from early on in his career as an economist and, let me add, as a political scientist - was that growing economic and financial integration and interdependence, both in Europe and at the global level, would inevitably require a profound rethinking not only of how to allocate policy-making responsibilities but of the very concept of national sovereignty. He certainly did not underestimate the difficulty of this process or the resistance it would meet." The importance of institutions went also along with Padoa-Schioppa's approach of taking a long-term perspective, grounded in history and culture, but also very much forward looking. It was an approach he shared very much with Jacques Delors.

A crucial moment in the career of Padoa-Schioppa was his time as a Director-General for Economic and Financial Affairs at the European Commission, from June 1979 to March 1983. This period will be very much at the centre of this paper. We first go into the formation of Padoa-Schioppa and the situation of the European Community at the end of the 1970s. Thereafter, we focus on his activities at the Commission as Director-General for Economic and Financial Affairs. The last section analyses the later career of Padoa-Schioppa as an architect of EMU.

## **2. THE FORMATION OF TOMMASO PADOA-SCHIOPPA**

Tommaso Padoa-Schioppa was born in 1940 in the Alpine town of Belluno in the Venezia region. He studied economics at the Bocconi University in Milan, one of the most prominent Italian universities. He joined the Banca d'Italia in 1968. He made an early career at the research department, one of the leading policy oriented research institutes in Europe, with strong connections with prominent American and British universities (Porta, 1996, 180).

The internationalisation of Italian economics was very much stimulated by the Bonaldo Stringher fellowships, awarded by the Banca d'Italia in honour of a former Governor, from the 1930s onwards. Initially, the fellows went mainly to Great Britain, especially Cambridge (Sraffa), Oxford and the LSE. From the 1960s and 1970s onwards, they went

increasingly to the United States, notably the Massachusetts Institute of Technology (Modigliani). Many of these fellows returned to the Banca d'Italia, thus contributing further to the international links of the Bank of Italy (Maes, 2008). Also Padoa-Schioppa received a Bonaldo Stringher fellowship and went to the MIT, where he obtained a M. Sc. in 1970.

At the beginning of the 1960s, under the governorship of Guido Carli, the Bank of Italy took an important step in the professionalisation of its Research Department, with the construction of a macroeconomic model. Guido Rey became responsible for the real side of the model and Antonio Fazio for the monetary part. Rey went for a study visit to the Dutch Central Planning Bureau, where Tinbergen was the director. Fazio went to MIT, to study with Franco Modigliani, not only because he was an Italian and a famous monetary economist, but also for his experience with the creation of the FED-MIT model. In the mid-1960s, Franco Modigliani became a consultant to the Bank of Italy, to advise it on building its econometric model (Modigliani, 1999). So, the Banca d'Italia maintained strong international academic connections and played a leading role in the modernisation of economics, both in Italy and in the world of the (European) central banks. It is further noteworthy that, in the 1960s and early 1970s, most of the Bank of Italy's international contacts were with "moderate Keynesians", like Hicks, Samuelson, Modigliani, Klein or Tobin (Ciocca 2004, 592).

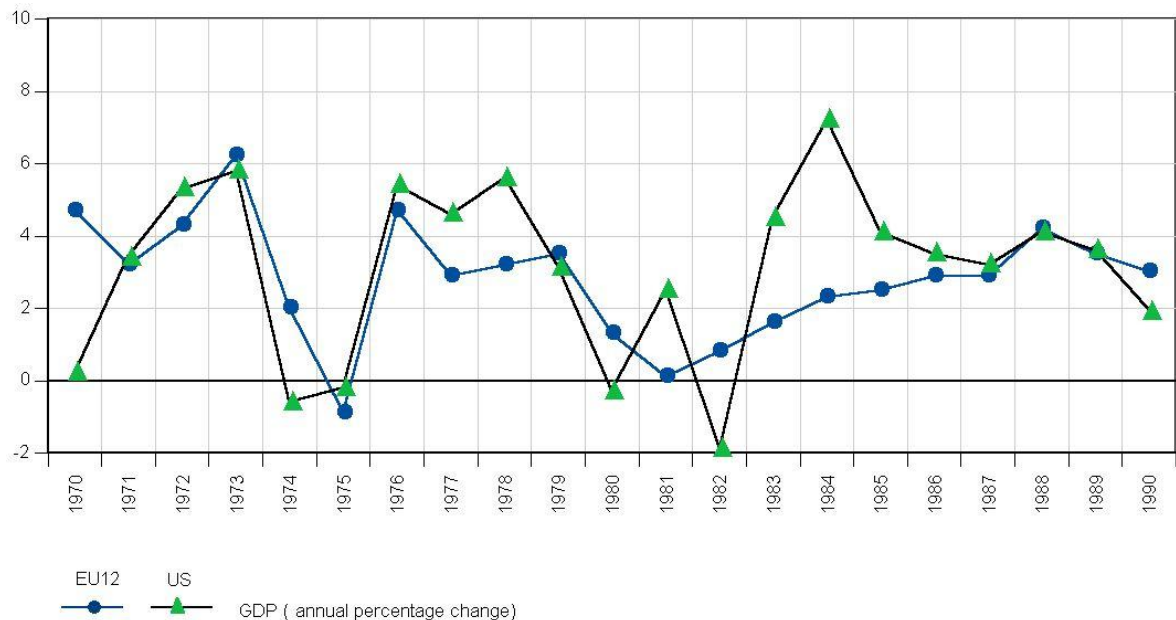
So Padoa-Schioppa became strongly embedded in the Anglo-Saxon economics tradition. Not only was Bocconi one of the most internationally orientated universities in Italy and had the Research Department of the Banca d'Italia a prominent place in the world of the central banks. He was also a student and, later, a visiting scholar at the MIT. He was close to Franco Modigliani, publishing research papers together (Modigliani and Padoa-Schioppa, 1978) and he contributed to Modigliani's Festschrift (Padoa-Schioppa, 1987).

In the second half of the 1970s, Padoa-Schioppa was seconded from the Bank of Italy to the Treasury, where Filippo Pandolfi was Treasury Minister. Whilst there, he wrote an economic adjustment programme, which became known as the Pandolfi plan. So, Padoa-Schioppa gained an important insight into the economic policy-making process in Italy. Moreover, when the position of Director-General for Economic and Financial Matters at the European Commission became vacant in 1979, Pandolfi pushed for the nomination of Padoa-Schioppa.

### 3. THE EUROPEAN COMMUNITY AT THE END OF THE 1970S

The period from 1979 to 1983, when Padoa-Schioppa was Director-General of DG II, was not an easy period for the European Community. The European economy was coping with stagflation, after the oil shocks of the 1970s, while the European integration process was languishing. Moreover, Europe's growth performance in the mid 1980s was lagging behind the United States (see also Chart 1). It was a period which was known as "Eurosclerosis".

**Chart 1: Economic growth in the European Union and the United States (1970-1990)**



In his own "General Report" on the activities of DG II during his time at the Commission, Padoa-Schioppa (1983) himself gave a vivid description of the period, emphasising the return of national sovereignty, "La communauté, quant aux objectifs ultimes que lui ont assignés ses fondateurs, est sur la défensive depuis plusieurs années. Malgré les progrès réalisés, la simple affirmation des objectifs politiques ultimes n'est généralement tolérée que si elle prend la forme d'un appel rhétorique. L'intangibilité de la souveraineté nationale est redevenue un dogme. Ce dogme paralyse la Communauté dans sa vocation à la dynamique. Cette paralysie déforme la Communauté. Cette déformation est à son tour invoquée comme un argument supplémentaire contre le 'vieux' projet de l'intégration



politique<sup>3</sup>". Padoa-Schioppa (1983, 4). He further described how the Commission had lost its driving role in the process of European integration, "De la dynamique communautaire, la Commission a été conçue comme le moteur. En réalité, dans cette fonction, la Commission est un organisme gravement touché par le tournant de la deuxième moitié des années '60. Depuis, dans la plupart des cas, lorsque mouvement il y a eu, le moteur en était ailleurs: le Conseil européen, le duo Giscard-Schmidt, etc. La Commission est paralysée<sup>4</sup>" (Padoa-Schioppa, 1983, 5)<sup>5</sup>.

In the second half of the 1970s, there were two important advances in European integration, albeit of a very different nature: the first direct elections for the European Parliament and the establishment of the European Monetary System, both in 1979.

The European Monetary System was very much an initiative of the French president Giscard d'Estaing and the German chancellor Helmut Schmidt (Ludlow, 1982). The EMS was launched against a backdrop of considerable scepticism, especially from academic economists but also from monetary experts who still had vivid memories of the "snake" unravelling. However, political leaders pushed strongly for the EMS and succeeded in getting it off the ground. The EMS was thus a "victory of political intuition over expert opinion" (Mortensen, 1990, 28).

According to the 1978 Council Resolution, the European Monetary System was a "scheme for the creation of closer monetary cooperation leading to a zone of monetary stability in Europe". Monetary stability, the objective of the EMS, had a double dimension: internal and external. This was a compromise and synthesis between the ideas of the "monetarists", led by France, emphasising the importance of external stability (exchange rate stability) and of the "economists", led by Germany, advocating internal stability (price stability) and the coordination of economic policy (Maes, 2002).

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<sup>3</sup> "As for the end goals assigned to it by its founding fathers, the Community has been on the defensive for several years now. Despite the progress that has been made, the simple statement of the ultimate political objectives is generally only tolerated if it takes the form of a rhetorical appeal. The inviolability of national sovereignty has become a dogma once again and this dogma is paralysing the Community in its vocation as a dynamic force. This paralysis is distorting the Community. This distortion is in turn cited as another argument against the 'old' political integration project."

<sup>4</sup> "The Commission was designed to be the driving force behind the dynamics of the European Community. In reality, in this role, the Commission is an institution seriously affected by the turning point in the second half of the 1960s. Since then, in most cases, when there has been some movement, the driving force behind it was somewhere else: the European Council, the Giscard-Schmidt tandem, etc. The Commission is paralysed."

<sup>5</sup> One might argue that these were rather pessimistic remarks. Later on, the Delors Commission was a clear counter-example.

The European Monetary System was composed of three main elements: the exchange rate mechanism (ERM), credit mechanisms and the European Currency Unit (or ECU).

At the core of the European Monetary System was the exchange rate mechanism. This may seem somewhat paradoxical, since not all currencies in the European Community participated. The original members were the German mark, the Dutch guilder, the French franc, the Danish krone, the Belgian/Luxembourg franc, the Irish pound and the Italian lira. The British pound did not join.

To bolster the credibility of the exchange rate mechanism, several credit mechanisms were foreseen: very short-term, short-term and medium-term, as well as the Community loan mechanism. While the first two were central bank financing for currency support, the latter two offered balance of payments assistance linked to policy adjustment programmes.

The EMS also established the ECU. It was a basket currency comprising the currencies of the European Community Member States, including those currencies that did not participate in the exchange rate mechanism. The original aim was for the ECU to play a key role in the functioning of the ERM, both as an indicator of the source of tension in the foreign exchange markets and as a means of settling central bank debts arising from currency support operations. However, the first element never materialised, as, like in the snake, the parity grid became the indicator of tensions on the foreign exchange markets. The second element, the ECU as a means of settling central bank debts, remained subject to restrictions. Instead, the ECU took on a significant role in the international financial markets, thanks also to the Commission's efforts. It was an important project for Padoa-Schioppa.

The EMS agreement also specified a second institutional phase, with the creation of a European Monetary Fund, within two years of the start of the EMS. However, the functions of this Fund were never really agreed upon, and the plans were shelved in December 1980.

#### **4. TOMMASO PADOA-SCHIOPPA AS DIRECTOR-GENERAL OF DG II**

Padoa-Schioppa arrived at the European Commission in June 1979, less than three months after the start of the EMS on 13 March 1979<sup>6</sup>. He had a profound impact on DG II. According to witnesses, he was not only a skillful administrator, but also a brilliant economist and very well connected. He combined a German rigour<sup>7</sup> with Italian imagination and a profound economic culture, including mainstream Anglo-Saxon economics. He was quite young then (not yet 40 when he arrived), dynamic and rather ambitious.

His main focus of attention was the reinforcement of the European Monetary System, which he considered as the "priority of priorities". As he observed on the EMS in his "General Report", "son démarrage en 1979, son bon fonctionnement ensuite, son approfondissement en 1982, ont constitué la priorité des priorités, et j'y ai consacré une grande partie de mon temps. Mais ce champ recouvre aussi le développement spectaculaire du circuit privé de l'écu, les tentatives d'améliorer la coopération monétaire internationale et de progresser dans l'intégration financière européenne. S'il fallait caractériser par un seul thème le temps de mon service à la DG II, je choisirais le SME"<sup>8</sup> (Padoa-Schioppa, 1983, 12-13). His other main preoccupation was strengthening the analytical level of DG II. Before we go into Padoa-Schioppa's activities at DG II, we first provide a short overview of macroeconomic thought and policy at the European Commission<sup>9</sup>.

##### **4.1 ECONOMIC THOUGHT AND POLICY-MAKING AT THE EUROPEAN COMMISSION**

Macroeconomic policy-making in the European Community was mainly at the level of the Member States and so the responsibilities of the Commission<sup>10</sup> were rather limited. It is

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<sup>6</sup> The start was foreseen for 1 January, but was delayed due to disagreements on the impact of the EMS on the Common Agricultural Policy.

<sup>7</sup> He was known for being very strict on the time accorded for an appointment, for instance, from 19h20 to 19h28.

<sup>8</sup> "Its start-up in 1979, its smooth functioning thereafter, its expansion in 1982 constituted the priority of priorities, and I devoted a great deal of my time to that. But this field also covers the spectacular development of the private ECU, attempts to improve international monetary cooperation and to advance European financial integration. If I had to put my time at DG II into one sole category, I would choose the EMS."

<sup>9</sup> Padoa-Schioppa (1985) contains the main articles which he wrote during his time at the Commission.

<sup>10</sup> It can be useful to note that the term "Commission" is used both for the College of the Commission, the body of Commissioners, and for the services of the commission, the administration. Also, every Member of the Commission disposes of a small group of collaborators, his so-called "cabinet".

the College of Commissioners which is ultimately responsible for policy-making at the European Commission. In this field, it involved mainly the orientation and coordination of national macroeconomic policies (Wegner, 1989). Over time, this coordination function of the Commission has grown in importance. With EMU, which started in January 1999, sovereignty in the field of monetary policy was transferred to the European Central Bank and the Commission's role in the coordination of macroeconomic policies was reinforced.

Inside the Commission, it is mainly the president and the member with the responsibility for DG II (Economic and Financial Affairs or ECFIN, which can be considered as the macroeconomic analysis and research department of the Commission) who are most involved in macroeconomic policy-making. When Padoa-Schioppa arrived at the Commission in June 1979, Roy Jenkins (UK) was in the president's seat, and François-Xavier Ortoli, a Frenchman, was responsible for DG II. From 1981 to 1984, Gaston Thorn, a Luxemburger, was president, while François-Xavier Ortoli remained responsible for DG II. According to witnesses, they were relatively easy-going people, who left the administration a lot of freedom. Ortoli was mostly interested in monetary matters.

DGII's Director-Generals were typically Italians, with first two diplomats, Bobba and Mosca. From June 1979 to March 1983, Tommaso Padoa-Schioppa was Director-General of DG II. He was succeeded by Massimo Russo, who had made most of his career at the International Monetary Fund.

Macroeconomic thinking at the Commission was, to a large extent, a synthesis and compromise of the main schools of macroeconomic thought in the European countries, especially the three big ones: Germany, France and the United Kingdom<sup>11</sup>.

German economic thought was centred around the social market economy. Two strands can be distinguished. The more free-market-oriented German economists would emphasise that economic policy was, in essence, *Ordnungspolitik*, i.e. a policy to create a sound and secure framework within which markets can operate. The main tasks of economic policy are then: (a) monetary policy: ensure price stability; (b) fiscal policy: rather limited task for the government, sound public finances are important; and (c) structural policy: emphasis on competition policy. The other tendency, more Keynesian, with Karl Schiller as an important representative, emphasised the social dimension of the "social market economy". It was linked to the social democrats and the

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<sup>11</sup> For an overview of post-1945 economic thought in Europe, see the contributions in Coats, 2000.

trade unions and considered a dialogue between the social partners (trade unions and employers) as a crucial element of its strategy to stimulate growth and employment.

German economists generally tended to emphasise that economic policy consisted in the application of certain basic economic principles (especially the respect of market mechanisms and wage moderation) to the actual policy challenges. It has certain similarities with Roy Harrod's characterisation of Keynes's view: "Following Marshall, he (= Keynes) believed... that progress in economics would be in the application of theory to practical problems. His recipe for the young economist was to know his Marshall thoroughly and read his Times every day carefully, without bothering too much about the large mass of contemporary publication in book form" (Harrod, 1951, 381).

Initially, French economic ideas were very influential at the Commission. Robert Marjolin, the first Commissioner for DG II, had been the principal assistant to Monnet at the French Planning Office, famous for its five-year plans (Marjolin, 1986). The French Planning Office, while being part of the French "Colbertist" tradition, was also a spearhead of Keynesianism in France, with the national accounts at its heart (Rosanvallon, 1987, 40). Later, Malinvaud was influential, especially with his distinction between "Keynesian" and "classical" unemployment (Malinvaud, 1977).

Anglo-Saxon ideas in the post-war period followed different fads: Keynesianism, monetarism and supply-side economics. This was also the case at the Commission, even if monetarism was less popular. From a methodological point of view, the Anglo-Saxons generally favoured a more analytical approach, in which economic policy recommendations would be based on more refined economic research. They especially favoured developing DG II's model-building capacity.

Initially, an important transmission channel for Anglo-Saxon ideas was the OECD. Many Commission officials, including Marjolin, had worked at the OECD and there were many interactions between the OECD and the Commission. Anglo-Saxon ideas received a big boost with the nomination of Padoa-Schioppa as Director-General of DG II (see section 4.3). Also, younger economists had a more Anglo-Saxon education, with more of them having studied in the United States and gained a Ph.D. (Maes, 2000).

## 4.2 THE STRENGTHENING OF THE EMS

Padoa-Schioppa's first priority in monetary matters was to avoid the EMS becoming a repetition of the snake, which was characterised not only by realignments, but also by several countries leaving. Moreover, decisions about this were very much national decisions, not Community decisions. Furthermore, the snake did not really contribute to policy convergence.

Another crucial priority for Padoa-Schioppa was to strengthen the Commission's position in the management of the EMS, which was largely in the hands of the central banks<sup>12</sup>. He therefore reinforced the Monetary Directorate of DG II. He created an EMS desk, so that the Commission had the necessary information on the functioning of the EMS. DG II also developed a "Manual" with all the procedures and timing for a realignment.

**Table 1 - Changes in central rates in the exchange rate mechanism of the EMS**  
(March 1979 - January 1987, normal fluctuation margin of 2.25 %)

Date	DEM	NLG	FRF	DKK	BEF/ LUF	IEP	ITL
13.03.79	Start	Start	Start	Start	Start	Start	Start <sup>1</sup>
24.09.79	+2.0			-2.9			
30.11.79				-4.8			
23.03.81							-6.0
05.10.81	+5.5	+5.5	-3.0				-3.0
22.02.82				-3.0	-8.5		
14.06.82	+4.25	+4.25	-5.75				-2.75
21.03.83	+5.5	+3.5	-2.5	+2.5	+1.5	-3.5	-2.5
22.07.85	+2.0	+2.0	+2.0	+2.0	+2.0	+2.0	-6.0
06.04.86	+3.0	+3.0	-3.0	+1.0	+1.0		
04.08.86						-8.0	
12.01.87	+3.0	+3.0			+2.0		

*Fluctuation margin of 6 %.*

Over time, the realignments in the EMS became more collective decisions. Padoa-Schioppa (1985) tells the story of the first realignments: "The first one took place in

<sup>12</sup> For an analysis of how the Commission tried to increase its role in monetary matters in the 1960s (and its relations with the central banks), see Maes, 2006.

September 1979, less than six months after the System had started. I remember vividly that the Secretary of State of the German Ministry of Finance - it was Mr. Lahnstein at the time - came to the realignment session with a list of what the new parities were to be, saying: 'We have thought about the situation and have come to the conclusion that the following parity changes have to be made'. The session was rather difficult. It succeeded in setting new parities, which were in the direction indicated by that list, but not identical. It was clear to all that the next realignment would have to be made differently. At the first meeting of the Monetary Committee after the realignment, Mr. Lahnstein himself expressed the view that the Commission should propose the new parity grid on the next occasion. In a sense, this episode can be seen as the switch from the 1972 agreement on exchange rates (the so-called Snake) to the EMS".

The second and the third realignments, however, were not really collective, but unilateral decisions on devaluations of the Danish crown and Italian lira. Moreover, the Commission was not involved in the central bank consultations on the Danish devaluation of 30 November 1979. The Commission complained then that it should be part of the consultations, especially because of its responsibilities for the Common Agricultural Policy.

Padoa-Schioppa (1985) aptly summarised the change in the situation by saying: "Thus, what can be called the hegemonic method was abandoned after the first realignment and the unilateral method typical of Bretton Woods after the third. Since then, all the realignments haven been made properly, in the sense that on each occasion there was a meeting at the Community level, with the realignment being decided only after all the member countries had had an opportunity to propose a change in parities alternative to that asked for by the applicant country".

In the autumn of 1979, Padoa-Schioppa was also very much involved in Commission proposals to strengthen economic policy coordination<sup>13</sup>. A crucial element were preliminary consultations on monetary policy. At the November meeting of the Committee of Governors, Ortoli announced the new Commission document and its main ideas: "Monsieur Ortoli signale que la Commission, en exécution d'un mandat d'examiner les possibilités d'améliorer la coordination des politiques économiques, envisage de présenter prochainement au Conseil des Ministres un document qui suggérera une procédure beaucoup plus précise qu'actuellement pour les grandes décisions nationales en matière

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<sup>13</sup> Economic policy coordination was also a topic of the November 1979 Dublin European summit.

de politiques monétaires et, en particulier, de politiques de taux d'intérêt. Cette procédure, qui toucherait le fonctionnement des Comités, s'inspire de l'idée que les décisions de politique monétaire, notamment dans le cas d'un grand pays, ne restent pas sans influence sur l'évolution à l'intérieur du SME et que par conséquent de telles décisions devraient être soumises à une consultation préalable à haut niveau... De la sorte, tout en respectant la responsabilité nationale en matière de politique monétaire, les préoccupations communautaires seraient de plus en plus prises en considération, ce qui est indispensable, car, sans une meilleure coordination des politiques monétaires, le fonctionnement du SME serait mis en péril<sup>14</sup>" (Minutes of the 139th Meeting of the EEC Committee of Governors, 13 November 1979, NBBA). The first reaction was from Otmar Emminger, the then the president of the Bundesbank, "Monsieur Emminger constate qu'on tend à mettre en relief uniquement les mesures de la politique monétaire allemande tandis qu'on passe sous silence le fait que d'autres autorités de la Communauté ont pris, au cours des derniers mois, des mesures également sans consultation préalable<sup>15</sup>" (Minutes of the 139th Meeting of the EEC Committee of Governors, 13 November 1979, NBBA) <sup>16</sup>.

In the following months, the Commission's proposal was analysed by the central banks. At the January 1980 meeting, the Governors' alternates reported on their discussions: "les Suppléants sont d'avis que les consultations préalables sur les politiques monétaires sont souhaitables mais qu'en pratique elles peuvent être difficiles, voire impossibles, étant donné la variété, au sein de la CEE, des procédures et des structures qui sont mises en jeu pour prendre les décisions. ... Toutefois, quelques Suppléants ont souligné que la politique monétaire étant définie dans la plupart des pays en termes d'objectifs quantitatifs

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<sup>14</sup> "Mr. Ortoli points out that, in carrying out its mandate to look into ways of improving coordination of economic policies, the Commission is shortly planning to present the Council of Ministers with a document that will suggest a much more precise procedure than that used at the moment for major domestic decisions on monetary policy and, in particular, interest rate policies. This procedure, which would affect the way the Committees work, is inspired by the fact that monetary policy decisions, especially in the case of a large country, are not without influence on the internal development of the EMS and that, consequently, such decisions should be submitted to prior high-level consultation... In that way, while respecting national responsibility for monetary policy, Community concerns would be increasingly taken into account, something which is essential, because, without better coordination of monetary policies, the operation of the EMS would be jeopardised."

<sup>15</sup> "Mr. Emminger notes that there is a tendency to emphasise only the German monetary policy measures, while saying nothing about the fact that other Community authorities have also taken measures in recent months without prior consultation".

<sup>16</sup> It is noteworthy that, from June 1979 onwards, Ortoli became more active in the meetings of the Committee of Governors.



officiels, des consultations préalables pourraient avoir lieu sur la fixation des objectifs<sup>17</sup>" (Minutes of the 141th Meeting of the EEC Committee of Governors, 8 January 1980, NBBA). During the meeting, Karl-Otto Pöhl, the new president of the Bundesbank, insisted that the Commission should inform the Council of Ministers of the central bank governors' reservations about preliminary consultations with respect to monetary policy decisions, "Monsieur Pöhl pense néanmoins que la Commission devrait informer le Conseil des réserves qui ont été formulées au sein du Comité à l'égard d'une obligation de consultation préalable pour toute décision d'une politique monétaire et de crédit<sup>18</sup>" (Minutes of the 141th Meeting of the EEC Committee of Governors, 8 January 1980, NBBA).

The early 1980s were a difficult time for the EMS, with tensions on the foreign exchange markets and several currency realignments (see Table 1). In order to stabilise the EMS, convergence of economic policies was crucial. The realignments turned out to be important moments in the convergence process (Padoa-Schioppa, 1983b). Contrary to earlier practice, when devaluations or revaluations were unilateral decisions, the realignments became collective decisions (mostly with meetings of the Ecofin Council). Padoa-Schioppa further succeeded in developing the role of the Commission in the accompanying adjustment policies, of crucial importance for the convergence process. As observed in the 1982 Commission analysis of the EMS, "At each of the last two realignments, the countries most affected agreed to implement accompanying policies which would enhance the beneficial effects and neutralize the perverse effects of the changes in parity. In Belgium, the February devaluation was an integral part of a recovery plan designed to resolve the structural problems in the economy... The June realignment is also indicative of a concern to establish greater convergence. In the countries whose currencies were devalued, stabilization policies are now being applied... The Commission has for its part actively encouraged the process of convergence. It has not confined itself simply to following through as effectively as possible the coordination procedures for economic policies provided for in Community texts. It has tried to spell out what convergence should mean in practice" (CEC, 1982, 36). While there was a worldwide

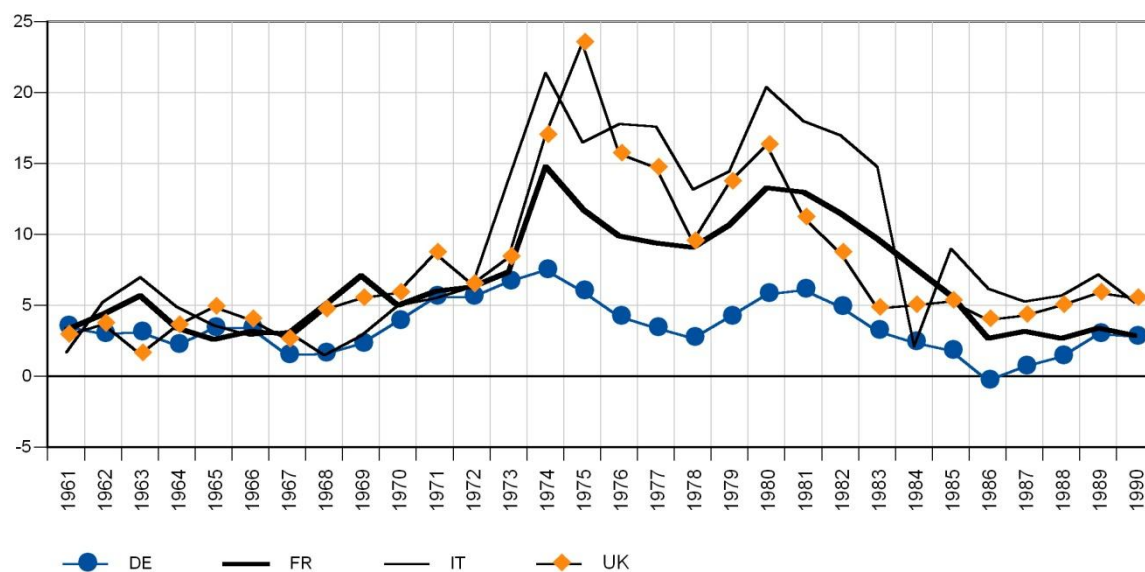
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<sup>17</sup> "The Alternates feel that prior consultations on monetary policies are desirable but, in practice, they can be difficult, or even impossible, given the sheer variety of procedures and structures that are involved in decision making within the EEC. ...However, some Alternates stressed that since monetary policy in most countries was defined in terms of official quantitative targets, prior consultations could be held on setting targets."

<sup>18</sup> "Mr. Pöhl nevertheless thinks the Commission should inform the Council of the reservations that have been raised within the Committee concerning the obligation for prior consultation for any decision on monetary policy or credit."

tendency towards stability-oriented policies, the EMS was to play a significant role in policy adjustment and inflation convergence in the European Community in the 1980s (see Chart 2).

**Chart 2: Inflation in the main countries of the European Community**  
(price deflator of private consumption, 1961-1990)



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Of special importance here was the situation in France, as the EMS was Giscard's "baby". A crucial problem for Padoa-Schioppa was the "adoption" of the EMS by Mitterrand, who had become French President in May 1981, with a socialist-communist government. He worked closely on this with Ortoli, his Commissioner, Delors, who had become French Finance Minister, and Andreatta, the Italian Finance Minister at the time. It was known as the "Delors - Andreatta - Ortoli – Padoa-Schioppa plot"<sup>19</sup>. The March 1983 realignment is generally considered as the turning point in the EMS, with a significant change in French economic policy, the famous *politique de rigueur*.

As mentioned earlier, the EMS agreement also specified a second institutional phase, involving the establishment of a European Monetary Fund within two years of the start of

<sup>19</sup> Ortoli and Delors had very good contacts. They had worked closely together in the mid-1970s, when they were both at the French Planning Office (Badel and Bussière, 2011).

the EMS. This was an important dossier for Padoa-Schioppa, in which he was very closely involved himself.

The Commission put together proposals for this second institutional phase of the EMS, focusing on the creation of a European Monetary Fund, promoting the ECU and strengthening the external aspects of the EMS. However, the negotiations did not really take off and the plans were shelved in December 1980. Padoa-Schioppa was very sharp on this episode in his "General Report", singling out in particular the resistance of Germany and the Bundesbank for causing this failure, "Il y a de multiples raisons à cela: le deuxième choc pétrolier, la nouvelle flambée inflationniste qui l'a suivi, l'envol du dollar, les tensions centrifuges consécutives à ces développements. Mais la raison essentielle a été, d'une façon générale, la méfiance affichée au fond, et parfois en public, par les autorités monétaires du pays ayant la monnaie la plus forte. Une opinion publique qui n'était déjà pas très favorable au système, a été flattée dans ses sentiments anti-SME par l'autorité même chargée de sa gestion<sup>20</sup>" (Padoa-Schioppa, 1983, 30). He considered 1982, a year of severe turmoil in the exchange rate mechanism, as a turning point: "Cette attitude a changé quand, en mai 1982, l'existence du système a été en danger. Il a alors été compris que l'enjeu était d'abord économique et commercial, avant d'être monétaire, et que le SME n'avait jamais vraiment affaibli la défense de la stabilité monétaire. Il était trop tard pour faire aboutir l'initiative de l'approfondissement. C'est grâce à la sagesse de la France et des autres pays membres du système, que le scepticisme allemand n'a pas été fatal<sup>21</sup>" (Padoa-Schioppa, 1983, 30).

Padoa-Schioppa then sought other ways to strengthen the EMS. These efforts culminated in the European Commission's March 1982 proposals for a "non-institutional" development of the EMS. There were several rather technical, ideas. A first element was to strengthen the position of the ECU and the exchange rate mechanism, for instance by increasing the negotiability of the ECU, by expanding the use of Community currencies for

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<sup>20</sup> "There are many reasons for that: the second oil shock, the new wave of inflation that came after it, the dollar soaring, and the centrifugal tensions following these developments. But the main reason has, generally speaking, been the mistrust displayed deep down, and sometimes even in public, by the monetary authorities of the country with the strongest currency. The anti-EMS sentiment of a public that was already not exactly in favour of the system was even encouraged by the authority in charge of its management".

<sup>21</sup> "This attitude changed when, in May 1982, the very existence of the system was in danger. By then, it was generally recognised that the stakes were primarily economic and commercial, before monetary, and that the EMS had never really weakened the defence of monetary stability. It was too late to bring the 'deepening' initiative to a successful conclusion. It is thanks to the wisdom of France and the system's other member countries that German scepticism has not been fatal".

intra-marginal interventions and by coordinating relations vis-à-vis the dollar. Secondly, the Commission proposed to open up the system to the outside world by permitting third-country monetary authorities to hold and use ECUs. Thirdly, there was a chapter on encouraging the use of the ECU on the financial markets, for instance, by increasing the ECU borrowing and lending activity of Community institutions and by keeping restrictions on the use of the EEC's basket currency to a minimum. It was to become a cherished topic for Padoa-Schioppa. A fourth dimension was a reinforcement of policy convergence, stressing full use of the existing framework and improving follow-up measures.

But the Commission not only proposed technical improvements for the EMS, it also drew up proposals with a more political content. These focused on the full participation of all currencies in the exchange rate mechanism and the issue of an ECU coin. Of crucial importance for the Commission was the participation of all EU currencies. As stressed by the Commission, "The European Monetary System will not assume its full significance and will not achieve its full potential until it organizes, on an equal footing, the exchange rate relationships of all the Community currencies: sterling's, and later the drachma's, participation in the exchange rate mechanism (and the narrowing to 2.25 % of the Italian lira's present margins) would bring the system to full fruition and would act as a signal to the markets and to public opinion of the determination to pursue in common the attempt - accepted and recognized by all - to establish a zone of monetary stability in Europe" (CEC, 1982, 52). The Commission further defended the idea of an ECU coin, which would circulate freely throughout the Community. This should strike public opinion by "bringing the ECU out of the specialists' circle (central banks, exchange dealers, capital market operators) to which it is now confined, and putting it in the pocket of the man in the street, the ECU's destiny as the monetary symbol of the Community would be fully affirmed" (CEC, 1982, 52).

Padoa-Schioppa was known for always taking a long-term perspective. One of the issues which he was also aiming for was progress in financial integration (which had dropped out of the monetary discussions in the 1970s, cf. Maes, 2007). Padoa-Schioppa also began to focus closely on the long-term consequences of a stable EMS and financial integration. In a lecture in Milan in June 1982, he coined his famous "inconsistent quartet" saying, the impossibility of reconciling (1) free trade, (2) full capital mobility, (3) fixed (or at any rate managed) exchange rates and (4) national autonomy of monetary policy. As Padoa-Schioppa (1982) observed, he was enlarging the "inconsistent trinity" of international monetary theory: "The incompatibility between fixed exchange rates, free

capital movements, and independent national monetary policies has been referred to in economic literature as the 'inconsistent trinity'. I have turned this trio into the 'inconsistent quartet' by adding a fourth element, free trade, which is a pillar of the Treaty of Rome and an aspect which cannot simply be taken for granted in our present economic environment". The inconsistent quartet would become very popular in the second half of the 1980s, when exchange rates were stable in the EMS and the European Community embarked on the Single Market project, when capital controls were lifted and the remaining non-tariff barriers in goods and services trade were removed (Padoa-Schioppa, 1988). What is crucial is that for Padoa-Schioppa there was a strong link between a single, unified market and monetary integration. It was his profound conviction that the European Single Market would not survive without a single currency.

Padoa-Schioppa was also very actively involved in the promotion of the ECU as a "parallel currency". For instance, he played an important role in the development of the ECU clearing system. Padoa-Schioppa (1987b) tells how, "In February 1982, prompted by Robert Triffin and Paul Caron, I convened the banks that were then active in the ECU market and invited them to set up a study group for the creation of a multilateral clearing system". During the mid-1980s, Padoa-Schioppa (1985) pushed further for a parallel currency approach. He hailed the "unforeseen growth of the ECU in private markets" as an important success. "What is important is that they show that there is considerable potential for an international currency used by private agents, and that the development of this potential only requires a very small legal, and one could say 'official', platform"<sup>22</sup>.

In his "General Report" of February 1983, Padoa-Schioppa gave a mixed picture of the situation of the EMS at the time of his departure from the Commission. There was important progress, but there were also significant shortcomings, "Le SME s'est sensiblement renforcé par l'obtention, petit à petit, de deux résultats importants qui n'étaient pas acquis d'avance: i) les modifications de parités sont véritablement devenues des décisions collectives, beaucoup plus que ce n'était le cas dans le système de Bretton Woods; ii) il est devenu de règle que les changements de parités soient accompagnés par des mesures de politique économique... Les approfondissements du système "dans" l'acquis sont importants, mais non irréversibles. Il faut les consolider, et une telle consolidation ne sera durable que s'il y a extension "de" l'acquis. Pour cela, nos

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<sup>22</sup> The turning point for Padoa-Schioppa was the Delors Report, which rejected the parallel currency approach.

propositions de mars 1982 ne représentaient qu'un petit pas. Le chemin vers l'union monétaire est encore long<sup>23</sup>" (Padoa-Schioppa, 1983, 13).

#### 4.3 STRENGTHENING THE ANALYTICAL CAPACITY OF DG II

Padoa-Schioppa was fully aware that the Commission's powers in the area of macroeconomic policy-making were limited. Its main function was contributing to the coordination and orientation of the Member States' policies. Just as for other international institutions, persuasion was crucial. As observed by Coats (1986, 167), "skills in communication and the art of persuasion are generally at a premium in international agencies, given their limited powers". To have an impact inside a multinational (and multilingual) organisation, communication and negotiation skills are more important than in national organisations<sup>24</sup>. Padoa-Schioppa stressed further that two elements were crucial for the Commission: professionalism and "telling the truth", "Le véritable instrument est la persuasion, les normes de base ne pouvant en aucun cas remplacer la qualité de l'argumentation. Si, dans ces domaines "non opérationnels", l'action est celle des autres, la Commission dispose néanmoins, pour persuader, de deux instruments: la professionnalité et la possibilité de "dire la vérité"<sup>25</sup>" (Padoa-Schioppa, 1983, 7).

From his earlier experience at the Banca d'Italia, Padoa-Schioppa was also very much aware that the Commission's reputation in terms of economic analysis was not so strong. "Je savais, pour avoir été fonctionnaire national, que les documents, les analyses et les prises de position de la Commission en matière de politique économique et monétaire n'attiraient pas la même attention et ne jouissaient pas du même prestige que celles d'autres organismes internationaux. Les documents de la Commission avaient la réputation d'être trop nombreux, souvent inexacts, analytiquement pauvres et peu originaux. J'ai consacré une partie très importante de mon temps à une action sur les

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<sup>23</sup> "The EMS has been considerably strengthened by gradually obtaining two important results that were not acquired in advance: i) parity adjustments have genuinely become collective decisions, much more than was the case under the Bretton Woods system; ii) it has become standard for changes in exchange rates to be accompanied by economic policy measures... Moves to deepen the system within the *acquis* are important but not irreversible. They need to be consolidated and such consolidation would only be lasting if the *acquis* itself were to be extended. For that, our March 1982 proposals were only a small step forward. There is still a long road to monetary union."

<sup>24</sup> As also remarked by Delors, cf. Hay, 1989, 17. Marris' remarks about the OECD apply also to the European Commission: "good economics" merges almost imperceptibly into the art of persuasion', (Marris, 1986, 113).

<sup>25</sup> "The real instrument is persuasion, since basic standards can never replace the quality of the argument. While the action comes from others in these non-operational areas, the Commission nevertheless has two instruments at its disposal: professionalism and the possibility to tell the truth."

instruments et les méthodes de travail dans le but de réduire, et si possible de combler, le "retard", de la DG II en matière d'analyse et de politique économique<sup>26</sup>" (Padoa-Schioppa, 1983, 14).

A crucial objective for Padoa-Schioppa was then a strengthening of the analytical capacity of DG II, "Un effort particulier pour élever la capacité d'analyse économique de la DG II a été accompli, en agissant sur deux éléments que j'appellerais "intelligence" et "modèles d'excellence". Par "intelligence" j'entends l'élément de capacité d'analyse économique qui entre, ou devrait entrer, dans une très grande partie des travaux de la DG II; par "modèles d'excellence" les opérations, les papiers, les études, ou les publications dans lesquels on essaie d'atteindre un niveau de qualité particulièrement élevé, avec pour objectif d'obtenir non seulement un résultat de haute qualité, utile en soi, mais aussi d'exercer un effet d'entraînement, d'imitation, sur les méthodes à appliquer et les résultats à atteindre dans d'autres domaines<sup>27</sup>" (Padoa-Schioppa, 1983, 15).

An important element in his strategy was a reorganisation of DG II, in March 1980, with at its core a new Directorate, Macroeconomic Research and Policy. The establishment of this Directorate reflected a double aim. The methodological purpose was to pursue more academic-oriented research, as clearly indicated in the word Research in the name of the new Directorate. The other purpose was to focus on macroeconomic policy for the European economy as a whole. This also reflected the idea that the Commission could have more influence on economic policies in the Member States if it could highlight the Community dimension of a certain national policy stance. The head of the C Directorate was usually the main author of the Annual Economic Report, the Commission's most important macroeconomic policy document. The Directorate consisted of five units: concerted action (a newly created division, responsible for a 'horizontal' analysis of the Community economy and for policy actions at the Community level); short-term forecasts (responsible for the coordination and consistency of the forecasting exercises); business

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<sup>26</sup> "Having been a national civil servant, I knew that the Commission's analyses and standpoints on economic and monetary policy would not attract the same amount of attention and enjoy the same prestige as those from other international organisations. The Commission's documents had a reputation of being too numerous, often inaccurate, analytically poor and not very original. I have devoted a lot of my time to acting on the working methods and tools with a view to making up DG II's lost ground, and wherever possible catching up, in the field of economic analysis and policy."

<sup>27</sup> "A major effort has been made to raise DG II's capacity for economic analysis, by working on two elements that I would call "intelligence" and "models of excellence". By "intelligence", I mean the economic analytical capacity that comes into, or should come into, a large part of DG II's work; by "models of excellence", operations, papers, studies or publications in which a particularly high degree of quality is sought, with the objective of obtaining not just a high-quality result, which is useful in itself, but also to exert a driving force, and imitation effect, on methods to apply and results to obtain in other fields"

cycle surveys (responsible for the coordination and aggregation of business and consumer surveys, which were carried out by different institutes in the individual Member States); medium-term forecasts; econometric models (a newly created division, the purpose was to give DG II more autonomy in econometric modelling, like at the Bank of Italy. This group would later be merged with the unit for medium-term forecasts).

Other reforms also contributed to the strengthening of DG II's intellectual and analytical capacities, like the organisation of seminars (both by DG II economists and outsiders) and the reinvigoration of the group of advisers (economists, both academics and national policy-makers, who were working on a temporary basis at the Commission). Padoa-Schioppa also launched a new series of publications, called the "Economic Papers" (which were the sole responsibility of the author). This caused quite a stir in the Commission, as officials publishing in their own name in an official publication of the European Commission was a completely new phenomenon for the EEC executive.

Of particular importance was the collaboration with the Brussels-based Centre for European Policy Studies (CEPS), especially with the foundation (and funding by DG II, cf. Ludlow, 1983, 2) of the CEPS Macroeconomic Policy Group. This Group was also known as the Dornbusch Group, after its first chairman. Padoa-Schioppa also presented a paper at the CEPS opening conference (Padoa-Schioppa and Papadia, 1983).

DG II economists would have meetings with the members of the CEPS group, in which the macroeconomic situation and the policy challenges for the European Community would be discussed. The CEPS economists would offer their comments on policy documents of the Commission, particularly the Annual Economic Report, and they would also write their own paper every year. Initially, the Dornbusch Group was set up as an internal advisory group. Later, at the behest of the academics, it was decided to publish the Dornbusch Group papers, both as a CEPS paper and as a Commission Economic Paper.

This triangular collaboration (Dornbusch Group, Commission, CEPS) offered DG II several advantages: it strengthened the analytical and intellectual level of the economic policy debate, it allowed the Commission to penetrate into the world of the economic intelligentsia, and it exposed the services of DG II to emulation and contradiction. Moreover, it was also a way to let top American academics get to know the European Community and to analyse Europe's economic problems.



The Dornbusch Group's Economic Papers caused quite some turmoil, especially in the cabinets but also among the Commissioners. Several people asked the question why the Commission should pay people “who make our life difficult”. Senior DG II officials, like Padoa-Schioppa and Emerson, defended the principle of publishing the work of the Dornbusch Group. They argued that the cooperation with the Dornbusch Group was very important for DG II, both for improving its analytical capacity and for increasing its influence in the academic world. Consequently, one had to “accept the rules of the game” and let the Dornbusch Group publish the results of its research. Here, they had the support of Ortoli, the Member of the Commission responsible for DG II.

As mentioned earlier, in the early 1980s, the European economy was coping with severe stagflation, after the second oil shock of 1979 and high US interest rates. In its analysis, the Commission strongly emphasised the structural aspects of the crisis: “the accumulated back-log of adjustments and our growing incapacity to respond quickly to the recent changes in the economic environment. The increased structural rigidities in our economies and social behaviour have changed profoundly the long-term dynamics of the business cycle” (CEC, 1982, 11).

In the 1980s, unemployment increasingly dominated the economic scene. Unemployment would become the main theme of the debate between the Commission and the CEPS Macroeconomic Policy group. The CEPS group, consisting mostly of “sophisticated Keynesians”, many with an American background, argued for a more reflationary fiscal policy. Their position was set out in a report: “Macroeconomic Prospects and Policies for the European Community” dating from April 1983, by G. Basevi, O. Blanchard, W. Buiter, R. Dornbusch and R. Layard. The Group argued that there was no evidence that “unemployment is all and without exception, or even predominantly, a real wage problem” (Basevi et al., 1983, 3). They favoured a coordinated expansionary policy, accompanied by incomes policy.

In its analysis of the unemployment problem, the Commission strongly emphasised that economic growth had become less labour-intensive. According to its own estimates, the stock of capital per employed person had risen at an average annual rate of 2.5 % in the preceding decade (CEC, 1984, 24). The rise in relative labour costs, which was at the origin of this capital deepening, was not only the consequence of increases in nominal wages but also of the rise of non-wage labour costs. Substitution was further stimulated

as the cost of capital was kept low, partly due to fiscal advantages. For the Commission, the increase in public expenditure, as well as the structure of expenditure and taxes, were among the causes of rising unemployment.

Another reason for the increase in classical unemployment, according to the Commission, were the growing rigidities in the labour markets in Europe. They were the result both of legislation and of collective bargaining agreements. These were generally introduced in the golden sixties, in order to protect weaker groups. However, the Commission noted that: "Some of these regulations have proved to be ill-adapted to new circumstances and may ... have hindered employment creation" (CEC, 1984, 33).

The employment strategies, proposed in the Annual Economic Reports of 1982, 1983 and 1984, were very broadly based and comprised: (a) a stable macroeconomic framework; (b) an improvement of the competitiveness of the enterprise sector, especially the strengthening of the Internal Market; and (c) measures concerning the labour market, including wage moderation, more differentiated wage settlements and a "systematic reappraisal of labour market regulations and conventions" (CEC, 1984, 34).

In a certain sense, this debate can seem somewhat paradoxical: it was the policy-makers at the European Commission who were defending the "new" paradigm of supply-side economics, while the academics were in favour of the "old" Keynesian paradigm. It certainly shows that policy-makers can be open to new economic theories. It is also a clear indication that DG II, under the leadership of Padoa-Schioppa in the early 1980s, was very alert to what was happening in the academic world and integrated this into its analysis of the economic situation in Europe. Moreover, the Commission had just had a very bad, if not traumatic, experience with a coordinated Keynesian demand expansion. The "concerted action", after the European Summit in Bremen and the G7 Summit in Bonn in 1979, led to an increase in inflation and balance-of-payments deficits in the early 1980s (Maes, 1998, 404). It led European Commission officials to focus on the supply side, especially the increased rigidities in Europe's labour markets. These rigidities certainly distinguished Europe from the United States with its flexible markets.

## **5. THE LATER CAREER OF PADOA-SCHIOPPA AS AN ARCHITECT OF EMU**

For Tommaso Padoa-Schioppa, becoming Director-General of DG II was a defining moment in his career and his life. He became immersed in several European networks, which would be of enormous importance for his further career.

In Brussels, he got an inside view of how the European Commission worked and established good relations and friendships with many Members of the Commission and officials, in the first instance François-Xavier Ortoli, the Member responsible for DG II. Moreover, Ortoli introduced him to Jacques Delors, who was then chairman of the European Parliament's Economic and Monetary Affairs Committee. Sharing a profound European conviction and a visionary long-term approach, the two men immediately became close friends. Delors, in his *Mémoires*, mentions Padoa-Schioppa as one of the, "personnalités hors normes pour leur appui permanent et leur contribution positive. ... Le point commun, c'était que, quels que fussent les difficultés de la construction européenne, ils ne s'étaient jamais découragés. Il puisaient dans le capital d'inspiration des pères du traité et cherchaient toujours, dans cet esprit, à trouver des solutions. Cette fleur bleue qu'ils avaient en eux était impressionnante<sup>28</sup>" (Delors, 2004, 184). Padoa-Schioppa would, *de facto*, become Delors' trusted advisor on monetary and financial matters, on whom Delors would call in difficult and decisive moments.

As Director-General of DG II, Padoa-Schioppa also took part in several important meetings, like those of the Ecofin Council and the Monetary Committee, giving him further inside knowledge of the functioning of the EU institutions and enlarging his networks. Of particular importance was his involvement in the meetings of the Committee of Governors of EEC central banks. Ortoli, as Commissioner responsible for Monetary and Financial Matters, participated in the meetings of the Committee of Governors and Padoa-Schioppa was his alternate. So Padoa-Schioppa came to acquire a profound knowledge of the functioning of the central banks in the Community at the highest level. It would become a very valuable asset in his later career and in his European monetary integration projects. It made him a natural rapporteur for the Delors Committee.

After his stay in Brussels, Padoa-Schioppa returned to the Banca d'Italia. When Delors became president of the Commission, he relaunched the process of European integration with the Internal Market programme. Padoa-Schioppa played an important intellectual role in the new Delors project, as Delors himself acknowledges: "Revenons à la locomotive de la relance: l'Objectif 92. Comme toujours, j'étais préoccupé par l'équilibre entre la fonction

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28 "Outstanding personalities, which should be mentioned for their permanent support and the positive contribution they have made. ... The thing that all these men had in common was that, whatever the difficulties of European integration, they never lost heart. They drew inspiration from the Treaty's founding fathers and, in the same spirit, always tried to find solutions. This sentiment of enthusiasm that they had in them was impressive."

du marché - qui allait prendre encore plus d'importance - et la régulation, avec ses politiques d'accompagnement et de correction. ... À mon habitude, dans toutes les initiatives que je prenais, je me préoccupais de le justifier par un raisonnement intellectuel et théorique. La chance a voulu que Tommaso Padoa Schioppa, à l'époque directeur de la Banque d'Italie, après avoir été directeur général à la Commission, vienne me voir pour discuter précisément de cet équilibre. Au cours de la conversation, il me rappelle - ce qui était très éclairant - les trois fonctions économiques dégagées par l'économiste Musgrave, l'allocation des ressources, la stabilisation, la redistribution. De mon côté, je plaide pour une réflexion approfondie qui étayerait notre approche de départ et sans désespérer, je crée un groupe de travail baptisé "Efficacité, Stabilité, Équité" que présidera Padoa Schioppa et qui, en 1988, justifiera cette théorie de l'équilibre entre marché et régulation. .... J'ai souhaité que ce rapport très utile soit publié en librairie. Il suffit d'en regarder les principaux chapitres: Vers un développement équilibré du système communautaire, Le marché intérieur, La mobilité des capitaux, La fonction de stabilisation macro - économique, La fonction de redistribution et le budget communautaire, Les conditions de la croissance<sup>29</sup>" (Delors, 2004, 235). This report on the implications of the Internal Market for the future of the Community (Padoa-Schioppa et al., 1987) contained also a warning that the liberalisation of capital movements was inconsistent with the prevalent combination of exchange rate stability and national autonomy of monetary policy.

EMU came back on the agenda at the Hanover meeting of the European Council on 27 and 28 June 1988. It confirmed the objective of Economic and Monetary Union and decided to entrust a Committee with the task of studying and proposing concrete stages leading towards this Union. The Committee was chaired by Jacques Delors, who had the confidence of Kohl and Mitterand, and, as a former Finance Minister, the technical

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<sup>29</sup> But let's come back to the driving force behind the revival: Objective 92. As always, I was preoccupied with the balance between the market function - that was going to become much more important - and regulation, with its accompanying and corrective policies. ... As I usually do in all the initiatives that I take, I was anxious to justify it by both intellectual and theoretical reasoning. Chance had it that Tommaso Padoa Schioppa, who was Director at the Banca d'Italia at the time, after having been Director-General at the Commission, came to see me to talk about precisely this equilibrium. During the course of the conversation, he reminded me - which was highly enlightening - of the three economic functions singled out by the economist Richard Musgrave, resource allocation, stabilisation, redistribution. I, for my part, called for an in-depth reflection that would back up the approach we were starting out from. Then I immediately went on to set up a working group christened "Efficiency, Stability, and Equity" which Padoa Schioppa was to chair and which, in 1988, served to justify this theory of equilibrium between market and regulation. ... I wanted this highly useful report to be published as a book. You only have to look at its main chapters: Towards a balanced development of the economic system of the Community, The Internal Market, Capital mobility, The macro-economic stabilisation function, The redistribution function and the Community budget, The conditions for growth."

expertise too. The governors of the central banks - in a personal capacity - were also on the Committee. Delors wanted them to be members, both because of their technical expertise and because this would bind them to the monetary union project. The Committee produced its report for the June 1989 meeting of the European Council (Committee for the Study of Economic and Monetary Union, 1989). Padoa-Schioppa, together with Gunter Baer, became Committee rapporteur. In this way, he had a very influential role, especially in the drafting of the report. The Delors Report came to assume a crucial role as a reference and anchor point in further discussions and negotiations on EMU, just as the Werner Report nearly two decades earlier. It would become the broad basis for the chapters on EMU in the Maastricht Treaty.

Padoa-Schioppa played further an influential (behind-the-scenes) role in later negotiations, notably through his contacts with Delors and with the Italian delegation. He was a Special Advisor to the Guigou Committee (from June 1989 to October 1989), which prepared the questions to be addressed in the Intergovernmental Conference. Together with Umberto Vattani (Prime Minister Andreotti's diplomatic advisor) and Mario Draghi (then Director-General of the Treasury), he was also one of the three key Italian officials involved in the Intergovernmental conference, the so-called "Gang of Three" (Dyson and Featherstone, 1999, 495). One of Padoa-Schioppa's suggestions was the fixed date for the start of the third phase of EMU. As Delors tells, "Tommaso Padoa Schioppa, un des rapporteurs du Comité Delors, avait suggéré à Andreotti de proposer le 1er janvier 1999 comme date définitive, ce qui, pour l'intéressé, était un bon moyen de se mettre en avant et de persévérer dans la tradition d'une Italie toujours à l'avant-garde de la construction européenne<sup>30</sup>" (Delors, 2004, 364).

In June 1998, Padoa-Schioppa became a member of the first Executive Board of the European Central Bank. It was a coronation for his work and efforts for the creation of Economic and Monetary Union. However, he was also among the first to warn of the dangers of "a currency without a State"<sup>31</sup>.

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<sup>30</sup> "Tommaso Padoa Schioppa, one of the Delors Committee rapporteurs, had suggested to Andreotti proposing 1 January 1999 as the final date, which for him was a good way of taking centre stage and continuing with Italy's tradition as a country that was always in the vanguard of European integration."

<sup>31</sup> Europe's experience was also a source of inspiration for reform proposals for the international monetary system, see Padoa-Schioppa's Triffin Lecture (2010).

## **6. CONCLUSION**

Tommaso Padoa-Schioppa was one of the great architects of the euro. He is remembered in particular as co-rapporteur for the Delors Committee and as a founding member of the European Central Bank's Executive Board. He studied economics at the Bocconi University in Milan and at the Massachusetts Institute of Technology (with Modigliani). He started his professional career at the Research Department in the Bank of Italy.

For Tommaso Padoa-Schioppa, becoming Director-General of the European Commission's DG II (from 1979 to 1983), was a defining moment in both his career and life. At the Commission, his main priority was the European Monetary System, which was launched in March 1979. The early years of the EMS were difficult, with tensions on the exchange markets, several currency realignments and the shelving of plans for a second institutional phase. Padoa-Schioppa was very closely involved in several projects to strengthen the EMS and to improve economic policy convergence. Moreover, he tried to strengthen the position of the ECU and to relaunch European financial integration. The most forceful exposé of his ideas was probably the inconsistent quartet, stating that the combination of free trade, free capital movement, independent monetary policies and fixed exchange rates was not sustainable.

The other main objective for Padoa-Schioppa, as Director-General of DG II, was the strengthening of its analytical capacity. Coming from the Bank of Italy, and with strong contacts with the Anglo-Saxon academic world, Padoa-Schioppa sought to develop DG II's model-building capacity and its links with the academic world. As such, he played a crucial role in the professionalisation of economics at the European Commission. As Padoa-Schioppa emphasised, professionalism and "telling the truth" are probably the best ways that international institutions can contribute to strong and sustainable economic policies and performances. The professionalisation of DGII, together with the strengthening of the Monetary Directorate, were furthermore essential elements to prepare DG II for the important role it would play in the EMU process, also intellectually (for instance with the study "One Market, One Money", CEC, 1990). As such this is also a beautiful illustration of Padoa-Schioppa's emphasis on the importance of strong institutions, also in the process of European integration.

At the Commission, Padoa-Schioppa became further immersed in several European networks. Of crucial importance here were his contacts with Jacques Delors. This would

be of enormous importance for his further career, becoming one of the architects of the single currency. However, he was also among the first to warn of the dangers of "a currency without a State".

## **REFERENCES**

- Archives: National Bank of Belgium (NBBA).
- Badel L. & Bussière É (2011), *François-Xavier Ortoli. L'Europe, quel numéro de téléphone?*, Paris: Descartes & Cie
- Basevi, G. et al. (1983), *Macroeconomic Prospects and Policies for the European Community*. Brussels: CEC, Economic Papers, 12, April.
- Bini Smaghi L. (2011), *Tommaso Padoa-Schioppa: Economist, policy-maker, citizen in search of European unity*, Speech, European University Institute, Fiesole, 28 January.
- CEC (1982), Annual Economic Report. *European Economy*, 14, November, 5-32.
- CEC (1983), Annual Economic Report. *European Economy*, 18, November, 5-44.
- CEC (1984), Annual Economic Report. *European Economy*, 22, November, 5-54.
- Commission of the European Communities (1990), One Market, One Money, *European Economy*, no. 44, October.
- Ciocca, P.L. (2004), Il contributo di via Nazionale, in G. Garofolo & A. Graziani (eds), *La formazione degli economisti in Italia (1950-1975)*, Bologna: Società editrice il Mulino, pp. 579-600.
- Coats, A.W. (ed.), (1986), *Economists in International Agencies*. New York: Praeger.
- Coats, A.W. (ed.), (2000), *The Post-1945 Development of Economics in Western Europe*. London: Routledge.
- Delors J. (2004), *Mémoires*, Paris: Plon.
- Delors J. (2011), La pensée et l'action de Tommaso Padoa-Schioppa, *Commentaire*, N°133, Printemps.
- Dyson K. and K. Featherstone (1999), *The Road to Maastricht*, Oxford: Oxford University Press.
- Harrod, R.F. (1951), *The Life of John Maynard Keynes*. Harmondsworth: Penguin.
- Hay, R. (1989), *The European Commission and the Administration of the Community*, European Documentation.
- Layard, R. et al. (1984), *Report of the CEPS Macroeconomic Policy Group. Europe: The Case for Unsustainable Growth*. Brussels: CEC, Economic Papers, 31, April.
- Ludlow, P. (1982), *The Making of the European Monetary System*. London: Butterworth.
- Ludlow, P. (1983), Introduction, in Dornbusch R. et al., *Macroeconomic Prospects and Policies for the European Community*. Brussels: CEPS, April.
- Maes, I. (1996), The Development of Economic Thought at the European Community Institutions, in Coats A.W. (ed.), *The Post-1945 Internationalisation of Economics, History of Political Economy*, Annual Supplement, 245-276.
- Maes, I. (1998), Macroeconomic Thought at the European Commission in the 1970s: the First Decade of the Annual Economic Reports of the EEC. *Banca Nazionale del Lavoro Quarterly Review*, 207, 387-412.



- Maes, I. (2000), Macroeconomic Policy-making at the European Commission in the First Half of the 1980s, R. Backhouse and A. Salanti (eds.), *Macroeconomics and the Real World - Volume 2: Keynesian Economics, Unemployment and Policy*, Oxford University Press, 2000, p. 251-268.
- Maes, I. (2002), *Economic Thought and the Making of European Monetary Union*, Cheltenham: Edward Elgar, February.
- Maes, I. (2006), The Ascent of the European Commission as an Actor in the Monetary Integration Process in the 1960s, *Scottish Journal of Political Economy*, Vol. 53, No. 2, May, pp. 222–241.
- Maes, I. (2007), *Half a century of European financial integration. From the Rome Treaty to the 21<sup>st</sup> century*, Foreword by Ph. Maystadt, Brussels: Mercatorfonds.
- Maes, I. (2008), The spread of Keynesian economics: a comparison of the Belgian and Italian experiences (1945-1970), *Journal of the History of Economic Thought*.
- Malinvaud, E. (1977), *The Theory of Unemployment Reconsidered*. Oxford: Blackwell.
- Marjolin, R. (1986), *Le Travail d'une Vie. Mémoires 1911-1986*. Paris: Robert Laffont.
- Marris, S. (1986), The Role of Economists in the OECD, in Coats A.W., (ed.), *Economists in International Agencies*. N.Y.: Praeger, pp. 98-114.
- Modigliani, F. and T. Padoa-Schioppa (1978), *The Management of an Economy with "100 % Plus" Wage Indexation*. Princeton: Essays in International Finance, 130, Dec.
- Modigliani, F. (1999), *Avventure di un Economista*, Roma: Laterza.
- Mortensen, J. (1990), *Federalism vs Co-ordination*. Brussels: CEPS.
- Padoa-Schioppa, T. (1982), Capital Mobility: Why is the Treaty Not Implemented?, in Padoa-Schioppa, T. (1994), *The Road to Monetary Union in Europe*, Oxford: Clarendon Press.
- Padoa-Schioppa, T. (1983), *La Direction générale des Affaires économiques et financières de 1979 à 1983*, Commission des Communautés Europeennes, Direction Générale des Affaires Économiques et Financières, Le directeur général, 031754, 25 février 1983, Archives Tommaso Padoa-Schioppa.
- Padoa-Schioppa, T. (1983b), What the EMS has achieved, *The Banker*, August, Vol. 8, No 690.
- Padoa-Schioppa, T. (1985), Lessons from the European Monetary System, in Padoa-Schioppa, T. (1994), *The Road to Monetary Union in Europe*, Oxford: Clarendon Press.
- Padoa-Schioppa, T. (1985b), *Money, Economic policy and Europe*, The European Perspectives Series, Commission of the European Communities, Brussels.
- Padoa-Schioppa, T. (1987), Reshaping Monetary Policy, in Dornbusch, R. et al., (eds.), *Macroeconomics and Finance. Essays in Honor of Franco Modigliani*. Cambridge, MIT: MIT Press, pp. 265-285.
- Padoa-Schioppa, T. (1987b), The ECU's Coming of Age, in Padoa-Schioppa, T. (1994), *The Road to Monetary Union in Europe*, Oxford: Clarendon Press.
- Padoa-Schioppa, T. (1988), The EMS: a long-term view, in Giavazzi F., Micossi S. & M. Miller, (eds.), *The European Monetary System*, Cambridge: CUP.

- Padoa-Schioppa T. (2010), *L'ombre de Bancor: la crise et le désordre monétaire mondial*, Exposé à la Fondation internationale Triffin, Louvain-la-Neuve, 25 février.
- Padoa-Schioppa, T. and F. Papadia (1983), *Competing currencies and monetary stability*, CEPS Working Documents, N° 2, June.
- Padoa-Schioppa, T. et al. (1987), *Efficiency, Stability, Equity*, Oxford: Oxford University Press.
- Porta, P. L. (1996), Italian Economic through in the Postwar Years, in Coats A.W., (ed.), The Post-1945 Internationalisation of Economics, *History of Political Economy*, Annual Supplement, 165-183.
- Rosanvallon, P. (1987), Histoire des Idées Keynésiennes en France. *Revue Française de l'Economie*, 4, 2, 22-56.
- Visco I. (2011), Introductory Remarks, Conference in Memory of Tommaso Padoa-Schioppa, Rome, Banca d'Italia, 16 December
- Wegner, M. (1989), The European Economic Community, in Pechman, J. (ed.), *The Role of the Economist in Government*. New York: N.Y.U. Press, pp. 279-299.

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