THE "AUSTERITY MYTH": GAIN WITHOUT PAIN?

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SECTION 1: INTRODUCTION

This paper is an interpretation of Alesina, Perotti and Ardagna, who study all the episodes of large deficit reductions in OECD countries.

They compare the averages of macroeconomic variables before, during and after the cyclically adjusted deficit falls by more than 1.5 percent of GDP, and find that consolidations based mainly on spending cuts that are typically associated with above average increases in output and private consumption, while consolidations based mainly on revenue increases are associated with recessions.

IMF CRITICISM OF THE AAP APPROACH

The expansionary government spending cuts is flawed, and the aftermaths of a recession are the worst time to start a fiscal consolidation.

This is the message of IMF

- IMF argues that the cyclical adjustment by AAP *fails to remove* important cyclical components, and that this failure can explain a spurious finding of expansionary budget consolidations.

- IMF conclude that all fiscal consolidations are contractionary in the short run.
- Perotti argue that the IMF criticism of the AAP approach is correct in principle and represents an important potential advance; however, the implementation of the approach has problems of its own, both in the way it computes action–based measures of fiscal consolidations and in the way it estimates impulse responses to fiscal consolidations. On the other hand, large consolidations are typically multi-year affairs, and the means-comparison methodology of AAP is ill suited to deal with these cases.

To study the AAP approach, Roberto Perotti anilze and compare the situation of some countries:

- Denmark
- Ireland
- Finland
- Sweden

In each country he does two things:

1) He computes action based measures of budget consolidations, often using the original documents, and taking into consideration also fiscal action outside the official budgets, something that was often overlooked by IMF. In doing this he wants to show that typically results in smaller discretionary consolidations than estimated by the IMF or the OECD, and in a much smaller share of spending cuts. The reason is that often governments used supplementary budgets during the year to undo some of the spending cuts of the January budgets, and also because the IMF often only considers spending cuts or tax increases.

2) In second way he study in detail the timeline of budget consolidations, the behavior of interest rates, wages, the exchange rate, GDP and its components, in order to try and learn something about the possible channels at work.

In doing this he focus on two specifics question:

a) Is there evidence that large budget consolidations, particularly those that are based mainly on spending cuts, **have expansionary effects in the short run?**

   If the answer to the first question is affermative the question is:

b) **how useful is the experience of the past as a guide to the present?**

In the following part of this paper we go to explain wich models Perotti and Ardagna utilized to do their analysis.

SECTION 2: A SIMPLE STATIC MODEL

This model allows a unified treatmet of the methodologies of the IMF and of AAP, and discusses the biases associated with each.

- The intuition for the AAP approach and for the IMF criticism of that approach can be gathered from a simple static model.

The equation for the budget surplus is:

$$\Delta s = \alpha y \Delta y + \alpha p \, \Delta p + \beta y \Delta y + \varepsilon s$$

$$\alpha y > 0; \; \alpha p > 0; \; \beta y > 0$$

where s is the budget surplus as a share of GDP, y is the log of real GDP, and p is the log of asset prices.

Due to the operation of automatic stabilizers, the surplus increases automatically when GDP increases ($\alpha y > 0$).

The surplus also increases automatically when asset prices increase, because of their effects on tax revenues ($\alpha p > 0$). In addition, when GDP increases policymaker might implement systematic, countercyclical changes to policy parameters (i.e. increase tax rates) to cool down the economy, and vice versa in recessions: this is captured by $\beta y > 0$. Finally, the random component εs captures discretionary actions by the policymaker, which are not motivated by the response to cyclical developments: for instance, actions motivated by ideology or long run growth considerations.

SECTION 3: THE IMF APPROACH

IMF approach does not explain the expansionary fiscal stabilization results

The key methodological point of IMF is that the bias generated by the imperfect cyclical adjustment problem and by the countercyclical response problem can explain the expansionary fiscal consolidation results of AAP. This is incorrect.

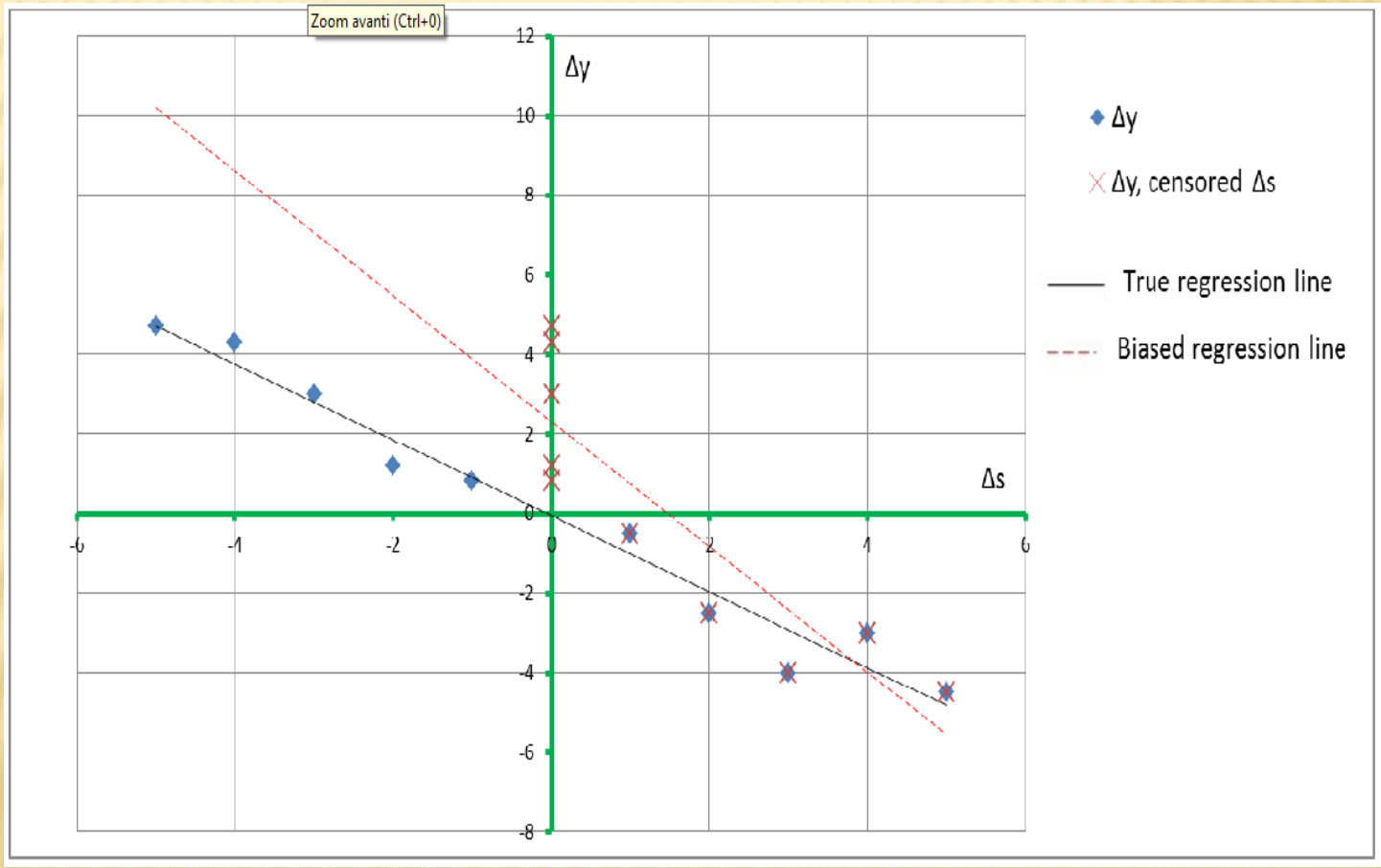
To understand the reason, note that IMF and AAP agree that, on average, fiscal consolidations are a ssociated with a recession in the short run. Where they differ is in the effects of spending based consolidations: still contractionary according to IMF, expansionary according to AAP.

However, contrary to the claim by IMF, the **imperfect cyclical adjustment bias cannot explain** this difference - in fact, it goes in the opposite direction: in other words, removing this bias would *Reinforce the main finding of AAP; i.e. that revenue based consolidations are contractionary while* spending based ones are expansionary. In fact, if the IMF is correct, in periods of high growth, cyclically adjusted revenues are overestimated, hence the AAP approach imparts a spurious *positive bias to the* correlation between increases in the surplus that are due to increases in revenues and GDP growth; but the AAP method finds a *negative correlation.*

The countercyclical response bias also is unlikely to explain the expansionary consolidations result. For discretionary fiscal policy to react to GDP developments within the current fiscal year, discretionary fiscal action has to be quick. Changing taxes is typically easier, and works faster, than changing spendings; thus, as a first response policymakers will usually cut taxes in response to negative shocks, and will increase taxes in response to positive shocks. Again, this would impart a *positive bias to* the correlation between revenue based increases in the surplus and GDP growth, while the AAP method finds a *negative correlation.*

The censoring bias of the IMF approach

IMF records only positive values of εs, and sets all negative values to 0. It is easy to show that censoring of the independent variable generates a bias away from 0 of the coefficient of interest:



- **Omitting the countercyclical response in the IMF approach**

  IMF includes only those actions that can be ascribed to the goal of enhancing long run growth or reducing the deficit, thus excluding actions undertaken with the goal of stabilizing short run fluctuations. While omitting the countercyclical response of fiscal policy has an obvious motivation for the purposes of estimating the multiplier of fiscal policy actions, it can provide the wrong picture of the actual fiscal policy stance when trying to gather the size of a fiscal consolidation. IMF concludes that there was a large budget consolidation in Europe between 1992 and 1995; but in fact there was hardly any, because spending cuts in the main budgets were often interspersed with spending increases in supplementary budgets that are largely ignored by IMF.

SECTION 4: Comparing averages in the AAP approach

The AAP approach consists of comparing average values of several macro variables before, during and after large fiscal consolidations. First, AAP define a country-year as a fiscal consolidation if in that year the cyclically adjusted primary balance improves by, at least 1.5 per cent of GDP. Then they compute average values across episodes of the change in the primary surplus, of GDP, of consumption growth, and a number of other variables, “during” the year of the consolidation and in the two years “before” and “after” the consolidation. They repeat the exercise separately for “expansionary” consolidations and for “contractionary” ones.

Finding the effects of fiscal consolidations is not different from estimating fiscal policy multipliers, an issue that has been the object of a heated ethodological debate recently. What is the justification then for comparing averages of large consolidations? Three possible reasons come to mind:

1) there are large measurement errors, which are minimized by focusing on large consolidations;
2) the effects of fiscal policy can be nonlinear, so that it makes sense to isolate large consolidations;
3) consolidations are random events, that are independent of initial conditions and other variables.

However, even if all the assumptions above are correct, it is not clear what are the advantages of comparing means relative to running a VAR (the method adopted by the IMF, although subject to the censoring bias illustrated above). But there are two more potential problems with the implementation of the mean – comparison method. Both have to do with the fact that large consolidations are seldom one-year events.

They illustrate them using the most recent incarnation of the AAP approach, Alesina and Ardagna (2010).

Business investment grouth during large consolidation

# obs.	mean	t-stat.	# obs.	Mean	t-stat.
Expansionary consolidations					
"during" – "before"			"after" – "during"		
16	8.65	2.82	16	-5.90	-2.13
Contractionary consolidations					
"during" – "before"			"after" – "during"		
48	.44	.27	48	2.01	1.43

A. Identifying multi-year fiscal consolidations

If, say, year t and t+2 are both consolidations years according to the definition above, year t+2 appears both in the “after” average of the year t consolidation and in the “during” average of the year t+2 consolidation. The issue becomes trickier because, if there are three consecutive years of consolidation, t, t+1 and t+2, Alesina and Ardagna (2010) consider only year t as “during” and years t+1 and t+2 as “after”; in other words, now year t+2 is no longer considered the “during” year of a different consolidation.

B. Comparing averages in multi-year fiscal consolidations

For all these reasons, it is difficult to interpret a comparison of these averages. An example of the possible complications that may arise is in Table 1. 11 The table displays a comparison of the rate of growth of business investment “during” (year t) relative to “before” (years t-1 and t-2) the consolidation, and “after” (years t+1 and t+2) relative to “during”, with the standard errors of these differences.

Clearly, business investment booms “during” the expansionary consolidations, while it does not budge during the contractionary ones. But then “after” the expansionary consolidations business investment declines for two years at almost the same yearly rate at which it increased “during” the consolidation, so that by year t+2 it is below the level of year t, the consolidation year. In contrast, after the contractionary consolidations business investment increases for two years, and at the end of year t+2 it is well above its level in year t.

C. Endogeneity and pre-existing trends

Conceptually, the means- comparison method is not different from a difference – in – difference stimator, in which one compares, the difference in the rates of growth of GDP after and before an expansionary consolidation with the same difference in contractionary consolidations.

The imperfections in the cyclical adjustment of revenues, of the type emphasized by IMF, cannot explain the expansionary fiscal adjustment result of AAP. But there are other possible problems with the cyclical adjustment that may pollute the interpretation of the evidence. There is anecdotal evidence that the cyclical adjustment may be particularly problematic in large recessions or expansions.

For instance, during the recessions of the late eighties and early nineties, Finland and Sweden experienced dramatic automatic increases in welfare related spending, of several percentage points of GDP in just one year. If this is true, there is an alternative reading of the means - comparison evidence on expansionary adjustments. Suppose there is an exogenous, persistent positive shock to growth: government spending as a share of GDP will fall GDP growth accelerates, giving the impression of an expansionary, spending based consolidation while in reality fiscal policy was completely passive. This frequently heard criticism of the expansionary fiscal consolidation view is difficult to address, but at a minimum it seems to require a more satisfactory treatment of the dynamics of consolidations than just looking at the one year of the consolidation.

CASE STUDIES: DENMARK IRELAND FINLAND SWEDEN

In this cases studies he observes:

- Discretionary fiscal consolidations are often smaller than estimated in the past, and spending cuts are less important than is commonly believed. Only in Ireland were spending cuts larger than revenue increases; in Finland, spending cuts were a negligible component of the consolidation.
- All stabilizations were associated with expansions in GDP. Except in Denmark (one of the two exchange rate based stabilizations), the expansion of GDP was initially driven by exports. Private consumption typically increased 6 to 8 quarters after the start of the consolidation. And as national source data (as opposed to OECD data that turned out to be incorrect) show, the expansion in what was probably the most famous consolidations of all - Ireland – turned out to be much less remarkable than previously thought.

- In Denmark the stabilization relied most closely on the exchange rate as a nominal anchor, and as such is of articular interest for small EMU members today. Denmark relied on an internal devaluation via wage restraint and incomes policies as a substitute for a devaluation. It exhibited all the typical features of an exchange rate based stabilization: inflation and interest rates fell fast, domestic demand initially boomed; but as competitiveness slowly worsened, the current account started worsening, and eventually growth ground to a halt and consumption declined for three years. The slump lasted for several years.

- In the second exchange rate based stabilization, Ireland, the government depreciated the currency before starting the consolidation and fixing the exchange rate within the European Exchange Rate Mechanism (ERM). Again wage restraint and incomes policies played a major role, but a key feature was the concomitant depreciation of the sterling and the expansion in the UK, that boosted Irish exports and contributed to reducing the nominal interest rate.
- The two countries that instead floated the exchange rate while consolidating, Finland and Sweden, experienced large real depreciations and an export boom. Also, in both countries inflation targeting was adopted at the same time as the consolidations were started.

- The budget consolidations were accompanied by large decline in nominal interest rates, from very high levels.
- Wage moderation was essential to maintain the benefits of the depreciations and to make possible the decline of the long nominal rates. In turn, wage moderation probably had a powerful effect as a signal of regime change.
- Incomes policies were in turn instrumental in achieving wage moderation, and in signaling a regime shift from the past. Often these policies took the form of an explicit exchange between lower taxes on labor and lower contractual wage inflation. However, the international experience suggests that incomes policies are effective for a few years at best. The experience of Denmark in this study is consistent with this.

CONCLUSIONS

In this paper the author looked more closely at four episodes of large fiscal consolidations.

All four were associated witht an expantion. Only in Danish exchange rate based stabilization was domestic demand the initial domestic demand of growth; after four years the gradual loss of competitiveness led to a slump that lasted six years.

In the second exchange rate based stabilization, Ireland, exports were the engine of growth for several quarters, as relative unit labor costs fell because of wage moderation and a concomitant appreciation of the main trading partner’s currency, the sterling.

In the two consolidations under a float, Finland and Sweden, the initial boom was also driven by exports, following extremely large depreciations after the abandonment of the fixed exchange rate, the adoption of inflation targeting helped maintain competitivness by reducing inflation and inflation expectations.

In all episodes, interest rate declined quickly, also helped by wage moderation and by the nominal anchor.

Wage moderation was essential to maintain the benefits of the depreciations and to make possible the decline of the long nominal rates.

The income policies took the form of an explicit exchange between lower taxes on labor and lower contractual wage inflation.

However, even in the short run budget consolidations were probably a necessary condition for output expansion for at least three reasons: first, they were instrumental in reducing the nominal interest rate; second, they made wage moderation possible by signaling a regime change that reduced inflation expectations; third, for the same reason they were instrumental in preserving the benefits of nominal depreciation and thus in generating an export boom.

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