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# Oskar Lange

An Academic Biography

Roberto Lampa

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# Great Thinkers in Economics

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Roberto Lampa

# Oskar Lange

An Academic Biography

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## FOREWORD

I am very grateful to have been asked to write the Foreword for Roberto Lampa's *Oskar Lange: An Academic Biography*. First, I must say that this book is a tour de force. It examines each of the areas of my father's interests and shows how he developed them to form unifying theories of economics and political economy. The presentation is extremely clear.

As a disclaimer, I am not an economist. But my father, who was an excellent teacher, taught me a lot just from our conversations during my childhood and young adulthood. Regarding his teaching, Oskar Lange was known to give good grades, so much so that his colleagues at the University of Chicago complained that he gave too many As. Oskar's response was "But they deserve those grades." To settle the matter, he challenged his colleagues to make the final test, give it, and grade it themselves. They did, and his students got most of the As.

Oskar Lange's accomplishments, as listed in *The Wielka Encyklopedia Powszechna PWN* (Great Universal Encyclopedia PWN): Lange, Oskar (1904–1965), economist, activist in the workers movement, from 1928 in PPS [Polish Socialist Party]; 1938–1945: professor, University of Chicago; 1945–1948: Polish Ambassador to the USA, first Polish delegate to the UN; 1948: member of Central Committee PZPR [Party of United Polish Workers]; 1949: professor, SGPiS [School of Planning and Statistics]; 1952–1955: Rector, SGPiS; 1952: member, PAN [Polish Academy of Sciences]; 1956: professor, University of Warsaw; 1957: Deputy Chairman of the Council of State [equivalent to Vice President of Poland]; 1957–1962: Chairman of the Economic Council. Among his many medals, he earned The Lion of Finland, Builder of Poland First Class, and

Builder of Socialism First Class, the last two, Poland's highest honors. **In his role as first Polish delegate to the UN, he signed the UN Charter for Poland**, was twice elected to the Security Council, and also as its chairman. He foresaw the beginning of the Cold War: in the latter role, he understood world opinion regarding political matters. As an example, here is the text of a diplomatic note he sent to A. Gromyko, the Soviet ambassador to the United Nations (also on the Security Council):

Mr. Gromyko,

Whatever the outcome of the voting [,] I think it would [be] fatal if you would leave the room. It would isolate the USSR in world opinion and give rise to a propaganda depicting the USSR as breaking international cooperation. I shall appreciate it if you will let me know about your plans in this matter.

Oscar Lange

Gromyko replied: "I shall leave the room if my proposal is not accepted" [original on file in the Archives of the Polish Academy of Sciences (the PAN Archives) of Oskar Lange's papers]. Gromyko's proposal was not accepted, he left the room, was not there to veto counterproposals, and Lange's predictions came to pass.

As Security Council President, Oskar Lange resolved several other important problems, e.g., the withdrawal of Soviet troops from Iran. When the press asked him "How did you resolve that burning problem? You must be a fire eater," he effectively answered them by crushing a piece of onion-skin paper in his hand, lighting it and swallowing it, "Like that!" he said. The press loved it!

Oskar Lange was always interested in languages. He spoke, read, and wrote in Polish, German, and Russian, his local childhood languages. He learned French, Italian, and English, to understand much of the world's literature and science. His parents (particularly his mother) wanted him to study for the Divinity and become a Lutheran minister. Therefore, he also learned Latin, ancient Greek, and Hebrew. Through his travels, he learned the national languages of all of Europe and, from his time in India, some Hindi. I often witnessed conversations where he would juggle several languages, so that all present could understand. He easily performed simultaneous translations.

Regarding Oskar Lange's religion: my father told me that once he made a train trip from Warsaw to Paris and chanced to share his

compartment with a French Roman Catholic Bishop. During the long trip, they discussed Christian Theology. As they exited the train in Paris, the Bishop said to him: “I have never had such an interesting and informative theological discussion in my life. At which Seminary did you train?” My father replied: “None. I am an Atheist. But I know what your Church would have you believe.” He really was an Agnostic; he did not believe in the claims to divine authority of any human social organization.

He was always interested in what people believed and their thinking. He knew the importance of this for understanding their politics and/or how to reach them with his own ideas. Mathematics was also a language, and he corresponded with many mathematicians and particularly with Norbert Wiener, who coined the term “cybernetics.” [With a letter of introduction from my father, I met Wiener as a student at MIT and took one of his symposia. Wiener was brilliant, but the classic absent-minded professor. During our first conversation, he said that he thought from our correspondence that I would be much older. I had to remind him that I was Oskar Lange’s son, not Oskar himself.] This correspondence became useful as Oskar Lange considered the problems of solving the multiple simultaneous equations involved in Economics and economic planning, i.e., optimal decision making. He considered the possibility of using Inventory and its turnover as an analog computer to solve some of these problems, and later, the use of digital computers.

An interesting summary from Andrzej Pawlik (2004, p. 131): “O. Lange had always wanted to enlarge the role played by the price system and the market. Therefore, he suggested that capitalism should be improved by fighting [monopolies] as a barrier to free competition and socialism be reformed by curbing the state bureaucracy by means of the price system and the market. [He] strongly believed that socialist objectives could be achieved in a mixed economy, i.e., consisting of state-owned or collective big companies and smaller private businesses.” Of course, cybernation could eventually replace certain market and bureaucratic functions by calculating the consequences of certain possible decisions and testing whether their results are desirable.

Regarding the relative value of money, as a 5-year-old influenced by my mother’s readings of Victor Hugo, I said to my father, “Money doesn’t matter.” He replied, “Oh, no, it matters very much, and the less you have the more important it becomes.” [This is discussed at a much greater level of sophistication (the utility surface and function, and income distribution) in pp. 125–137 of Lampa’s book.] Similarly, he always insisted that

there was only one economics, not capitalist or socialist, but the system under which it operated determined the possibilities, i.e., political economy.

One of his disagreements with Keynesian economics, which was becoming the “solution” to how to control business cycles under capitalism, was that the political system would not allow it to work. Business cycles were to be dampened or leveled by government deficit spending during the recession/depression years, and the funds would be recouped by taxation during the upswing/boom years of the cycle. However, in a Capitalist society, the capitalists are in control, so although they may let the party of labor (then Democrats in the USA) deficit spend in the down years, they would take control (Republicans) in the up years and prevent the taxation on their profits necessary to balance the long-term budget. Hence, structural inflation is built into the system, dramatically devaluing the currency (arguably 50 to 100-fold between the 1940s and 2000s).

One point we discussed in the early 1960s was the need for Socialists, should they win a national election, to quickly nationalize the means of production. This was not only to prevent the owners from allowing the equipment to degrade or capital to be exported, but also to deprive them of the resources with which to mount a counter-revolution. Cases in point: During one of his visits to Cambridge, while I was in Oxford or Manchester and was able to join him, he introduced me to Nicholas Kaldor, Joan Robinson, Piero Sraffa, and Maurice Dobb. Shortly thereafter, my father told me about what was jokingly called “the Kaldor Effect”: Kaldor was well known as a Keynesian advising the governments of Sri Lanka (Ceylon), Ghana, Jamaica, and others. His advice was classically Keynesian: invite foreign investment capital with the promise of low or no taxes on earnings reinvested in the country, but with high taxes on exported profits. When this advice was followed, the result was: Bandaranaike, the President of Ceylon, was assassinated; Nkrumah, President of Ghana, was overthrown in a coup; Chedi Jegan, the presumptive first prime minister of Jamaica as it was becoming independent, was prevented from taking power, etc. The lesson: if you plan to use liberal Keynesian economics, the investors (Imperialists) will throw everything that they have against you, so if your revolution can withstand that (compare Castro’s Cuba vs. Allende’s Chile) you might as well immediately expropriate everything without compensation (although Castro did pay compensation, just at the self-reported grossly undervalued valuations the expropriated companies used on their tax returns to the previous

Batista government). This counter-revolutionary reaction made it nearly impossible to have non-violent anti-capitalist revolutions. Unfortunately, post-WWII, US foreign policy almost always sided with the Imperialist colonial powers rather than the freedom/independence movements.

It had been suggested that Oskar Lange could have remained in the USA and had a rich career here. This ignores the post-WWII McCarthy period. Lange's friends Paul Baran and Paul Sweezy felt this onslaught. Stanford University, where Baran was tenured, teaching Economics to the sons of the rich, tried to get rid of him. They had no grounds to revoke his tenure, so they gave him a heavy teaching load, which he loved, as it gave him even more access to the students. Sweezy (with Baran), as owners of Monthly Review Press, did not need the University (Yale), and their business prospered during this period. Many faculty fared far worse and lost jobs and careers. My mother, with her doctorate in Slavonic Philology, could have taken a university faculty position when she returned to the USA with me, but she had the foresight to recognize that the universities would be among the first to attempt to prove their loyalty; so, she became an accountant for the National Association of Manufacturers (NAM), in the belly of the beast. Eisenhower, during the peak of the McCarthy period, stated that "anyone who would accuse the NAM of harboring communists is fit for the insane asylum." In this way, she avoided the possibility of being forced to say anything negative about Oskar.

Interestingly, after Oskar Lange's meetings with Stalin in 1944, at Yalta Stalin told FDR [Roosevelt] that "Your professor is too independent." However, later in Poland, the Polish Stalinists were afraid to attack him (although they called him a "revisionist") because Stalin knew him, and absent a direct order from Stalin himself, they did not know how Stalin would respond. In 1956/7 during the fall of the Stalinists in Poland, the workers from the Zeran automotive factory (Lange was their Member of Parliament and popular with them) brought their wrenches as weapons and surrounded his flat in Warsaw to protect him against a possible Stalinist attack. Polish Marshal Marian Spychalski's warning to the Soviet troops surrounding Warsaw that the Polish army was stationed behind them and would open fire if they left their barracks, prevented a military intervention; Gomulka was released from prison, and made Prime Minister. Years later, I was able to give a lecture on what Oskar Lange stood for, at the high school (named after him) serving that district, which helped prevent it from being renamed or closed.

Lampa's book excellently covers the career of the young Oskar Lange, largely as an academic. His later publications, after his return to Poland (largely in Polish, but translated into many languages), reflect his concerns and experiences in attempting to put into practice his earlier ideas on building socialism; viz.: *Introduction to Econometrics* (1958), *Political Economy* (vol. 1, 1955; vol. 2, 1964), *Wholes and Parts in the light of Cybernetics* (1962), and his collected works: *Oskar Lange Dziela*, vols. 1–8; and selections from his collected works: *Wizje gospodarki socialistycznej* [Visions of the socialist economy] (1985). In addition to his publications, he helped develop India's 5-year economic plans, as well as those of Egypt, and those of several other countries. Regarding India's, Prime Minister Jawaharlal Nehru told Poland's Prime Minister that "As much as we appreciate all the economic aid that you have provided us, the single most important aid was your sending Oskar Lange to help us with our economic planning."

In 1961, en route to Oxford, I travelled to Poland to see my father, and after meeting my little sister Monika, my father and I drove to Geneva for the UN-organized meeting of the "10 Wise Men" (of whom Oskar was one) who were invited by the General Assembly to discuss the problem: "The Economic and Social Consequences of Disarmament." The general concern was that the capitalist countries, particularly the USA, could not disarm without causing a major depression. Oskar and his colleague from his Harvard days, Wassily Leontief (for the USA, 1973 Nobel Laureate; the Economics Nobel prize was instituted in 1969, after Oskar Lange's death), managed to convince the expert group that the problem could easily be solved if the capitalist countries were to replace their military spending with equal spending on social goals.

Other parts of my father's career are well covered in the chapters by Tadeusz Kowalik (O Lange, Dziela), John Bellamy Foster (Ch. 6), Roberto Lampa (Ch. 7), Jan Toporowski (Ch. 8), Meghnad Desai (Ch. 9) in *The Legacy of Rosa Luxemburg, Oskar Lange and Michal Kalecki*, Volume 1, and 2 of Lectures in Honour of Tadeusz Kowalik, and Gavin Rae's book (*Full Circle. The Intellectual and Political Life of Tadeusz Kowalik*). I also wrote two short articles for the commemorations of my father's 100th birthday, in Warsaw ("Moje wspomnienia o Ojcu" [Memories of My Father] pp. 11–17 in "Oskar Lange a współczesność" (ed. Z. Sadowki) publ. Polskiego Towarzystwa Economicznego, 2005) and Kielce ("Oskar Lange's Nonprofessional Interests" (in Polish

pp. 25–32; in English pp. 33–39) and “Memories of My Father, Oskar Lange” (in Polish, pp. 125–130)) in “Modele Gospodarki Prospołecznej Według Oskara Langego” (ed. A. Pawlik, publ. STRZELEC Kielce, 2004).

Manhasset, NY, USA  
March 3, 2025

Christopher Stephen Lange

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# Introduction

From his official entry into the Polish Academy in 1931 to his hasty departure from the University of Chicago in 1945, Oskar Lange's itinerary in the world of economics was a fascinating journey. At the end of it, he emerged as a key figure in the international economic debate, his work inspiring the post-war mathematisation of the discipline and leaving a lasting impact on the field, particularly in North America.

During this phase, Lange's economic thought was significantly influenced by a fascination for science. Inspired by the cultural climate of Poland—in which the influence of Neo-Positivism was extremely strong—and by a personal passion for the natural sciences, Lange believes that even in economics, it is necessary to properly adopt the rules of scientific research. This general vision translates into a series of highly theoretical works that constitute a generalisation of economic theory, capable of being both universal (i.e. valid under any circumstances) and objective (i.e. independent of value judgements and researcher's ideology). In this sense, correctly applying the scientific method will represent the best antidote against the proliferation of economic schools. Lange's suspicion towards these schools, driven by his concern for the advancement of scientific knowledge, is motivated by the fact that they could potentially limit this advancement in economics.

At the same time, the tumultuous era of the Great Depression and a firm Socialist conviction also determined a critical stance on the

destructive instability of capitalist economies. This critique, articulated by Lange, was not just a theoretical exercise but a call to action, leading him towards a unique model of socialist economic organisation, later defined as ‘market socialism’. From this point of view, Lange’s commitment will not only be academic but will also imply a long and intense political militancy in the ranks of the Polish Socialist Party (PPS) and will culminate in important diplomatic positions. The latter will first lead Lange to participate in the Bretton Woods conference and, subsequently, to sit on the United Nations Security Council as the Polish representative.

Scientific rigour and social transformation thus constitute the two dialectical poles of Lange’s entire economic reflection during this period and leave an indelible mark on his vast scientific production. These two dimensions will also retain a decisive role in the continuation of his scientific career, which will consecrate him as one of the most influential economists of the Marxist and socialist camps. It is not an exaggeration to say that these fixed points will remain unchanged even after the Second World War. Having definitively returned to Poland, he will not consider changing anything of his previous theoretical-economic reflection but will limit himself to systematising his ideas and studying new potential areas of application.

From this point of view, ascertaining and understanding the aspects related to the Western part of Lange’s academic life becomes both a necessary and a sufficient condition for understanding him.

However, the comprehensive analysis of Lange’s economic thought in his formative years presents objective difficulties. How can one navigate through a vast scientific production that spans from *pure* economic theory to socialist and Marxist theory, welfare economics, methodology, statistics and even medieval economic history?

On the one hand, there is no doubt that it is precisely in this versatility that the unmistakable charm of this author lies: reading the numerous writings of the period, one has the constant impression of dealing with a ‘total’ economist, whose preparation and modernity amaze and sometimes disarm the contemporary reader, accustomed to the extreme sectoral nature, autistic and self-referential, of certain current economic production.

Nevertheless, even today, for economists (and historians of economic thought themselves), Lange’s name is associated almost exclusively with the debate on economic calculation and the well-known contribution of 1936–1937 “On the Economic Theory of Socialism” or to a lesser extent,

with the criticism of the classical dichotomy contained in the 1942 article “Say’s Law: a Criticism and Restatement”, from which Patinkin’s subsequent contributions and the debate on Keynes and the ‘law of outlets’ took off.

In both cases, this author’s attention to individual works has not been able to evolve into a systematic treatment of the entire Western parenthesis of his existence, generating a series of negative consequences that inevitably feed off each other.

First, the most macroscopic fact is represented by the scarcity (and, in some cases, the absence) of a secondary bibliography referring to a good part of the works in question. Although there is no lack of qualified judgments and authoritative opinions, such as those expressed on several occasions by Prof. Tadeusz Kowalik (Lange’s student, biographer and long-time friend) or numerous contributions relating to the two articles cited above, the majority of Lange’s works have ended up being practically not taken into consideration by subsequent commentators, also by the unfortunate choice of publishing the *Collected Writings* in Polish only.

Secondly, as a direct consequence, the reaction to such an interpretative vacuum has often been aimed at recovering individual ideas or insights from Lange’s analysis, ignoring everything else (or at least a good part of it) and thus ending up by bending the Polish author’s contributions, which were, from time to time, reconsidered, to the subsequent economic debate.

This was particularly evident in the aforementioned 1942 article, from which, among Lange’s numerous contributions, only the criticism of the classical dichotomy (although important) was isolated. From then on, economists speak of a Lange-Patinkin approach (see, for example, Becker & Baumol, 1952), ignoring the significant differences between these two authors, linked, for example, to the rejection/acceptance of the quantity theory of money.

Finally, there was also a third implication of this scarcity of sources: it triggered a series of errors and misunderstandings (particularly evident in more recent contributions) that will reflect a widespread common sense among economists, according to which Lange’s complexity is reduced to pure eclecticism. In this way, the many areas of investigation that made up the Polish scholar’s scientific production come to represent distinct and separate moments whose contents should not necessarily be compared or mutually questioned.

Observing such a problematic, multifaceted nature thus requires first selecting this author's sources and narrowing them down to those we might define as the outcome of his Western sojourn, which lasted from approximately 1931 to 1945. Reducing the study period to the years in question might seem radical or limiting for a correct understanding of Oskar Lange's thought. However, well-founded reasons suggest that this is a useful and even necessary precaution.

First, the subsequent and socialist phase of Lange's life was marked by a significant decline in his theoretical-economic work. Despite the lively debates that animated North American and Cambridge academia in the 1950s and 1960s, Lange deliberately chose not to update or modify any fundamental pieces of his generalised theory. This decision, which also applied to his socialist theory, led to a prolonged and cautious silence. However, the political thaw in Poland, known as the *Polish October* of 1956, provided an opportunity for Lange to resolutely reaffirm the operational rules of a socialist economy, as described in his works between 1934 and 1942, in a series of articles on market socialism. Lange's rejection of bureaucratic socialism, together with his critique of Soviet planning, was reaffirmed. Since planning was not based on scientific economic theory and rational economic rules, the USSR might have turned into an autocratic regime detached from the people's needs. In an unedited manuscript found in the Archives of Chicago, Lange defines the Soviet Union as a 'Bonapartistic dictatorship' (Lampa, 2022). In 1956, Włodzimierz Brus was later to give Lange's stance an additional twist. He pointed out that Poland's politicisation of economic planning led to a 'heavy industry bias'. Lange's and Brus' stances substantially impacted the Economic Council after the 1956 Polish October. The most crucial proposal—published in June 1957 as the "Theses on Some of the Proposed Changes of the Economic Model"—outlined three general principles for the socialist sector. These envisaged using a combination of incentives, a price system and compulsory directives to fulfil national plan targets.

The validity of the theory previously developed by Lange was then reaffirmed with even greater clarity towards the end of his life. In correspondence with the rise of cybernetics, in the *Festschrift* for Maurice Dobb, Lange emphasised that the advancements in machine technology represented a tremendous opportunity for the economist's task. He believes tatonnement in a free market economy does not guarantee equilibrium. In fact, it is a relatively slow process that can be affected by economic shocks, fluctuations, etc., finally determining that the system may not converge to

equilibrium at all. Quite the contrary, computers represented an extraordinary resource for planned economies, tacitly implying a reassessment of the previous debate on socialist calculation (Lampa, 2020): “Were I to rewrite my essay today, my task would be very simple. My answer to Hayek and Robbins would be: so what’s the trouble? Let us put the simultaneous equations on an electronic computer and we shall obtain the solution in less than a second. The market process with its cumbersome *tâtonnement* appears old-fashioned. Indeed, it may be considered as a computing device of the pre-electronic age” (Lange, 1967, p. 158).

Second, it is important to remember that Lange’s academic activity was significantly reduced once he returned to Poland. In the first phase, corresponding to the stage of Stalinisation, Lange did not, in fact, occupy a professorship in economics. This significant milestone would only occur in 1956, marking the final stage of his life. At the same time, the diplomatic and political profile of his professional activity would increase strongly, occupying Lange’s time. Therefore, the publication of scientific papers was replaced by the activity of a cadre of the Polish government and advisor to numerous developing countries. For our discussion, it is, therefore, useful to separate his career’s more strictly scientific parenthesis (pre-1945) from the political-diplomatic one (post-1945).

Third, it is worth considering two further aspects that indicate the centrality of the Western phase of Oskar Lange’s life. On the one hand, the impact that his works had on the debate of the time is undeniable, highlighting strong interactions with figures of the calibre of John Hicks, Frank Knight, A.C. Pigou and Joseph Schumpeter, among others. On the other hand, Lange’s pioneering role within the Cowles Commission produced its effects even after his definitive return to Poland. A vast majority of post-war economists (belonging to both the general equilibrium theory (GET) tradition and the neoclassical synthesis) accepted Lange’s idea that a planned economy is equally or more productive than a free market economy.

Before leaving Chicago, Lange arranged for Marschak to assume the research directorship of the Cowles Commission from Theodore Yntema in 1943. This move led to the widespread popularity of the works on socialist calculation among the new generation of leading economists. Kenneth Arrow, a member of the Cowles Commission, later classified Marschak’s 1924 article as one of his ‘papers with the greatest permanent interest’. Franco Modigliani, who acknowledged Marschak’s crucial influence on his training as a researcher, wrote an extended defence of

market-socialist economies in 1947. He explicitly recalled Lange's Central Planning Board (CPB) and its rules of functioning, underscoring that only in perfect competition might capitalism work as efficiently as such a socialist economy. Furthermore, Modigliani dealt with the problem of incentives raised by Hayek, proposing the creation of R&D commissions and salary bonuses for the innovating managers of productive units. He quoted Lange's well-known definition of socialism as an 'act of revolutionary courage'.

Finally, John Hicks underscored the crucial role of the debate, particularly the contributions that challenged the traditional view. He highlighted how such discourse was instrumental in advancing the technical skills of economists, emphasising the value of intellectual exchange in the field.

From this perspective, only the emergence of new-institutional economics in the 1960s and 1970s and the appearance of endogenous (although axiomised) institutions within a mainstream theoretical framework eclipsed Lange's popularity among leading economists.

On the other hand, by narrowing the examination period to Lange's economic thought and focusing on his Western works, we present an *academic* biography (modestly) centred on those aspects immediately related to economic thought. This scholarly exploration, therefore, is not an intellectual biography but a focused study of Lange's *strictu sensu* economic thought.

In light of this necessary premise, three main strands of his economic investigation clearly stand out.

The first concerns economic theory in the strict sense: within this subgroup, Lange demonstrates a marked interest in the mathematisation and generalisation of economics, which must aspire to be a *universal* and *objective* language, in the same way as happens in the natural sciences.

On this basis, Lange's choice predictably falls on Walrasian theory. In the works of the period, from the theory of capital to that of interest, from the theory of value to welfare economics, up to socialist theory, the theoretical framework that Lange uses is undeniably and repeatedly Walrasian. However, it is important to clarify that the reference to this theory does not imply an apologetic and uncritical attitude, nor does Lange share with the authors of the Walrasian tradition the idea that the theory of general economic equilibrium also has a normative value. At least in the analysis of market economies, there is no connotation of equilibrium as an optimum towards which to aim. On the contrary, it is a chimaera, almost unattainable. This is particularly concerning given the chronic sub-optimality that

characterises capitalism, a point that Lange's analysis brings to the forefront.

However, on the theoretical plane, Lange is also open to receiving relevant aspects from critical contributions, such as the theories of Schumpeter and Keynes.

If Lange's posture, generally hostile to the proliferation of economic schools, could lead us to suppose that the same attitude manifests itself towards theoretical paradigms that are distant from or partially critical of the Walrasian one, the analysis of his works highlights a different reality. The generalisation of economic theory must be understood as an enormous theoretical synthesis, in which the critical schools also have citizenship, whose main merit for Lange is that of grasping the intrinsically unstable and self-destructive nature of capitalist dynamics. As Lange's analysis emphasises, this instability was a pressing issue during the Great Depression. Therefore, in the first phase, Schumpeterian theory will represent a useful reference for Lange's reflections on capital and interest. At a later stage, the Keynesian theory will replace it and represent a satisfactory solution to these problems.

The second one refers to socialist and Marxist theory: both are characterised by their original approach (strongly influenced by the empirio-critical strands—Austrian and Polish—of Marxian analysis), as a scientific method and epistemological theory, that is, as a *theory of economic evolution*, open to chronologically successive contributions and *updates*, even of an interdisciplinary nature.

Starting from a very political premise, i.e. the critique of the USSR, Lange concludes that only a set of prescriptions descending from *scientific*, economic theory, such as market mechanisms and price signals, represents an effective antidote against bureaucratism. On the contrary, when based on moral sentiments and discretionality, socialism cannot prove its superiority to capitalism.

From this perspective, Lange's socialist theory enthusiastically embraces the Walrasian theory in light of its (alleged) moral neutrality and objectivity. GET, particularly after Pareto's revision, treated tastes and value judgements as exogenous and determined by non-economic forces. Therefore, GET's "enforced agnosticism about tastes" (Rosenberg, 1985, p. 48) turned into a powerful tool by implicitly introducing objective rules to tie the hands of socialist bureaucrats (Lampa, 2022).

In 1937, Lange dedicated a less discussed appendix of his well-known article "On the Economic Theory of Socialism" to the problem of "the

allocation of resources under Socialism in Marxist literature” to merge Walrasianism and Marxism. In his controversial reconstruction of how Marxists dealt with the allocation of resources in a socialist society, Lange stated that all the authors of this tradition agreed about the seminal role of utility and the laws of supply and demand. Marx and Engels were aware of this problem. However, they unsuccessfully looked for a robust solution because of the technical limitations of the Ricardian labour theory of value and the subsequent impossibility of building up a demand function. Kautsky stressed that monetary prices also play a pivotal role in a socialist economy to guarantee freedom of consumption and employment. Finally, even Stalin and Trotsky stressed the importance of decentralised planning. Therefore, Lange concluded: “...the leading writers of the Marxist school were and are quite aware of the necessity of the price system in a socialist economy. (...) [But] they saw and solved the problem only within the limits of the labour theory of value” (Lange, 1937, p. 142). However, since the subsequent advancement of economic theory provided new analytical tools, Marxists should not have insisted on using the labour theory of value. Instead, they had to embrace marginal analysis and dismiss their old-fashioned toolbox since “Only the technique provided by the modern method of marginal analysis enables us to solve the problem satisfactorily” (ibidem). From this perspective, Lange’s conclusion was trenchant: “...those of the socialists who did not or do not realise [this] (...) are backward not only about the present state of economic analysis: they do not even reach up to the great heritage of the Marxian doctrine” (ibidem).

Similar reasoning also characterised Lange’s (1945a) critique of the Soviet economists. However, it’s important to acknowledge that the coexistence of Marxian and Walrasian tools within Lange’s analytical framework presents a complex challenge.

This brings us to the third strand of Lange’s scientific production: methodology. In this regard, Lange outlines two dimensions of economic analysis: historical-institutional and objective-scientific. Political economy is, therefore, partly a *social science* and partly a *natural science*. It must be investigated by combining the two investigative paradigms to guarantee this discipline’s maximum scientific rigour and essential social relevance.

Lange’s departure from Marx’s historical method in economic analysis is a significant shift, challenging the assumptions of the vast majority of Marxists. He argues that a set of fundamental theoretical problems can be abstracted from the historical and institutional context, and their solutions hold an objective and universal validity.

In particular, the rational allocation of resources represents the most outstanding example of such a non-historical economic law, holding *under any circumstances*. Therefore, any economic system should prove its capability of solving such a seminal problem. In Lange's eyes, even Marx and Engels sought an objective and universal solution to the allocation problem. However, they failed because of the insufficient advancement of mathematics in their times. Consequently, on theoretical ground, Lange associates Marxism with the use of natural sciences' methods, which in economics corresponds to marginal analysis in general and general equilibrium theory in particular, in the light of their higher level of abstraction.

In "The Scope and Method of Economics" (1945b), Lange defines Economics as "the science of administration of scarce resources in human society", a definition he accepts without criticism from Lionel Robbins.

In a Walrasian mood, he also distinguishes between a pre-analytical level of the economic investigation, in which the role of institutions has to be considered, and a purely theoretical dimension. On this latter plane, economics is similar to the other theoretical sciences since economists study the general patterns by which scarce resources are administered in a given institutional context, which they treat like an exogenous variable. Under such an assumption, the use and distribution of scarce resources will respond to uniform patterns of economic actions (Lampa, 2022).

By adopting our suggested classification, it becomes easy to select the specific contributions to be examined, choosing them both from the sources published in the main economic journals of the period (commonly known as *the* Lange bibliography) and from the numerous works never translated and never left the Polish borders (and in fact unknown).

From this premise, the first objective of this work emerges forcefully: to contribute to filling the interpretative gap existing in the economic literature and to provide a tool that, *first of all*, constitutes an accurate, critical review of the entire Langian production of the period, which is still absent at the time this book was written.

Naturally, referring to the years subsequently renamed as years of *high theory*, the subordinate logic of such an objective will be to verify, from time to time, if and how such contributions relate to the many debates that animated the economic world of the 1930s, from which contemporary mainstream economic theory would essentially be built.

In turn, starting from a similar aim, it will be possible to extend the discussion in other crucial directions.

First, by investigating whether Oskar Lange actually had the attitude of an eclectic economist or whether he had the will to develop a scientific project, within which each area of investigation fulfilled a specific task.

From this perspective, the existence of a scientific project is underpinned by Lange's conception of science and the specific role he assigns to it. It is worth noting that historically, most economists, predating Lange, who advocated for a more scientific and physics-like economy, also held politically conservative or even reactionary views.

Starting from the French engineers of the *chemin de fer* (Isnard, Dupuit and Canard) up to Pareto, the construction of a more scientific economic discipline represented the key to reducing the degrees of freedom of policymakers. In particular, public investment plans or redistributive policies had often ended up in the dock, as they were analytically unfounded and even harmful to achieving allocative efficiency. This unusual use of science on a political level would later become a landmark of our discipline, so much so that some philosophers of science would go so far as to speak of economics as a singular 'political mathematics' (Rosenberg, 1992). Despite its purported neutrality, science thus became a tool to stifle public debate on economic decisions and maintain the status quo.

In contrast, Lange embraces an Enlightenment view of science, firmly believing in its potential to catalyse a radical transformation of society and its institutions. In this sense, Lange proves a genuine progressive, convinced that economists have to contribute to improving the masses' standard of living by means of science.

Establishing the features of such a scientific project, determining how Lange tried to develop it as his different works progressed and, finally, highlighting any *coupures*, radical changes in perspective and 'leaps' (or, on the contrary, elements that suggest a 'continuist' reading of the Lange's work) will therefore represent the point of arrival of our discussion.

Based on these objectives, the book will be divided into ten chapters, modelled on a thematic basis following the three previously mentioned research lines.

Chapters 2 and 3 will address the preliminary problems of biographical aspects and method, trying to show how Lange's marked interest in science and politics throughout his entire existence is reflected in the definition of an economic method that aims to combine Marxist presuppositions and marginal analysis and in a definition of economics understood both as a *social science* and as a *natural science*.

In Chap. 4, we will analyse the crucial impact of the crisis of 1929 on the young Lange’s thinking, constituting a crucial premise for the subsequent elaboration of the theories of capital and interest (subject of Chaps. 5 and 6, respectively). Chapter 7 will then show Lange’s pioneering attempt to introduce money into a Walrasian theoretical framework (to overcome the classical dichotomy) and, simultaneously, the role of *crisis condition* played by this macroeconomic variable.

Chapters 8 and 9 will then delve deeper into Lange’s reflections on the social dimension of the economy, as represented by welfare economics and socialist theory.

Finally, in Chap. 10, the conclusions of the work will be presented. This will be introduced by an article dated 1945—“The Scope and Method of Economics”—which can be considered an implicit response that the Polish author provides to a series of problematisations and interpretative questions that we have raised in the previous chapters.

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## CHAPTER 2

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# The Life

### BIOGRAPHY OF OSKAR LANGE

*Professor, if you ever have a problem, anything at all, please do not hesitate to call me!*

With these eloquent words, gangster Al Capone took leave of Oskar Lange, a Professor at the University of Chicago at the time, after a private luncheon at Capone's residence. Capone was a self-educated man, with an extensive private library covering politics, economics and law, and he was conversant on all of these topics. They held their discussions there and progressed into the dining room for the luncheon, on the shores of Lake Michigan around 1944–1945.

Lange's association with Capone was not indicative of any personal or professional relationship. However, this incredible episode—which occurred at the height of his American academic career—is certainly emblematic of how intense and eventful the Pole's life was in the 1930s and 1940s, during which he established himself as an internationally renowned scholar, a Professor at the University of Chicago, and a first-rate diplomat.

Indeed, it can be said from now on that investigating the life of Oskar Lange condenses in itself a good part of the difficulties connected to the study of his economic thought: on the one hand, there is an undoubted abundance of sources written by the author himself, whose vastness and