# Franco Modigliani and the Socialist State

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ABSTRACT *Franco Modigliani was one of the main architects of the neoclassical synthesis between Keynes's principle of effective demand and the orthodox theory of value and distribution. Modigliani, a refugee from Mussolini's fascist regime, received his doctorate from the Graduate Faculty of The New School for Social Research in 1944, with a dissertation that provided an important cornerstone of the postwar neoclassical synthesis. His career bridges two worlds—orthodox economics and the progressive tradition associated with the Graduate Faculty. Early in his career Modigliani published a little-known article on "The Organization and Direction of Production in a Socialist Economy." The article was written in Italian; Modigliani never published an English version of it, and indeed never referred to it until the publication of his autobiography shortly before his death. The paper argues the case for socialism, along lines laid out by earlier market socialists like Abba Lerner and Oskar Lange. Modigliani's aim appears to have been to lay out a practical guide to implementing a socialist program that could actually work; such a program would have to make use of the coordinating properties of the price system.*

Franco Modigliani was an architect of the postwar Keyensian tradition that dominated macroeconomic thinking until the mid-1970s. His foundational contribution, an elaboration and extension of Hicks's IS–LM model, was written as a doctoral thesis, under the supervision of Jacob Marschak and Adolph Lowe, at the Graduate Faculty of the New School for Social Research. The thesis was published virtually without alteration shortly after its completion (Modigliani, 1944), and it had a profound impact on the teaching of macroeconomics and on policy discourse over the next three decades. The article is a first-rate analytical performance, an impressive achievement for a newly-minted PhD just barely 25 years of age.

The Graduate Faculty, or the University in Exile as it was originally called, had been founded in 1933 as a haven for European social scientists under threat of dismissal or persecution after the rise of fascism. The core of the original faculty were a group of German-speaking economists, including Gerhard Colm, Emil Lederer, Frieda Wunderlich, Arthur Feiler and Eduard Heimann. Alfred Kähler and Fritz Lehmann came in 1934. Jacob Marschak arrived in 1939 via Oxford; Adolph Lowe, via the University of Manchester, in 1941; and Hans Neisser, via the University of Pennsylvania, in 1943. A distinguishing feature of the work of this first generation of New School émigré economists was its focus on economic dynamics and structural change.

The economics faculty of the University in Exile was comprised of individuals who had reached intellectual maturity during the Weimar renaissance. A number of them had held administrative or advisory positions in the Weimar Government. The general orientation of the Faculty was progressive, and many of its founding members had been associated with the 'Kiele Schule' of German reform economics. Gerhard Colm had headed the Statistical Laboratory at the University of Kiel. Alfred Kähler had been a member of the faculty at Kiel. Lowe was Director of Research at Kiel's Institute of World Economics when he was dismissed; Neisser had been Deputy Director of Research at the same Institute. Lederer, though never formally associated with the University of Kiel, had been working along similar lines as Neisser and Lowe.

Their education had included Marx. Neisser, Lowe, Lederer and Heimann in particular appreciated Marx for his sociological analysis and for his penetrating critical insights. But they were not Marxists.[1] Toward Soviet-style communism they were unsympathetic and skeptical. They were social democrats and, in varying degrees, advocates of economic planning. One hallmark of the Kieler Schule had been an appreciation that market forces cannot ensure humane and progressive social outcomes; another was their confidence in the ability of a wisely managed state to accomplish what undirected market forces could not. Fascism of course taught them a painful lesson about the destructive potential of the state, and many of their post-emigration writings reflect a unique sensitivity to the difficulties of balancing the state's role as an agent of progressive reform against its capacity for repression.

The New School economists were never, during this early period, antipathetic to orthodox theoretical economics, though they were conscious of its limitations and skeptical of the generality often claimed for its propositions. Neisser, Lederer, Marschak and, at this time, even Lowe were testing and attempting to extend the limits of neoclassical economics. In this respect they were merely carrying forward the research programs they had been developing prior to exile. In their pre-emigration work Neisser and Lederer, for example, had questioned conventional propositions about the impact of technological change on employment. They rejected the standard claim that workers displaced by new technologies would quickly be re-employed owing to subsequent wage reductions and the expansion of the investment goods sector. Their criticisms emphasized sectoral imbalances (Lederer,

[1] Heimann's undogmatic assessment (1937, pp. 33–34) is illustrative: "Marxian economics appears to be infinitely superior to modern orthodox theory in its sense of reality. Marx grasps the kernel of reality, its pressing problems and fundamental changes, the transformation of small scale production into large scale, the corresponding conglomeration of formerly independent workers as dependent laborers, the related transformation of a smoothly working competitive market into a market hampered by manifold monopolistic elements.... [Nevertheless Marx's] labor value theory is, first, logically untenable, second, inapplicable to the practical problems arising within capitalism, [and] third, unnecessary for the true objectives of the Marxian theoretical problem...."

1931) or problems of capital shortage (Neisser, 1932) neglected in standard discussions, as well as the possibility of harmful recursive effects of wage reductions on aggregate demand and employment.

They advocated not the abandonment of orthodox analytical tools, but the more competent and more imaginative use of those tools.[2] Neisser, despite his reservations about the conventional analysis of unemployment, nevertheless maintained that

> [t]he theory of marginal productivity captures a fundamental economic phenomenon, namely the possibility of partial substitution between capital and labour.... When combined with the system of equations developed by the followers of Walras, *the theory of marginal productivity thus permits the closest approximation to economic reality that is possible on the grounds of the rational theory of a market economy* (1932, p. 150; emphasis added).

Even after the publication of Keynes's *General Theory* (1936), Eduard Heimann (1945) emphasized the centrality of scarcity, and he viewed the market as an institution that allocates resources according to the mechanisms that comprise the standard theory of Supply and Demand. But Heimann, Lederer, Neisser and Lowe also recognized the relevance to modern problems of the theoretical approach pioneered by the classical economists and Marx—an approach which focused on technical change and on structural

[2]Neisser, a later collaborator with Modigliani, wielded orthodox concepts with uncommon virtuosity. In an early paper, for example, he analyzes the compensation issue by examining how technical progress affects the marginal (revenue) product of labor under different circumstances. He describes "the basic mistake in the orthodox view on unemployment" as follows: 'According to [the orthodox] view, capitalist development consists mainly of a secular process of increases in capital intensity, associated with a continuous reduction in the interest rate.... Why should it not be possible to reverse this process? By increasing the interest rate and reducing wages, full employment could be re-established. The error in this view is that it regards as a simple process of increasing capital intensity what is in fact a combination of increasing capital intensity, on the one hand, and advances in technology, on the other. Advances in technology change both the levels and shapes of the revenue curves.... The history of capitalism is characterized by a complex sequence of such technological advances, stretching over centuries; it requires more than variations in interest rates and wages to reverse this process.' Thus, he concludes, 'Unemployment as a necessary result of displacement is characteristic of a specific historical phase of capitalism' (1932, pp. 160–161).

features of the economic system, such as the class distribution of income and sectoral complementarities in production.

The attitude of the émigrés mirrored that of the great Italian economist Maffeo Pantaleoni, who maintained that there are only two schools in economics: to the first belong those who understand economic reasoning, while the second is comprised of those who do not understand it. The approach they adopted was critical and methodologically eclectic, drawing not only on the standard box of tools but also on classical insights and on the literature of sociology, political science and philosophy, fields to which the economists made a good number of their own contributions.

In the area of pure theory, Lederer, Lowe, Marschak and Neisser addressed problems relating to stability and economic dynamics. Neisser continued his work on monetary economics and unemployment. A detailed survey of the theoretical contributions of the New School economists is not possible here. We might note, however, the lack of enthusiasm with which they greeted Keynes's *General Theory* (1936). Neisser (1936) and Lederer (1936) wrote lukewarm reviews that expressed broad support for Keynes' emphasis on the role of effective demand. Neisser had recently put forth his own critique of Say's law of markets (1934), and he considered the main contribution of *The General Theory* to be its refutation of that doctrine. Although he describes Keynes's book as "a most important step forward in the theory of 'dynamics'" (1936, p. 459), Neisser was critical of much of its content. Keynes, first of all, ignores important phenomena that enter into the determination of the level of employment: He supposes that full capacity utilization entails full employment, and he overlooks the possibility that the capital stock, even if fully utilized, might be insufficient to give employment to all of the available labour; moreover, Keynes neglects even to mention technological unemployment. Neisser was critical of Keynes's treatment of expectations, and he was not persuaded by Keynes's argument that a gradual decline of wages would lead entrepreneurs to expect a decline of profits, and therefore to curtail investment. He had doubts also about the analytical soundness of the multiplier mechanism, an element of Keynes's theory which he believed had attracted more interest than it deserved (cf. Neisser 1946). Lederer, for his part, calls *The General Theory* an "unusually rich and stimulating book" (1936, p. 478); but he criticizes Keynes for ignoring important structural considerations, such as the technical interconnections between the consumers' goods and producers' goods sectors. Lederer also notes the parallels between Keynes'p arguments and (i) earlier trade cycle literature (1936, p. 481) and (ii) Marx's analytical system (*ibid.*, 485-487).

The Graduate Faculty contributed little to the explosion of literature on money, interest and effective demand that was triggered by Keynes's book. A plausible explanation is that, having dealt with the same issues themselves in their pre-emigration work, Neisser, Lederer and Lowe saw *The General Theory* as an important and interesting, if somewhat muddled, variation on a familiar theme; this is in fact the impression one gets from the reviews by Neisser and Lederer.[3] Similarly, Adolph Lowe throughout his career exhibited remarkably little scientific interest in monetary problems. He was dismissive of monetary explanations of crises, arguing that monetary factors could only amplify somewhat the peaks and troughs of a cycle that was set in motion by altogether different, non-monetary causes.

[3]Cf. Neisser (1936, p. 459): "There is nothing in [Keynes' theory] that is incompatible with orthodox doctrine; the difference lies mainly in the views about the conditions of investment." In a later appraisal, written on the occasion of Keynes's death, Neisser (1946) adopts a more admiring tone. But Neisser's description of the model of *The General Theory* minimizes the degree to which it represented a break from the traditional neoclassical theory.

In this respect at least, Lowe's preoccupation with the productive structure of the economy appears to have been a little myopic. The role of financial markets in fueling speculative booms and triggering large-scale economic crises is perhaps more starkly obvious in 2005 than it was in the early decades of this century; but Hayek was probably not wrong to think that dysfunctional monetary arrangements had something to do with the economic crises of the 1920s and '30s, even if his particular diagnosis and the suggested remedy were unsound. Lowe seems also to have been unimpressed by Keynes's *General Theory* perhaps in part because that work emphasized monetary rather than structural factors in its explanation of mass unemployment.[4] The émigrés appear to have believed that what was interesting in *The General Theory* had already been known to themselves in the 1920s, and to Marx even earlier. The shift of focus away from technological unemployment and structural theories of cyclical fluctuations struck them as a step backwards, and the New School economists, by and large, sat out the Keynesian revolution. When mainstream Keynesianism clashed with monetarism the émigrés stayed out of the debate. Their near silence on these issues may have contributed to the decline of their influence after 1945.

This is the context within which Modigliani wrote his pathbreaking 1944 paper. Curiously, perhaps, Modigliani's paper, and indeed the entire corpus of his work, exhibits little of the structural and dynamic concerns that motivated economists like Lederer, Neisser and Lowe.

A few years after the publication of his 1944 paper, Modigliani published a little-known article on "The Organization and Direction of Production in a Socialist Economy" (1947). The article was written in Italian; Modigliani never published an English version

[4] Lowe remarks in *The Path of Economic Growth* (1976, p. 22) that "the Keynesian model is too highly aggregated' to accommodate the problems that interest him.

of it, and indeed appears never to have referred to it until the publication of his autobiography shortly before his death. The paper, which runs to 75 pages, argues the case for socialism, along lines laid out by earlier market socialists like Abba Lerner and Oskar Lange. Modigliani's aim appears to have been to lay out a practical guide to implementing a socialist program that could actually work; such a program would have to make use of the coordinating properties of the price system. At the outset Modigliani remarks that the economics of socialism—the literature initiated by Enrico Barone's "classic study" on "The Ministry of Production in a Collectivist State" (1908)—is among "the most interesting and promising" developments in economic theory. He indicates in an opening footnote that "The present study is part of an unpublished work whose purpose is to lay out the fundamental principles of the modern economic theory of a socialist state" (1947, p. 441); yet nowhere else in his subsequent work did Modigliani address these issues: the project appears to have been abandoned. The 1947 paper contains few references to the literature, and it is perhaps worth noting that most of the literature cited by Modigliani is on the socialist side of the debate—Lange, Lerner, H. D. Dickinson, James Meade. Of the critics of socialism, Modigliani mentions only Pigou; there is no discussion of Hayek, Mises or any other critic from the Austrian camp.

Modigliani opens the analytical argument with a summary of the basic elements of welfare economics, drawn from Hicks (1939) and Lange (1942). The organizing principle is standard welfare economics grounded in the notion of Pareto optimality. A particular situation satisfies the conditions for maximum collective economic wellbeing if no economic agent can be made better off without making some other agent worse off.[5]

[5] Modigliani states explicitly that such a position represents a welfare maximum, which is not precisely true. A position of that type is "optimal"—"efficient" is a better way to describe it—in

He goes on to distinguish between two types of economic decisions, which he calls decisions of Type A and Type B. Type A decisions are those in which at least one of the available alternatives involves an unambiguous Pareto improvement, so that social welfare can be increased by reallocating resources in such a way that some agents benefit while none are harmed. It follows that "a characteristic of choices of types A is that they are economically determinate" (1947, p. 443). Type B choices, however, involve situations in which "every one of the alternatives improves the position of some but only by worsening that of others. In this case the strictly economic criterion is not sufficient to obtain a decision and it is necessary to make use of extra-economic criteria, be they moral, political, social etc. Therefore Type B choices are economically neutral. The economist can only indicate his personal preference, and the function of economic theory consists, at most, in determining the economic consequences of each possible choice…" (1947, p. 443).

Type A decisions are apt to be extremely rare, Modigliani notes, since almost all economic adjustments have the effect of benefiting some agents while harming others. But the possibility of compensating the injured parties can enlarge the class of Type A decisions significantly. Here Modigliani rehearses the standard neoclassical argument that a change in which indemnification would leave some parties better off and none worse off meets the criteria for a Type A decision and therefore merits implementation, even if indemnification is not actually made. But, he cautions, this rule ought to be applied with considerable care, "given that the constancy of income and of economic conditions in general is probably a value in itself. It would therefore be preferable not to

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the very narrow sense described by Pareto, but there is no reason to think that it will be consistent with the "maximum" sum of social wellbeing in any meaningful sense of that expression.

implement changes that produce considerable redistributions of income, if the gain would supercede the indemnity by a small margin; while if the net gain were considerable, it would be advisable to proceed with the indemnification of the damaged parties" (1947, pp. 444–445).

Modigliani's starting premise is that "the intelligent and efficient use of economic resources to satisfy collective needs [under socialism] is impossible in the absence of a system of prices analogous to that of the capitalist system. For prices furnish the only objective criterion for evaluating the economic needs of the collectivity and for determining the most efficient way to satisfy them" (1947 p. 448). He identifies the conditions that must obtain in order for an economy to achieve "maximum" social welfare: (1) Individuals must be permitted to dispose of their incomes as they wish, and prices must be free to adjust to bring quantity demanded into line with the quantity available. (2) Individuals must be free to choose their own occupations, subject to the requirement that they meet the qualifications for the job; here again, the prices of productive factors must be established "on the basis of the principle that demand be equal to supply." (3) The techniques of production must be selected with a view to minimizing the total cost of production. (4) Marginal cost pricing. Modigliani notes early in the paper that "the system of private enterprise often fails to secure the employment of all of the available quantity [of every factor]. And indeed cyclical and chronic unemployment is surely the most serious defect of this system" (1947, p. 446). He goes on to point out that these conditions are met only under perfect competition, which rarely obtains; from this he concludes that there is a strong case to be made for the socialization of production.

But Modigliani is emphatically committed to the allocative merits of the price system, and to principle that a well-functioning socialist system must be grounded in neoclassical value theory:

> The usual widely repeated phrases, such as “production for consumption and not for profit” or “the firm must be run for the general interest” are completely devoid of meaning where they are not given concrete form in precise, objective and verifiable rules. The capitalist system functions, albeit with many inefficiencies, because those who direct the firm have a precise task to perform: to maximize the firm’s profits.
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> But if the socialist State, after having socialized its enterprises, offers to the firm’s director only a vague ethical principle to guide his actions, the economic machine will either function in an altogether arbitrary manner or it will not function at all.
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> It is the merit of economic theory to have shown how these nebulous slogans can be translated into concrete principles and rules of action. (1947, pp. 447–448).

He rejects the idea that the principle of profit maximization is indispensable to economic efficiency: the profit rate does not enter into any of the four conditions or rules he mentions for collective welfare maximization. On the contrary, he goes on to argue that there are numerous circumstances in which the goal of profit maximization comes into conflict with the collective interest (as when monopoly elements are present), and in these circumstances the improvements in social welfare require that means of production be socialized (1947, p. 448).

Modigliani proceeds in the paper to set out a system of institutions and rules by which a socialist system will be able establish the “maximum” collective wellbeing compatible with the limited resources available to the community. Among the issues he discusses in careful detail—indeed in fuller detail than any predecessor other than Abba Lerner (1944)—are: the task of firm managers under socialism; income distribution, and in particular the question of how to minimize inequality without losing the efficiency gains that emerge when pay differentials channel labor into occupations that have the greatest value to society; the socialization of investment decisions; the promotion of innovation and technical progress; the relation between the program he outlines and the actually existing collectivist system of the Soviet Union (which he deemed an unmitigated failure); the implications of Keynes's economics for socialist economies; and the budgetary and financial dimensions of the socialist State. I will briefly discuss Modigliani's treatment of these issues.

[to be inserted]

In his autobiography, Modigliani (2001) mentions his 1947 article, and distances himself from it somewhat. He emphasizes the crucial allocative role he assigned to the price system. Whereas in his 1947 paper he drew a sharp distinction between socialism as he conceived it—a system which made full use of the allocative properties of the price mechanism and gave as much scope to individual choice as possible—with a Soviet-styles command economy, in his later assessment of the paper he conflates market socialism with a command economy. He describes the paper as "an exercise in forcing myself to imagine  how production was run efficiently in a socialist economy and how it handled the absence of a market so as to achieve the desired result" (2001, p. 165).  This is something of a misrepresentation: at the outset of the 1947 paper he states that the analysis will “show that a socialist system is not only economically possible, but also that such a system would tend to function much better than the system of private enterprise” (1947, p. 441). In retrospect he came to think that his friendship with the Italian physicist Bruno Pontecorvo (who later defected to the Soviet Union) had left him “with some soft spots for socialism” and that perhaps he had “been too enthusiastic” (2001, p. 167). But we ought not to discount the fact that the paper appeared just when the persecution of leftists had begun to gather new momentum in the United States, where Modigliani had decided to make his career. Pursuing that line of research would not have done his career any good at the time, and when the ideas would have been safe to explore—perhaps two decades later—Modigliani had moved on to other issues

**References**

Heimann, E. (1937) “What Marx Means Today,” *Social Research*, 4, pp. 33–51.

Hicks, J. R. (1939) “The Foundations of Welfare Economics,” *Economic Journal*, Vol. 49, pp. 696–712.

Keynes, J.M. (1936) *The General Theory of Employment, Interest and Money* (London: Macmillan).

King, J. (2002) *A History of Post Keynesian Economics since 1936* (Cheltenham: Edward Elgar).

Lange, O. (1939) “The Foundations of Welfare Economics,” *Econometrica*, Vol. 10, pp. 215–228.

Lederer, E. (1931) *Technischer Fortschriftt und Arbeitslosigkeit* (Tübingen: Mohr).

Lederer, E. (1936): Commentary on Keynes, II, *Social Research*, Vol.3, pp. 478–487.

Lederer, E. (1937): The search for truth, *Social Research*, Vol.4, pp. 277–282.

Lerner, A. (1944) *The Economics of Control* (New York: Macmillan)

Modigliani, F. (1944) “Liquidity Preference and the Theory of Interest and Money,” *Econometrica*, Vol. 12, pp. 45–88.

Modigliani, F. (1947) “L’Organizzazione e la Direzione della Produzione in un’Economia Socialista,” *Giornali degli Economisti e Annali di Economia*, Vol. 6, pp. 441–514.

Modigliani, F. (1966) “The Life Cycle Hypothesis of Saving, the Demand for Wealth and the Supply of Capital,” *Social Research*, 3: 160-217.

Modigliani, F. (1977) “The Monetarist Controversy or, Should We Foresake Stabilization Policies,” *American Economic Review*, 67 (1): 1-19.

Modigliani, F. (1986) *The Debate over Stabilization Policy* (Cambridge: Cambridge University Press).

Modigliani, F. (2001) *Adventures of an Economist* (New York: Texere).

Modigliani, F. & Ando, A. (1957) “Tests of the Life Cycle Hypothesis of Savings: Comments and Suggestions,” *Bulletin of the Oxford University Institute of Statistics*

Modigliani, F. & Ando, A. (1960) “The ‘Permanent Income’ and the ‘Life Cycle’ Hypothesis of Saving Behavior: Comparison and Tests,” in *Consumption and Saving*, Vol. 2 (Philadelphia: University of Pennsylvania Press).

Modigliani, F. & Ando, A. (1963) “The ‘Life Cycle’ Hypothesis of Saving: Aggregate Implications and Tests,” *American Economic Review*, 53 (1): 55-84.

Modigliani, F. & Brumberg, R. (1954) “Utility Analysis and the Consumption Function: An Interpretation of Cross-Section Data,” in *Post-Keynesian Economics*, ed. K. Kurihara (New Brunswick: Rutgers University Press), pp. 388-436.

Modigliani, F. & Brumberg, R. (1979) “Utility Analysis and Aggregate Consumption Functions: An Attempt at Integration,” in A. Abel *Collected Papers of Franco Modigliani*, Vol 2 (Cambridge: MIT Press).

Neisser, H. (1932) “Lohnhöhe und Beschaftigungsgrad im Marktgleichgewicht,” *Weltwirtschaftliches Archiv*, 36, pp. 415–455; English translation in: *Structural Change and Economic Dynamics*, 1, pp. 141–163.

Neisser, H. (1934) “General Overproduction. A study of Say’s Law of Markets, *Journal of Political Economy*, 42, pp. 443–465.

Neisser, H. (1936) “Commentary on Keynes, I,” *Social Research*, 3, pp. 459–478.

Neisser, H. (1946) “Keynes as an economist,” *Social Research*, 13, pp. 225–235.