1st February 1989

Macro-co-ordination of fiscal policies in an economic and monetary union in Europe

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I. Introduction

This note attempts to provide a basis for the discussion of the degree of macro-fiscal co-ordination that might be needed after the establishment of economic and monetary union (EMU) in Europe and during the period of transition towards it.

The note examines several arguments that have been put forward in support of fiscal co-ordination. The assessment of these arguments is based partly on theoretical considerations and partly on lessons drawn from the experience of federal states. The note is complemented by two appendices. The first contains a brief review of fiscal arrangements and co-ordination in federal states, compares the fiscal structure of these states with the current and prospective situation in the EEC and assesses the relevance of their experience for the Community. The second appendix discusses in more detail the question whether market forces can be expected to exert disciplinary effects on fiscal policy and thereby lessen, at least in part, the need for explicit fiscal policy co-ordination.

II. Why co-ordination?

Basically three partly overlapping arguments have been put forward in support of fiscal co-ordination in a European EMU, while a fourth one focuses on the difficulties during the transition period:

- the need for an appropriate fiscal policy for the union as a whole;
- the need to avoid disproportionate use of Community savings by one country;
- a possible bias towards fiscal laxity;
- the need for convergence in budgetary positions during the transition period.

Argument 1: An appropriate fiscal policy for the EMU

Description. An economic and monetary union transforms the Community into a single economy. Both for the purpose of internal macro-economic objectives and in order to be able to participate in the

process of international policy co-ordination, the Community will require a framework for determining a coherent mix of monetary and fiscal policy. The creation of a single currency area implies, by definition, the adoption of a single monetary policy for the Community as a whole. By contrast, if it is assumed that fiscal policy is not centralised, the Community's fiscal stance would merely be the result of the aggregation of unilaterally decided budgetary positions in individual member countries. Consequently, without an explicit co-ordination of fiscal policies, the Community would not be able to formulate a common fiscal policy stance and monetary policy would be the only instrument available for pursuing macro-economic objectives.

Assessment. The essential theoretical foundation of this argument is that policy co-ordination is beneficial to countries whose economies are closely intertwined. Strong linkages between real and financial markets across countries imply that the policies pursued by one country have significant repercussions on economic developments in others. If this interdependence is not taken into account in the policy setting, there is a danger that independent national policy decisions might lead to a less favourable outcome than could have been achieved by a co-operative approach.[1]

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1. The benefits deriving from co-ordination in the presence of interdependence are in general supported by the theoretical literature. This is what in game-theory terms is known as the "co-operative" solution, where every player (e.g. a country) can be better off relative to the "non-co-operative" solution where each one acts in isolation. For some examples see P.R. Krugman (1987) Economic Integration in Europe, Annex A to Efficiency, Stability and Equity (Padoa-Schioppa Report), EC, especially page A-19; or, with particular reference to the present EMS arrangements, P. De Grauwe (1985), Fiscal Policies in the EMS: A Strategic Analysis, International Economics Research Paper No. 53. These studies also make it clear that, while establishing the need for co-ordination is relatively simple, specific rules depend critically on detailed assumptions about national objectives, the workings of the economy and, implicitly, the ability to control budgetary variables. While the existence of benefits is beyond dispute, there has recently been some scepticism about their magnitude - see, e.g. G. Oudiz and J. Sachs (1984), macroeconomic Policy Coordination among the Industrial Economies, Brookings Papers in Economic Activity. Note also that the specific question of fiscal policy co-ordination in an EMU has not as yet been examined within this analytical framework.

A simple illustrative example of the desirability of a mutually decided policy stance in an EMU could run as follows. Even if domestic conditions in the Community called for a fiscal stimulus, each country (region) on its own might have little incentive to shift to a more expansionary fiscal policy (for instance through tax cuts). Each would fear that the policy change would lead to a deterioration in its budgetary position with little gain in output, since a large part of the induced income effect would be transferred via higher "imports" to other Community countries. If, by contrast, all countries decided jointly to lower taxes, the expansionary income effects would reinforce each other and stimulate economic activity without unduly adverse effects on budgetary positions. The desirability of such common decisions within the Community clearly increases as a single market and a single currency area greatly strengthen the linkages between individual member countries.[2]

The above example illustrates how the need for co-ordination in a European EMU would arise from a possible misalignment of national (i.e. regional) fiscal policies. There are in principle two types of solution. One would be to use the Community budget to correct any distortions in the aggregate fiscal stance resulting from independent national decisions; the other would be to intervene at the source, by limiting the scope of national discretion in determining budgetary positions.

The problem is clearly analogous to that faced by federal states where regional governments have sizable budgets.[3] With the exception of Australia, all the federal states examined here have opted for the first

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2. It is clearly also possible to construct examples with opposite biases, by pointing to crowding-out effects through increases in interest rates in other countries or to the possibility of higher inflation. The precise results will always depend on the specific assumptions made about the objectives of the authorities and the transmission mechanisms assumed. The general point, however, remains valid: greater interdependence in principle raises the potential benefits of co-ordination.

3. The implicit recognition of the existence of a co-ordination problem among regional governments has been the basis for traditional arguments that in a federation the stabilisation function should be conferred on the federal government - see R.A. Musgrave and P.B. Musgrave (1973), Public Finance in Theory and Practice, McGraw-Hill.

solution. Their macro-fiscal management is conducted solely in the context of their sizable federal budgets, whereas budgetary policies of individual states are left entirely to the discretion of their governments. In fact there are no provisions for joint budgetary decisions. This type of solution seems to avoid unnecessary friction with regional authorities. It is, however, an arrangement which is out of the question for a prospective European EMU because its central budget is not expected to exceed 3% of GDP. This compares with federal expenditures that typically range from 9% to over 25%, or from some 7% to almost 20% of GDP, depending on whether transfers to regional governments are included or not. The size of the Community budget, therefore, is clearly too small to provide for an adequate "masse de manoeuvre" for an effective macro-fiscal policy. As a result, in an EMU an appropriate aggregate fiscal stance could not be determined without impinging on the autonomy of national budgetary positions, whether for purely domestic reasons or for the purpose of international policy co-ordination.

Argument 2: Undue appropriation of EMU savings by one country

Description. There is a danger that without co-ordinated fiscal policies individual member countries might run excessive national deficits and absorb a disproportionate proportion of Community savings. This would impose unwelcome costs on other countries.

Assessment. A similar argument has traditionally been made in support of capital restrictions designed to ensure that domestic savings are invested in the national economy. Obviously, in a Community with a single market where goods, services and capital can move freely, the "earmarking" of domestic savings for domestic use would not be a meaningful concept. With fully integrated financial markets any government borrowing would be financed voluntarily, though at a price determined in the market. Only if markets persistently underpriced their lending to governments, or if the fiscal authorities could tax other countries' citizens, directly or indirectly, could there be a danger of one country "unduly exploiting" the savings of the Community.

Since it can be ruled out that even upon completion of EMU individual governments will be able to tax residents outside their borders directly, an inappropriate (i.e. involuntary) use of private non-resident

savings could only occur if circumstances forced all, or at least some, citizens of other Community countries to bear some part of the required financing costs.

One way that this could happen would be if a particular government encountered refinancing difficulties. Since a certain part of claims on that government might result from earlier voluntary lending by residents of other Community countries, there could be strong political pressure throughout the Community to bail out the government in financial trouble. Such pressure might be difficult to resist, especially if the country facing refinancing problems was relatively large and if the EMU implied stronger solidarity ties. Through these bail-out arrangements, citizens of other member countries would effectively be taxed and their savings "exploited" by the national government concerned.

Another way would be if excessive borrowing by one country raised the interest rate level throughout the Community and crowded out investment in countries where the interest rate would otherwise have been lower.[4] Finally, an "exploitation" of savings might also occur if one country's borrowing either exerted pressure for a more accommodative monetary policy (resulting in a higher rate of inflation throughout the Community) or led to a depreciation of the Community's exchange rate vis-à-vis third currencies (entailing terms-of-trade losses for all Community residents).

The strength of these arguments largely depends on whether, without policy co-ordination and explicit constraints on national budgets, market forces could exert sufficiently strong disciplinary effects on national governments' fiscal behaviour. There is reason to be somewhat sceptical about the adequacy of sanctions imposed by the market mechanisms (see Appendix II). Rather than operating directly (through the higher borrowing cost to the government, partly associated with credit risk

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4. This argument implicitly assumes that markets do not work efficiently in this case in the sense that the private return on such financing flows exceeds the social return because of the displacement of potentially more useful investment spending, i.e. the market "underprices" such financing from the social viewpoint.

differentiation),[5] market forces tend to operate indirectly (through political pressures resulting from the perceived costs of the fiscal stance on the economy). Their effectiveness could be enhanced, however, by explicit no-bail-out provisions, which would encourage greater prudence on the part of both borrowers and lenders. The general absence of constraints on the budgetary policies of regional authorities in federal states suggests that there is little concern about an excessive use of savings by one region at the expense of the others.

Argument 3: Fiscal laxity bias in an EMU

Description. It is sometimes argued that in an EMU constraints on national budgets would be needed to avoid an excessively lax fiscal stance for the Community as a whole. A tendency towards fiscal expansion could lead to pressures on the monetary authorities to adopt a more accommodating monetary policy. If this pressure was not resisted, it would jeopardise control over the price level. If resisted, interest rates would rise, thereby crowding out investment and undermining longer-term growth prospects. In either case, monetary policy would be unduly compromised.

Assessment. This argument, which has never been spelled out in detail, appears to be essentially a variation of Argument 2. There would seem to be at least three theoretical reasons for increasing laxity in an economic and monetary union. The first has to do with the fact that the EMU would rule out changes in intra-union exchange rate parities. To the extent that the threat of a depreciation of the domestic currency as a result of excessive fiscal expansion had acted as a constraint under the EMS arrangements, its disappearance would encourage financial indiscipline. The second is that, as outlined above, expectations might arise that the union would tend to make assistance from other member governments more likely in the event of debt servicing problems. Counting on this assistance, a government might feel less constrained and markets might not properly

5. Evidence from Canada suggests that markets do differentiate between the various Provinces as regards credit risk.

signal the emergence of difficulties through appropriate risk premia.[6] A third reason might be that a move to EMU could entail additional demand for government spending. In the poorer regions in particular, claims could emerge for comparable levels of government services and, more generally, comparable living standards. Similarly, the possible negative output and employment effects associated with the more competitive environment in the EMU and the disappearance of exchange rate adjustments could give rise to demands for specific assistance over and above what is at present allowed for in the calculations of future Community transfers.

These fears of a bias towards fiscal laxity may, however, be exaggerated. A move to EMU might in fact increase the constraints on fiscal expansion precisely in the case of those national governments with a track record of excessively expansionary fiscal policies. For these are the governments that have tended to monetise their deficits and had recourse to direct controls on domestic and international financial transactions with a view to keeping financing costs artificially low (e.g. Italy, Spain, Greece and Portugal). They therefore stand to lose most from the creation of a union.[7] The abolition of restrictions on residents' purchases of foreign assets would reduce the demand for domestic securities. Similarly, with the liberalisation of financial services in the Community the battery of domestic controls which directly or indirectly increase the demand for government liabilities and/or reduce the rate of return on them would need to be largely dismantled.[8] The abolition of these restrictions, whose link to the deficit is sometimes only vaguely perceived, would be equivalent to

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6. A situation of this kind would seem to partly explain the difficulties in restraining regional government expenditure in Italy. As noted earlier, in Canada markets do differentiate among the various Provinces in terms of credit risk, suggesting that bailing-out is not perceived as automatic.

7. The implicit tax levied through controls on domestic financial holdings alone may be quite large. See, for example OECD Economic Survey, Spain, 1986.

8. Otherwise, quite apart from any legal obligations, the domestic financial industry, notably banks, would face serious cost disadvantages in the face of increased competitive pressures. Ibidem.

the elimination of a "hidden tax". By pointing to the true costs of the deficit more clearly, it would tend to encourage discipline.

In addition, the available evidence from federal systems does not suggest a bias towards fiscal indiscipline.[9] In all cases except one (Australia), there has been no apparent long-term problem of control of regional expenditures and deficits, which have not tended to grow relative to their federal counterparts. Moreover, beyond the provisions defining the areas of responsibility of federal and regional authorities in the expenditure and tax spheres, there are no federally imposed constraints on regional government borrowing. A key aspect of all the federal systems considered is the denial of access to central bank credit by both regional and federal governments in an attempt to subject them to the discipline of the market.

Argument 4: Convergence during the transition period to EMU

Description. A certain degree of convergence in the budgetary positions of member countries is a prerequisite for the achievement of a monetary union. Only if fiscal policies are better aligned among Community countries will it be possible to reduce the need for exchange rate realignments and gradually prepare the ground for an irrevocable fixing of exchange rates. The desirability of a financially disciplined and prudent fiscal stance calls for convergence towards the budgetary positions of the more fiscally conservative countries.

Assessment. The need for convergence (and hence, implicitly, for some form of fiscal co-ordination) depends on the degree to which divergent fiscal policies are thought to affect exchange rate relationships. Unfortunately, economic theory and empirical research do not provide unequivocal answers on either the size or, indeed, the direction of the pressure that fiscal shocks can exert on exchange rate parities. They merely suggest that factors such as the impact of fiscal policies on interest rates and on the current account are important, and that neither

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9. See, however, the last section of Appendix I for reservations regarding a simplistic interpretation of this finding.

of these can be determined without knowing whether the monetary authorities will monetise the deficit or not. Thus, for instance, expectations of monetisation of an increase in government borrowing can lead to a depreciation of the currency, whereas a non-accommodative monetary stance could cause an appreciation by increasing the interest rate differential in favour of domestic assets.

If economic theory emphasises that the precise effects of divergent fiscal policies can only be analysed with reference to actual circumstances, it also indicates that changes in fiscal policy will in general have important repercussions in asset markets. This view is confirmed by practical experience within the Community and, perhaps even more clearly, by the discussion of the role of fiscal policy in the context of G-7 efforts to achieve a greater degree of exchange rate stability among the main currencies. Thus, measures to co-ordinate fiscal policies within the Community and to enhance their compatibility with a view to exchange rate cohesion would facilitate the Community's approach to EMU.

However, the appropriate degree of fiscal policy convergence is not easy to define. As long as countries differ considerably in the structure and relative size of their budgetary expenditure and revenue, in their sectoral saving/investment propensities and in their central banks' ability to resist pressures for monetisation, there would be no economic justification for broadly uniform budgetary positions.

As far as the direction of convergence is concerned, the shift towards fiscal consolidation for domestic purposes in a number of countries suggests that convergence towards the position of the more fiscally conservative countries would be desirable.

III. Conclusions

The establishment of an EMU would result in a significantly greater degree of real and financial integration in the Community. That would heighten the risk that independently formulated fiscal policies would not add up to an appropriate fiscal stance for the Community as a whole. For the pursuit of both domestic macro-economic objectives and international co-operation efforts, it would therefore be important to have a framework for correcting such distortions, whether they arise from responses to short-term shocks or from a longer-term policy stance. In

contrast to fiscal arrangements in federal states, the Community would lack a central budget capable of correcting any such distortions. Instead, the individual Community countries would have to accept constraints on their budgetary autonomy. However, rather than pre-empting the form of such constraints or the pace at which they would need to be introduced, it would be better to let them be determined by the gradual process of economic and financial integration. This process can be relied upon to bring home to national governments the need for constraints without creating unnecessary friction.

The adoption of a number of institutional safeguards would reduce the need for upper limits on national budgetary positions, as suggested by the experience of federal states. Two such safeguards are a strong degree of independence of the central bank from governments and explicit no-bail-out provisions, which would limit the governments' ability to transfer the costs of excessive indebtedness to other member countries. At the same time, the effectiveness of these arrangements and the full implications of a move to an EMU are sufficiently uncertain to justify some form of upper constraint on precautionary grounds. This is especially true since the establishment of an EMU may generate demands on national budgets over and above what has been anticipated as a result of adjustment costs and of possible pressures to provide the same level of public services and living standards in all countries.

During a gradual transition towards EMU the persistence of divergent budgetary positions could be expected to create tensions in financial and real markets. This would call for greater convergence in budgetary positions. The required degree of convergence, however, is ultimately an empirical question, given countries' differing structural needs for government expenditure, taxing capacities and propensities to save and invest. It is also partly dependent on the credibility of the exchange rate commitment, which in turn rests on the extent to which monetary authorities are perceived as independent of national governments. It is, finally, a function of country size, which largely determines the degree of possible disruption caused to the Community as a whole.

Appendix I

The experience of federal states and the EEC

I. Introduction and summary of factual findings

When searching for some empirical evidence to assess the various arguments for co-ordination, it seems natural, for want of a better alternative, to turn to the experience of federal states. This might provide some, albeit crude, parallels with possible conditions within a European EMU. What follows considers five countries (the United States, Germany, Canada, Australia and Switzerland) before looking at the present situation in the Community and assessing the relevance of the comparison.

The key findings that emerge from the factual analysis are the following:

- federal states differ markedly with respect to the degree of autonomy enjoyed by sub-federal governments in the fiscal sphere, which is particularly great in Switzerland, Canada and the United States and much less so in Germany and Australia;
- federally imposed limits on the borrowing of regional governments exist only in Australia, though in both Germany and the United States there are state-imposed restrictions;
- in no country do either regional or federal authorities have access to central bank credit;
- except for Australia, no country has experienced serious problems with, or been much concerned about, long-run control over sub-federal budgetary positions;
- concern has at times been expressed, however, about an inappropriate overall fiscal policy stance arising from independent decisions taken at the regional level;
- the size of the federal budget has generally allowed these conflicts to be resolved with a minimum of interference in sub-federal budgetary policies.

From a structural viewpoint the main differences between the EEC and the federal states are the following:

- the much smaller size of the Community (central) budget;
- greater concentration of expenditures and, especially, borrowing needs in a few "regions";
- greater dispersion of net borrowing and indebtedness in relation to regional variables;
- much smaller inter-regional transfers.

II. Federal states

With respect to the degree of autonomy enjoyed at sub-federal government levels, the federal states in the sample exhibit strong variations. In Switzerland, Canada and the United States decisions are very decentralised. They are much less so in Germany and Australia.

1. Autonomy with respect to expenditure and revenue

The spheres of expenditure over which federal and sub-federal governments have control are normally specified to varying degrees in the Constitution, with at least defence and social security tending to be the responsibility of the federal government.[10] Beyond that, there are no statutory limits on the expenditure decisions of sub-federal government authorities (henceforth also referred to as "regional" governments).

A very rough indication of the degree of expenditure autonomy of regional governments can be derived from a look at the breakdown of total government spending (see Table 1). This indicates that the aggregate expenditure of regional authorities is always at least one-third of total consolidated government expenditure. In two countries, Canada and Switzerland, it actually exceeds the expenditure of the federal government,

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10. Switzerland is the only case where sub-federal authorities share a substantial portion of social security responsibilities.

even when the latter is measured gross of transfers to the regional governments.

The revenue autonomy of regional governments varies widely across the sample (see Table 2). The degree of autonomy is particularly high in Canada, the United States and Switzerland, where some three-quarters of total revenue comes from either taxes for which the regional authorities are free to choose the base and/or rate, or from other independent sources. It is very low in Germany, where less than one-fifth of total revenue is accounted for in this way. In Australia the states' autonomous revenue amounts to about one-third of the total, a proportion closer to the German figure.

Tax sources over which sub-federal governments retain a significant measure of discretion account for about half of their total revenue in Canada, the United States and Switzerland, about one-third in Australia and a negligible proportion in Germany. In the latter case, the tax revenue of the Länder is practically all in the form of tax-sharing agreements, the proceeds coming from taxes for which both base and rate are uniform throughout the Bund.[11]

The federal government contributes to the revenue of regional units through federal grants. Together with tax-sharing agreements these are the main redistributive mechanism to compensate for regional variations in the standard of living. As a proportion of sub-federal revenue, grants are highest in Australia (about one-third) and lowest in Germany and Switzerland (not exceeding some 15%).

2. Constraints on borrowing

With the exception of Australia, in none of the countries considered are there any federally imposed statutory limits on the borrowing capacity of regional entities. In both Germany and the United

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11. Shared tax arrangements of a broadly similar kind are also sizable in Australia, where they account for about one-third of sub-federal governments' revenue. They exist but are of little significance in Switzerland.

States,[12] however, states have unilaterally decided to adopt them.[13] They are generally defined as (qualified) balanced-budget amendments or ceilings on borrowing (the United States) or as a limitation of borrowing for investment purposes (the United States and Germany). In Canada and Switzerland there are no statutory limits of any kind. By contrast, in Australia the Loan Council - an institution dominated by the federal government - in effect sets both an aggregate borrowing limit for all government levels and decides on its distribution amongst them.[14]

Regional governments do not generally have access to central bank credit. The exception to the rule is Germany, where, however, these facilities are of minor significance. Similar restrictions apply to the federal governments. Beyond these constraints, central banks do not normally influence the financing choices of the various levels of government, although at least the Bundesbank plays a consultative role through a variety of mechanisms.

Federal restrictions on foreign currency borrowing exist only in Australia, where the Loan Council regulates the foreign borrowing of the states. In Germany and Switzerland the sub-federal governments have not felt the need to turn to international capital markets. Canadian provinces have made the largest use of this option.[15]

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12. In the United States the only exception is Connecticut.

13. The federal government in Germany, with the consent of a majority of the states represented in the Bundesrat, has some limited power to set temporary limits on borrowing by the Länder for conjunctural stabilisation purposes. This power was exercised only in 1973.

14. For a detailed explanation of the history and institutional arrangements of the Loan Council, see R. Mathews, The Development of Commonwealth-State financial arrangements in Australia (1988), Yearbook of Australia 1988, Australian Bureau of Statistics.

15. At the end of the 1983-84 fiscal year, for instance, some Can. $10 billion of the outstanding bonds and debentures of the provinces, or almost one-quarter of the total, had been raised in foreign markets, About 60% of total foreign borrowing had been done in the United States.

3. Size and distribution of expenditures and net borrowing

Tables 3 to 7 provide key indicators of the relative size of the regional fiscal units in the various countries and Tables 8 to 12 of the degree of dispersion relative to regional variables.

The distribution of expenditure in relation to union variables amongst regions tends to be more concentrated in Canada and Australia than in the other countries, with the United States being the country where it is most diffused. In Canada, for instance, Ontario and Quebec account for one-third of total consolidated government spending, or some 15% of GDP. By contrast, in the United States only the top 35 states account for a similar proportion of government spending, or some 13% of GDP.

When expenditures are measured in relation to regional output (see Tables 8 to 12), all countries show a significant dispersion, with a range of at least some 10 percentage points. Some countries have regions which are clear outliers.

With the exception of Australia, the aggregate net borrowing requirement of the regions tends to be smaller than that of the federal government. In the United States and Switzerland sub-federal levels are in fact in surplus.

Within countries there may be a considerable degree of dispersion in borrowing needs in relation to union output (see Tables 3 to 7). In Canada for the year considered (1982), the net borrowing requirement of Ontario was around 0.3% of Canadian GDP, while Alberta enjoyed a surplus that was equivalent to some 0.5% of national GDP.[16] Ideally, it would have been useful to look at a number of years in order to examine the evolution of borrowing needs over time. But it is unlikely that the dispersion would have appeared as purely temporary. Evidence from Canada indicates that the capital market does differentiate between the credit risk of the various provinces,[17] which in turn suggests that their borrowing needs have

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16. Because of statistical difficulties only the broad orders of magnitude are relevant.

17. Judging from their international borrowing, the credit ratings of the provinces range from medium to the highest grade.

diverged for a sufficiently long period. Nor have there been any deliberate attempts on the part of the federal authorities to enforce convergence.

The degree of dispersion in net borrowing measured relative to regional variables varies significantly across countries (see Tables 8 to 12). It is relatively limited in Australia and Germany, the more centralised countries and, to a lesser extent, in Switzerland. It is especially high in Canada. In the United States there are some outliers. This general picture is also broadly confirmed by the dispersion in interest payments or outstanding debt stocks, which serve as a proxy for the evolution of borrowing over time.

4. Long-run control and co-ordination problems

In no country, with the exception of Australia, does experience seem to suggest serious problems with longer-term control over regional spending and deficits.

Tables 13 and 14 indicate no discernible tendency for either the aggregate net lending or the expenditure of regional authorities to grow over time relative to their federal counterparts. In the United States and Switzerland, as already mentioned, there have tended to be surpluses or very small deficits, either because of explicit self-imposed constraints (the United States) or because of an historical belief in the merits of fiscal orthodoxy (Switzerland). In both, the close association between spending and revenue autonomy has probably also played a part. In Canada and Germany, if anything, net borrowing of the regions has shown a possibly more restrained performance than its federal counterpart.[18] Expenditures exhibit a broadly similar pattern at the two government levels. By contrast, in Australia there have been protracted periods of relatively fast growth in the expenditure and net borrowing of the states.

Consistent with this broad picture, the only country where there would appear to have been great concern about the co-ordination issue is Australia. The Loan Council has been the main instrument through which the federal government has attempted to enforce discipline on state governments

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18. In Canada this does not seem to have been true in the 1960s, however.

so as to counteract a tendency for their finances to thwart efforts at fiscal consolidation.[19] This centralisation has meant that financial markets have not been encouraged to differentiate between the debts of the various government units, in sharp contrast to the Canadian case. Some concern would also seem to exist in Germany, where tax powers are highly centralised and there are a number of institutional, albeit mainly consultative, arrangements for co-ordination.[20]

5. Short-run co-ordination and macro-management

The absence of great concern about the longer-term aspects of co-ordination outside Australia does not imply a lack of episodes or periods of tension. Recently, for instance, the Canadian federal authorities have not appreciated Ontario's spending spree associated with its booming regional economy, while western provinces, damaged by the oil price fall and agricultural difficulties, have been unable to cut expenditures in the face of the recession-induced decline in revenue. This pattern of events has partly hampered fiscal consolidation efforts.[21]

Similarly, in all countries, to the extent that macro-management is attempted at all, it is at the federal rather than at the regional level. The size of the federal budget seems to have been generally

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19. In the late 1970s and early 1980s control by the Loan Council was somewhat relaxed. At the same time, states started circumventing existing restrictions by borrowing in technical forms outside the coverage of the Council's authority. In response, in 1985 the coverage was broadened. For more details, see R. Mathews, op. cit.

20. One such body is the "Finanzplanungsrat" which co-ordinates the budgetary policies of the various government levels. The body is composed of the Federal Minister of Finance (Chairman), the finance ministers of the various Länder and representatives of the Gemeinden. The Bundesbank regularly participates in the meetings. The institution's recommendations, however, are not binding. For the period 1985-87 they took the form of a generalised indicative limit of 3% on the growth of spending of all government units, i.e. below the projected growth of annual income.

21. See OECD Economic Surveys, Canada, 1988.

sufficient to allow a minimum of interference with regional budgetary policies.

III. The situation in the Community

Tables 15 and 16 summarise the existing situation in the EEC. There are essentially four structural features that deserve attention in comparison to federal states:

1. the relatively small size of the Community budget;
2. the generally greater degree of concentration in a few "regions" of both expenditures and net borrowing;
3. the historically greater degree of dispersion of net borrowing in relation to regional variables;
4. the small role of inter-country budgetary transfers.

1. The Community budget

The present size of the Community budget is some 1% of EEC GDP. Even after the creation of a single market, it is apparently not expected to exceed 3%. That is clearly much smaller than the size of federal budgets in the countries examined, regardless of whether transfers are included or netted out. In the former case, they range from 9 to over 25%, and in the latter from some 7 to almost 20%.

2. Expenditure and net borrowing concentration

The greater concentration of expenditure and net borrowing in the Community is in large measure a reflection of the relative size of the EEC countries, with the big four accounting for some 80% of total EEC GDP and a number of small ones having negligible weight. Such a configuration makes the EEC markedly different from the United States and Switzerland and similar to Canada and Australia. The greater concentration is also partly dependent on the small size of the Community budget, which does not substitute for member governments' expenditure in the same way as the central budget does in federations. But with regard to net borrowing, it is particularly affected by the existence of a large deficit in one of the big

four countries, namely Italy. That country's deficit alone, at some 2% of EEC GDP, is equal to over 40% of the aggregate EEC deficit.

3. Dispersion of net borrowing

Measured relative to regional output, it appears that the dispersion of net borrowing is somewhat greater in the EEC, with Canada being the country that most closely resembles the situation in the Community. This dispersion has clearly persisted over time, as indicated by the figures on outstanding stocks of debt and on interest payments.[22] A broadly similar picture is obtained by relating net borrowing positions to revenues.

4. Budgetary transfers

The relatively small present and prospective role of budgetary transfers in the Community is ultimately the reflection of the lack of political unity, which imposes major constraints on the acceptability of redistributional transfers across member countries. It is partly responsible for some of the differences between the Community and other federations just discussed, notably the relative size of the central budget and, possibly, the regional variations in the size of deficits.

IV. How relevant is the experience of federal states?

The review of fiscal arrangements in federal states and of their experience with fiscal co-ordination has suggested that with the exception of one country (Australia) few constraints exist on the budgetary policies of sub-federal governments and concerns about fiscal co-ordination have not ranked highly. At the same time, a number of considerations call for

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22. Care should be taken, however, in making interest payment comparisons. The nominal level of interest payments depends crucially on the inflation rate, whose dispersion is obviously much higher in the EEC than in any individual federal state.

caution in drawing possible lessons for appropriate fiscal arrangements in the Community.

Firstly, all the federal states examined possess a large central budget relative to GDP which can,be used to set the macro-fiscal stance for the federation. By contrast, the prospective size and structure of the Community budget would make it highly unsuitable for that purpose. Therefore, any distortion in the aggregate fiscal stance of the Community could not be corrected without impinging on the autonomy to determine national budgetary positions.

Secondly, the EEC appears to have presented historically a significantly greater degree of dispersion in budgetary positions than most federal states, with Canada being the only possible exception. It is furthermore unique in having a sizable imbalance concentrated in one large region (Italy). The experience of the federal states may, therefore, not be particularly illuminating with regard to the tensions that a situation of this kind might generate in an EMU.

Thirdly, none of the federal states examined provides guidance for the problems that could be faced during the transition period towards an EMU or as a result of its establishment. The creation of an EMU without political union among a number of states with separate currencies is unprecedented.

Finally, the review has not been sufficiently thorough to establish what are the factors that explain the widely different experience of Australia from the rest of the sample. Conclusions simply based on the relative number of countries that have faced co-ordination problems are hardly satisfactory.

A set of issues, therefore, would seem to deserve further consideration:

- the extent to which different relative growth rates in regional versus federal expenditures result simply from different allocations of responsibility;
- the role of transfers: the relative degree of control of regional versus federal authorities and the extent to which they have prevented divergence in expenditure and net lending patterns across regions;

- the importance of a close association between expenditure and revenue autonomy in encouraging discipline;
- the experience of the costs incurred by regions with relatively lax budgetary positions and, more generally, the implications of lack of convergence in an established EMU, as opposed to lack of convergence during the transition period.

Clearly, consideration of these questions need not be limited to federal states when other countries can provide useful insights.

Table 1

The expenditure of federal and regional governments,[1] 1987

Countries	Federal expenditure		Federal transfers	Sub-federal expenditure[2]
	Gross[3]	Net[4]		
	in percentages of total consolidated expenditure			
United States	70.6	63.7	6.9	36.3
Germany	65.3	62.1	3.2	37.9
Canada	51.0	41.6	9.4	58.4
Australia	69.1	48.1	2.0	51.9
Switzerland	29.6	n.a.	n.a.	70.4[5]

1 For the precise definitions, see Tables 13 and 14.
2 Consolidated.
3 Including transfers to regional authorities.
4 Excluding transfers to regional authorities.
5 Not consolidated as data on transfers between Cantons and Gemeinde were not available.

Sources: Council of Economic Advisers, Economic Report of the President, 1988; Bundesministerium der Finanzen, Finanzberichte; IMF Staff Report for the 1988 Article IV Consultation for Canada; Eidgnössische Finanzverwaltung, Öffentliche Finanzen der Schweiz; and ABS, Government Financial Estimates and Budget Papers.

Table 2

The structure of regional governments' revenue

Items	United States	Germany	Canada	Australia	Switzerland
	in percentages				
Taxes					
Exclusive taxes[1]	18.6	-	-	-	10.0
Competing taxes[2]	30.9	-	29.2	31.8	43.5
Sub-federal surcharges[3]	-	-	24.0	-	-
Shared taxes[4]	-	70.3	-	33.9	5.8
Total	49.5	70.3	53.2	65.7	59.3
Other sources					
Federal grants	22.3	13.5	20.4	30.4	14.8
Non-fiscal income	28.2	16.2	26.4	3.9	25.8
Total revenue	100.0	100.0	100.0	100.0	100.0
Memorandum item: Autonomous sources[5]	77.7	16.2	79.6	35.7	79.4

1 The sub-federal government has the sole right to tax the source of income or transactions concerned and is free to choose both the tax base and the rate.

2 The sub-federal government is free to choose both the base and the rate, but has no exclusive right to tax the source of income or transaction concerned.

3 The sub-federal government is free to choose the rate but not the base.

4 The tax base and rates are uniform throughout the federation and the tax proceeds are distributed according to certain rules among the various sub-federal government levels.

5 Exclusive taxes, competing taxes, sub-federal surcharges and non-fiscal income. The distribution between autonomous sources of revenue and the rest is obviously a matter of degree. The categories chosen serve only as a crude approximation.

Source: EEC, The Distribution of Economic Powers in the Public Finances of Federal Economic and Monetary Unions.

Table 3

Fiscal indicators of regional governments[1] in the United States, 1985

Regions	Expenditure[2]	Net lending[3]	Expenditure[2]	Regional GDP
	in percentages of national GNP		in percentages of total	in percentages of union GDP
California	1.73	0.13	4.6	12.5
New York	1.50	0.13	4.0	8.5
Texas	0.83	0.07	2.2	7.8
Illinois	0.63	0.06	1.7	5.0
Pennsylvania	0.61	0.08	1.6	4.4
Next four states:				
Average	0.55	0.05	1.5	3.9
Range	0.47 – 0.58	0.04 – 0.05	1.3 – 1.5	3.6 – 4.2
Next fourteen states:				
Average	0.27	0.02	0.7	2.0
Range	0.20 – 0.36	0.00 – 0.04	0.5 – 0.9	1.3 – 2.7
Next thirteen states:				
Average	0.15	0.01	0.4	1.0
Range	0.10 – 0.19	-0.0 – 0.04	0.3 – 0.4	0.6 – 1.6
Next fifteen states:				
Average	0.06	0.00	0.2	0.4
Range	0.03 – 0.09	-0.0 – 0.0	0.1 – 0.3	0.2 – 0.6
Total	12.9	1.6	36.9	100.0
Federal Government	21.6[4]	- 4.6	63.1[4]	-

1 State and local governments, consolidated, fiscal year.
2 Direct general expenditure.
3 General revenue minus direct general expenditure.
4 Expenditure net of transfers.

Sources: US Department of Commerce, Statistical abstract of the US, 1988; and Survey of Current Business, January-June 1988; and Council of Economic Advisers, Economic Report of the President, 1988.

Table 4

Fiscal indicators of regional governments[1] in Germany, 1987

Regions	Expenditure	Net lending	Expenditure	Regional GNP
	in percentages of national GNP		in percentages of total	in percentages of union GNP
Nordrhein-Westfalen ...	4.7	- 0.3	9.7	26.2
Bayern	3.0	- 0.1	6.2	18.0
Baden-Würtemberg	2.7	- 0.1	5.6	16.1
Niedersachsen	2.0	- 0.2	4.0	9.7
Hessen	1.7	- 0.1	3.5	10.0
Berlin	1.1	- 0.05	2.2	3.8
Rheinland Pfalz	1.0	- 0.1	2.0	5.4
Schleswig-Holstein	0.7	- 0.1	1.5	3.5
Hamburg	0.6	- 0.1	1.3	4.5
Saarland	0.3	- 0.05	0.7	1.5
Bremen	0.3	- 0.05	0.6	1.4
Total	19.0	- 1.1	39.1	100.0
Federal Government ...	29.5[2]	- 1.4	60.9[2]	-

1 Länder and Gemeinde, consolidated.

2 Expenditure net of transfers, calculated as public sector expenditure minus expenditure of regional governments.

Source: Statistisches Bundesamt Wiesbaden, Finanz und Steuern, Fachserie 14, Reihe 2.

Table 5

Fiscal indicators of regional governments[1] in Canada, 1982

Regions	Expenditure[2]	Net lending[2]	Expenditure[2]	Regional GDP
	in percentages of national GDP		in percentages of total	in percentages of union GDP[3]
Ontario	8.0	- 0.3	18.5	38.4
Quebec	7.1	- 0.1	16.6	22.3
Alberta	3.4	0.5	7.8	13.7
British Columbia	2.8	- 0.1	6.5	11.4
Saskatchewan	1.0	0.02	2.4	4.0
Manitoba	1.0	- 0.04	2.3	3.8
Nova Scotia	0.9	- 0.1	2.0	2.4
New Brunswick	0.5	- 0.04	1.2	1.8
Newfoundland	0.5	- 0.03	1.1	1.4
Prince Edward Island	0.1	0.0	0.3	0.3
Northwest Territories	0.1	0.0	0.2	} 0.4
Yukon	0.0	0.04	0.1	
Total[4]	25.4	- 0.0	59.0	100.0
Federal Government[4]	17.7[5]	- 1.6	41.0[5]	-

1 Provinces or Territories and local authorities, consolidated, fiscal year.

2 Estimates based on consolidation of expenditures and revenues of provincial and local authorities measured on an administrative basis. Calendar year for the provinces and fiscal year for the local authorities.

3 1984 percentage shares.

4 These figures are not comparable with those in Table 13 because they are estimates based on an administrative, rather than national accounts, basis. This problem distorts especially the revenue side, reducing the net borrowing requirements. The main item responsible is the inclusion of net revenue from pension schemes.

5 Expenditure net of transfers.

Sources: Statistics Canada, Canada Yearbook 1988 and own estimates.

Table 6

Fiscal indicators of regional governments[1] in Australia, 1986-87

Regions	Expenditure[2]	Net lending	Expenditure[2]	Regional GDP
	in percentages of national GNP		in percentages of total	in percentages of union GDP
New South Wales	7.3	- 0.7	17.3	34.7
Victoria	5.6	- 0.6	13.3	27.6
Queensland	3.6	- 0.3	8.5	14.9
Western Australia	2.2	- 0.2	5.3	9.3
South Australia	1.9	- 0.1	4.6	8.0
Tasmania	0.6	- 0.1	1.5	2.4
Northern Territory	0.5	- 0.03	1.2	1.1
Total	21.6	- 2.1	51.6	100.0[3]
Federal Government ...	20.3	- 1.0	48.4	-

1 States and local governments, consolidated. Budget definitions which include public trading enterprises.

2 Estimates. The expenditures of general government are, on average, some 60% of those according to the budget definition.

3 The total adds to 100.0 only if the Autonomous Capital Territory is included, but the latter has no autonomous budget.

Sources: Department of the Treasury, Economic Round-up, November 1988 and own estimates.

Table 7

Fiscal indicators of regional governments* in Switzerland, 1986

Regions	Expenditure	Net lending	Expenditure	Regional income
	in percentages of national GNP		in percentages of total	in percentages of union income
Zürich	4.1	0.03	13.5	21.4
Bern	3.2	- 0.04	10.5	12.6
Vaud	1.9	0.02	6.2	8.3
Genève	1.8	- 0.04	5.9	7.3
St. Gallen	1.2	0.01	3.9	5.3
Aargau	1.1	0.04	3.6	6.9
Next ten Cantons:				
Average	0.7	0.02	2.2	3.0
Range	0.5 – 0.9	-0.02 – 0.05	1.5 – 3.0	2.0 – 4.4
Next ten Cantons:				
Average	0.1	0.0	0.5	0.8
Range	0.0 – 0.3	-0.02 – 0.03	0.0 – 0.8	0.2 – 2.1
Total	21.5	0.3	70.3	100.0
Federal Government	9.1	0.8	29.7	-

* Cantons and Gemeinde, not consolidated as data on transfers were not available.

Source: Eidgenössische Finanzverwaltung, Öffentliche Finanzen der Schweiz.

Table 8

Regional dispersion of fiscal indicators[1] in the United States, 1985

Regions	Expenditure[2]	Net lending[3]	Debt	Federal transfers received	Net lending
	in percentages of regional GDP				in percentages of revenue[4]
California	13.8	1.0	10.1	2.7	6.9
New York	17.7	1.5	18.6	3.4	7.9
Texas	10.7	0.9	13.8	1.6	7.9
Illinois	12.7	1.2	11.0	2.5	8.4
Pennsylvania	13.9	1.8	14.6	2.9	11.8
Next four states:					
Average	14.0	1.1	13.1	2.5	7.4
Range	13.2 – 15.8	0.8 – 1.3	9.9 – 15.9	2.2 – 3.0	5.8 – 9.2
Next fourteen states:					
Average	13.7	1.0	14.3	2.7	6.7
Range	11.2 – 16.7	0.1 – 1.8	8.8 – 24.9	2.1 – 3.5	0.9 – 12.6
Next thirteen states:					
Average[5]	15.3	1.5[6]	19.9	2.9	8.0[6]
Range	11.6 – 23.6	-0.2 – 8.0	11.0 – 46.7	1.9 – 3.9	-1.5 – 25.4
Next fifteen states:					
Average	15.1	1.3[5]	16.6	3.4	7.8
Range	9.9 – 19.1	-1.1 – 4.7	8.5 – 24.3	1.7 – 4.8	-6.7 – 22.2
Total	12.9	1.6	14.4	2.7	11.0

1 State and local governments, consolidated, fiscal year.
2 Direct general expenditure.
3 General revenue minus direct general expenditure.
4 Including federal transfers.
5 Excluding Alaska, an outlier, the average expenditure, net lending and debt as a percentage of state GDP would be, respectively, 14.6, 1.0 and 16.3%. Average net lending as a percentage of revenue would be 6.6%. The ranges would be similar to those of the groups with larger states.
6 Absolute value.

Sources: US Department of Commerce, Statistical abstract of the US, 1988; and Survey of Current Business, January-June 1988.

Table 9

Regional dispersion of fiscal indicators[1] in Germany, 1987

Regions	Public expenditure	Net lending	Interest payments	Federal transfers received	Net lending
	in percentages of regional GDP				in percentages of revenue[2]
Nordrhein-Westfalen ...	20.8	- 1.7	1.7	2.2	- 7.6
Bayern	16.9	- 0.4	0.8	0.9	- 2.7
Baden-Würtemberg	16.9	- 0.7	0.9	0.8	- 4.0
Niedersachsen	20.3	- 1.7	1.7	1.6	- 9.4
Hessen	17.1	- 0.8	1.2	0.8	- 5.2
Berlin	28.4	- 0.7	0.8	16.8	- 2.3
Rheinland Pfalz	18.4	- 1.6	1.7	1.6	- 9.3
Schleswig-Holstein	20.8	- 1.7	1.7	2.2	- 9.0
Hamburg	14.3	- 1.4	1.3	0.8	-10.1
Saarland	20.6	- 2.7	2.7	1.7	-12.9
Bremen	20.0	- 2.6	2.9	1.8	-12.7
Total	18.0	- 1.1	1.3	1.7	- 6.5

1 Länder and Gemeinde, consolidated.
2 Including government transfers.

Source: Statistisches Bundesamt Wiesbaden, Finanz und Steuern, Fachserie 14, Reihe 2.

Table 10

Regional dispersion of fiscal indicators[1] in Canada, 1982

Regions	Expenditure[2]	Net lending[2]	Debt[3]	Federal transfers received	Net lending
	in percentages of regional GDP				in percentages of revenue[4]
Ontario	20.7	- 0.7	19.6	2.1	- 3.3
Quebec	32.0	- 0.3	29.0	5.4	- 1.0
Alberta	24.5	3.9	16.4	4.1	13.8
British Columbia	24.5	- 0.5	16.6	3.2	- 2.2
Saskatchewan	25.6	0.7	35.0	4.3	2.6
Manitoba	26.5	- 1.0	36.4	5.6	- 4.1
Nova Scotia	35.7	- 4.3	43.8	8.8	-13.6
New Brunswick	29.3	- 2.3	42.5	10.6	- 8.6
Newfoundland	32.5	- 2.0	57.2	12.6	- 6.7
Prince Edward Island .	35.9	0.6	38.8	16.1	1.8
Western Territories ...	} 34.5	} 2.3	} 7.2	} 26.9	6.9
Yukon					4.9
Total	25.4	- 0.0	23.7	4.1	100.0

1 Provinces or Territories and local authorities, consolidated, fiscal year.
2 Defined as in Table 5. Regional GDPs were estimated by using 1984 percentage shares in national GDP.
3 Debt outstanding at the end of March 1984.
4 Including federal transfers.

Sources: Statistics Canada, Canada Yearbook 1988 and own estimates.

Table 11

Regional dispersion of fiscal indicators[1] in Australia, 1986-87

Regions	Expenditure[2,3]	Net lending	Interest payments	Federal transfers received	Net lending[2]
	in percentages of state GDP				in percentages of revenue[4]
New South Wales	20.9	- 2.1	1.9	8.0	-11.2
Victoria	20.2	- 2.0	2.8	7.5	-11.0
Queensland	23.8	- 2.1	1.7	9.9	- 9.7
Western Australia	23.7	- 2.0	2.5	9.9	- 9.2
South Australia	24.2	- 1.6	2.8	11.3	- 7.0
Tasmania	26.8	- 2.4	4.1	14.2	- 9.9
Northern Territory ...	47.3	- 2.5	2.0	35.9	- 5.6
Total	21.6	- 2.1	2.3	8.8	-10.8

1 State and local governments, consolidated. Budget definitions which include public trading enterprises.
2 Estimates.
3 The expenditures of general government are, on average, some 60% of those according to the budget definition.
4 Including federal transfers.

Sources: Department of the Treasury, Economic Round-up, November 1988 and own estimates.

Table 12

Regional dispersion of fiscal indicators[1] in Switzerland, 1986

Regions	Expenditure	Net lending	Interest payments	Net lending
	in percentages of Canton revenue			in percentages of revenue[2]
Zürich	22.7	0.2	1.0	0.8
Bern	29.9	- 0.4	1.0	- 1.3
Vaud	27.1	0.3	1.0	1.1
Genève	29.3	- 0.7	1.5	- 2.5
St. Gallen	26.5	0.2	0.8	0.9
Aargau	18.7	0.7	0.8	3.4
Next ten Cantons:				
Average	26.3	1.0[3]	1.3	3.6[3]
Range	20.4 – 32.1	-1.0 – 2.5	0.8 – 2.3	-3.3 – 7.8
Next ten Cantons:				
Average	24.9	0.9	0.8	4.2[3]
Range	14.1 – 34.7	-2.7 – 1.8	0.4 – 1.1	-8.7 – 11.4
Total	21.5	0.3	1.1	1.3

1 Cantons and Gemeinde, not consolidated as data on transfers were not available.
2 Revenue is overestimated as it is not on a consolidated basis. It includes federal transfers.
3 Absolute value.

Source: Eidgenössische Finanzverwaltung, Öffentliche Finanzen der Schweiz.

Table 13

Fiscal indicators of federal and regional[1] governments in the United States, Germany and Canada, 1970-87

Country/Government level	1970	1975	1980	1981	1982	1983	1984	1985	1986	1987
	in percentages of GNP/GDP									
United States	Expenditure									
Federal, net[2]	17.4	18.0	18.4	19.4	21.3	21.9	20.7	21.6	21.8	21.2
Federal Transfers[3]	2.2	3.0	3.2	3.0	2.6	2.5	2.4	2.4	2.5	2.3
Regional	13.2	14.7	13.3	12.8	13.1	12.9	12.6	12.9	13.3	12.1
	Net lending									
Federal	- 0.1	- 2.8	- 1.8	- 1.9	- 3.6	- 5.5	- 4.3	- 4.6	- 5.0	- 3.3
Regional	0.2	0.3	1.0	1.1	1.1	1.4	1.7	1.6	1.3	1.0
Germany	Expenditure									
Federal, net[2]	24.2	32.1	31.3	32.6	33.2	32.5	32.0	32.0	31.4	31.1
Federal Transfers[3]	1.8	2.2	2.0	2.0	1.9	1.8	1.7	1.7	1.6	1.6
Regional	17.6	21.3	20.8	20.8	20.6	19.8	19.3	19.3	19.1	19.0
	Net lending									
Federal	+ 0.04	- 3.2	- 1.9	- 2.5	- 2.4	- 1.9	- 1.6	- 1.2	- 1.2	- 1.4
Regional	- 1.3	- 2.9	- 1.9	- 2.3	- 2.0	- 1.4	- 1.0	- 0.8	- 1.0	- 1.1
Canada	Expenditure									
Federal, net[2]	13.4	16.3	15.7	16.3	18.9	19.0	19.5	19.6	18.7	18.1
Federal Transfers[3]	3.8	4.5	4.1	4.0	4.2	4.3	4.5	4.5	4.1	4.1
Regional	21.4	23.1	23.8	24.0	26.4	26.7	25.8	25.9	25.8	25.4
	Net lending									
Federal	+ 0.2	- 1.1	- 3.5	- 2.0	- 5.4	- 6.1	- 6.8	- 6.6	- 4.9	- 4.2
Regional	- 0.8	- 1.4	- 0.3	- 0.3	- 1.5	- 1.5	- 0.5	- 1.0	- 1.2	- 0.7

1 For the United States, state and local governments; for Germany, Länder and Gemeinde; for Canada, provincial or territorial and local governments including hospital sector (i.e. the PLH sector).
2 Excluding transfers to regional governments.
3 Transfers to regional governments.

Sources: Council of Economic Advisers, Economic Report of the President, 1988; Bundesministerium der Finanzen, Finanzberichte; and IMF Staff Report for the 1988 Article IV Consultation for Canada.

Table 14

Fiscal indicators of federal and regional governments in Australia and Switzerland,[1] 1970-87

Country/Government level	1970	1975	1980	1981	1982	1983	1984	1985	1986	1987
	in percentages of GDP/GNP									
Australia	Expenditure									
Federal, net[2] .	18.2	19.3	17.5	18.2	19.9	20.6	21.1	21.0	20.3	18.8
Federal transfers[3] ...	6.6	9.3	8.6	8.5	9.1	9.3	9.3	8.9	8.7	8.2
Regional	16.7	19.5	20.2	21.1	22.5	22.0	21.6	21.8	21.6	20.3
	Net lending									
Federal	- 0.0	- 4.6	- 0.7	- 0.3	- 2.7	- 4.2	- 3.2	- 2.4	- 1.0	0.7
Regional	- 1.1	- 0.1	- 2.0	- 2.7	- 2.9	- 2.2	- 1.8	- 2.0	- 2.1	- 1.3
Switzerland	Expenditure									
Federal, gross[4]	8.3	9.5	9.9	9.1	9.4	9.5	9.6	9.5	9.1	9.0
Regional, gross[5]	17.5	22.1	21.7	21.4	21.8	22.0	21.6	21.3	21.5	21.4
	Net lending									
Federal	0.2	- 0.9	- 0.6	- 0.1	- 0.2	- 0.4	- 0.2	- 0.3	0.8	0.4
Regional	- 0.8	- 0.8	0.2	- 0.1	- 0.5	- 0.4	- 0.1	0.1	0.3	0.3

1 For Australia, state and local governments. Budget definitions which include public trading enterprises. For Switzerland, Cantons and Gemeinde.
2 Excluding transfers to regional governments.
3 Transfers to regional governments.
4 Including transfers to regional governments as data isolating them were not available.
5 Non-consolidated between Cantons and Gemeinde.

Sources: Eidgnössische Finanzverwaltung, Öffentliche Finanzen der Schweiz; and ABS, Government Financial Estimates and Budget Papers.

Table 15

Fiscal indicators of national governments in the EEC, 1988[1]

Countries	Expenditure	Net lending	Debt	Expenditure	Debt	National GDP
	in percentages of EEC GDP			in percentages of total EEC expenditure	in percentages of total EEC debt	in percentages of EEC GDP
Germany	12.4	- 0.5	11.9	24.8	19.3	26.3
France	10.2	- 0.5	8.0	20.9	13.0	19.9
Italy	9.1	- 1.9	17.6	18.5	28.6	18.0
United Kingdom	6.7	- 0.3[2]	8.5	13.6	13.8	15.8
Spain	2.9	- 0.3	3.6	5.9	5.8	6.8
Netherlands ...	2.9	- 0.3	4.2	5.9	6.8	4.9
Belgium	1.6	- 0.2	4.2	3.3	6.8	3.3
Denmark	1.4	0.0	1.3	2.2	2.1	2.4
Greece	0.5	- 0.1	0.7	1.0	1.1	1.1
Portugal	0.3	- 0.1	0.6	0.8	1.0	0.8
Ireland	0.4	- 0.1	1.0	1.0	1.6	0.7
Luxembourg ...	0.1	0.0	0.0	0.0	0.0	0.1
Community	1.0	-	-	2.0	-	-
Total EEC	48.8	- 4.4	61.6	100.0	100.0	100.0

1 Based on estimates and forecasts made by the Economic Secretariat of the European Community.

2 More recent figures for the United Kingdom (OECD Economic Outlook, December 1988) indicate a surplus of 0.3% of own GDP and would therefore change the above estimates. They are not markedly different from the above projections for the other three large countries.

Source: EEC, Economie Européenne, No. 34.

Table 16

National dispersion of fiscal indicators in the EEC, 1988[1]

Countries	Expenditure	Net lending	Interest payments	Debt	Net lending
	in percentages of national GDP				in percentages of revenue
Germany	47.1	- 2.0	2.9	45.2	- 4.4
France	51.3	- 2.3	2.7	40.3	- 4.7
Italy	50.3	-10.4	7.9	97.9	-26.1
United Kingdom	41.7	- 2.0[2]	4.1	54.1	- 5.0
Spain	42.1	- 4.9	3.7	51.6	-13.1
Netherlands ...	58.2	- 6.0	5.9	85.2	-11.5
Belgium	52.4	- 6.1	11.0	128.4	-13.2
Denmark	57.3	1.7	7.8	53.3	2.9
Greece	47.3	- 9.8	6.9	67.2	-26.1
Portugal	41.7	- 7.8	7.2	78.5	-23.0
Ireland	52.1	- 7.8	10.2	138.0	-17.6
Luxembourg ...	51.2	3.1	1.1	14.8	5.7
Total EEC	47.8	- 4.4	4.7	61.6	10.1

1 Based on estimates and forecasts made by the Economic Secretariat of the European Community.

2 More recent figures for the United Kingdom (OECD Economic Outlook, December 1988) indicate a surplus of 0.3% of GDP. They are not markedly different from the above projections for the other three large countries.

Source: EEC, Economie Européenne, No. 34.

Appendix II

Market forces and budgetary discipline

This brief appendix considers in more detail whether there exist market mechanisms which can encourage prudent fiscal behaviour on the part of governments.

For a private firm, the ultimate market threat which penalises imprudent borrowing is the danger of bankruptcy and liquidation. Market forces signal this risk by incorporating a default premium into the cost of funds and/or by rationing them. In addition, lenders may curtail the decisional autonomy of the enterprise when a position of financial stress is approached. As in a competitive environment there exist strict limits to the extent to which revenue can be obtained by simply raising prices, the borrowing and expenditure decisions of firms tend to be relatively responsive to market pressures.

Whether similar market pressures can be brought to bear on governments is less clear. One may distinguish here between the situation of a single state and of one which is an EMU member.

In a single state, a government may be less responsive in the short run to an increase in the cost of its borrowing resulting from market anticipations of future debt problems because it might feel that higher debt service payments can be met by raising taxes and/or, perhaps, by monetising the deficit. It is only in the longer run that the costs of such actions become apparent, either in the form of resistance to the implied tax burden or of higher inflation.[23] At that point, political pressure may be exerted to cut expenditure. As the experience of a number of countries illustrates, however, the lag with which such pressures tend to emerge is considerable.

When a state is a member of an EMU, two contrasting forces would seem to be at work. On the one hand, the exclusion from access to central

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23. They can also show up, probably earlier, as resistance to any perceived crowding-out effects associated with the fiscal policy stance.

bank credit and the reduced scope for large tax burden differences across borders may make governments more sensitive to signals coming from the market in the form of higher costs of funds. On the other hand, the closer economic and solidarity ties implied by membership of the union may generate market expectations that the country concerned would ultimately be bailed out by other EMU members. That would mean less pressures on fiscal consolidation and less differentiation in the cost of funds. The country would effectively benefit from the credit rating of others. The case of New York City may be taken as an example. It is clear that in that case market mechanisms were not effective in preventing the financial crisis and that central government assistance was indeed forthcoming.