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A new textbook approach to macroeconomics: A debate

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Messori's paper analyzes the possible impact of the recent crises on the teaching of macroeconomics. In contrast with what happened during the Thirties, today we do not have a new macroeconomic paradigm. This is way the mainstream textbook of Blanchard-Amighini-Giavazzi (2010) remains the best teaching tool for introductory macroeconomics. This conclusion is refused by Amighini-Giavazzi as well as by heterodox economists such as Brancaccio. The first two authors argue that the criticisms raised at the 'mainstream' approach to the teaching of macroeconomics overlook the need for a strong pedagogy. On the contrary, Brancaccio criticizes the mainstream approach through modification of the functional form of a given equation system and reversal of its exogenous and endogenous variables.

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Developing a new textbook approach to macroeconomics

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1. The state of the art

Olivier Blanchard's textbook, adapted for publication in Europe by Alessia Amighini and Francesco Giavazzi (Blanchard, Amighini and Giavazzi, 2010; henceforth BA&G), is the best introduction to macroeconomics available today. Its short-term analysis is based on the "neoclassical synthesis", with money wages exogenously given and the money supply determined by monetary policy choices (Modigliani, 1944). For short- and medium-term analysis, this textbook employs a model of aggregate supply and demand (AS-AD) that combines the monetarist reinterpretation of the Phillips curve (Phelps, 1967) with a simplified treatment of the Walrasian microfoundations, typical of the "new classical macroeconomics" (Lucas, 1972; Sargent, 1973), and the endogenous rigidities of the particular strand of the "new Keynesian economics" founded on market imperfections (Mankiw, 1985; Blanchard and Kiyotaki, 1987; Ball and Romer, 1990). For long-term analysis, it refers to the "real business cycle" and endogenous growth models that generate optimal equilibria. Consequently, monetary policy and fiscal policy are effective in the short term but neutral in the medium term, and an expansionary fiscal policy can even have a negative 'real' impact in the long term. The scope for non-distortionary policy action is limited to short-term monetary policy.

Hence BA&G offers a didactic "synthesis" between the most up-to-date versions of the traditional approach (the dynamic stochastic general equilibrium models: DSGE) and the strand of the "new Keynesian economics" based on endogenous rigidities. This synthesis, which in the theoretical literature produced the DSGE models with endogenous rigidities (DSGER), dominated the field of macroeconomics and inspired (self-)regulation and policymaking between the 1990s and the first few years of the new century (see among others: Taylor and Woodford, 1999; Clarida et al, 2000; Blanchard and Galì, 2007). However, the financial and economic crisis of 2007-09 and the current European sovereign debt crisis have bared the limits of this theoretical approach, demonstrating that the conceptual constructs produced by Walrasian microfoundations and DSGER models are unable to predict or explain economic phenomena characterized by

systematic market failures, persistently high rates of involuntary unemployment, rising income inequality and structural imbalances (Quiggin, 2010; Barucci and Messori, 2012).

This state of affairs should have prompted a reflection on the weak points of the dominant economic theory and on the possibility of constructing a new paradigm to incorporate into a new approach to teaching macroeconomics. But it hasn't. In contrast with what happened in the 1920s and 1930s after the crises of 1907-'08 and 1929-'33, the present decade cannot be called a period of "high theory" (Shackle, 1983). And, in accordance with Popper's doctrine of falsifiability, the lack of alternatives is keeping alive theoretical approaches that have proven inadequate to analyze the recent crises and their macroeconomic impact. So our students still rely for their training – and most likely will continue to do so – on textbooks like BA&G, which, accurate and open in its presentation as it may be, still embodies theoretical approaches that should now be obsolete in view of the legacy of the crises.

2. Is something changing?

The extensive set of macroeconomic textbooks obviously includes a number of contributions which follow neither the standard traditional approach nor its most up-to-date versions. Moreover, during and immediately after the financial and "real" crises (May 2007 – April 2009), several well-known macroeconomic textbooks were brought out in new editions, some of which tried to learn a few lessons from the recession and its determinants (for instance, Colander 2010). Finally, in the recent macroeconomic debate various criticisms have been directed towards the analytical foundations of DSGE and DSGER models (for instance, De Grauwe 2010). However, as far as I know, few authors have pursued the objective of challenging the framework of one of the most famous textbooks by means of internal criticisms. The critique of BA&G by Emiliano Brancaccio (2012) is an interesting attempt, despite the lack of a new analytical paradigm as a frame of reference, to dent the prevailing conformism of macroeconomic theory and teaching. Beyond underscoring the major weaknesses of BA&G's approach, Brancaccio sets himself the ambitious objective of constructing an alternative macroeconomic textbook. Even if he does not meet this objective, his contribution develops analytical "building blocks" while also reinterpreting or using many of BA&G's results. This opens up new paths and perspectives of

inquiry and enables students to become accustomed to a diversity of representations of economic reality. Let us illustrate with two examples.

First, Brancaccio renders explicit many of the links between short, medium and long-term models or links within each of these models that students find it hard to discern in the original version of BA&G. For instance, in the AS-AD model he already introduces the variable relating to technology and productivity (designated *A*). The resulting bridge between that model and the subsequent model of growth with technical progress sheds light on the analytical incongruities underlying the limited space accorded to monetary and fiscal policies in BA&G's macroeconomic approach. Even more felicitous is the expository device of graphically connecting the equilibrium between the wage curve and the price curve in the labor market with the equilibrium between the aggregate supply and aggregate demand curves (AS and AD). This makes it immediately clear why AS is determined in the labor market and why the monetarist version of the Phillips curve and the natural rate of unemployment are crucial to the modern version of mainstream macroeconomics.

Secondly, Brancaccio (2012) correctly takes over a number of analytical blocks from BA&G's schema, thereby satisfying methodological standards and incorporating recent advances in the literature. After all, robust alternative paradigms cannot be built simply by turning back to the past (often reduced to Keynes's original contribution) and rejecting seventy-five years of theoretical debate. In particular, the separation between micro- and macroeconomics, which lasted more than three decades, cannot be restored. At the turn of the 1970s, the two main branches of theoretical economics reached a unity of method and analysis. This was achieved by means of the Walrasian microfoundations of macroeconomics, which spelled the decline of Hicks and Modigliani's neoclassical synthesis and Friedman's monetarism but which also brought out many analytical weaknesses of the *General Theory*.[1] It is entirely legitimate for a critical approach to reject traditional microfoundations, i.e. based on the Walrasian model of general economic equilibrium, and

[1] The need for macroeconomics to rest on microfoundations was raised by Lucas (1972) and Sargent (1973) within the "new classical macroeconomics". The subsequent critique of the new classical macroeconomics by diverse strands of the "new Keynesian economics" did not call this need into question. However, one of these strands, based on the works of Stiglitiz and others (Stiglitz, 1987; Greenwald and Stiglitz, 1987 and 1991; Stiglitz and Weiss, 1992), used non-Walrasian microfoundations.

understandable that this approach chooses to oppose every form of "methodological individualism" and pursues more complex relations between micro- and macroeconomics (including macrofoundations of microeconomics). The important thing is to avoid the error of restoring the sterile separation between the two main branches of theoretical economics.

3. Structure of my paper

In what follows I summarize the current foundations of macroeconomic theory in order to evaluate their impact on the contents of BA&G (Section 4). This brings out a number of weaknesses, which attracted Brancaccio's criticism (Section 5). The consequent building blocks of an alternative model address some crucial problems raised by the recent crises. From the analytical standpoint, however, they present as many problematic aspects as the traditional models (Sections 6 and 7). So the question is to determine whether at least some of Brancaccio's objectives cannot be attained by a different critique of BA&G's schema (Section 8). The conclusion will show that this more modest criticism also leaves a number of problems open (Section 9).

4. The underpinnings of current macroeconomics

Before the financial crisis erupted in May 2007, the frontier of macroeconomic theory was represented by a new synthesis: that between "real business cycle" theory and the strand of new Keynesian macroeconomics founded on endogenous rigidities. The former argues that economic fluctuations are caused not by monetary but by 'real' shocks, more specifically by technological shocks. Cycles are thus an essential aspect of economic growth since they permit innovations and productivity gains to be incorporated into the productive apparatus. By contrast, the above-mentioned strand of the new Keynesian economics restores short-run unemployment equilibria by introducing price stickiness justified by specific "adjustment costs" and by monopolistic markets. These two factors can in fact make it advantageous for the individual firm to reduce quantities rather than prices in the face of negative external shocks to aggregate demand. The synthesis between the two approaches produces models that admit incomplete and imperfect markets, speculative bubbles and short-term unemployment equilibria. But in these models the cyclical dynamic is imprisoned within a Walrasian general economic equilibrium. It follows that

expansionary monetary and fiscal policies can have 'real' effects in the short term, but their impact reverts to neutral in the medium term or, in the case of increased public spending, becomes recessionary in the long term.

It has been remarked above that Blanchard contributed to the ascendancy of the synthesis between the new "real business cycle" approach and the new Keynesianism (Blanchard and Galì, 2007). Though in a form still influenced by the old neoclassical synthesis (short-term IS-LM model) and by the monetarism of Friedman and Phelps (expectations-adjusted Phillips curve) and though it adopts a number of simplifications,[2] BA&G transposes many of the results reached by this new synthesis into the AS-AD model (short and medium term) and into the growth setups, particularly with technical progress (long term).

Paraphrasing the fundamental features of BA&G, we can reduce the didactic propositions that characterize current macroeconomic theory to six points:

(i) In the short term, it is always possible and advantageous for the set of firms to supply the amount of reproducible goods and services that is demanded at a given level of money wages. Therefore, taking into account the identity between income produced and income distributed, and the dependence of consumption demand on disposable income,[3] the level of total demand determines the equilibrium level of output for a given price level and can cause abnormal unemployment rates.

(ii) In the medium term, every adjustment of output to the volume of total demand provokes adjustments in money wages and goods prices, which in turn affect agents' expectations and their demand behaviors. Therefore, the general equilibrium is determined by the interaction between the equilibrium in the labor market (AS equation) and the equilibrium in the goods market and the financial market (AD equation).

(iii) In the medium-term equilibrium of the AS-AD model, the output level and the associated unemployment rate are always at their natural values; given technology, at the natural rate of unemployment the real wage is set by structural or institutional parameters and agents realize their price expectations. The market equilibria are optimal.

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[2] The most evident simplification is the adoption of adaptive expectations for future price formation. In this way, BA&G takes an analytical shortcut to results that in more complex models would be determined by Walrasian microfoundations and by the combination between endogenous rigidities and imperfectly competitive markets.

[3] In turn, disposable income is equal to the difference between distributed income and taxation.

(iv) In the short term, monetary policy and fiscal policy can influence the total demand for goods and can thus have 'real' effects on the output level and the unemployment rate; in the medium term instead, given technology, those policies are "neutral" with respect to the optimal 'real' equilibria and only affect the price level.
(v) In the long term, given technology, the equilibrium coincides with stationary values of capital per worker and output per worker. An expansionary fiscal policy can cause a decline in the private sector's propensity to invest and thereby lower the stationary values of those two ratios. Because of these perverse effects of expansionary fiscal policies in the long run, the only effective policy instrument is short-term monetary policy.
(vi) In the long term, the pace of technical progress sets the equilibrium growth rate of capital per worker and of output per worker.

5. Two general criticisms

Brancaccio concentrates his fire on the first four propositions and just grazes the fifth. The following passage neatly sums up his position: "From the mainstream perspective […] the 'natural' equilibrium can be said to represent the inviolable limit of wage claims and expansionary policies. It is possible to modify the 'natural' equilibrium, but only by intervening on the so-called fundamentals of technical progress and the availability of labor and capital, or by reducing the market power of firms and trade unions [….]. By contrast, the critical approach considers that there is no 'natural' equilibrium levels of production, employment and real wages that are independent of trade-union pressures or expansionary economic policies" (pp. XVIII-XIX).
Simplifying somewhat, Brancaccio's critical observations regarding BA&G's AS-AD model – observations that underpin the alternative proposition we have just cited – can be reduced to two points: (a) the critique of the demonstration that monetary policy and fiscal policy are ineffective in obtaining a different medium-term equilibrium from that fixed by the natural rate of unemployment and the natural level of output; (b) the critique of the assertion of independence between the two key parameters for the working of the labor market, i.e. the mark-up (μ) – which Brancaccio (2012) reinterprets as "profit margin" – and the

residual indicator of workers' bargaining power (z) – which is renamed "degree of workers' conflict".[4]

In what follows, I intend to demonstrate that these critical observations are empirically plausible. However, if points (a) and (b) are to be taken as "building blocks" for constructing an alternative macroeconomic model, empirical plausibility is not enough. It is also essential to prove that the two points rest on rigorous analytical propositions compatible with the remaining parts of the reference model; but on this score, neither seems to pass muster. Although point (a) is of crucial importance, its analytical justification is weak, and as for point (b), which is more "ideological" and based on a modification of the definition of the parameters examined, its impact becomes significant only if it is supported by point (a).

6. Analytical limits of the first critique

With regard to point (a), Brancaccio (2012) quite properly aims to demonstrate that in the medium term the labor market is unable to establish the unemployment rate compatible with stability in the changes in the general price level, that is with coincidence of market prices with expected prices. This would be tantamount to rejecting the concepts of "natural" unemployment rate and "natural" output level and, consequently, to denying that market mechanisms ensure – in the medium term – the optimality of market equilibria, the neutrality of money, and hence the ineffectiveness of monetary and fiscal policies.

To arrive at these results, Brancaccio calls into question the inverse relation between the general price level and the aggregate demand that characterizes standard AS-AD model as well as BA&G's one and makes AD a downward-sloping curve. The point of departure of his argument is the following statement: "Only if AD is decreasing […] can it be held that price changes will always guarantee the economic system's spontaneous convergence to the natural level of output Y_n and thus to the natural rate of unemployment u_n" (p. 42). Therefore, Brancaccio's objective is to demonstrate that the behavior of the AD curve is indeterminate; for example, that this curve can become infinitely rigid with respect to the general price level. If this were so, equilibria with Keynesian

[4] In Section 7, where we examine the implications of point (b), we accept the renaming of parameter z but call that of μ into question.

unemployment and expansionary economic policies with positive 'real' effects would be possible even in the medium term.

From the analytical standpoint, the trouble is that the thesis of AD's non-negative slope leads us back to the problem that Keynes dealt with unsatisfactorily in Chapter 19 of the *General Theory*: to demonstrate that, starting out from a level of economic activity with involuntary unemployment, a fall in money wages and/or the general price level does not necessarily restore a full employment equilibrium. Not by chance, Brancaccio's proof that AD may have a non-negative slope boils down to a restatement of Keynes's argument there.

Keynes (1936, pp. 263-67) recognizes that a decline in money wages and in the general price level increases the amount of money supplied in real terms; and that, all else being equal, this increase is trending downwards the monetary interest rate and upwards the investment demand, which in turn raises the equilibrium level of aggregate output by means of the income multiplier. However, Keynes adds that there are two links at which this causal chain can be interrupted: a worsening of wealth holders' expectations can make the interest rate sticky downwards even in the presence of increments in the money supply in real terms (the "liquidity trap"); and a worsening of entrepreneurs' long-term expectations can make investment demand sticky upwards even in the presence of a decline in interest rates.

These observations of Keynes are empirically plausible because they reflect, albeit in a stylized way, what actually happened during some phases of the crisis of 1929-33 and above all during the crisis of 2007-09, and what is now happening in the sovereign debt crisis of the European Economic and Monetary Union. From the analytical standpoint, however, Chapter 19 is one of the weakest parts of Keynes's framework. As the author explicitly underscores in Chapter 18 (pp. 246-47), in the first seventeen chapters expectations are treated as "ultimate independent variables", and Chapters 5 and 12 serve to justify this assumption. The transformation in Chapter 19 of these "ultimate independent variables" into dependent variables, subject to changes in money wages and prices, must be written off as an ad hoc assumption.

Brancaccio (2012) offers a second reason, unrelated to changes in expectations, for questioning the inverse relation between the interest rate and investment demand: the inclusion of the interest rate in production costs. This implies that a

fall in the interest rate will normally bring down the price of investment goods and therefore lower the value of capital assets. However, these decreases have ambiguous effects on the sign of the relation between the two variables. The price decline lowers the general price level and thus the expected price level (see n. 2 above), causing AS to shift downward; in addition, it can lower the value of the stock of capital goods held by firms. On the other hand, the decline in the price of investment goods raises the marginal efficiency of capital and thereby increases investment demand,[5] causing a rightward shift of IS (in the IS-LM model) and hence of AD. And this effect, which is the opposite of that deriving from the downward shift of AS, is reinforced by the impact that the fall in the general price level has on the money supply in real terms. It is difficult to determine *a priori* which of the two effects prevails, but the attention paid to aggregate demand suggests that the inverse correlation between the interest rate and investment demand is strengthened. Moreover, including the interest rate in production costs would also necessitate modifying the price function and thus the specification of AS.

7. Analytical limits of the second critique

The second of Brancaccio's critical observations on BA&G's approach (which we term "point (b)" in Section 5) refers to two key elements for the functioning of the labor market: μ and z. Following the standard definition, BA&G regards μ as the degree of monopoly enjoyed by the set of firms in their supply market and z as a set of institutional labor market arrangements considered as a residual. BA&G, that is to say, posits the absence of any link between the two elements, which are treated as parameters. At the opposite, Brancaccio (2012) argues that "the levels of z and μ" are "subject to social pressures and will therefore be determined, case by case, by the relative bargaining power of firms and workers. This means they can no longer be treated as both exogenous." (p. 47). In the two limiting cases, "if relative bargaining power is favorable to the workers," z remains exogenous and μ becomes endogenous and, "if relative bargaining power is favorable to firms," the opposite happens (μ remains exogenous and z becomes endogenous). In the intermediate cases the two factors become

[5] In the *General Theory*, Keynes defines the marginal efficiency of capital as being "equal to that rate of discount which would make the present value of the series of annuities given by the returns expected from the capital-asset during its life just equal to its supply price." (p.135).

interdependent. This creates interdependence between the wage curve and the price curve. If *z* is exogenous, the price curve shifts so as to intersect the given wage curve at the unemployment rate corresponding to the equilibrium level of output, set by the point where AS and AD intersect; if μ is exogenous, the opposite happens. In the intermediate cases, both curves shift.

This critique of BA&G should produce at least three results: the reversal of the causal chain that determines equilibrium in the labor market and in the AS-AD space, the elimination of the notion of the natural rate of unemployment, and the demonstration that wage bargaining does not affect only money wages but sets real wages. The problem is that these results, though significant empirically, are analytically fragile.

On the first aspect, Brancaccio's critique effectively disposes of the causal chain which – in BA&G's AS-AD model – opens with the determination of the natural rate of unemployment and the real wage rate in the labor market and closes with the determination of the natural level of output in the medium term. But this does not imply that the alternative scheme generates a causal chain from level of aggregate demand to equilibrium unemployment rate, because the transformation of at least one of the two labor market parameters into a dependent variable creates an interdependence between the labor market and the AS-AD space. For any given level of aggregate demand there is a corresponding unemployment rate, which is a factor in the relative bargaining power of workers and firms and hence in the real wage level and the general price level. The latter two levels, in turn, affect the level of aggregate demand through the determination of the equilibrium between IS and LM.

As to the second aspect, Brancaccio claims that his construction has the virtue of eliminating the notion of the natural unemployment rate. But this result can be ascribed to the end of the inverse relation between the general price level and aggregate demand – and the consequent abandonment of the natural level of output – rather than to the interdependence between the price curve and the wage curve. Accordingly, if the criticisms aimed at the downward slope of AD and the notion of natural output level are analytically fragile (as Section 6 shows), then the rejection of the natural unemployment rate notion is also ill-founded.

On the third aspect, Brancaccio is right to maintain that in his model bargaining between workers and firms sets the real wage rate, not just money wages. But in this case his critique should be directed not at BA&G but at Keynes. BA&G makes

money wages a function of the general price level, the unemployment rate and the parameter *z* only as a first approximation. As they specify carefully from the outset and make evident in their construction of the AS-AD model and the expectations-adjusted Phillips curve, money wages depend on expected prices, not current prices. This means that workers do not fall victim to the money illusion as they do in the *General Theory*.[6]

Finally, the hypothesis of interdependence between *z* and μ needs some further explanation. As noted earlier, Brancaccio introduces this hypothesis by defining "mark-up" as "profit margin" rather than an indicator of firms' degree of monopoly power. This makes it plausible to postulate that as workers' bargaining power increases firms will have to forgo a part of their profit margin. It would be much less plausible to suppose that workers' increased power can affect the form of the firms' supply market, especially if one maintains the Keynesian "money illusion." Brancaccio (2012, Section 2.9) does tackle this problem, but the proposed solution rests, yet again, on the fragile analytical foundation of a non-negative slope of the aggregate demand curve.

8. A more modest critique

As we have seen, Brancaccio finds various weak points in BA&G and suggests some possible alternative approaches. In many cases these alternatives are empirically plausible, but they require further analysis. They would necessitate: (i) making the expectations of financial investors and firms endogenous; (ii) clarifying the links between workers' bargaining power, the structure of the firms' supply market, and the consequent formation of profit; (iii) specifying the interactions between micro- and macroeconomics and the representation of the economic processes that characterize an alternative model. These are three complex, interrelated operations that can be declined in various ways.

This is not the place for a discussion of the merits of these three points, but I would suggest that the decisive one is point (iii). One strand of the new Keynesian economics, which is represented mainly by Stiglitz and his co-authors[7] and is alternative to the endogenous rigidities approach, has produced a rigorous formulation of Keynes's main results by incorporating into its models rational

[6] In Chapter 2 of the *General Theory* Keynes asserts: "Whilst workers will usually resist a reduction of money-wages, it is not their practice to withdraw their labour whenever there is a rise in the price of wage-goods." (p. 9)

[7] See note 1.

expectations, contractual designs determined by agency relationships, information asymmetries, quantity instead of price constraints, and a partial instead of a general equilibrium approach. It therefore differs from the prevailing macroeconomic synthesis and the related approach of BA&G, in that it adopts non-Walrasian microfoundations that distance it from the general equilibrium framework. The problem is that we have no equally complete representation of economic processes alternative to Walrasian general equilibrium theory. The Swedish sequential approach (Ohlin, 1937; Lundberg, 1937), carried further by Hicks (1956, 1965) with the combination of single-period with multiperiod analysis (the so called "continuation theory"), leaves a number of problems open. It is no accident that Keynes, after referring to that method in 1931 and 1932 (Keynes, 1973, p. 184), dropped it in his successive drafts of the *General Theory*. And Stiglitz and his co-authors, while frequently mentioning time lags in transactions and sometimes introducing sequences in cyclical phases (in particular, Greenwald, Kohn and Stiglitz, 1990), gave up this method in favor of a partial equilibrium approach.[8]

Brancaccio's idea of turning one or two of BA&G's key labor market parameters into endogenous variables, however, may also suggest a less ambitious way of bringing out the analytical fragility of the concepts of natural rate of unemployment and natural level of output. This way could avoid the restriction of economic policy effectiveness to short-term monetary policy measures, even if it does not suffice for the creation of the "building blocks" of alternative models.

Monetary and fiscal policy choices tend to affect the medium-term values of z and μ. Expansionary fiscal policy, for instance, which increases the total demand for goods in the short term (shifting the IS curve to the right) can make the entry of new firms advantageous in the medium term and thus change the degree of monopoly in the supply market. This is clearly equivalent to changing the value of μ. This same policy also lowers the unemployment rate, enhancing the unions' bargaining power. If this results in a modification of labor market rules and institutions in the medium term, this will obviously also change the value of z. Analogous effects are produced by expansionary monetary policy. By lowering

[8] See also: Messori, 1999. Truth to tell, when Stiglitz and his co-authors sought to construct complete macroeconomic models, they even often ended up resorting to a traditional general equilibrium framework (see, for example, Stiglitz and Weiss, 1992). But this weakened the results they achieved in the analysis of individual markets.

the rate of interest (shifting the LM curve downwards), this type of policy too increases the total demand for goods in the short term and accordingly can modify z and/or μ, as just described. However, as we have seen, in BA&G's framework any change in z or μ will shift the wage and price curves, thus altering the natural rate of unemployment and consequently the natural level of output.

The end result is that monetary and fiscal policies affect the natural unemployment rate and output level. That is, they have an impact on the real economy beyond the short term. When they come to depend on policy choices, the very concept of "natural" rates and levels loses economic importance, in that they no longer function as the center of gravity of the medium-term equilibrium of the economy. Market mechanisms do not ensure optimal equilibria in the medium run.

9. Conclusion

The observations set out at the end of the previous section are interesting because they bring out some of the analytical weaknesses of the new macroeconomics and highlight its utter inability to speak to the problems posed by the crisis of 2007-09 and the European sovereign debt crisis. However, this *pars destruens* is not accompanied by an equally potent *pars construens.* If we drop the synthesis between the "real cycle" theory and the new Keynesian economics hinging on endogenous rigidities and instead we incorporate the microfoundations based on the Walrasian general equilibrium theory, we are faced with an unsatisfactory dilemma: either go back to the original Keynesian framework, whose main results are empirically plausible but based on *ad hoc* theoretical hypotheses, or else return to a traditional framework with instantaneous price adjustments, which yields optimal equilibria even in the short term.

To escape this dilemma without relapsing into a macroeconomics shorn of microfoundations and consequently into the separation of micro- from macroeconomics that weighed so heavily on the development of economics until the mid-1970s, the only possible way out appears to be to abandon the foundations based on the Walrasian general equilibrium. This can be done by defining a more complex relationship between micro- and macroeconomics or by adopting a non-Walrasian microeconomics. The first of these approaches is largely unexplored and might require us to go beyond the borders of economic

theory and bring in other social sciences in order to treat economic and social institutions as dependent instead of exogenous variables. The second, however, can rely on that microeconomics approach which features agency relations and contract theory. But as we have seen, this approach – at least as formulated by Stiglitz and his co-authors – has proven unable to construct a unitary macroeconomic framework and has mostly taken refuge in partial equilibrium analysis. The question, raised a good number of years ago but still not answered satisfactorily (see for example: Amendola and Gaffard 1988; Graziani, 2003; Messori, 1999), is whether a Hicksian sequential scheme can fit the multiple partial-equilibrium results into a unitary framework as general as that assured by Walrasian equilibrium models.

Whatever our answer, one indisputable point remains: it would be unrealistic and inappropriate to make these crude working hypotheses the basis of a textbook. First-year or second-year students in macroeconomics need to be introduced to tested analytical tools that furnish a simple method of learning and a basic discipline. Only once this groundwork has been laid does it become essential to stimulate the student's critical spirit by pointing out the various weaknesses in this basic framework. Obviously, as noted earlier (section 2), there are a number of macroeconomic textbooks which follow neither the standard traditional approach nor its most up-to-date versions and which are able to offer a basic guide to the discipline. However, in my view, BA&G stands out in providing a framework that is tested but at the same time open enough to criticism. This is why I think that BA&G will remain, for many years to come, the best available teaching tool for introductory macroeconomics. Those teachers who, like myself, are unsatisfied with its analytical underpinnings will have to be content with noting the fragility of some of its key concepts. In this regard, a useful approach is to undermine the notions of natural unemployment rate and natural level of output.

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How ‘new’ would be the new textbook approach to macro?

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As it had repeatedly happened in the past, since the aftermath of the Great Depression, the recent crisis has raised a host of doubts about main-stream macroeconomic theories and inspired changes in the foundations of macroeconomics as well as in the way it is taught in the classroom.

Right in the middle of the crisis, a lively debate started among scholars about what, if anything, macroeconomic theory had missed and how to fix it (see among others Bernanke 2010, Blanchard 2010, Blinder 2010, Colander 2010, Mankiw 2010). In mid-2009 *The Economist* magazine opened a discussion about what had gone wrong in modern macroeconomic theory - and therefore also in the teaching of macro - based on interviews with the authors of major textbooks (*The Economist*, July 18th 2009 and April 3rd 2010).

Already since 2010 the major macroeconomic textbooks had introduced brand new sections covering topics which until then had been neglected, in particular topics related to the functioning of financial markets. By 2011 - with the crisis behind us, although not its legacies - the teaching of macro around the world had been retooled through the introduction of new readings and up-to-the-minute presentations. Whether or not the current decade will eventually enter the history of economic though as a new period of 'high theory' is far too early to say. The debate around the state of macro has so far agreed on the fact that macroeconomists could and should have warned about the risks the world economy was running during the so-called “Great Moderation", not necessarily that they were badly equipped to understand it. As a matter of fact, a few economists had shouted at the peril well before the beginning of the crisis, most notably Robert Shiller (2005) and Raghuram Rajan (2001).

Going back to our aim in these notes, to what extent this debate has or should have already made its way in introductory textbooks depends on whether each single issue can be taught to first-year students. The first European edition of Blanchard's textbook (Blanchard, Amighini and Giavazzi, 2010) was among the first to include an entire chapter devoted to the crisis, and to adapt the core treatment of standard income/expenditure, IS-LM, and AD-AS models so as to be able to explain the origins of the crisis, how a financial crisis turned into a full-edged economic crisis, and its legacies. By so doing, the new book revisited a set of topics which had became standard ingredients of introductory macro courses over the past 20 years. Among the major extensions that were added was - besides a section entirely devoted to Europe and the euro - an analysis of the crisis built on an extended version of the IS-LM model with a financial sector. This allowed to overcome the well known limitations of single-interest rate models in a very soft way - pedagogically speaking. Also, new concepts such as leverage, insolvency and illiquidity easily made their way into the text. In the same vein, Bofinger (2011) suggested that "it is relatively easy to reinterpret the basic model in such a way so that inconsistencies can be avoided". This has been made easy, in the context of Blanchard's textbook, by the pedagogical choices it has sticked to since its first edition:

_ to organise the text around different time horizons since the very beginning, starting explaining how the economy works in the short-run and moving on to longer horizons later. This choice has made it easy to analyze the crisis distinguishing between the shocks, the immediate policy response and the longer term legacies;

_ to put more emphasis on the mechanisms and policies that could bring the economy back towards equilibrium, rather than on the instability of the economy. Although aggregate demand shocks had hardly a place in the first editions of the text, the discussion of the recent crisis has given the opportunity to include such events.

Overall, Blanchard's approach has proved very successful also in that it can be expanded step-by-step to introduce more and more engaging and complex topics without losing consistency and confusing the picture - a pedagogical must. Extensions to the core chapters allow to deal with complex issues without making them unnecessarily difficult for undergraduate students. This is why students like the text, probably more than the most convinced among the teachers, and why it is one of the most appreciated introductory textbooks (Messori, 2012).

Ironically maybe, even the recent reactions by Brancaccio (2012) – provocatively titled as if they were at the opposite extreme of Blanchard's approach - were build on exactly the same standard framework, which suggests that the latter can be a common starting point for a discussion of competing ideas, theories, evidence.

Easy as it has been to adapt this textbook to explain the crisis, the question remains: Where do we go from here? The next step, unfortunately is far more difficult since it would require further integration of finance and macroeconomic. To dig deeper into the reasons behind the crisis one would need to introduce, as we said, concepts such as Leverage, Value at risk and similar. This is easily done in Mickey-mouse financial models but these are then difficult to integrate even in standard macro models. We have in mind the time-honored Holmstrom-Tirole model of financial intermediation, the Diamond-Dybvig model of bank runs, etc. One advantage of these models is that they illustrate in a transparent way some basic mechanism driving financial markets which can produce in macroeconomic shocks. Integrating these models in macro models – let alone in a standard textbook model - is a challenging task and today constitutes, in our opinion the most challenging frontier of macro.

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A comparative approach to the study of Macroeconomics

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Will the economic crisis that broke out in 2008 and the ensuing crisis of the Eurozone lead to another revolution in the ideas of economists as regards the working of the market economy and the tasks of economic policy? A great many scholars have recently endeavoured to give an answer to this question. Some of them suggest that the so-called "mainstream" approach to macroeconomics has already been addressing the typical failures of the market that foster instability and recession for some time now. Economists should therefore be able to remedy any errors of prediction and assessment of the crisis by drawing upon studies already existing in the predominant literature (Tabellini 2009). On this view, there would be no need to disrupt what Olivier Blanchard calls the «core» of the dominant macroeconomic theory and hence no need to rewrite the textbooks on which that core is based (Blanchard, Amighini, Giavazzi 2010; for a specification of the basic elements of the core, see Blanchard 2000 ch. 30 and Taylor 2000).

Though widely held among economists, this view appears in actual fact to overlook some problems that have recently emerged within mainstream debate on theory and economic policy. One example is provided by the doubts as to the relevance of analyses of economic policy that are based on non-observable magnitudes such as the «output gap» (Blanchard, Dell'Ariccia, Mauro 2010). This question is in fact not only a practical matter. Although a pure "objectivist" approach to economic theory would be hardly conceivable, systematic reference to non-observable variables creates problems for the epistemological basis of the dominant theory (Leontief 1991). Another example is provided by the contributions of some celebrated mainstream economists and major international institutions suggesting that the growth of income inequality can

have depressive effects on aggregate demand and production in the long run (Fitoussi and Stiglitz 2009; IMF-ILO 2010). The simple fact that this interpretive stance has been adopted by influential mainstream economists calls into question the heuristic self-sufficiency of the prevailing macroeconomic theory, which rules out long-term causal relations from income distribution to aggregate demand and production. At the same time, there appears to be an evident similarity between this interpretation and some logical schemata of a heterodox character that have been arousing renewed interest in the literature for some time now (Hein and Vogel 2008; Stockhammer et al. 2009). These and other elements therefore seem to indicate a weakening of the general consensus amongst economists that led Blanchard just a few years ago to note marked convergence at the level of mainstream method and theory, and hence to claim that «the state of Macro is good» (Blanchard 2008).

Despite the spreading of cracks inside the core of the dominant approach, Marcello Messori (2012) rightly observes that, as things now stand, there is little tangible sign of any exchange of views between advocates of the different paradigms in the field of macroeconomics. This state of affairs does not appear to result, however, from any lack of alternatives to the dominant approach. In actual fact, there are rigorous programmes of research aimed at the development of competing paradigms both in macroeconomics and in the more general sphere of the foundations of economic theory, some of which have already reached a stage of conceptual arrangement (Pasinetti 1977, 2007; Kurz and Salvadori 1995; see also the preliminary work of Godley and Lavoie 2006). The claim that alternative theories are the work of «sects of economists on the way to extinction» (Tabellini 2006) therefore appears to be misleading. The problem is rather the almost total breakdown in communications between the various schools of thought that has existed for many years now. Suffice it to examine the number of times non-orthodox articles are cited in mainstream journals, once non-negligible but today close to zero. There are grounds for

thinking that this form of separate development in watertight compartments has not enhanced the quality of economic research but, on the contrary, impoverished and damaged it in some respects. Blanchard himself points out the risk of «too much convergence» amongst economists, the resulting proliferation of technicalities of doubtful heuristic relevance, and the advisability of rehabilitating the use of «simple models» to examine once again the fundamental logical relations between economic variables (Blanchard 2008). These are wholly acceptable observations. It appears difficult, however, to avert these risks and seize these opportunities in an historical phase when a certain degree of theoretical conformity seems to pay dividends also in terms of career while analyses devoted to the comparison of paradigms remain confined to a sort of no man's land.

While the claim that renewed interest in the comparative study of economic theories could serve to revitalise contemporary macroeconomics is thus hardly implausible, how can channels of communication be reopened between the various schools of thought after years with no exchange of ideas? How can the submerged and forgotten comparative approach to economic theories be rehabilitated? One possible answer involves a return to a method of comparing alternative paradigms that was widely used during the 20th century. This method is based on the use of just one system of equations for all the theories examined; the transition from one theory to the other takes place simply through modification of the functional forms and reversal of the positions of exogenous and endogenous variables. The initial system of equations thus acts as a sort of *stereogram*: very different conclusions will be reached in terms of economic analysis and policy in relation to the viewpoint from which it is examined. While this method of comparison does not of course make it possible to examine the entire range of epistemological differences between the approaches compared, it presents the unquestionable advantage of immediacy by showing that apparently marginal changes in hypotheses can lead to

completely different deductions. This is hardly surprising, as the choice of the exogenous variables, on which the method is based, is considered crucial by many to the correct specification of an economic theory (Dobb 1973, Garegnani 1990, Kurz and Salvadori 2003; see also Brancaccio 2010).

My short essay *Anti-Blanchard. Un approccio comparato allo studio della macroeconomia* is an attempt to return to the use of this particular method of comparing economic theories also in the sphere of teaching (Brancaccio 2012). Despite its apparently challenging title, it makes no claim to replace the celebrated mainstream textbook of Blanchard, Amighini and Giavazzi (2010) but is designed rather to stand alongside it. The purpose is to show how simple modifications to the initial hypotheses of the dominant macroeconomic model can lead to substantial reversal of the logical relations characterising it. The aim in this sense is to provide a flexible teaching instrument aimed to reconcile the need to provide students with a preliminary grounding of the mainstream type with the need to foster rather than stifle their critical spirit. In this respect, the objectives of the book are more limited than those that characterized the textbooks of the Italian non-orthodox tradition (see for example Graziani 2001, among many others). However, the results obtained so far appear encouraging. One of the reasons why students seem to appreciate the comparative approach of the *Anti-Blanchard* is the fact that it sheds light on the relations existing between theoretical hypotheses and the implications of the models in terms of economic policy, which the conventional teaching programmes usually overlook. The statistical appendix, based on a well-known OECD survey raising doubts as to the existence of a significant empirical relationship between systems of protection for workers and rates of unemployment, has also proved quite effective (Suppa 2012). Albeit purely at the level of an example, the statistical exercise offers interesting stimuli for theoretical reflection by calling into question the validity of the claim that less protection for labour would mean less unemployment, which is implicit in the dominant macroeconomic model.

Messori (2012) regards *Anti-Blanchard* as possessing various merits, one of which is clarification of the links between the short, medium and long run, which students can sometimes find somewhat hard to follow in the textbook of Blanchard, Amighini and Giavazzi. At the same time, Messori describes some of the criticisms of the dominant model put forward in the *Anti-Blanchard* as «empirically plausible» but based on «weak analytical justification». In particular, Messori indicates a weakness in the criticism of the standard inverse relation of monetary prices to aggregate demand. He points out that the debate on this subject has made great strides in recent years and suggests that the remarks made by Keynes long ago about the ambiguous effects of the flexibility of prices on demand do not provide adequate support for the view put forward. He then goes on to say that the weakness of the arguments against the mainstream inverse relationship between monetary prices and aggregate demand also weakens the other fundamental thesis of *Anti-Blanchard*, namely that the mark-up on costs can be influenced by monetary wage negotiations.

Messori's comments do not strike me as wholly acceptable. As a work designed for teaching purposes, *Anti-Blanchard* can obviously offer the reader no more than a very limited view of the evolution of debate on economic theory. However, its criticisms to current teaching refer to theses of great present-day relevance. Let us consider the ambiguity of the effects of price flexibility on aggregate demand. This subject has been broadly addressed in the mainstream literature in some advanced works that are characterised by precise micro-foundations and generally entail no particular assumptions about expectations. The differences with respect to the macro models based on canonical neo-Walrasian foundations regard the presence of market imperfections, information asymmetries and the heterogeneity of agents. On the basis of these hypotheses it is shown that greater flexibility of prices can accentuate the instability of the system rather than help to restore the equilibrium in the wake of a demand shock. This typically Keynesian subject, taken up again by De Long and Summers

(1986), Hahn and Solow (1995), Eggertsson and Krugman (2010) and others, is now addressed also in the sphere of DSGE models (Bhattarai, Eggertsson, Schoenle 2012). If there is an analytical weakness, it therefore appears to lie in the necessarily inverse relation of the level of monetary prices to aggregate demand found in the Blanchard, Amighini and Giavazzi textbook and typical of mainstream teaching in general. It is also interesting to note that once this relationship is admitted to be uncertain, it is no longer possible to determine the mark-up indicated in the textbook on the basis of profit maximisation in imperfect competition (see for example Blanchard and Fischer 1989, ch. 8). If this buttress collapses, however, the mainstream idea of a mark-up unaffected by wage negotiations also proves analytically fragile. Contrary to what Messori suggests, it seems therefore in the conventional determination of the mark-up that an «ideological» component could be detected.

Though unusual in the context of teaching, the objections put forward in *Anti-Blanchard* to the predominant teaching cannot therefore be regarded as wholly extraneous to the mainstream literature. But, if things are in these terms, why should the book be labelled an example of alternative economic theory? To this regard, it is important to clarify that there are in fact no prior grounds for repudiating any interpretations seeking to reconcile the essay with the prevailing approach to macroeconomics. At the same time, it should be added that such readings would limit the scale of the criticism that can be derived from *Anti-Blanchard*. The reason is that this kind of interpretations would overlook the fact that the mainstream literature always rests ultimately on the “fundamentals” of the neoclassical economic theory. Suffice it to point out that if all the imperfections, asymmetries and heterogeneities were to vanish by magic into thin air, even the most advanced mainstream models would determine equilibrium on the basis of the traditional neoclassical triad of exogenous variables: scarce resources, preferences of agents and technology available. The problem is that this way of determining equilibrium leaves numerous criticisms

unanswered on points such as the exogenous and non-observable character of individual preferences, the neoclassical theory of capital (Pasinetti 2000; Kurz and Salvadori 2008; see also Mas-Colell 1989), and the methods of temporary and intertemporal equilibrium typical of modern neoclassical theory (Petri 2004). The economists who consider these questions crucial may be able to take advantage of some buildings blocks recently developed within the dominant approach, such as the field of asymmetric information. They could also accept, for example, Messori's very interesting suggestion of a possible influence of the trend of aggregate demand on the markup. They will, however, only consider analytical tools that can be transferred into a paradigm alternative to the neoclassical and based, among other things, on a different choice of exogenous variables and hence on a different general conception of equilibrium.

But which alternative paradigm? To this regard, explicit reference is made in *Anti-Blanchard* to the concept of "reproduction" typical of classical economists, Marx and contemporary input-output and structural dynamics schemata, which today find numerous points of contact with the most advanced Post-Keynesian analyses. It is to this field of economic research that the book ideally belongs. Some specific evidence of this is to be found in the third chapter, which contains a simplified version of a recent alternative model of monetary policy theory (Brancaccio and Fontana 2012). Through a "reversal" of the logical relations contained in the well-known mainstream "rule" formulated by Taylor (1993), the model suggests that the intervention of the central bank on interest rates is not necessarily designed to control inflation but to ensure the solvency of the economic system and hence, in more general terms, its reproducibility. We can consider it as one of many examples of the fruitfulness of a comparative approach to macroeconomic theory and its renewed possibilities of application in the teaching field. The Anti-Blanchard can be interpreted as a very preliminary attempt in this direction.

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