

# Preface: Anthology of Bishop on Market Discipline in EMU - 1989/1993

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*I have drawn together this anthology of my earlier works on the possible role of “market discipline” in ensuring financial stability in the Economic and Monetary Union (EMU). My first paper was published by Salomon Brothers in 1989 during the Maastricht Treaty negotiations and the final paper in the series was published in 1993.*

**My central point was that public debts denominated in a currency that a government could not order to be “printed” – the euro – had a fundamentally different credit quality than paper money that could be printed at will – *in extremis*. That different quality should be reflected properly in the newly developed system of risk weightings for banks holding public debt as a core asset. This argument was seen as an ‘inconvenient truth’ at the time, and the Basel Committee on Banking Standards (BCBS) continues to obfuscate on this point - despite my submission to its consultation in 2019.**

The European Union is engaged - yet again – in a debate about “fiscal rules” intended to prevent an unsustainable build-up of public debts that might threaten the integrity of the common currency – the euro. The debate seems to just be a continuation of the arguments in the run-up to agreement on the Maastricht Treaty when the concept of “market discipline” was rejected in favour of “rules” to be enforced by finance ministers.

In the ensuing decades, ministers have never enforced these rules – until the financial markets (acting as so-called ‘bond market vigilantes’) refused to fund what financial market participants regarded as unsustainable debts in several EU states. In response, Euro area states were forced to create the European Stability Mechanism (ESM) and the European Central Bank (ECB) had to create a series of new facilities that approached the very edge of Treaty prohibitions on ‘bail outs’ and ‘monetary financing’.

Remarkably, the new proposals for fiscal rules target “net expenditure” that excludes debt interest on the basis that it is not directly controllable by the Member State. However, market analysts are perfectly capable of plugging in actual/feared interest rates into their models of public debts – just as they did in 2010/12 – and drawing unpleasant conclusions about sustainability as debts are rolled over at higher spreads. Such calculations will quickly re-awaken discussions of the ‘doom loop’ between the leading banks in a state holding excessive quantities of their home government’s then-unsustainable debts.

Italy’s blocking of revision to the ESM Treaty and Germany’s unwillingness to complete the European Deposit Insurance Scheme (EDIS) illustrate that risks to financial stability remain significant – if merely latent.

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# 1992 and Beyond

## Market Discipline CAN Work In The EC Monetary Union

November 1989

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**Salomon Brothers**

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The authors wish to thank John Purcell for his assistance in developing the argument and Dale Horowitz for his insights into the 1975 New York City debt crisis, as well as Leressa Crockett for her help in studying the topic. The authors also wish to acknowledge their gratitude to Ann O'Kelly for her detailed research and help in structuring this report.

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Summary

Monetary union...

In June 1988, the European Council "confirmed the objective of progressive realisation of economic and monetary union." The Delors Committee was appointed to propose "concrete stages leading towards this union." In purely economic terms, there are probably two principal requirements for such a union to be credible and permanent:

- Fiscal prudence - - to guard against inflation; and
- Internal balance - - to prevent weaker countries from becoming impoverished.

Through budgetary rules...

The Delors Committee's *Report On Economic And Monetary Union in the European Community*, published in April 1989, stresses the need for the coordination of fiscal and budgetary policy to achieve "internal balance." To achieve fiscal prudence, it proposes to set binding budgetary rules, to exclude monetary financing and put limits on external borrowing. In its choice of tactics, the Committee specifically took the view that - - as a major alternative policy - - market forces could not be relied upon to provide the necessary discipline to prevent the development of budgetary excesses.

Or market discipline?

On the contrary, market forces have exerted powerful disciplinary pressures - - when given the freedom to do so. This study explores the factors that enable - - and are technically necessary for - - the markets to sense the need for discipline and then to exert it progressively. We define this discipline as, initially, a widening of the differential in the price of the debt of the deteriorating debtor compared with the European average. Further down the road, there is the inevitable, ultimate sanction of market discipline: the markets may no longer be willing to provide credit at any reasonable price.

Three necessary conditions

Three conditions must be satisfied in order for market discipline to work properly as markets fulfill their natural function:

- Capital must be able to move freely;
- Full information must be available on the creditworthiness, and the debts, of the borrower; and
- The markets must be convinced that there is no possibility of a bail-out - - that there are no formal or implicit guarantees that obligations will be met.

Whether governments choose to pay attention to the market's message - - and whether they do so at an early or a late stage - - remains their own sovereign political decision. In principle, this decision corresponds to their willingness to abide by the overall budgetary controls suggested in the Delors Committee Report - - the only difference is the source of the disciplinary pressure.

Market discipline can readily provide the flexibility to respond to changed circumstances - - and the certain and final sanction of rejection from the credit markets. But can "detailed binding budgetary rules" offer the same combination of flexibility and certainty of ultimate sanction - - and what is their final sanction?

The European Community (EC) has barely, if at all, started to construct a federal system of government, and it would be premature to conclude that there is any broad political consensus to "build a nation." Indeed, many people oppose this concept and it may not even be appropriate for Europe. The Delors Committee Report states that, "even after attaining economic and monetary union, the Community would continue to consist of individual nations with differing economic, social, cultural and political characteristics." Monetary union is not a new concept, so other examples should be analysed to identify their objectives, the methods used to achieve those objectives and the problems.

The history of monetary unions suggests that the desire to build a nation has been a critical factor in determining the extent of central Government assistance in a financial crisis. A key reason for the emergency assistance has been pinpointed as the belief that the union's international credit standing would be damaged, with a corresponding impact on its ability to borrow or refinance debt abroad. This factor may have been a real constraint for a developing nation looking to attract capital. However, the mature States of the European Community are, if anything, in the opposite position. Over the past 30 years, the Community's members have only run significant collective current account deficits during each of the two "oil shock" years. Thus, there is no aggregate Community need to import capital. The absence of this requirement will have a vital bearing on the design of European monetary union, because it is not necessary to attract risk-averse and volatile foreign investors. Instead, it is sufficient merely to avoid frightening domestic investors to the point where they feel obliged to protect themselves by exporting their capital.

It is instructive to look at the mechanisms that have evolved in other monetary unions, such as Australia, West Germany and Canada. Australia and West Germany are "tight" federal systems, where the central Government exerts such a degree of fiscal control that credit distinctions between the constituent states are almost nonexistent: this is, in fact, the precise intention of these systems.

Canada, on the other hand, has a much "looser" federal system, where individual credit ratings exert considerable market discipline on the provinces. In contrast to Australia and West Germany, the Canadian system sets out to apply a measure of market discipline - and has succeeded. Interestingly, Canada unites this market discipline with a successful and wide-ranging system of monetary transfers to the provinces - without this being seen as an implicit guarantee of provinces' budgetary deficits.

"Tight" unions with budget control, not market discipline

Australia

The Australian central or Commonwealth Government, through a Loan Council system functioning since 1933 (and a dominant role in revenue collection assumed during World War II and not acceded back to the States since that time), has obtained *de facto* control over the fiscal policies of each of the six States. Differences in the States' borrowing terms in the domestic market are determined more by liquidity and technical considerations than by any marked distinction in fiscal policies or budgetary priorities. Both American rating agencies (Moody's and Standard and Poor's) have recognised that Commonwealth Government fiscal control and explicit budgetary support are more important than differences in State fiscal policies and have assigned ratings to all of the States, borrowing authorities and State-owned enterprises that are identical to those of the Commonwealth (Aa2/ AA). This is discussed further in Appendix I (see page 8).

### West Germany

The Federal Republic of Germany represents a strong commitment to federation, primarily because of provisions in the 1949 Basic Law aimed at achieving homogeneous living standards throughout the Republic and allocating responsibility for "financial and economic harmony" on a nationwide scale to the Federal Government. The Federal Government supervises a fiscal equalisation system that attempts to provide all citizens with a roughly uniform standard of public services. More importantly, it exerts significant control over the budgetary policies of the 11 States, or Lander, through a Fiscal Planning Council that attempts to coordinate overall fiscal policy in carrying out the stable growth mandate of the Federal Government. Moreover, the Lander are permitted to borrow only for investment purposes, and the Federal Government can impose ceilings and rules regarding terms, conditions and timing for borrowings by all levels of Government if national economic balance is disturbed by such activities. This is discussed further in Appendix I (see page 8).

*"Loose" unions with market discipline*

The monetary unions represented by the federal systems in Canada and the United States are much looser fiscally and politically and thus more market-oriented than those in Australia or West Germany. The Federal Government in the United States has historically taken a benign role in regional development, and there is no concerted effort to reduce economic disparities among the 50 States.

### Canada

Canada's vast geography but small population has caused the Canadian Federal Government to become deeply involved in alleviating regional inequalities and contributing to economic development in remote or economically depressed areas. Nevertheless, Canada's implicit credit support for its provinces is much more subtle than Australia's or that of the Federal Republic of Germany, falling far short of either control over fiscal policy or a guarantee of creditworthiness. The domestic provincial bond market in Canada does "rank" the provinces according to typical credit measurements: laxity or tightness of fiscal policy, economic dynamism and political commitment to budgetary stabilisation. A similar "ranking" of the provinces exists in the other international markets in which they borrow (primarily the Yankee and Eurobond markets).

Provincial concern about the ratings of the two Canadian agencies and the two US agencies (and thus the cost of servicing debt), and a spate of provincial downgrades by these agencies between 1980 and 1987, is undoubtedly one of the reasons why almost all of the provinces have reduced their budgetary deficits in the past three years. The Canadian monetary union, because it combines significant economic support with only an extremely vague "guarantee" of fiscal support, is probably the best existing example of a monetary union in which market sanctions work well against the constituent members. This is discussed further in Appendix I (see page 9).

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### Applying the Lessons

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*Binding budgetary rules can be circumvented*

The New York City debt crisis of 1975 provided a classic example of the problems of a monetary union. Probably the most powerful lesson is that a determined administration could circumvent any prudent constitutional arrangements. In this case, the legislative "check" of the superior body - New York State - failed entirely, because New York State systematically permitted its checks to be avoided by abuses of borrowing powers. Moreover, New York State had little moral standing to enforce these checks, because its own finances were parlous -- also due to budgetary excesses.

Looking at the growth of European "pork barrel" politics -- perhaps exemplified by the EC's Common Agricultural Policy -- there can be little confidence that late-night, budget cooperation deals would not fall into the same trap. That would be the precise moment when "vital national interests" were at stake and could easily warrant a threat to leave the union. The EC's proposed "binding budgetary rules" could well be vulnerable under these circumstances. How can these rules be enforced? What is the ultimate sanction that corresponds to the financial markets' undoubted ability to cut off new supplies of credit?

New York City, for example, succeeded in circumventing the rules and chose to ignore the ever-rising interest rate signals from the market. Having ignored this stage of the market's discipline, the City's fiscal imprudence was finally brought to a halt by the brutal discipline of total rejection, rather than the application of any budgetary rules. This is discussed further in Appendix 11 (see page 14).

This example of the failure of constitutional rules to prevent budgetary excesses raises two issues. First, how can the EC impose rules? What will the sanctions be? Second, how can the rules be specified in a manner that takes proper account of the variation of conditions both between Member States and over time? There must be a risk that the rules will be too easily circumvented by creative accounting or, alternatively, too rigid and therefore arbitrary.

*Conditions necessary for market discipline*

If binding budgetary rules are one end of the spectrum of possible policies, then strict market discipline is the other end. This will require lenders to be explicitly clear that the donors of financial support will not pay more than they have already willingly agreed. As monetary financing is precluded by the proposed fact of monetary union, Member States will have to borrow from the financial markets -- principally those that intermediate the pool of all Community savings. We believe that the financial markets can provide the "check" of market discipline if the agreed "balance," such as revenue transfer, is exceeded. **The ultimate check will be a complete withdrawal of new credit supplies.**

In summary, there are three obvious conditions that must be satisfied for market discipline to work properly.

*Free movement of capital*

First, savers must not be legally coerced into lending money to a particular state. This coercion may be the effective result of exchange controls or perhaps controls on the investment of assets, which are no longer necessary for proper, prudential regulation. The historic agreement in June 1988 to end exchange controls within the EC was the key step forward in achieving this goal.

*Full information*

Second, to make an informed judgement, savers must be fully informed about creditworthiness, including the debts of the state in question. Although much of the obvious data is already published by the European Commission, probably very few investors are aware of this fact. However, in many states, much government finance is transacted through private placements, where maturity and interest rate sensitivity are not necessarily published. Full data on the maturity structure of all of the debt servicing obligations likely to be faced by a government, even under the worst circumstances, are essential if the markets are to form a proper judgement of the risks.

The critical problems are likely to arise in the very areas that are not obvious, for example, entities or corporations that are owned by, or associated with, the public sector. Should their debts be included? What about "moral obligations?" Binding budgetary rules will inevitably encourage creative accounting. A review of the New York City debt crisis of 1975 provides a lesson on creative public finance. It might be appropriate to categorise the types of public sector debtors. Member States should then

be required to report those institutions that fall within those categories<sup>8</sup> and provide timely and continuing details of their debts and servicing obligations on the basis of standardised accounting. Correspondingly, the European Commission should be required to collate and publish these reports. (A thorough clarification of the exact standing of many debtors is already necessary to manage the risk-weighting system that will be imposed on banks by the EC's Solvency Ratio Directive.)

### *No bail-out*

The third and single most critical condition - that a fiscally imprudent state will not be bailed out by the Community - should probably be incorporated in an amendment to the Treaty of Rome itself. Such an amendment could well include specific measures to eliminate the possibility of formal guarantees or other powers to ensure the solvency and liquidity of Member States.

Subsidiary legislation should spell out the requirements necessary to make Member States' overall indebtedness transparent to investors, including standardised accounting. It should also set minimum prudential standards of debt management (the corollary to those that the Member States have just imposed on their banking system by setting minimum capital standards). It may be necessary to prohibit the European System of Central Banks from purchasing public sector debt, which would negate the market's discipline. Prudent debt management can ensure that this disciplinary process becomes progressively tougher only over many years.

This subsidiary legislation should be subject to majority voting, so that any moves against abuses cannot be blocked by the abuser. Correspondingly, it would be extraordinary if a blocking minority could not be mustered to prevent any significant weakening.

The intention of such tactics is to put the financial markets on notice that there can be no formal guarantee of any Member State by the others. Theoretically, such a treaty amendment could be reversed, but the financial markets would be aware of the difficulties and lengthy timescale for unanimous agreement and ratification. In the event that a Member State reached financial crisis, such a process would be too lengthy and uncertain to give investors any comfort that they would be paid on time. Thus, any real signs of impending crisis would induce a flight by investors sufficient to send a clear and visible signal of the price of that State's debt.

(If the cause of the financial crisis were not fiscal imprudence, but some major national disaster, for example, then there are already mechanisms available that the other Member States could use to volunteer extra assistance during the adjustment.)

Even if the market is convinced that there are no explicit and formal guarantees, or other methods of ensuring that obligations are met, how can it be convinced that there are no implicit guarantees? Resource transfers are important in gluing a monetary union together and maintaining internal balance. The difficulty is in achieving the balance between first, supporting the poorer constituents sufficiently to make credible their continued membership of the union, and second, effectively offering an implicit guarantee. The Canadian system provides a fascinating example of how far-reaching transfers of resources can be combined with a considerable measure of market discipline.

If these three conditions are met, then it seems inconceivable that the financial markets would fail to observe the signs of progressive financial deterioration and charge an appropriate premium for extra loans. Indeed, markets already make credit distinctions between the EC States when they



borrow outside their domestic currency. These States are extremely sensitive about the terms on which they borrow, precisely because it is a reflection of their creditworthiness. This is discussed further in Appendix III (see page 18).

The United States has provided a lesson in the perils of even starting down the "bail-out" road. Moral obligations can become a serious budgetary item, as shown by the bail-out of the thrift industry. At a cost to the public of well over \$150 billion, the bail-out in effect protects all depositors - not merely those who are formally insured. The European Community should learn this lesson thoroughly.

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### Building in the Safeguards

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#### *Gradual application of market discipline*

Given the sudden and drastic withdrawal of new credit supplies from New York City in 1975 and the less developed countries (LDC) after 1982, there may be concern that the disciplining process could be too abrupt. Indeed, the Delors Committee Report specifically raised this issue. European monetary union must be designed to exert discipline in a progressive manner: first, a steady increase in the relative price of debt, and then - only after a lengthy period - a withdrawal of new supplies of credit at any reasonable price.

#### *Prudent debt management*

A key feature of the New York City and LDC crises was the combination of floating interest rates and very short debt maturities. While both types of debt have their place in a debt portfolio, strict prudential guidelines for debt management could create the necessary buffer. This could provide a reasonable number of years for the problem to be recognised by the markets, accepted by the government and electors and for an adjustment programme to be formulated and implemented. There could be provision for a minimum average life of a Member State's debt of at least five years (New York City recovered in six years - although greatly assisted by the effects of a period of double-digit inflation). Thus, any difficulty in selling new debt would compound progressively over several years - correspondingly exerting a cumulative increase in the severity of the discipline. At this stage, it would be important to prevent the growing liquidity crisis from being unintentionally escalated by the effect of floating interest rates rising sharply. Therefore, there should be a prudently low limit on the proportion of the floating-rate debt.

#### *Prevent the central bank from negating market signals*

It would be critical that the central bank - the European System of Central Banks - was not obliged, or persuaded, to negate the markets' signals by purchasing the debt of the deteriorating country. The quantity of money in the economy can readily be controlled by purchases of private sector securities - as the West German Bundesbank, for example, does with its "repurchase agreements."

#### *Diversified financial assets*

In a nation state, there may be merit in requiring the financial system to hold large volumes of "safe" assets - government obligations. In a crisis, the central bank will control the interest rate on the risk-free asset by providing liquidity to the system through purchases of these assets. This will convert the crisis from that of rising interest rates into one of a falling currency, but will preserve the solvency of the domestic financial system. Moreover, the government has the power to ensure that these obligations are met - by printing more money, if necessary. Naturally, this only solves the very short-run problem.

However, in a monetary union, the opposite asset policy is appropriate. The central bank must not offset the market's signals by purchases of public debt, nor may the government print more money to meet its obligations.

Therefore, the "safe asset policy" will no longer be one of concentrating on domestic government obligations. Prudence will then dictate that the financial system should diversify its asset holdings widely among the various public and commercial entities, because none have the power to stave off default by creating more money. Instead, the only safe assets are those that are the liabilities of prudently financed and managed entities.

A diversified asset portfolio will ensure that the financial system is not overexposed to any single state. The banks will then be able to resist pressure for additional loans and, correspondingly, the EC as a whole will not have to contemplate a bail-out to protect the solvency of the financial system of Europe.

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## Conclusion

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We believe that a monetary union can be developed in modern Europe. The fear of losing national sovereignty is widespread and is exacerbated by proposals for "binding budgetary rules." Such rules may be useful for other purposes, but are not necessary for attaining monetary union. So, if the objective is limited solely to a desire for such union, rather than nation building, then the lessons from other unions point a way forward, based on the economic freedoms that are an explicit objective of the Treaty of Rome. We believe that free movement of capital can induce the fiscal prudence that is one of the two principal conditions for achieving a credible and permanent monetary union.

The second condition is internal balance. In Appendix IV (see page 23), we analyse the resource transfers already planned by the EC. Specifically, the doubling of the "structural funds" agreed at the 1988 Brussels Summit was a clear, intentional step towards evening out regional disparities by providing significant assistance to less developed areas. These resources, if properly utilised, have the potential to ignite a boom that will produce a more rapid growth in prosperity than anything seen in the past 20 years. If such a boom were to occur, it seems unlikely that the creditworthiness of any Member State would be questioned on grounds of relative poverty or desire to leave the union. Accordingly, we believe the EC is well on the way to passing a key test of its ability to operate a monetary union. However, policy must not be steered so far to the other side of the narrow channel that market discipline is undermined by equating large resource transfers with an implicit guarantee.

An historic prize is within Europe's grasp.

Australia*Close fiscal control*

The Australian Commonwealth provides a close parallel with the monetary union envisaged in the Delors Committee Report, in which a central authority heavily influences constituent fiscal policies.

Under the Financial Agreement of 1927, the Commonwealth Government is empowered to borrow on behalf of the six States and, during the annual Conference of State Premiers, State Governments have to submit their borrowing plans to a Loan Council dominated by the Commonwealth Government. In 1936, a gentleman's agreement expanded the Loan Council's authority to impose limits on semi-government and local authority borrowings as well. In the early 1980s, each State established a borrowing authority that was not technically subject to Loan Council limits or included through the gentleman's agreement. To bring the increasingly important borrowing authorities under the auspices of the Loan Council, the gentleman's agreement was cancelled in June 1984, and "global limits" were imposed on all public sector borrowing by each State. International borrowing is further limited as a percentage (22% in 1989) of each State's global limit. In exchange for global limits on their borrowing, the Commonwealth Government has granted these authorities (and, thus, the States) access to international capital markets that had previously been closed to them.

*No individual credit ratings*

The fiscal relationship between the federal constituents is so tight in this monetary union that market forces do not distinguish between the States in terms of individual State creditworthiness. Internationally, this is reflected in the fact that all of the rated States have received the same ratings (Aa2/AA) as the Commonwealth Government, and borrowing terms are essentially the same. In the domestic market for State semi-public (borrowing agency) securities, liquidity and technical structure are more important than fiscal differences in determining borrowing terms. No State has taken advantage of this situation by running a consistently large fiscal deficit in comparison to other States. Moreover, it is doubtful that any State could pursue such a policy with the firm control over State finances exercised by the Commonwealth Government.

Australia's tight federal system, and the strong fiscal control exercised by the Commonwealth Government over the States, makes the Australian system a poor model for a European monetary union in which market discipline is to be exercised on budgetary balances.

West Germany*Revenue distribution*

The Federal Republic of Germany consists of the Central Government (the Bund) and 11 States (the Lander). The Federal Republic has a strong commitment to federation, primarily because of provisions in the 1949 Basic Law aimed at achieving homogeneous living standards throughout the Republic and allocating responsibility for "financial and economic harmony" on a nationwide scale to the Federal Government. Economic and financial unity stems from a constitutionally mandated system of tax allocation and revenue redistribution (Finanzausgleich) designed to redress economic imbalances among the Lander, as well as from the sharing of financial burdens between the Central Government and the Lander. Revenue distribution occurs in three ways: the distribution of taxation authority and tax revenues between the Central Government and the Lander; "vertical revenue equalisation," whereby the Central Government contributes revenues to the Lander; and "horizontal revenue equalisation," whereby the Lander redistribute revenues among themselves. Other factors contribute to the unity of the system, including investment grants made by

the Central Government to economically weaker Uinder, the constitutional requirement for the Central Government and the Uinder to coordinate their expenditures to ensure overall economic balance, and the authority of the Central Government to impose limits on borrowing by the Lander under certain circumstances.

*Central fiscal control*

The Federal Government exerts significant control over the budgetary policies of the Lander by means of a Fiscal Planning Council, which is an attempt to coordinate overall fiscal policy in carrying out the stable growth mandate of the Federal Government.. Moreover, the Lander are permitted to borrow only for investment purposes, and the Federal Government can impose ceilings and rules regarding terms, conditions and timing for borrowings by all levels of government, if national economic balance is disturbed by such activities.

*No credit differentiation*

The Lander borrow in their own name, and the Federal Government is not liable for their debts. However, the unique structure of the Federal Republic provides the Lander with a level of credit safety very close to that of the Federal Republic and without significant variation among them. The fiscal relationship between the Central Government and the Lander is so tight that market forces scarcely distinguish between the Lander..

Like Australia, the Federal Republic's strong fiscal control over the fiscal policy of the Lander makes the West German system an equally poor model for a European monetary union in which market discipline is exercised on budgetary balances. The Federal Government's heavy hand in determining the optimal level of borrowing for a balanced national economic policy, and an extensive revenue transfer system, limits the market's need to exercise discipline on Lander fiscal policies, even if Uinder deficits merited such discipline.

Canada

*Summary*

Canada has a looser federal system than Australia or West Germany. Canada's vast geography but small population has caused the Canadian Federal Government to become deeply involved in alleviating regional inequalities and contributing to economic development in remote or economically depressed areas. Nevertheless, Canada's implicit credit support for its ten provinces is much more subtle than Australia's or that of the Federal Republic of Germany, falling far short of either control over fiscal policy or a guarantee of creditworthiness. The Canadian provinces are individually ranked by both the domestic provincial and the international bond markets. Provincial concern about ratings (and thus the cost of servicing debt) is undoubtedly one of the reasons why almost all of the provinces have reduced their budgetary deficits in the past three years. Thus, Canada provides a very interesting model for a monetary union in which market discipline regulates budgetary balance.

*Strong financial linkages*

Although the Canadian federal system is looser than the federal systems of either Australia or West Germany, mechanisms have been implemented that provide implicit Central Government support for the individual provinces. These mechanisms should not be construed as reassurance that the Canadian Federal Government can or will directly prevent a province from pursuing misguided policies or that it formally guarantees payments on provincial debt.. There is no national review of state borrowing as exists in Australia (although this has been seriously discussed in Canada), nor is there a direct attempt to ensure the fiscal solvency of individual provinces as with the West German financial equalisation system. Nevertheless, the financial linkages between the Federal and provincial Governments provide a series of buffers that constitute an important safety net against rapid economic decline and fiscal deterioration at the provincial level. This safety net is comprised of several specific linkages.

*The nation-building  
role of the Federal  
Government*

The Canadian Government has felt the need to play a very active part in economic development and regional policy to ensure Canada's independence from the United States and its coherence as a nation. Canada's enormous size and sparse population has necessitated strong public sector leadership in transportation, communications, population settlement and the utilisation of vast natural resources. Moreover, linguistic, ethnic and geographical differences are natural centrifugal forces in Canada, and the Federal Government historically has been the primary impetus in countering these forces.

*Regional  
development  
programmes*

Efforts to compensate for regional disparities and provincial geography were included in the original British North American Act in 1867. The 1982 Constitution reiterates the national commitment to regional development, and the system of regional subsidisation and economic development flourishes today. In 1987, regional development programmes were decentralised: a Federal department became responsible for programmes in Quebec and Ontario, and two new regional agencies were established - the Western Diversification Programme (covering Saskatchewan, Alberta, Manitoba, and British Columbia) and the Atlantic Canada Opportunities Agency (involving Newfoundland, Prince Edward Island, New Brunswick, and Nova Scotia) are currently responsible for disbursing Federal development assistance within their respective regions.

Much of the Federal Government's current regional development assistance is more subtle than that embodied in these specific initiatives. Tax rebates, assistance to regionally-specific activities (such as wheat production, petroleum extraction, forestry or fishing) and federally-funded megaprojects are among the tools used by recent Canadian Governments to prevent a widening of provincial economic disparities.

Through these economic assistance and development programmes, the Federal Government helps to prevent any province from deteriorating economically to the point where its creditworthiness could seriously be questioned. There is no firm evidence that these specific programmes have reduced economic disparities between provinces, and some continue to lag in terms of economic growth and industrial development, but the Federal Government has periodically ensured that this lag is not critical.

*Intergovernmental  
revenue sharing*

Canada maintains a sophisticated revenue-sharing arrangement between the Federal and provincial levels of government. Since the 1930s, the Federal Government has transferred an increasing amount of its revenues to the provinces (although the rate of increase has slowed in the 1980s) so that provincial governments can carry out the educational, health and social welfare maintenance roles delegated to them by the Constitution. The Federal Government uses a large share of the taxing power in Canada, while the provinces have seen their constitutional duties increase with the development of a modern welfare state. Transfer payments are an important compromise between the fiscal power of the Federal Government and the expanding public services burden of the provinces. Both of Canada's major intergovernmental revenue-sharing schemes include strong equalisation components.

*Comparable levels  
of public services*

The Constitution Act of 1982 commits the Federal Government to "ensuring that provincial governments have sufficient revenues to provide reasonably comparable levels of public services at reasonably comparable levels of taxation." The formal system of equalisation has evolved since the Rowell-Sirois Commission publicised its proposals for reforming Canada's fiscal arrangements in 1941. The Commission asserted that a formal equalisation grant system was required "to make it possible for every province to provide, for its people, services of average Canadian standards and ... will thus alleviate distress and shameful conditions which weaken national

unity and handicap many Canadians." The system that developed from these recommendations is set forth in the Federal-Provincial Fiscal Arrangements and Federal Post-Secondary Education and Health Contributions Act of 1987. 14

Canada's system of intergovernmental revenue sharing has two components: the first is conditional programmes that include the Established Programmes Financing (EPF) transfers and cost-sharing programmes such as the Canada Assistance Plan (CAP). The second component is the system of unconditional transfers known as equalisation and stabilisation payments programmes.

### *Per capita transfers*

The EPF transfers are granted by the Federal Government on an equal per capita basis to help defray the costs of national health and post-secondary education programmes. A progressive national tax system applied to a country with marked regional income disparities, coupled with the per capita nature of these conditional grants to the provinces, has a strong equalising impact. A second form of Federal transfer involves cost sharing. Under the largest of these programmes, the Federal Government shares 50% of the cost of welfare assistance under the CAP.

### *Unconditional transfers*

Unlike the EPF and CAP transfers, equalisation payments are totally unconditional transfers, explicitly aimed at narrowing differences in the ability of provinces to provide public services. The payments are made from the Federal treasury and so have no effect on the financial position of the wealthy provinces. The poorer provinces, however, receive revenues from the equalisation programme. The equalisation formula determines an average level of fiscal capacity or average national tax capacity by calculating the average of five representative provinces (currently British Columbia, Manitoba, Ontario, Quebec and Saskatchewan). Provinces in which fiscal capacity falls below the average level receive payments to align them with the national standard.

### *Stabilisation programmes*

While equalisation helps to stabilise the revenues of recipient provinces, a separate stabilisation programme exists to compensate all provinces for an unexpected decline in tax revenue. This programme is most likely to apply to the western resource-dependent provinces, which could suffer from a drop in resource-related revenue. The programme has been used only once — for British Columbia in fiscal 1982-83. Nevertheless, it provides an important safety net for those provinces, which are outside the scope of the equalisation programme. Provinces often cite the stabilisation programme as assurance to investors that provincial revenue will not fall below a certain level, thereby affecting the province's ability to service debt.

Clearly, the Federal transfer arrangements provide an important source of fiscal support for the less wealthy provinces. The Atlantic provinces in particular rely heavily on fiscal transfer payments, with equalisation providing between 30% (Newfoundland) and 21% (Nova Scotia) of total revenue. The constitutional goal of enabling provinces to provide reasonably comparable levels of public service is, to a large degree, met by the transfer payment system. **Most important, at least in terms of provincial credit standing, the Federal Government's contribution to revenues in the poorer provinces makes them decisively stronger fiscally than they would be in the absence of such Federal support.**

### *Historical precedent*

During the early 1930s, before the current Federally supported revenue-sharing arrangements had been legislated, the Federal Government rescued at least three provinces that experienced financial difficulties. British Columbia, Manitoba and Saskatchewan each received emergency Federal assistance in the depths of the depression between 1933 and 1936, when they were threatened with having to default on outstanding bonds. In at least five cases, under both Conservative (up to November 1935) and Liberal (after November 1935) leadership, the Federal Government granted loans to these provinces to avert a liquidity crisis and to prevent default or

delayed payments to bondholders. Officials in both Governments during this period emphasised their concern about the ramifications of provincial delays or defaults on the ability of the Federal Government to borrow internationally on favourable terms.

In only one instance did the Federal Government permit a province to default. In 1936, an actively centralist Liberal Government demanded that a province accept Federal supervision of its finances under a loan council scheme, which would oversee provincial debt accumulation before the province could receive Federal funds. A devolutionist provincial Government refused to accept this proviso, as did several other provinces that received emergency loans. Despite possible national credit ramifications of a provincial default, the Federal Government stood firm, and the province defaulted on one bond issue. The province eventually accepted Federal Government fiscal supervision and subsequently received Federal loans; by 1945, all creditors had been fully compensated for all principal and interest that had been suspended.

The current revenue-sharing system and economic support mechanisms make such individual provincial financial crises highly implausible. Nonetheless, the experience of the 1930s illustrates that, even before the development of the modern federal system in Canada, the Federal Government provided direct support to ailing provinces. Although this experience does not guarantee that the Federal Government will again come to the financial assistance of a province, it is an important precedent in determining the strength of Federal-provincial financial links and assessing the likelihood of Federal emergency support.

*The market still sends clear signals*

Despite the strong financial linkages between the Canadian Federal Government and the provinces, both the international and domestic debt markets distinguish quite clearly between the credit quality of the ten provinces and thus send clear messages on fiscal appropriateness to the provincial governments. In the domestic provincial bond market, there is a yield spread of up to 50 or 60 basis points between the stronger (fiscally and economically) provinces and the weaker provinces. A spread gap of around 40 basis points exists between Ontario and the weaker provinces in the United States, Yankee bond market.

### **Credit ratings**

Although the ratings spectrum among the provinces is overly wide considering the implicit Federal Government support, both the international and domestic rating agencies assign significantly different ratings to the various provinces. This reflects an informed, objective judgement on the credit quality of the Canadian provinces based on economic strength, budgetary deficits, overall debt levels and political commitment to fiscal adjustment. Figure 1 summarises the diversity of the ratings.

Figure 1. Credit Ratings of the Canadian Provinces

Province	Moody's	Standard & Poor's	Canadian Bond Rating Service
Alberta	Aa1	AA+	AA
British Columbia	Aa2	AA+	AA+
Manitoba	A1	A+	AA-
New Brunswick	A1	A+	A
Newfoundland	Baa1	A-	BBB
Nova Scotia	A2	A-	A-
Ontario	Aaa	AAA	AAA
Prince Edward Island	NR	NR	BBB+
Quebec	Aa3	AA-	AA
Saskatchewan	A1	AA-	AA-

Note: Moody's Investors Service and Standard & Poor's are New York-based rating agencies which rate the provinces' International Issues. Canadian Bond Rating Service is a Montreal-based agency that rates the provinces' Canadian Issues.

Between 1981 and 1986, all of the Canadian provinces saw their budgetary deficits and debt increase significantly. The world recession of the early 1980s, the precipitous fall in the price of oil in 1985, weak world markets for commodity exports, increasing debt servicing requirements, and pressure on the Federal Government to reduce its own deficit and thus slow the increase in transfer payments to the provinces were the major factors contributing to fiscal pressure and mounting debt. The provincial budgetary deficits reached an average of 12.4% of revenues in fiscal 1987. The credit deterioration was most obvious in rating action during the period. The ratings of all nine provinces that borrow internationally were lowered at least once between 1981 and 1987 - two provinces were downgraded twice. This was a clear market signal that deteriorating financial circumstances would result in more expensive borrowing terms.

Since 1987, virtually all of the provinces have reversed this downward fiscal trend. The anticipated average budgetary deficit as a percentage of revenues is expected to decline to 3.4% in fiscal 1990 (ending March 31, 1990) and new borrowing by the provinces should be at the lowest level in almost a decade. As a result of this improved performance, two provinces have had their ratings raised since 1988 (none has been lowered). Additionally, in June 1989, Standard & Poor's placed four provinces on a positive rating outlook list (one had been upgraded a week earlier and the other four have stable rating outlooks). Although a buoyant Canadian economy was the primary contributor to vastly improved provincial fiscal performance, the market sent clear signals through the pricing and ratings of provincial debt.

Despite strong linkages between the Canadian Federal Government and the provinces, the market continues to distinguish among the provinces in terms of fundamental credit quality. **The lack of an explicit Federal Government guarantee to come to the assistance of a financially distressed province (i.e., only a vague commitment of support), has ensured that the market continues to send signals on the appropriateness of provincial budgetary policies.**

\* \* \*



### Appendix 11: The 1975 New York Debt City Crisis

This section analyses one of the incidents often cited as an example of the failure of market discipline: New York City's fiscal crisis of 1975 (a brief history of events is given on page 16). This crisis involved specific factors that seem unlikely to be present in the EC or can readily be avoided by proper structuring of the monetary union of Europe.

The Delors Committee Report specifically refers, in paragraph 30, to the risk that market forces will be too weak and slow or, alternatively, too sudden and disruptive: We believe that a study of this leading example provides valuable lessons on how market discipline can be used as a genuine and simpler alternative to binding budgetary rules.

*The lessons relevant for EC monetary union*

- Probably the most powerful lesson is that a determined administration could circumvent any prudent constitutional arrangements. In this case, the "check" of the superior legislative body - New York State - failed entirely, because New York State systematically permitted its checks to be avoided by abuses of borrowing powers. Looking at the growth of European "pork barrel" politics - perhaps exemplified by the EC's Common Agricultural Policy - there can be little confidence that late-night, budget cooperation deals would not fall into the same trap. That would be the precise moment when "vital national interests" were at stake and could easily warrant a threat to leave the union.
- The speed and severity of the crisis, when it ultimately arrived, can be traced directly to the progressive increase in the proportion of short-term debt. This occurred partly because it was easier to avoid the statutory debt limits with short-term debt, but also partly because of the fatal illusion that it was "cheaper," due to the positive yield curve. This problem underlines the need for stable debt servicing expenditure. Public policy should always favour stability and the avoidance of a liquidity crisis, even at the cost of higher, current interest costs. The nature of the debt portfolio should be disclosed - fully and in a readily accessible and comprehensible form - so that the markets can make a proper judgement.
- As New York City was part of a monetary union, it had no possibility of escape through printing more money. Therefore, its default could not be along an inflationary route - it had to threaten a formal failure to pay obligations, when due. This put its financial system directly at risk, rather than indirectly via the problems of inflation. Although this risk did not crystalise, there would have been even less of a reason for the central authority of the political federation to contemplate the need for a bail-out if its financial system had possessed a more widely-diversified portfolio of assets.

New York City's fiscal crisis is particularly instructive, because it happened to the public authority within which one of the world's most sophisticated financial markets flourishes. Moreover, the higher legislative body was, systematically and publicly, persuaded to override the constitutional checks intended to prevent exactly this type of crisis. The persuasion was not difficult, because that higher body was also in financial difficulties. The EC's binding budgetary rules could well be as vulnerable.

#### How the Constitutional Checks and Balances Were Avoided

The roots of the problem go back to the 1960s. New York City's Charter required a balanced budget (paragraph 1515). The crisis arose because of abuses of both short- and long-term borrowing powers, as well as the use of Public Benefit Corporations to avoid statutory debt limits. The operating expense budget was to be balanced by setting the real estate tax (the major revenue source) at the level necessary to achieve that balance, although

subject to a ceiling. There was a separate capital budget for capital projects and borrowing was permitted - but subject to limits laid down by the State of New York.

The State limited the maturity of debt to the "probable usefulness" of the life of the project. The city sought, and obtained, numerous amendments to this law; effectively, operating expenses were capitalised. Despite criticism as early as 1966 about whether these were really capital projects, the practice grew, and borrowing for current expenses rose from 4% of the city's funds in 1965 to 53% in 1975.

Abuses of short-term borrowing centred on Revenue Anticipation Notes (RANs), Tax Anticipation Notes (TANs) and Bond Anticipation Notes (BANs). RANs were simple borrowings against tax revenue due to be paid in the following budget year, but which accrued in the current year. In the 1965-75 decade, RANs increased sixfold. This process failed to allow for budgetted revenue that, for whatever reason, was never collected. This problem became most acute with TANs, which were largely used to anticipate real estate taxes. By 1975, US\$380 million of TANs were outstanding against taxes receivable of \$502 million - per annual report. However, the State auditors ultimately reckoned that revenues unlikely to be collected amounted to \$408 million of that total.

BANs were another significant misuse of short-term borrowing powers, because they allowed temporary financing, for example, for the construction period of a project, prior to "permanent" financing by a bond issue. By continuously rolling over BANs, cheaper financing was provided due to the positive yield curve and, helpfully, no principal had to be repaid.

Public Benefit Corporations (PBCs) were created by the State of New York to run revenue-producing facilities, such as public utilities. Increasingly, these PBCs began to finance non-revenue-producing activities, yet their bonds were still held to be a "moral obligation" of the sponsoring authority. A "full faith and credit" commitment was not previously necessary, because the revenue stream would repay the bonds. These off-balance-sheet commitments became large - New York State public authorities had \$15 billion of "nonguaranteed" debt outstanding in 1977, versus only \$3.7 billion of guaranteed debt.

*The resultant debt portfolio*

Figure 2. City of New York Combined Debt Position, 1965-76 (Dollars in Billions)

	1965	1970	1975	1976
Net City Funded Debt	\$3.9	\$4.4	\$6.8	\$6.5
Net MAC Debt	—	—	—	\$3.5
Net Debt of PBCs	—	—	—	\$0.9
Subtotal	\$3.9	\$4.4	\$6.8	\$10.9
Short-Term Debt	0.5	1.3	4.5	2.1
Total Net Debt	\$4.4	\$5.7	\$11.3	\$13.0
Net Debt Per Capita	\$571	\$716	\$1,513	\$1,753
Net Debt As Pet. Of Personal Income	16.0%	15.0%	22.9%	25.0%

MAC Mutual Assistance Corporation. PBC Public Benefit Corporation.  
Source: Annual Reports of the Comptroller.

In its 1981 rationale for the restoration of a credit rating to New York City, Standard & Poor's noted that the city's reliance on long-term bond issues to finance operating expenses had begun to weaken the market for its bonds even in the late 1960s. As a result, BANs had become particularly attractive, as they were also cheaper. The resulting build-up in short-term

debt flooded the municipal market with New York City paper - which accounted for perhaps 40% of total volume at the peak. When the market would no longer buy city paper at any reasonable price, the scale of the short-term liabilities inexorably led on to a liquidity crisis as they fell due in enormous quantities and could not be rolled over. Figure 2 sets out the rapid growth in total debt and its shortened maturity. It also illustrates the role of Public Benefit Corporations - the total debt was nearly 10% higher than was readily visible, because of the off-balance-sheet nature of their debts.

Brief History of the Crisis

By 1974, creditworthiness problems were already apparent and the State of New York set up the Stabilisation Reserve Corporation (SRC) to help raise funds for New York City. Drastic budget cuts were proposed, including heavy lay-offs of workers, but the credibility of these proposals was increasingly questioned.

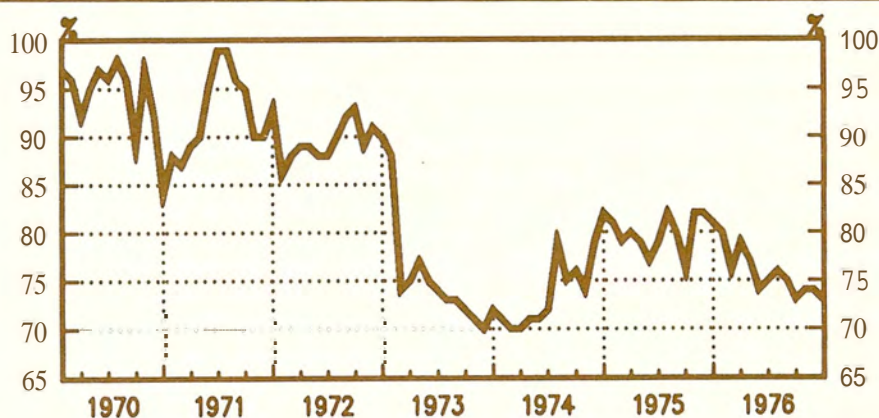
**Figure 3. The Events of 1975**

February	Legality of SRC challenged. Urban Development Corporation (of New York State) defaulted on the rollover of short-term debt, souring market perceptions about New York-related paper. Failure of TAN sale after it was found that the <u>pledged tax payments would not exist.</u>
March	Short-term city notes offered for sale at yields close to <u>twice those offered by other municipalities: only 40% sold.</u>
April	Standard & Poor's suspended its "A" rating, citing "New York City's rapidly deteriorating ability to raise money in the capital market... the possible inability or unwillingness of the major underwriting banks to continue to purchase the <u>City's notes and bonds ...</u> "
June	State of New York created Municipal Assistance Corporation (MAC) with a "moral obligation" to repay its bonds. Specific New York City tax revenues were pledged to MAC, which was authorised to borrow up to \$3 billion, principally to <u>refinance short-term city debt with long-term MAC bonds.</u>
July	MAC bonds rated "A" and the largest-ever municipal financing was attempted. Half was left with the underwriters, despite yields 50% above comparable bonds.
September	Special audit by the State reveals that the city's cumulative budget deficit was effectively understated substantially. State of New York created Emergency Control Board, MAC's borrowing authority raised to \$5 billion - \$2 billion needed to keep city afloat until November - the crisis becomes acute.
October	President Ford reaffirmed his stand against a Federal bail-out.
December	State of New York passed Moratorium Act to allow MAC to offer bonds due in 1986 in exchange for bonds that had matured in July - or the holders would face a three-year principal moratorium and a reduced interest rate.

Thereafter, the immediate crisis eased. However, as the full magnitude of the debts unfolded, MAC's borrowing powers were raised in 1978 and again in 1980 to \$10 billion (although \$4 billion of this was "new money," rather than refinancing). Even then, the city's debt structure was still felt to be too short - 50% of debt was due within five years and 75% within ten years. The subsequent burst of double-digit inflation helped New York City enormously by raising tax revenues relative to the debts. In March 1981, Standard & Poor's restored a credit rating of BBB to New York City's obligations, symbolising the end of the financial crisis.

Despite the publicity and discussion about the potential implication of default, our data reveal that the markets as a whole were little affected. The interest on municipal bonds was tax-exempt and therefore always yielded less than Treasury securities. Figure 4 sets out the long-run history of the ratio of prime municipal yields as a percentage of pretax Treasury bond yields. The rise in the ratio in the second half of 1974 suggests some anticipation of the problem, but it still remained well below the peaks of the beginning of the decade. Even within the municipal bond market, the severe crisis of one of the largest issuers was recognised as a specific, rather than general, problem. The spread between medium grade and prime long-term municipal bonds averaged 40-50 basis points in 1974 and 60-70 basis points in 1975, depending on maturity. Although this spread hovered around 100 basis points at the height of the crisis, within a year it had collapsed back to 20 basis points.

Figure 4.30-Year Prime Municipal Yields as a Percentage of Pretax Yields on 30-Year Governments, 1970-76



Source: Salomon Brothers Inc.

There was some fear that the banking system would be undermined by default, because it held \$7 billion of New York's \$12 billion of securities. The New York City banks held \$2 billion of city securities and, for six of the 12 banks, the holdings amounted to 70% of their equity. The Federal Reserve Board emphasised its willingness to fulfill its role as lender of last resort and no problems materialised.

\* \* \*

## Appendix III: The Existing Framework

### Existing Market Differentiation

One of the questions raised by the debate over monetary union is whether the international capital markets will differentiate between the constituent parts of a monetary union. The Canadian provinces, where credit ratings range from Aaa/AAA to Baa/A- and where borrowing costs between the strongest and weakest provinces diverge by about 40 basis points, provide a good example of this differentiation between credits within a monetary Union.

While a European monetary union does not yet exist, it is interesting to note the range of market discrimination that is currently exercised regarding the external debt of the Member States of the European Community. One must examine how and why these distinctions are drawn to determine whether they would remain after the formation of a monetary Union.

#### **Borrowing costs**

Evidence of market discrimination is found in the borrowing costs faced by different borrowers. While factors such as maturity, size of an issue, its structure and market conditions clearly contribute to the pricing of a new bond issue, much of the price differentiation is related to the credit fundamentals and credit rating of a country. Under current conditions, the yield spread for a new fixed-rate bond issue might be 50-60 basis points - for example, between Italy and Greece.

#### **Secondary market trading**

Another example of market differentiation is provided by bonds of sovereign issuers trading in the secondary market. As shown in Figure 5, a spread of nearly 40 basis points exists between one of the strongest members of the European Community (the United Kingdom) and one of its weaker members (Portugal). Even allowing for liquidity and structural factors, this is a significant credit differential.

Figure 5. Eurodollar Floating-Rate Note Market (Discount Margin Versus Six-Month L1BOR, Mid-Market, at Oct 31, 1989)

United Kingdom <sup>a</sup>	(33)bp
Republic of Italy	(33)
Credit Foncier (Gtd. France)	(20)
Kingdom of Belgium	(19)
Kingdom of Denmark	(18)
RENFE (Gtd. Spain)	(16)
Republic of Ireland	(2.5)
Republic of Portugal	5.5

<sup>a</sup> Three-month LIBOR. Bp Basis point.

The Eurodollar straight bond market provides another example of this differentiation. A seven-year bond issued by the European Community itself trades at 45 basis points, and a six-year bond issued by the Republic of Italy at perhaps 50 basis points, over comparable US Treasuries. Reflecting market differentiation, a comparable Kingdom of Denmark issue trades in a substantially wider range, at 70 basis points over US Treasuries.

#### **Credit ratings**

Among other factors, market differentiation reflects the range of credit ratings assigned to sovereign issuers. One or both of the two major rating agencies, Moody's Investors Service and Standard & Poor's, have rated the debt of all of the members of the European Community. These ratings range from triple A to triple B, spanning the full investment grade spectrum (see Figure 6). (In cases where no sovereign debt is outstanding, the rating agencies have assigned implicit ratings.) The example of the Canadian provinces suggests that even within a monetary union, a range of credit ratings (as well as borrowing costs and secondary market trading spreads) would persist. (This would hold true for the domestic debt of countries, as well as for their external obligations).

	Moody's	Standard & Poor's
France	Aaa	AAA
West Germany	Aaa	AAA
Netherlands	Aaa	AAA
United Kingdom	Aaa	AAA
Luxembourg	Aaa	NR
Italy	Aaa	AA+
Belgium	Aa1	AA+
Denmark	Aa1	AA
Spain	Aa2	AA
Ireland	Aa3	A+
Portugal	A1	A
Greece	NR	BBB

NR Not rated.

### Sovereign credit assessment

A key factor in determining market differentiation is the way in which market participants, including the rating agencies, institutional investors and underwriters, analyse and assess various sovereign credits. A wide array of information is available to the analyst interested in arriving at a credit judgement regarding a sovereign borrower. Finance ministries and central banks publish timely and reliable data on the finances of sovereign borrowers. International entities, such as the Organisation for Economic Cooperation and Development (OECD), the International Monetary Fund (IMF), and the European Community itself, regularly monitor the economies of European sovereigns. Because these countries are industrialised democracies with free political debate and highly educated populations, issues related to sovereign credit quality are fully debated in the press, in professional journals and in public political forums.

The methodology for assessing sovereign credit is explored in detail in the publications of rating agencies and other sources<sup>1</sup>. In focusing on a country's creditworthiness in foreign bond markets, rating agencies and analysts have concentrated on assessing the size of, trends in, and the serviceability of a sovereign's external debt. In doing so, they must examine many factors. Standard & Poor's, for example, looks at *political* factors such as the political system, social environment and external relations; and *economic* factors such as the debt burden, international liquidity, balance of payments flexibility, economic structure, growth performance, economic management and economic outlook to arrive at a rating judgment.

### Changing focus of sovereign assessment

The development of a monetary union will change the focus of sovereign credit analysis, narrowing the number of factors on which a market judgment of creditworthiness can be based. In a monetary union, a country's *external* balance will become irrelevant for the creditworthiness of constituent members; the current account balance will be the concern of the monetary union as a whole. Instead, a country's *internal* balance (its budget deficit or surplus) will become more important. Other factors, such as inflation, growth rates and living standards will remain relevant indicators, and under a monetary union are expected to converge. Increasingly, rating agencies and credit analysts will focus on the budget deficit and levels of internal debt to assess relative creditworthiness, as they do in the case of the Canadian provinces. Through these credit judgments and the market discrimination they engender, the market will exert discipline on the fiscal policies of members of the monetary union.

<sup>1</sup> See *Credit Quality in the Yankee Market -- Sovereign-Backed Issuers Offer Opportunity*, by John F.H. Purcell, Michelle B. Miller, Dirk W. Damrau, Salomon Brothers Inc, November 10, 1988.

International investors are familiar with the data on external debt and debt servicing capacity. This is one of the key ingredients for the application of market discipline to external debt. However, those same international investors are probably not so familiar with the internal indebtedness of some Member States. An increase in knowledge will be necessary as the international markets focus on the internal debt, once that is known to have become more like external debt -- that it cannot be inflated away.

For the EC as a whole, Government borrowing has declined recently to 3% of gross domestic product (GDP) (see Figure 7). This is well below the levels seen in the early 1980s, but is still half as high again as the much criticised US budget deficit. Moreover, the degree of fiscal stimulus is barely below the "crisis response" to the first "oil shock" in the mid 1970s. The persistently high, even rising, deficits of Greece and Italy stand out -- at roughly seven and three times the Community average, respectively.

Figure 7. General Government Lending (Borrowing), 1974-90E (As a Percentage of GO<sup>m</sup>)

	1974-81	1982-85	1986	1987	1988	1989E	1990E
Belgium	(6.6)%	(10.0)%	(8.8)%	(7.0)%	(6.5)%	(6.0)%	(5.7)%
Denmark	(1.4)	(5.6)	3.5	1.8	0.2	0.1	0.7
France	(1.0)	(2.9)	(2.7)	(2.0)	(1.4)	(1.2)	(1.1)
Greece	—	(9.9)	(12.5)	(12.3)	(14.9)	(19.9)	(20.0)
Ireland	(10.5)%	(11.5)%	(11.1)%	(9.1)%	(3.7)%	(3.7)%	(1.5)%
Italy	(8.4)	(11.5)	(11.7)	(11.2)	(10.6)	(10.3)	(9.8)
Luxembourg	1.4	2.3	3.1	2.5	2.5	2.4	2.8
Netherlands	(2.9)	(6.2)	(6.0)	(6.5)	(4.9)	(4.4)	(4.2)
Portugal	—	(10.4)%	(7.2)%	(6.9)%	(6.5)%	(6.0)%	(6.1)%
Spain	(1.3)%	(5.7)	(6.1)	(3.6)	(3.2)	(2.6)	(2.4)
UK	(3.8)	(3.1)	(2.4)	(1.5)	0.8	1.5	1.1
West Germany	(3.0)	(2.2)	(1.3)	(1.9)	(2.1)	0.0	(0.4)
AIIEC	(3.7)% <sup>a</sup>	(5.3)%	(4.8)%	(4.3)%	(3.6)%	(2.9)%	(2.9)%
US	(1.4)	(4.2)	(4.4)	(2.3)	(1.8)	(1.8)	(1.7)
Japan	(3.5)	(2.6)	(1.1)	(0.3)	0.5	0.4	0.4

<sup>a</sup> EC without Greece and Portugal. E Estimate.

Source: European Commission, Annual Economic Report, 1989.

### Gross public debt

Figure 8. Gross Public Debt, 1973-90E (As a Percentage of GoP)

	1973	1985	1986	1987	1988	1989E	1990E
Belgium <sup>a</sup>	63.2%	115.4%	118.8%	125.5%	127.5%	126.6%	126.0%
Denmark	8.8	74.5	67.2	63.9	64.0	61.6	58.1
France	22.7	33.2	33.7	35.1	35.7	35.4	35.2
Greece <sup>b</sup>	19.5	57.9	58.3	66.6	73.9	82.1	91.8
Ireland <sup>b</sup>	54.7%	104.7%	115.7%	118.5%	115.4%	110.9%	105.3%
Italy	54.2	84.0	88.5	92.9	96.1	98.5	100.5
Luxembourg	20.4	13.8	13.6	12.2	10.1	9.1	7.9
Netherlands <sup>a</sup>	43.4	69.7	71.7	75.3	77.4	78.3	78.5
Portugal	—	69.5%	68.4%	71.7%	74.5%	75.3%	76.3%
Spain	12.8%	47.2	48.0	48.3	44.1	43.8	42.0
UK	66.1	57.3	56.2	54.6	49.1	44.1	40.4
West Germany	18.6	42.5	42.7	44.0	44.7	43.4	42.7
AIIEC	37.4% <sup>c</sup>	56.8%	57.7%	59.4%	59.1%	58.4%	57.8%

<sup>a</sup> Excludes social security funds. <sup>b</sup> Central Government only. <sup>c</sup> Excluding Portugal.

Source: European Commission, Annual Economic Report, 1989.

The impact on the Community's indebtedness of such large and persistent borrowing is hardly surprising. Figure 8 shows that gross debts, in relation to GDP, have risen by nearly two thirds since the eve of the first oil shock and now stand at almost 60% of Community GDP.

Reviewing the individual components, Danish indebtedness may have risen spectacularly, but it is still only just above average and falling. Only Belgium is more than twice as indebted as the Community average. The two countries facing the most rapid deterioration - Greece and Italy - are in different positions. After a long period of sharp relative deterioration, Greece has only recently seriously exceeded the Community's average indebtedness. Italy is already 60% above average. Interestingly, among the major countries, France is noticeably least indebted and the UK's level may soon be lower than that of West Germany.

**Interest payments**

Total indebtedness equals 60% of output, therefore, interest payments on such an accumulated debt are heavy budgetary expenditure items (see Figure 9). Indeed, for the EC as a whole, interest payments are 4.8% of GDP. Not surprisingly, Belgium and Greece have conspicuously heavy interest burdens - at about twice the EC average. Both Greece and Italy borrow afresh all their interest payments.

**Figure 9. Interest Payments on Public Debt, 1973-90E (As a Percentage of GDP)**

	1973	1985	1986	1987	1988	1989E	1990E
Belgium	3.3%	10.6%	11.1%	10.5%	10.2%	10.5%	10.6%
Denmark	1.3	9.9	8.8	8.3	8.1	7.6	7.1
France	0.8	2.9	2.9	2.8	2.7	2.7	2.8
Greece	1.0	5.4	5.7	7.6	8.3	9.6	10.5
Ireland	3.6%	10.3%	9.8%	9.7%	9.4%	8.9%	8.5%
Italy	2.2	8.0	8.6	8.1	8.2	9.0	9.1
Luxembourg	0.9	1.1	1.1	1.1	0.9	0.8	0.7
Netherlands	2.8	6.3	6.2	6.2	6.0	6.0	5.9
Portugal	—	7.9%	9.2%	7.8%	7.7%	7.9%	7.8%
Spain	0.6%	3.2	3.8	3.5	3.3	3.4	3.5
UK	3.6	4.9	4.5	4.3	3.9	3.5	3.1
West Germany	1.1	3.0	3.0	2.9	2.8	2.7	2.6
AIIEC	1.9%a	5.0%	5.0%	4.8%	4.70A1	4.8%	4.8%

a Excluding Portugal. E Estimate.

Source: European Commission, Annual Economic Report, 1989.

Perhaps a more relevant consideration is the proportion of Government revenues that are preempted by interest charges, which gives a measure of fiscal flexibility. The Community divides sharply: the statistical average is that 11% of revenues are required for interest charges, but five States preempt roughly 9% or less. Five others already commit 22%-26% of their revenue to interest payments.

From this data alone, it seems that the Community as a whole has passed the worst of its debt deterioration relative to output - indebtedness has virtually stabilised, interest payments are declining slightly and the proportion of revenues committed to interest payments has fallen noticeably. However, these trends are far from uniform and there are conflicting examples.

The existing, readily available data is interesting, but may not tell the whole story. The bondholder is particularly interested in the certainty of interest and principal repayments even under adverse economic circumstances. Does the data include all entities that are formally guaranteed? And any obligations that these entities may have undertaken? What about "moral obligations," whether formal or merely implicit due to national prestige or the like?



There is insufficient readily available data to enable international investors to judge the stability of these debt portfolios. In many States, much Government finance is transacted through private placements, where maturity and interest rate-sensitivity are not necessarily published. Full data on the maturity structure of all the debt servicing obligations likely to be faced by the Government, even under the worst circumstances, is essential if the markets are to form a proper judgement of risk.

\* \* \*

A key element of any monetary union is that none of the constituents should be, or become, so disadvantaged that their best interests might be served by leaving the union. Adequate levels of resource transfer are vital if the less-developed members are not to be penalised by the markets simply because they have greater development finance needs.

Are the disparities in the wealth of EC Member States so great, or so unlikely to narrow, that the creditworthiness of these States might be doubted, or perhaps their ability, or desire, to remain within a European monetary union?

Regional Disparities

The 12 EC Member States can readily be split into two groups for analytical purposes: the four less advanced countries, Greece, Spain, Ireland and Portugal - Eur-4, and the remaining eight - Eur-8.

Figure 10. Per Capita GDP at Current Market Prices and Purchasing Power Standards, 1989 (Eur-12 = 100)

	1989 <sup>a</sup>
<u>Eur-8</u>	
Luxembourg	124.9
West Germany	113.5
France	108.4
UK	<u>108.2</u>
Denmark	107.1
Italy	102.7
Netherlands	102.6
Belgium	<u>100.3</u>
<u>Eur-8 Weighted Average</u>	1077
<u>Eur-4</u>	
Spain	75.6
Ireland	63.1
Portugal	55.5
Greece	51.1
<u>Eur-4 Weighted Average</u>	67.8

a European Commission Autumn 1988 forecasts.  
Source: Eurostat and Commission Services.

With per capita GDP in the Eur-4 countries only 61.1% of that of the four strongest countries, there is clearly a wide discrepancy between the two groups. However, that discrepancy has already narrowed substantially, and is likely to narrow further in the years ahead. Thirty years ago, long before any of these countries had joined the EC, the Eur-4's per capita GDP was only 45% of that of the four strongest countries. The ratio reached its peak, at 63.5%, in 1975 and then fell back with the recession after the first "oil shock." Despite above-average growth since then, Eur-4 per capita GDP has slipped because their population growth rate has been about three times that of Eur-8.

Since the late 1960s, the ratio of the original six members of the EC has converged to reach 90% of the average, so that degree of convergence between the Eur-12 and Eur-4 countries is likely to be readily acceptable. To reach that target by 1992, the Eur-4 would have to achieve an implausibly high growth differential of 5.6% annually. However, over a decade, that convergence could be achieved with a differential slightly above the 2.3% average recorded in the period 1961-73. Over two decades, the required differential is only 1.4% annually.

The Member States have already agreed a major programme of resource transfers to the least advanced countries. At the Brussels Summit in February 1988, the EC agreed to double the size of the "structural funds" by 1992. Figure 11 indicates the scale of the resource transfer, including that agreed at the Brussels Summit. For the four less-advanced countries as a group, this transfer could exceed 2% of their GDP, but the three poorest could receive between 3% and 6%.

Figure 11. Resources Allocated Through Structural Funds and Financial Instruments in 1987 and 1992-93E (As a Percentage of GDP)

	Structural Funds <sup>a</sup>	Financial Instruments <sup>b</sup>	Total
<b>1987</b>			
Greece	1.46%	0.41%	1.87%
Ireland	1.86	0.71	2.57
Portugal	2.56	1.24	3.80
Spain	0.48	0.29	0.77
Eur-4	0.88%	0.42%	1.30%
<b>1992-93<sup>c</sup></b>			
Greece	2.63%	0.72%	3.36%
Ireland	3.22	1.22	4.44
Portugal	4.23	2.05	6.28
Spain	0.77	0.46	1.22
Eur-4	1.44%	0.69%	2.13%

a Regional Fund, Social Fund, European Agricultural Guidance And Guarantee Fund, including commitments and provisional figures. b European Investment Bank and New Community Instrument, including loan agreements; Euratom, including loans paid out and provisional figures. c Figures are based on the following two, very tentative, assumptions for 1992-93. (1) Grants under the structural funds are doubled in real terms for the four less-advanced countries and Italy, and held constant for other countries, as percentage of real GDP. (2) Loans under the financial instruments are up by 100% in real terms for the four less-advanced countries and Italy, and held constant for other countries, as percentage of real GDP. The figures for 1992-93 should by no means be interpreted as forecasts; they are only points of reference for discussions.

Source: Commission services.

Even before taking these transfers into account, the Commission forecast that the Eur-4's per capita GDP would rise somewhat, to 63.5% of Eur-8's by 1992. However, the Commission also hypothesises about the potential impact of such large transfers. The ideal circumstances are that this support is fully reflected in an increase of the investment/ GDP ratio and that marginal capital productivity recovers to the levels of the late 1960s. The Eur-4's per capita GDP growth in 1992 would then be 7.5% instead of 3.9%. Such a growth path could narrow the wealth gap substantially, taking per capita GDP to over 75% of Eur-8's.

These resources, if properly utilised, have the potential to ignite a boom that will produce a more rapid growth in prosperity than anything seen in the past 20 years. If such a boom were to occur, it seems unlikely that any Member State's creditworthiness would be questioned on grounds of relative poverty.

Accordingly, we believe the European Community is well on the way to passing a key test of its ability to operate a monetary union. However, policy must not be steered so far to the other side of the narrow channel that market discipline is undermined by equating large resource transfer with an implicit guarantee.

Other Titles In "1992 And Beyond" Series

*Fortress Europe?*, Graham Bishop, Salomon Brothers Inc, October 1988.

*Banking - Will Liberalisation Itself Lead To A Common Currency?*,  
Graham Bishop, Salomon Brothers Inc, February 1989.

*The Long March To European Monetary Union -- Two Practical Steps*,  
Graham Bishop, Salomon Brothers Inc, May 1989.

*European Banking Integration In 1992 -- The Competitive Challenges  
Facing US Multinational Banks*, Thomas H. Hanley *et al*, Salomon  
Brothers Inc, June 1989.

*The Madrid Summit -- European Monetary Union IS Coming*, Graham  
Bishop, Salomon Brothers Inc, July 1989.

*An Introduction to the European Community*, Graham Bishop and Ann  
O'Kelly, Salomon Brothers Inc, October 1989.

\* \* \* \* \*

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## European Business Analysis

1992 and Beyond

**Salomon Brothers**

February 22, 1990

Graham Bishop  
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### Creating an EC Monetary Union with Binding Market Rules

#### Introduction

In a recent report, we expressed the view that the ultimate market sanction — cutting off further credit supplies — could enforce fiscal prudence in a more flexible way than was possible under any system of “binding budgetary rules.”<sup>1</sup> Flexibility remains, but the sanction is certain.

Administrative budgetary rules will be more difficult to develop and apply. At a minimum, they should require European Community (EC) finance ministers to exert peer group pressure by vigorously, and publicly, warning on budgetary excesses. The key question is how effective these rules can be in creating a binding sanction. Irrespective of success on this score, the simple fact that market discipline *does* have a final sanction demands that a financial structure be created that would not collapse under the weight of this sanction. The system must be designed to perfect, rather than eliminate, market discipline and so to complement budgetary rules.

**In this report, we set out the basic principles necessary to ensure that market discipline is certain and that it operates slowly and progressively, rather than abruptly and catastrophically.**

A deterrent deters only if all parties know that it is capable of working effectively and that the will to use it exists. Our proposed deterrent involves a series of ever-tougher credit crunches before the final sanction: the withdrawal of new credit. If the electors of a particular state are bent on ruin, then they will be made painfully aware for several years of their progress down the long and bumpy slope to fiscal collapse.

The will to use the deterrent is another matter entirely. A plan that relies for success on the structure of the financial markets must recognise that it cannot negate political will. The political system that creates a financial structure today can change it at any stage in the future. Today’s generation can merely put in place a set of rules that will require lengthy, careful and widespread debate about the consequences of any change.

**Our plan has two components: a statement of principle that the fiscally imprudent will not be bailed out; and a set of measures to create a financial structure that is manifestly strong enough to make that principle credible.** If a structure is so weak and flawed that a significant default would inevitably cause the system to collapse, then no one — market participant or politician in the country at risk — is likely to believe in the “no bail-out” principle.

<sup>1</sup> *Market Discipline CAN Work in the EC Monetary Union*, Salomon Brothers Inc, November 1989

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### The “No Bail-Out” Principle

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This principle should be enshrined in the Treaty of Rome. This would represent the EC's strongest possible statement of its intention to break with past practices of solving problems at the taxpayers' expense. Every participant in the whole process would be conscious of this express intention. Investors would recognise the lengthy procedures that would be necessary before such a provision could be removed; if an investor were operating on the cynical assumption of an ultimate bail-out, this alone would ensure uncertainty about the timely payment of principal and interest.

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### The Structure of the Financial System

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Financial systems are normally structured on the assumption that central government debts, if not those of the public sector as a whole, are free of credit risk. This assumption, explicitly restated in the Cooke Committee rules for the capital adequacy standards of banks, has been incorporated into Community law through the Solvency Ratio Directive. The assumption that central government debts carry no credit risk is based, in part, on a government's power to tax, but this power has limits when labour and capital are freely mobile: New York City demonstrated this in 1975. And the Single Market programme aims to create such mobility.

In the final analysis, however, a government can always print money to repay the nominal amount of its debts. (The consequences for the real value of the debts are a separate issue.) **The essence of the Delors Committee Report is that, when monetary union occurs, Member States should lose this power to create money to repay their debts,** thus eliminating a fundamental tenet of current financial regulation.

The consequences of this change, when incorporated in the financial framework, will be the key to ensuring that market discipline *does* work in the EC monetary union. The directives that create this structure should be subject to qualified majority voting. On the one hand, an abuser will be unable to stop measures to halt the abuse. On the other hand, a blocking minority should be able to prevent a serious weakening of the system.

Six elements should be embedded in the structure of the financial system.

#### *Free Flow of Capital*

The Single Market programme — restated in Stage 1 of the Delors Committee Report proposals — must be fully implemented and the market for financial services completely liberalised. Exchange controls must be removed. Finally, the free flow of capital requires the removal of the secondary barriers created by regulations on the investment of institutional assets beyond those necessary for prudential supervision.

#### *Full Information*

All participants must be aware of the full magnitude of a debtor's obligations in order to assess its debt servicing capacity. This must include the contingent liabilities of entities beyond the central government, such as public sector and state-guaranteed bodies. The Prospectus Directive (89/298/EEC) already requires publication of “information necessary to enable investors to make an informed assessment of the financial position of the issuer.” However, Articles 2 and 5 exempt Member States and their subsidiary bodies from this requirement.

The position of commercial trading entities owned by the state — in particular, banks and insurance companies — must also be considered, as should that of private banks whose major business is gathering retail funds, purchasing government debt and holding it to maturity. The risk weighting system for bank assets, set out in the Solvency Ratio Directive, already requires a careful clarification of the exact status of these entities.

Accounting conventions and practices must be standardised sufficiently so that fully comparable data can be published promptly — perhaps by the European Commission. Prior to a common currency, the exact status of liabilities represented by notes and coins may present a problem, but that will be removed once they become the liability of the new central bank.

**Powers of the ESCB** The ultimate reason for the proposed creation of the European System of Central Banks (ESCB) is the need for EC-wide control of monetary policy. (The supervision of banks and of the payments system are issues for separate discussion. Historically, these two roles have conflicted with the conduct of sound monetary policy. Hence, separate technical agencies may be better placed to perform these regulatory functions.)

**The ESCB should be prohibited from holding public sector debt.** This would prevent its open-market operations from masking the emergence of a credit spread between different Member States and would remove completely any risk of direct monetary financing of government deficits. While an absolute prohibition may seem severe, it would remove temptation. For example, even if the ESCB did not specify the assets it wished to receive in response to a general offer to purchase securities outright (rather than with a repurchase option), the market would very likely sell its worst assets. Thus, the ESCB would find its portfolio skewed towards the deteriorating state. In effect, this state would then have preempted a disproportionate share of any monetary financing. All risk of monetary financing can be removed (as advocated by paragraph 32 of the Delors Committee Report) by this prohibition.

The scale of private financial instruments within the EC as a whole should offer ample scope for the purchase or sale of securities to create, or eliminate, money. Central banks have developed a wide variety of techniques for open-market operations involving private instruments. For example, the Swiss National Bank utilises the spot and forward foreign exchange markets, because government debt levels are negligible. The Bank of England, in the past, has used a large portfolio of prime trade bills. The Bundesbank's principal method of controlling liquidity is the scale of the repurchases of "Lombard-eligible" assets, which are primarily private sector.

**"Large Exposure"  
Rules**

The prudential regulation of any financial institution generally involves a limit on the exposure to any single debtor (or group of associated debtors): at a certain threshold of exposure, separate reports to the supervisor are often required, and exposure above the level where a loss would be catastrophic to the whole institution is prohibited.

Currently, the EC does not apply exposure limits to central government debts, which are seen as free of credit risk. **The crucial, and essential, change is the recognition that, in a European monetary union, public debt will involve credit risk.** Hence, some limits should be applied, even though public debt will remain the best credit within the Community. Exposure limits would be set out in the directives governing the particular type of institution. Two examples illustrate how this could be done by amending existing texts:

- Article 22, paragraph 1 of the UCITS Directive (85/611/EEC), which liberalises mutual funds, limits the exposure to any one entity to 5%. Paragraph 3 raises this to 35% for "securities issued by a Member State...", while Article 23 raises the limit for such securities to 100%, but "in accordance with the principle of risk-spreading," exposure to this one debtor must be in at least six different securities.



- The Recommendation on Large Exposures of Credit Institutions (87/62/EEC) proposes a limit of 40% of own funds in Article 4, paragraph 1. Paragraph 4 then states that “the competent authorities may fully or partially exempt... the public authorities of any of the Member States...”

The recognition that public debt carries some risk, even if only a small degree, argues that these exemptions from accepted prudential standards of risk diversification be removed.

Given the aggregate of the cash value of these limits on each institution, a Member State should have adequate borrowing power within the Community. As a broad concept, the financial institutions within a given Member State might have an aggregate limit equivalent to 60% of that state's gross national product (GNP) — providing that the corresponding individual institutional limits were not so large that default would undermine the institution. As the existing debt levels of the Community average out at 60% of GNP, institutions within a “prudent” Member State would not be compelled to change their behaviour. A further 60% of GNP as an aggregate credit limit for that Member State might be spread amongst the financial institutions elsewhere in the Community.

A financing envelope equal to 120% of GNP — nearly matching the heaviest debt burden within the Community currently — might seem lax. In reality, however, this would represent a major obstacle. Once a state had used up its domestic credit limits, its total reliance on nondomestic institutions would be a powerful brake on further borrowing. Even under the best conditions, a major state rarely has had a substantial proportion of its total debt held by foreigners. Spreading limits of even 60% of GNP around the rest of the EC would probably imply quite low limits at individual institutions, reducing the risk to the Community's financial system of a default.

Because total exposure limits would be based on GNP, the financing of a reasonable annual deficit should face few impediments. A state's relative debt burden would rise only if its new deficits exceeded the growth rate of its GNP. Thus, this approach would create a cumulatively tougher financing problem for “excess” deficits, but only if these were sustained for several years.

If a Member State wished to be ever more indebted, then it would have to raise the funds from non-Community institutions (or directly from individuals) — a difficult and expensive process. External creditors would be on notice, from the public warnings of the group of EC finance ministers, and would undoubtedly demand a significant premium.

### *Marking to Market of Public Debt*

If the price of a country's debt begins to deteriorate, then all financial institutions should be obliged to recognise this immediately, marking the asset down to the new market price and deducting the loss from their capital bases. Provided that the market price accurately reflects the risk of default, then the financial system would adjust continuously, and the actual event of default would not create a shock; the loss provisions would have been made every day along the way.

Member States would have to be encouraged to issue debt in a marketable form, so that the market for such debt would be genuinely liquid and substantial and the market price would be seen as a reliable indicator. All nonmarket debt would be valued using the appropriate rate interpolated from the yield curve. For valuation purposes, nonmarket debt should be valued at a penal yield premium, perhaps one percentage point above the

corresponding market yield. The same principle could be applied to nonmarket debt outside the Member State's own currency. The applicable yield curve would simply be that of the domestic government.

If all public debt were marked to market, any decline in the market price would force both institutions and supervisors to recognise fully the magnitude of their exposure. The direct impact on capital would create a rising disincentive for banks, for example, to continue lending to such a state.

An additional benefit of a mark-to-market system would be an improvement in the system's response to monetary policy changes. To the extent that the yield curve moved to reflect a rise in official short-term rates, then the impact on bank capital would constrain the growth of bank credit.

*Prudential  
Standards for Public  
Debt Maturity*

As the maturity of a debt portfolio shortens, the risk of a sudden liquidity crisis rises correspondingly. In some cases, confidence can be shaken by events that are completely outside the control of the debtor, who then will have difficulty in rolling over maturing debt, resulting in a rapidly deepening liquidity crisis; the New York City crisis of 1975 was a classic example. Instead of a gradual slide over several years to fiscal ruin, the debtor is catapulted there with little warning.

The risk of a liquidity crisis is particularly difficult for markets to price, because while the debt burden itself may be acceptable, it may be poorly structured. This problem is well known to supervisors of financial institutions. A corresponding "prudential supervision" of public debt portfolios will be necessary. The "average life" of the debts will be the critical factor in allowing the relevant parties sufficient time to recognise the problem and adjust policy accordingly. Although there are no obvious historical precedents, it took New York City six years to recover its credit rating after its crisis. Perhaps five years might be an appropriate minimum average life. The occasional tremors of a liquidity crisis in Italy suggest that an average life of less than three years is definitely too short.

The Solvency Ratio Directive has just introduced a system of risk weighting for bank assets. This approach could readily be used to develop a sliding scale of risk weights for public sector debt based on average portfolio life.

However, a better method might be to build on the mark-to-market approach and introduce a sliding scale of required write-offs for all financial institutions, rather than merely singling out the banking system. (The concept of a regulatory requirement for standard write-offs against substandard debt is not new. Perhaps the most public example is the Bank of England's matrix for Less Developed Country debts.) The appropriate sliding scale is a matter of debate, but the clear intention would be to force the financial system to write down asset values sufficiently such that a serious default would already have been fully provided for in the capital of those institutions holding the debt. Therefore, the threat of a disastrous default — as an alternative to a forced bail-out — would be widely recognised as hollow.

Naturally, compulsory write-offs against capital would be a major disincentive to any financial institution considering the provision of further funds to a country sliding towards a liquidity crisis and a correspondingly heightened risk of default — even if only a partial default. As soon as such write-offs become significant, institutions would require a yield premium to compensate them for the loss. Thus, the sliding scale of write-offs should induce a progressive rise in interest costs as the debts' average life declined.

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## Conclusions

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Our plan is based upon a matrix approach. Along one axis is a set of exposure limits for Community financial institutions. These limits would be low enough to ensure that the default of a public borrower would not undermine any institution. On the other axis of the matrix is the price effect. Taking a level playing field approach to all financial institutions, the marking to market of all public debt would progressively freeze out of the credit markets those countries about whose creditworthiness the market became concerned for any reason. Hence, at the moment of threatened default, the financial system would already have written off the problem, so the threat could then be viewed entirely in the political context.

All these mechanisms would merely serve to put all parties — politicians, regulators, electors, and investors — on notice that a problem is growing. They would create a series of ever-tougher credit crunches. Ultimately, they would ensure that the final sanction of withdrawing further credit supplies is not catastrophic for the financial system of the Community. They would not withdraw the right of any Member State to slide down the bumpy slope to fiscal ruin.

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European Business Analysis

1992 and Beyond

# The Creation of an EC “Hard Money” Union

by  
Graham Bishop

This paper was presented at the Seminar *Vers l'Union Economique et Monetaire* organised in Paris on June 21, 1990, by the Ministère de l'Economie, des Finances et du Budget.

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Figure 1. Liquid Personal Assets Versus Building Society Holdings, 1978-89

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## The Creation of an EC "Hard Money" Union

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### Introduction

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The European Community (EC) has now entered Stage One of economic and monetary union (EMU). If full monetary union is to be successful, it will have to be a "hard money" union, dedicated to achieving price stability. There are two vital issues: (1) how much money will be printed; and (2) how will public debt be controlled? Many commentators have, in discussion of such issues, focussed on the needs of the EC member states. However, equally important are the needs of EC citizens who will be trying to preserve the value of their hard-earned savings.

Savers own public debt, both directly and through the institutions that collect, and invest, their savings. The 1987 Single European Act specifies free movement of capital and services throughout what are now 12 national markets, each with its own investment restrictions. In effect, the financial programme for the single market amounts to Governments trusting people with their own money. In this enlarged market, savers' choice of investment will constitute a continuous vote on the financial policies of EC Governments. However, democratic Governments must then be willing to accept the voters' verdict rather than try to create covert barriers to negate electors' choices. We believe strongly that, in a properly designed market structure, investors can exert the necessary discipline on public debt.

The first part of this report discusses the issues in the current monetary union debate. The second part proposes a set of prudential rules for both the issuers of debt and its purchasers, especially the financial institutions that are the intermediary for the bulk of savings, and the third part considers the organisation of the European central bank, Eurofed.

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### The Implications of Monetary Union

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#### Sovereignty

The EMU debate has raised the issue of sovereignty — implicitly, the sovereignty to spend. The issue has been highlighted because of the effect of monetary union on the equation: spending = taxation + money creation + borrowing.

• **The single market will put an effective cap on oppressive taxation.** Because citizens will possess the four freedoms — free movement of people, goods, services and capital — they can readily vote with their feet by migrating to an EC state with a more favourable tax regime. (Interestingly, the UK Government complains the most forcibly about lost sovereignty, yet its tax rates are low by EC standards.)

- **The power to create money will now reside with Eurofed**, the European central bank, albeit with one priority: to maintain price stability. There seems to be agreement that there will be no monetary financing of public deficits.

- **A state's creditworthiness will determine its ability to borrow.** In the new single market, because of two main factors, the public sector will no longer represent the perfect credit risk. First, national central banks will no longer have the power to avoid formal default by printing more currency. Second, the latest monetary union plans exclude a Community bailout of profligate borrowers.

Thus, under EMU, the power to create money will be kept separate from the power to spend. As a result, the ultimate limit on a member state's sovereign spending power will be its creditworthiness. If the elector — or the intermediary financial institution — is no longer prepared to risk further savings, market discipline will cut off new credit supplies.

#### Competing Borrowers

A currency plays two distinct roles: as the "medium of exchange," it pays for goods and services, and as a "store of value," it provides a convenient way of holding long-term savings. The single market logically requires the simplicity of a single medium of exchange, rather than competing currencies, and the obvious solution will be Eurofed's single currency.

#### *Rolling Referendum on Hard Money*

The economic argument essentially focuses on competing borrowers. The financial element of the single market programme gives savers the freedom to channel their money across boundaries and choose their own store of value. This change has profound political implications. For example, in their search to preserve the value of their savings, electors will effectively be carrying out a referendum throughout the EC on hard money. This process will cause Governments continuously to account to their electorate for their financial behaviour. A hard money union will thus help to enhance democratic accountability within the EC.

The result of this financial competition among the major EC member state could be surprising. For example, only the UK has a budget surplus and its indebtedness — measured by debt as a percentage of national output — is already below that of Germany, although above that of France. With Germany embarking on the unquantifiable venture of unification, debt issued by the UK should be at least as attractive a store of value as that of any other EC country. Even if Eurofed only succeeds in creating the monetary conditions that would allow an inflation rate at the low end of the current European range, the UK would gain from the borrowers' competition. Eventually, the saving on the annual interest cost of the UK national debt could be 3% or more — or more than £5 billion annually.

In this example, the UK's sovereignty to spend would be limited only by its need to satisfy both its domestic savers and those of the EC as a whole. Savers would store their money in UK public debt, recognising the current sound state of public finances. If savers ever have doubts about the soundness of that debt, they will be free to protect themselves against the risk of a formal default by withdrawing from that particular store.

### Stage One of EMU

The Delors Committee Report set out three stages of economic and monetary union. Stage One — *"the initiation of the process"* — started on July 1, 1990.

#### *The Werner Report*

The principal features of a monetary union are straightforward. The Delors Committee Report restated the 1970 Werner Report's conditions as follows:

- (1) *"assurance of total and irreversible convertibility of currencies;"*
- (2) *"complete liberalisation of capital transactions and full integration of banking and other financial markets;"* and
- (3) *"elimination of margins of fluctuation and the irrevocable locking of exchange rate parities."*

The single market programme fulfils the second condition; the first and third conditions will be met completely when there is a single currency throughout the EC.

The EMU policy target was stated clearly in the paper submitted to the April 1990 EC Finance Ministers meeting at Ashford Castle in Ireland<sup>1</sup>; — Eurofed *"should be explicitly committed to price stability."*

#### *Liberalisation Process*

The key steps in Stage One are as follows:

- *"In the economic field . . . a complete removal of physical, technical and fiscal barriers . . . completion of the internal market would be accompanied by a strengthening of Community competition policy."*
- *"In the monetary field the focus would be on removing all obstacles to financial integration. Firstly, through the approval and enforcement of the necessary Community Directives, the objective of a single financial area in which all monetary and financial instruments circulate freely, and banking, securities and insurance services are offered uniformly throughout the area would be fully implemented. Secondly, it would be important to include all Community currencies in the EMS exchange rate mechanism. Thirdly, all impediments to the private use of the ECU would be removed."*

#### *Single Financial Area*

Considerable progress has been made in recent months, and while the completion of Stage One looks inevitable, it could be a lengthy process. It may take a couple of years more than the date stated in the directives — often January 1, 1993 — before all the liberalisation measures are *"fully implemented"* by national enabling legislation. Realistically, therefore, it may be 1995 before all the Stage One measures are complete — unless the current rate of progress is speeded up.

However, the European Council seems to be forcing the pace. Stage Two could start in 1993 (see below), while Stage One, according to the Summit held by EC Heads of State in June 1990, *"should be used to ensure convergence in the economic performance of member states, to advance cohesion and to further the use of the ECU, all of which are of importance for the further progress towards EMU"* — and which could have been thought of as elements of Stage Two.

<sup>1</sup> *Economic And Monetary Union: The Economic Rationale And Design of the System.*

A good test of a member state's commitment to monetary union might be their record on: (i) negotiating directives that genuinely match the objectives of both the Werner and Delors Reports; and (ii) implementing them in national law. These directives should impose controls on investment flows only to the extent that public policy requires prudent regulation to ensure a stable financial system. Thus, regulations that compel financial institutions to keep their assets — citizens' savings — within specific member states must be removed.

#### *Covert Exchange Controls*

An example illustrates this point. In most member states, life insurance comprises the largest part of long-term savings by individuals. To ensure the safety of these institutions, rules generally require congruency between the type of risks inherent in the liabilities (the insurance policies sold to the public) and the assets backing the liabilities. If insurance policies promise future payment of a fixed sum of money in a particular currency, then it is reasonable for the assets permitted as backing for that liability to exclude unhedged foreign currency holdings. However, if the rules disallow "inflation-linked" assets, then a company cannot offer "inflation-linked" policies. Which was the cause and which was effect?

Even the EC's 1988 Second Directive on Nonlife Insurance enshrines these congruency principles in its "matching rules." This requires currency matching of assets and liabilities, with one significant exception: "*this [matching] requirement shall also be considered to be satisfied when up to 50% of the assets is expressed in ECU.*" However, this applies only to assets backing nondomestic EC liabilities.

As the significance of these restrictions becomes more apparent, the European Commission is intensifying its drive to remove them. The proposals for the Single Insurance Licence — the complement to the Single Banking Licence — may permit 100% backing in ECU. Commissioner Sir Leon Brittan recently set out an even more liberal aim for pension funds — "*to remove or substantially release many of the national controls.*"

#### *Stage Two — A Brief Transition*

According to the Delors Committee Report, "*Stage Two must be seen as a period of transition to the final stage and would thus primarily constitute a training process leading to collective decision-making while the ultimate responsibility for policy decisions would remain at this stage with national authorities. . . the results achieved through the implementation of the single market programme would be reviewed. . .*"

#### *Start of Stage Two*

The Delors Committee Report states that "*Stage Two could begin only when the new Treaty had come into force.*" At the June 1990 Summit in Dublin, EC Heads of State decided that "*the Intergovernmental Conference will open on 13 December 1990 with a view to establishing the final stages of Economic and Monetary Union. . . The Conference should conclude its work rapidly with the objective of ratification of the results by member states before the end of 1992.*" It looks, therefore, as if Stage Two could start in 1993. In fact, much of Stage Two amounts to enhanced cooperation between national central banks, which is already developing rapidly. In reality, Stage Two will be concurrent with, rather than consecutive to, the final part of Stage One.



*Potential Instability*

The Ashford paper recommends that, "because of the risks of systemic instability in the transition. . . the Community prepare for a relatively rapid passage from the beginning of Stage One to the definitive EMU, including a common currency." The rationale for this swift move through Stage Two is compelling: "as capital movements are fully liberalised and as this potential is realised by the completion of the internal market in financial services, there will be an increasing sensitivity of exchange rate pressures. . . the progressive achievement of the goals of Stage One therefore both undermine the efficiency of national policy instruments and make the magnitude of their task more formidable. . . strong analytical evidence and historical experience confirms that such a position is not durable."

Interestingly, this analysis of the instability of the transitional phase closely parallels the criticisms made by Sir Alan Walters, former economic adviser to UK prime minister Mrs. Thatcher. The "EMS plus free capital movements" is criticised by friends and foes alike for good reason. The risks of instability will rise steadily and rapidly as savers (and borrowers) begin to utilise the single market's new freedoms, which start (or should start) in 1993. **The quantity of capital that may flow will dwarf any conceivable European monetary fund, and the speed of developments will test any monetary cooperation arrangements to destruction.**

*Impossibility of a Two-Speed Europe*

This combination of massive and rapidly changing capital flows will challenge any state that chooses the slow lane in a two-speed Europe. Effective, free capital movement has two components: (1) absence of exchange controls; and (2) liberalisation of financial services. While Spain, Portugal, Greece and Ireland have derogations from the requirement to abolish exchange controls, it may become difficult and highly illogical to enforce these controls once financial services are liberalised. However, the notional constraints will impede money flows, so that a slower speed may be feasible.

Once effective freedom of capital movement is in place, however, it is impossible to envisage a state moving at a different speed for any length of time without incurring the risk of such destabilising flows that it will effectively have to adopt the faster speed. **This is true for the UK now; it will apply to the other four states once effective capital freedom occurs.**

*Power of the Saver*

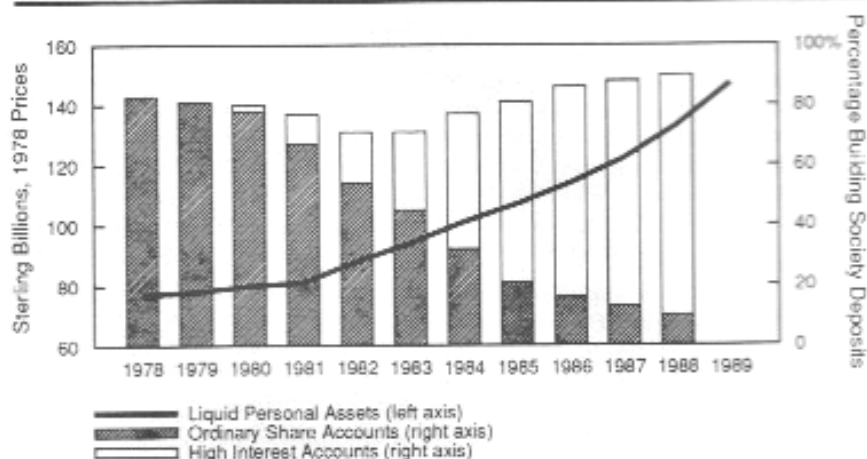
The single market in financial services will promote revolutionary changes **over a period**, because it is intended to promote competition. As consumers become more financially sophisticated, they will search for higher performance. The aggregate result of these individual decisions may be staggering.

*Example One*

British consumers provide an example of citizens' readiness to seize a higher return when given the opportunity.

Figure 1 shows that the personal sector's holding of liquid assets has roughly doubled since 1981 (after allowing for the effects of inflation). It also shows the effects of financial liberalisation on the building societies. Their customer base is traditionally regarded as financially unsophisticated, yet, once given the opportunity, savers switched almost entirely from ordinary share accounts paying interest at a discount of 30% or more to the market rate, into high interest (market rate) accounts. Ordinary share accounts have now virtually disappeared — from 80% of funds to almost zero in one decade.

**Figure 1. Liquid Personal Assets Versus Building Society Holdings, 1978-89**



Sources: Building Societies Association, Financial Statistics (CSO).

The result of applying this degree of savings sophistication to borrowings could be dramatic when the UK joins the Exchange Rate Mechanism (ERM) and will increase exponentially as monetary union approaches.

#### Example Two

There is over £250 billion outstanding in UK residential mortgages and their actual life, in contrast to the original 20-25 year term, is relatively short. Historically, each contract has had an average life of about seven years, but at the peak of the 1988 housing boom, it had fallen to only five years. Thus, the "flow" from the origination of new mortgages was over £50 billion in 1988. UK mortgages are floating rate — typically resulting in a rate of LIBOR plus about 100 basis points. This gives a total borrowing cost of 16% at present. If the Government made a binding commitment to maintain the sterling/Deutschemark rate — first, by joining the ERM and, second, by signing a treaty of monetary union — there can be little doubt that a rising proportion of the electors would trust the Government's word. As a result, they would refinance their sterling mortgages with Deutschemark loans at 9%-10%.

A major reason for joining the ERM and pursuing monetary union is the need to eliminate the belief that large nominal wage increases can be sustained by currency depreciation. Many wage earners are also mortgage borrowers: if the degree of binding commitment on the exchange rate is sufficient to persuade the elector to change his income demands, then it should also be sufficient to change his borrowing behaviour.

If this happened during a lengthy Stage Two, when the UK was still attempting to pursue an independent monetary policy, the potential capital flows would be dramatic. Most of the £250 billion stock of mortgages would be refinanced within a few years. The flow would be so colossal that it is unlikely that a buffer fund, or monetary cooperation between central banks, would survive intact. This extreme instability would have been caused by: (a) trusting UK citizens to make their own borrowing decisions given their elected Government's pledges; and (b) the failure to move rapidly to a uniform and stable monetary regime where such flows would be unnecessary. The huge flows could hardly be described as speculative attacks — they would simply be individual electors rationally seeking to maximise their standard of living.

This example of future mortgage flows contains an implication for the conduct of UK monetary policy. Once it is seen as "safe" (because it rests on the Government's pledge) to borrow in foreign currencies, UK monetary policy will cease to have any substantial effect. The citizens will simply bypass the "high interest rate" policy.

*Example Three*

Italy provides another example of the potential instability of Stage Two. The Italian Government's debt maturity is relatively short, at about 2½ years. Given the size of the debt — close to 100% of gross national product (GNP) — monthly redemptions of around \$32 billion amount to almost 4% of GNP. With the abolition of exchange controls, if there were an unexpected crisis, the amounts placed back into the hands of savers each month could easily flow out of the currency, in an attempt to protect savings. The scale of such flows would rapidly overwhelm buffer funds and cooperation.

**We believe the solution is to eliminate such potential risks by moving rapidly through the risky and unstable transitional phase to the stability of a single currency.**

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*Prudential Rules for a Hard Money Union*

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Stage Three is the culmination of the monetary union process, including a single currency to be issued by the European Central Bank, Eurofed. If this monetary union is to work properly and be durable, it has to be a hard money union. A number of issues must therefore be clearly resolved, and a number of hard choices must be made.

- **Who controls and prints the money** — that is, what system is chosen for the Central Bank? Although the choice has not yet been made, it seems agreed that there will be no monetary financing of public deficits and that the priority of the central bank will be to maintain price stability.

- **Who is responsible for public debt?** If one country decides to spend recklessly, will the rest of the Community's taxpayers have to bail it out? The reluctance of West German taxpayers to countenance a substantial tax increase to pay for East German needs suggests a very limited tolerance of such burdens. The "no bailout" principle looks to have been accepted.

- **If the fiscally imprudent are not going to be bailed out, is the financial system strong enough to cope with the risk of a default?** The no bailout principle will not carry conviction if the structure is so weak that a significant default would inevitably cause collapse.

*Principle of Subsidiarity*

Both the Delors Committee Report and the Ashford Paper highlight the need to preserve the "principle of subsidiarity," which entails maintaining the maximum amount of power at a local level, rather than the Community level. The use of market discipline, rather than binding budgetary rules, preserves the principle of subsidiarity. However, certain rules must be designed to enhance market discipline to ensure that it operates slowly and progressively, rather than abruptly and catastrophically. We outline below a framework of rules covering both the issuers and the purchasers of public debt.

*Rules for the Issuers of Public Debt*

**The guiding principle is that the public finances of member states should be sufficiently sound that they cannot destabilise the EC's political and financial system.**

This statement of principle immediately invites a definition of "sound." Regrettably, it is impossible to frame a numerical definition that is applicable to all member states at all times. If debts had been incurred solely to finance long lasting and readily marketable assets, such as houses, then the analytical approach to a company's balance sheet would be useful. At the other extreme, the debts might have financed the payment of pensions and would therefore represent a transfer between generations. The credit standing of such debts would hinge only on the willingness of the next generation to pay the bill they have inherited.

In reality, there is a complex and shifting blend between these extremes. Even if we could define the type of debts, what is the right debt/income ratio? Italy's debt — at 100% of GNP — is causing alarm, but there is surprisingly little comment on Belgium's 135% debt/income ratio. Should more attention be given to true measures of credit quality, such as debt service ratios?

The following discusses a number of key points for the regulation of the issuer.

#### *Full Information*

Information on the full magnitude of a debtor's obligations must be available in order to assess its debt servicing capacity. The Prospectus Directive (89/298/EEC) already requires publication of "information necessary to enable investors to make an informed assessment of the financial position of the issuer." However, Articles 2 and 5 exempt member states and their subsidiary bodies from this requirement. This exemption should be removed.

Information must also be available on the contingent liabilities of entities beyond central Governments, such as public sector and state-guaranteed bodies; state-owned commercial trading entities — in particular, banks and insurance companies; and private banks, whose major business is gathering retail funds, purchasing Government debt and holding it to maturity. The Solvency Ratio Directive is a step in this direction: its risk weighting system for bank assets requires a careful clarification of the exact status of these entities.

Accounting conventions and practices must be standardised sufficiently so that fully comparable data can be published promptly — perhaps by the European Commission. Prior to the implementation of a single currency, the exact status of liabilities represented by notes and coins may present a problem, but it will be removed when they become the liability of the new central bank.

#### *Standards for Public Debt Maturity*

Prudential supervision of public debt portfolios will be necessary. The average life of debts will be the critical factor: as the maturity of a debt portfolio shortens, the risk of a sudden liquidity crisis rises. In some cases, confidence can be shaken by events that are outside the control of the debtor, who then will have difficulty in rolling over maturing debt, resulting in a rapidly deepening liquidity crisis. The New York City crisis of 1975 was a classic example. The risk of a liquidity crisis is particularly difficult for markets to price, because the burden, while in itself acceptable, may be poorly structured. As New York City discovered, once the liquidity crisis had struck, it proved impossible to sell significant quantities of debt even at twice the yield offered by other municipalities.

Perhaps five years might be considered an appropriate minimum average life for such debt. The occasional tremors of a liquidity crisis in Italy suggest that an average life of less than three years is definitely too short.

*Surveillance*

Administrative budgetary rules will be more difficult to develop and apply. At a minimum, they should require EC finance ministers to exert peer group pressure by vigorously, and publicly, warning on budgetary excesses.

The maturity structure of public debt should be one of the specific items subject to surveillance by EC finance ministers. If a member state allows its maturity structure to fall below the agreed minimum standards, this judgement should be publicised, and lenders should be obliged to recognise the decline in the quality of their assets.

*Prohibition on Eurofed Holding Public Debt*

Eurofed should be prohibited from holding public sector debt. This would prevent its open market operations from masking the emergence of a credit spread between different member states and would remove completely, as advocated by the Delors Committee Report, any risk of direct monetary financing of Government deficits. While an absolute prohibition may seem severe, it would remove temptation from Eurofed to engage in such activities. The scale of private financial instruments within the EC as a whole should offer ample scope for the purchase or sale of securities to create, or eliminate, money. Central banks have, in fact, developed a wide variety of techniques for open market operations involving private instruments.

*No Market Privileges for Public Authorities*

The Ashford paper states there is "*virtual consensus*" that there should be no market privileges for public authorities and that this rule "*could feature in the treaty*." The nature of these privileges was not defined, but various types are readily identifiable as follows:

- preferential treatment for public debt in respect of withholding, income, capital or turnover taxes;
- special uses for public debt — as collateral for loans from the central bank, as eligible assets for banks' mandatory liquid assets, or requirements that a proportion of the assets of life insurance funds, for example, be held in public debt. This type of regulation is at the heart of the operation of the financial system, and careful thought will be required to equalise access to the financial markets, yet maintain a balance of prudent regulation.
- special support mechanisms — the central bank's role in "stabilising" the market in public debt. Stabilisation arrangements run the risk of negating market signals and may involve the surreptitious provision of monetary finance.

The abolition of such privileges will have far-reaching consequences for the structure of the financial system, but, if market discipline is intended to work, then it is essential that investors are not induced, or obliged, to invest in Government debt **on any grounds other than creditworthiness**. Otherwise, the market's early-warning signal of widening credit differentials will be blunted — if not offset entirely. Moreover, in the case of a default, an investor who has been legally obliged to purchase a particular asset has a strong moral case for compensation from those who imposed the obligation. This would undermine the crucial no-bailout principle.

**These requirements appear to be merely technical measures for the efficient functioning of the financial system. However, they go to the heart of the political system and are separate from the issue of sovereignty.**

### Rules for the Purchasers of Public Debt

#### **The liberalised market in financial services must be soundly regulated.**

Apart from the new risk to the financial system of public sector defaults, the old risks stemming from commercial mistakes will not vanish. In reality, the competition unleashed by the single market is likely to reinforce those risks. The freedom to gain market share carries the reciprocal freedom to lose it. As the citizens of Europe are offered new financial services and then progressively tap into them, there will be many surprising developments. As a result, the right balance will need to be struck between maintaining the stability of the financial system through regulatory vigilance, without stifling innovation.

However, the implementation of Stage Three carries direct and explicit implications for the regulation of financial markets. Financial systems are normally structured on the assumption that Central Government debts, if not those of the public sector as a whole, are free of credit risk. This assumption, explicitly restated in the Cooke Committee rules for the capital adequacy standards of banks, has been incorporated into Community law through the Solvency Ratio Directive. It is based on the fact that a Government can always print money to repay the nominal amount of its debts. (The consequences for the real value of the debts are a separate issue.) However, with EMU, the power of money creation will pass to Eurofed, thus eliminating a fundamental tenet of current financial regulation.

The Ashford paper talks of a "virtual consensus" that there would be no monetary financing of public deficits and no bailing-out of the fiscally imprudent. However, the financial system must be strong enough to cope with a default by a public sector borrower, or no-one will believe that the no-bailout rule will be applied in practice. We believe there are some basic requirements.

#### *Large Exposure Rules*

The prudential regulation of any financial institution generally involves a limit on its exposure to any single debtor (or group of associated debtors). At a certain threshold of exposure, separate reports to the supervisor are often required, and exposure is prohibited above the level where a loss would be catastrophic to the whole institution.

Currently, the EC does not apply exposure limits to Central Government debts, which are seen as free of credit risk. With EMU, public debt will involve credit risk. Hence, some limits should be applied, even though public debt will remain the best credit within the Community.

Exposure limits would be set out in the directives governing the particular type of institution. The following two examples illustrate how this could be done by amending existing texts.

- The UCITS Directive (85/611/EEC) liberalises mutual funds; Article 22, paragraph 1, limits exposure to any one entity to 5%. Paragraph 3 raises this to 35% for "securities issued by a member state", while Article 23 raises the limit for such securities to 100%, but "in accordance with the principle of risk-spreading," exposure to this one debtor must be in at least six different securities.
- The Recommendation on Large Exposures of Credit Institutions (87/62/EEC) proposes in Article 4, paragraph 1, a limit of 40% of own funds to any client or group of connected clients. Paragraph 4 then states that "the competent authorities may fully or partially exempt. . . the public authorities of any of the member states."

The recognition that public debt carries some risk, even if only a small degree, argues that these exemptions from accepted prudential standards of risk diversification should be removed.

Given the aggregate of the cash value of these limits on each institution, a member state should have adequate borrowing power within the Community. As a broad concept, the financial institutions within a given member state might have an aggregate limit equivalent to 60% of that state's GNP — providing that the corresponding individual limits were not so large that default would undermine the institution. As existing Community debt levels average 60% of GNP, institutions within a "prudent" member state would not be compelled to change their behaviour. A further substantial percentage of GNP as an aggregate credit limit for that member state might be spread among financial institutions elsewhere in the Community.

Once a state had used up its domestic credit limits, its total reliance on nondomestic institutions would be a powerful brake on further borrowing. Even under the best conditions, a major state rarely has had a substantial proportion of its total debt held by foreigners. Spreading limits of even 60% of GNP around the rest of the EC would probably imply quite low limits at individual institutions, reducing the risk of a default to the Community's financial system.

Because total exposure limits would be based on GNP, the financing of a reasonable annual deficit should face few impediments. A state's relative debt burden would rise only if its new deficits exceeded the growth rate of its GNP. Thus, this approach would create a cumulatively tougher financing problem for "excess" deficits, but only if these were sustained for several years.

If a member state wished to be ever more indebted, then it would have to raise funds from non-Community institutions (or directly from individuals) — a difficult and expensive process. External creditors would be on notice, from the public warnings of the group of EC finance ministers, and would undoubtedly demand a significant premium.

*Marking to Market of  
Public Debt*

If the price of a country's debt begins to deteriorate, all financial institutions should be obliged to recognise this change immediately, marking the asset down to the new market price and deducting the loss from their capital bases. Member states would have to be encouraged to issue debt in a marketable form, so that the market for such debt would be genuinely liquid and substantial, and the market price would be seen as a reliable indicator. All nonmarket debt would be valued using the appropriate rate interpolated from the yield curve. For valuation purposes, nonmarket debt should be valued at a penal yield premium, perhaps one percentage point above the corresponding market yield. The same principle could be applied to nonmarket debt outside the member state's own currency. The applicable yield curve would simply be that of the domestic Government.

Provided that the market price accurately reflects the risk of default, then the financial system would adjust continuously, and the actual event of default would not create a shock; the loss provisions would have been made continually.

The Delors Committee Report took the view that a rigorous application of market discipline could be *"too sudden and disruptive."* The application of large-exposure and mark-to-market rules should ensure that a debtor is progressively shut out of the financial markets.

*Sliding Scale of Write-Offs*

Historically, sudden crises have stemmed from illiquidity. An excessively short maturity debt portfolio heightens this risk; hence, peer group pressure from EC finance ministers on debt maturity, under the surveillance procedures, is important. There is a case for introducing a sliding scale of required write-offs for all financial institutions — not just the banking system. The appropriate sliding scale is a matter of debate, but the clear intention would be to force the financial system to write down asset values enough so that a serious default would already have been fully provided for in the capital of those institutions holding the debt. Therefore, the threat of a disastrous default — as an alternative to a forced bailout — would be widely recognised as hollow.

Naturally, compulsory write-offs against capital would be a major disincentive to any financial institution considering the provision of further funds to a country sliding towards a liquidity crisis, with the correspondingly heightened risk of default — even if only a partial default. As soon as such write-offs become significant, institutions would require a yield premium to compensate them for the loss. Thus, the sliding scale of write-offs should induce a progressive rise in interest costs as the debts' average life declines.

*Amendment of Capital Adequacy Rules for Banks*

Perversely, one element of the risk-weighting rules for bank assets could become an engine of market **indiscipline**.

The Solvency Ratio Directive assigned a zero risk-weighting to Central Government debt, on the assumption that it is risk free. Therefore, if a state's creditworthiness declines to the point where its Treasury bills yield in excess of LIBOR, the return on the zero capital requirement for banks will be infinite. This perverse mechanism will generate huge supplies of short-term funds at yields only slightly above LIBOR. In other words, the cost may be a blow to national pride, but will not represent a fiscal problem. Thus, the banking system's search for a high return on capital will lead the debtor straight into a liquidity trap and expose the banking system to dramatic losses. Recent history underlines, all too vividly, the banking system's capacity to overexploit such opportunities.

**As EC public sector debt will no longer be risk-free, this weighting system must be changed, or it will short-circuit any process of market discipline and could lead to catastrophe for the debtor, even if the banks are protected by rules against "large exposures."**

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**The European Central Bank — Eurofed**


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The degree of control exercised by member states will determine their success in competing to have their debt used as a store of value by the citizens of Europe. However, the stability of prices throughout the EC will determine whether non-Community money is even better.

*Tasks*

There is complete agreement that Eurofed "*should be explicitly committed to price stability. Subject to this priority, the policy should support the general economic policy objectives.*"

*Constitution*

The Ashford paper suggests that the "*stance of monetary policy*" should be set by the Eurofed Council, which would consist of:

- the 12 governors of the national central banks; and
- a board of professional staff with long, secure terms — numbering less than 12 and including the chairman.



*Democratic  
Accountability*

In addition, the presidents of the European Commission and the European Council would “*be present*” at Eurofed Council meetings.

Democratic accountability is stressed and would be achieved by periodic reports to the European Council, and periodic reports to, and hearings with, the European Parliament.

The need for independence is also stressed — both in the conduct of policy and of governors from their national authorities. However, there is silence on the key question of who appoints the board: the European Parliament, the European Council or some other system?

There is a dilemma. The politicians of much of Europe have consistently demonstrated that they cannot be trusted with the money printing press. Yet if democracy means anything, such a vital component of economic policy should be accountable to the electors. **The key may be to elect separate representatives to spend and to control money/inflation, rather than trust the same group with both powers.**

Therefore, spending decisions remain at — or are passed down, as states fragment — to the lowest effective level of Government. Control of the printing press is passed up to the highest level of Government — to the only level that can be effective for a single, Community-wide monetary policy: the directly-elected European Parliament. Thus the board of Eurofed would be appointed, and sacked, by the European Parliament.

*Effects of Capital  
Flows*

Achieving independence may be easier in practice than in constitutional theory. First, the Community-wide abolition of exchange controls has brought into operation the market mechanism of automatic stabilisers of capital flows. There will be no impediments to well-informed investors — either individually or collectively through financial institutions — moving their capital out of the EC if it becomes clear that Eurofed is failing in its priority task: price stability.

This capital outflow will automatically tighten internal monetary conditions and play a critically important role, because Eurofed will not be able to “sterilise” such flows very easily. In an existing national system, an unwelcome inflow of liquidity can be sterilised as far as the private sector is concerned, through absorption via additional sales of Government debt. This presents no problem when the Government is not concerned about its credit standing. However, Governments may be loath to issue unnecessary debt when creditworthiness is being carefully scrutinised by the markets. In particular, a Government already close to a visible deterioration of creditworthiness may be disinclined to accept an additional burden. In the case of an outflow of capital, the situation is reversed. If Eurofed were prevented by its rules from creating additional money, then monetary conditions would be automatically tightened. In effect, the structured absence of a simple method of sterilisation will have reintroduced one of the best features of the gold standard — an automatic system to draw the economy back to stability.

*Publication of Policy  
Decisions*

Second, independent behaviour by the Eurofed Council — both collectively and individually — will be greatly encouraged by borrowing another feature of the US Federal Reserve Board — publication of policy decisions, their rationale and the voting record of members. Correspondingly, reports to the European Council and Parliament, together with all hearings, should be public. If there are any shortcomings in the independent pursuit of price stability, such publicity will immediately alert investors, enabling them to take protective action.

*Necessary Powers*

The supervision of banks and payments system are issues for separate discussion. Historically, these two roles have conflicted with the conduct of sound monetary policy. Hence, separate technical agencies may be better placed to perform these regulatory functions. If the level playing field concept spreads to all financial intermediaries, the complexities of regulation will grow.

This raises the risk that the principle of subsidiarity will be compromised. Already, the Ashford paper seems to have slipped into this trap by advocating that *"the national central banks would remain responsible for the smooth functioning of the national systems of payments,"* yet also stating that *"it is clear that [the conduct of monetary policy] should be based on the ability of Eurofed to have. . . ultimate responsibility for the payment system."* **Therefore, it is appropriate to limit the role of Eurofed solely to that which is strictly necessary to achieve its priority task: price stability.** This limitation will enable the Eurofed Council to focus exclusively on its one task and remove the risk of dilution and confusion by extraneous, technical matters.

*Monetary Policy*

In conducting monetary policy, Eurofed will have *"the freedom from obligations to take actions which would undermine the basic objective of stability."* If monetary union is to be presented to the electors of Europe as a mechanism carefully designed to ensure price stability, then this formulation is too weak. It appears to leave the Eurofed Council with a voluntary opportunity, rather than obligation, to undermine stability. We believe, as noted, that there should be a formal prohibition on such actions. This would correspond to the tough proposition — on which there is *"virtual consensus"* — that there be *"no monetary financing of public deficits or market privileges for the public authorities."*

The practical way of achieving this intention is simple: Eurofed should be prohibited from holding public sector debt. The fungibility of money means that newly created money could still flow into public debt, but only through the market's willingness to purchase the debt at a price that reflected credit perceptions. The prohibition would serve to prevent Eurofed's open market operations [*"regulation of monetary conditions should generally be made by. . . mainly open market operations"*] from masking the emergence of a credit spread between different member states. It would remove completely any risk of direct monetary financing of Government deficits.

The scale of private financial instruments within the EC as a whole should offer ample scope for the purchase or sale of securities to create, or eliminate, money. There will be a greater credit risk, but it would not be the first time that taxpayers have lost money, whether through foreign exchange intervention or other direct policy actions such as subsidies.

*Foreign Exchange*

Foreign exchange policy seems a particularly grey area, perhaps reflecting the diversity of formal legal ownership of national foreign exchange reserves — is it the Treasury or the central bank? Nonetheless, the Ashford paper states firmly, and correctly, that *"foreign exchange interventions. . . should not be in contradiction with the final objective of monetary policy, i.e. price stability."* As a result, it concludes that *"the decisions on intervention in foreign exchange markets and the day-to-day management of exchange reserves should rest with Eurofed."*

Undoubtedly, this topic has the potential to spark furious bureaucratic debate, but perhaps it will turn out to be a minor issue — more contentious in constitutional theory than in practice. A common currency in the Community will, by itself, eliminate a large proportion of current foreign exchange intervention. In the United States, direct intervention in the foreign exchange markets is minimal. The external value of the currency is influenced, more powerfully and permanently, by the conduct of monetary policy. Even if this conflict of ownership is not resolved unambiguously, the discipline of the financial markets will act as a stabiliser — any confusion and conflict of purpose in foreign exchange policy will be seen as a sign of weakness in pursuing the priority goal: price stability. Investors will draw their own conclusions, and the capital outflow will bring into action the gold standard type of automatic stabilisers.

*Minimalist  
Organisation*

An implication of this analysis is that Eurofed will be a minimalist organisation. There will be a modest staff to support the board, but execution of policy will be delegated to existing organisations in line with the principle of subsidiarity. However, there is a vital difference between the execution and creation of policy. As Bundesbank President Pohl stated: *“subsidiarity definitely has no place in the realm of monetary policy. Monetary policy cannot be subdivided; it has to be of one piece.”* There is a clear analogy with the policy-making Federal Reserve Board in Washington and the various Federal Reserve Banks, such as New York, which execute policy. The Federal Reserve Board is less than one tenth of the size of the combined banks (measured by staff costs) — and this includes supervisory and technical functions that would be entirely outside the role of Eurofed.

The absence of an executive function focuses the market's attention on the true significance of the board and its policy-making discussions and decisions. In a world of modern communications, the physical location of such a minimal organisation is not a matter of national prestige. It certainly does not imply that the financial markets will migrate to wherever Eurofed's boardroom is located.

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 Other Titles in the "1992 and Beyond" Series
 

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*Fortress Europe?*, October 1988. Examines the potential problems facing Japan in its trade relations with Europe.

*Banking — Will Liberalisation Itself Lead to a Common Currency?*, February 1989. Genuine liberalisation of financial services will unleash market forces, which will, by themselves, create effective monetary union.

*The Long March to European Monetary Union — Two Practical Steps*, May 1989. In part, a response to the Delors Committee Report, pointing out that monetary union is possible without binding rules. The report also detailed the barriers to free capital flows caused by regulations such as the West German restrictions on the investment of insurance assets.

*The Madrid Summit — European Monetary Union IS Coming*, July 1989. An analysis of EC measures on financial liberalisation and the linkage with monetary union.

*Market Discipline CAN Work in the EC Monetary Union*, (with Dirk Damrau and Michelle Miller) November 1989. The report compares other monetary unions (Canada, Australia, West Germany) and details the lessons learned from the New York City crisis of 1975. The market can be a more effective sanction on fiscal profligacy than binding rules.

*Creating EC Monetary Union with Binding Market Rules*, February 22, 1990. A plan to ensure that market discipline is certain, yet operates slowly and progressively. This plan proposes specific measures to strengthen the structure of the financial system sufficiently that a member state's default is not disastrous.

*Italian Public Debt at the Dawn of Monetary Union — A Foreigner's View*, February 1990. An analysis of Italy's debt problems, highlighting the short maturity and proposing a major foreign borrowing programme in other EMS currencies to stabilise the stock of debt.

*Higher Bank Capital = Securitisation*, March 1990. The combination of higher bank capital adequacy requirements and the creation of a "level playing field" for all financial services in the EC will produce spectacular change in the next five years. An inevitable result will be the emergence of a major market in asset-backed securities.

*When Will Sterling Join the ERM — Domestic Versus European Timetables*, March 29, 1990. An analysis of the UK domestic timetable for lowering inflation and interest rates ahead of an election, in the context of ERM membership. The European timetable has accelerated beyond ERM issues, and the EC plans a common currency soon, posing a dilemma for the UK.

*Eastern Europe and the European Community*, June 15, 1990 (with Ann O'Kelly). Outlines the rapidly evolving relationships between EC and Eastern Europe on the one hand, and the EC and EFTA on the other.

*The ECU Bond Market of the European Community Governments — An Opportunity for Eastern Europe?*, June 28, 1990. The result of monetary union will be the emergence of the world's largest financial market, exceeding the size of the US Treasury market. Eastern Europe can piggyback these developments in the West.

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**Salomon Brothers**

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European Business Analysis

# The EC's Public Debt Disease: Discipline with Credit Spreads and Cure with Price Stability

by  
Graham Bishop

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May 22, 1991

The author wishes to acknowledge the helpful comments and discussions with Thomas Mayer and Michael Saunders. In addition, Ann O'Kelly should be thanked for her research into the UK's debt history.

This report is based on a speech at the Societe Universitaire Europeenne de Recherches Financieres (SUERF) conference in Lisbon on May 22-25, 1991. It will also form part of a volume to be published by Kluwer Academic Publisher entitled *Fiscal Policy, Taxation and the Financial System in an Increasingly Integrated Europe*.

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Graham Bishop

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### Summary

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For the first time in a generation or more, most EC savers will soon be free to decide where to put their money once the Single European Market (SEM) is in full operation. There will be no exchange controls to prevent them placing their money abroad, and the liberalisation of financial services should enable the financial institutions, which act as the conduit for most savings, to invest outside their home country as well. As investors scan the European markets, they will realise that the advent of the single currency will create a fundamental change in the nature of Government debt. It will no longer be an automatic safe haven for their savings: risk and reward will have to be assessed.

Until a few years ago, the only way for investors to judge the relative merits of the bonds of European Governments was to use the "currency spread" benchmark — Government bonds in different currencies should carry different interest rates to allow for the risk of devaluation. Now that European monetary union appears to be a growing probability, investors must grapple with the question of the relative credit risks of the European Community (EC) Governments, and attention has begun to focus on their domestic currency debt.

These credit risks must be assessed in the context of the Governments giving up the power to print the money with which they will repay their bonds. In monetary union, this power will be ceded to an independent central bank whose objective will be "price stability." If this bank turns out to be credible, investors will not need to fear that the real value of their Government debt holdings will suddenly be reduced by "surprise inflation" resulting from an expansive monetary policy.

Figure 1 shows the rise of gross EC debt in aggregate. That average conceals a range today from about 7% in Luxembourg to 130% in Belgium. Should this average be of concern to investors? Should investors really be worried about the credit risks of the most heavily indebted countries? Should there be a "credit spread" between the bonds of EC Governments to reflect this risk?

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**Figure 1. Indebtedness of the EC Member States, 1974-91E (As a Percentage of GNP)  
Gross General Government Debts**

	1974-82	1983-85	1986-88	1989	1990	1991E
EC	39.8%	54.6%	59.3%	59.0%	58.9%	59.2%

Source: European Commission.

Analysis of the credit standing of the EC Governments should focus on the proportion of income that must be devoted to paying interest on debts — as if they were "private sector" obligations. "Income gearing" is a key factor in assessing credit quality, as it defines the political trade-off between interest groups competing for public expenditure — bondholders are merely one group.

Importantly, income gearing can readily be used as a market-driven tool to enforce budget discipline. As an example, the US rating agencies use this measure as one of the key variables when awarding a credit rating, and many financial institutions use the rating to decide whether a bond is an eligible asset, given its credit risk. For the EC's purposes, the concept

neatly encapsulates the results of: the absolute size of the Government's accumulated debts, the taxes actually collected, the level of interest rates, and the cost of the credit spread, which measures the market's perception of financial policy.

The simplicity of the data required — taxes collected and interest paid — suggests this measure will be a credible and prompt statistic. It would be used simply to enhance the prudential supervision of the Community's financial system. There should also be limits on the acquisition of additional risk assets by the financial system. These limits should be imposed fairly soon to ensure that the system does not become overexposed — and thus vulnerable to a threatened default — even at an early stage of European monetary union (EMU).

In practice, this approach will limit the access of less creditworthy Member States to the whole Community's pool of savings and makes it less likely that such a State will achieve "a considerable degree of alignment of interest rates on the capital markets." This credit test is laid down as a prerequisite for the move to Stage Three of EMU by the German draft Treaty. It goes on to propose that the European Council may make arrangements for later participation by those not meeting these requirements.

Credit spreads would be the market-driven element in what would amount to a test for Stage Three eligibility. For now, the capital markets have already recognised the decreased currency risk between many countries — although not all. In effect, therefore, a two-speed Europe already exists. Within that group, however, there is little evidence to suggest that the markets have paid any systematic attention to the difference that will exist in credit standing of these Governments when they have given up the power to print money and become more like private sector entities.

The disparity in gearing ratios suggests that savers may well want to use their new freedom from exchange control and the like to take their money and escape from the tyranny of the voters who prefer to spend rather than tax. However, for the cynical bond investor, the first question to be considered is whether the EC's proposed no bail-out rule can, or will, be made to operate. If the answer is negative, then assessing potential credit spreads becomes entirely theoretical — interest rates will simply converge towards those of the nations seen as the ultimate guarantors of the Community, and political federation will inevitably result.

However, this outcome is not necessary. The "best" policy would be to convince savers that the surprise inflation solution will not be used to solve debt problems; that Governments see their own interests served best by price stability; and that they will adopt policies likely to achieve these goals, thus lowering nominal interest rates. The key to this policy is undoubtedly the creation of a suitable and independent European Central Bank dedicated to price stability. A remarkable benefit of price stability is that its probable impact on interest rates will reduce debt servicing costs sufficiently to remove any fear of a public debt crisis. Only Greece and Italy would continue to see significantly rising debt ratios, and successful implementation of the ambitious February 1991 adjustment programme would solve Greece's debt problem.

Even with price stability, mutual surveillance procedures should no doubt encourage a permanent shift to lower fiscal deficits. If debt levels continue to rise, in the long run, Member States could find that any tightening in Community monetary policy would push their bonds outside the bounds of eligibility for EC financial institutions. If the benefits of a once-in-a-generation bonus — such as the move to price stability — were squandered, then the next generation might inherit an unbearably penal debt burden.



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## Credit or Currency Spreads?

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Figure 2 ranks the EC Member States into broad groups according to indicators of expected currency risk and credit risk. Long-term Government bond yields (where available) are used to indicate the market's view of currency risk, because Government bonds in their own currency can be regarded as credit risk-free until the European Central Bank takes control of monetary policy.

During 1990, European Community political leaders accomplished a crowded Euro agenda: they committed themselves to signing a Treaty for economic and monetary union; began Stage One of the EMU process; agreed major parts of the EMU Treaty before the start of formal discussions; removed a significant source of uncertainty by fixing the sterling rate; and declared that the Ecu would be the eventual single currency of the EC, to be supervised by a European Central Bank that will be set up in 1994, at the earliest. Investors have taken note of these developments, and the convergence of long-term interest rates has been little short of remarkable.

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**Figure 2. Ranking of EC Member States by Currency and Credit Criteria, 1990-91**

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Long-Term Bond Yields	22 Apr 91	Debt/GNP Ratio, 1990	Adjusted Income Gearing
<b>Above Average</b>			
Greece	20.9% <sup>a</sup>	Belgium	Greece
Portugal	15.4 <sup>b</sup>	Ireland	Italy
Italy	13.3	Italy	Belgium
Spain	11.8	Greece	Portugal
United Kingdom	10.2		Ireland
<b>Near Average</b>			
Ireland	9.2	Netherlands	Spain
Belgium	9.1	Portugal	Netherlands
Denmark	9.0	Denmark	United Kingdom
Ecu	9.0		Denmark
France	8.9		
<b>Below Average</b>			
Netherlands	8.6	Spain	Germany
Germany	8.4	Germany	France
		United Kingdom	
		France	

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<sup>a</sup> Average Treasury bill yield. <sup>b</sup> 1990 data.

Note: Luxembourg has been excluded from this analysis, because its debt levels are negligible.

In terms of currency risk, capital market investors appear to have concluded that "two-speed Europe" is a reality today, rather than a possibility for the future. Only 80 basis points in yield separate the long-term bonds of Ireland, Belgium, Denmark, France, the Netherlands and Germany — the original signatories of the Schengen Agreement, together with Denmark and Ireland. **The financial markets have recognised the decreased currency risk component, but appear to have paid no attention to the credit risk aspect.** On the conventional criteria of debt/GNP ratio, as well as our preferred measure of income gearing adjusted for the effects of the Single European Market (see page 15), Belgium and Ireland are both in the "above-average" credit risk group (see Figure 2). France is ranked even lower than Germany, yet its bonds yield virtually the same as the above-average countries.

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## The Linkage Between Money Creation and Credit Risk

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For the first time in a generation or more, in 1993 most EC savers will be free to decide where to put their money once the Single European Market (SEM) is in full operation. There will be no exchange controls to prevent them placing their money abroad, and the liberalisation of financial services should enable the financial institutions, which act as the conduit for most savings, to invest outside their home country as well. As investors scan the European markets, they will realise that the advent of the single currency will create a fundamental change in the nature of Government debt. It will no longer be an automatic safe haven for their savings: risk and reward will have to be assessed.

The key to this change is that Governments will no longer be able to print the money with which they repay their debts. Currently, perceptions about the safety of the **nominal** value of Government debt reflect their ability to print the money that is used to satisfy the bondholders' claim. Hence, Government bonds denominated in domestic currency are theoretically a perfect credit, so there is no need for a premium related to credit quality. In the future, the safety in nominal terms of Government debt will hinge only on the power to tax. The inflation adjustment will result from the Community's overall monetary policy.

This factor underlines the critical role of the European Central Bank in pursuing price stability. It must be free of political pressure that would prompt it to print so much money that a default would result — through inflation — on Government debt. Yet it must be responsive to democratic control. The debate on political union already involves a discussion on the powers of the European Parliament. A possible solution might separate the politicians who have the power to spend taxpayers' money from those who have the power to print new money. As the European Parliament is directly elected, democratic accountability would be maintained if the European Central Bank reported to European parliamentarians. They do not need the power to spend, as that would be retained by the existing national parliaments. This division of powers would make it difficult to generate the political will that would be necessary for any future attempt to dilute the European Central Bank's statutes.

The markets do not perceive public debt as the residual of Keynesian demand management techniques — they are merely the intermediary for collective saving. The question posed by the saver is simple: "will that Government pay the interest and principal on this loan on the due date?" This question will be asked more urgently when the Governments, as part of the SEM, agree to give up their old mechanisms of exchange controls and money printing. If policies go wrong, then the only solution will be a formal rescheduling of debt — amounting to a default — rather than devaluation of the currency. The markets will attempt to measure this default risk with credit spreads, rather than the currency spreads appropriate for the risks of devaluation resulting from excessive money creation.

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## Buttressing the No Bail-Out Rule

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A no bail-out rule will be enshrined in the Treaty to ensure that neither the Community nor its members assume collective responsibility for the debts of any of the members. The attempts to encourage fiscal discipline by peer pressure will be strengthened by prohibiting the European Central Bank from providing credit to any Government and by the removal of "privileged access" by Governments to the financial markets. However, a policy shift is necessary to make the no bail-out rule credible.

The elimination of privileged financing opportunities will force Governments to compete in the open market with all other borrowers. Investors no longer adopt a "buy and hold" strategy, and have demonstrated a desire for liquidity in the secondary market to minimise primary yields. Many European Governments have recognised this need and responded — the creation by the French authorities of the Obligations Assimilables du Tresor (OAT) market in 1985 signalled the beginning of this trend. It was illustrated again by the recent leap forward in the Ecu market, as jumbo issues of Ecu1.0-2.0 billion were launched. Thus, Governments that have to give up other sources of privileged "cheap" funding are likely to turn to an efficient public bond market as the next cheapest source.

The independence of the proposed European Central Bank is one of the crucial points in the debate on monetary union. This independence, it is argued, will free the central bank from the Treasury pressure to fund expenditure with money creation. There is a corollary — the national Treasuries will be free to pursue an optimal debt management strategy. The German draft Treaty proposes that the "golden rule of finance" be included in the Treaty itself — borrowing should not exceed investment spending. Over time, this condition should bias debt maturities towards the longer term — matching the assets financed. Many EC Governments — especially the most heavily indebted — have relatively short debt maturities and are consciously trying to lengthen them to remove any risk of a liquidity crisis. Both factors point towards increased reliance on long-term debt markets.

The EC also has a public policy interest in encouraging greater use of Government bonds — the market's assessment of the creditworthiness of individual Governments should be absolutely transparent. Public bond issues make the scale of debt creation abundantly clear. If it is excessive, then a fall in the credit standing of the issuer should be reflected in a rise in relative yields — a credit spread. A vital mechanism to enforce market discipline on profligate Governments is the requirement that all financial institutions value Government debt at the current market price. Losses will induce — or force, through capital adequacy standards — the lenders to cut off new credit supplies. This is the mechanistic discipline of the market — discipline is **not** exerted by a rise in yields inducing Governments to moderate their spending and thus borrowing. This effect can readily be enhanced by setting capital adequacy — or similar concepts for nonbanks — based on an objective rating of creditworthiness.

A credit risk will exist once Governments give up the power to print the money with which they repay bonds. Although this risk will usually be very small, the normal principles of prudential regulation of financial institutions should be applied. In particular, there should be limits on the maximum exposure of an institution to the obligations of any group of debtors — a "large exposure" limit. This will protect the Community's financial system against the domino effects of any member's default. As an excessive borrower finds that institutions are unable to lend more, then a credit spread will inevitably begin to open up. The mark-to-market procedure will reinforce the unwillingness of potential lenders to lend — thus completing the exercise of the market's discipline.

The greater the proportion of debt that is issued publicly in the bond market — and at the market clearing interest rate — the more transparent the process. Moreover, there can be no argument — on the grounds of a "small market" — that the market price does not reflect a proper evaluation of the credit risk. These arguments amount to a powerful reason to fund **all** debt in the public financial markets — unless there is a specific social reason to do otherwise.

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## Lessons From History

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### *After World War I*

World War I created a massive build-up of debt in many countries, not only the UK. France, Belgium and Italy all experienced crises of various types.<sup>1</sup>

The UK's debt problem crystallised as an excessive level of interest payments relative to Government revenues. Interest rates were pegged at a low level, resulting in surprise inflation, and tax levels were subsequently doubled. The Government was always willing to pay the interest rates required to attract new loans, although the presence of exchange controls from 1939-1979 may well have kept this market clearing rate lower than would otherwise have been the case. Controls on institutional investment also existed, which perhaps gave the Government a significant privileged access to finance.

The financial crises elsewhere in Europe were largely funding crises, where the Governments pegged their interest rates below market clearing levels and found investors less willing to purchase longer-term securities. Eventually debt maturities shortened, setting the stage for a "run" out of Government debt.

### *New York City, 1975*

If the financial markets are to be persuaded that the no bail-out rule will operate successfully, then careful and detailed thought must be given to all the implications that will surround the inevitable crisis. The best case study in modern times of a major default within a sophisticated financial system was the New York City crisis of 1975 (discussed in detail in the Appendix).

The New York crisis provides several lessons that are relevant to the design of the EC's Monetary Union, and two, in particular, stand out.

- The bond market proved capable of recognising that a severe crisis for one of the largest issuers was a specific, rather than general, problem that had no long-lasting impact on the overall market.
- The crisis teetered on the brink of becoming a union-wide problem, because of the systemic risk to the financial system — in particular, six of the 12 New York City banks held New York City debt that amounted to 70% of their equity. Thus, a failure of New York City to honour its obligations carried the risk of undermining the entire banking system of the US monetary union.

### *The UK Solution to Debts — An Inflationary Default*

The history of public finance in the UK provides an interesting object lesson during the period from 1914 — the beginning of World War I — up to 1991. Figure 3 shows the debt ratio rising from 43% of GNP, peaking at nearly 250% of GNP, and then falling back again, according to EC data, to about 43% currently. Was this decline achieved by astute financial management and the running of large budget surpluses, or should investors learn some lessons from history? We believe these extraordinary fluctuations warrant a detailed study.

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<sup>1</sup> Excellently described by Makinen and Woodward, in *Public Debt Management: Theory and History*, edited by Dornbusch and Draghi, CEPR 1990.

A Government bond known as War Loan was issued initially in the UK in 1914, and similar bonds were raised periodically during the remainder of the war. In 1917, £2 billion of a 5% bond, due 1929-47, was issued, an amount that represented more than 40% of GNP at the time. The build-up of wartime debt took the UK's debt/GNP ratio from 24% in 1913 to 109% by the end of the war. Correspondingly, interest costs rose from 9% of tax revenues to 30% in 1918.

The wartime inflation continued until 1920 — when prices were 2.5 times their prewar level. Government borrowing also continued to surge, taking the debt ratio to 133% of GNP in 1920 — when the national debt peaked in cash terms, even though inflation had cut the burden of debt servicing back to 23% of Government revenues. From 1920 onwards, consumer prices started to fall — eventually declining by 33%, to the low point in 1932, before remaining unchanged until 1935. Although the cash value of the national debt fell 5% from 1920 to 1932, falling price levels pushed the debt ratio to a peak of 179% in 1933. Long-term fixed-rate debt magnified the impact on the burden of debt servicing — which reached 38% of revenues in 1926, before declining slightly to 34% in 1932. At that stage, the pressure of debt servicing on Government finances was considered intolerable, especially during a period of economic depression.

During the late 1920s, a series of minor debt conversions occurred as other issues matured. However, the major War Loan issue was first callable in 1929; the Government, on three months' notice, could call the bond at any time until 1947. Accordingly, the market was unwilling to bid the price of War Loan much above par, despite the 5% coupon and **declining** consumer prices. As the largest single issue, it put a floor under long-term interest rates at about 5%. According to the official history,<sup>2</sup> the possibility of a conversion was mooted during the summer of 1931 — reducing the coupon from 5% to 4% and extending the maturity to 1951 and after. This discussion coincided with a disastrous period for the economy — associated with the end of the gold standard. Bank Rate had to be pushed up to the crisis level of 6%, and other Government bond yields moved up to 4.4%. Thus, a conversion did not seem feasible.

However, by 1932 the situation improved, and Bank Rate fell from 6% in mid-February to 3% by end-April, with Treasury bill yields falling below 2%. At this stage, a decision was taken to push rates even lower by the Bank of England purchasing securities and pursuing an "easy money" policy. Apparently separately, the idea of conversion was revived, and by early June, a 3½% coupon and a "1952 and after" redemption date was settled.

At the end of June 1932, Bank Rate was lowered to 2% for the first time this century and, shortly after, a conversion offer was announced. Bondholders were given a cash bonus of 1% if they agreed within a month to convert their existing 5% 1929-47 bond into a 3½% "1952 and after" bond. Through powerful appeals to patriotism and technical measures such as a comprehensive embargo on any other new issues or competing financial instruments, market interest rates fell so much that the lack of available investment alternatives persuaded about 90% of holders to accept this conversion offer.

In legal terms, the Government simply utilised its call option to refinance the issue on better terms. Nonetheless, the result of the economic policy associated with these events was detrimental to the bondholders. The easy money policy led to a rise in the narrow money stock by 13% during the course of 1932, while consumer prices fell 3%. This policy was continued during the rest of the decade, and by the outbreak of the Second World

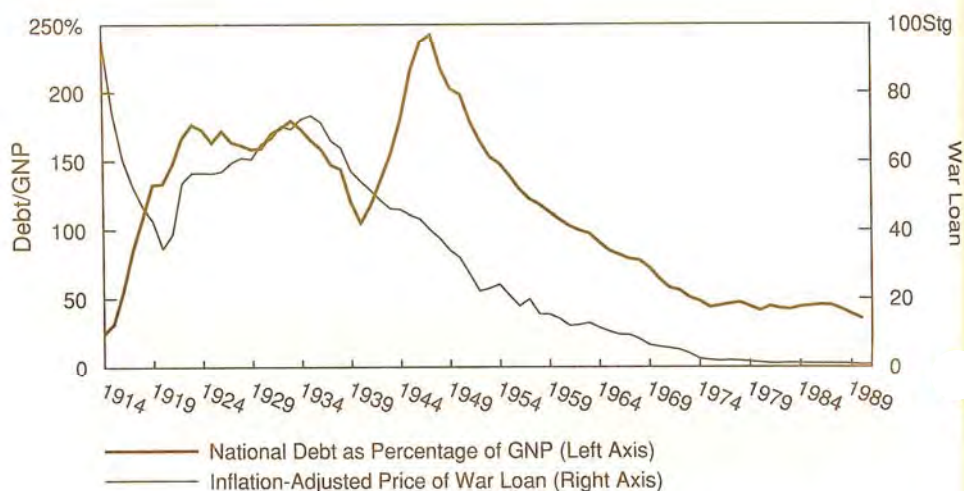
<sup>2</sup> See *The Bank of England, 1891-1944*, R.S. Sayers, Cambridge University Press, 1976.

War, the money stock had risen by 52% from the level before the conversion offer was made. Prices started to rise during the period, but had only gained 13% before the outbreak of the Second World War masked developments. Figure 3 sets out the results of these policies on the purchasing power of £100 invested in a War Loan, or equivalent, at the beginning of World War I.

Rising interest rates and inflation cut the purchasing power to one third by 1920, but it doubled from that level, because of falling prices, by 1932. The sustained pressure of interest payments within the budget prompted the 1932 conversion and, initially, the easy money policy led to a further modest rise in the real bond price. After an interval, "surprise inflation" duly appeared. Three-month Treasury bill yields fluctuated between 0.5% and 1% from 1933 until "easy money" was abandoned in 1951. During this period, investors in War Loan lost two thirds of the real value of their asset.

Although budget surpluses amounted to about 5% of GNP between 1987 and 1990, it was the "surprise inflation" — launched in 1932 and never recaptured — that has been the most powerful influence on the UK's debt problem. In March 1991, the real value of £100 lent to the UK Government at the outbreak of World War I — is worth just £0.78. For all practical purposes, there has been a complete default on the real value of the loan.

**Figure 3. National Debt Ratio and Real War Loan, 1914-91**



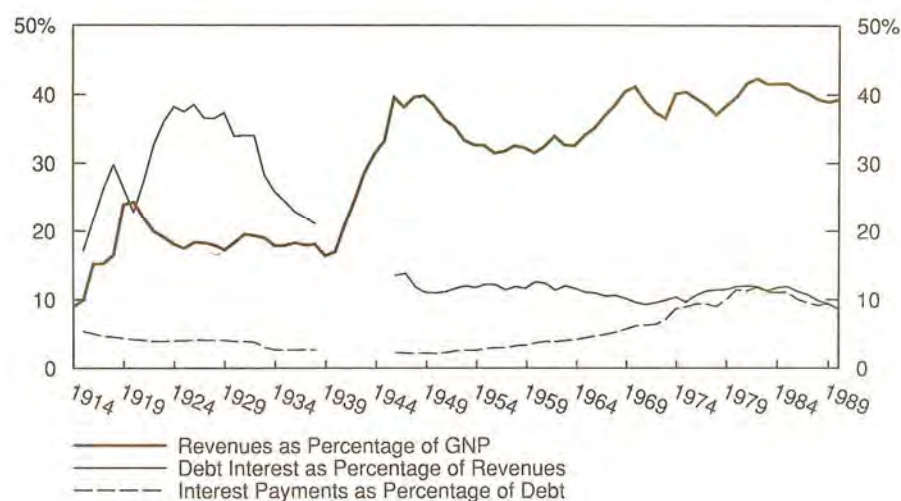
However, Figure 4 shows that there was no need for another conversion — even when the debt burden reached extraordinary peaks in 1947: the combination of a doubled tax burden and halved interest rates since 1932 led to a debt service ratio 60% lower than the crisis level. Debt servicing has fallen progressively and has not been a political problem since. Indeed, by 1990, the burden had fallen to the lowest level this century.

**This is the key lesson: if the level of interest payments takes too large a fraction of tax revenues, then the bondholder should pay careful attention to the political weight of other claims on Government expenditure.**

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**Figure 4. Relationship between GNP, Revenues and Interest on Debt, 1914-91**


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### What is Debt?

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This report deals with straightforward bond issues. If Ecu1.0 billion of ten-year, 9% annual coupon bonds were sold in the market now — May 1991 — an investor has only to answer two simple questions: (1) will they pay Ecu90 million of interest payments each May for the next ten years; and (2) will they repay that Ecu1.0 billion in May 2001?

Governments can assume other financial commitments that have many characteristics of debt, but are less clear cut and may even be "off balance sheet" — a very vexed item in corporate accounting. Banking supervisors are grappling with this problem as well. Government debt analysts will no doubt face the same problem in the future, for example, with the question of pensions for civil servants.

The Netherlands takes a very conservative approach and has a funded pension scheme, Algemeen Burgelijk Pensioenfonds (ABP), properly based on the usual actuarial assumptions of mortality and rates of return. By early 1990, the Dutch Government's total debt exceeded Dfl 300 billion, of which nearly Dfl 80 billion was held by ABP in the form of marketable bonds and direct, formal loans. Dutch Government debt is 78% of GNP, well above the EC average. If the Government were to default on its bond debt, it is impossible to envisage it differentiating between the bonds held by pensioners and others, foreigners, for example. Thus, the pension commitment is absolutely clear and is manifested in the legal form of a portfolio of bonds.

The UK takes the opposite approach and operates a pay-as-you-go policy for most public servants. A recent report entitled *Financing Teachers' Pensions*, prepared by one of the UK teachers' trade unions, pointed out that the Government has funded the teachers' pension scheme with "notional" Government bonds — so notional that they are not even reported as part of the national debt. Without considering the merits of the case, it is worth noting the teachers' claim that, if their pension scheme had been properly set up, they would now have a formal bond fund worth £80 billion. This one claim from a comparatively small group of employees would raise the UK's debt/GNP ratio from 43% to 58%.

The general pension problem in Italy is already acute. The country's INPS pension system is in heavy deficit — representing more than 25% of total Italian public sector borrowing. Demographics suggest that the problem will only get worse. In fact, the demographics for the whole of the EC are deteriorating, as shown in Figure 5.

**Figure 5. Estimated Dependency Ratios<sup>a</sup>, 1980-2050E**

	1980E	1990E	2000E	2010E	2020E	2030E	2040E	2050E
France	21.9%	20.9%	23.3%	24.5%	30.6%	35.8%	38.2%	37.8%
Italy	20.8	20.1	22.6	25.7	29.4	35.3	41.0	37.9
Spain	17.2	19.4	21.8	22.9	25.3	31.1	38.2	38.6
United Kingdom	23.2	23.0	22.3	22.3	25.5	31.1	33.1	30.0
West Germany	23.4	22.3	25.4	30.6	33.5	43.6	48.2	41.6

<sup>a</sup> Dependency ratio proportion of population above 65 relative to those between the age of 15 and 64.

E Estimate.

Source: Organisation for Economic Cooperation and Development (OECD) Demographic Data File: Medium Fertility Variant.

The problem of funding pensions will become severe for Europe during the early years of next century<sup>3</sup> — precisely the time when the value (or otherwise) of European integration, both political and economic, will be apparent to the voters. Although Governments have some clear and powerful moral obligations towards the current generation of pensioners-to-be, that obligation is a good deal less clear cut than simply paying Ecu90 million of interest in May each year. It is quite conceivable that a method could be found to reduce the burden of these claims from pensioners — a euphemism for default — leaving the bondholder even more secure. However, these methods represent a series of future political decisions. In some cases, the Netherlands for example, the question may already have been faced and properly funded, while the result is a relatively unflattering debt profile. The sheer scale of these unknown, and perhaps unquantifiable, obligations underlines yet again the fundamental importance of the no bail-out rule if EMU is to be durable.

There is also the example of the whole range of publicly-owned companies, whether utilities, industrial holding companies, banks or insurance companies. The entities may be subject to large subsidies or simply guarantees, and those guarantees can extend to noncorporate entities. In any case, they pose a set of obligations that may conflict with the interests of bondholders at some stage. That conflict will be resolved through an examination of the legal status of the entities, which can be changed depending upon the political imperative involved.

How big are all these potential claims? Full information is necessary — and on a worst-case basis, because that is the only time that it becomes relevant to bondholders. The Prospectus Directive (89/298/EEC) requires publication of "information necessary to enable investors to make an informed assessment of the financial position of the issuer." However, Articles 2 and 5 exempt Member States and their subsidiary bodies from this requirement. There are severe sanctions in most national laws for breaches of prospectus laws. An excellent beginning to "glasnost in public debt" would be an immediate repeal of Articles 2 and 5 in the Directive, leaving officials, and their political masters, fully liable for any misleading statements.

<sup>3</sup> See *European Pensions*, by Robin Mitra, Salomon Brothers Inc, March 26, 1991.



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## Analytical Approach

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The analytical approach adopted in the following section of this report relies on the observation that once Governments are unable to print money, they will resemble private corporations. An analysis is therefore required of the income and expenditure of a Government relative to its borrowing. Moreover, the analysis must recognise the fact that "the Government" as a debtor is quite distinct from "the country." The Government can default without causing the end of civilised life — as demonstrated on several occasions in the 1920s. Rescheduling the maturity of the Government's debts, for example, will reduce the value of the bonds, but may have limited impact on public services and should have no implications for the creditworthiness of individual citizens.

However, the analogy with a private sector corporation cannot be taken to an extreme, because there is no doubt that the power to tax is fundamentally different from selling even the necessities of life. Perhaps the best analogy would be with an electric power utility. Its product is fundamental to civilised life, and it is impossible to avoid paying the electricity bill — they simply cut off additional supplies. For most individuals, and large-scale commerce, charges for electricity may have many of the characteristics of taxes.

There are two relevant concepts to consider when analysing the credit of companies:

- the gearing of the stock of capital; and
- the gearing of the flow of income.

The traditional public debt concept of debt/GNP ratio rather unhelpfully compares the stock of debt and the flow of national income.

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## Capital Gearing

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Capital gearing is not relevant, in practice, for a country, even if "free market" economists could make it theoretically operational. The concept of capital gearing relates to insolvency and a subsequent liquidation of assets to satisfy the creditors. There are no realistic and believable figures for many of the assets of national Governments. Even if they did exist, bondholders do not have the option of seizing, for example, a nuclear missile system and auctioning it off to the highest international bidder. If an investor were contemplating seizing a Government's assets, then a serious credit risk would already exist. For practical purposes, we can dispense with this concept of capital gearing. In the EC context, the potential problem is not insolvency but illiquidity — the inability (or unwillingness) to make an interest or principal payment when due.

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## Income Gearing

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- Interest payments could be calculated either gross or net. The use of net payments may flatter the calculation, but the obligation is to pay the gross payment so that it is more relevant, presuming that "excess" cash is not being held unnecessarily by the Government. Governments may hold large cash balances — as does the German social security system, for example — but a reduction in these balances may simply change the group that suffers the default, rather than solve the problem. The object of the analysis is to highlight any pressures to change Government behaviour that might prejudice the full and prompt satisfaction of lenders' claims.

- Provided a Government is seen as able, and willing, to pay the market interest rate, then its credit standing will remain good, and there should be no difficulty in rolling over old debt, or financing fresh deficits. Therefore, capital repayments should not be a problem, leaving the ability to make interest payments as the relevant factor. If doubts do arise about capital repayments, then a liquidity crisis is probably imminent (see the example of New York City in 1975 — Appendix).

### Effective Interest Rates

Figure 6 shows the comparison between the long-term interest rates in a particular country and the effective interest rate paid on the Government's debt. Since 1983, the EC Governments' effective interest charge was, on average, 19% below the long-term market rate for the corresponding year. In 1990, market rates were 27% higher than the effective charge on EC Governments that year. Naturally, this reflects the mixture of maturities within the debt portfolio. However, it is clear that the Governments' effective interest charge was consistently below the long-term market rate. This level would appear to be the relevant maturity to use as a benchmark given the probable desire to lengthen maturities.

**Figure 6. Effective Interest Rates Paid by EC Member States, 1990**

	Belg.	Denmark	Germany	Greece	Spain	France	Ire.	Italy	Neth.	Port.	UK
Effective Rate	8.6%	12.1%	5.9%	12.4% <sup>a</sup>	8.1%	8.3%	8.4%	9.6%	7.6%	12.7%	7.9%
Long-Term Market Rate	10.1%	11.0%	8.9%	17.9% <sup>b</sup>	14.8%	10.0%	10.1%	13.3%	9.0%	15.4%	11.2%
Market Rate as Pct. of Effective Rate	117%	91%	151%	144%	183%	120%	120%	138%	118%	121%	142%

<sup>a</sup> Includes interest rates applicable to foreign borrowing. <sup>b</sup> Short term.  
Source: European Commission.

Undoubtedly, the difference between market and effective rates is partly explained by "seigniorage" — the central bank's income from noninterest bearing cash. This is probably not a complete explanation, as Governments have "privileged access" to the financial markets through a variety of tax and accounting techniques. In Germany, as a specific case, its "cheap" funding prior to unification will mature and be replaced — at much higher interest rates, if current trends persist. A significant proportion of UK debt is inflation-linked and therefore has a low nominal interest rate. Success in reducing inflation expectations will make it difficult to maintain such low nominal interest charges — rather than indexed capital compensation — unless there is a general fall in real interest rates. In Spain, for example, the policy steps have already been taken to remove these benefits.<sup>4</sup> The exact definition of debt, for example, will also change this calculation: the EC data for the UK puts the 1990 debt/GNP ratio at 43%, whereas the Bank of England estimates it to be about 35%.

It appears agreed that "privileged access" should be removed and an appropriate provision is contained in the European Commission's draft Treaty (Article 104a paragraph 1 (a)). Presumably, these requirements will be phased in once the Treaty has been ratified by the end of 1992. Accordingly, perhaps as early as 1994, some countries may experience a

<sup>4</sup> See *Financing Budget Deficits by Seigniorage and Implicit Taxation: the Cases of Spain and Portugal*, Rafael Repullo, SUERF Colloquium, May 1991.

sharp rise in their debt interest burden, reflecting the loss of these privileges and seigniorage gains. Variation between national and EC data definitions may alter the details but will not obscure the picture of a significant rise in interest charges.

This trend is likely to be exacerbated by the impact of the SEM on opening up competition for retail deposits. This competition may pose a problem to the banking system, as its retail deposit interest costs are driven much closer to market rates. It could pose just as big a problem for Governments that have large amounts of funding from unsophisticated retail investors.

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### What is the "Right" Income Gearing Ratio?

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Academic literature has yet to answer this question definitively. However, investors must make some judgement about the relative security of different bonds and, thus, the yields they will demand as compensation. One approach to the question of the potential magnitude of the credit spreads between the EC Governments is to make an analogy with other markets.

As discussed earlier, it can be argued that the electric utility industry has some of the characteristics of a taxing authority. This is a key feature of Government and makes the industry comparable, as its monopolistic nature generally requires regulation by the public sector. Accordingly, the analogy with the US electric power industry seems relevant once EC Governments give up the power to print their own money to repay debts. With revenues of \$145 billion in the 12 months to September 30, 1990, the industry has an output roughly equivalent to the GNP of Denmark. For the past few years, interest charges have remained stable at 10.8% of revenues.

Interest coverage is of such fundamental importance to investors that the rating agencies naturally accord it one of the highest priorities in the process of providing a rating. However, it is far from being the only relevant characteristic. The Standard & Poor's rating agency provides a set of "utility financial benchmarks," and pretax interest coverage<sup>5</sup> is the first benchmark. Figure 7 shows these pretax interest coverage ratios for different rating categories, converted into percentages of revenue using the industry's aggregate tax and expense ratio. This conversion modifies the concept to suit a public sector entity where revenues, rather than profits, are relevant.

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**Figure 7. US Electric Utility Income Gearing Ratios — By Rating Category**

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US Electric Utilities				
Rating Category	AA	A	BBB	BB
Pretax Interest Coverage	More than 3.5	2.5-4.0	1.5-3.0	Less than 2.0
Interest Expense as Pct. of Revenue <sup>a</sup>	Less than 10%	14%-9%	23%-11%	More than 17%

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<sup>a</sup> Converted using industry tax and expense ratios.

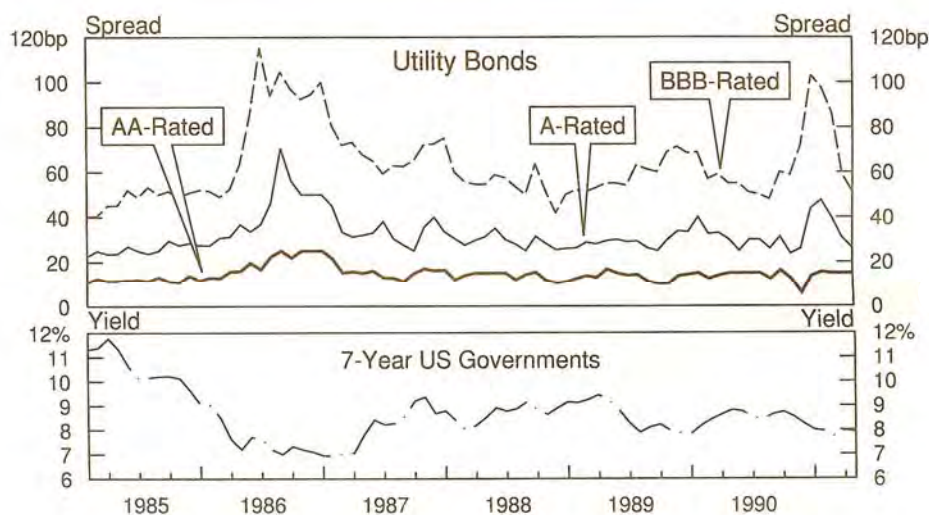
For stockholder-owned electric utilities, Standard & Poor's does not provide benchmarks for AAA bond ratings, as there would be too few to be statistically significant. Clearly, a substantial improvement in credit quality would be expected compared with an AA-rated bond.

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<sup>5</sup> Pretax interest coverage: income from continuing operations, adjusted for nonrecurring items before taxes, plus minority interest, income tax, and interest expense, divided by interest incurred.

The bond market differentiates between the credit risks inherent in these categories — as shown in Figure 8. During the period 1985-91, AA bond yields averaged 15 basis points above AAA-rated bonds, while A averaged 32 basis points and BBB were 63 points higher. Importantly, the spreads for lower-grade bonds widened sharply in times of trouble — for example, touching 100 basis points during the Gulf War earlier this year.

**Figure 8. US Electric Utility Bonds: Credit Spreads Over AAA-Rated Paper (Basis Points) Versus Seven-Year US Government Bonds (Percentage), 1985-91**



### "Rating" the EC Member States

The willingness of the financial markets to distinguish so sharply opens up a number of possibilities for a market-based system of applying fiscal discipline within the EC's monetary union. Income gearing is an excellent test, because it captures the key variables in one single number: the total volume of debt, the ability to pay and the market's risk perception over and above the general level of interest rates. The market pays careful attention to the potential for rating category changes and may anticipate these well in advance. Over a period, a narrower, or wider, credit spread can influence interest costs sufficiently to help change the formal rating. For the EC's purposes, the set of rating criteria used could emphasise the role of market perceptions.

In Figure 9, tax and other revenues are shown as a percentage of GNP. As the measure of income gearing, interest expense is then calculated as a percentage of the revenue. During the 1980s, revenues hardly changed — measured as a percentage of GNP. Yet interest expense — under 3% of GNP in the 1970s — has now leapt to 5.2% of GNP. Therefore, nearly 12% of the EC's tax revenues are already committed to interest payments. This level of income gearing has already reduced future spending flexibility.

If interest rates persist at current levels for the next few years, and privileged access to financial markets is removed, it seems certain that interest charges will surge to new highs. For the EC in aggregate, charges could rise from 12% of revenues to 15%. Current revenues, for EC Governments in aggregate, have scarcely changed for nearly a decade. Although the position varies from country to country, there may not be any great potential for tax increases. With downward pressure on budget deficits, sharp cuts in noninterest expense will be necessary.

**Figure 9. Interest Expense and Current Revenues, 1983-1991E**  
(As a Percentage of GNP)

	1983	1984	1985	1986	1987	1988	1989	1990	1991E
Interest Expense	4.4%	4.7%	5.0%	5.1%	4.8%	4.8%	4.8%	5.0%	5.2%
Current Revenues	43.4	43.5	43.9	43.7	43.8	43.5	43.7	43.5	43.8
Interest Expense as a Pct. of Revenues	10.1%	10.8%	11.4%	11.7%	11.0%	11.0%	11.0%	11.5%	11.9%

Source: European Commission.

For this broadbrush exercise, we assign the EC Member States' bonds to rating categories using only income gearing criteria, and exclude all other factors that would be considered when awarding a formal rating. The categories are based on the same break-point for gearing that Standard & Poor's use. States will be assigned to the AAA category where their income gearing is substantially — for example, 25% — lower than the maximum for an AA category.

Accordingly, the EC in aggregate ceased to be AA in the early 1980s. The adjustment to full market rates of interest would place the Community squarely in the BBB category today.

In the US, rating categories are used by many institutions as criteria for the eligibility of assets. These trigger points may be set by external prudential regulators or by internal guidelines. Nonetheless, bonds rated BBB or above are usually regarded as "investment grade" and those below may only be held, if at all, subject to special constraints. Several EC Member States would already fall outside the "investment grade" category if this approach were the only criterion. This hurdle could be used as a test for sufficient convergence of public finance to permit Stage Three to begin, or as a test for membership of the first tier of a multi-tier Europe.

### **Income Gearing in the Future**

Moving these calculations forward to the future world of the single currency inevitably requires hypotheses and assumptions — some of which may be arguable. Therefore, our calculations can only be illustrative of the general magnitudes involved.

enario I

### **Impact of the Single European Market**

Figure 10 shows these concepts applied to the individual Member States. First, the 1990 income gearing is calculated. Scenario I then attempts to remove both the effects of privileged access and the maturity distribution of the debt by substituting the current long-term interest rate (the rationale for using this rate was discussed on page 5) for the effective rates shown in Figure 6, and adjusting the income gearing accordingly.

**Figure 10. Scenario I — Actual and Adjusted Income Gearing and Impact of Single European Market, 1990**

	Belg.	Denmark	Germany	Greece	Spain	France	Ireland	Italy	Neth.	Portugal	UK
<b>Income Gearing</b>											
Actual Gearing	24.4%	13.2%	5.9%	32.9%	9.3%	6.1%	21.6%	22.8%	11.5%	23.0%	8.8%
Adjustment <sup>a</sup>	26	10	8	49 <sup>b</sup>	14	7	24	32	13	28	11
Implicit "Rating"	—	A	AA	—	A	AAA	—	—	A	—	A
<b>Debt Ratio</b>											
Pct. of GNP	129.4%	62.8%	43.7%	89.5%	44.7%	36.1%	101.4%	100.9%	77.8%	67.8%	43.0%
Interest Expense	11.1	7.6	2.6	11.1	3.6	3.0	8.5	9.7	5.9	8.6	3.4
Current Revenues											
Pct. of GNP	45.4	57.5	43.7	33.7	38.9	48.9	39.4	42.6	51.4	37.4	38.8

<sup>a</sup> Adjustment: effective interest rate changed to current long-term rate as shown in Figure 2.

<sup>b</sup> Includes drachma devaluation effects on foreign borrowing costs.

Sources: European Commission, Salomon Brothers estimates.

When the SEM becomes fully effective, there will be a wide range of income gearing ratios. Before allowing for the modest seigniorage distributions from the European Central Bank, these ratios will range from 7% of tax revenues in France up to — applying the published data — 49% in Greece. Such a dramatic disparity in gearing ratios suggests that significant credit spreads will exist between the best and the worst countries.

Based only on income gearing, five Member States might find their debt unrated. If income gearing was used as one of the criteria for the prudential regulation regime, these States might find that nondomestic Community financial institutions might be required to limit their holdings or have an additional capital requirement to reflect the risk. These policies would likely result in significantly higher yields being required from bonds issued by these States.

## Scenario II

### Single European Market Plus EMU

Participation in Stage Three will eliminate currency spreads completely, but credit spreads should remain, or become, significant. The hypothetical calculations in Figure 10 assume that the entire debt is financed at the new rate. In practice, there will be a lengthy and variable period as old debt matures and rolls over at the new rate. This process will be accelerated with floating rate debt.

If Ecu bond yields remain unchanged at perhaps 9% for the top rated, AAA country then, by analogy with the utility industry, AA bonds would yield perhaps 9.1%, A about 9.3% and BBB perhaps 9.6%. Unrated bonds could well yield 10% or more — as demonstrated by the 10.25% coupon for the recent issue by Greece. These interest rates are used instead of the effective rates, shown in Figure 6, to calculate income gearing. Not surprisingly, the biggest gainers from this transition are the high-yield countries — Portugal would move into the "investment grade" category.

**Figure 11. Scenario II — Single European Market Plus EMU**

	Belg.	Denmark	Germany	Greece	Spain	France	Ireland	Italy	Neth.	Portugal	UK
Adjusted Income Gearing	26%	10%	9%	26%	11%	7%	26%	24%	14%	17%	14%
New "Rating"	—	A	AA	—	A	AAA	—	—	A	BBB	A

### Single European Market Plus EMU and Price Stability

The ultimate goal of the process of monetary integration in Europe is price stability. If the proposed arrangements do not realistically seem likely to achieve that goal, then several countries — most notably Germany — may legitimately doubt the value of the process. Given the high income gearing of the Community countries, the impact of achieving price stability could have a powerful influence on public finances — if savers really believe it can be sustained.

What long-term interest rate would be associated with this achievement? With open capital flows and a firm commitment to price stability, Germany saw ten-year Government bond yields fall to 5.5% in late 1986. This probably marks the nearest prototype for the best outcome for the EC. Other countries, the UK for instance, have recorded lower yields, but these were achieved when exchange controls prevented savers from diversifying their portfolios efficiently. If the EC's commitment to price stability proved fully credible in the long run, it is possible that bond yields, for the best-rated Governments, could be 5%. With a greatly-reduced perception of risk, BBB bond yields could well be only 5.5%. Therefore, income gearing in this scenario is calculated using these yields, rather than the effective rates.

Figure 12. Scenario III — Single European Market Plus EMU and Price Stability

	Belg.	Denmark	Germany	Greece	Spain	France	Ire.	Italy	Neth.	Port.	UK
Adjusted Income Gearing	16%	5%	5%	15%	6%	4%	14%	13%	7%	9%	6%
New "Rating"	BBB	AAA	AAA	BBB	AAA	AAA	A	A	AAA	AA	AAA

### Implications

Naturally, the results of such a fall in interest rates are dramatic. This optimum scenario would lead to **all** Member States' bonds being rated as "investment grade." The narrowing of credit spreads associated with such a process should satisfy any requirement for a "considerable degree of alignment" of capital market rates.

These calculations, though hypothetical, illustrate some of the pressures at work on the Member States and highlight their rationale for participating in EMU. For France and Germany, the political arguments probably dominate all other issues. However, for Portugal and, especially, Greece, the financial benefits that flow from Scenario III are very substantial. If price stability is achieved, the impact would be so massive that these countries should be among the most powerful advocates of a rapid move to the Ecu as the single currency, combined with a highly independent central bank.

Many countries have long since recognised the inflexibility imposed by high levels of debt, and a number of adjustment programmes were implemented in the second half of the 1980s. However, the financial benefits of such a programme generally appear long after the political costs have been incurred. Stabilising the debt/GNP ratio only leaves the income gearing ratio at the mercy of cyclical swings in monetary policy — albeit with lags reflecting the maturity structure of the debt portfolio. Significant reductions in income gearing require a reduction in the debt/GNP ratio — unless the general level of interest rates changes.

The UK has reduced its debt ratio by nearly 30% since the 1984 peak. Denmark has cut indebtedness by 20% and income gearing by even more. Among the more indebted countries, Ireland has already reduced its debt burden by 14% and income gearing by 11%. Belgium has now checked its debt rise. A modest decline has begun already, but, despite these efforts, debt servicing has continued to edge up. The vigour, and potential benefits, of these adjustment programmes will be carefully considered by market participants and should be reflected in any "rating" process.

The debate on the conditions that are necessary for Stage Three — the irrevocable locking of exchange rates — has focused on the need for convergence, in particular, of inflation rates and public finance. The reason for specifying sound public finance is the fear that the no bail-out rule might have to be invoked — perhaps creating a political crisis that could wreck the Community.

A remarkable benefit of price stability is that its probable impact on interest rates will reduce debt servicing costs sufficiently to remove any fear of a public debt crisis. Accumulated debt levels and new deficits could vary widely, yet low income gearing would reduce any risk of the operation of the no bail-out-rule, removing the fear of political crises.

The fiscal bonus from lower debt service costs ideally would be utilised to pay off maturing debt, but the highly-taxed countries — Denmark, Netherlands and perhaps France — might well use some of the savings to move their tax burden towards the Community average. Nonetheless, mutual surveillance procedures should undoubtedly encourage a permanent shift to lower fiscal deficits.

Price stability may not, by itself, solve all fiscal problems. If the budget deficit — after allowing for lower interest charges, exceeds real GNP growth, then the debt ratio will continue to rise. If Scenario III had occurred in 1990, then only Belgium, Greece and Italy would have experienced a rise in the debt ratio, the Netherlands' ratio would have been stable and the other countries' ratios would have declined significantly. A further minor adjustment would have stabilised Belgium's indebtedness and, in reality, this was achieved. Italy would have required a substantial reduction in its budget deficit to achieve stability. If Greece had met the very ambitious targets specified in the adjustment programme agreed in February 1991, then it would have had the most rapidly declining debt ratio in the Community. If debt levels continue to rise, in the long run, Member States could find that any tightening in Community monetary policy would push their bonds outside the bounds of eligibility for EC financial institutions. If the benefits of a once-in-a-generation bonus — such as the move to price stability — were squandered, then the next generation might inherit an unbearably penal debt burden.

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## Appendix: The 1975 New York Debt City Crisis<sup>6</sup>

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This section analyses one of the incidents often cited as an example of the failure of market discipline: New York City's fiscal crisis of 1975 (a brief history of events is given on page 21). This crisis involved specific factors that seem unlikely to be present in the EC or can readily be avoided by proper structuring of the monetary union of Europe.

The Delors Committee Report specifically refers, in paragraph 30, to the risk that market forces will be too weak and slow or, alternatively, too sudden and disruptive. We believe that a study of this leading example provides valuable lessons on how market discipline can be used as a genuine and simpler alternative to binding budgetary rules.

*The Lessons  
Relevant for  
EC Monetary  
Union*

- Probably the most powerful lesson is that a determined administration could circumvent any prudent constitutional arrangements. In this case, the "check" of the superior legislative body — New York State — failed entirely, because New York State systematically permitted its checks to be avoided by abuses of borrowing powers. Looking at the growth of European "pork barrel" politics — perhaps exemplified by the EC's Common Agricultural Policy — there can be little confidence that late night, budget cooperation deals would not fall into the same trap. That would be the precise moment when "vital national interests" were at stake and could easily warrant a threat to leave the union.
- The speed and severity of the crisis, when it ultimately arrived, can be traced directly to the progressive increase in the proportion of short-term debt. This occurred partly because it was easier to avoid the statutory debt limits with short-term debt, but also partly because of the fatal illusion that it was "cheaper," because of the positive yield curve. This problem underlines the need for stable debt servicing expenditure. Public policy should always favour stability and the avoidance of a liquidity crisis, even at the cost of higher, current interest costs. **The nature of the debt portfolio should be disclosed — fully and in a readily accessible and comprehensible form — so that the markets can make a proper judgement.**
- As New York City was part of a monetary union, it had no possible escape through printing more money. Therefore, its default could not be along an inflationary route — it had to threaten a formal failure to pay obligations, when due. This move put its financial system directly at risk, rather than indirectly via the problems of inflation. Although this risk did not crystallise, there would have been even less of a reason for the central authority of the political federation to contemplate the need for a bail-out if its financial system had possessed a more widely-diversified portfolio of assets.

**New York City's fiscal crisis is particularly instructive, because it happened to the public authority in one of the world's most sophisticated financial markets.** Moreover, the higher legislative body was, systematically and publicly, persuaded to override the constitutional checks intended to prevent exactly this type of crisis. The persuasion was not difficult, because that higher body was also in financial difficulties. The EC's binding budgetary rules could well be as vulnerable.

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<sup>6</sup> See *Market Discipline CAN Work In The EC Monetary Union*, Salomon Brothers Inc, November 1989.

### *How the Constitutional Checks and Balances Were Avoided*

The roots of the problem go back to the 1960s. New York City's charter required a balanced budget (paragraph 1515). The crisis arose because of abuses of both short- and long-term borrowing powers, as well as the use of Public Benefit Corporations to avoid statutory debt limits. The operating expense budget was to be balanced by setting the real estate tax (the major revenue source) at the level necessary to achieve that balance, although subject to a ceiling. There was a separate capital budget for capital projects and borrowing was permitted — but subject to limits laid down by the State of New York.

The State limited the maturity of debt to the "probable usefulness" of the life of the project. The city sought, and obtained, numerous amendments to this law; effectively, operating expenses were capitalised. Despite criticism as early as 1966 about whether these were really capital projects, the practice grew, and borrowing for current expenses rose from 4% of the city's funds in 1965 to 53% in 1975.

Abuses of short-term borrowing centred on Revenue Anticipation Notes (RANs), Tax Anticipation Notes (TANs) and Bond Anticipation Notes (BANs). RANs were simple borrowings against tax revenue that were due to be paid in the following budget year, but which accrued in the current year. In the 1965-75 decade, RANs increased sixfold. This process failed to allow for budgeted revenue, which, for whatever reason, was never collected. This problem became most acute with TANs, which were largely used to anticipate real estate taxes. By 1975, US\$380 million of TANs were outstanding against taxes receivable of \$502 million — per annual report. However, the State auditors ultimately reckoned that revenues unlikely to be collected amounted to \$408 million of that total.

BANs were another significant misuse of short-term borrowing powers, because they allowed temporary financing, for example, for the construction period of a project, prior to "permanent" financing by a bond issue. By continuously rolling over BANs, cheaper financing was provided on the basis of the positive yield curve and, helpfully, no principal had to be repaid.

Public Benefit Corporations (PBCs) were created by the State of New York to run revenue-producing facilities, such as public utilities. Increasingly, these PBCs began to finance nonrevenue-producing activities, yet their bonds were still held to be a "moral obligation" of the sponsoring authority. A "full faith and credit" commitment was not previously necessary, because the revenue stream would repay the bonds. These off-balance-sheet commitments became large — New York State public authorities had \$15 billion of "nonguaranteed" debt outstanding in 1977, versus only \$3.7 billion of guaranteed debt.

In its 1981 rationale for the restoration of a credit rating to New York City, Standard & Poor's noted that the city's reliance on long-term bond issues to finance operating expenses had begun to weaken the market for its bonds even in the late 1960s. As a result, BANs had become particularly attractive, as they were also cheaper. The resulting build-up in short-term debt flooded the municipal market with New York City paper — which accounted for perhaps 40% of total volume at the peak. When the market would no longer buy city paper at any reasonable price, the scale of short-term liabilities inexorably led to a liquidity crisis, as they fell due in enormous quantities and could not be rolled over. Figure 13 sets out the rapid growth in total debt and its shortened maturity. It also illustrates the role of Public Benefit Corporations — total debt was nearly 10% higher than was readily visible, because of the off-balance-sheet nature of their debts.

**Figure 13. City of New York Combined Debt Position, 1965-76 (Dollars in Billions)**

	1965	1970	1975	1976
Net City Funded Debt	\$3.9	\$4.4	\$6.8	\$6.5
Net MAC Debt	—	—	—	\$3.5
Net Debt of PBCs	—	—	—	\$0.9
Subtotal	3.9	4.4	6.8	10.9
Short-Term Debt	0.5	1.3	4.5	2.1
Total Net Debt	4.4	5.7	11.3	13.0
Net Debt Per Capita	571	716	1,513	1,753
Net Debt As Pct. Of Personal Income	16.0%	15.0%	22.9%	25.0%

MAC Mutual Assistance Corporation. PBC Public Benefit Corporation.  
Source: Annual Reports of the Comptroller.

### ***Brief History of the Crisis***

By 1974, creditworthiness problems were already apparent, and the State of New York set up the Stabilisation Reserve Corporation (SRC) to help raise funds for New York City. Drastic budget cuts were proposed, including heavy lay-offs of workers, but the credibility of these proposals was increasingly questioned.

**Figure 14. The Events of 1975**

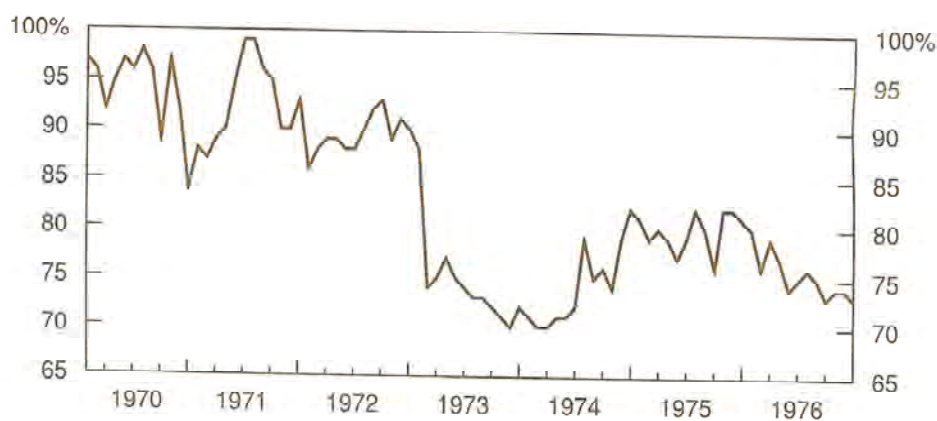
February	Legality of SRC challenged. Urban Development Corporation (of New York State) defaulted on the rollover of short-term debt, souring market perceptions about New York-related paper. Failure of TAN sale after it was found that the pledged tax payments would not exist.
March	Short-term city notes offered for sale at yields close to twice those offered by other municipalities; only 40% sold.
April	Standard & Poor's suspended its A rating, citing "New York City's rapidly-deteriorating ability to raise money in the capital market the possible inability or unwillingness of the major underwriting banks to continue to purchase the city's notes and bonds."
June	State of New York created the Municipal Assistance Corporation (MAC) with a "moral obligation" to repay its bonds. Specific New York City tax revenues were pledged to MAC, which was authorised to borrow up to \$3 billion, principally to refinance short-term city debt with long-term MAC bonds.
July	MAC bonds rated A, and the largest-ever municipal financing was attempted. Half was left with the underwriters, despite yields 50% above comparable bonds.
September	Special audit by the State reveals that the city's cumulative budget deficit was effectively understated substantially. State of New York created Emergency Control Board, MAC's borrowing authority raised to \$5 billion — \$2 billion needed to keep city afloat until November — the crisis becomes acute.
October	President Ford reaffirmed his stand against a Federal bail-out.
December	State of New York passed Moratorium Act to allow MAC to offer bonds due in 1986 in exchange for bonds that had matured in July — or the holders would face a three-year principal moratorium and a reduced interest rate.

Thereafter, the immediate crisis eased. However, as the full magnitude of the debts unfolded, MAC's borrowing powers were raised in 1978 and again in 1980 to \$10 billion (although \$4 billion of this was new money, rather than refinancing). Even then, the city's debt structure was still felt to be too short — 50% of debt was due within five years and 75% within ten years. The subsequent burst of double-digit inflation helped New York City enormously by raising tax revenues relative to the debts. In March 1981, Standard & Poor's restored a credit rating of BBB to New York City's obligations, marking the end of the financial crisis.

*The Impact  
on Financial  
Markets*

Despite the publicity and discussion about the potential implication of default, our data reveal that the markets as a whole were little affected. The interest on municipal bonds was tax-exempt and therefore always yielded less than Treasury securities. Figure 15 sets out the long-run history of the ratio of prime municipal yields as a percentage of pretax Treasury bond yields. The rise in the ratio in the second half of 1974 suggests some anticipation of the problem, but it still remained well below the peaks of the beginning of the decade. Even within the municipal bond market, the severe crisis of one of the largest issuers was recognised as a specific, rather than general, problem. The spread between medium grade and prime long-term municipal bonds averaged 40-50 basis points in 1974 and 60-70 basis points in 1975, depending on maturity. Although this spread hovered around 100 basis points at the height of the crisis, within a year it had collapsed back to 20 basis points.

**Figure 15. 30-Year Prime Municipal Yields as a Percentage of Pretax Yields on 30-Year Governments, 1970-76**



Source: Salomon Brothers Inc.

There was some fear that the banking system would be undermined by default, because it held \$7 billion of New York's \$12 billion of securities. The New York City banks held \$2 billion of city securities and, for six of the 12 banks, the holdings amounted to 70% of their equity. The Federal Reserve Board emphasised its willingness to fulfil its role as a lender of last resort and no problems materialised.

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**Other Titles in the "1992 and Beyond" Series**


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*Market Discipline CAN Work in the EC Monetary Union* (with Dirk Damrau and Michelle Miller), November 1989. The lessons from other monetary unions (Canada, Australia and West Germany) and the New York City crisis of 1975. The market can be a more effective sanction on fiscal profligacy than binding rules.

*Creating an EC Monetary Union with Binding Market Rules*, February 1990. A plan to ensure that market discipline is certain, yet operates slowly and progressively. This plan proposes specific measures to strengthen the structure of the financial system sufficiently that a Member State's default is not disastrous.

*Italian Public Debt at the Dawn of Monetary Union — A Foreigner's View*, February 1990. An analysis of Italy's debt problems, highlighting the short maturity and proposing a major foreign borrowing programme in other EMS currencies to stabilise the stock of debt.

*Higher Bank Capital = Securitisation*, March 1990. Reviews the problems facing banks in earning an acceptable return on the higher levels of capital. The long-term impact of levelling the playing field for all EC financial institutions is profound and is likely to lead to widespread securitisation and equity repurchases by banks.

*When Will Sterling Join the ERM? — Domestic Versus European Timetables*, March 29, 1990. An analysis of the UK domestic timetable for lowering inflation and interest rates ahead of an election, in the context of ERM membership. The European timetable has accelerated beyond ERM issues, and the EC plans a common currency soon, posing a dilemma for the UK.

*Eastern Europe and the European Community*, June 15, 1990 (with Ann O'Kelly). Outlines the rapidly evolving relationships between EC and Eastern Europe on the one hand, and the EC and EFTA on the other.

*The ECU Bond Market of the European Community Governments — An Opportunity for Eastern Europe?*, June 28, 1990. The result of monetary union will be the emergence of the world's largest financial market, exceeding the size of the US Treasury market. Eastern Europe can piggyback these developments in the West.

*Toughening the ECU — Practical Steps to Promote its Use*, October 12, 1990. The use of the ECU for long-term savings should be encouraged by freezing the ECU's composition, encouraging issuance of public sector bonds and ensuring that financial institutions are allowed to buy these bonds.

*Separating Fiscal From Monetary Sovereignty in EMU — A United States of Europe is Not Necessary*, November 26, 1990. Governments should give up their freedom to print money. Separation of powers between the politicians who spend money and those who print it can ensure price stability and does not necessitate political federation.

*Eculand — The Thirteenth Member of the EC?*, April 11, 1991. The Ecu is a privately-issued money. During 1990, divergent interest and exchange rates demonstrated its independence from its "basket" definition and the need for a "currency board" function to eliminate future inflationary risks.

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EUROPEAN

ECONOMIC

RESEARCH

NOVEMBER 20, 1991

## Economic and Market Analysis

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**Salomon Brothers**

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Graham Bishop

# Valuing Public Debt in the EC: EMU Benefits Versus "No-Bail-Out" Risks

During the past two years, we have published several reports on the interaction between monetary union and the structure of the financial system. This report highlights some issues relevant to public debt that should be addressed by policymakers in the Intergovernmental Conference, preparatory to the signing of a treaty to create an Economic and Monetary Union. This report refers to the draft treaty submitted by the Dutch Presidency on October 28, 1991.

The author gratefully acknowledges the comments and help from colleagues within Salomon Brothers and especially David Jarvis, David Karat, John Lipsky, and Ann O'Kelly. The extensive conversations with many individuals throughout the financial markets, and beyond, have played a key role in refining these ideas and the author wishes to pay tribute to these professionals for their unstinting assistance and inspiration.

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**VALUING PUBLIC DEBT IN THE EC: EMU BENEFITS VERSUS  
"NO-BAIL-OUT" RISKS**

**Introduction and Summary**

Economic and Monetary Union (EMU) has a key role to play in deepening the integration of the European Community (EC). Moreover, the operational target — price stability — and the conditions for participation, including sustainable government indebtedness, offer great benefits to bondholders. In the years ahead, if EMU is judged to be successful and sustainable, there is a good chance of a major decline in bond yields in participating countries. **This will set the scene for a powerful bull market in government bonds, as the market responds to improved credit quality as well as price stability.**

The benefits to investors are one side of the EMU coin; the other is a new type of risk. Neither the Community nor its member states shall be "liable for or assume the commitments of Central Governments". This is commonly known as the "no-bail-out" rule and is designed to dispel any investor doubt about the risks they run in financing governments that incur excessive deficits.

The purpose of the rule is clear: It is the circuit breaker between monetary union and the back-door creation of a "United States of Europe", where a centralised government takes control over domestic public expenditure as the price of a bail-out. If the rule is credible, EMU should involve only the lightest fiscal interference when budgetary policies are sound, because the debt of EMU members will be of the highest grade.

There may eventually be well over 20 members of EMU and it will be difficult to toughen the conditions without appearing to discriminate against latecomers. Therefore, the EMU Treaty must create a robust framework at the outset. It proposes a formal, four-step process to determine whether a government has moved away from fiscal rectitude and has an "excessive" budget deficit. The Community will have the power to recommend policy changes and, ultimately, impose sanctions.

At that stage, investors must recognise that EMU has changed the nature of public debt in the EC. In a single currency EC, the power of money creation will rest with an independent central bank pledged to price stability. Without the power to print money to repay debts, and with an explicit no-bail-out rule, **sovereign governments will find themselves in a position quite similar to that of any other debtor.** Even though the power to tax is a formidable addition to their credit standing, the power is, in practice, limited and will be capped by "tax competition" within the single European market.

Despite this tilt in the debtors' playing field, investors must realise that the no-bail-out rule explicitly creates a new type of risk: default risk on the debt of EC sovereign states. If a state has been judged — publicly and at the highest level in the EC — to have an excessive deficit and the no-bail-out rule is credible, the market will exact a substantial financial penalty through the mechanism of rising credit spreads. At some stage, the market will apply its own final sanction: withdrawal of new credit supplies. A default will probably ensue.

The system of prudential supervision should ensure that the financial markets can withstand such a shock. **As a necessary consequence of the commitment to a credible no-bail-out rule, the Treaty should require the regulations governing the EC's financial system to take full account of the levelling of the debtors' playing field. With this protection, investors can look forward to enjoying major benefits from EMU.**



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**PART I: THE "NO-BAIL-OUT" RULE**
**Circuit-Breaker Between Emu and "United States of Europe"**

The no-bail-out rule is enshrined in Article 104A of the draft Treaty, which states: "The Community shall not be liable for or assume the commitments of Central Governments . . . [and] the Member States shall not be liable for or assume the commitments of Central Governments." Thus, overspending member states will not be bailed out — and could eventually default.

If the rule is credible, then EMU should involve only the lightest fiscal interference for states pursuing sound policies. Because a bail-out is prohibited, there will be no danger of a centralised EC government exacting the usual price for a bail-out: control over domestic public expenditure in the overspending member state — one of the most sensitive aspects of national sovereignty. The no-bail-out rule therefore functions as a circuit-breaker between monetary union and the back-door creation of a "United States of Europe".

**The Treaty Proposals: Curbing Budget Indiscipline**

A successful EMU will raise the creditworthiness of EC governments. Article 109F of the draft Treaty proposes a series of convergence test to restrict entry to EMU to the fiscally sound. Article 2 underlines that the objective of EMU is a sound economy — in which the no-bail-out rule need never be invoked.

However, Article 104A, the no-bail-out rule, recognises the unwelcome possibility that a member of EMU (and there could be well over 20 in the end) might subsequently have a government that pursued unsound policies. Article 104B proposes tests for the ratio of debts and deficits to gross national product (GNP) and a requirement that borrowing be less than investment spending, in order to determine whether a deficit is excessive. (We have suggested that the proportion of government revenues spent on interest would be a simple, market-driven test.<sup>1</sup>) It then lists the procedures to be followed if a member state pursued policies likely to jeopardise EMU.

**The Curbing Process**


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**Figure 1. Step-by-Step Budgetary Discipline**


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<b>Step One</b>	(a) Article 104 B-3: "If a member state fails to fulfil one of these criteria [deficit/GNP or debt/GNP ratios], the Commission shall prepare a report. . . the Commission may also prepare a report if, notwithstanding the fulfilment of the criteria, it is of the opinion that a risk exists of an excessive deficit."  (b) Article 104 B-6: "The Council shall. . . having considered any observations which the member state concerned may wish to make, decide whether an excessive budget deficit exists."
<b>Step Two</b>	(a) Article 104 B-7: "Where the existence of an excessive deficit is established . . . the Council shall make recommendations . . . these recommendations shall not be made public."  (b) Article 104 B-8: "Where it establishes that there has been no effective follow-up . . . the Council may make recommendations public."
<b>Step Three</b>	Article 104 B-9: "In cases where a member state persists in failing to put into practice the Council's recommendations, the Council may decide to give notice to the member state concerned to take, within a certain time limit, measures for the deficit reduction."
<b>Step Four</b>	Article 104 B-10: "Where it establishes a failure to comply with a decision it has taken in accordance with paragraph 9, the Council may decide to apply one or more . . . measures" [for example, a "health warning" on government debt or financial penalties].

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<sup>1</sup> See *The EC's Public Debt Disease: Discipline with Credit Spreads and Cure with Price Stability*, Salomon Brothers Inc. May 22, 1991.

These proposals *enable* but do not *require* the Council to take action. Even if procedures reach the Step Four stage and sanctions are imposed, investors may doubt that they will ensure a return to fiscal rectitude.

#### Conflict: Politics versus Economics

Inevitably, politicians will be reluctant to sit in judgement on the financial conduct of fellow member states, so invocation of Article 104B procedures will probably lag well behind market perceptions of problems — assuming that full information has been published (the absolute minimum requirement for a properly functioning market).<sup>2</sup>

Second, these procedures reflect an attempt to solve an economic problem within the confines of the constitutional principle of subsidiarity. This principle requires that powers only be ceded to a central authority when they cannot be discharged effectively by a subsidiary tier of government. Centralised control over budgetary powers is, at first sight, a major breach of that principle. Thus, the measures in Step Four include various financial penalties, but only one action with direct market impact: Applying the Prospectus Directive to the recalcitrant member state's securities so that investors would be given a formal health warning about the state's finances.

It is hoped that this action will put the financial markets on notice to such an extent that Adam Smith's "invisible hand of the market" will resolve the situation without any need for the public authorities to take action that might conflict with the principle of subsidiarity. **These steps may cause a rise in the cost of credit, as investors become increasingly aware of the risk of default. However, the process will only cause credit to become unavailable — the ultimate sanction of the markets' discipline — if the markets believe that the no-bail-out rule is truly credible.**

#### The Credibility of the No-Bail-Out Rule

Unfortunately, there is widespread scepticism that the EC would apply the no-bail-out rule rigorously and, at the end of the process, let a member state default on its debts. Indeed, the weight of historical evidence lends credence to this scepticism.

However, credibility is essential to avert ratcheting centralisation within the community. If the Treaty does not incorporate credible mechanisms to ensure that the no-bail-out rule operates realistically, market participants will likely ignore the alleged risk. At the moment when the rule might have to be exercised, a large enough proportion of the financial system will be found so over-exposed to the weak debtor that some form of bail-out will have to be organised; otherwise, other EC members could not tolerate the consequent collapse of their financial system. This would justify market scepticism and thrust centralised control over expenditure another notch forward.

#### Credibility Components

Do the proposed arrangements make the no-bail-out rule truly credible for the foreseeable future? At present, four components promise credibility:

<sup>2</sup> See *Market Discipline CAN Work in the EC Monetary Union*, by Graham Bishop, Dirk Damrau and Michelle Miller, Salomon Brothers Inc, November 1989, and other publications in the *1992 And Beyond* series.

- **The no-bail-out rule will be enshrined in the Treaty.** Once enacted, the Treaty will be difficult to change, because the parliaments of all the member states must ratify amendments — an uncertain and time-consuming process, at the least. Thus, investors cannot assume that a crisis will be resolved by removing this rule from the Treaty.

Conversely, however restrictive the Treaty language, the fear will remain that, in practice, the rule could be circumvented if the political need were deemed to be acute.

- **There is no centralised government with the capacity, or the will, to organise a bail-out.** The European Commission might seek such a role, if the situation arose, but that would require a major constitutional change within the Community.

- **There are no existing financial provisions to finance a bail-out.** Clearly, the EC's existing budgetary resources, which equal about 1.5% of the Community's GNP, would be wholly inadequate to bail out a major member state.

On the other hand, borrowing by the Community to lend on to a member may be undertaken relatively easily. Issuing guarantees creates even less immediate pain and could postpone the day of the default reckoning to a future generation.

- **Only fiscally sound members will be admitted to EMU.** This cannot remove the risk of a subsequent change in fiscal behaviour. This inherent obstacle will become keenly apparent to investors when they contemplate whether the rule will be applied in a specific case.

#### The Necessity of Credibility

Over the past few decades, depositor/investor compensation schemes have reinforced the readiness of a significant part of the financial markets to take a modest perceived risk in order to earn a significant extra return. Furthermore, if the potential defaulter realised that the financial system could not withstand the shock of a default, then the incentive to call the bluff of the no-bail-out rule would be high.

The nature of this problem means that there are no absolute and complete answers — the only response would be to raise the credibility of the no-bail-out rule to the degree where neither an overspending member state nor market participants would feel that it was worth the risk. **Failure of the no-bail-out rule would bequeath a severe political problem to the next generation of European citizens. Policymakers fully recognise this risk.**

Policymakers have a further incentive to ensure that the Treaty agreed at Maastricht makes the no-bail-out rule fully credible: the difficulty of amending the rules.

#### EPU May Evolve . . .

The European background to EMU has changed radically since the Delors Committee issued its report in 1989. The liberation of Eastern Europe, reunification of Germany and disintegration of the Soviet Union all represent a chain of revolutionary events that have yet to reach their conclusion. Thus, decisions on the shape of European Political Union (EPU) are likely to be only interim responses as events unfold — EPU may well evolve over the next 20-30 years.

### But EMU's Shape May Be Fixed

By contrast, EMU has a clearly defined final objective: the Ecu as a single currency. It seems generally accepted that the economic conditions necessary for a state to join EMU will not be toughened after the initial round. New entrants to the EC — Austria, for example — may well be able to join that initial round, ahead of some of the less convergent existing EC members. As the Community widens in the decades ahead, there could be a stream of new entrants into EMU, with each expecting to satisfy the same conditions required of the original members in 1997, or thereabouts.

Since the conditions for EMU entry may be difficult to change without appearing to discriminate against potential new entrants, who would see the hurdles to entry being raised, it is important to ensure that the arrangements being made today are sufficiently robust to withstand severe tests.

### The No-Bail-Out Rule Creates Default Risk

The reasons for imposing an instantly credible no-bail-out rule are powerful and compelling. Therefore, if, in a specific case, the EC enforces the no-bail-out rule, then there is a necessary and logical implication: **The ultimate result will be a default. The financial markets, and their regulators, must recognise this new risk.** The implications for the solvency of financial institutions which hold the debt of the potential defaulter are discussed in Part II of this report.

### The Impact on Overspending Governments

With a truly credible no-bail-out rule, the market will take the risk of default seriously. It will apply its own penalty — the raising of credit spreads — well before the ultimate sanction — the withdrawal of new credit supplies. For a heavily indebted state, a rise in the interest rate on its borrowings can be highly significant. Major government borrowers can draw funds at Libor minus 25 basis points, or even more favourable rates. In EMU, if that government borrower changed policies and became less creditworthy, then the eventual impact of the market's sanction could be sharp: Banks might try to raise these interest rates substantially. Rate-of-return considerations point to perhaps Libor plus 150 basis points — or much more if a default risk were incorporated in the pricing — if that state lacked privileged access to the financial markets.

For a country with large debts and average current revenues — debts equal to, say, 100% of GNP and revenues equal to 44% of GNP — the 175-basis-point rise in the cost of credit would require a 4% rise in taxes or a corresponding cut in expenditure. In practice, the impact would be lagged because of the maturity structure of the debt and muted, because banks are not the only provider of credit. However, if a state were effectively rated noninvestment-grade by the bond markets, then the interest-rate premium there could be of the same magnitude.

Although financial institutions play a key price-setting role in financial markets, governments could increase their reliance on direct marketing of debt to the public. The additional expenses would be equivalent to a credit spread, but there would probably be an even greater reluctance to default on obligations to the general public, because they are also the electors.

The sanction of rising credit spreads will exact a heavy penalty from the taxpayers/electors of the country. This would be heavier, and much more certain, than the sanctions at the end of the four-step process proposed in the draft Treaty. Market discipline *can* work within an EC Monetary Union.

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**PART II: IMPLICATIONS OF A CREDIBLE NO-BAIL-OUT RULE**
**Changed Nature of  
Public Debt**
**Recognising a New Risk: Default**

**EMU will change the nature of EC public debt** — a major asset class for most financial institutions. EMU participants will yield the power to create the money with which they repay their debts. In a single currency community, the power of money creation will rest with an independent central bank pledged to price stability. Without the power to print money to repay debts, and with the explicit absence of a guarantee from the other members, EC sovereign governments will find themselves in a similar position to any other debtor. In future, their creditors need not fear a decline in the real value of the debt via monetary inflation but rather through the simple and transparent solution of formal default. At the time of threatened default, the no-bail-out rule will be tested. If the other member states choose not to avert the default, then the Community's financial system will be forced to cope with a default on all that member's debts.

The unavoidable dilemma for the public authorities will crystallise when the market is signalling the existence of a default risk. Can the financial system of the EC — as structured under the current regulatory framework — withstand such a default?

**Market Response:  
Structured by Public  
Regulations**

For many decades, the public authorities have deemed it right to be involved with the regulation of financial markets. A framework of prudential regulation has grown up to ensure that the financial system adopts the "best practice" toward difficulties, allowing it to conduct the financial functions required for the smooth running of the economy. If these difficulties are created by a particular public authority, then public-sector regulators should not selectively shed responsibility for these public-sector problems. In any case, the potential scale of such problems could well be so large that it poses a direct threat to the efficient functioning of the financial system.

The financial system does not exist in a detached and idealised world of pure free markets: It exists as a complex web of legal structures organised by the public authorities. These public regulators set the context for the specific market response to a given risk. Therefore, the regulatory system must evolve to reflect any change in the nature of the risk. **A decision not to respond to a known new risk will not absolve the regulators from responsibility for the logical consequences.**

**Minimising the Chance  
of Crisis**

The key is to ensure that all involved parties understand that the financial system has been carefully structured to withstand the shock of a default, which will be a real possibility in EMU. Whether a default is actually permitted is one issue that will have to be resolved in view of the specific circumstances of each case, but no parties should be in a position to base their actions on the reasonable probability of a bail-out. For example, as the steps of the Article 104B process are taken, and an ultimate default is judged more and more likely, the process of prudential regulation should create a corresponding larger and stronger shield to protect the integrity of the financial system from the logical consequences of those budgetary policies that created the default. **This policy should not be seen as a sword to attack governments but rather as a shield to defend the financial system — the explicit task of prudential supervision.**

If an EMU member chose to pursue policies that are formally assessed as high-risk, then the prudential rules should reinforce normal market mechanisms, and ensure that all financial intermediaries adopt the best safeguards: limiting their exposure, while providing reserves for possible losses. The nature of this process will reduce the supply of new credit. If the member takes no action and continues to demand the same volume of credit, then the price of its borrowing will increase — in other words, the credit spread will rise further. Potentially, this could push the state into the next step of the review procedure. However, the remedy will be in this state's own hands: It must correct its budgetary policy.

The four-step review process is likely to be drawn out over several years. Moreover, the inertia inherent in establishing the necessary political consensus is likely to cause the official process to lag behind market perceptions. Supervisors should have the flexibility to encourage best practices well before such high-level, yet cumbersome procedures produce a formal determination of genuine risk.

### Is Public Debt Risky?

If it is right for the public authorities to set prudential standards to shield the financial system from risks, then the standards must be applied impartially to risks emanating from both private and public sectors. Logically, this requires full recognition of a change in risk once it has been objectively established. Recent economic history suggests that the chance of an EC government defaulting on its debt is minimal. **However, EMU will change the nature of public debt: EC governments will give up the power to print the money with which they repay their debts.** Since they will have forsworn the use of inflation to reduce the burden of servicing debt, any debt problem will be tackled in the same way as for a private borrower: They will have to default on the obligation to pay all interest and principal on time. In EMU, the debtors' playing field will be much more level. We have analysed this risk in detail in a recent report.<sup>3</sup>

There appears to be three basic options for testing whether such risk exists in public debt:

**Public sector judgement.** An excellent example is illustrated in the four-step process in Figure 1. The final judgement is wholly political.

**Mechanical tests.** This might be based on a formula that takes account of various macroeconomic variables. Implicitly, this approach has already been rejected; although triggered by mechanical tests, Article 104B procedures move quickly to rely on public judgement.

**Private sector judgement.** The simplest expression of this sentiment will be found in the relative returns required by investors to lend money to the public authorities. The approach has already been adopted, in a loose form, in the Protocol on Convergence Criteria attached to the draft Treaty. Article Four of this Protocol proposes a limit of a two-percentage-point yield spread on long government bonds between any participants and the three lowest-inflation countries, during the year prior to examination.

As a pre-EMU entry test, this spread seems wide. The purpose is to gauge whether investors believe — for a modest period such as one year — that the country concerned can maintain a fixed exchange rate over a long-term period. If investors do believe that the exchange rate can be maintained, then a state's long-term yields will measure only credit risks. The standards of EMU entrants should rank them amongst the world's best credit risks: thus, credit spreads should be minimal.

<sup>3</sup> *The EC's Public Debt Disease, op. cit.*

The US dollar markets offer useful comparisons. The central bank — the Federal Reserve Bank — is totally independent of issuers except, in the extreme, the US Government. The obligations of the US Government are risk-free in nominal terms, because investors are assured of receiving their interest and principal because of the Government's ultimate power to print the money. All other issuers in US dollars have a credit risk and the markets require a yield premium to compensate. For example, ten-year AA-rated industrial bonds currently yield 53 basis points more than the corresponding US Treasury bond; for AAA-rated bonds, the average spread is only 38 basis points. These spreads measure only the perception of credit risk.

These examples suggest that, where there is no currency risk, the market charges relatively little for a minor increment in credit risk: A spread of 38 basis points above the ten-year US Treasury yield of 7.1% is only a 5% risk premium. Expressing the yield premium as a ratio, rather than as an absolute spread, allows for interest rates to fall (or rise) substantially.

If the markets require a credit risk premium on long-term debt of more than a 5% extra yield, this might raise some concern about the debtor. However, a 10% premium is sufficiently high that it could be used as a barrier to entry into EMU. After EMU, the reverse test could be applied. If, for example, yields on a member state's long-term bonds were persistently 10% higher than the lowest-yielding members, then that should trigger the review process of Step One. Conceptually, a yield-spread trigger could be agreed for each further step. Further analysis would be required to establish appropriate bands. However, in a single currency system, a two-percentage-point spread, which would give a yield premium of more than 20% at present rates, implies that investors are seriously concerned about default. In the US dollar markets, only noninvestment-grade bonds would attract such high yields.

Would Private Sector  
Judgement be  
Comprehensive . . .

Two principal objections could be raised to reliance on the judgement expressed via the "open market economy with free competition" — the guiding principle stipulated in Article 3A of the draft Treaty. Both hinge on whether this principle has been achieved in practice.

**First**, a government might try to avoid being exposed to a test based on long-term, traded bond yields by the simple expedient of not issuing such bonds. To minimise this risk, the nature, as well as the size, of a government's debt portfolio would have to be fully disclosed.

- What is the proportion of publicly traded debt versus private placements (whether bonds or loans)? The treatment of nontraded debt would have to correspond to that of traded debt. Nontraded debt can be valued readily, by reference to the yield curve of traded bonds, but with an allowance to reflect the illiquidity.
- The balance of fixed-rate versus floating-rate debt will also be relevant: An overly high proportion of floating-rate debt might make a state exceptionally vulnerable to a tightening of monetary policy by the European Central Bank as it moves to meet its price stability objective.
- The potential for a sudden crisis — precipitating the need for a bail-out — will rise with the proportion of debt that is due for redemption in the near future. This can occur with a short-maturity instrument, Treasury bills, for example, or a bulge in redemptions. Eschewing the long-term markets in favour of short-term debt only raises the risk of a liquidity crisis; that is, admittedly, a difficult risk to price.

### ... and Fair to Small Countries?

**Second**, will smaller countries effectively be discriminated against because of the inconsequential size of their debts? Potentially, these might create an illiquid bond market, requiring high yields. There is overwhelming evidence that this would not occur. In the US dollar markets, the example of the highly rated European Investment Bank is striking: The volume of its dollar debts does not even reach 1% of that of the US Treasury, yet its bonds trade only 5% above Treasury yields — at about 40 basis points in absolute terms. The dollar markets have developed a depth that can finance a profusion of issuers and types of securities priced on the basis of credit quality. No EC member (with the possible exception of low-debt Luxembourg) has such small debts that liquidity might be a practical problem.

### Relevant Prudential Supervision Concepts

Once the Community has recognised that EMU creates a risk of default on government debt and the Community then goes on to conclude that, in a particular case, there is a genuine risk of default, what should be done? The case for requiring prudential supervision to take account of a genuine risk seems compelling. Three concepts seem particularly relevant:

### Market-Value Accounting

Given the scale of the markets in public debt, there is no difficulty in assessing the value of traded public debt. Correspondingly, nontraded debt, in the form of loans or the like, can readily be valued by reference to the yield curve of traded securities. Regular marking-to-market of all public debt holdings will ensure that all financial institutions, their shareholders, depositors/investors, and regulators are fully aware of exposures to governments whose creditworthiness is deteriorating. The EC Capital Adequacy Directive already proposes that banks and investment firms value their "trading assets" at market value. **The concept should be extended unequivocally to cover all types of public debt that are held by all types of financial institutions.**

The process of writing down debt holdings during the lengthy period of deterioration should ensure that any over-exposed institution will be able to reorganise its affairs in good time. If the market has correctly evaluated the risk, then the actual event of default will not pose a problem to the financial system, because the losses will already have been recognised. A side effect is that institutions would likely become progressively unwilling to lend new money, thus reducing that government's access to fresh borrowings and raising the incentive to correct its policy.

### Avoiding Large Exposures

Regulations limiting an institution's exposure to any debtor have a long history and the purpose is explicitly stated in the preamble to the proposed Directive on Large Exposures (COM (91) 68): "Monitoring and controlling the exposures of a credit institution is an integral part of prudential supervision; . . . excessive concentration . . . may result in an unacceptable risk; . . . such a situation may be deemed to be prejudicial to the solvency of a credit institution."

Article 4, paragraph 1, specifies that "credit institutions may not incur an exposure to a client or group of connected clients where its value exceeds 25% of own funds". However, paragraph 8 provides that "member states may fully or partially exempt . . . asset items constituting claims on Zone A central governments" (Zone A includes all EC members).



In the current monetary regime, this exemption is entirely logical, because a member state's debts in its own currency are theoretically the perfect credit risk. That logic crumbles in the world of EMU, because governments will lose the power of money creation. Therefore, this exemption should be revised. If the regulators are prepared to allow the loss of up to 25% of own funds on one debtor, then perhaps banks should be limited to an exposure equal to 100% of own funds for EC sovereigns, once the surveillance procedures of Article 104B of the draft Treaty have reached Step Four: the imposition of sanctions. The potential for a significant default, which perhaps reduces the value of debt by one quarter, would be all too apparent. Undoubtedly, exposure limits should be reduced progressively as the observed risk levels of the debt rises. This approach implements the supervisory philosophy laid out in the preamble to the proposed Large Exposures Directive.

**Removing  
Inducements to Hold  
Public Rather than  
Private Debt**

The principle of an open and competitive market requires that public debt should not be given special privileges. This concept is embodied in Article 104 of the draft Treaty: "Any measures, not based on prudential considerations, establishing a privileged access by the aforementioned authorities to the financial institutions and markets shall also be prohibited."

**Basle Agreement  
Outdated**

One of many instances of privileged access is the treatment given to public debt by the 1988 Basle Agreement on capital adequacy requirements. This was broadly adopted into EC law by the Solvency Ratio and Own Funds Directives. The Basle Agreement was negotiated before EMU had even appeared likely, let alone imminent, and some aspects of the Agreement will be outdated by EMU. In particular, paragraph 34 of the Agreement highlights that "the member states of the EC are firmly committed to the principle that all claims on . . . central governments within EC countries should be treated the same way."

In a successful EMU, this argument will remain valid, but once Article 104B proceedings have begun — for the purpose of curing an unsustainable deficit — then consistency and logic point to a differentiation in the treatment of that country. In our view, prudential considerations cannot logically be used as an argument to give a weak debtor privileged access to the financial system. Consistency suggests that this debtor's privilege be withdrawn and that he be treated as any other on the playing field.

**Basle Flaw: Politics  
And Economics  
Conflict**

When evaluating the risk level of a government's debts, there is unavoidable conflict between (1) the role of the collective public authorities as impartial regulators, who set standards to shield the financial system, and (2) noninterference in other state's affairs. As an example, this conflict has crystallised in the Basle Agreement risk weightings: Obligations of governments that are members of the OECD are deemed to be uniformly riskless, yet no credit test is required for OECD membership. More than half the members have, or would have if tested, a AAA credit rating; however, one member has a BBB rating from Standard & Poor's, suggesting that the private sector does make sharp credit differentiations, despite the official view.

If it has been established — either by a credit spread test or the Article 104B procedures — that a member's creditworthiness has deteriorated, then it seems appropriate for an impartial regulator to raise the capital weighting to give a cushion against the risk of default, rather than maintain it at an artificially low level. The cost of the savings and loan crisis in the US stands as an example of the ultimate economic cost of shelving politically awkward decisions.

A graduated response seems appropriate. The objectives of EMU suggest that participants will rank amongst the world's best credits, so a 0% risk weighting will normally continue to be appropriate. At the other end of the spectrum, an EMU member that is subjected to the Step Four sanctions procedures will appear less creditworthy than many private-sector borrowers. Thus, this seems to support a strong argument that the capital-backing required should be at least the same as for private borrowers.

It is possible to argue that the benefits of EC adherence to the Basle Agreement outweigh the explicit deviation from the principle of "no privileged access" for public debt. That argument cannot be sustained when the debt level is publicly judged as unsustainable and sanctions are imposed. If non-EC signatories of the Basle Agreement choose not to adopt the EC's stance, then EC banks would become uncompetitive when attempting to lend to the deteriorating state. **However, EC policymakers can be relaxed on this point, because the risks will be entirely removed from the EC's financial system.**

### Supervisory Response to the No-Bail-Out Rule

The procedure of mutual surveillance of budgetary policies has built in several stages of response, ranging from mild concern to serious alarm about imminent problems. The budget discipline steps set out in Figure 1 may lead to a formal decision, taken at the highest possible level by finance ministers (after consultation with the central bank governors acting through the ECB) that genuine risk exists. This implies potential debt default, so it is reasonable that prudential supervisors should strengthen the shield protecting the financial system in step with the likelihood of default. Figure 2 suggests specific responses by the banking supervisory regime. Naturally the same philosophy should be applied to the regulations governing other types of financial institutions, such as investment funds and insurance companies.

Figure 2. Suggested Supervisory Response

Step	Mark to Market	Large Exposure Limit <sup>a</sup>	Risk Weighting <sup>b</sup>
1(b)	Yes	?	10%
2(b)	Yes	?	20%
3	Yes	200%	50%
4	Yes	100%	100%

<sup>a</sup> For banks, as percentage of own funds. <sup>b</sup> As a percentage of full capital adequacy requirements.

**The European Community will change the nature of public debt by creating a monetary union that (1) removes a government's power to print the money with which it repays its debts and (2) explicitly states that neither the Community nor its members will take responsibility for other governments' debts. This will create a genuine risk of default. It would be inconsistent if the regulations governing the Community's financial system did not take explicit account of this new risk.**

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**SOME TITLES IN SALOMON BROTHERS' "1992 AND BEYOND" SERIES**

*Market Discipline CAN Work in the EC Monetary Union* (with Dirk Damrau and Michelle Miller), November 1989. The lessons from other monetary unions (Canada, Australia and West Germany) and the New York City Crisis of 1975. The market can be a more effective sanction on fiscal profligacy than binding rules.

*Creating an EC Monetary Union with Binding Market Rules*, February, 1990. A plan to ensure that market discipline is certain, yet operates slowly and progressively. This plan proposes specific measures to strengthen the structure of the financial system sufficiently that a member state's default is not disastrous.

*The Creation of an EC "Hard Money" Union*, July 1990. EMU will have to be a "hard money" union dedicated to price stability. For EC member states, successful borrowing will depend on sound financial policies. Discusses the prudential rules necessary for issuers and purchasers of debt.

*Toughening the Ecu — Practical Steps to Promote its Use*, October 12, 1990. The use of the Ecu for long-term savings should be encouraged by freezing the Ecu's composition, encouraging issuance of public sector bonds and ensuring that financial institutions are allowed to buy these bonds.

*Separating Fiscal from Monetary Sovereignty in EMU — A United States of Europe is Not Necessary*, November 26, 1990. Governments should give up their freedom to print money. Separation of powers between the politicians who spend money and those who print it can ensure price stability and does not necessitate political federation.

*Eculand — The Thirteenth Member of the EC?*, April 11, 1991. The Ecu is a privately issued money. During 1990, divergent interest and exchange rates demonstrated its independence from its "basket" definition and the need for a "currency board" function to eliminate future inflationary risks.

*The EC's Public Debt Disease: Discipline with Credit Spreads and Cure with Price Stability*, May 22, 1991. In a single currency world, a key credit test will be the proportion of a member state's income spent on interest payments. Markets will censure excesses and require higher interest rates. Price stability — with lower real interest rates — will cause a remarkable leap in credit quality.

*Visits to Eculand — Reflections Upon its Financial System*, September, 1991. In Stage Two, the European Monetary Institute should have the powers necessary to ensure the stability of the Ecu financial system as it expands naturally. It should not be permitted to create additional money.

*The Draft EMU Treaty: Key Questions Remain*, November 1, 1991. An initial response to the new draft treaty, pointing out the risk of creating two separate forms of Ecu, unless the basket definition is abolished when Stage Three begins.

EUROPEAN

27 SEPTEMBER 1993

INVESTMENT

RESEARCH

## Economic and Market Analysis

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### Salomon Brothers

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Graham Bishop

## Fiscal Constraints in EMU

### Blending Rules With Market Forces

- The drive to EMU has slowed — not halted — and the Maastricht Treaty mandates the completion of detailed secondary legislation by the year-end. Decisions that are about to be taken will influence the structure of the EC's financial markets, irrespective of the existence of EMU. Investors and policymakers must consider the full implications now, rather than await the — possibly distant — start of Stage Three.
- EMU would change the nature of debt issued by participating states, posing new risks for the financial system, which holds public debt as a core asset.
- The Treaty rules-to-be have conspicuously failed to halt the recent surge in EC states' indebtedness and interest costs. A successful EMU should help by lowering inflation expectations. The benefits will be even more substantial if this results in a declining real interest rate.
- Financial markets have demonstrated yet again their ultimate power to exert discipline. Prudential regulation must be revised to ensure the integrity of the EC's financial system when the markets finally react to any failure of the rules to curb fiscal excesses.

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## FISCAL CONSTRAINTS IN EMU: BLENDING RULES WITH MARKET FORCES

The Treaty of Maastricht should come into force within a few weeks. It requires secondary legislation to complete the groundwork for economic and monetary union (EMU) that will have to be processed rapidly to meet the Treaty's deadlines. These steps will affect investors, irrespective of EMU. Some major issues of principle on the methods of curbing unsound public finance are buried within the detail of this draft legislation. Policymakers must recognise the change in the nature of public debt in EMU and protect the EC's future — political and economic — against any risk of contagion from an errant member. **The proposals currently under discussion fail the basic test of protecting the public interest under reasonably predictable circumstances. Suitable measures could lead to substantial changes in the EC's financial system.**

In summary, the following points should be addressed:

- The European Central Bank (ECB)'s portfolio of public debt should be constrained to ensure that secondary market purchases — as part of its monetary policy operations — do not provide excessive credit to a state with deteriorating public finance. In particular, the ECB should not be allowed to increase holdings of a state's debts after that state has been defined as having an "excessive deficit".
- Perpetuating the EC's current prudential supervisory regime will undermine both the regime's own purpose and the intention of the prohibition on privileged access by governments to financial institutions. The risk weightings for bank assets and the rules governing large exposures need to be amended. Requiring financial institutions to value public debt holdings at current market values would be a major safeguard for their customers.
- EC states should be required to publish promptly the data provided to the European Commission for analysing whether a state has an excessive deficit.

With these measures, policymakers can allow the market to exert a progressive discipline on member states if they fail to abide by the EC's "rules" — yet be sure that the ultimate sanction of denying further credit will not itself cause a failure of the financial system and damage to the general public. A potential financial crisis can be repressed, but the storms in the exchange rate mechanism (ERM) since September 1992 show that market forces cannot be suppressed permanently. **An open and competitive financial market must be protected and this is the opportunity to construct a shield for the financial system. The agreed rules — blended with market forces as a backstop — can be an effective fiscal constraint in EMU.**

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## THE NATURE OF PUBLIC DEBT IN EMU

The recent history of inflation has induced EC members to sign a treaty under which their sovereign power will be exercised by *not* instructing their central bank on money-creation policy. While its national currency remains in circulation, the risk remains that a state may be tempted to reactivate its sovereign power over its central bank. At present, all member states issue debt in their own currency and "control" the creation of that money (Luxembourg is an exception because of its monetary union with Belgium, but its minimal public debt makes it insignificant in this context). The states' control over money creation is exercised in various ways — most overtly, by giving the central bank the sole right to issue legal tender currency.

**Currently, Public Debt Is Free of Credit Risk . . .**

For the financial system, this relationship between public money and public debt is vitally important. An investor can lend a specific sum of money to the state and be certain that it will be repaid because the state has the power to create additional money to make the repayment if tax revenues are insufficient. The real value of the investment may decline because of inflation, but the nominal value is free of any risk of non-payment.

This property makes public debt a very useful asset for a financial institution that wishes to offer its customers the minimal guarantee of returning their capital. Thus, prudent investors have traditionally held a core portfolio of public debt and have not felt the need to change the value in their balance sheet if the current market price declines: They are certain that the debt will be repaid at maturity.

**. . . Making it a Core Asset for Financial Institutions**

As the state became involved in the regulation of financial institutions over the past century or so, there was a natural process of specifying that public debt be a core asset — to ensure that the institution could not lose all its assets and cause great hardship to the electors who were its customers. After World War II, the risk-free nature of public debt was indisputable — making it even more a natural asset for the financial system.

**But EMU Removes the Perfect Creditworthiness**

**EMU will change the very nature of public debt by removing the power of the state to create the money with which it pays its debts.** Instead, participants in EMU will cede the power of money creation to the independent ECB. The government's position will then resemble that under the gold standard — it could not create gold to repay debts. In EMU, public debt will therefore lose its risk-free credit standing. In practice, the Treaty of Maastricht sets out "EMU entry tests" for public finance that are designed to ensure that the credit standing of EMU participants will be amongst the highest in the world. Accordingly, their credit ratings *should* be exceptional.

**Public Finance and Political Union**

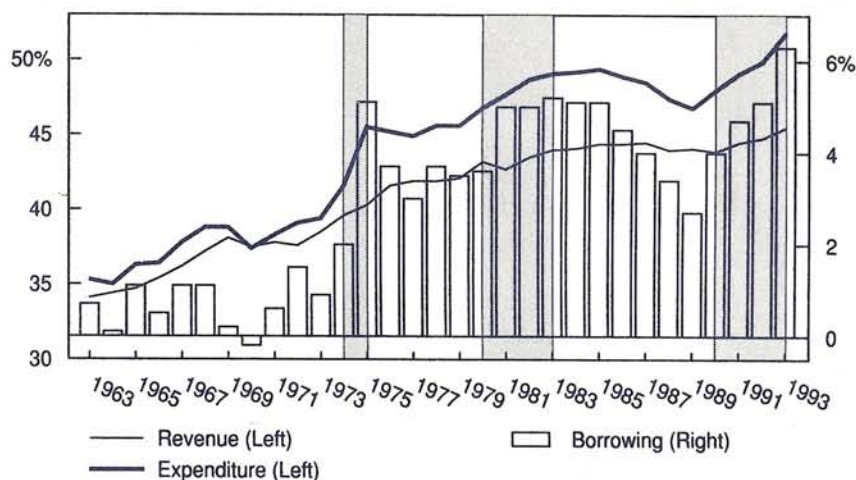
The Treaty-makers were correct in emphasising public finance as one of the entry tests. In the final analysis, the series of treaties that started with the European Coal and Steel Community in 1950 are designed to achieve a political goal — European union. Future generations will decide what that union means in precise practical terms, but it certainly implies substantial political cooperation as well as economic integration. That political relationship is the mechanism intended to secure the ultimate goal: enhanced security. Therefore, any event that threatens to fracture political cooperation would correspondingly damage the security objective.

**The No-Bail-Out Rule Is the Key Safeguard to Political Union**

There is insufficient popular feeling of pan-European solidarity to withstand a major shock, such as a large transfer of national wealth to pay off the debts of another member state. Recognising this, the Treaty-makers embedded the "no-bail-out" rule into the Treaty, with buttressing measures, in an endeavour to guard against an economic shock with the obvious potential to shatter the EC's political structure. The purpose of the secondary legislation under review is to provide the detail necessary to implement the Treaty's principles.

The details should not merely ensure that historical problems cannot recur. They must provide for protection against future risks that are reasonably foreseeable after giving serious thought to possible problems under the new circumstances.

Figure 1. European Community: Revenue, Expenditure and Borrowing, 1963-93 (As a Percentage of GDP)

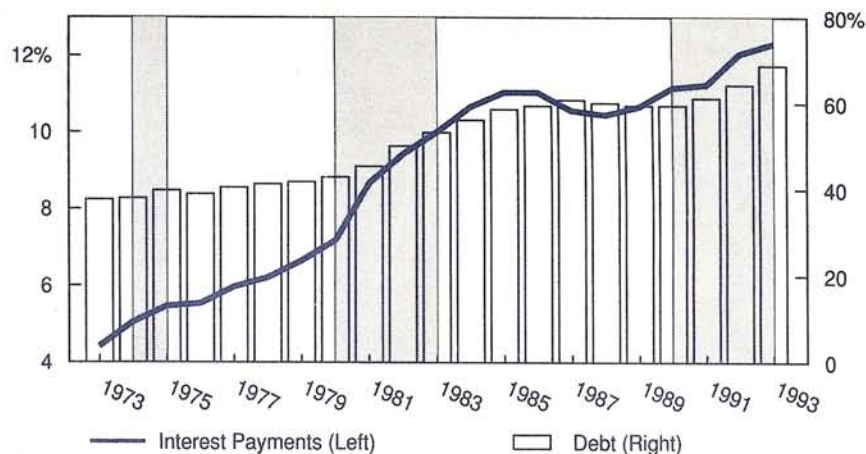


GDP Gross domestic product.  
 Note: Shaded regions represent periods of economic downturn.  
 Source: European Commission.

### Interest Costs Soar Even Faster . . .

In the meantime, the dead-weight of accumulated deficits will not disappear and the servicing burden has risen sharply in the past decade (see Figure 2). Interest payments will account for 85% of the deficits incurred by EC members in 1993 and will have tripled in the past two decades.

Figure 2. European Community: Interest Expense (as a Percentage of Current Revenues) and Debt (as a Percentage of GDP), 1973-93



GDP Gross domestic product.  
 Note: Shaded regions represent periods of economic downturn.  
 Source: European Commission.

### . . . Despite Fiscal Privileges

The burden of interest charges is reduced by the "privileged access" to financial markets that governments usually give themselves. However, the current proposals set the beginning of 1994 as the date for the removal of governments' privileged access to both the central bank and financial institutions, although privileged access to the retail sector of the market is unaffected.

For example, if interest rates had remained unchanged at 1992 levels and the full costs of abolition of these privileges had been felt, then interest expenses for the EC countries as a whole could have reached 15% of revenues during 1994. Fortunately, interest rates have declined very sharply, so the upward trend in gearing should be arrested — despite the scale of current deficits. The effects only work through slowly because of the time taken for the government debt portfolio to be refinanced at lower rates as debts mature.

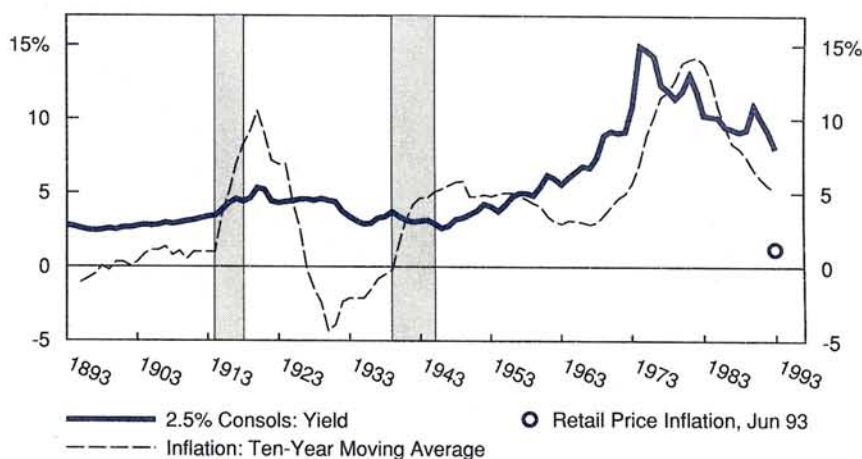
**So Another Cyclical Rise in the Interest Burden Could Ignite Tensions**

However, the next cyclical upswing in interest rates could create severe tensions. If debt levels continue to rise relative to GDP, then any failure of political will to curb inflation could lead investors to anticipate inflation and demand a risk premium in interest rates that would start a spiral of rising debt servicing costs. Any such spiral would start from a disturbingly high base for the EC in aggregate — for example, more than a third of the level associated with the UK's decision in the 1930s to take drastic steps to lower the burden of debt servicing.

**The Benefit of EMU**

This growing risk demonstrates the powerful attractions of EMU to the governments of EC members because it is a method of creating a durable climate of price stability to encourage further falls in real interest rates — bringing nominal rates to levels that would eliminate any concerns about debt servicing. Figure 3 shows the yield performance of a UK government bond — 2½% Consolidated Fund (Consols) — that has been outstanding for well over a century. The past quarter-century has been an unusual period — previously, inflation expectations (represented by a ten-year historical moving average) swung up and down, but the bond yield usually stayed well below 5%.

Figure 3. United Kingdom: A Century of Consols and Inflation Expectations



Note: Shaded regions represent world wars.  
Source: CSO.



The debt servicing figures for the EC aggregate disguise a wide dispersion amongst individual states and these are shown in Figure 4. The 1992 data have also been recalculated to show the effect of applying a uniform 5% interest rate to the debt stock.

Figure 4. Debts and Servicing of EC States, 1992

	Debts Pct. of GDP	Interest, Pct. of Government Revenues	
		1992 Interest Rates	5% Interest Rate
Luxembourg	6.8%	1.0%	0.7%
France	50.1	6.6	5.2
Germany	45.9	7.0	4.6
United Kingdom	45.9	8.3	6.2
Spain	47.4	10.4	5.7
Netherlands	79.8	12.0	7.7
Denmark	74.0	12.4	6.6
Ireland	99.0	17.9	12.2
Portugal	66.2	22.0	8.0
Belgium	132.2	24.4	14.8
Italy	106.8	25.7	11.9
Greece	105.6	38.6	14.0

Sources: European Commission, Salomon Brothers Inc estimates.

**The benefits to the highly indebted states are remarkable and underscore the attractions of participating in a durable monetary union that achieves its goal of price stability.** The change in the nature of public debt may produce new risks, but great benefits for governments.

#### PROPOSED FISCAL CONSTRAINTS IN EMU

After the unexpectedly severe difficulties encountered during ratification of the Treaty of Maastricht, it seems unlikely that current EC leaders will wish to reopen any issues — except the topics already specified in the Treaty. Therefore, the basic strategy will probably not be changed and must be capable of surviving unexpected strains. During such a momentous period of change in Europe's history, it is reasonable to expect strains. The ballooning of Germany's fiscal deficit — reflecting the burden of unification — is likely to be only the first. EC entry discussions are underway with countries such as Sweden, which is experiencing a dramatic expansion of its fiscal deficit. Further ahead, the EC's leaders agreed, at the Copenhagen Summit in June 1993, to open the door to Central and Eastern European states within the foreseeable future.

The Treaty strategy is straightforward:

- No entry to EMU for states with excessive deficits or debts
- Peer pressure on EMU members that subsequently stray from fiscal rectitude
- Sanctions on persistent offenders — ranging from public criticism to warning investors of the risks
- A formal and explicit commitment not to bail out any state, even if it threatens default

**EC policymakers now face the key question: Is this strategy sufficiently credible to assure that political cooperation — the essence of European Union — is not shattered by a financial shock stemming from public finance?** If there are doubts about EC politicians' willingness to enforce the no-bail-out rule, then it is inevitable that — in the new world of EMU — some financial institutions will underestimate the risks and accumulate substantial portfolios of higher-yielding debts to benefit from the yield margin.

### An Unwelcome But Plausible Scenario

The following scenario is undesirable and unwelcome, but is sufficiently foreseeable that detailed legislation should guard against the risks which flow:

- An EMU participant suffers a reduction in credibility in the financial markets — perhaps due to severe recession or political uncertainty.
- Investors demand a rising premium for long-term bonds.
- As conscious of servicing costs as their predecessors in the 1920s, debt managers shorten the maturity of new debt to minimise interest costs — assuming that the yield curve is positive.
- The EC Council of Ministers actually enforces mild sanctions — shocking some marginal investors into running off maturing debt, or requiring even higher yields, giving a further twist to the spiral.
- The government cannot engineer inflation because the state uses the European currency; the independent European Central Bank fulfils its duty and refuses emergency monetary finance.
- In an atmosphere of rising tension, a liquidity crisis develops.
- The government declares a moratorium on its debts and the market price of its securities falls sharply.
- It is then discovered that a broad spectrum of financial institutions across the EC have large holdings of this state debt and will be hard hit by the losses — in some cases becoming insolvent. The EC as a whole is faced with a major contraction in credit availability and therefore a severe recession.

### Bailout?

**Will there be a hastily organised bailout, circumventing the Treaty's prohibition?**

### No

• **If no**, then all will suffer severely *if* the financial system is not designed to limit the contagion. Result: an immediate and severe blow to the electoral appeal of the vision of European Union.

### Yes

• **If yes**, a price will be required — EC control over future national borrowing, indirectly gaining influence over public spending and thus infringing a key area of national sovereignty. The no-bail-out rule will then have failed to break the historical tendency for monetary union to lead to a centralisation of political power. Result: the no-bail-out "circuit-breaker" fails and the vision of European Union is eventually electrocuted by an electorate that wants subsidiarity — not centralisation.

This grim scenario is all too plausible in the light of historical precedents and when applied to a group of states where debts are already high and demographic pressures make drastic cuts in public spending unlikely.

### EC Legislation Should Be Designed To Obviate This Risk

By the year-end, EC policymakers intend to enact legislation on the following topics to flesh out the Treaty's broad statements:

- Prohibition on the access of the public sector to central bank credit
- Privileged access of the public sector to financial institutions
- The excessive deficit procedure

**Now is the time to ensure that the scenario outlined above cannot occur.** In the future, recognition of the lengthening shadow of crisis will preclude any action for fear of precipitating it. Analysis of the current proposals reveals that they fail the test of guarding the public interest against reasonably foreseeable risks.

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**DETAILED COMMENTS ON PROPOSALS**

The short time between the likely ratification of the Treaty of Maastricht and the start of the second Stage of EMU means that the time-scale for public discussion of any proposals will be limited. These comments are intended to contribute to that debate (1) from the perspective of a market participant and (2) in the context of the nature of public debt in EMU.

**Draft Regulation Prohibiting Monetary Financing of the Public Sector**

The introduction to this draft regulation highlights the aim of "enhancing the disciplining forces of the market mechanism". It also points out that "the prohibition on direct central bank financing ... is also an important element in central bank independence". The thrust of the regulation is to prevent the ECB (or national central banks) from purchasing debt directly from a national government. The preamble includes a discussion of the risk that secondary market purchases "offer a possibility to circumvent" the objective unless they are solely to implement monetary policy. Article 2 grants that exemption for secondary market purchases, but does not provide any tests for the key word "solely".

In a scenario of impending crisis, the ECB would undoubtedly feel pressure to skew its portfolio — whether by way of direct holdings or via "repo" operations — towards the debts of the member state in difficulties. Doubtless, that government would claim that the market was behaving irrationally in demanding premium interest rates.

- **Constrain the ECB's portfolio**, perhaps to reflect broadly the GDP distribution of the EC. By itself, this would discriminate against states with above-average debt levels.
- **Prevent the ECB from increasing its exposure** to debts of a state formally ruled to have an "excessive deficit".

**Draft Regulation Prohibiting Privileged Access**

The introduction of this legislation highlights that the no-bail-out rule "serves the purpose of submitting the public authorities to market discipline". The purpose of the regulation is to prevent governments from cutting their interest costs by requiring financial institutions to hold government debt.

Interestingly, the commentary points out that incentives available to "everybody" are not prohibited. Thus, a tax advantage is still permitted if it applies to individuals as well as institutions — together representing the aggregate financial market. On the face of it, this discrepancy may blunt the edge of the regulation. However, a government that chose to avoid the scrutiny of sophisticated institutional investors might regret it, if there were ever a funding crisis.

The Latin-American debt crises of the 1980s showed that it is possible to negotiate moratoria with a limited and homogenous group of financial institutions. However, publicly issued Eurobonds were nearly always serviced fully because of the immense difficulties in striking a deal with numerous individuals scattered across the world. Inevitably, individual holders of government debt will be overwhelmingly citizens of that state. In the event of a formal default, political retribution may be swift.

Article 1 prohibits "privileged access", defined as any measure that is not in accordance with the principle of an open market and free competition and that "obliges" institutions to hold public debt — or has that "object or effect". The commentary on this Article draws the analogy with Article 85 of the Treaty of Rome — which sets up the EC's competition policy. That Article outlaws actions which have as their "object or effect the prevention, restriction or distortion of competition".

**Article 2 of the regulation then substantially undermines the effect of the entire regulation by allowing exemption on the grounds of "prudential considerations".** The commentary properly points out that public debt "in normal circumstances represents a low risk". The purpose of the Treaty's strategy is to ensure that only states of undoubted credit standing will enter EMU, further minimising the risk.

The commentary lists several examples of prudential considerations:

- Weightings used for calculating the solvency ratios of banks
- Diversification requirements for UCITS (mutual funds)
- Similar measures in the life and nonlife insurance sector

These regulatory regimes have been built up during the past few decades when debt of the domestic government was indisputably free of credit risk. Indeed the original Basle Accord of G10 Bank Supervisors in July 1988 stated that the EC is "firmly committed to the principle that all claims on ... central governments ... within the EC countries should be treated in the same way." At that stage, EMU was little more than a distant dream and the EC's Solvency Ratio Directive implemented the Basle Accord virtually in its entirety. Article 2 of the proposed regulation simply proposes to perpetuate this treatment — without any regard for the change in the nature of public debt when Stage Three of EMU begins.

- **Modify the principle that all claims should be treated in the same way**, at the very least after a formal finding by the Council of Ministers that a member has an excessive deficit. Otherwise, current policy is likely **to have the effect of distorting competition** — which is against the spirit of Article 1 and the purpose of Article 85s competition regime.

With a zero regulatory capital requirement, banks will inevitably be drawn into providing excessive short-term funding for the deteriorating debtor that is prepared to pay a premium. From a public policy perspective, this undermines the Treaty's safeguards and makes a 1920s style of funding crisis more likely. From the bank regulator's perspective, there is a systemic failure to guard the interests of depositors — the basic purpose of regulation. On both grounds, the "prudential consideration" exemption needs to be refined to take account of the new risks — inherent in EMU — that did not exist when the system was developed. Bank supervisors in non-EC countries which subscribe to the Basle capital standards may well choose to follow the treatment used by the EC. If not, then EC banks would be less competitive in lending to the deteriorating state, thus achieving the goal of curbing exposure to a risky debtor.

- **Diversification requirements for financial institutions should be re-examined similarly.** These are designed to limit large exposures to any single debtor whose failure might cause the lending institution to fail. Generally, domestic government debt is exempted because it is risk-free. That will not be the case in EMU and the risk will be all too apparent by the time an "excessive deficit" decision occurs.
- **Market value accounting for public debt** is an additional element that could be incorporated in the regulatory regime. A rise in the interest rate paid by a particular state — reflecting an increased perception of riskiness — would depress the market price of its debts. If financial institutions periodically revalued their public debt holdings using that new market price, then the financial system would adjust steadily to the deterioration. Thus, overexposed institutions would fall towards minimum capital levels as they recognised their losses and would be obliged to change their lending policy well before their depositors ran any risk of loss.

**These brief comments touch upon principles that should prudently be incorporated in the regulation at this stage. The European Monetary Institute should prepare detailed plans for a phased implementation to protect users of the EC's financial system against reasonably foreseeable risks.**

- **Minimum average life of public debt.** Although this is outside the competence of financial system regulators, EC policymakers could take a useful step to minimising the risk of a liquidity crisis by mandating a minimum level.

**Draft Regulation on the Excessive Deficit Procedure**

This regulation is largely a series of technical definitions of the information to be provided by the member states to the European Commission. On the basis of this information, the Commission will report, and the Council will decide, whether a state has an "excessive deficit". If it does have such a deficit and does not mend its ways, then eventually sanctions could be imposed. In particular, these include obliging the state to "publish additional information ... before issuing bonds and securities."

The difficulty facing investors is that the whole process of deciding whether there is an excessive deficit may well be shrouded in mystery — although the Treaty makes provision for recommendations to be published. **This process seems a recipe for the creation of false markets based on rumours and partial information.**

Published national data may be significantly different from the standardised data used to make the decision. Recognising this difficulty, Article 4 specifies that the transition from national to standardised data must be explained to the Commission. However, there is no requirement that the data, or explanations, be published. This raises the possibility of a serious shock to market perceptions. For example, Article 6 correctly requires likely payments under guarantees to be included. In some states, these could be surprisingly large and surprise the market.

- **Require prompt publication of data.** Member states *may* well choose to publish full information when they publish their national data. However, it would be far preferable to *require* publication — even if only by the Commission. It seems inappropriate for governments to keep the markets misinformed and then create a shock by an unexpected sanction. Such a process would only heighten the chance of precipitating a crisis.

**Memorandum**

Many of these issues were analysed in greater depth in our reports published during the discussions preceding the signing of the Treaty of Maastricht in December 1991:

*Valuing Public Debt in the EC: EMU Benefits versus "No-Bail-Out" Risk*, 20 November 1991.

*The EC's Public Debt Disease: Discipline with Credit Spreads and Cure with Price Stability*, 22 May 1991.

*Separating Fiscal from Monetary Sovereignty in EMU — A United States of Europe is Not Necessary*, 26 November 1990.

*The Creation of an EC "Hard Money" Union*, July 1990.

*Creating an EC Monetary Union with Binding Market Rules*, February 1990.

*Market Discipline CAN Work in the EC Monetary Union (with Dirk Damrau and Michelle Miller)*, November 1989.

## “The regulatory treatment of sovereign exposures” Comments by Graham Bishop on BCBS Discussion Paper

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8 March 2018

The [BCBS paper](#) relates solely to the countries that use the euro as their “domestic currency”, but the fundamental difference in the obligations of Eurozone states is that they issue their bonds in a currency beyond their control, and they can't instruct the ECB to lend euros to repay its bonds.

This short paper relates solely to the countries that use the euro as their “domestic currency”. By definition, they are in a fundamentally different relationship with the currency in use in their country compared with all other members of say G10 or OECD. The sovereign states of the Eurozone (EZ) issue their bonds in a currency (i) that they cannot control and (ii) that no single government has the power to instruct the Central Bank to lend it currency to repay its bonds.

This is a constitutionally-entrenched difference with all other major countries where the legislator - with public support – has the power to change legislation and require the central bank to provide monetary finance that can be used to redeem the sovereign state's bond obligations on schedule.

**The discussion paper does not appear to recognize this fundamental - and critical – difference in the nature of the obligations of EZ sovereigns and all others.**

This difference has not arisen by accident – it was an integral part of the design of monetary union reflecting the economic history of the participants and the preceding decade or more of very high inflation. In a parallel – and not particularly connected – strand of activity, the 1974 Basel Concordat was being converted into the 1988 Basel I Capital Requirements by the central bankers of the world.

### Basel I

In this paper, the Committee did go some way to recognising this key difference: *“In considering the role of currency denomination in the treatment of sovereign exposures, the Committee discussed the idea that sovereign exposures denominated in a currency other than that of the sovereign in question are relatively riskier than those that are denominated in the sovereign's own currency.”* But this is more appropriate for reviewing a foreign currency exposure and entirely misses the point that the euro is indeed the currency used by the sovereign but is **not** the sovereign's **own** currency in the normal sense of the sovereign being able to control that currency.

Basel I was finalised in 1988 when the concept of economic and monetary union (EMU) was just starting to be discussed seriously. In June 1988, the Heads of State/Government

appointed Commission President Delors to prepare a report on how to create the currency part of EMU. This Report was published in April 1989 – so about a year **after** the Basel I language had been finalised – see box below. During the lengthy discussions on ‘Basel’, there was no reason to foresee the creation of EMU and reflect it explicitly. So it was quite rational for the central bankers to frame the ‘national currency’ definition only in economic concepts that they had used for decades.

The Delors Report was actually written by the EU’s central bank governors but there is little evidence that they foresaw a possible clash of inconsistent definitions in the event of an economic and political calamity of a type that had not befallen major countries since the 1930s – half a century, and a World War, before. But the governors did go on to play a major role in designing the relevant parts of the Maastricht Treaty.

### **Maastricht Treaty**

The political authors of the Treaty were determined to ensure that EMU could not turn into a political disaster by imposing financial burdens on unwilling states. They crafted the No Bail-Out Rule to ensure this did not happen – see box below. The result was – as intended – that a bank taking a credit exposure to an EZ sovereign had to rely directly on that State’s creditworthiness flowing from its own budgetary and debt position – as with any private sector creditor who cannot create the money to repay the debt.

*The No Bail-Out Rule: [TFEU Article 125](#)*

*1. The Union shall not be liable for or assume the commitments of central governments ... A Member State shall not be liable for or assume the commitments of central governments...*

Of course, the Treaty incorporated economic governance requirements to enforce sound fiscal policy. That would be the true ‘guarantor’ of the credit quality. History has shown these policies were too weak and the recent crisis has forced a major strengthening of oversight. However, the Treaty signatories were quite clear that they intended this EMU to be quite different from anything ever seen before – with the logical consequences for sovereign credit quality. But the potential consequences were not recognised at the time – or were swept under the carpet.

As history is replete with examples of governments cheating, the Treaty-makers sought to cut off all such avenues. The No Monetary Financing Rule – see below - prevented sovereigns from falling back on emergency loans from the central bank – in effect, the printing of money to pay public debts. This was the key action that removed the risk-free status of sovereign debt in nominal terms. In the ‘old days’, governments had simply turned on the printing press so that banks got their money back on the due date. The nominal value was risk-free, but the resulting inflation made the ‘real’ value very risky indeed over time.

*The No Monetary Financing Rule: [TFEU Article 123](#)*

*1. Overdraft facilities or any other type of credit facility with the European Central Bank or with the central banks of the Member States (hereinafter referred to as 'national central banks') in favour of Union institutions, bodies, offices or agencies, central government... shall be prohibited, as shall the purchase directly from them by the European Central Bank or national central banks of debt instruments.*

The 'belt and braces' approach was continued by entrenching the Central Bank's independence in the Treaty itself – see box below. This made the EZ system's independence qualitatively different from any other major central bank at the time. The [TFEU](#) can only be amended by **unanimous** agreement of all the Member States, and some of them might require a referendum to make such a change. So any action to remove the deeply-entrenched provisions that took control of money away from the EZ sovereigns would be lengthy, ponderous and may not even happen at all. That is hardly a scenario that enables bank supervisors to declare that sovereign debt is by definition risk-free. The EZ undertook a major constitutional process for the express purpose of making it risky – except to the extent that sound economic policies should put disasters beyond the realms of possibility.

*The Central Bank Independence Rule: [TFEU](#) Article 130*

*When exercising the powers and carrying out the tasks and duties conferred upon them by the Treaties ... neither the European Central Bank, nor a national central bank, nor any member of their decision-making bodies shall seek or take instructions from Union institutions, bodies, offices or agencies, from any government of a Member State or from any other body. The Union institutions ...and the governments of the Member States undertake to respect this principle and not to seek to influence the members of the decision-making bodies of the European Central Bank or of the national central banks in the performance of their tasks.*

### **My Objections to the proposed “No privileged access to financial institutions” Rule**

To make the situation absolutely iron-clad, the Treaty makers finally incorporated a prohibition on governments writing financial regulations that preferentially channel the nation's savings into sovereign debt – see box below.

*The No Privileged Access Rule: [TFEU](#) Article 124*

*Any measure, not based on prudential considerations, establishing privileged access by Union institutions, bodies, offices or agencies, central governments ... to financial institutions, shall be prohibited.*

This author wrote several papers for Salomon Brothers while the Treaty negotiations were continuing and pointed out explicitly that the “0% risk weighting” rule in Basel I was by definition giving governments “privileged access” to the financial system. Perhaps the seminal paper was “**The Creation of an EC “Hard Money” Union**” published in July 1990 ([link](#) to photocopy version). However, debt managers became alert to the possible risks and I am told on very good authority that the phrase “*not based on prudential considerations*” was inserted



into the text to ensure my critique was frustrated. **In the Great Financial Crash, the fears expressed during the Treaty negotiations indeed crystallised.**

### **What can be done?**

There seem to be two basic options:

1. The European Union could amend the [TFEU](#) to remove the phrase about “prudential considerations” but that would require the full panoply of the heavy process of changing the Treaty and would certainly open the door to all manner of other, unrelated requests that would make it a very difficult thing to achieve.
2. **The language in the Basel agreements could be amended explicitly to carve out EZ states from the existing definition of domestic/national currency.** The risk treatment could be akin to that of borrowing in a foreign currency but that is not an exact parallel as there is only risk of a currency movement against the sovereign issuer if it leaves the euro. A carve-out would leave all other states in exactly the same situation as today.

The Discussion Paper points out the many proper functions of government debt in providing safe liquidity to the financial system. The EZ still needs those and my proposal for a Temporary Eurobill Fund ([Link to 30 FAQs](#)) would deliver the most liquid and safest asset in the EZ so that would surely be seen as the EZ’s least-risk asset.

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