

review

of economic conditions in Italy



In memory of Franco Modigliani

FOCUS

RENATO BRUNETTA and GIOVANNI TRIA: *The Stability and Growth Pact: the fiscal rules need changing* - **MARIA TERESA SALVEMINI:** *Fiscal policy and European rules: an open discussion* - **PAOLO SAVONA and CARLO VIVIANI:** *The impact of the Stability and Growth Pact on real economic growth: automatic mechanism or policy discretion?*

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RICCARDO VARALDO and ALESSANDRO PAGANO: *Human capital, innovation and competitiveness in Italian industry.*

SURVEY OF ECONOMIC AND FINANCIAL POLICY MEASURES
by **BRUNO COSTI**

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Survey of Economic and Financial Policy Measures

BY BRUNO COSTI

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Translations by Daniel Dichter and Roger Meservey.

The impact of the Stability and Growth Pact on real economic growth: automatic mechanisms or policy discretion?

Paolo Savona* and Carlo Viviani **

The recession under way in the European Union and the threat of deflation (which would appear to have hit Germany already) have spawned increasingly frequent calls for modification of the Stability and Growth Pact. The present article confirms the negative correlation of the rate of real output growth with that of increase in current public expenditure but finds a positive correlation of growth with the rate of increase in public capital spending, private investment, tax to GDP ratio, and an indicator of the net profit rate. The policy prescription is for the urgent modification of the rules of the Pact, exempting public investment from its constraints subject to the assessment of the Ecofin Council. The markets would be receptive to such a change if the EU instituted clear new rules, not just reinterpreting those now in being under the pressure of contingent factors. On this basis, we find that Italy's economic crisis is due in part to the misconceived fiscal and monetary policy rules of the European Union.

1. Framing the problem and survey of the literature

The Stability and Growth Pact signed at Amsterdam in 1997 amended the excessive deficit procedure introduced by the Treaty of Maastricht in 1992. Both accords posit the inadequacy of discretionary fiscal policy in responding to shocks and prescribe reliance on automatic stabilizers. The stabilizer indicated by the Pact, however, leaves member states the option, hence the discretionary power, to decide on levels of revenue and expenditure and the distribution of the latter between current and investment spending. This creates complications for the interpretation of the efficacy of such a fiscal policy design over and above those

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The study was designed jointly by the two authors along the lines of a 1995 work of theirs on the lack of logical foundations of the Maastricht parameters. The entire econometric check was performed by Viviani. For further information write to cviviani@luiss.it.

inherent in the problem, which for that matter have never been resolved on the theoretical plane. These features of the Pact increase the room for divergence in evaluating its effects on real economic growth.

The European Union's institutional framework for fiscal policy has been repeatedly questioned, and all the more frequently of late in view of the mounting concern over Europe's poor economic performance. By comparison with the past we find a changed climate of opinion on the Pact, with a stream of private and official criticism, some of it quite severe, countered by as many endorsements of its viability. Critiques run the gamut from positive assessment of the Pact's policy usefulness to condemnation of the adverse economic effects of its inflexible application. The idea of the urgent need for modification, attenuation or reinterpretation of the Pact has been gaining ground.

After a brief premise setting out the state of theoretical understanding in this field and the findings of several empirical studies, we offer further econometric evaluations to test the logical arguments for the effectiveness of the fiscal policy arrangements laid down in the European treaties. In particular, for the EU countries we estimate the effects on economic growth of such variables as interest rates, taxation, inflation, openness to foreign competition and real investment, with special focus on the impact of the different types of public spending.

The conclusion, in brief, is that the automatic checks on current public spending should be maintained but that investment spending should shift to a discretionary regime. The study implies a number of suggestions for the design of an economic policy that can put the European Union back on the path of growth.

1.1 The debate on crowding-out. The theoretical debate on crowding-out first arose in the United States in the 1970s, focusing on the negative long-term effects of budget deficits highlighted by Milton Friedman in 1972¹ and the way in which they are financed, discussed by Blinder and Solow in 1973.² Barro introduced the "Ricardian" hypothesis, maintaining that on the assumption of perfectly rational agents an increase in the deficit has a negative intergenerational effect on private

¹ M. Friedman (1972), "Comments on the Critics", *Journal of Political Economy*.

² A. Blinder and R. Solow (1973), "Does Fiscal Policy Matter?", *Journal of Public Economics*.

demand. Hence the net effect on aggregate demand of a larger budget deficit was held to be nil.³

Alongside the economic effects of budget deficits, other analysts stressed the “financial” effects. For Italy in particular it was argued that private investment was crowded out by the combination of excessive demand for savings on the part of the State and the ceiling on credit expansion given by total domestic credit. In 1977 Guido Carli and Paolo Savona, following the launch by the Confederation of Italian Industry of its “Operazione Sviluppo” (operation growth) plan, kicked off a wide-ranging discussion of crowding-out.⁴ A decade later Franco Modigliani and others confirmed the crowding-out effect of the private by the public sector at the financial level.⁵

In the 1980s, while going more deeply into these issues, the discussion also turned to the effects of public investment both on private investment demand and on private sector productivity. Most notably D.A. Aschauer, in a series of articles, pointed out that the decline in US productivity beginning in the 1970s may have been due to the decline in public investment.⁶ By increasing the productivity of capital, in the medium term public investment would generate an increase in demand for capital. Hence the effects of public spending on current and on capital account were seen as distinct, the latter being credited with direct and indirect effects favouring real economic growth. This recovered the original spirit of the Keynesian approach to budget policy. In an article in the *Times* in 1942, Keynes wrote: “I should aim at having a surplus on the ordinary budget, which would be transferred to the capital budget, thus gradually replacing deadweight debt by productive or semi-productive debt. ... I should not aim at attempting to compensate cyclical fluctuations by means of the ordinary budget, I should leave this duty to the capital budget.”⁷

³ R.J. Barro (1974), “Are Government Bonds Net Wealth?”, *Journal of Political Economy*.

⁴ Confindustria (1977), *Operazione Sviluppo*, typescript, Rome.

⁵ F. Modigliani, T. Jappelli and M. Pagano (1985), “L’impatto della politica fiscale e dell’inflazione sul risparmio nazionale: il caso italiano”, *Moneta e credito*.

⁶ D.A. Aschauer (1985), “Fiscal Policy and Aggregate Demand”, *American Economic Review*; (1989a) “Is Public Expenditure Productive?”, *Journal of Monetary Economics*; (1989b), “Does Public Capital Crowd Out Private Capital?”, *Journal of Monetary Economics*.

⁷ J.M. Keynes (1942), “Budgetary Policy” in *Collected Writings of John Maynard Keynes*, Vol. 27, Macmillan.

Many studies have confirmed these conclusions, such as those of Munnell⁸ and, more recently, Argimón *et al.*⁹ They find significant crowding-in effects of public capital spending and crowding-out effects of current spending. Though they cite different causes, Alesina *et al.* (1999) also confirm the effect.¹⁰

1.2 The effects of budget adjustments. When the Treaty of Maastricht was signed, it was immediately clear that a good number of countries would have to make very substantial budget adjustments to meet the Economic and Monetary Union parameters. A part of the economic literature posed the problem of the economic consequences of these adjustments, i.e. whether the impact would be Keynesian or Ricardian, which is to say whether the necessary reduction of the ratio of deficit to GDP would result in economic contraction or expansion.

In 1990 Giavazzi and Pagano studied two quantitatively important cases of budget adjustment: Ireland (1987-1989) and Denmark (1983-1986).¹¹ They concluded that in these instances the magnitude of the budgetary contraction had been such as to change expectations on future fiscal policy and hence on individual incomes; that is, they found a non-linear response to restrictive fiscal policy measures. This means that in the case of small-scale budget adjustments Keynesian effects prevail, but for major corrections the Ricardian effect dominates.

Alesina and Perotti emphasized the effect of fiscal consolidation on agents' expectations, but distinguishing between the composition and the magnitude of the adjustment.¹² Essentially the thesis, adopted by the IMF as well,¹³ is that "fiscal consolidations are more likely to

⁸ A. Munnell (1992), "Policy Watch: Infrastructure Investment and Economic Growth", *Journal of Economic Perspectives*.

⁹ I. Argimón, J.M. González-Páramo and J.M. Roldán (1997), "Evidence of Public Spending Crowding-Out from a Panel of OECD Countries", *Applied Economics*.

¹⁰ A. Alesina, S. Ardagna, R. Perotti and F. Schiantarelli (1999), "Fiscal Policy, Profits and Investment", *NBER Working Paper Series*, No. 7207.

¹¹ F. Giavazzi and M. Pagano (1990), "Can severe fiscal contractions be expansionary? Tales of two small European countries", *NBER Working Paper Series*, No. 3372.

¹² A. Alesina and R. Perotti (1995), "Fiscal expansions and adjustments in OECD countries", *Economic Policy*, No. 21; (1997), "Fiscal adjustments in OECD countries: composition and macroeconomic effects", *IMF Staff Papers*, 44.

¹³ International Monetary Fund (1996), "Fiscal challenges facing industrial countries", *World Economic Outlook*, Chap. 3, IMF, Washington.

stabilize the debt-GDP ratio when the budget improvement is obtained by cutting public wages and pension benefits.”¹⁴ Furthermore, “because cuts in public employment and 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.”¹⁵

The IMF itself, defining as “aggressive” those budget adjustments amounting to more than 1.5 per cent of GDP for at least two years and as “successful” those that reduce the debt/GDP ratio by at least 3 points in two years (IMF, 1996), contended that of the 63 aggressive adjustments it counted between 1970 and 1993, only 14 were associated with an increase in GDP, a decrease in unemployment, lower interest rates and exchange rate appreciation. In short, it confirmed the non-constancy of the effects of such fiscal policy measures.

From another angle,¹⁶ it has also been maintained that the convergence parameters were not the objective of European unification but a means to it and that they should accordingly not be made into a “fetish” (as, unhappily, they have). Setting the deficit cap of 3 per cent of GDP, while understandable owing to the pseudo-Keynesian excesses of the past and desirable as an “external constraint” on distorting fiscal conduct, nevertheless remained an act devoid of rational foundation. And no consideration was given to the relation between the rigidity of this parameter and the discretion accorded monetary policy, with a 4.5 per cent ceiling on M3 expansion (never complied with, moreover) as the intermediate target to achieve the final objective of 2 per cent consumer price inflation. This target too was not attained until over two years after its announcement, and only in conditions of lower output growth. As for fiscal policy, one certainly cannot speak of European monetary policy success.

¹⁴ F. Giavazzi, T. Jappelli and M. Pagano (2000), “Searching for non-linear effects of fiscal policy: Evidence from industrial and developing countries”, *European Economic Review*, 44.

¹⁵ R. Perotti (1996), “Fiscal Consolidation in Europe: Composition Matters”, *American Economic Review Papers and Proceedings*, 86.

¹⁶ P. Savona and C. Viviani (1995), *L'Europa dai piedi d'argilla. Basi empiriche, fondamenti logici e conseguenze economiche del Trattato di Maastricht*, Scheiwiller, Milan.

1.3 Fixed rules and fiscal policy. A fixed fiscal policy rule is no theoretical novelty.¹⁷ The Stability Pact, according to its advocates, was needed partly because of the lack of automatic mechanisms and a clear sequence in the excessive deficit procedure set out in the Treaty (Article 104), which could have resulted, in practice, in a relaxation of fiscal discipline within EMU. Moreover, within a monetary union the retention of national autonomy might have resulted in less prudent deficit decisions, thanks to the greater ease of placing government securities in a larger financial market. As past experience teaches, the possible premium demanded by the market would not be a disincentive to larger deficits, while it is all but certain that the pressure exerted by a greater supply of securities at one point in the system would mean a corresponding upward pressure on yields for the entire union, at the expense of the “virtuous” countries. Finally, deficit ceilings also lower the risk that excessive deficits in a major country (to “save” a government in difficulty, say) or in all the major countries will translate into excessive monetary creation by the European Central Bank, thus undermining the independence of monetary policy.

All these considerations led to the creation of a fixed fiscal rule embodied in the Stability Pact, which prescribes that the medium-term budget must be “close to balance or in surplus”. Countries can stray from this objective only in recession, and preferably by means of automatic stabilizers. As we have already noted, the rule makes no distinction between current spending and investment. That is, the assumption is that public spending carries “Ricardian” implications regardless of its composition, by the very fact of being discretionary. This thesis is not logically coherent, nor is it supported by most empirical studies.

This is the view, among others, of Barrell, Hurst and Pina, based on a simulation, using the NiGEM model, of the effects of a permanent increase in public investment spending of 1 per cent of GDP from 2002 on.¹⁸ They find a sizable, lasting impact on real economic growth, albeit moderated by the effects of a likely rise in nominal interest rates owing

¹⁷ See the survey in Banca d'Italia (2001), *Fiscal Rules*, in particular F. Balassone and D. Franco (2001), “EMU Fiscal Rules: A New Answer to an Old Question”, *id.*

¹⁸ R. Barrell, I. Hurst and A. Pina (2003), “Fiscal Targets, Automatic Stabilizers and their Effects on Output”, in Banca d'Italia, *The Impact of Fiscal Policy*.

to the monetary policy rules, and little risk of violating the Stability Pact rules. Further, they show that automatic stabilizers have little capacity to absorb supply-side shocks. Using the same econometric model, Brunila and others estimate that the automatic stabilizers reduce the volatility of growth by 11 per cent in the euro area and by 5 per cent in Italy.¹⁹ Another estimate by the authors using the QUEST model checks the capacity of automatic stabilizers to buffer shocks, distinguishing according to the origin of the shock. There is good capacity (between 20 and 30 per cent) for consumption-side shocks, much less effectiveness against private investment and export shocks (3 to 10 per cent and 5 to 14 per cent, respectively).

2. Data, estimates, comment

The source for our data is the OECD *Economic Outlook Database*. We have taken the data for all EU countries except Greece, Luxembourg and Portugal from 1960 to 2002. The variables and their abbreviations are given in *Table 1*. The estimates are summarized in *Table 2*. Details are reported in the appendix. The econometric tests were performed with fixed-effect panel data.

Let us now very briefly summarize our reading of the two sets of regressions.

The variation in current public expenditure has negative coefficients both for the current and for the lagged period but is econometrically significant only for the lagged one, not rejecting the Ricardian thesis of crowding-out and potentially undermining the idea implicit in the Stability Pact that automatic stabilizers can themselves help pull the economy out of recession. An increase in current spending does not appear to be effective in the short run and worsens the situation in the medium term.²⁰

¹⁹ A. Brunila, M. Buti and J. in't Veld (2000), "Cyclical Stabilisation Under the Stability and Growth Pact: How Effective are Automatic Stabilizers?" in Banca d'Italia, *The Impact of Fiscal Policy*.

²⁰ We have run econometric tests also for longer time lags than the two years shown in the tables and in the appendix. The results are omitted for simplicity, but it should be borne in mind that our assertions concerning the results beyond two years are not mere logical extrapolations but are based on empirical evidence.

The variation in public investment has a positive coefficient and is highly significant for growth both in the current and in the lagged period. This supports the thesis that not all discretionary public spending is negative or neutral (through the Ricardian equivalence) for growth. A policy of public investment could thus create conditions more favourable to growth. The relevant point is not, therefore, whether the spending is discretionary or automatic but the nature of the expenditure. It is interesting that investment spending has a positive effect on GDP growth, in the current period, suggesting effects deriving from the incorporation of their deferred returns into expectations or demand effects reinforcing longer-run expectations.

The variation in the ratio of taxation to GDP shows a positive correlation with growth in the current period and a statistically not significant relation in the lagged period. In this case, there may be a Ricardian effect on expectations (lower expected future taxes), which could begin to be felt in the period to which the regressions refer, when many European countries made substantial budget adjustments by raising taxes.

The difference between the growth and real interest rates is highly significant with a one-year lag and not significant for subsequent years.

| <i>Table 1 - The variables</i> | | |
|---|---------------|---------------------|
| Variable | Symbol | Abbreviation |
| Real GDP per capita of working age pop. | Ypc | PCGDP |
| Potential GDP | Ypot | GDPPOT |
| GDP at 1995 prices and PPP | Y95 | GDP95 |
| Growth rate of per capita GDP | g | GR |
| Difference between growth rate and real interest rate | $g - il - pc$ | GMENOR2 |
| Public expenditure on current account | Gc | GCORR |
| Public investment expenditure | Gin | GINV |
| Total tax revenue | T | TAX |
| Long-term interest rate | il | IL |
| Inflation rate (consumer prices) | pc | INFL |
| Exports | eX | EXP |
| Imports | iM | IMP |
| International trade exposure index | iaci | EXPO2 |
| Capital formation in private sector | lpr | INVBUS |

This renews the evidence for the relevance of monetary policy to real economic developments, which central banks have frequently denied in order to minimize their responsibility for slower growth. If real

| Table 2 - Summary of estimates | | | |
|---|--------------------|-----------------------|---------------|
| REGRESSION 1: PANEL WITH CURRENT AND LAGGED FISCAL VARIABLES | | | |
| | Coefficient | Standard error | t-stat |
| (g – il – pc) (-1) | 0.102 | 0.041 | 2.49 |
| (g – il – pc) (-2) | -0.032 | 0.030 | -1.08 |
| $\Delta\log(\text{Gc}/\text{Ypot})$ | -1.909 | 5.131 | -0.37 |
| $\Delta\log(\text{Gc}/\text{Ypot})(-1)$ | -19.423 | 5.402 | -3.59 |
| $\Delta\log(\text{Gin}/\text{Ypot})$ | 3.448 | 0.887 | 3.89 |
| $\Delta\log(\text{Gin}/\text{Ypot})(-1)$ | 2.268 | 0.835 | 2.71 |
| $\Delta\log(\text{T}/\text{Ypot})$ | 13.138 | 3.394 | 3.87 |
| $\Delta\log(\text{T}/\text{Ypot})(-1)$ | 4.775 | 3.465 | 1.38 |
| $\Delta\log(\text{iaci})$ | 23.284 | 3.413 | 6.82 |
| $\Delta\log(\text{lpr}/\text{Ypot})(-1)$ | 4.415 | 1.701 | 2.60 |
| R-squared | 0.70 | F-statistic | 44.73 |
| Adjusted R-squared | 0.67 | Durbin-Watson | 1.89 |
| REGRESSION 2: PANEL WITH LAGGED FISCAL VARIABLES | | | |
| | Coefficient | Standard error | t-stat |
| (g – il – pc) (-1) | 0.137 | 0.046 | 3.00 |
| (g – il – pc) (-2) | -0.051 | 0.034 | -1.48 |
| $\Delta\log(\text{Gc}/\text{Ypot})(-1)$ | -17.418 | 6.040 | -2.88 |
| $\Delta\log(\text{Gin}/\text{Ypot})(-1)$ | 2.765 | 0.913 | 3.03 |
| $\Delta\log(\text{T}/\text{Ypot})(-1)$ | 6.357 | 3.639 | 1.75 |
| $\Delta\log(\text{iaci})$ | 22.896 | 3.490 | 6.56 |
| $\Delta\log(\text{lpr}/\text{Ypot})(-1)$ | 6.538 | 1.697 | 3.85 |
| R-squared | 0.61 | F-statistic | 45.46 |
| Adjusted R-squared | 0.57 | Durbin-Watson | 1.94 |
| <p>Notes: (1) The dependent variable is the percentage growth rate of GDP, as a variation of the natural log of real GDP per capita of the working-age population (15-64) multiplied by 100. – (2) To show the elasticities, all variables are estimated as variations of natural logs. This also avoids problems connected with the non-stationarity of time series. – (3) Fiscal variables and private investment are given as ratios to potential GDP. – (4) Exposure to world trade is given as the sum of imports and exports as a ratio to GDP at purchasing power parities and 1995 prices. – (5) The sample for this specification excludes Greece, Luxembourg and Portugal. – (6) The period for the estimates is 1987-2002.</p> | | | |

interest rates are too high in comparison to current real GDP growth, capital is destroyed and future growth rates are lowered.

International trade openness is highly significant in explaining growth, with a positive coefficient for the current period. This supports the thesis that European economic growth is export-led, which should convince the monetary authorities to change their attitude concerning the exchange rate, to pursue an active policy rather than the benign neglect that led first to sharp depreciation and then to an equally sharp appreciation of the euro against the dollar. This affected the euro area's foreign trade both directly and indirectly through the substantial increase in exchange rate volatility.

Finally, the variation in total fixed investment has a significant, positive correlation with growth, as is only to be expected if one's model takes the increase in the capital stock as a relevant factor.

Regression 2 broadly confirms the results of regression 1, though with lesser econometric significance.

3. Conclusion: Has the Stability and Growth Pact helped or hurt EU growth?

If we limited our evaluation just to the present state of the European economy, our judgment of the Stability and Growth Pact signed at Amsterdam would have to be negative. We would be led to maintain that it has produced neither an acceptable rate of real economic growth nor a satisfactory curb on budget deficits, which have continued to expand.

Yet such a reading would not be proper, owing to the large number of variables in play. The state of the EU economy is the fruit of the world economic cycle, which in turn has depended mainly on trends in the United States and the geopolitical events in the wake of September 11, 2001, onto which a rigid interpretation of the Pact was grafted.

One can disentangle the role played by the Stability and Growth Pact from the impact of world economic and geopolitical developments on Europe if one resorts to the standard method of economists, namely the adoption of "heroic hypotheses," those simplifying assumptions whose

logical validity has been the object of ironic commentary both within and outside the profession.

Logical argument, practical observations and econometric evaluations concur on the failure of the automatic mechanisms on which the Pact is based. All three suggest the need to try discretionary policies again, within a framework of rules that impose some operational limits.

Bearing all these caveats firmly in mind, we feel that we have succeeded in producing a set of policy prescriptions, set forth below, whose validity is not rejected:

- a)* the automatic treatment of deficits centring on a budgetary balance that fails to distinguish between current and investment spending is contraindicated for the growth of the euro area;
- b)* by contrast, distinguishing between current spending in balance (i.e., regulated by automatic stabilizers) and capital spending in deficit (on a discretionary basis, but under collegial European control) can contribute to growth;
- c)* raising taxes in order to cut the current deficit has beneficial effects on growth in the short term;
- d)* a monetary policy that keeps real interest rates higher than the GDP growth rate will slow the pace of economic expansion;
- e)* openness to international trade has a positive effect on the growth of the euro area economy;
- f)* there is a strict relation between capital formation and the growth of the euro-area economy.

These hypotheses not being rejected, the logical conclusion deriving from our examination of the performance of the European economy is that the level of national budget deficits should not depend on the Pact, meaning that the Amsterdam accord requires correction, leaving it up to the politicians whether to call it a “reinterpretation”, a “temporary suspension” or an actual “amendment”. In making this decision, however, we must be aware that the markets are not entirely devoid of the capacity to read the situation and have clearly seen that the Stability Pact has stymied European economic growth. Yet it is also true that the markets, and most notably the foreign exchange market, react adversely to statements or proposals for abandoning the Pact. On the basis of the

research to date²¹ and logical analysis, markets should reject the abandonment or mere reinterpretation of the Pact but should welcome a change in its rules in line with the econometric relationships that we have tested in this article, which is to say less current public spending and more investment. In theory, this is tantamount to saying that the markets will reward transparency, realism, and clarity in fiscal policy (as in monetary policy) and punish policies based on contingent needs and carried out in such a way as to suggest that they are merely circumventing the rules and reverting to fiscal laxity. In a word, there is a real problem here, namely modification of the Pact, and a psychological problem, namely the correct communication of the reason for doing so.

The new, revised version of the Pact must accordingly retain the rule of budgetary balance on current account but should permit deficit spending for public investment, preferably under the control of Ecofin. Where current balance has yet to be attained, the course to follow in the short run is to raise taxes. If this is impossible, then the solution is to cut expenditure. However, as the net effect of deflation due to higher taxes and reflation due a Ricardian impact on expectations is unknown, our own preference is for a mix of tax increases and current spending cuts, at member countries' discretion.

Based on our own research and that of other scholars, we agree with the calls for the rapid launch of a European public investment programme that can bring private investment in its wake, along the lines of the Tremonti-Van Miert plan that has recently been suggested, rejected, and resurrected.

Finally, let us offer three observations that are outside the scope of the present article, strictly speaking, but closely bound up with the issue of the Amsterdam pact.

First is the target of lowering member countries' national public debt to 60 per cent of GDP. This target should be suspended to avoid piling

²¹ The problem of *time inconsistency* in economic policy was raised by F. Kidland and E.S. Prescott (1977), "Rules rather than Discretion: The Inconsistency of Optimal Plans", *Journal of Political Economy*. A well-known article by J.B. Taylor observes that rules must not be interpreted mechanically but must form part of a multiperiod strategy that policy-makers commit themselves to in order to reap the benefits, in terms of credibility, of the rules. For monetary policy, this means a commitment to lower interest rates for a given inflation rate (J.B. Taylor, (1993), "Discretion versus Policy Rules in Practice", *Carnegie-Rochester Conference Series on Public Policy*).

on restraints on growth and to permit better evaluation of the way in which the debt is distributed within the national segments of the European financial market. Italy, condemned to years and years of deflationary policy in order to meet the convergence criteria, is running a primary budget surplus that would actually have to be increased in order to comply with the European pact.

Second is the degree of competition, which needs to be heightened to complete the transfer for curbing inflation from the money supply to economic competition. With the Council's mandate, the ECB should be prodded to pay greater attention to the exchange rate of the euro, an indispensable part of its mandate to safeguard monetary stability, which to date it has interpreted as a strictly internal euro area affair.

Third, there is the presumption of the "neutrality of the money supply" for economic growth. Maintaining real long-term interest rates above the rate of growth means the destruction of capital, i.e. a reduction in the rate of capitalization of the European economy, which is not just the result of investment flows.

In conclusion, we should like to emphasize that in our discussion of the state of the European economy we have generally avoided specific reference to Italy. We feel that its poor performance is due to the imperfect instruments instituted by the European treaties and by their restrictive application to both fiscal and monetary policy. Italy's problems are of European origin, given that the structural conditions in which the Italian economy operates have not worsened, indeed have improved somewhat, while the growth rate has declined. This pattern is closely connected with three elements: i) the illusions provoked by the initial depreciation of the euro, which deferred adjustment of the conditions of production, and now the severe loss of competitiveness caused by revaluation; ii) the maintenance of a fiscal policy even more rigid than the European average in order to lower the ratio of debt to GDP; and iii) the elimination, under the European policy, of Italy's traditional economic policy instruments for dealing with the country's enormous regional and sectoral disparities.

Appendix

The impact of the Stability and Growth Pact
on real economic growth: automatic mechanisms or policy discretion?

| Table 1 - Regression 1 - Current and lagged variables | | | | |
|--|--------------------|--------------------|--------------------|--------------|
| Dependent Variable: GRPCT? | | | | |
| Method: GLS (Cross Section Weights) | | | | |
| Sample: 1987 2002 | | | | |
| Included observations: 16 | | | | |
| Number of cross-sections used: 12 | | | | |
| Total panel (balanced) observations: 192 | | | | |
| Convergence achieved after 16 iterations | | | | |
| White Heteroskedasticity-Consistent Standard Errors & Covariance | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| GMENOR2?(-1) | 0.101777 | 0.040856 | 2.491112 | 0.0137 |
| GMENOR2?(-2) | -0.032716 | 0.030174 | -1.084237 | 0.2798 |
| D(LGCMORR?) | -1.908442 | 5.130679 | -0.371967 | 0.7104 |
| D(LGCMORR?(-1)) | -19.42253 | 5.402124 | -3.595350 | 0.0004 |
| D(LGINV?) | 3.447722 | 0.886820 | 3.887735 | 0.0001 |
| D(LGINV?(-1)) | 2.268340 | 0.835515 | 2.714901 | 0.0073 |
| D(LTAX?) | 13.13819 | 3.394243 | 3.870729 | 0.0002 |
| D(LTAX?(-1)) | 4.774970 | 3.465459 | 1.377875 | 0.1701 |
| D(LOG(EXPO2?)) | 23.28427 | 3.412868 | 6.822493 | 0.0000 |
| D(LINV2?(-1)) | 4.415177 | 1.700712 | 2.596075 | 0.0103 |
| Fixed Effects | | | | |
| _AUS—C | 1.917704 | _SPA—C | 1.778738 | |
| _BEL—C | 1.941216 | _UK—C | 2.222670 | |
| _GER—C | 1.373661 | _ITA—C | 1.646428 | |
| _DK—C | 1.392752 | _NED—C | 1.803027 | |
| _FIN—C | 1.979768 | _SWE—C | 1.386380 | |
| _FRA—C | 1.446656 | _IRL—C | 4.038178 | |
| Weighted Statistics | | | | |
| R-squared | 0.703101 | Mean dependent var | 2.600036 | |
| Adjusted R-squared | 0.666425 | S.D. dependent var | 2.419767 | |
| S.E. of regression | 1.397559 | Sum squared resid | 332.0392 | |
| Log likelihood | -299.7448 | F-statistic | 44.73169 | |
| Durbin-Watson stat | 1.890573 | Prob (F-statistic) | 0.000000 | |
| Unweighted Statistics | | | | |
| R-squared | 0.632560 | Mean dependent var | 2.169168 | |
| Adjusted R-squared | 0.587170 | S.D. dependent var | 2.175129 | |
| S.E. of regression | 1.397560 | Sum squared resid | 332.0396 | |
| Durbin-Watson stat | 1.847436 | | | |

| Table 2 - Regression 2 - Lagged variables | | | | |
|--|--------------------|--------------------|--------------------|--------------|
| Dependent Variable: GRPCT? | | | | |
| Method: GLS (Cross Section Weights) | | | | |
| Sample: 1987 2002 | | | | |
| Included observations: 16 | | | | |
| Number of cross-sections used: 12 | | | | |
| Total panel (balanced) observations: 192 | | | | |
| Convergence achieved after 9 iterations | | | | |
| White Heteroskedasticity-Consistent Standard Errors & Covariance | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| GMENOR2?(-1) | 0.136805 | 0.045661 | 2.996111 | 0.0031 |
| GMENOR2?(-2) | -0.051162 | 0.034467 | -1.484347 | 0.1395 |
| D(LGICORR?(-1)) | -17.41794 | 6.040501 | -2.883526 | 0.0044 |
| D(LGINV?(-1)) | 2.764898 | 0.913141 | 3.027899 | 0.0028 |
| D(LTAX?(-1)) | 6.357350 | 3.639394 | 1.746815 | 0.0824 |
| D(LOG(EXPO2?)) | 22.89620 | 3.490399 | 6.559767 | 0.0000 |
| D(LINV2?(-1)) | 6.538113 | 1.696517 | 3.853844 | 0.0002 |
| Fixed Effects | | | | |
| _AUS—C | 1.770510 | _SPA—C | 1.966017 | |
| _BEL—C | 2.004596 | _UK—C | 2.183934 | |
| _GER—C | 1.394292 | _ITA—C | 1.785370 | |
| _DK—C | 1.458306 | _NED—C | 1.878252 | |
| _FIN—C | 2.130417 | _SWE—C | 1.531658 | |
| _FRA—C | 1.569803 | _IRL—C | 4.170248 | |
| Weighted Statistics | | | | |
| R-squared | 0.6119 | Mean dependent var | 2.4958 | |
| Adjusted R-squared | 0.5715 | S.D. dependent var | 2.2299 | |
| S.E. of regression | 1.4596 | Sum squared resid | 368.5970 | |
| Log likelihood | -313.6471 | F-statistic | 45.4612 | |
| Durbin-Watson stat | 1.9429 | Prob (F-statistic) | 0.0000 | |
| Unweighted Statistics | | | | |
| R-squared | 0.592105 | Mean dependent var | 2.169168 | |
| Adjusted R-squared | 0.549665 | S.D. dependent var | 2.175129 | |
| S.E. of regression | 1.459664 | Sum squared resid | 368.5972 | |
| Durbin-Watson stat | 1.964753 | | | |