Optimum currency areas: a policy view *

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Robert Mundell's pathbreaking article on the theory of optimum currency areas could nowadays seem an abstract intellectual exercise with no immediate bearing on the policy issues of half a century ago. On rereading his paper, however, this impression soon evaporates. In the introduction, Mundell (1961, p. 657) denies that "the question is purely academic", drawing attention to new projects of economic integration, Canada's experiment with flexible exchange rates and a better understanding of the functions of money in relation to problems of economic policy. Economic theories are often revamped when the issues they deal with become topical. The theory of optimum currency areas is a case in point. Its recent revival in connection with the launching of Economic and Monetary Union is but the latest instance of renewed interest stimulated by the process of European economic integration: in the early post-war years with the establishment of the first European institutions and the Common Market; after the publication of the *Werner Report* in 1970 and, finally, upon the signing of the Maastricht Treaty. A vast literature then grew out of Mundell's seminal paper, introducing further optimum principles.

In the last decade, however, novel theoretical developments have given the subject a new twist. In the traditional approach, optimality depends on exogenous criteria – labour mobility, openness to trade, product diversification and several others – reflecting the once-dominant Keynesian paradigm. The recent equilibrium approach instead emphasizes the endogeneity of optimality criteria, bringing the analysis of the subject into line with the new classical macroeconomics.

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These antithetical views therefore arise from different models, leading to opposite conceptions of currency area optimality. Yet this contraposition does not necessarily imply rejecting one of the alternative theories. As Mundell himself taught us long ago, economists must rely on a "reservoir of models" in order to select the one most fit to solve the problem in relation to the specific state of the world.[1] In general, the complexity of economics allows for several modelling strategies, bringing about a plurality of hypotheses, mostly non-excludable (Cesarano 2006a); even in a given historical setting, several theories can be advanced. In a sense, rather than to the 'true' model of the economy, we should resort to the best available model contingent on the state of the world. This especially applies to the policymaker who, with respect to the theorist, must consider many additional aspects in making decisions.[2]

This brief methodological digression helps to convey the message of this paper. Compared to theory, economic policy involves a lower level of abstraction. The policymaker analyses the problem he faces, weighing its manifold nature from a specific perspective. With regard to optimum currency areas, both the traditional approach and the equilibrium approach, though hinging on distinct hypotheses, can be useful to answer diverse questions – e.g., the expected net benefit of joining a monetary union, the implications of this decision at different time horizons and the role of economic policies in a currency area.

The purpose of this paper is to discuss the significance of these alternative views in relation to some specific policy issues. A library of models provides for distinct planes of analysis, helping the policymaker's decision-making process. Comparing the two approaches to the subject, this paper shows their antithetical properties (section 1) and their usefulness for solving different policy problems (section 2).

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[1] "Thus it is helpful to have on hand depression models even though the world is in a state of inflation, or growth models even if the world is retrogressing" (Mundell 1971, p. 77).

[2] As Mundell noted: "The applied theorist seeks usable theory to adapt to practical problems. Adaptation implies transformation of the theoretical form to suit the problem and specification of the data upon which policy makers have to act. The first activity gives the theoretical form relevance, while the second is an inherent component of the communications transmission mechanism. To take a journey a driver must not only have a car that works, he also needs instructions on how it runs and a road map" (1971, p. 78).

1. Alternative approaches to optimum currency areas

Researchers groping for the solution to a controversial issue sometimes serendipitously hit on a new idea about another topic. This is the case of the theory of optimum currency areas. While writing his dissertation on international trade under James Meade, Mundell strove for a critique of flexible exchange rates, which eventually led him to develop the concept of currency area optimality.[3] The starting point of his classic paper is in fact the possible failure of exchange rate flexibility to maintain internal balance in a two-country world. Following a demand shift, either unemployment could be eliminated in the deficit regions through monetary expansion or inflation in the surplus regions through monetary restriction, but not both. The solution is to redraw the countries' borders, grouping the regions where labour is mobile. It is arrived at by constructing a case which, given downward price and wage rigidity and other restrictive assumptions, is impervious to domestic adjustment.

Mundell's seminal article stimulated the introduction of other optimality criteria, but this blurred the analysis rather than clarifying it, prompting Harry Johnson to remark that "the optimum currency area problem has proved to be something of a dead-end problem" (1969, p. 395). In the 1970s, the crisis of Keynesian economics did not substantially affect the received view and the subject remained in limbo. The focus shifted to the introduction of common currencies and their viability, a more tenuous notion than optimality (Cesarano 1985). Some new arguments buttressing the case for monetary union were also put forward (Mundell 1973; see McKinnon 2004), but there was no major change in the state of the art.

Subsequent contributions based on the time consistency literature found smaller costs of forsaking monetary policy autonomy and greater benefits from enhanced inflation credibility, thus reinforcing the case for monetary integration. However, more than three decades after Mundell's pioneering paper, the traditional approach still held

[3] See his own detailed reconstruction, a fascinating account of scientific discovery (Mundell 1997). After the war, flexible exchange rates, championed by Friedman and Meade, gained favour as the solution to the latent difficulty of reconciling fixed parities with the quest for full employment, a major weakness of the Bretton Woods monetary order.

sway.[4] The search for further optimality criteria actually boiled down to a case-by-case analysis. Since each of these criteria potentially is a sufficient condition for optimality, though none of them is a necessary condition, hunting for new optimality criteria in order to reach a definitive solution proved to be a mirage, producing a theoretical stalemate, a sort of doctrinal hysteresis. Although the new classical macroeconomics held sway, the theory of optimum currency areas remained grounded in a Keynesian-inspired disequilibrium analysis.

The contrast between classics and Keynesians essentially springs from a different assessment of the self-adjusting property of the economy.[5] The classical model, characterized by the absence of frictions and little room for stabilization policy, leads to a straightforward solution: the optimum currency area is the world. As Mundell (1961, p. 662) observed, the classics considered the stabilization argument for full employment quite irrelevant and the multiplication of currency areas as weakening the functions of money. Hume's specie-flow mechanism, underlying the classical solution, sees to the adjustment of imbalances and the international distribution of money. Obstacles such as the great distance dividing Europe from Asia may hamper adjustment[6] but, nonetheless, self-interest drives towards equilibrium inside a country and even in an extensive empire.

> "We need not have recourse to a physical attraction, in order to explain the necessity of this operation [of international money flows]. There is a moral attraction, arising from the interests and passions of men, which is full as potent and infallible.

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[4] Useful surveys are Ishiyama (1975), Tower and Willett (1976), Kaway (1987) and Tavlas (1993). For a comprehensive review including recent developments, see Mongelli (2005).

[5] In a radio broadcast anticipating the message of the *General Theory*, Keynes (1934, p. 487) answered negatively to the rhetorical question "Poverty in plenty: is the economic system self-adjusting?", countering the classical viewpoint epitomized by Lionel Robbins. "Professor Robbins [...] stresses the effect of business mistakes under the influence of the uncertainty and the false expectations due to the faults of post-war monetary systems. These authorities do not, of course, believe that the system is automatically or immediately self-adjusting. But they do believe that it has an inherent tendency towards self-adjustment, if it is not interfered with and if the action of change and chance is not too rapid".

[6] "[A]s any body of water may be raised above the level of the surrounding element, if the former has no communication with the latter; so in money, if the communication be cut off, by any material or physical impediment, (for all laws alone are ineffectual) there may, in such a case, be a very great inequality of money" (Hume 1752, p. 64).

> How is the balance kept in the provinces of every kingdom among themselves, but by the force of this principle, which makes it impossible for money to lose its level, and either to rise or sink beyond the proportion of the labour and commodities which are in each province? [...] What happens in small portions of mankind, must take place in greater. The provinces of the Roman empire, no doubt, kept their balance with each other, and with Italy, independent of the legislature; as much as the several counties of Great Britain, or the several parishes of each county. And any man who travels over Europe at this day, may see, by the prices of commodities, that money, in spite of the absurd jealousy of princes and states, has brought itself nearly to a level; and that the difference between one kingdom and another is not greater in this respect, than it is often between different provinces of the same kingdom" (Hume 1752, pp. 65-66).[7]

The success of Keynesian economics cast serious doubt on the equilibrium hypothesis and overshadowed the classical view of international adjustment. The malfunctioning gold standard, widely thought to have intensified and propagated the Great Depression, was then regarded as a rigid monetary rule bringing about disequilibrium and unemployment. Mundell (1961, p. 660), likening interregional adjustment to the gold standard, stressed the emergence of domestic imbalances unyielding to adjustment forces. The re-establishment of equilibrium thus required a policy measure, i.e. redesigning currency areas. This result and the classical recipe of a world money are polar solutions, reflecting the extreme assumptions of virtually nil and very high adjustment capacity.

The present discussion is not a mere exercise in doctrinal history but seeks to show that conflicting conceptions of currency area optimality basically depend on the acceptance or not of the equilibrium hypothesis and the related properties of the adjustment mechanism. The modern equilibrium approach is in line with the classical view. Equilibrium forces, grounded in rational behaviour, foster those features defining the optimality criteria that, far from being exogenous characteristics, emerge from the operation of a currency area and are therefore en-

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[7] In the second paragraph of this quotation Hume, contrary to the standard interpretation of his theory, abides by the law of one price. For a detailed analysis, see Cesarano (1998).

dogenous.[8] However, as distance was deemed by Hume an impediment to adjustment, other kinds of obstructions, chiefly the national border, should likewise be considered. The effectiveness of the self-adjusting properties of the economy is conditional on the absence of obstructions. The equilibrium approach, when appropriately interpreted, is therefore distinct from either a frictionless or a quite rigid world underlying the classical and the Keynesian paradigm respectively.

The countries' border should be thought of not as a mere physical obstacle, but as a basic characteristic of the economy having three main implications. First, inside the country the agents' information set is relatively larger, which heightens the effectiveness of the adjustment mechanism (Cesarano 1997 and 2006c). Considering labour mobility, for instance, people assess the decision about domestic migration more swiftly and with less uncertainty, given the greater availability of information. This principle extends to the mobility of goods and other factors of production between regions and industries. Hence, equilibrium forces do not simply alleviate temporary imbalances, but efficaciously tackle the problem of resource allocation on which long-run adjustment turns. As Friedman noted in his classic paper on flexible exchange rates (1953, p. 182):

> "The ultimate adjustment to a change in external circumstances will consist of a change in the allocation of productive resources and in the composition of the goods available for consumption and investment".

Second, parallel to these theoretical aspects, a common legal and institutional framework also enhances optimal resource allocation. Following Douglass North, a competitive market economy does not function *in vacuo* but needs a set of institutions, which are of course uniform inside national borders. This factor too entails an increase in information, albeit indirectly, thus influencing economic decisions. For instance, direct investment in a foreign country becomes domestic investment after that country joins a politically integrated currency area, with obvious implications for investors' choices. This is but one example among many of how a common institutional setting enhances the decision-making process underlying resource allocation.

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[8] For a recent analysis of the notion of endogeneity, see de Grauwe and Mongelli (2005).

Third, since we do not live in a world of complete information, various kinds of friction and rigidities hamper instantaneous adjustment, heightening the role of economic policy. Fiscal and regional development policies, in particular, have been invoked to smooth transition from one equilibrium to another, tackling both temporary and structural imbalances.

The significance of the border is therefore manifold, bearing on theoretical, institutional and policy facets of currency areas. The modern approach points out the effectiveness of adjustment within a country, putting currency area optimality back in the sphere of equilibrium theory. The traditional approach, instead, analysed a number of optimality criteria, each related to a specific adjustment channel, but none of them providing for a general hypothesis. The multiplicity of different yet equally plausible criteria not only poses the problem of choosing between them, but can give rise to paradoxical results. As Frankel noted (1999, p. 26), if trade integration induced countries to specialize more in production, incomes would be less correlated. The pursuit of diversification would then spur the design of ever larger currency areas, eventually leading to a world money. If, on the contrary, individual regions were not sufficiently diversified, they would be prompted to split into smaller units which, however, would be even less diversified, leading to ever smaller units. Yet this paradox contrasts with both formal empirical findings, corroborating the hypothesis that income correlation positively depends on trade integration (Frankel and Rose 1998), and casual empiricism which rules out corner solutions. In fact, as a world currency is not a reality in a fiat money context, a minute fragmentation of national currencies is not observed either: tiny countries – Liechtenstein, Monaco and the like – always form a monetary union with a larger neighbour because the costs of setting up their own currency are not matched by the benefits of an independent monetary policy or any other advantages.

The difficulty of modelling an interior solution actually stems from the very notion of optimum currency area as theorized by the traditional approach, in that the static analysis of potentially conflicting optimality criteria resolves into a will-o'-the-wisp. The modern approach instead builds on an equilibrium model, stressing the endogeneity of optimality criteria. The impact of the countries' border on agents' behaviour, institutions and economic policies bears heavily on the notion of optimum currency areas. This does not mean that the

observed political geography defines the optimum, but rather that, once borders are set, it is hard to move away from equilibrium. There is a clear analogy with the reluctance to abandon the circulating money, even in periods of hyperinflation (Friedman and Schwartz 1986, p. 44). In both cases, the costs of forsaking the existing monetary mechanism are immediately perceived and are not offset by the uncertain, prospective benefits. Thus, the prevalence of the 'one country, one money' configuration is no mere political accident, but is accounted for by economic theory. In fact, Jeffrey Frankel's acute remark (1999, p. 16),

> "It is striking that, although in theory, the boundaries of political units and optimal currency areas need not coincide, in practice, they almost always do",

is actually explained by the equilibrium approach.

2. A policy view

Frankel's graphic observation recalls the neglected post-war literature on monetary unions which, though failing to develop a fully-fledged analysis of optimality, anticipated Mundell's hypothesis and tackled several policy issues that are still debated today. The analysis of monetary unions is the dual of the theory of optimum currency areas: while in the latter the objective is to find out the criteria for optimally redrawing the borders of currency areas, in the former the extension of the monetary area is given and the question is whether it squares with the optimality criteria. Beginning in the early 1950s, the efforts towards European economic integration stimulated the theoretical debate on monetary unification. Meade and Scitovsky probed the subject in depth. Contrasting the smoothness of interregional adjustment with the cumbersome international adjustment process, they pointed out several factors – goods and factor mobility, fiscal and monetary policies, regional development measures, an integrated capital market and a common banking system (Meade 1953, pp. 41-43; 1957, pp. 385-87; Scitovsky 1957, pp. 19-21 and 24-31; 1958, pp. 97-99) – that explained the negligible impact of money flows on output and employment with-

in a country compared with the costly adjustment between countries under the gold standard.[9]

Interestingly, though they shared the same theoretical apparatus, Meade and Scitovsky suggested opposite solutions for implementing European monetary unification. Both argued that making all the above-mentioned adjustment factors operative in a monetary union was tantamount to establishing a supranational government. But, while Meade considered such a change unfeasible in the short run and suggested a gradual strategy, Scitovsky viewed the early circulation of a common currency as a means to accelerate economic integration.[10] In his classic paper, Mundell (1961, section IV) discussed the issue, concluding that the dispute could be reduced to an empirical question, i.e. whether or not there was a high degree of factor mobility in Western Europe.

In contrast with Mundell, the equilibrium approach considers the optimality criteria as endogenous, not as inborn features of the economy. Thus, the modern approach is, at a certain remove, related to the early post-war literature, which accounts for the effectiveness of domestic adjustment by the integration of goods and factor markets and the presence of an economic policy authority. Both these features originate in the existence of borders. The point may seem obvious, but as shown in section 1, it carries momentous implications for the theory of optimum currency areas.

The development of diverse approaches does not necessarily compel us to accept only one of them and reject the others. Depending on the nature of the problem and the institutional setting, the adjustment properties of the economy can fit the theoretical benchmark of the equilibrium hypothesis more or less closely. Different assumptions reflecting those properties therefore suggest different modelling strategies. To take a striking example, it is a commonplace that within a country the effects of money flows are inescapable but, while for Mundell (1961, p. 660) this heightens domestic imbalances, for other economists – Lerner (1944, pp. 375-77), Friedman (1953, p. 193, n. 16),

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[9] The origins of the literature on optimum currency areas can be traced back to Lerner (1944 and 1947). For a close examination, see Cesarano (2006b).

[10] In the 1970s, the same contraposition reappeared under the improperly defined division between 'economists' and 'monetarists'. The recent introduction of the euro reflects the latter's view and, ultimately, the strategy of using the fulcrum of the common currency for political unification in Europe.

Meade (1957) and Scitovsky (1958) – it makes interregional adjustment highly effective. That these clashing results are derived from the same hypothesis, the specie-flow mechanism, seems puzzling. But weighing the alternative interpretations of a crucial assumption, i.e. the presence of obstructions to adjustment, solves the puzzle: Mundell considers regions located in different countries, thus severed by the border, a condition that hampers adjustment and requires redrawing currency areas to achieve internal balance, while Lerner *et al.* focus on regions within a country, arguing that the effectiveness of equilibrium forces inside the border eases adjustment and does away with domestic imbalances.

The usefulness of different theoretical frameworks emerges especially in connection with policy issues raised by the introduction and the viability of a common currency. In this respect, two main distinctions can be drawn between, on the one hand, the transition to monetary union and its full operation and, on the other, a currency area composed of sovereign countries and a common money circulating in a politically unified territory – or, in short, between monetary union and political union.

The transition stage involves a once-and-for-all adjustment from one equilibrium to another. Extending the functions of money to a larger area generates benefits that are non-rival in consumption, a characteristic of public goods stemming from the nature of money (Hamada 1977, pp. 16-17). Yet each country loses the monetary policy instrument and experiences a temporary deceleration or acceleration of monetary aggregates. In general, while benefits are spread over all participants, costs fall unevenly on each of them.

The outcome of transition depends on the initial conditions: the economies involved may be more or less divergent. The traditional approach to optimum currency areas, by focusing on the optimality criteria *ex ante*, is suitable to appraise such conditions. The evaluation of goods and factor mobility, variability of inflation rates and other criteria helps to assess the starting point of the integration process as well as the costs of transition. This proposition has been corroborated by de Grauwe's (1992) empirical findings contrasting German monetary unification with the Polish experience. While East Germany suffered a sharp fall in output, Poland, which maintained its own currency, smoothed the process of economic liberalization by using the exchange rate. This is precisely the recipe prescribed by Meade (1957) in order to arrive at monetary unification gradually, without suffering

unemployment and income losses. Limited to the short-run transition stage, therefore, Mundell's suggestion to estimate the degree of labour mobility is appropriate. *Ex ante*, the closer are the monetary union's economies to the optimality criteria, the smaller will be the adjustment costs of the introduction of the common currency.

This general principle applies to various aspects of the transition stage, each linked to an optimality criterion. Hence, strong integration of goods and factor markets enhances price equalization in the currency area and flexibility in resource allocation, accelerating the process of economic convergence. Market integration also affects trade between member countries, which, given the positive relationship between trade integration and cyclical correlation, strongly affects the smoothness of the transition to monetary union. Moreover, lack of segmentation in financial markets heightens risk-sharing. A final point concerns economic policy, and particularly fiscal policy, which can play a key role, witness the recent experience in Germany, where the fall in income in the East was offset by large budgetary transfers (de Grauwe 1992, p. 449).[11]

The last aspect brings us to the second distinction between monetary union and political union, which reflects the actual origins of common currencies. With the exception of tiny countries, currency areas are brought into being either by the deliberate choice of a group of nations or by political unification, Europe's EMU and German monetary unification being the main recent examples respectively. On the basis of historical evidence, Bordo (2004) contends that only the latter survive while the former inevitably collapse. To account for this stylized fact, it should be emphasized that the difference between monetary union and political union is a difference in kind, not in degree. Just as a fixed exchange rate regime is quite distinct from a monetary union, the latter is quite distinct from fully-fledged political unification. In these cases, the diverse features characterizing the monetary order increasingly approximate an equilibrium model.

[11] In this connection, Scitovsky's call for the immediate establishment of monetary union, in opposition to Meade's gradual strategy, rests on the assumption that a common currency facilitates the integration of the real and financial sectors. Nevertheless, in line with the then-dominant Keynesian paradigm, Scitovsky (1957, pp. 35-36) calls for a supranational authority to implement fiscal policy aimed at full employment.

The viability of monetary union presumes a frictionless world, in which information is so largely available that the arrangement mimics the properties of an equilibrium model, swiftly solving any eventual disequilibria. Viewed in a historical perspective, these assumptions are even stricter than those underlying the gold standard, whose rules allowed the temporary suspension of convertibility in case of large imbalances. At the same time, the obligation to return to the gold parity enhanced credibility, which decisively contributed to the long life of the gold standard, spanning almost half a century. In a monetary union, even the gold standard's limited leeway is disposed of. Thus, monetary union is a stiff and yet fragile construction because it exacerbates the adjustment problem inside the currency area and lacks an economic policy authority. Absent political unification, if market rigidities and national regulations prevail, the real and financial sectors will not respond to the need for integration, thus hindering convergence to the optimality criteria.[12]

The long-run effects of monetary unification are best analysed by the modern equilibrium approach, emphasizing the endogeneity of optimality criteria. However, the maintenance of national borders hampers the adjustment mechanism in various ways, substantially affecting agents' behaviour, the legal and institutional framework and the scope of economic policies, thus undermining currency area optimality. The prudent conclusion "of moderate optimism" reached by de Grauwe and Mongelli (2005, p. 29) about the endogeneity of four optimality criteria in the euro area – integration of prices and trade, financial integration, symmetry of shocks and product and labour market flexibility – may be ascribed to the maintenance of national borders. Certainly, the optimum currency area criteria have to be appraised *ex post*, but the integration process requires a considerable span of time, measured

[12] With regard to the pernicious effects of national regulations in Europe, a recent story in *The Economist* (2006) is quite telling. In order to slash the price of cross-border mobile calls, which yield margins above 90%, a EU commissioner proposed a "home pricing" scheme, which would abolish charges for incoming calls and compensate for the loss of roaming fees by raising prices everywhere. Yet, this scheme would induce consumers to sign contracts abroad at lower prices and bring them back home. Also, it would have the perverse effect of reducing prices for international business travellers while increasing them for most consumers. This story graphically shows how considerable the border effects can be. Moreover, it is ironic that the suggested solution to the negative impact of these effects on optimal resource allocation is the call for other regulations, which further distort resource allocation.

in decades, not years.[13] Hence, the impact of monetary union on the economies of the member countries may be substantial even in the presence of political unification, witness the recent German experience, buttressing the relevance of Mundell's analysis.

As argued in section 1, the antithesis between the traditional approach and the modern approach ultimately depends on whether the equilibrium hypothesis is rejected or not. These contrasting theoretical views are always considered as mutually exclusive. Yet, from an economic policy standpoint, both theories can be useful to tackle different problems in different states of the world. This is not unusual in economics, a discipline characterized by the non-excludability of most hypotheses (Cesarano 2006a). Theories that had been disparaged or discarded have later been revived, like Keynes's liquidity trap to account for monetary developments in Japan during the past decade.

Upon establishing a currency area, the initial response and the pace of integration depend on the actual characteristics of the participating economies relative to the optimality criteria. In this respect, the traditional approach, based on the static, disequilibrium model of Keynesian economics, is most suitable. On the other hand, the analysis of the long-run viability of a common currency, especially in the case of political unification, should be grounded in the dynamic, equilibrium model of the modern approach akin to classical economics. In this case, the lack of obstructions enhances long-run equilibrium, bringing about the emergence of the optimality criteria. By removing national borders, political unification naturally heightens the effectiveness of equilibrium forces through the abundant availability of information, the common institutional framework and the substantial powers of the economic policy authority.

3. Conclusions

Robert Mundell's seminal contribution stimulated the introduction of several optimality criteria which, though shedding light on the subject, eventually made the analysis more elusive. To paraphrase the title of

[13] With regard to the trade-creating effects of monetary union, Rose (2004) suggests a period of about 15-20 years.

Pirandello's famous play, optimum currency areas became a "character in search of an author". In the past decade, an alternative view emphasized the effectiveness of adjustment within a currency area, considering the optimality criteria as endogenous. In the economist's box of tools, however, there is place for both theories to analyse different situations and policy issues. Going to extremes, if agents' information set is very small and adjustment capacity quite limited, the traditional approach should be resorted to; *mutatis mutandis*, the equilibrium approach should be followed.

In general, all equilibrium propositions hinge on simplifying assumptions. For instance, the Modigliani-Miller theorem assumes no taxes and transaction costs and a large information set. The latter is especially essential to the validity of equilibrium models: the more we move away from it, the less relevant equilibrium propositions become. Equilibrium hypotheses therefore provide a theoretical benchmark against which the actual features of the economy must be evaluated, in order to arrive at the most appropriate model.

The subject of optimum currency areas is a case in point. The impact of establishing a common currency may be substantial, depending on the initial conditions of the participating economies. The transition to and the stability of the new equilibrium essentially depend on the area's capacity for adjustment, whose speed and effectiveness are influenced by several factors and hindered by various kinds of obstructions. The positive appraisal of EMU, boosted by the spread of the new classical macroeconomics, should therefore be tempered in view of the implications of maintaining national borders, an important obstacle to the emergence of the optimality criteria. A certain degree of eclecticism is thus needed to select the model yielding correct predictions, between the poles of Mundell's pathbreaking paper and the modern equilibrium approach.

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