

# Fiscal Consolidation in Europe: Composition Matters

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As the first stringent deadlines of the Maastricht Treaty approach, budget deficit reductions are at the center of the political arena all across Europe. In the countries that are expected to be in the core group of the monetary union, fiscal policy has tightened considerably (as in Germany and the Netherlands), or it is the subject of a far-reaching debate on its future direction (as in France). The changed attitude toward budget deficits has also influenced several countries that are not expected to participate in the EMU any time soon, like Italy, Spain, and Sweden.

From a policy standpoint, these fiscal consolidations raise two key issues: (i) how to ensure that they have a permanent impact on the budget? (ii) what are their likely effects on macroeconomic aggregates? This paper presents a very brief survey of recent empirical and theoretical research that aims at shedding some light on these issues. This survey is not meant to be exhaustive by any means. Rather, it has a very specific focus, namely, the role of the *composition* of the adjustment.

## I. Facts

(i) *Persistence of the Adjustment.*—Alberto Alesina and I have shown that a key determinant of the persistence of an adjustment is its composition (Alesina and Perotti, 1995a). We define an adjustment as a reduction in the cyclically adjusted primary deficit by at least 1.5 percent of GDP in any given year; we then measure its persistence by the size of the fall in the debt/GDP ratio in the three years that follow. For a sample of 20 OECD countries over the 1960–1992 period, we show that the more persistent adjustments are the ones that reduce the deficit mainly by cutting two specific types of outlays: social expenditure and

the wage component of government consumption (for brevity, in what follows I will refer to these as type-1 adjustments). Adjustments that do not last, by contrast, rely primarily on labor-tax increases and on capital-spending cuts (for brevity, I will refer to these as type-2 adjustments). Similar results hold if persistence is measured by the size of the reduction in the cyclically adjusted deficit (rather than the debt) over the years following the adjustment.

(ii-a) *Adjustments and Private Consumption.*—The conventional wisdom that large fiscal consolidations must be recessionary because of their impact on aggregate demand and private disposable income was repeatedly challenged during the first wave of fiscal consolidations in the 1980's. In a seminal paper, Francesco Giavazzi and Marco Pagano (1990) show that private consumption boomed in the wake of the two most drastic consolidations: Denmark in 1983–1986 and Ireland in 1987–1989, when the cyclically adjusted budget deficit fell by 9.7 percent and 5.2 percent of GDP, respectively. Does the composition of the fiscal adjustment also matter for private consumption booms? In a subsequent study on a panel of yearly observations on OECD countries, Giavazzi and Pagano (1996) show that private consumption booms are more likely to be associated with *large* cuts in the deficit, whether achieved by increasing taxes or by reducing transfers or public consumption. Overall, however, the effect of public consumption is the strongest and most robust.

(ii-b) *Adjustments and Other Macroeconomic Variables.*—In a study of seven large and protracted fiscal consolidations in the 1980's, Alesina and I have found that they were not associated with systematically lower rates of growth or larger increases in unemployment than in the other OECD countries, both during and after the consolidations (Alesina and Perotti, 1996). If anything, the

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evidence points toward better growth and unemployment performances. In Alesina and Perotti (1995b), using the same panel as in Alesina and Perotti (1995a), we also find considerable evidence that the composition of the adjustment matters not only for its persistence, but also for its macroeconomic outcome. Type-1 adjustments are not only more persistent, but are also associated with rising rates of growth and investment and with declines in the rates of unemployment, long-term interest rates, and unit labor costs relative to the trading partners, both during and in the two years following the adjustment. The opposite pattern holds for type-2 adjustments.

## II. Explanations?

(i) *Persistence of the Adjustment.*—The higher persistence of type-1 adjustments can be explained by two possibly complementary mechanisms. Because cuts in public employment and in transfers programs are politically much more costly than, say, capital-spending cuts, perhaps only governments that are determined to carry out a lasting consolidation undertake them. Indirect evidence for this is that coalition governments, although as likely as other types of governments to attempt an adjustment, have a much lower likelihood of carrying out a type-1 adjustment than stronger majority governments (see Alesina and Perotti, 1995a). At the same time, if type-1 adjustments are conducive to a better growth performance, they are also associated with a better future fiscal performance. The evidence above is consistent with this second mechanism.

(ii-a) *Adjustments and Private Consumption.*—As it turns out, the feature that attracted the most attention initially, the negative correlation between private and public consumption, has a very natural explanation, once one goes beyond the simplest Keynesian consumption function. A permanent reduction in government consumption reduces the present discounted value of taxation and therefore generates a positive wealth effect to the private sector. If capital markets work well and the fiscal policy shock is unanticipated but expected to be permanent, this translates into

higher private consumption at the time of the adjustment. This is the explanation advanced by Giavazzi and Pagano (1990) and is part of the mechanism in Giuseppe Bertola and Allan Drazen (1993).

However, this simple wealth effect is not enough to explain some of the more recent evidence: as shown above, private consumption seems to respond positively not only to government consumption cuts, but also, to some extent, to transfer cuts and tax increases, provided they are large. In a benchmark model with an infinitely-lived representative agent and lump-sum taxes, a permanent fall in transfers does not have a net wealth effect. One possibility is the modified wealth effect that arises when large transfer cuts or tax increases reduce the probability of a larger, more disruptive increase in taxation in the future. Roughly speaking, this is the idea common to Olivier Blanchard (1990) and Allan Sutherland (1995). A second explanation in this vein, also articulated by Blanchard (1990), is that large budget cuts resolve the uncertainty on the specifics of the impending adjustment and hence reduce precautionary savings. Note that this class of explanations highlights the importance of the initial conditions, the closeness to a disruptive “fiscal crisis,” an idea that has been modeled in a different context by Drazen and Vittorio Grilli (1993), but on which much more empirical research is needed.

Although plausible and intuitive, the wealth effect cum expectations argument has its problems. To begin with, it is only deceptively simple, and quickly develops into a typical embarrassment of riches that greatly complicates empirical testing. For instance, a fall in government consumption is consistent with an increase in private consumption, but it is also consistent with no change in private consumption, if perfectly anticipated; and it is consistent with a fall in private consumption, if it moves the economy away from the point where a large stabilization must occur (see e.g., Bertola and Drazen, 1993).

(ii-b) *Adjustments and Other Macroeconomic Variables.*—The wealth effect cum expectations approach poses much more fundamental problems when one moves beyond private consumption. The key fact to be ex-

plained here is the different correlation between type-1 and type-2 adjustments, on the one hand, and macro variables, on the other. The basic problem is that, once labor supply and capital accumulation are endogenized, the positive wealth effect from a *permanent* fall in government consumption induces a lower labor supply (as in Robert Barro [1981]), higher real wage, and a lower Tobin's  $q$ ; thus it *crowds out* investment (see e.g., Marianne Baxter and Robert King, 1993). A *temporary* fall in government expenditure works better: as the interest rate drops temporarily, consumption and investment are stimulated on impact (see Baxter, 1993). However, the "temporariness hypothesis" is unlikely to be a plausible explanation of the phenomena under investigation. It is exactly the largest and most persistent (*ex post*) declines in government expenditure that are associated with larger increases in investment and lower unit labor costs. One way to assess this explanation would be to look at the behavior of consumption of durables, which should display a much more pronounced increase than nondurables if the consumption booms were driven mainly by intertemporal substitution. So far, there is very scant evidence on this point, in contrast to the many studies on the consumption booms associated with exchange-rate-based stabilizations in Latin America. In summary, in a real-business-cycle model the labor market is unlikely to provide a satisfactory explanation for the observed correlation between government expenditure cuts and macroeconomic outcomes.

Yet, the labor market as a channel for the effects of fiscal policy enjoys large popularity in journalistic and policy circles in Europe, where high labor costs and social benefits are often blamed for loss of competitiveness and profitability and, ultimately, for the high unemployment rates. This argument is much less popular with academics, presumably because of the consensus that individual labor supplies are very inelastic and therefore are unlikely to be distorted much by fiscal policy. (Of course, there are several noticeable exceptions to this statement, from Michael Bruno and Jeffrey Sachs [1985] to the recent book by Edmund Phelps [1994].) However, if labor markets are unionized, aggregate labor supply can be elas-

tic even if the individual's labor supply is inelastic. In this case, fiscal policy might affect a different margin: that between working and not working, rather than the choice on hours of work. This is difficult ground to travel, because of the obvious problems in identifying labor-supply effects of fiscal policy with highly aggregate data; yet, some suggestive evidence is available. Importantly, this evidence accords well with the evidence on different types of adjustment highlighted above.

With unionized labor markets, a permanent increase in labor taxation, characteristic of type-2 adjustments, shifts inward the union's aggregate supply of labor, because it decreases the after-tax income of employed union members at any before-tax wage. It is important to note that assuming a unionized labor market, rather than endogenizing the leisure/work decision, is not just an alternative way to get some elasticity in the aggregate labor supply. Building on an earlier intuition by Lars Calmfors and John Driffill (1988), Alesina and I have shown that the effect of labor taxation on unit labor costs depends crucially on the institutional characteristics of labor markets (Alesina and Perotti, 1994). The effect is weak or nonexistent in countries with highly decentralized labor markets and enterprise-level negotiations (like the United States, Canada, and Switzerland), which are closer to the competitive-labor-market paradigm. It is also weak in countries with very centralized labor markets (like Scandinavian countries), where taxation is not very distortionary because the large, economy-wide unions are able to internalize the connection between transfers and taxation. Conversely, the effect is strongest in countries like Germany, Belgium, and the Netherlands, where the sectoral unions are strong enough to pass on labor tax increases, but not large enough to internalize the connection between taxes and benefits. A fall in transfers, also characteristic of type-2 adjustments, has opposite effects from an increase in labor taxes. It shifts out the aggregate supply of labor by reducing the reservation wage of union members. Note that, for this to happen, it is not strictly necessary that transfers take the form of unemployment benefits. For instance, in some countries, like the Netherlands and Italy, invalidity pensions have

effectively replaced unemployment benefits. However, this effect is much more difficult to test because of the lack of time series on replacement rates in most OECD countries.

Shifting the focus to labor markets also allows one to address the difference between wage and nonwage government consumption. As I have shown, wage government consumption cuts are more important than nonwage government consumption cuts for the persistence of an adjustment and are also more correlated with profitability, investment, and unit labor costs. A simple wealth effect cannot explain this difference. As shown in Phillip Lane and Perotti (1995), the key difference is that a fall in wage government consumption will shift in the aggregate demand for labor facing the union and therefore improve profitability through two channels: unit labor costs fall (the *cost channel*) and, in a flexible-exchange-rate regime, the exchange rate depreciates (the *exchange-rate channel*). By contrast, a cut in nonwage government consumption has no such effects because, to a first approximation, the private and the public sectors have similar propensities to spend on the goods and services that enter the definition of nonwage government consumption. Note also that the difference between the two types of expenditure should be stronger in a flexible-exchange-rate regime, because of the depreciation associated with a cut in wage government consumption. In Lane and Perotti (1995), we find very strong evidence in favor of all these predictions in a panel of OECD countries.

### III. Questions

Several issues of great importance to the study of fiscal consolidations are still largely unexplored in the macroeconomic literature. First, I have shown that a crucial component of a fiscal consolidation is a reduction in social expenditure. But how to reduce social expenditure in practice? There is widespread agreement among economists (although less so than in the past) that social security and welfare benefits should be as universal and unconditional as possible in order to minimize distortions. But this position ignores the key issue of the budgetary costs of such programs. In fact, those governments that have explicitly

tackled social expenditure (like the British government in the 1980's) have gone exactly in the opposite direction, that of targeting. As another example, unconditional child benefits are being reconsidered in many European countries. The macroeconomic and budgetary implications of the trade-off between universal social expenditure and targeting have been relatively understudied, either theoretically or empirically.

Second, in many cases, a successful budget reform has been accompanied by a tax reform, typically involving a simplification of the tax system and a reduction of marginal tax rates (see Cedric Sanford, 1993). The question of the optimal sequencing of the two reforms is of crucial importance, because usually a tax reform initially causes a fall in tax revenues and therefore works in the opposite direction to a budget reform. Here also academic advice and actual policies have often diverged. On the one hand is the strategy followed by the Helmut Kohl government in Germany in the mid-1980's and by the Charles Haughey government in Ireland in the late 1980's: first reduce expenditure to avoid a widening of the deficit; then reform the tax system. On the other hand, many economists would agree with Assar Lindbeck (1994), who advocates the opposite sequencing to avoid macroeconomic instability. Here too one needs to think about the budgetary and macroeconomic implications of the different strategies.

The political support for a fiscal consolidation depends critically on its effects on income distribution. Alesina and I have found that the wage share fell in five of the seven major fiscal consolidations of the 1980's, by up to 5 percentage points (in Belgium and Portugal in the mid-1980's) (Alesina and Perotti, 1996), and only in one episode did it increase appreciably (by 1.3 percent in Canada in the mid-1980's). The crucial question, however, remains the impact of fiscal consolidations on the distribution of disposable income. On this, there is very little information, because very rarely does the timing of income-distribution surveys allow an analysis of its evolution before and after a fiscal consolidation, and because there are well-known difficulties in assessing the impact of the various budget items on income distribution.

What is the role of exchange rate and monetary policies? Many, but not all, fiscal consolidations were *preceded* by a devaluation and a pegging of the exchange rate that brought down interest rates and increased competitiveness and profitability. At the same time, the fiscal consolidation itself typically leads to a depreciation of the exchange rate, particularly if it is of type 1 (see Lane and Perotti, 1995). Similarly, the timing and the role of the monetary policies that accompany fiscal consolidation has still to be studied.

As is often the case, the endogeneity of fiscal policy complicates the interpretation of the findings discussed in this paper. One can argue that a good growth performance that persists over a few years can account for the persistence of an adjustment, because it reduces the deficit now and the debt/GDP ratio later, and obviously, it can account for the good economic performance following an adjustment. This argument neglects the compositional aspects emphasized above. If the observed budget changes were just a reflection of growth, one would expect tax revenues as a share of GDP to fall when growth is low; instead, one finds the opposite. Second, it is difficult to see why high growth should systematically cause a much larger fall in social-security expenditure and wage government consumption, as a share of GDP, than in other expenditure items. In any case, the obvious solution to these problems is to partial out the effects of the economic environment from the budget. This is an important, if not very glamorous, issue, which has been virtually forgotten after the debates of the 1970's on the concept of the full-employment budget. As the name suggests, the cyclically adjusted figures provided by international organizations control only for the effects of cyclical deviations of output from the trend. When addressing the two sets of facts of this paper, however, the effects of noncyclical output changes, relative price changes, and aggregate price changes should also be partialled out. I do this in Perotti (1995), using tax and expenditure elasticities provided by the OECD, and I show that this leads to a systematic upward revision of the change in the structural primary deficit, of up to 1 percent of GDP per year on average, de-

pending on the country and its inflation and growth experience.

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