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Austerity: When It Works and when It Doesn't

by **Alberto Alesina, Carlo Favero, and Francesco Giavazzi**

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The word "austerity" has become a dirty word in popular press since the Great Financial Crisis, especially in Europe, and the concept that it describes has become controversial, with the heated public debate including ardent arguments based on too many ideological premises and too few facts. Numerous public commentators from the anti-austerity camp, with their prominent anti-capitalist stance, have declared that no austerity is needed whatsoever, and that austerity is nothing but a conspiracy that makes the rich richer and the poor poorer. On the other end of the ideological spectrum, commentators have been pointing out that fiscal deficit is not acceptable under any macroeconomic conditions. This constellation of the public debate on austerity has created demand for a book on austerity that focuses to choices, data, facts, causalities, and cold ideological blood.

Exactly that kind of the book has been written by three Italian economists: Alberto Alesina, one of the pioneers of macroeconomic political economy, Carlo Favero, who has substantial experience in macroeconometrics, and Francesco Giavazzi, whose academic interest in austerity began almost three decades ago. A very promising combination of authors with prospects for substantial synergy. From its very beginning it is crystal clear that this book is about calm academic debate on the crucial features of austerity, the term that for the authors "indicates a policy of sizable reduction of government deficits and stabilization of government debt achieved by means of spending cuts or tax increases, or both" (p. 1). Hence, the term austerity fully corresponds to the term "fiscal consolidation". The authors specify that the book "examines the costs of austerity in terms of lost output, what types of austerity policies can achieve the stated goal [reduction of deficits and stabilization of debt] at the lowest cost, and the electoral effects for governments implementing these policies" (p. 1). What a promising joy for those readers who are fed up with the exchange of ideological accusations and *ad hominem* arguments in the public debate on austerity.

In the introduction of the book the authors point out the main questions that they will tackle in the book: Why austerity? Which austerity? Can austerity be expansionary? When austerity? Is austerity a (political) kiss of death? And they provide outlines for the answers that should be expected throughout the book. Why austerity? The authors have no dilemma: if governments followed adequate fiscal policy most of the

time, they would almost never need austerity. It is bad policy: fiscal deficits during boom are only enlarged by deficits during recession, that cannot be compensated with surpluses during boom. The result is growing debt that is an impediment to growth, due to the high taxes needed to finance interest payments, and which almost inevitably leads to austerity intended to tackle the debt issue. The authors acknowledge the anti-austerity view that the best way forward is to do nothing, because the growth itself will decrease the debt-over-GDP ratio, although they noted that this view is not supported by the market. In first two decades of the 21st century, interest rate spreads significantly increased for countries that rapidly accumulated debt, such as Greece, Italy, Spain and Portugal, and the spread trend was reversed only when these countries started implementing serious austerity programs.

Which austerity? The answer to this question is the main topic of the book. The authors identify two distinctive types of austerity: one that is based on spending cuts, i.e. expenditure-based (EB) austerity and the other one based on increasing taxes, i.e. tax-based (TB) austerity. The insights about the distinctive effects of these two types of austerity on economic growth are the central results presented in the book: while tax-based austerity proved to be deeply recessionary in the short- and medium-term, expenditure-based is only mildly recessionary in the short-term alone, enabling the economy to grow in the medium-term. Furthermore, austerity can be expansionary if reductions in government spending are accompanied by increases in other aggregate demand components (private consumption, private investments, and net exports) that more than compensate decreased demand due to government expenditure cuts.

When austerity? Basically, austerity programs can be implemented during boom or recession, with the possibility of a significantly distinctive impact of the program on growth, due to the possibility that multipliers are higher in recession. Listing this question high on the research agenda, the authors point out that governments often do not have the luxury of waiting for a boom to come. Finally, the (political) kiss of death issue is based on the conventional wisdom that the voters punish the incumbent government that undertook an austerity programme. Perhaps the most prominent example of this belief is the remark by Jean-Claude Juncker: “We all know what are the policies which we should follow, but we do not know how to introduce them and then be re-elected”. The authors’ starting position is that this Juncker’s note needs a reality check and that is it not inevitable that the electorate will punish the incumbent government for doing the right thing.

The book starts with a basic macroeconomic theory. The authors point out that the popular anti-austerity argument is that fiscal consolidation, and especially expenditure cuts, reduce aggregate demand and cause deep, long-lasting recessions. This argument is based on a simple Keynesian model and the authors convincingly demonstrate why it is wrong. First, fiscal policy has incentive effects on the supply side. Second, people’s current economic decisions depend on the future and their expectation of it. Third, austerity plans are not one-offs, but rather they are of a multiyear nature. Fourth, these plans are often part of a package, adopted together with other policies and structural reforms. Fifth, the insight of the basic Keynesian model is that spending cuts are more recessionary than tax increases and this is rejected empirically. By analysing the basic Keynesian model and the advances in economics since the advent of

this model, the authors explain that the model itself is insufficient (they somehow avoid word "inappropriate") for studying the effects of austerity. This model neglects the future and economic agents' expectations about it. It is based on the assumption that households consume only their current income. It downplays the issues of confidence and uncertainty that are augmented by not cutting public expenditure, especially those entitlement programs that automatically increase over time and that must be addressed by increased taxation in the future. In short, if there is no expenditure-based austerity today, it should be expected tomorrow. The Keynesian model neglects that an increase in tax rates changes the incentives: for example, it reduces the incentive to work and, in that way, decreases labour supply, which affects output and its dynamics. It also neglects that reduced wages of the public sector, due to the expenditure cuts, put downward pressure on private sector wages and that development, by increasing profits, creates incentives for investments and, in that way, at least moderates recession. Finally, the basic Keynesian model does not differentiate between three types of government expenditures: current spending, capital expenditures, and transfers to the private sector, e.g. subsidies, social security and unemployment benefits. The reduction of each of these types of government expenditures has different effects on output and its growth. After all these insights, it is the reader who concludes that the model is inappropriate.

Then, after a chapter dedicated to a brief history of expansionary and recessionary austerity, up to the Financial Crisis of 2008, including the well-elaborated cases of Austria, Belgium, Canada, Spain, Ireland, and Portugal, the authors focus to the crux of the issue of austerity: measuring the effects of fiscal policy. The crucial issue is the value of the multiplier, which determines by how much output changes in response to the change in government spending or taxes. The authors point out that: "By how much GDP increases (decreases) if government expenditure goes up (or down) by one dollar, and similarly if taxes increase or decrease, is the subject of heated debates among economists. Disagreements extend beyond the size of the effects on GDP: some economists even disagree on their sign" (p. 50). The disagreements are so substantial that Eric M. Leeper (2010) described this literature as "alchemy". The starting theoretical point of the "alchemy" is the basic Keynesian model, according to which spending multipliers are much greater than 1 and larger in absolute value than tax multipliers. The issues things are, nonetheless, much more complicated. According to the authors, different empirical results and disagreements regarding the multipliers are due to various methodological issues.

The first one is the proper identification of situations in which taxes and government spending do not change simply because the economy is expanding or contracting. In other words, the endogeneity (i.e. reversed causality) problem in the exploration of causal relationship from fiscal adjustments to output level changes must be addressed and solved. Proper identification means identification of the episodes in which the adjustment is motivated only by external non-economic shock, such as wars or natural disasters, by reduction of debt, or by improvement of long-term economic growth – not by business cycles. The authors find the "narrative" approach to fiscal policy, as suggested by Christina D. Romer and David H. Romer (2010), an appropriate way to deal with the identification issues, because the motives of the decision-

makers are clear in such cases. The approach was introduced rather recently, being applied only lately (James Cloyne 2013; Karel Mertens and Morten O. Ravn 2013; Daniel Riera-Crichton, Carlos A. Vegh, and Guillermo Vuletin 2016) and the International Monetary Fund (IMF) narrative dataset that was collected for 17 Organization for Economic Co-operation and Development (OECD) countries was used by Jaime Guajardo, Daniel Leigh, and Andrea Pescatori (2014). Taking all that into account, the reader concludes that all previous empirical results for fiscal multipliers, save those that used military expenditure for an instrument, are not relevant.

The other methodological problem is the definition of a multiplier. One option is that the multiplier is measured as the ratio of *cumulative* change of output to the *initial* shift in public spending or taxes, computed at various time horizons. The other is that the multiplier is measured as the ratio of *cumulative* change of output to the *cumulative* shift in public spending or taxes. Whichever definition is methodologically superior[1], the values based on these two definitions are not comparable and that can explain the diversity of empirical results. The important caveat is that one empirical finding is robust to the change of the multiplier's definition. Contrary to the assumption based on the basic Keynesian model, "tax multipliers remain larger, in absolute value, compared to spending multipliers, independently of the method used to calculate them" (p. 56). So, one of the main insights in the book is on the safe from the methodological viewpoint.

The fiscal plan analysis that follows is based on several assumptions. The first one is that fiscal adjustments are of multiyear nature, and this affects the planning of both investors and consumers. The second one is interdependence between government decisions on how much to cut public spending and how much to raise taxes. Because of the multiyear nature of the fiscal plans, some of the measures are implemented immediately with announcement of the plan (the authors call them "unexpected"), some of are just announced, so in the years from announcement to the implementation these measures are labelled as "announced", and in the years when the announced measures are implemented, they are labelled as "executed" or "previously decided" in the year of implementation.

As to the content of the measures in the fiscal plan, the distinction is between TB and EB plans. Since some of the plans include both spending cuts and tax hikes, the classification is based on information regarding the dominant component. In other words, the plan can be either EB or TB – these plans are mutually exclusive. It is not important to what extent one plan is EB or TB, only the dominant component counts, and it becomes a dummy variable in a regression model. These models are used to simulate the effects of an EB or a TB plan that reduces the primary deficit by 1% of the GDP. A panel regression model is used to encompass different countries and years of the programs.

The data used for the models comes from 16 OECD countries and cover fiscal consolidations that they implemented between 1981 and 2014. Only the cases of exogenous fiscal measures are taken into account, i.e. measures that are not motivated by

[1] The authors just point out that Michael Woodford (2011) and Thorsten Drautzburg and Harald Uhlig (2015) advocate the second definition of multipliers. Nonetheless, the authors specify that all their empirical findings that follow in subsequent chapters of the book are based on the first definition of multipliers.

the business cycle state of the economy. This provides 170 austerity plans and 216 years of austerity that are used in the econometric models. The authors identify 27 categories of fiscal measures and then aggregate them into 15 components: nine of them in taxation and six in spending cuts. The next aggregation step reduces the number of components to eight. Four of them are in the area of taxation: indirect taxation, direct taxation, other taxation, and not classified taxation. The other four components are in the field of spending cuts: consumption & investments, transfers, other spending, and not classified spending. Depending on which component of the fiscal consolidation is dominant, four rather than two types of austerity are identified: TB based on increasing direct and indirect taxation, and EB based on cutting transfers and consumption & investments.

After all these preparations, it is time for the results. Basically, the results are the estimated effects of correction of the primary deficit of 1% of GDP on the real growth rate of the GDP, consumption, investments and net export, and the time horizon is four years from the beginning of fiscal consolidation. The most important finding is that TB plans are much more recessionary than EB plans. The authors summarize: "EB plans exhaust their very mild recessionary effect 2 years after a plan is introduced. TB plans, on the contrary, have a long-lasting negative, and significantly more sizable, effect on output, estimated to be close to 2 percentage points" (pp. 96-97)[2]. The same difference, thought with the variance in magnitude, has been recorded in the case of consumption, investment and net export. The greatest difference between the impact of the TB and EB plans is recorded in the case of investment, with investment in the fourth year 1% higher than the baseline scenario under the EB plan, while being 2% lower under the TB plan. That is one of the explanations of the mild recessionary effects of EB plans, compared to TB plans. The results of additional estimations – those of consumer and investment confidence which recover faster and better in the case of EB plans – also provide a clue for the explanation of the main result – the different recessionary effects of TB and EB plans. Introducing distinction between EB plans based on current consumption (investments included) and based on transfer demonstrates that the transfer-based plans are less recessionary than current consumption-based plans, though the difference is not statistically significant. TB plans do not distinguish between indirect and direct tax-based plans because there are so few austerity plans in which indirect taxes are a major player in the fiscal policy package.

When the control of monetary policy and exchange rate movement is introduced (for good reason, as both variables affect GDP growth) the basic result remains the same. The result is robust: EB plans are statistically significant more recessionary than TB based plans. Especially interesting is the effect of domestic currency devaluation. In principle, devaluation increases export demand hence it has beneficial effects to output growth. Nonetheless, as demonstrated by Paul Krugman and Lance Taylor (1978), if imports exceed exports, devaluation will induce a fall in real income, due to price increases in the tradable sector, depressing domestic demand and inducing

[2] The authors report 90% confidence bounds for both results, i.e. 90% confidence that the reported responses to the fiscal consolidation based on 1% correction of primary deficit lies within those bounds. The bounds for the TB and EB effect to the output are far from each other.

contraction of output. In short, devaluation has countervailing effects on output growth by itself, even without fiscal consolidation.

Perhaps the most interesting result is related to the impact of austerity programs on debt. For answering this question "one needs to reconstruct the debt dynamics, which depends on the inherited debt ratio, on the growth rate of GDP and on inflation since these variables, together with government expenditures (including the interest expenses on debt) determine how much revenue is needed to service the debt" (p. 110). Accordingly, the basic model is modified and became more complicated, in order to accommodate all these variables. Four cases are considered: two cases of level of debt (high debt, around 120% of the GDP, and low debt, around 60% of the GDP), and two cases of interest rates (high rates, in the 20th century, and low rates, observed in the second decade of the 21st century). In all four cases, EB plans reduced debt, i.e. the debt-to-GDP ratio that would have been achieved without any plan, much faster and more substantially than TB plans. In all four cases EB plans reduced debt from the beginning of their implementation and the debt level was always lower after the introduction of TB in two cases of low debt levels, regardless of the interest rate level. If the debt level is high, TB plans in the first years increase the debt-to-GDP ratio, but then bring it back down to the "no action" level, with the prospect of further decrease. These results demonstrate not only superiority of EB plans, but also that even on very restricted sample of the OECD countries "no action" austerity option is not acceptable in regard to debt. The story that GDP growth itself will decrease the debt-to-GDP ratio does not hold even if inferior TB plans are considered. There is another caveat: both EB and TB austerity plans works much better, i.e. decrease the debt-to-GDP ratio much faster, in cases of low level of debt. Accordingly, fiscal consolidation should be applied at a low level of debt since the results are much better. The reader concludes that a wait-and-see policy definitely should not be recommended in this case.

Since the main finding is that EB plans are superior to TB plans, the authors give special attention to the explanation of the causality of this empirical insight. The first one is about confidence. When fiscal consolidation occurs, it removes uncertainty about its further delays and this brings about confidence, especially among investors[3]. The authors believe that "these beneficial effects associated with the removal of uncertainty are more likely to occur in the presence of EB rather than TB consolidation plans: if the automatic increase of spending is not addressed, taxes will have to be continually increased to cover the increase in outlays" (p. 114). The second one is that the role of confidence, according to the authors, is especially important for the investors as their expectations regarding future taxation drive their behaviour. As Giancarlo Corsetti, André Meier, and Gernot Mueller (2012) demonstrated, the size of these effects to the investors' confidence depends on whether the nature of the changes in expenditures is transitory or permanent: the more permanent the changes, i.e. the greater the number of changes from transfer programs, the greater the boost in investor confidence.

The third explanation is closely linked to the second: it is related to the persistence of the changes in expenditures and taxes. The persistence of changes from EB

[3] This insight is even reinforced if a default risk is taken into account, since the elimination of that risk creates additional confidence, embodied in decreased interest rates.

programs is greater than the changes brought about by TB programs. The authors point out that "the longer lasting are the cuts in spending, the larger the wealth effects on consumers arising from future expected tax cuts" (p. 114). Finally, EB programs lead to the decrease of the wages in the public sector with a depressing effect on aggregate demand, but the authors emphasize "that may be compensated for by the fact that a reduction in public sector wages could translate into lower private sector wages, thus raising profitability and investment" (p. 115).

A detailed review of European austerity during the Great Recession, i.e. European fiscal consolidations since 2008, follows. At the very beginning of the chapter the authors provide answers to three big questions regarding the latest bout of austerity in Europe: (1) Does the difference between TB and EB adjustments also applies to this round of austerity? (2) Can the severity of the crisis be ascribed to a great extent to the different types of fiscal correction? (3) Is it likely that these episodes were more costly than previous ones because all occurred at the same time and at the zero lower bound, with a fragile banking sector? Some of the considerations later in this chapter shed a different light on the answer to the third question. The authors describe and explain in detail the fiscal consolidation of select European countries since 2008: UK, Ireland, Spain, Portugal, and Italy.

Special attention is paid to Greece in a section with a telling title: "The Greek Tragedy". The authors point out that the Greek economy was hit simultaneously by three shocks: a sovereign debt crisis, a domestic banking crisis, and a sudden stop. Because all the three happen in the same time, according to the authors, "it is not easy to attribute to each of them a share of 'responsibility' for the deep recession that followed" (p. 149). Nonetheless, the authors refer to the finding of Pierre-Olivier Gourinchas, Thomas Phillippon, and Dimitri Vayanos (2016), that concluded that the lion's share of subsequent severe downturn was due to the sudden stop. The authors incline toward the position that Greece's fiscal stance was unsustainable, and it should have been immediately moved towards orderly debt restructuring with default. Nonetheless, debt restructuring was ruled out. The authors provide some speculations about the reasons for this decision: perhaps to avoid contagion to other countries, or perhaps to avoid substantial losses of French and German banks. The authors agree, though implicitly, with the insight of Jeromin Zettelmeyer, Eike Kreplin, and Ugo Panizza (2017) that successful austerity in Greece was unrealistic from the very beginning, and that the idea that debt restructuring could be avoided was simply not grounded in good economics but in politics. The authors believe that the "Troika" and the Greek government did a bad job and that there was a great deal of poor bargaining and poor communication. Nonetheless, the reader wonders since the austerity plan was unrealistic from the drawing board, although the authors do not provide evidence to support this insight, is it really important how it was implemented – it was doomed from the beginning.

Specifying that "the failure of the Greek plans was not due to a technical problem of underestimating of multipliers", as a reaction to the IMF (2012), the authors answer the intriguing question: Did fiscal multipliers change after the crisis? Basically, the answer to this question answers another one: Why was the austerity-based recession in European countries greater than expected? After all, the latest round of

European austerity occurred when monetary policy was not of great help, because of the zero lower bound, and many countries implemented fiscal consolidation at the same time, diminishing each others exports. Could that be the reason for the underestimation of the European post-crisis multipliers?

Olivier J. Blanchard and Leigh (2014) suggested that fiscal multipliers were substantially higher than implicitly assumed by forecasters and concluded that had policymakers known the true value of multipliers they might have opted for less austerity. As a response to this insight, the authors offer an alternative one, based on the spike in the cost of debt financing – a “doom loop” explanation. The point is that the sovereign debt crisis induced a substantial increase in the interest rate of bonds issued by indebted countries, and this correlates to the austerity programs. The spike in interest rates induced the prices, i.e. the net present value of these bonds, to fall and for the banks that have large amount of government bonds on their balance sheets this mean contraction of equity and accordingly contraction of lending. The authors empirically demonstrate that this mechanism played an important role in explaining why the austerity in Europe was so hash, but they conclude that it is impossible to assess the relative importance of this channel of influence, compared to the underestimated multipliers.

The answer to question: “When austerity?”, basically is an insight into whether the recessionary effects of austerity are greater if the plan is undertaken in a period of boom or in a period of recession. According to the authors, it is not only “when”, but also “how”, i.e. whether it is an EB or a TB austerity plan. There are several methodological approached to the question and the authors conclude that “the bottom line is that different methodological choices to study the effects of the timing of austerity produce different results” (p. 170). The readers comment could be that it is not the first time in the consideration of austerity that methodological choices decisively influence the results. Furthermore, the comment could be that the timing of austerity is not so important from the policymaking point of view because austerity is undertaken when it is necessary, i.e. when the debt is so great that it must be reduced because of its adverse effects on economic growth, irrespectively of the business cycle phase in which the country finds itself. In short, governments do not have much choice on the issue of timing.

The final topic that the book covers is the political economy of austerity. It is conventional wisdom that the government that undertakes austerity is voted out of the office. Not necessarily so, emphasize the authors, referring to previous empirical studies, such as Alberto Alesina, Roberto Perotti, and José Tavares (1998). Furthermore, their own empirical investigation confirms the previous results and authors conclude: “We find no evidence that governments implementing fiscal adjustment plan are more likely to not be elected” (p. 181), although they control for other economic variables that may affect re-election possibilities. Taking this result into account, demonstrating that Jean-Claude Juncker is wrong, a reasonable question is: Why governments are so reluctant to undertake fiscal consolidation plans? The authors offer two explanations: the first one is risk aversion, and the second one is that “the political game played around austerity goes beyond the one-person, one-vote counting of votes” (p. 187). It comes down to interest group politics, because it is always some interest group

(pensioners, public sector worker, etc.) that is affected by the fiscal consolidation more than others. Hence, they produce strikes, lobby activities, media coverage: all highly visible activities that create the impression of their political clout being much bigger than their voting power. So, the authors conclude: "On the one hand we often observe protests, but on the other hand governments that implement fiscal consolidations are often re-elected" (p. 188).

Another interesting question, taking into account that EB plans are superior in their impact on the output level to TB plans, is how to explain that many governments still raise taxes to reduce fiscal deficit. The authors offer four reasons. First, the accumulated evidence at the time of policy decisions was not sufficient and governments stick to the simplest Keynesian model, based on the assumption that spending multipliers are greater than tax multipliers. Second, governments take into account distributional consequences and taxing the rich, whose burden in tax spikes will be the greatest, is always good from that viewpoint. Third is the political economy argument between concentrated benefits and diffused costs: spending cuts always focus on some interest groups, while tax increases are widely distributed among the taxpayers. Fourth, TB plans are easier to design, faster to implement and they can generate immediate results.

The final chapter of the book summarizes the main insight, already mentioned in this review, but also sheds some additional light on two issues. The first one is about sovereign debt: Is it really a problem, especially taking into account current low interest rates? Yes, it is, the authors emphasize, because it is intergenerational redistribution, because interest rates will rise, and because in some countries debt can generate a default risk with capital outflow. The second one is about the European austerity plans: Were these plans and their timing unavoidable? Yes, there was no policy alternative, the authors emphasize, because the alternative was another round of financial collapse in Europe, after the one induced by imported American toxic assets, and possibly the demise of the monetary union. Nonetheless, the authors point out that part of the responsibility is on the European decision-makers because of the delay in recapitalisation of the banks. This was (not) done not because of ignorance but because of close ties between politicians and bankers, as recapitalisation would have meant wiping out the old shareholders.

The additional chapter of the book is about the models used in the previous chapters: a user's guide. It is nothing other than a goldmine for anyone interested in the methodological issues of the exploration of austerity and its consequences. And the whole book is a goldmine of insights about austerity, its sources, mechanism, consequences and political economy – with a clear caveat that austerity is a complex phenomenon and that there are substantial methodological controversies in its exploration. After bouts of exchanges of ideological mud between anti-austerity and pro-austerity political camps, this book is a breath of fresh air: an evidence-based, impartial evaluation of austerity and its options. It should be obligatory for anyone who wants to build a balanced and evidence-based opinion on austerity. It should not be recommended to those who are determined to continue to throw ideological mud at opponents: their momentum will be reduced after reading this book.

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