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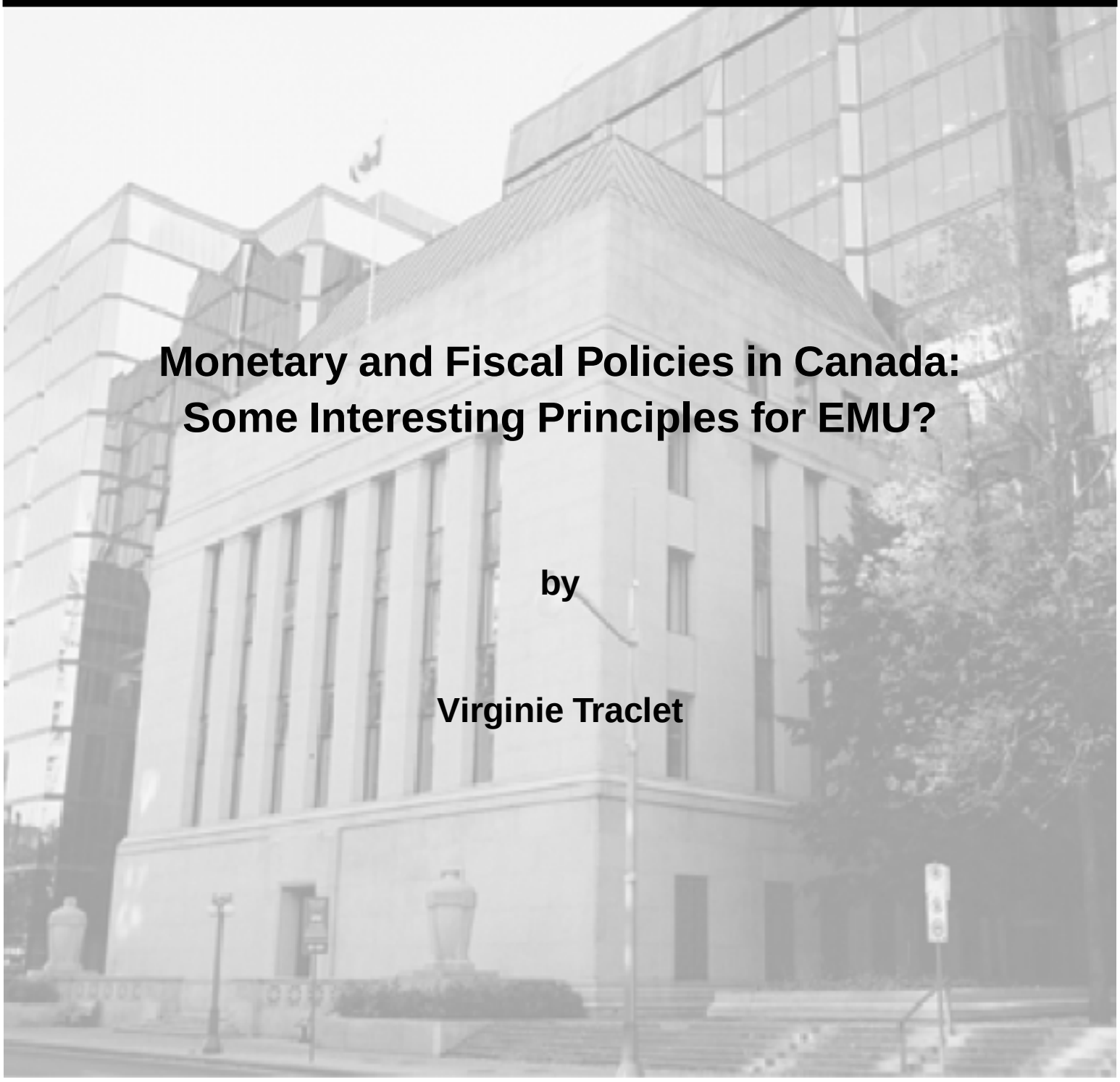

Monetary and Fiscal Policies in Canada: Some Interesting Principles for EMU?

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Abstract

Choosing a well-designed framework for fiscal and monetary policies is a challenge for economic authorities. Although they have chosen the same objectives to promote economic growth—price stability and fiscal sustainability—the Canadian and European economic authorities have adopted different frameworks in which to attain them. The author examines some principles of the Canadian framework that have gained broad public support and provide a good degree of macroeconomic stabilization, and examines whether the European authorities might wish to consider adopting some of those principles.

JEL classification: E58, E61, E63
Bank classification: Monetary policy framework; Fiscal policy

Résumé

Le choix d’un cadre adéquat pour les politiques monétaire et budgétaire constitue un enjeu majeur pour les autorités économiques de tout pays. Bien qu’elles se soient fixé les mêmes objectifs — à savoir la stabilité des prix et la viabilité des finances publiques — dans le but ultime de favoriser la croissance économique, les autorités économiques canadiennes et européennes ont mis en place des cadres différents pour les atteindre. L’auteure examine certains éléments du cadre canadien qui recueillent une large adhésion auprès du public et qui procurent aux autorités une certaine latitude en matière de stabilisation macroéconomique, afin d’établir s’il serait à l’avantage des autorités européennes de s’en inspirer.

Classification JEL : E58, E61, E63
Classification de la Banque : Cadre de la politique monétaire; Politique budgétaire

1. Introduction

A major change has occurred in the conduct of monetary and fiscal policies over the past decade. Policies that aim for sound objectives have been implemented in major industrialized countries, after several decades of monetary and fiscal fine-tuning. In the 1980s, OECD countries effectively reached a consensus regarding four principles that would provide the basis for sustained economic growth: sound monetary policy, sound fiscal policy, trade liberalization, and structural reforms (Dodge 2003b). The focus of this paper is on monetary and fiscal policies for which European and Canadian economic authorities have similar objectives—price stability[1] and fiscal sustainability—but different frameworks in which to attain them.

The arguments in favour of making price stability the primary objective of monetary policy are widely accepted. First, since output is determined by the capacity of the economy in the long run, any attempt to exploit the short-run Phillips-curve relationship results in higher inflation, but without real gain (Kydland and Prescott 1977). Second, rational economic agents understand the incentive of policy-makers to create inflationary surprises to boost economic output, which leads to the time-consistency problem of monetary policy (Barro and Gordon 1983). Third, since monetary policy affects economic variables with long and variable lags (Friedman 1968), attempts to stabilize output fluctuations may not have the desired effect and can be counterproductive. Fourth, price stability promotes a better functioning of the economy because it removes the costs due to inflation.[2] Maintaining low and stable inflation is widely viewed by central banks, including the Bank of Canada and the European Central Bank (ECB), as a means to an end—a well-functioning economy—and not an end in itself:

> Inflation control is not an end in itself: it is the means whereby monetary policy contributes to solid economic performance. (Bank of Canada 2004)
> Focusing monetary policy on the maintenance of price stability in the euro area ensures that it will make the best possible contribution to the broader economic objectives of the European Union and its citizens. (ECB 1999a)

Chronic fiscal deficits and large public debt have a strong negative impact on real activity. First, fiscal deficits that increase the public debt ratio can result in higher interest rates,[3] which in turn increase the debt service and decrease productive investments. Second, the increase in public bond issuances required to finance new deficits creates a

[1] In practice, price stability generally refers to ensuring low and stable inflation. In the literature, however, some authors advocate an objective expressed in terms of stability in the price level (Svensson 1999c; Vestin 2000).

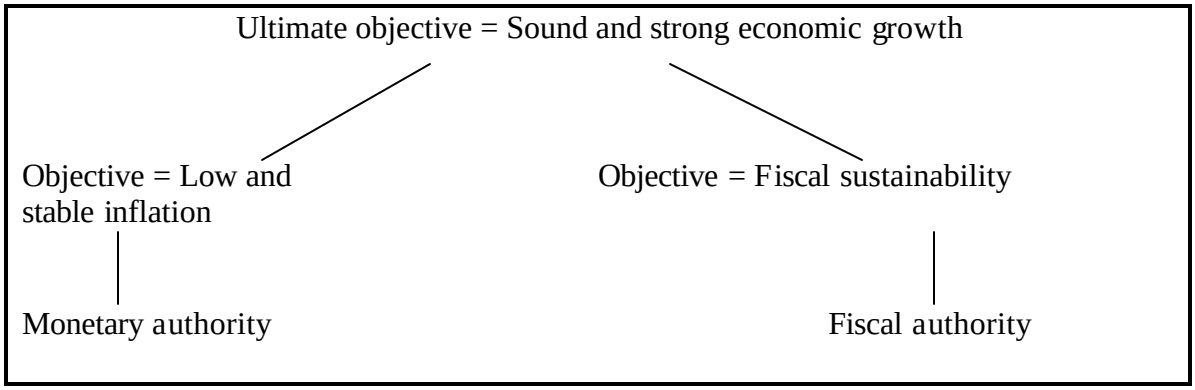
[2] These costs are: the shoe-leather cost, overinvestment in the financial sector, distortion in relative prices and uncertainty about the future price level, an increase in the cost of capital, and a misallocation of capital between the different economic sectors (see Mishkin and Posen 1997 for details). According to the consensual view, a rise in inflation of 1 per cent can decrease the growth rate of real GDP by 0.1 to 0.5 percentage points (Fischer 1995).

[3] There is no consensus concerning the impact of fiscal deficits and/or public debt on medium to long-run interest rates. However, growing fiscal deficits and public debt in industrialized countries over the 1980s and 1990s have been accompanied by an increase in interest rates. Moreover, some empirical evidence supports the view that public finances do influence interest rates (among others, Nunes-Correia and Stemitsiotis 1993; Fillion 1996; Canzoneri, Cumby, and Diba 2002; Laubach 2003).

crowding-out effect: private productive investments decrease, thereby endangering future real growth. These potential negative effects have progressively been accepted by policy-makers, giving rise to the widely accepted view that fiscal policy should aim at sound public finances to foster real growth. Moreover, Leeper (1991), Sims (1994), and Woodford (1994, 1995, 1996, 2001), among others, have shown that fiscal policy can also influence inflation, contrary to the traditional view based on the "Ricardian equivalence."[4] According to the fiscal theory of the price level, even an independent central bank with the objective of price stability can lose control on prices in the case of "unsound" fiscal policy (Canzoneri and Diba 1996).[5] Therefore, it has been more and more widely recognized that, in the context of increasingly independent central banks with a mandate for price stability, sound public finances are required.

Economic authorities in many industrialized countries have consequently adopted monetary and fiscal policies that aim to reduce and stabilize inflation and to ensure fiscal sustainability in the medium to long term, respectively, with the same ultimate objective: promoting sound and strong economic growth (Scheme 1).

Scheme 1. The Virtuous Circle of "Reasonable" Macroeconomic Policies



Different macroeconomic frameworks have been adopted by different countries to attain these objectives.

When European countries were on the path to Economic and Monetary Union (EMU), they adopted a solid institutional framework based on the principles of sound macroeconomic governance. The Treaty on the European Union gives the ECB a mandate for price stability (Article 105(1)) and stipulates that "Member states shall avoid excessive government deficits" (Article 104). Moreover, the Stability and Growth Pact (1997)—SGP hereafter—requires that countries attain the "medium-term objective for the budgetary position of close to balance or in surplus."

[4] The government faces an intertemporal budget equation, which simply means that the value of the government debt is equal to the current discounted value of future government revenues less future public expenditures (all denominated in units of goods). According to the Ricardian view, this equation is a constraint on the government's policy, since the government must continually respect (or restore) this equality. Any decrease in current taxes, for instance, should be compensated by a future increase in taxes to restore this equality. As a result, economic agents do not increase their demand in response to this decrease in taxes, since they are aware that it will be followed by an increase in taxes in the future. Fiscal policy is therefore unable to influence aggregate demand and prices.

[5] The fiscal theory of the price level is, however, a vigorously debated issue (see Buiter 1999, 2001).

In Canada, monetary and fiscal changes have been implemented in a different manner. In 1991, the Bank of Canada, jointly with the federal government, adopted an inflation-targeting regime, and the government implemented fiscal reforms in the mid-1990s that aimed to restore the fiscal balance. These reforms have been documented in federal budgets and in the Bank of Canada's publications, but, unlike the European case, they have not been formally legislated. Notably, the Bank of Canada Act (Bank of Canada 1985) was not modified following the adoption of inflation targets. Despite being given priority in practice, the objective of low and stable inflation is only one among others in the Bank's mandate, as stated in the preamble of the Bank of Canada Act.[6] This loose mandate could perhaps be better-defined, so that the Bank would not deviate from its low-inflation objective in the case of a crisis (Crow 2002). The inflation-targeting framework, however, is seen as the best way to achieve the objectives of the Act with respect to output and employment (Dodge 2002b).[7] Moreover, because Article 14 of the Act specifies some conditions under which the government can give a directive to the Bank,[8] one could argue that the Bank lacks instrument independence, as defined by Fischer (1995). In practice, however, the Bank benefits from a good degree of operational independence (King 2001, Crow 2002).

The success of the European and the Canadian macroeconomic frameworks can be assessed using two criteria: economic performance and public support. Judging by these criteria, the outcomes differ between the two frameworks.

In Canada, inflation has remained within the target range and long-run inflation expectations are well-anchored. Moreover, the monetary policy strategy is well-understood, increasing the predictability of policy decisions (Parent 2002; Parent, Munro, and Parker 2003). Fiscal balance was attained in 1997–98 and fiscal surpluses have been registered since then, resulting in a significant decrease in the public debt. The Canadian macroeconomic framework benefits from broad public support (Dodge 2002c) and, in recent years, has also withstood significant negative shocks (i.e., the bursting of the high-tech bubble, and the Asian crisis).

In the euro area, the inflation performance is good, inflation expectations are well-anchored, and the ECB's monetary decisions benefit from a good degree of predictability (Ross 2002). The ECB, however, has been frequently criticized for its strategy (Svensson 2000, 2002a, 2003; De Grauwe 2003) and lack of transparency (Begg et al. 2002; Fitoussi 2003; Svensson 2003). National fiscal performances have been heterogeneous since the adoption of the euro and the biggest member countries (France and Germany)

[6] ". . . to establish a central bank in Canada to regulate credit and currency in the best interests of the economic life of the nation, to control and protect the external value of the national monetary unit and to mitigate by its influence fluctuations in the general level of production, trade, prices and employment, so far as may be possible within the scope of monetary action, and generally to promote the economic and financial welfare of Canada."

[7] This is because the Bank conducts policy in a symmetric fashion in response to movements in inflation away from the target midpoint. The symmetric policy actions smooth the business cycle and contribute to sustainable growth in output and employment (see section 3.3 for details).

[8] "If . . . there should emerge a difference of opinion between the Minister and the Bank concerning the monetary policy to be followed, the Minister may, after consultation with the Governor and with the approval of the Governor in Council, give to the Governor a written directive concerning monetary policy, in specific terms and applicable for a specified period, and the Bank shall comply with that directive."

currently do not respect the fiscal deficit criterion. The continual dispute over euro-area fiscal rules and their implementation is detrimental to the credibility of the European framework. In addition, there are vigorous debates regarding the conduct of macroeconomic policies in the euro area and regarding the economic actor that should be considered responsible for the current lack of flexibility (Fitoussi 2003). Moreover, the euro area has been deeply affected by the recent global economic downturn.

The Canadian monetary and fiscal framework should not be viewed as a miracle cure: other countries benefit from good macroeconomic performance using different frameworks (e.g., the United Kingdom, Sweden, and New Zealand), and the Canadian framework could perhaps benefit from further improvements, notably in terms of more legislated objectives. Nevertheless, the focus in this paper is to examine whether the European framework could benefit from adopting some principles of the Canadian framework, and thereby gain wider public support.

The remainder of this paper is organized as follows. Section 2 presents the European framework, its recent performance, and the criticisms it has received. Section 3 describes the Canadian framework, its recent performance, and its limitations. Section 4 examines the compatibility of the Canadian framework for the European framework. Section 5 offers some conclusions.

2. The European Framework

EMU has brought about major change for the 12 European member countries: their monetary policy has been commonly decided by the ECB since January 1999, whereas their fiscal policies are still chosen at the national level, but with some European constraints.

The strategy behind the ECB's monetary policy is described in section 2.1. The European fiscal criteria, the national performances, and the limitations of the existing fiscal framework are reported in section 2.2. The criticisms of the European framework are reported in section 2.3.

2.1 The European monetary policy: past strategy, recent changes, and performance

As stated in the Treaty establishing the European Community, "the primary objective of the ESCB shall be to maintain price stability" (Article 105(1)). The ECB therefore benefits from goal dependence, which is widely considered a desirable feature of monetary policy (Fischer 1995). Moreover, the Treaty provides the ECB with operational independence (Article 108). In combining goal dependence with operational independence, the Treaty ensures that monetary policy focuses on the maintenance of price stability in the euro area, thus making the best possible contribution to the broader economic objectives of the European Union.

The quantitative definition of the price stability objective, however, has not been set in the Treaty but has been unilaterally chosen by the Governing Council of the ECB, to give "a clear guidance to expectations of future price developments" and to provide "the

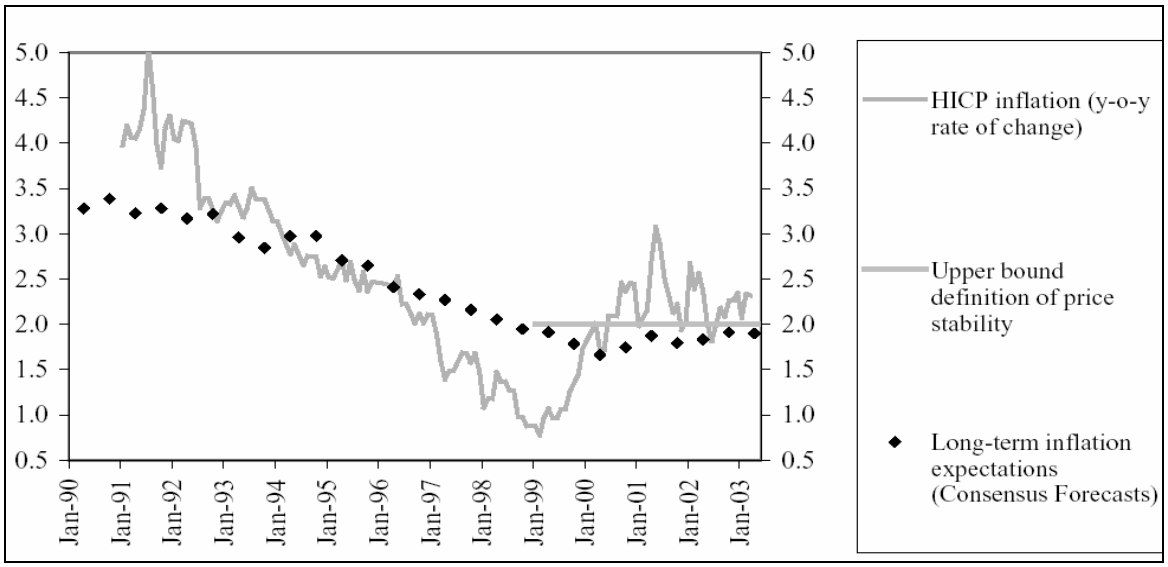
public with a clear indication for making its assessment of the success of the single monetary policy" (ECB 1999a, 46).[9] The Governing Council states that "price stability shall be defined as a year-on-year increase in the Harmonized Index of Consumer Prices (HICP) for the euro area of below 2%."[10] Moreover, they add that price stability "is to be maintained over the medium term," to reflect the need for monetary policy to have a forward-looking medium-term orientation. Following a review of its strategy in May 2003, the Governing Council confirmed the definition and clarified that, in pursuing its objective of price stability, "the Governing Council aims to maintain HICP inflation below but close to 2% over the medium term" (Trichet 2003).

To ensure its primary objective, the ECB adopted a "two-pillars" strategy, which was announced in October and December 1998. This strategy included, first, "a prominent role for money, as signaled by the announcement of a reference value for the growth of a broad monetary aggregate" and, second, "a broadly based assessment of the outlook for future price developments and the risks to price stability in the euro area as a whole" (ECB 1999a). The monetary pillar is used to assess expected long-run price changes, since inflation is widely accepted as a monetary phenomenon in the long run (Bullard 1999).[11] This prominent role for money is supported by empirical evidence in the euro area (Brand and Cassola 2000; Trecroci and Vega 2000; Gerlach and Svensson 2003; Altimari 2001). The second pillar is made up of a wide range of financial and economic indicators,[12] used to assess shorter-run price evolutions.

In the current state of economic knowledge, and given the uncertainties about economic relationships prompted by the regime shift associated with the adoption of the common monetary policy, this "voluntary eclectic" strategy has been viewed as a good way to avoid monetary policy mistakes that could be made if EMU relied on one unique indicator or on a specific model of the economy.

[9] In this respect, the ECB defines its price stability objective more precisely than other central banks, like the Federal Reserve or the Bank of Japan, which do not provide a quantitative definition (Kieler 2003).
[10] The ECB has clearly explained that price stability means that deflation is not desirable: "the use of the word 'increase' in the definition (of price stability) clearly signals that deflation, i.e. prolonged declines in the level of the HICP index, would not be deemed consistent with price stability" (ECB 1999a, 46). Duisenberg (1999) states that "This definition illustrates our aversion to both inflation and deflation."
[11] M3 is used not as an intermediate target, but only as a long-period guide. A reference growth rate for M3 (4.5 per cent per year), computed to be compatible with price stability (for more details, see ECB 1999b), is used to assess the impact of M3 development on prices. The prominent role money is given in this strategy is often viewed as a "German legacy."
[12] For more details about these indicators, see the ECB (1999c, 27–40).

Chart 1. Inflation Performance in the Euro Area



Source: Issing 2003

The ECB has been successful in terms of its primary objective (Chart 1). Inflation expectations are well-anchored (Kieler 2003) and their volatility is as low as in the best-performing industrialized countries, which is particularly remarkable in the recent period, characterized by a number of sizable, mainly upward, price shocks in the euro area (Trichet 2003).[13] Moreover, the ECB's policy decisions have attained a good degree of predictability for financial markets (Ross 2002). Despite these good results, the ECB has faced recurrent criticisms.[14]

The ECB has confirmed and clarified its strategy in a recent evaluation (Issing 2003). The two-pillar strategy has been kept, but with slight modifications: developments in broad money have become the second pillar—relabelled as "monetary analysis"—while the previous second pillar (assessment of current economic and financial developments, their likely future dynamics, and their impact in terms of short- to medium-term risks to price stability) has become the first pillar, labelled as "economic analysis" (Issing 2003; Trichet 2003). These slight changes reflect the ECB's interest in improving the degree to which economic agents understand it: "It is certainly in the interest of central banks to ensure that the public at large is fully aware not only of policy decisions, but also of the analysis supporting them, within the strategic framework of monetary policy. This is probably the most efficient means of ensuring that monetary policy actions are properly understood" (Caruana 2003).

The ECB's experience, however, is much too recent for a definitive assessment. Moreover, whatever the ECB's success in terms of price stability, its ability to create a good degree of macroeconomic stabilization does not depend on its own behaviour only, but also on national fiscal authorities.

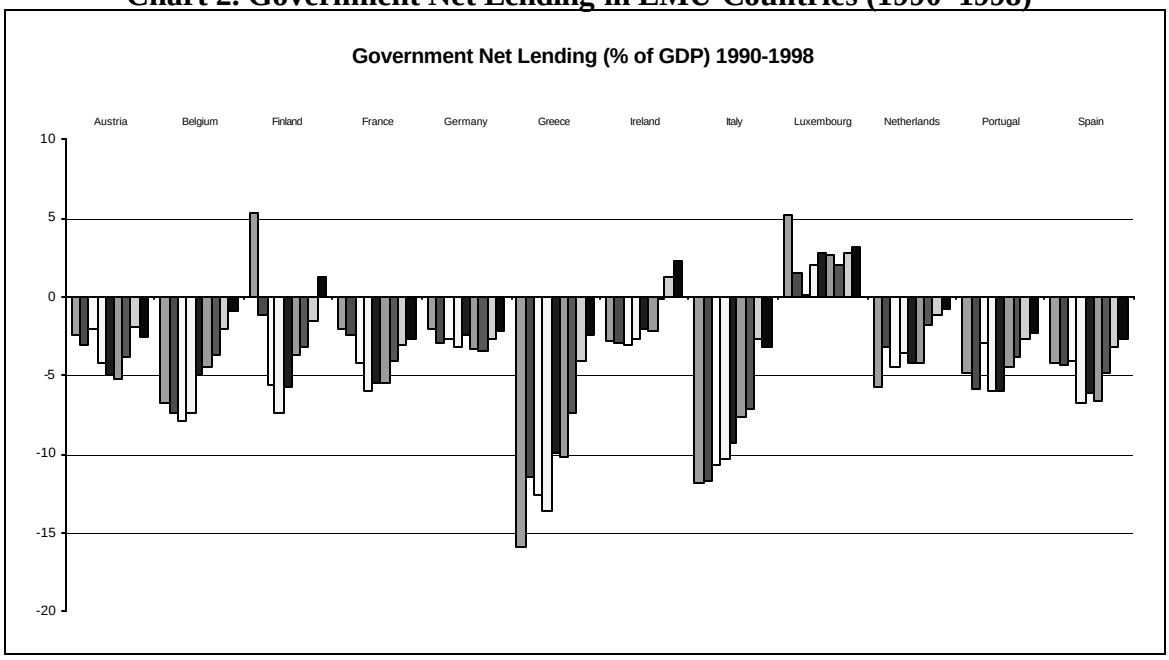
[13] The overshoot of the upper bound by the HICP inflation since mid-2000 has been mainly due to a sequence of large and unforeseeable one-off shocks. This overshoot in the short run is viewed as an appropriate response to these shocks (Kieler 2003), which explains why inflation expectations stayed well-anchored over that period despite those shocks.

[14] See section 2.3 for a detailed explanation of these criticisms.

2.2 Fiscal policies in EMU

EMU fiscal policies are decided by national governments. They are constrained, however, by a European-wide legislated framework designed to avoid isolated fiscal crises that could endanger the stability of the common currency (Sargent and Wallace 1981) and make the central bank unable to fulfill its mandate despite its legal independence. To help future member countries improve their public finances before they adopt EMU, the Treaty establishing the European Union and the related protocol have set fiscal convergence criteria (e.g., the fiscal deficit should be under 3 per cent of GDP and the public debt should not be over 60 per cent of GDP). The willingness of countries to be an EMU member, associated with good economic conditions and with decreases in interest rates, has led to a successful decrease in fiscal deficits (Chart 2) and in debt ratios during the convergence period.

Chart 2. Government Net Lending in EMU Countries (1990–1998)



Source: OECD and European Commission

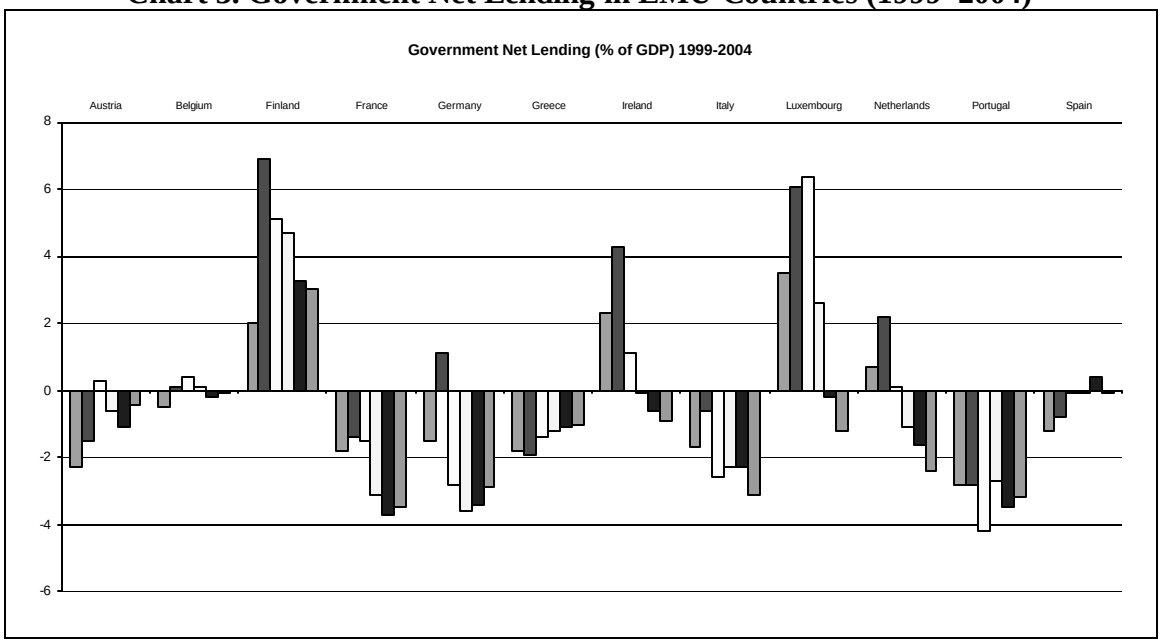
The SGP aims to reinforce fiscal discipline once the euro has been adopted: according to it, member states should reach positions close to balance or in surplus over the medium term. This requirement, initially set for 2004[15] and recently postponed until 2006, aims to let fiscal automatic stabilizers play their role during the business cycle without inducing fiscal deficits higher than the 3 per cent limit. To make the SGP binding, control and sanction measures have been designed. Member countries must present "Stability and Convergence Programs" to the European Council and the Commission, which use them to assess potential drifts from the announced objectives. These programs must specify (i) the medium-term fiscal goals (fiscal balance or surplus, and the expected debt ratio), (ii) the economic forecasts underlying those fiscal goals, (iii) a description of engaged or

[15] The *Recommendation on the Broad Economic Policy Guidelines*, adopted by the Council in June 2002, called on member countries that had not yet reached budget positions close to balance or in surplus to achieve it by 2004 at the latest.

expected fiscal measures or other economic measures to attain those goals, and (iv) an analysis of the consequences on fiscal balance and public debt of any change in economic forecasts. If these objectives are not fulfilled, the Treaty establishing the European Community has set an "excessive deficits" procedure (Article 104), according to which a member country must respect the values set in the protocol on the Excessive Deficit Procedure (Article 1). In the case of a higher than 3 per cent deficit, the member country is notified to modify its fiscal policy within the next 10 months; otherwise, financial sanctions are undertaken.[16]

The national fiscal performances registered since the implementation of the common monetary policy are heterogeneous: the small countries have done relatively well, while fiscal deficits have deteriorated in the biggest countries (Chart 3).

Chart 3. Government Net Lending in EMU Countries (1999–2004)



Note: Figures for 2003 and 2004 are based on economic forecasts by the European Commission, in spring 2003.
Source: OECD and European Commission

This heterogeneity in fiscal performances is reflected in the discrepancies between the National Stability Programs[17] and the effective results in some member countries (Table 1).

[16] Sanctions first take the form of a non-interest-bearing deposit with the Commission. The amount of this deposit comprises a fixed component equal to 0.2 per cent of GDP and a variable component equal to one-tenth of the difference between the deficit as a percentage of GDP in the year in which the deficit was deemed to be excessive and the reference value of 3 per cent of GDP. Each following year, the Council may decide to intensify the sanctions by requiring an additional deposit. This will be equal to one-tenth of the difference between the deficit as a percentage of GDP in the preceding year and the reference value of 3 per cent of GDP. The annual amount of deposits may not exceed the upper limit of 0.5 per cent of GDP. A deposit is, as a rule, converted into a fine if, in the view of the Council, the excessive deficit has not been corrected after two years.

[17] See Creel, Latreille, and Le Cacheux (2002) for a detailed explanation of the different versions of those programs since 1999.

Table 1. Stability Programs Hypothesis (fourth version, December 2001) versus Effective Results (OECD)

	1999	2000	2001	2002	2003	2004
GDP growth rate						
*National governments' forecasts (used for stability programs) / effective real GDP growth rate (OECD)**						
Austria	2.8 / 2.7	3.0 / 3.5	1.3 / 0.7	1.3 / 1.0	2.4 / 1.1	2.8 / 2.0
Belgium	2.7 / 3.2	4.0 / 3.7	1.1 / 0.8	3.0 / 0.7	3.0 / 1.3	2.5 / 2.3
Finland	4.0 / 3.4	5.7 / 5.5	0.6 / 0.6	1.6 / 1.6	2.7 / 2.2	3.0 / 3.4
France	3.0 / 3.2	3.5 / 4.2	2.3 / 1.8	2.3 / 1.2	2.5 / 1.2	2.5 / 2.6
Germany	1.7 / 2.0	3.2 / 2.9	0.8 / 0.6	1.3 / 0.2	2.4 / 0.3	2.8 / 1.7
Greece	3.4 / 3.6	4.3 / 4.2	4.1 / 4.1	3.8 / 4.0	4.0 / 3.6	4.0 / 3.9
Ireland	10.8 / 11.1	11.5 / 10.0	6.8 / 6.0	3.9 / 6.0	5.8 / 3.2	5.3 / 4.2
Italy	1.6 / 1.7	2.9 / 3.1	2.0 / 1.8	2.3 / 0.4	3.1 / 1.0	3.1 / 2.4
Luxembourg	7.5 / 6.0	8.5 / 8.9	3.9 / 1.0	5.3 / 0.5	5.7 / 0.3	5.6 / 2.7
Netherlands	3.7 / 4.0	3.5 / 3.3	2.0 / 1.3	2.0 / 0.3	2.3 / 0.7	2.3 / 1.9
Portugal	3.4 / 3.8	3.4 / 3.7	2.0 / 1.6	1.8 / 0.5	2.5 / 0.3	3.0 / 2.3
Spain	4.1 / 4.2	4.1 / 4.2	3.0 / 2.7	2.4 / 2.0	3.0 / 2.1	3.0 / 3.1
Euro area	2.6 / 2.8	3.4 / 3.6	1.7 / 1.5	1.9 / 0.9	2.6 / 1.0	2.6 / 2.4
*Government financial balances (% of GDP): national stability programs / effective results (OECD)**						
Austria	-2.2 / -2.3	-1.5 / -1.5	0.0 / 0.2	0.0 / -0.6	0.0 / -1.3	0.2 / -1.1
Belgium	-0.6 / -0.5	0.1 / 0.1	0.0 / 0.4	0.0 / 0.0	0.5 / 0.0	0.6 / 0.2
Finland	1.9 / 2.0	6.9 / 6.9	4.7 / 5.1	2.6 / 4.7	2.1 / 3.1	2.6 / 2.9
France	-1.6 / -1.8	-1.3 / -1.4	-1.4 / -1.5	-1.4 / -3.2	-1.3 / -3.6	-0.5 / -3.3
Germany	-1.6 / -1.5	-1.3 / 1.1	-2.5 / -2.8	-2.0 / -3.6	-1.0 / -3.7	0.0 / -3.3
Greece	-1.8 / -1.8	-1.1 / -1.9	0.1 / -1.4	0.8 / -1.2	1.0 / -1.0	1.2 / -0.7
Ireland	2.3 / 2.0	4.5 / 4.5	1.4 / 1.6	0.7 / -0.3	-0.5 / -0.8	-0.6 / -1.2
Italy	-1.8 / -1.8	-1.5 / -0.7	-1.1 / -2.7	-0.5 / -2.5	0.0 / -2.4	0.0 / -2.8
Luxembourg	3.7 / 3.5	6.1 / 6.1	4.1 / 6.4	2.8 / 2.6	3.1 / 0.2	3.4 / -1.0
Netherlands	0.4 / 0.7	1.5 / 2.2	1.0 / 0.1	1.0 / -1.1	1.0 / -1.6	1.0 / -2.0
Portugal	-2.1 / -2.9	-1.8 / -2.9	-2.2 / -4.3	-1.8 / -2.7	-1.0 / -3.2	0.0 / -2.7
Spain	-1.1 / -1.1	-0.4 / -0.6	0.0 / -0.1	0.0 / -0.1	0.0 / -0.4	0.1 / -0.2
Euro area	-1.3 / -1.3	-0.8 / 0.1	-1.2 / -1.6	-0.9 / -2.3	-0.5 / -2.5	0.1 / -2.4

* Projections for 2003 and 2004 (OECD)
Sources: National Stability Programs (OFCE) and OECD Economic Outlook No. 73, June 2003

The recent situation has highlighted the SGP weaknesses, particularly the inadequacy of its sanctions-voting procedures, which create coalitions between countries and prevent disciplinary measures from being applied. In November 2003, France and Germany succeeded in forming a coalition to overrule the recommendation—the first step of the sanctions process—made by the European Commission after they failed repeatedly to cut their budget deficits to below the 3 per cent limit. The European Commission decided (on 13 January 2004) to take member states of the European Union to the European Court of Justice for having suspended the sanction mechanism.

2.3 Criticisms of the European macroeconomic framework

The criticisms of the European framework concern both monetary and fiscal policy.

The ECB's strategy has been criticized first because of the prominent role it gives to money (Svensson 2000, 2003) at a time when money growth has been progressively viewed as an unreliable indicator of future inflation (Estrella and Mishkin 1997; Stock and Watson 1999). Moreover, Begg et al. (2002) consider that nominal money growth is

a useful leading indicator of inflation when inflation is high, but a poor indicator when nominal variables are growing slowly. The debate regarding the role money should play in the monetary policy process remains open, since several studies find desirable properties for various monetary indicators in the euro area: Brand and Cassola (2000) find a stable relationship between broad money and the price level over the medium term in the euro area; Trecroci and Vega (2000), as well as Gerlach and Svensson (2001), conclude that the real money gap is a good indicator of future inflation in the euro area; and Altimari (2001) shows that M3 growth improves the inflation-forecast performance for long horizons. The monetary pillar has also been considered detrimental in terms of communication—"the first pillar . . . had clouded the ECB's communication strategy" (Begg et al. 2002)—and in terms of transparency (Jacquet and Pisani-Ferry 2000; Fitoussi 2003). The complexity of the two-pillar strategy has also often been viewed as the main cause of communication problems from the financial press: "Part of the reason for the 'communication gap' may lie in the complexity of the bank's monetary policy strategy" (T. Barber, *Financial Times*, 6 September 2001, quoted by Kieler 2003). Creel and Fayolle (2002) consider that the ECB's credibility seems to depend more on its ability to convince economic agents of the soundness of its decision-making process than on its inflation performance, which is good. Any communication problem can be damaging, since monetary policy is more effective when it benefits from a high degree of public support and understanding (Freedman 2002). As explained earlier, the ECB has recently slightly modified its strategy, making monetary analysis its second pillar, and therefore this criticism should no longer be considered relevant. However, it is not necessarily sufficient to provide the ECB with broad public support.

Three criticisms are made in the literature regarding the definition of the price stability objective used by the ECB: the quantitative definition of price stability, the form of this definition, and the inflation measure used in the definition.

The quantitative definition of price stability has been unilaterally chosen by the Governing Council of the ECB. This quantitative value has been criticized for being excessively rigorous, or "too ambitious,"[18] particularly where national European authorities have only the fiscal policy instrument to react to the various shocks that hit their economies, and they are consequently extremely sensitive to the ECB's common monetary policy (Fitoussi 2001). Moreover, since member countries have different levels of development, the convergence of price levels can create persistent inflation differentials (the Balassa-Samuelson effect). Fitoussi (2003) shows that the current inflation objective for the euro area as a whole creates a risk of deflation in less-competitive countries and in countries with overvalued currency at the time of the conversion to the euro. Kieler (2003), however, notes that the long-lasting differences in trend inflation across EMU countries are likely to be smaller than indicated by most estimates of the Balassa-Samuelson model. He shows, nevertheless, that high-income countries could experience trend inflation of one-quarter to one-half percentage point below the euro area. With the existing downward nominal-wage rigidities, this objective

[18] In a newspaper article (*Le Monde* 23 January 2003), P. De Grauwe indicates that a maximum 2 per cent inflation target is too ambitious, and that there exists a widespread consensus between economists to consider that a 2 to 3 per cent target would be better. Truman (2002) also recommends a higher inflation target of 2.5 per cent, plus or minus 1 per cent, to allow for adjustment problems.

can reduce further the flexibility of real wages, and lead to an increase in unemployment rates. Watt and Janssen (2003) argue that a higher inflation objective could facilitate the adjustments in regional relative prices while avoiding the wage-rigidity issue. The ECB (2003), however, note that accommodating these nominal rigidities with a higher inflation rate can be detrimental, because it could further entrench this undesirable structural feature. Moreover, this unilaterally chosen quantitative definition does not respect the democracy principle, according to which, in a democratic society, the preferences of policy-makers should be in harmony with those of society (Eijffinger and Hoeberichts 2002). Involving elected representatives in formulating the quantitative definition of the price stability objective is an interesting way to give monetary policy broad public support and understanding, which can eventually make the task of the central bank easier, resulting in a higher degree of macroeconomic stabilization.

The form of price stability's quantitative definition is the subject of vigorous debate. Jacquet and Pisani-Ferry (2000), Svensson (2002b), and Kieler (2003), among others, argue that this objective is ambiguous and asymmetric. The form of the inflation objective is a key issue, since an asymmetric objective is frequently considered damaging for the economy (Dodge 2002a; Svensson 2002b; Gramlich 2003). In the face of an economic slowdown, with low inflation and well-anchored inflation expectations, a monetary authority can reduce its policy rate without endangering its credibility, owing to the symmetry of the inflation objective: the rate reduction will be correctly interpreted by markets (Mishkin and Posen 1997; Freedman 2001).

In the case of an asymmetric target, the central bank manages without a certain margin of flexibility to react to economic conditions: "an asymmetric inflation regime restricts a central bank's ability to take stimulus measures when growth flags" (P. Lamy and J. Pisani-Ferry, quoted by Reuters, 8 March 2002). Kieler (2003) concludes that, although the ECB's definition of price stability may be symmetric in a formal sense, there is still a "degree of ambiguity and asymmetry in practice." The ECB gives the following reasons for not adopting a more precise definition: first, there is no agreement on the optimal rate of inflation (Issing et al. 2003); second, there are still inflation-measurement problems, notably with a price index as new as the one for the euro area. Despite the recent clarification of the ECB's quantitative definition of price stability (Issing 2003), there is still no consensus regarding the form that this objective should take. Whereas Svensson (2003) concludes that the objective remains asymmetric, Fitoussi (2003) concludes that the clarification means that the upper bound of the previous definition (2 per cent) has become the point target, and that "a point target is an unambiguous and symmetric definition." Jacquet and Pisani-Ferry (2000), Svensson (2002b), and Kieler (2003) also conclude that this ambiguous definition of the price stability objective provides a less-clear guide for inflation expectations than would a point target for inflation, and that it is detrimental in terms of communication and transparency. While recognizing the theoretical advantages of referring to a specific rate of inflation to provide a more precise focal point for inflation expectations, the Governing Council of the ECB has avoided this option on the basis of evidence in various countries, concluding that "there is no unique or best way to firmly anchor inflation expectations" (Trichet 2003). The ECB's argument is sustained by the evidence: inflation expectations are well-anchored in the euro area

(Chart 1).[19] The recent clarification of the ECB's price stability objective has sometimes been considered detrimental in terms of transparency: "Instead of creating clarity, the ECB has managed to create confusion about its true intentions. . . . There is no less clarity about the objectives of the ECB than before the announcement of the new strategy" (De Grauwe, *Financial Times*, 13 May 2003). Watt and Janssen (2003) state that "The target of 'close to 2%' . . . is no clearer than that of 'below 2%.' Indeed, it may well create even more confusion." The debate regarding the form of the ECB's price stability objective is ongoing and is primarily related to its adverse impact on transparency.

Third, the ECB's definition of price stability is based on the HICP, which is an overall inflation measure. Such a measure, however, is sometimes considered detrimental because it is affected by temporary and/or sector-specific shocks, which are not expected to persist over time and therefore do not require a monetary reaction. The use of a core inflation measure allows a monetary authority to avoid "overactivism" and, eventually, excessive output volatility (Nessen and Soderstrom 2000).

Moreover, core inflation is a better leading indicator of future inflation than overall inflation (for the United States, Clark 2001; for Canada, Macklem 2001; for the euro area, Vega and Wynne 2001[20]), which is desirable in the context of forward-looking monetary policy. The ECB has chosen not to adopt a core inflation measure because of the lack of agreement on the measure to be used: different measures of underlying inflation often provide very different figures (Camba-Mendez 2003). The ECB, however, uses several measures of underlying inflation as indicator variables in its regular assessment of price developments because those measures may help to identify longer-trend price dynamics. Despite the difficulties associated with the measure of inflation, particularly in such a new environment as the euro, the formal adoption of a measure of core inflation could enhance transparency.

The ECB is sometimes criticized for its lack of participation in the pursuit of other policies' objectives, as stipulated in the Treaty establishing the European Community, Article 105(1): "Without prejudice to the objective of price stability, it (the ESCB) shall support the goal of economic policies in the Community with a view to contributing to the achievement of the objectives of the Community as laid down in Article 2 of the Treaty." According to Fitoussi (2003) and Watt and Janssen (2003), the recent internal review of the ECB's strategy has not clarified its intentions regarding this aspect of its strategy.

[19] Castellnuovo, Nicoletti-Altimari, and Rodriguez Balenzuela (2003) show that the low volatility of long-term inflation expectations in the euro area is comparable with that of the best-performing countries. Kieler (2003) makes a similar conclusion: inflation expectations have been at least as stable and well-anchored in the euro area as in other countries, including ones with point inflation targets.

[20] Vega and Wynne (2001) are very careful in their conclusions because of the data-availability issue in the euro area. They believe, however, that there is evidence to suggest that a core inflation measure could be used in the euro area.

The current fiscal situation in the euro area illustrates the limits of the existing institutional coordination devices, which are unable to operate correctly[21] and are poorly designed, at least to address the short-run fiscal policy conflicts (von Hagen and Mundschenk 2002). Moreover, the SGP, far from being unanimously accepted, is sometimes viewed as inefficient and even damaging, because it could hinder costly but necessary structural reforms (Eichengreen and Wyplosz 1998; Creel, Latreille, and Le Cacheux 2002).

It is widely agreed that fiscal balance is an essential preliminary step before governments can let automatic stabilizers play their role again without breaking the upper limit of the deficit. But the way to reach fiscal balance is controversial: it requires either stronger constraints on governments (Uhlig 2002) or a lengthening in the governments' time horizons. The first solution seems undesirable in the current context, where fiscal policy is the only instrument that national governments can use to react to asymmetric shocks. Thus, it would be better to convince governments of the importance of fiscal balance, but this is possible only if each government is sure that other governments will also aim at fiscal balance (prisoner's dilemma). This requires time (repetitive game), which means that an immediate solution seems impossible, particularly in the current context. The European situation seems, then, to be in a deadlock.

Another drawback of the European fiscal rules is the criteria they are based on (effective fiscal deficits). Canzoneri, Cumby, and Diba (2002), Creel, Latreille, and Le Cacheux (2002), and von Hagen and Brückner (2002), among others, highlight the fact that a fiscal deficit is not a good criterion by which to assess the fiscal policy stance, because it is determined by both discretionary fiscal decisions and fiscal automatic stabilizers: assessing fiscal efforts from a fiscal deficit is thus impossible. Moreover, with such a deficit criterion, the SGP is asymmetric: it requires fiscal restrictions during economic slowdowns, while it does not prompt governments to improve their public finances during economic expansions, which would help them face slowdowns without endangering their fiscal balance. Adopting "cyclically adjusted" fiscal indicators would consequently be an appealing way to restore fiscal balance without inducing too strong a constraint on governments during economic recessions.

As Canzoneri, Cumby, and Diba (2002) show, the debt-reduction criterion should also play a more important role in assessing fiscal situations in European countries, particularly because of the aging population that these countries will have to deal with in the following decades. Begg et al. (2002) argue that the fiscal framework should combine short-term flexibility with a clear commitment to fiscal responsibility in the medium term, making the case for a closer focus on the debt-reduction issue.

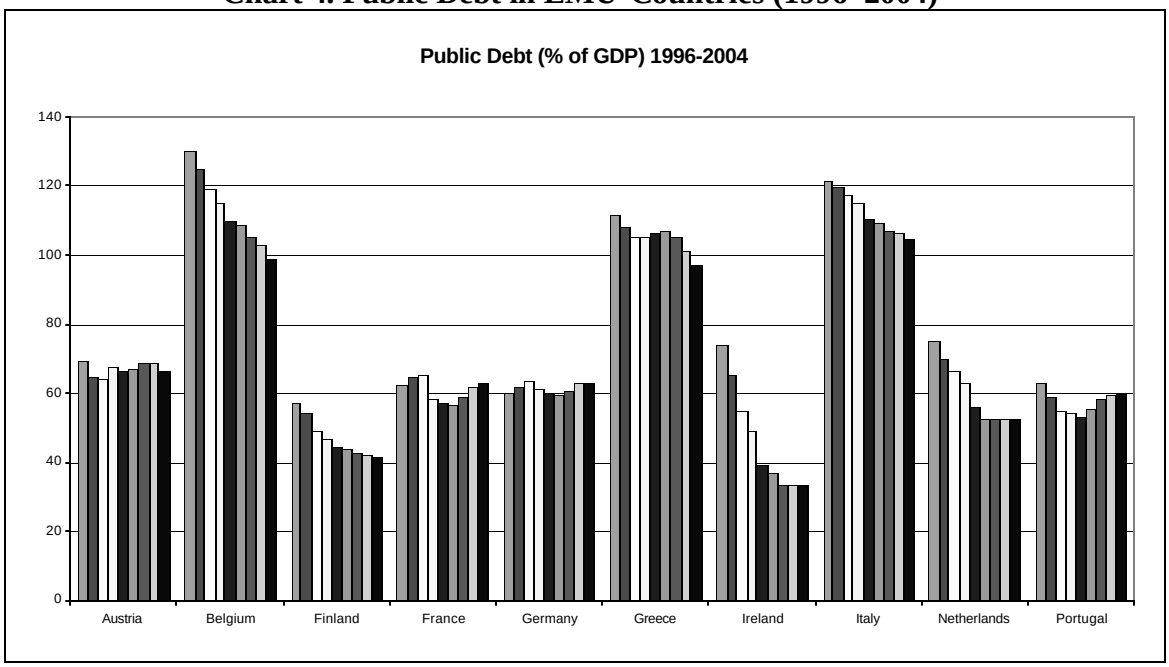
The debt criterion has played a relatively minor role in the European fiscal framework, both during the convergence period—for obvious political reasons[22]—and following the

[21] Existing institutional coordination devices are inefficient, mainly because European countries experiment with various economic conditions, which logically lead them to uncoordinated fiscal reactions (Debrun and Wyplosz 1999; Hodson and Maher 2001).

[22] Belgium and Italy, two of the main precursors in the construction of the European Union, were well above the 60 per cent limit in 1996. It would have been impossible, however, to exclude them from the EMU, because of the non-respect of the public debt criterion.

adoption of the common currency. For the euro area as a whole, the debt-to-GDP ratio has declined from 76.1 per cent in 1995 to 69 per cent in 2002. However, the efforts made by member countries to reduce their public debt have been heterogeneous (Chart 4). In particular, France and Germany seem to have "forgotten" the debt-reduction objective during the 1999 economic expansion: fiscal surpluses made during this period were used to finance tax cuts and new spending programs, rather than to reduce debt, resulting in an increase in debt following the 2000–01 slowdown.

Chart 4. Public Debt in EMU Countries (1996–2004)



Note: Figures for 2003 and 2004 are based on economic forecasts by the European Commission, in spring 2003.
Source: OECD and European Commission

The continual dispute over euro-area fiscal rules illustrates the lack of political agreement among European countries regarding the desirability of those rules. The debate about a possible reform of the SGP—to combine short-term flexibility in the face of economic slowdowns to medium-term fiscal soundness—is ongoing and should continue in the near future.[23]

Fitoussi's (2003) description of the relationships between the different economic actors in the euro area shows that the current macroeconomic framework is far from receiving broad support and does not provide the desired degree of flexibility.

3. The Canadian Framework

Canada's good economic performance during the recent world economic slowdown has been viewed as an exception: "the Canadian economy has remained remarkably resilient in the face of the global slowdown" (IMF 2002). Moreover, Canada has been little

[23] See Pedro Solbes' interview in *WirtschaftsWoche*, "Es geht um Glaubwurdigkeit," 5 February 2004.

affected by the recent negative shocks (the Asian crisis, the bursting of the high-tech bubble, terrorist attacks). A "good luck factor" seems an unrealistic, or at least incomplete, explanation for this situation, since Canada is a small open economy, which exports mainly to the United States, and has not been deeply affected by the recent American economic slowdown. This situation prompts an examination of the reasons for the Canadian economy's resilience. Several factors[24] may have played a role, but the focus in this paper is on the changes in the conduct of monetary and fiscal policy in Canada over the past decade, since they are largely viewed as one key factor in Canada's good performance (OECD 2001, IMF 2002).

During the 1990s, major changes occurred in the conduct of monetary and fiscal policy in Canada. These major changes in monetary and fiscal policy are explained in sections 3.1 and 3.2, respectively; section 3.3 explains how these changes have created a favourable dynamic interaction between monetary and fiscal authorities, leading to a good degree of macroeconomic stabilization and credibility.

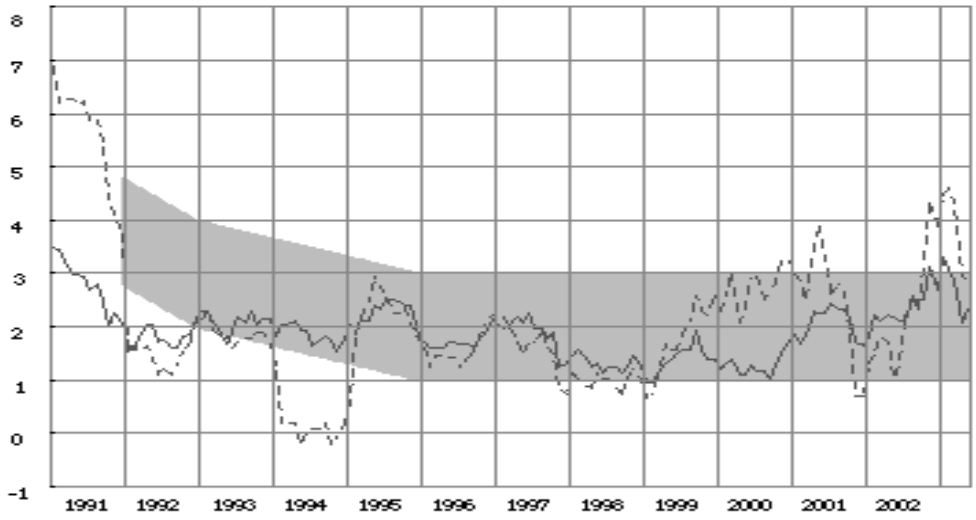
3.1 The Canadian inflation-targeting experience

After a decade of following a monetary policy that aimed at low inflation but lacked any explicit anchor or any specific path for this objective (1982–91), the Bank of Canada suffered from a lack of credibility despite a relatively good inflation performance since the middle of the 1980s. To confirm its commitment to low and stable inflation, in February 1991 the Bank and the Government of Canada agreed to adopt targets for inflation reduction. For policy-makers, these targets had both short- and long-term goals. In the short run, they were intended to stop the wage-price spiral and to put short-term inflation expectations on a more moderate path. In the longer term, they aimed to make the commitment towards price stability more concrete and more credible.[25]

These targets originally aimed for a reduction in the annual inflation rate to 3 per cent by the end of 1992, 2.5 per cent by mid-1994, and 2 per cent by the end of 1995. Cyclical weakness and significant restructuring in the Canadian economy at the beginning of the 1990s decreased wages and prices, reducing inflation to 2.1 per cent at the end of 1992, faster than envisaged by the agreement. The inflation target was next confirmed in December 1993 as 2 per cent annual inflation, plus or minus 1 per cent. This target was renewed in 1998 and 2001 (for five years). The success of the inflation targets is illustrated in Chart 5.

[24] For example, the industries related to technology are less important in Canada than in the United States, and the markets are relatively more flexible than in Europe.
[25] See Freedman (2001) and Jenkins and O'Reilly (2001) for a complete assessment of the first inflation-targeting decade in Canada.

Chart 5. Consumer Price Index and the Inflation-Target Range
(year-over-year percentage change)



------ Total CPI
—— Core CPI (CPI excluding the eight most volatile components and the effect of changes in indirect taxes on the remaining components)
Inflation-target range
Source: Bank of Canada

Although inflation targets have been rapidly attained, they were at first subject to skepticism and it has taken time for them to gain credibility (Chart 6). At first, inflation expectations were above the target band. Achievement of the announced targets, combined with the renewed common commitment to inflation targets by the government and the Bank over time, have progressively increased market confidence and led markets to revise their inflation expectations downwards. Short-run credibility has been obtained quite quickly. Longer-term credibility has required more time: 6- to 10-year and 30-year expectations hit the target in 1996 and 1997, respectively. Nevertheless, it is difficult to show formally whether this long-run credibility is explained by the inflation-targeting regime (Perrier and Amano 2000; St-Amant and Tessier 2000), although the improvement in Canada's fiscal situation from the middle of the 1990s has made it less difficult (see section 3.2).

Chart 6. Inflation Expectations in Canada

Source: Bank of Canada

The first decade of inflation targeting in Canada has been globally positive. The attainment of announced targets has undoubtedly improved market and public confidence in the Bank's commitment to low and stable inflation. Moreover, this strategy benefits from a good degree of understanding and broad support, which make its implementation easier and gives the Bank room to react to economic conditions without endangering its long-run objective (Perrier and Amano 2000; Paulin 2000; Freedman 2001; OECD 2001; Dodge 2002c). The increased predictability of the policy decisions (Parent 2002; Parent, Munro, and Parker 2003) illustrates the Bank's transparency, in that the markets are able to anticipate the Bank's policy decisions.

3.2 Fiscal policy in Canada

After two decades of fiscal laxity, Canada at the beginning of the 1990s faced chronic fiscal deficits and growing debt ratios. The continuous rise in public debt increased risk premiums on Canadian bonds, pushing up interest rates (Fillion 1996) and increasing the cost of servicing the debt. This created a "snowball effect," or debt spiral, in which the increasing debt interest payments exacerbated fiscal deficits and, consequently, raised debt further. Long-run debt sustainability became an issue. Moreover, private saving was not sufficient to finance both private productive investments and chronic fiscal deficits. This can create, first, a crowding-out effect, whereby higher interest rates decrease private investments, with a potentially important negative impact on future growth (as in endogenous-growth theories), and, second, an increase in foreign debt, which may weaken domestic currency.

At the beginning of the 1990s, the importance of restoring sound public finances became increasingly clear in Canada at both the federal and provincial levels. The downgrading

of the Canadian government debt by Moody's (in 1994 for the debt issued in foreign currency, and in 1995 for the debt issued in Canadian dollars) and Standard and Poor's (in 1993 for the debt issued in foreign currency) put increasing pressure on the government to improve its fiscal stance in order to lower its financing costs. Since the previous attempts to reduce Canada's debt ratios during the second part of the 1980s were unsuccessful, Canadian fiscal policy was entirely "rethought" (Martin 1995), at both the federal and provincial levels. Because the best contribution a monetary authority can make to economic growth is to maintain low and stable inflation, restoring fiscal balance and lowering public debt is not an end in itself for Canadian fiscal authorities, but the way to achieve the ultimate objective of economic growth (Martin 1995; Thiessen 1996).

During the 1990s, several fiscal measures were undertaken at the federal level[26] to restore a sound fiscal balance. The federal government first successfully adopted the Federal Spending Control Act (1991), which set limits on spending programs from 1991–92 to 1995–96.[27]

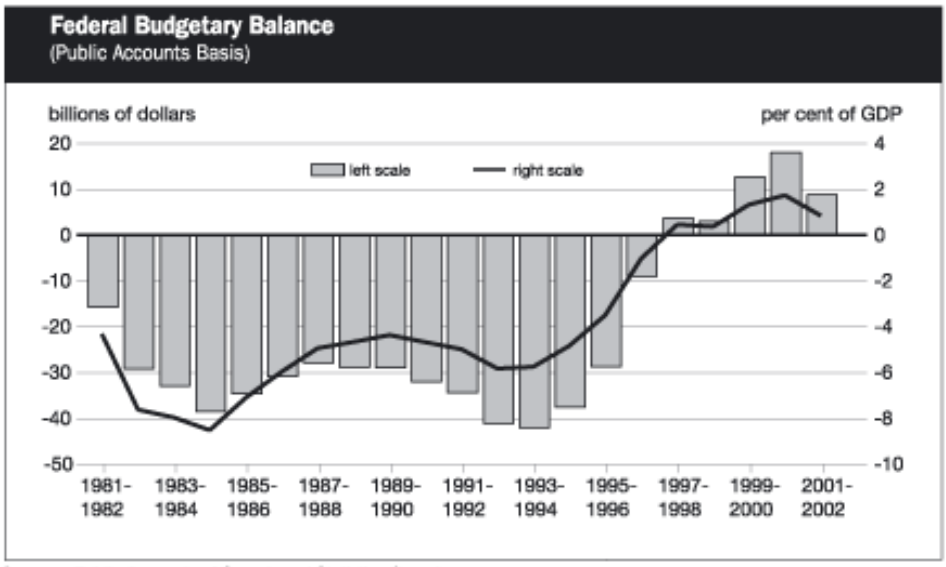
In 1995, the fiscal authority adopted a new framework based on two principles to meet the medium-term fiscal balance and to continually decrease debt ratios. First, fiscal programs were based on explicit prudent forecasts of economic growth, to help the government avoid fiscal decisions that would be too sensitive to predictions on future growth.

Second, the government adopted short-term (two-year) rolling deficit targets, with medium-term fiscal balance as the final objective. A short-term time horizon was chosen for these quantitative fiscal targets, to reinforce their binding effect and to enable the immediate implementation of rigorous action. The advantage of such short-term well-specified deficit targets over medium-term targets is that governments are not tempted to postpone restrictive fiscal actions, as may have occurred recently in some European countries. The short-term strategy was successful: federal net lending was reduced from a 5 per cent deficit in 1994–95 to a 1.7 per cent surplus in 2001–02, while the net debt ratio decreased from 65 per cent to 52 per cent over the same period (Charts 7 and 8).

[26] The analysis in this paper focuses on the federal fiscal authority. At the provincial level, fiscal authorities made the choice of more or less restrictive legislated fiscal rules. For more details, see Millar (1997) and Kennedy and Robbins (2001). Generally, provincial fiscal performances have been considerably improved, showing fiscal surpluses during the past three years after more than 30 years of deficits, but current performances are heterogeneous.

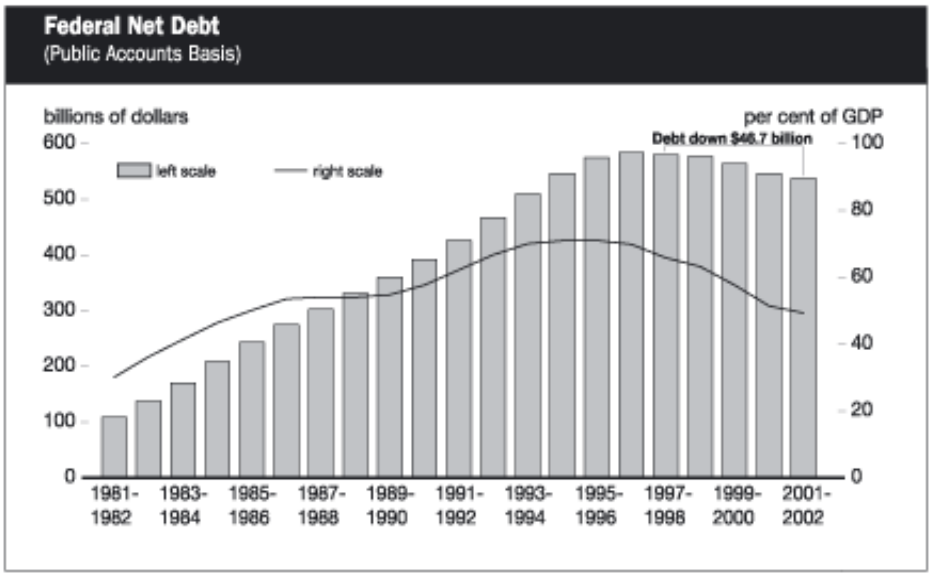
[27] Aggregated spending from 1991–92 to 1995–96 was lower than the limits set in the Act, by a total of Can$23.4 billion.

Chart 7. Federal Fiscal Balance



Sources: *Public Accounts of Canada* and Statistics Canada.

Chart 8. Federal Net Public Debt



Sources: *Public Accounts of Canada* and Statistics Canada.

In 2002, Canada was the only G-7 country with a fiscal surplus, and fiscal forecasts for the following two years were positive (1.1 per cent of GDP surplus for 2003 and 1 per cent for 2004, OECD projections). The framework adopted by the federal government during the recent period of deficit reduction has proven adequate and the commitment to balanced budgets has been successful in disciplining policies on a year-to-year basis and achieving a significant decrease in the public debt (IMF 2002).

The government has decreased the public debt by following a policy in which planned fiscal surpluses can be split between debt reduction, new spending programs, and tax cuts, but in which ex post (realized) surpluses go to debt reduction exclusively.

The federal government has continually reinforced its commitment to fiscal consolidation. In 1998, it introduced the Debt Repayment Plan in the federal budget, which aims to keep the federal debt-to-GDP ratio on a "clear, downward profile." To enhance the transparency of the budget process, prudent economic planning assumptions have been replaced by an annual contingency reserve ($3 billion), and economic assumptions—growth and interest rate forecasts—used for fiscal projections reflect the consensus in the private sector. Because the contingency reserve goes automatically to debt reduction—if everything goes as planned—it increases the commitment to long-run fiscal sustainability. This commitment is all the more important because, as in other industrialized countries, the main challenge the Canadian fiscal authorities will have to face over the coming decades is the aging population and its related costs in terms of social and health care expenditures. King and Jackson (2000) show that the Canadian debt problem has to be solved over the next ten years for the authorities to be able to deal with the aging population.

Despite their overall positive conclusion regarding the Canadian fiscal framework, both the OECD and the IMF consider that Canada's objective of reducing the public debt is not specified clearly enough:

> A more explicit long-term fiscal anchor could be helpful in supporting the current prudent framework for fiscal policy making. (OECD 2001)
> A clearer commitment to the amount of debt reduction being sought over the next decade could provide a useful supplement to the existing framework. (IMF 2002)

The debate over the debt-reduction objective—regarding the target value for the public debt and the target date for reaching that value—and the best strategy by which to attain that objective is beyond the scope of this paper.[28] Note, however, that the federal government has recently restored and more precisely defined its commitment to pay down its debt: "To be in a better position to deal with pressures related to an aging population, the Government has set a new objective of reducing the federal debt-to-GDP ratio to 25 per cent within 10 years" (2004 Federal Budget).

3.3 The Canadian framework's key principles

Key to the success of the Canadian macroeconomic framework is its transparency and its broad public support. The main principles of this framework are described in this section.

Monetary and fiscal authorities share the same ultimate objective: the promotion of strong economic growth. A well-functioning economy is essential for a democratic

[28] See Hostland and Matier (2001), Scarth (2002), and Georges (2003) for further details regarding this debate.

society (Dodge 2002b). Moreover, both authorities recognize that the best approach they can take is to adopt clear objectives (low and stable inflation, fiscal balance, and debt reduction). These objectives are interconnected (Dodge 2002c): producing a low and stable inflation is the first contribution of monetary authorities to fiscal balance and debt reduction, because it removes the inflation premium included in interest rates, while reaching fiscal balance and reducing public debt is the first contribution of fiscal authorities to monetary policy, because it removes the risk of uncontrollable prices and it can reduce the cost of disinflation (Baar 2002).

To help ensure the "virtuous mutual impact" of their respective objectives, Canadian monetary and fiscal authorities have adopted four principles that provide a good degree of macroeconomic stabilization.

First, the symmetric form of the inflation target gives the Bank increased flexibility. In the event of an economic slowdown, with low inflation and well-anchored inflation expectations, the Bank can reduce its policy rate without endangering its commitment towards long-run price stability, because the rate reduction will be correctly interpreted by markets (Mishkin and Posen 1997; Freedman 2001). Such an interest rate reduction has two main advantages: it creates better conditions for economic recovery, without requiring fiscal action, and it decreases the need to service the public debt, thereby improving the fiscal position.[29] The Bank's increased flexibility allows fiscal authorities to stay "neutral," in that they let automatic stabilizers play their role and do not implement discretionary countercyclical fiscal actions. Moreover, the explicit symmetry of the target enhances transparency: there is no debate regarding the form of the Bank's inflation target because the Bank has clearly stated that "At the Bank of Canada, we explicitly run monetary policy in a symmetric way around our 2 per cent target" (Dodge 2003a).

The joint announcement of the inflation target by the Bank of Canada and the federal government has two potential benefits. It leads the government to take the inflationary implications of its fiscal decisions into account, thereby helping them to avoid becoming overexpansionary, and it is in conformity with the democracy principle (Eijffinger and Hoeberichts 2002), according to which the quantitative inflation target should reflect the expectations of economic agents regarding price stability, and be set by democratically elected agents. This ensures a greater consensus on the way monetary policy is conducted, which in turn should improve its performance and the public support it receives.

Third, core inflation[30] plays an important role in monetary policy. Since an important part of short-run movements in global measures of inflation is caused by temporary fluctuations in some volatile prices, reacting to total inflation can lead the monetary authority to overreact to price developments. These overreactions can create volatility in

[29] This is conditional on long-term interest rates also decreasing following this monetary action, which is conditional on the interest rate reduction being considered sufficiently long-lasting to influence long-run rates.

[30] The Bank uses a core measure of CPI inflation that excludes the eight most volatile components of the CPI and adjusts the remaining components to remove the effect of changes in indirect taxes (Macklem 2001).

the economy. Choosing a core measure of inflation, then, helps to minimize interest rate volatility and its negative impact on the economy.

Fourth, the short-term targets for deficit reduction, associated with the principle of prudent economic assumptions in forecasting, have been an immediately binding mechanism for fiscal authorities and have produced the desired fiscal balance. Moreover, the continual improvement of the fiscal framework—continual reinforcement of the commitment to fiscal sustainability—has enabled the government to reduce its debt over time, which has also been positive for the monetary authority: inflation targets have gained long-term credibility from 1996–97, the time at which fiscal balance was reached and debt began to decrease (Charts 5, 6, and 8).

The Canadian macroeconomic framework, then, enables the monetary authority to be flexible to economic conditions without endangering the low and stable inflation objective and its credibility, and it allows the fiscal authority to avoid activist discretionary policies, which are harmful to long-run fiscal sustainability.[31] Macroeconomic stabilization is, consequently, improved. As a result of these principles, the Canadian economic authorities avoid the ex-post coordination pitfall. Dodge (2002a) states that coordination is required in any one of the following cases: (i) the monetary and fiscal authorities have different conceptions of economic welfare, (ii) each authority tries to maximize its own gains at the expense of the other (game-like behaviour), (iii) monetary and fiscal objectives are not compatible, and (iv) one of the two policies is purely discretionary. In Canada, monetary and fiscal authorities share the same objective and the joint agreement on inflation targets is considered a key principle for coordination (Dodge 2002c). Both authorities have adopted compatible targets and realize the importance of their respective commitments to benefit from a virtuous credibility circle: credibility in both monetary and fiscal policies contributes to a decrease in interest rates, via the impact of those policies on inflation, the inflation premium, and the risk premium. These dynamic credibility interactions between monetary and fiscal authorities contribute to productive investments and economic growth.

The Canadian macroeconomic framework can be considered "objective-rule based," because both monetary and fiscal policies are based on objective rules (inflation control and fiscal sustainability, respectively). The adoption of the aforementioned principles has led to a transparent, consistent, and well-understood framework, resulting in credibility gains and better macroeconomic stabilization. Because this framework eliminates potential sources of disagreement between economic authorities, there is no need for coordination on the setting of interest rates and fiscal policy instruments. Such an "upstream" organization of economic policies seems to be extremely favourable for a stable macroeconomic environment.

[31] Moreover, it is easier to adjust monetary policy than fiscal policy, since fiscal programs are voted on annually, while monetary policy is set annually during eight fixed announcement dates.

4. Principles of the Canadian Framework That Could Be of Interest to EMU

Increasing tensions between some European countries, the European Commission, and the ECB illustrate the lack of agreement on the current European macroeconomic framework. Fitoussi (2003) states that "There is a mounting discontent in Europe about the conduct of macroeconomic policy in the euro area and especially its policy mix." Many modifications to the existing framework have been proposed, on both the monetary and fiscal sides.[32] The focus in this paper is on principles that could be slightly modified in the current framework, and not on radical changes. Drastic changes are not feasible because the European framework is based on treaty provisions. Moreover, experience in the current framework is too limited for any substantial change to be required (Jacquet and Pisani-Ferry 2000); political drawbacks would follow.[33]

The fact that some principles of the European framework have been criticized does not mean that the Canadian framework should be implemented in the European case, since there exist other successful frameworks, such as in the United Kingdom and New Zealand. In addition, the Canadian framework is not perfect and could benefit from some principles of the European framework, notably regarding the better-defined mandates of policies.

From a monetary perspective, the Canadian experience is interesting at three levels. First, adopting a symmetric definition of the price stability objective could be useful, since a recent evaluation and clarification by the ECB has resulted in divergent interpretations of the new definition (Svensson 2003; Fitoussi 2003). As explained earlier, such a symmetry helps enhance transparency, while the argument in terms of inflation expectations is not relevant, since inflation expectations are already well-anchored in the euro area. In addition, such symmetry corresponds well with the objectives for output and employment (Dodge 2002b), which would be useful in the euro area, since the recent internal review of the ECB's strategy is disappointing in that regard: "The other omission concerns the ways the ECB would participate in the pursuit of other objectives of economic policy" (Fitoussi 2003). Watt and Janssen (2003) state that "No attempt was made in the policy review to specify what is meant by the subsidiary objective of the ECB as required by the Treaty."

Second, the involvement of the government in the choice of the inflation target has been successful in Canada. Involving European elected representatives in the quantitative definition of the price stability objective could stop the current criticism made by some governments about the "delayed and weak responses [of the ECB] to shocks" (Fitoussi 2003), and it could improve the coordination between monetary and fiscal policies. Dixit

[32] For changes on the fiscal side, see Coeure and Pisani-Ferry (2003); they survey existing propositions to modify/amend the SGP. For the monetary side, see Svensson (1999b, 2003).

[33] Radical changes in the European macroeconomic framework could be dangerous in terms of credibility: since acquiring credibility requires time, abandoning the existing framework for something absolutely new would be equivalent to going back to square one in terms of credibility. Moreover, as Buti, Eijffinger, and Franco (2003) stress, rewriting the rules from scratch can be dangerous, since it would create a vacuum in which current rules are suspended and no new rules adopted, because of a lack of political consensus about the new rules to set (the authors consider the case of fiscal rules but their paper is also valid in terms of monetary policy strategy).

and Lambertini (2003) show that there is a mutually beneficial interaction between these policies when their authorities agree on the most desirable level of inflation.[34] Of course, involving elected representatives in the choice of the price stability definition would give rise to vigorous discussions[35] regarding the value of the definition, as well as the form this involvement should take.[36] This involvement could also improve the ECB's accountability, which remains an issue because of the current lack of political integration in Europe.[37]

Third, the Canadian case has shown the benefits of formally adopting a core inflation measure, notably in terms of higher flexibility. As explained earlier, the ECB already takes into account several measures of underlying inflation, as indicators, in its regular assessments of price developments. It could be beneficial to formalize the role played by these inflation measures in the policy-making process to increase the flexibility and the transparency of the ECB and, eventually, the support it benefits from.

The Canadian fiscal framework could also be of interest to some European countries dealing with a deficit issue. As Buti, Eijffinger, and Franco (2003) show, the SGP is rather well-designed against the criteria for an ideal fiscal rule developed by Kopits and Symansky (1998) (Table 2). However, it does have some weaknesses.

Table 2. European Fiscal Rules against Ideal Rules

Ideal fiscal rule	EU fiscal rules
Well-defined	++
Transparent	++
Simple	+++
Flexible	++
Adequate relative to final goal	++
Enforceable	+
Consistent	++
Underpinned by structural reforms	+

Legend: +++ very good, ++ good, + fair
Source: Buti, Eijffinger, and Franco (2003)

The SGP sets medium-term fiscal objectives, which have recently been revealed to be inefficient at maintaining fiscal deficits under the upper limit, and inefficient at decreasing the public debt. Conversely, short-term fiscal deficit targets associated with prudent economic forecasts are an immediately binding mechanism with which the

[34] In Dixit and Lambertini's model, monetary and fiscal authorities also agree on the most desirable level of output in individual countries.
[35] The Treaty establishing the European Union refrained from specifying the quantitative definition of the price-stability objective or from delegating the authority to do so to any particular body (Kieler 2003). There is therefore no legislated constraint concerning any change in the operational definition of price stability.
[36] Should it be only a consultation, where elected representatives would give their view, or a more formal procedure, with a vote concerning the definition to be adopted? Which elected representatives should be involved? The Committee for Economic and Monetary Affairs (ECOFIN) of the European Parliament would be an interesting candidate.
[37] The ECB could be accountable to the ECOFIN, if the latter is involved in the choice of the quantitative definition.

Canadian fiscal authorities can attain fiscal balance, and the adoption of a contingency reserve has been a key element for the debt-reduction objective. It could therefore be advantageous to reinforce the short-term binding principles of the European fiscal framework to make them more constraining and credible.[38] For instance, an independent institution could be put in charge of the economic forecasts of all the member countries to ensure more homogeneous forecasts, which could lead to more consistent and less-controversial Stability and Convergence Programs.

Existing literature and experiences, however, show that strong government support is a key requirement for the success of this fiscal rule (Drummond 2002). Consequently, the success of the European fiscal framework is linked to the support the national governments give to it.

5. Conclusion

Having the same objectives but different strategies, monetary and fiscal authorities in Canada and in Europe's EMU have obtained a slightly different macroeconomic performance and, importantly, different degrees of public support. There could be a number of reasons for these differences, notably structural reforms. However, a well-accepted framework for fiscal and monetary policies could ease the implementation of structural reforms; it is therefore important to identify the key principles of such a framework.

In keeping with the consensus reached among OECD countries in the 1980s regarding the four key principles of sustained economic growth, Canada's economic authorities have implemented major changes in terms of monetary policy, fiscal policy, trade liberalization, and structural reforms. Regarding monetary and fiscal policies, the Bank of Canada has adopted an inflation-targeting regime and the federal government has made a commitment to attain fiscal balance and decrease the public debt. These principles have led to gains in credibility and macroeconomic stabilization. In the 1990s, European countries were on the path to EMU; they used new paradigms in monetary and fiscal policies to design their macroeconomic strategies, choosing a strong institutionalized framework. However, there are vigorous debates inside the euro area regarding some of the principles of this framework.

The adoption of some Canadian principles has been suggested for the existing European framework, because the principles promote a good degree of credibility, public understanding, and macroeconomic stabilization. The Canadian framework, however, is not a "miracle cure," in that other countries with different frameworks (e.g., the United Kingdom and Sweden) also have good economic performance and broad public support. Moreover, Canada is a single country, whereas EMU pertains to one common monetary

[38] The provision of prudent macroeconomic forecasts is indeed a key instruction given by both the Commission and the Council to member countries. However, the discrepancies between the fiscal projections set in the stability programs and the fiscal performance of some European countries reflect, at least in part, the excessive optimism in the governments' economic forecasts, against which no binding mechanism exists.

policy among 12 independent but constrained countries, each with their own fiscal policies. The debate is ongoing.

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