

THE ROLE OF THE STATE IN ECONOMIC GROWTH PARIS

Short-term Growth and Long-term Fiscal Health. A Brief Discussion of Three Proposals for Europe.

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There is widespread agreement on the prescription required to address the lingering depression of the economies of the European Monetary Union: a coordinated push in public investment across the member countries. There is also broad agreement, however, that such an investment expansion is not at the moment politically feasible. One obvious difficulty is that few EMU countries, and certainly not those who most need the investment stimulus, have available resources that would prevent pushing budget deficits beyond the agreed ceiling. But the more damning obstacle is a different one: it is the concern by the healthier countries that no long-term solution to the ills that have contributed to the crisis will be brought about, once the current emergency is in the past. It is a concern voiced also within the crisis countries themselves, by those who believe that the structural weaknesses of these economies can be identified and demand reforms meant to make them more competitive and more transparent.

The challenge then becomes one of designing interventions that can at the same time stimulate the EMU economies now, *and*

preserve the incentives for reforms. In this note, I will begin by briefly describing three of these suggestions, highlighting not only their potential but also their more problematic aspects. Creative as they are, these schemes can succeed only if Europe, and the EMU in particular, can still find a shared vision, an idea ambitious and motivating enough to justify the hardships that the depression has caused for so many, and the confidence and daring that EMU leaders must share to move the European economies, jointly, on a healthier path.

Drèze and Durré: mutual insurance without ex ante redistribution¹

The proposal by Jacques Drèze and Alain Durré is articulated in two parts. One part is the description of an ambitious, coordinated, public investment plan. But it's the second part that is our focus here. The goal is to cut the link between joint government action and international redistribution, avoiding the moral hazard problem that could tempt a country to free-ride on the rest of the Union.

The central idea is that macroeconomic uncertainty calls for an insurance scheme and that such a scheme can be designed so as to be ex ante neutral in

¹ *Drèze, J. and A. Durré, 2014*

distributive terms. Building on core results in general equilibrium theory, Drèze and Durré argue that macroeconomic insurance will allow the EMU countries to achieve the Pareto optimal allocation of resources that is prevented by the incompleteness of existing markets and contracts. The essence of the proposal is developed in three steps: (1) First, each country will issue long term debt indexed to the country's GDP; (2) Then these bonds would be pooled into EMU bonds, indexed to EMU-wide GDP; (3) Finally, each country would exchange its own debt for a share of the EMU debt, at equal present discounted value. The result would be absence of ex ante redistribution (since the debt swaps are at equal PDV) but co-insurance.

To see how the scheme would work, consider a union formed by two countries, A and B, and suppose B is twice as large as A: A's national income is 100; B's is 200. Both countries issue bonds that are indexed to their GDP—the details can vary but let us suppose here that each bond pays interest that is proportional to the value of the principal, and such a value is indexed to the country's GDP. The price of the countries' bonds will then reflect their expected rate of GDP growth.

Suppose that the interest rate on the principal is equal for the bonds of both countries. If the expected rate of growth is also equal for the two countries, their GDP-indexed bonds will sell at the same price. If both countries issue ten-year bonds equivalent to 1 percent of their respective GDP, the total debt issued equals 3. The separate GDP-indexed bonds for the two countries can be pooled in a single instrument, a bond indexed to the union-wide GDP. The existing bond issue will correspond to 1 percent of the union GDP. Both countries will trade, at par in this example, their national bonds for the union bond; country A will own one third of the union-wide issue, and country B two thirds.

Suppose now that country A's rate of growth is expected to be twice as high as country B's: at the cost of any verisimilitude but for ease of calculation, suppose the former is forever expected to be 10 percent per year, and the latter 5 percent. Then in ten years, country A's national income is expected to equal 260, versus 326 for country B's national income. In ten years, country A's national income will thus be $260/(586) = 45$ percent of the union's. This means that when swapping its domestic bonds for union bonds, country A's bonds trade at a premium: one A bond sells for 1.35 ($0.45/0.33$) union-

wide bonds; while country B's sell at a discount: 0.85 ($0.55/0.66$) union bonds for one B bonds.

The insurance function of the union-wide GDP-indexed bonds comes from the possibility of unexpected deviations in countries' growth, deviations against which the union-wide bonds provide insurance. Suppose for example that an unexpected shock hits country A and reduces its GDP after ten years to 230. At the bonds' maturity, country A then has liabilities on its domestic bonds equal to 2.3, but earnings on the union bonds equal to 2.5 ($0.45 \times 0.01 \times (230+326)$): the negative shock to country A is partly compensated by a positive transfer. The relevant reference is the union-wide average growth: country A's negative shock translates into an unexpected negative deviation from the average growth rate of the union. As for country B, its own rate of growth (which we suppose here realized according to predictions) is now unexpectedly above the union average. As a result, country B will pay a transfer: the liabilities on its bonds correspond to 3.26 and the earnings from the union bonds to 3.06 ($0.55 \times 0.01 \times (230+326)$). In our union of two countries, the transfer paid by B equal the transfer received by A.

This bare example does not do justice to the richness of the scenarios and to the concern for realism and applicability in Drèze and Durré's analysis. But it is sufficient to shed light on two obstacles likely to be at the center of any effort at implementation. The first is the systematic issuing of GDP-indexed bonds. Even in the absence of the swap with union-wide bonds, this alone should offer some protection to a country faced with an unexpected negative shock. GDP-linked bonds have been proposed by the literature for almost twenty years now and made well-known by Shiller (1993).² They have been adopted by some countries, including Greece in the restructuring of its debt during the current crisis. But they remain rare. Investors are resisting, whether because of doubts about the financial health of the issuers or because of concerns about the content and manipulability of national income statistics, or because of the scarce liquidity of the current market itself.³ In any case, a first step in adopting the Drèze and Durré's scheme should come from EMU countries issuing GDP-indexed sovereign debt. At the moment, this step itself cannot be taken for granted.

The second clear difficulty, and one discussed at length by Drèze and Durré, is the terms of the

² See the discussion in Borensztein and Mauro, 2004.

³ See for example the recent discussion in Barr, Bush and Pienkowski, 2014.

swap between the national bonds and the EMU-wide bonds. The lack of an existing active market for GDP-indexed bonds, except in special cases, translates into the difficulty of pricing such bonds and thus of clarifying the terms of the exchange. In the absence of market prices, agreement around any specific formula would most likely be problematic. Drèze and Durré suggest relying on estimates of future income trends, and expected national convergence rates towards the EMU mean. Neither agreement on this specific criterion, nor, if the criterion were accepted, agreement on the estimates on which the formula would be based seem easy matters.

These of course are technical disagreements; disagreements that can in principle be resolved by better and more transparent analysis and data. But even if the scheme is built to avoid ex ante redistribution, it seems clear that it requires cohesion and shared confidence. After all, countries would be punished—i.e. would have to pay transfers—for higher than expected rates of growth, and rewarded—i.e. would receive transfers—for lower than expected growth. Such is the nature of an insurance scheme. But concerns about moral hazard, and lack of confidence in the good faith and

expertise of other Union members could easily derail its adoption.

Guiso and Morelli: coordinated fiscal expansion with delegation of fiscal authority⁴

Guiso and Morelli also begin by stating the need for a substantial fiscal expansion, coordinated across the EMU countries. The focus of their proposal is on a proposed institutional reform that would accomplish simultaneously two ambitious goals: not only would it guarantee the temporary nature of the resulting public deficits, but it would initiate the progressive shift of fiscal responsibilities towards a new EMU-wide fiscal authority, filling the gap in the institutional design.

The idea is the following. The new European Fiscal Institute (EFI) emits EMU-wide bonds and transfers the resources collected to the EMU countries, in proportion to their GDP. These resources are used nationally to support a large, temporary cut in taxes, or an expansion in public investment. Once the worst of the crisis has subsided, the countries' debt towards the EFI is extinguished, in exchange for transferring to the EFI responsibility for voices of each country's public budget that sum up to net revenues equal to some proportion of such a

⁴ *Guiso and Morelli, 2014.*

debt. The exact proportion would be agreed upon in advance, at the time in the loan, and may fall short or exceed 100 percent, but, crucially, the transfer would include both revenue and expenditure voices. Thus the debt towards the EFI is not extinguished simply through the commitment of a future flow of revenues. At the core of the proposal is the transfer of authority—the transfer of responsibility for specific budget voices. Not only the amount then but the identification of the precise revenue and expenditure lines, as well as their relevant horizon, would be part of the original agreement.

If implementable, Guiso and Morelli's plan could deliver both the coordinated fiscal expansion that the Euro area so badly needs, and the credibility of a financial re-entry. Note that the deferral of responsibility to a central EMU-wide authority, on which presumably Germany would have strong influence, has a scope both concrete and symbolic. If the Southern countries "behave irresponsibly" and require injections of resources that their economies are not generating, then they will lose decision-making power over their own domestic budgets. The resources are provided at the European level, preventing the difficulties

of smaller economies from generating a system-wide crisis, but resources come with a claim at control.

Relative to the assumption of joint solidarity that underlies the proposal by Drèze and Durré, there is here a strong whiff of paternalism—it is difficult not to see the similarity between the actions of the EFI and those of an exasperated parent.⁵ But behind the paternalism, remains the idealism of a shared European vision; the ambition of a stronger, more united, progressively more federal Europe. If the plan has potential, it comes from its long term objective: not to punish or constrain any individual country but to engineer the progressive transfer of fiscal responsibilities for all EMU economies to a truly European fiscal authority. Only on the basis of this ideal does agreement over the budget voices delegated to the EFI seem at all conceivable.

Guiso and Morelli's proposal is very recent, and a serious evaluation will have to wait for more details. At this stage, it is difficult to see how implementation could be achieved. At first sight, there are two obvious obstacles. The first is political. The same symbolism that may make the plan acceptable to austerity-minded countries would

⁵ *The plan recalls the 2010 German memo proposing to link the approval of the second bail-out loan to Greece to the transfer of control over public spending and revenue decisions to a EMU-area "commissioner" with veto power. (Financial Times, Jan 27, 2010).*

test severely the governments of the borrowing economies. And the larger and politically more influential these economies—France, for example—the less likely the devolution of sovereignty appears.⁶

The second set of difficulties is technical. Who vouches for the reliability of the numbers in the public accounts? More fundamentally: how can certain voices be fully disaggregated from the others? How will the management of the policy levers left under national control affect the values of the budget voices deferred to the EFI, and vice versa?

Technical problems can be challenging. In principle, however, they have answers, and these answers can be evaluated and discussed. The crucial obstacle to this plan, as to the Drèze and Durré proposal, is at this stage more fundamental: any serious progress towards implementation requires the mutual trust and shared goals that the scheme is itself meant to reinforce.

Casella: tradable deficit permits⁷

The two objectives discussed by the previous proposals—coordinated expansionary fiscal policy at the Euro-area level, and

long-term discipline of national fiscal stances—are separated under a system of tradable deficit permits. The system, first devised in 1999, at the very beginning of the EMU, has the less ambitious goal of accommodating heterogeneous fiscal needs, under the broad umbrella of a Union-wide fiscal compact. It does not discuss what that compact should be but takes as given the existence of a common budget target and of penalties for countries found in violation of such a target, very much in the spirit of the Stability Pact. The first objective discussed in these notes—a coordinated international fiscal expansion—would here be implemented through an agreed upon larger limit for the EMU-wide fiscal deficit. The focus of the proposal is on managing discipline and flexibility at the individual country level.

The proposed scheme follows closely the logic of cap-and-trade regulation of environmental problems. The imposition of constraints on national public deficits reflects the externalities that non-sustainable fiscal policies can impose on other members of the union.⁸ The Stability Pact reflects the fear of the polluting smoke of fiscal laxity, spreading from the deficit countries to the rest of the union, weakening the credibility of union's financial

⁶ *The Greek response to the 2010 German memo was predictable and strong. According to the Financial Times, the Greek finance minister, Evangelos Venizelos, invoked the "institutional parity of member states" and the "respect of their national identity and dignity" as founding principles of European integration.*

⁷ Casella, 1999.

⁸ *Externalities whose existence was debated in 1999, but has been made quite clear by the current crisis.*

markets and economic policy. In this perspective, implementing the desired discipline not through fixed ceilings on deficits and debts, equal for all countries and at all times, but through a system of tradable deficit permits makes a lot of economic sense.

Each year each country is endowed with permits equal to some proportion of its GDP—say 3 percent. The permits are denominated in euros, and give the right to end the fiscal year with a corresponding number of euros in the country's public deficit. At the end of each year, the country must turn over a number of permits equal to the country's deficit for the year, or incur heavy penalties. In line with the experience of environmental markets, permits come with a vintage, and can be saved but not borrowed from future allocations: a deficit in year x requires permits dated x or earlier. Crucially, the permits are tradable: a country running a smaller deficit than the value of permits it is endowed with, can choose to sell them, and is rewarded for its fiscal discipline; a country which needs instead a fiscal expansion beyond the 3 percent limit, can buy permits on the market. It pays a cost, of course, but that cost is the counterpart of the arbitrary and theoretically very severe fines imposed by the Stability Pact.

The scheme has a number of advantages. First and foremost, it grants some flexibility to the individual countries, while maintaining the aggregate ceiling decided at the union-level. Flexibility comes together with more transparent, less arbitrary, and less politicized rules, delivering higher compliance. Second, if excessive deficits cause negative externalities, then prudent fiscal policy should cause positive externalities, as indeed the long-term EMU-wide objective of balanced budgets seems to indicate. Tradable deficit permits reward such positive externalities and pave the way for a long-term balanced fiscal position. Third, the value of the permits—and thus both the benefit from lower spending and the cost of going beyond the country's allocation—is given by the market price, and thus by the shadow value of an extra unit of deficit at the union level. In good times, of easy fiscal surpluses, the permits price will be low, allowing countries with idiosyncratic negative shocks to stimulate their economy at low cost; in bad times, with many countries demanding permits beyond their allocation, the price will be high, rewarding economies with fiscal surpluses. As long as predictable rules are agreed upon when the system is put in place, sustained high permit prices could

be interpreted as evidence that the union-wide ceiling is too strict, and trigger its reevaluation.

Once the logic is clear, the scheme can be fine-tuned. One modification is crucial. In the case of many pollutants, emissions from different sources can be considered perfect substitutes: the pollutants mix seamlessly in the atmosphere and what matters are total emissions—the specific sources of emissions are irrelevant. Not so in a world where the weak health of a country's public accounts can threaten the stability of the monetary union. In particular, it is natural to suppose that a country's public deficit matters more if the country already has higher levels of debt. It turns out that the scheme can handle this aspect of the problem quite simply. If the impact of a country's deficit on the union-wide fiscal health is mediated by the level of its debt, then the number of permits a country needs to turn over at the end of each fiscal year should be proportional to its deficit but with the factor proportionality linked to the country's debt to GDP ratio. If country A has twice the debt to GDP ratio of country B, then for each euro of deficit, country A needs to deliver twice as many permits as country B. The important point is that both countries share the same deficit

permits market and face the same price, as efficient allocation of resources demands; and yet the more vulnerable state of country A's public finances and the more immediate threat of a fiscal crisis translate into a higher cost of further deficits and thus a larger incentive to cut expenditures or increase revenues.⁹

Many further details can be discussed and adjusted: Who is allowed to trade? How is the market organized? How are penalties for non-compliance decided? On the whole, however, the implementation of the proposal does not seem particularly problematic. Indeed, according to the OECD (Sutherland et al. 2006, p.10), tradable deficit permits were issued in Austria for implementation of its domestic Stability Pact, and some trades were recorded. Always according to OECD (2006), the ceiling had been set too high, and thus was not binding. The market then fizzled out.

As stated above, tradable deficit permits are not an instrument designed to obtain coordinated fiscal expansion. They are not a solution to the current crisis. They are not an obstacle to such a solution but their purpose is different: it is the granting of flexibility to individual countries

⁹ See the detailed discussion in Casella, 1999.

in the respect of precise, predictable rules and under the umbrella of a union-wide fiscal compact. Resolving the crisis, and more generally deciding the appropriate fiscal compact, is left to the political will of the union countries. As always, such political will is indispensable to the good functioning of the proposed scheme; the scheme itself is only a technical answer to a technical question. The evolution of the US market for sulfur dioxide allowances provides a relevant parable. Having been heralded unanimously as a major regulatory success, the market has been hampered and finally fully broken by political interference. The price of a SO₂ allowance was remarkably stable for ten years, between the opening of the market in 1994 and 2004, hovering around \$200; it then jumped to \$1200 in 2005, as new proposed rules effectively would have reduced future supplies, and just as quickly collapsed in response to legal challenges and mandated policy changes, reaching \$400 in 2006, \$100 in 2008, \$70 in 2009 and finally \$0.12 in the seven-year advance auction in 2012, where it remains.¹⁰

EMU as a unified entity?

All three proposals focus on the ability to amortize and recover

from negative shocks, possibly idiosyncratic in their origin, without compromising long term fiscal discipline. At their core is the traditional tension between coordination and national sovereignty. The proposals differ in their emphasis and in their design. Yet they share one fundamental goal—improving the coordination of economic policy within EMU—and one fundamental premise—that the goal is desirable and in fact desired by the member countries.

But the premise finds little comfort in the public debate that has emerged with the economic crisis. Polls report increased popular distrust of European institutions, and distrust of other countries' motivations. Economists' views on the causes of the crisis and even more on the long-term sustainability of possible solutions—the conflict highlighted in these proposals—differ widely, with increasing polarization between the more conservative voices in Northern countries and the opinions of more liberal analysts.

In the absence of shared beliefs about the underlying economic mechanisms, acting together is obviously difficult. More fundamentally, the wish to take any joint action becomes doubtful. Without a common vision for

¹⁰ *Schmalensee and Stavins, 2013.*

Europe, without a reason for the austerity or for the loans, for the deviation of economic policy from one's own country immediate ideal, any progress is slow and painful. Economists can offer technical suggestions, and these suggestions may well be creative and clever. But without the inspiration of a common political vision, it is difficult—impossible, in my opinion—to gather the energy required for their implementation.

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