

Josef Steindl's Life and Work in Austria

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Josef Steindl was a man of few words, especially when it came to private and personal matters. Even his closest friends knew little about his family background. He was an original thinker with a modest but upright personality who loved music and the fine arts. As an economist Josef Steindl stood firmly in the tradition of Kalecki and Keynes but with a clear methodological and theoretical concept of his own. His analysis combined micro- and macro-issues and concentrated on a few highly relevant questions of wide theoretical and political interest.

1. Biography and intellectual environment

Josef Steindl was born in Vienna on April 14, 1912. His father, Rudolf Steindl, was a clerk at the Austrian State Printing Office. His mother, Leopoldine Steindl, was a sister of Koloman Moser, a famous Austrian Art Nouveau artist who had considerable influence on 20th-century graphic art. Together with Gustav Klimt, Josef Hoffmann and others he was among the foremost artists of the Vienna Secession movement and a co-founder of the Wiener Werkstätte. Josef Steindl never talked about his family background and rarely about his childhood, but from some occasional personal remarks and a few remaining family pictures it appears that he greatly enjoyed visiting his grandmother and the wider family in the house and beautiful garden of his uncle. The families of Koloman Moser and Carl Moll, another famous Art Nouveau painter of the time, lived in a generous double mansion, known as an 'artists' colony' and designed by Josef Hoffmann.

Josef Steindl would have "preferred to become a biologist, but that would have taken too much time" (1990, p. 97). So, in 1929, he attended the Business School in Vienna (today's University of Economics and Business Administration). He wrote his doctoral thesis,

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in the prevailing tradition of the Austrian School, on Monetary equilibrium under the perspective of causal and functional theories and obtained his doctorate in 1935. His most important teacher was Richard Strigl, a pupil of Böhm-Bawerk and a liberal; while most of the rest of the faculty was dominated by advocates of “anti-rationalist and romantic-nationalist trends” (1990, p.97). As Josef Steindl himself pointed out in personal reminiscences:

“I hated that and I hated the various Fascist movements of the time, mainly for their militarism. I felt no particular social engagement; my upbringing had been apolitical and I had no links to left-wing movements. But I could not fail to be impressed by the surrounding unemployment and misery, the more so since it affected my own position. Unemployment has remained a very important concern of mine” (Steindl, 1990, p. 97).

Although he always spoke with great appreciation of Richard Strigl, he soon came to disbelieve most of what he taught him; but he retained Strigl’s emphasis on the importance of understanding how the economy works as a prerequisite for discussing economic policy.

In 1935 Josef Steindl began his career as an economist at the Austrian Institute of Business Cycle Research (Österreichisches Institut für Konjunkturforschung), i.e. today’s Austrian Institute of Economic Research (Österreichisches Institut für Wirtschaftsforschung – WIFO). This Institute had been founded by Friedrich A. von Hayek and Ludwig von Mises, the central figures of the Austrian school, in 1927; Hayek was the first director, followed by Morgenstern in 1931, when Hayek accepted a chair at the London School of Economics.

At that time, the University of Vienna was occupied by an isolated group of rather mediocre and partly anti-Semitic people who “in many respects represented the opposite of the conceptions of economic development which Carl Menger had inaugurated for the Austrian school” (Müller, 1993, p. 153). Thus, one reason for the foundation of the Institute was that Mises (as well as Schumpeter) had seen no chance of being considered for a chair – they had been passed over several times before.¹ In analogy to the Vienna Secession in the arts – a movement of painters, sculptors and architects in opposition to the prevailing conservatism of the Vienna Künstlerhaus with its traditional orientation toward Historicism – one might speak of the Institut für

¹ The situation of the Austrian School and the conditions at the University of Vienna are – according to Steindl – *in extenso* and accurately described by Earlene Craver (1986).

Konjunkturforschung and its founders as a sort of 'Secession' in economics, formed in opposition to the internationally isolated and closed conservative circle at the University of Vienna.

Mises established a stimulating atmosphere at the Institute by bringing in members of his private seminar – Hayek, Morgenstern, Wald, Tintner, Haberler, Machlup and others – as well as contributing his worldwide connections which yielded lively contacts abroad (Steindl, 1988a). It was in one of these regular seminars when, shortly after the publication of the *General Theory*, Gerhard Tintner introduced the new Keynesian thinking to Josef Steindl and his colleagues. As early as 1937, when Steindl (Steindl, 1937)² published his first extensive theoretical paper on Harrod's *Trade Cycle* (1936), he proved himself a well-informed contributor to the debate that was starting on Keynesian economics.

In 1938, after the start of German occupation, Josef Steindl lost his job on account of his hostility toward the regime and saw no chance to pursue a career as an economist at home. He was dismissed by Reinhard Kamitz, a later Minister of Finance, on the command of the Gestapo. Most of his colleagues had left before: Mises and Haberler in 1934, Machlup in 1935, Tintner in 1937, and Oskar Morgenstern was on a lecture tour in the USA when he received word that he had been blacklisted by the Nazi regime and decided not to return.

With the help of his colleagues who had left before him (Mises, Haberler, Hayek, Rosenstein-Rodan) and Nicholas Kaldor, Josef Steindl managed to migrate to England where he obtained a grant as a research lecturer in Oxford; due to "the open-mindedness of the Master and Fellows of Balliol College" in his case, but "in the more general case, of British scholars and Universities who assisted refugees at a time when such action was not exactly popular, and when young British academics did not always find it easy to get a job", as Steindl pointed out (1984, p. 4). Two years later, he moved on to the Oxford Institute of Statistics where he worked next to Michal Kalecki for a period which he considered his "formative years", and of which he stated: "As an economist I am the product of England and Kalecki." In the same article he referred to this period as "the years of a strong socialist conviction which in subsequent times has been sorely tried" (Steindl, 1990, p. 98).

A year later, in June 1941, he married Margarete Strauss, with

² See Kurt W. Rothschild (1987), published for the first time in this issue, pp. 117-133.

Michal and Ada Kalecki to witness their marriage. Josef Steindl and the Kaleckis became close friends. It was a long friendship based on regular written exchanges. The marriage between Josef and Margarete Steindl remained childless. He returned to Austria without his wife and divorced her in 1957.

In 1950 Steindl came back to Austria. And, like so many who returned after the war to help rebuild the ruined intellectual infrastructure of the country, he was met with little encouragement. But the Institute – now known as the Austrian Institute of Economic Research, WIFO – and in particular its director Franz Nemschak had a different, rather un-Austrian attitude to emigrants and so Steindl was allowed to return to his job in Vienna. In spite of the empirical orientation of the Institute, and a vast output of empirical studies on the Austrian economy, he managed to find a niche for theoretical studies – thanks to financial support by the Rockefeller Foundation.

Austrian academia initially ignored Josef Steindl; when he submitted *Maturity and Stagnation* (1952) as his professorial dissertation it took his colleagues a full year to decide not to accept it because it was written in English. It was only in 1970, when a new generation took over, that the University of Vienna conferred an honorary professorship on Josef Steindl, and in 1985 the University of Graz followed with an honorary doctorate.

In 1978 Josef Steindl retired after he had spent about thirty years of his life at the Institute, but stayed on as a consultant whose advice was both much appreciated and stimulating. He died on March 7th, 1993 at his home in Vienna.

2. Methodological aspects of Steindl's economics

As his friend Kurt W. Rothschild pointed out in the obituary series of the Royal Economic Society (Rothschild, 1994, p. 132), “Though Steindl might be classified [...] as a post-Keynesian or even more as a post-Kaleckian, he was in fact a ‘Steindlian’ economist – a special mixture of his own which is recognisable in all his major contributions.” He was a scientific personality of his own, who concentrated on the classic issues of the long-term developments of capitalism; i.e. the role of monopolies and technological change as well as distribution and savings in the process of capital accumulation.

Like Marshall, Steindl was always critical about mechanical analogies in economics. He looked to biology for methodological prototype:

“Instead of a society with all kinds of interrelationships you find a general equilibrium in mainstream economics with an analogy to physics, but not to the physics of the 20th century, but to Newton’s 250 year-old mechanics; thus it is far off the mark of our problems. Since man is part of the organic nature we should look at biology for an analogy if we need analogies at all” (Steindl, 1985, p. 405, our translation).

Many events in Steindl’s life were a matter of happenstance, such as coming to England and meeting Michal Kalecki. It was for this reason he was attracted to stochastic processes and probability distributions. But at heart, as well as in most of his work, he was more policy-oriented than interested in methods.³ What Steindl liked about 1930s economics was that it was clear-cut: one knew who put forward which opinion. “Nowadays, economics is like a factory making so much noise that you cannot hear your own words” (Steindl, 1985, p. 403, our translation).

Josef Steindl often complained about the timing of his *Maturity and Stagnation* ([1952] 1976); it came out just when the ‘Golden Age’ started – a few decades too early. He also proved to be ahead of his time when it came to environmental protection. In an article in honour of Maurice Dobb he argued that the Marxist concept of exploitation should be extended from human beings to natural resources. So, three years before the report of the Club of Rome was published, he put his finger on environmental problems as an early voice in the wilderness, when he spoke of:

“The short-sighted exploitation of resources, heedless of results [...] described in German by the appropriate term *Raubbau* [‘rapacious exploitation’] [...] is the exhaustion of natural resources like forests, agricultural land (the ‘dust bowl’), hunting and fishing grounds. [...] The destruction of the natural habitat of man by pollution of water and air, upsetting the balance of animal and plant life, ruining the aesthetic values

³ When Steindl met Kalecki again after the war and Kalecki asked him what he had been doing in the meantime, Steindl answered: “I am sorry. The political situation was so depressing that I could not work on political economy. I worked on stochastic processes.” Upon which Michal Kalecki replied: “You need not apologise – I worked on the number theory.”

of nature [...]” (Steindl, 1967b, pp. 198-199, italics in original).

Steindl always took much interest in business life⁴ at the industry and plant level. In the 1950s he carried out case studies on the steel and paper industries in Austria. These industry studies are not only of interest from an economic point of view; he also had a thorough look into the technical processes of production.

His work was always inspired by problems of great practical and political relevance and his thoughts were stimulated both by the actual economic, social and technological processes and by his wide range of interests that extended far beyond economics. Thus, he always devoted more time to reading *Business Week* and *American Scientist* than to some of the core journals in economics. He steadily developed his theory to match changes in the social-economic, organisational and technological environment.

Josef Steindl never cared much for the latest fashions and though he mastered analytical methods, they never dominated the problem at issue in his analyses. Mathematics always kept to its proper subservient place in his research.

Steindl was well versed in economic and social history, and Max Weber, Braudel, Duby and Wallerstein were among his most beloved authors. In this way he really embodied Charles Snow’s ideal of harmonising two cultures – science and literature. Literature certainly influenced his style of writing, with its structural clearness and all its images and analogies. His interest in classical music is less easily traced in his writings. We found just one musical analogy, when he was criticising mainstream economics for its inadequate basis in reality, he said: “*Homo economicus*, this puppet with a built-in regulating mechanism, is a bit like Olympia in Jacques Offenbach’s opera – but the pity is: he does not sing that beautifully” (Steindl, 1985, p. 405).

In his paper “Reflections on the Present State of Economics”, Steindl (1984, pp. 13-14) contemplated what could be done “to overcome the sterility of today’s economics.” He referred to “the classics, Kalecki and Keynes, whose work was rooted in the economic policy problems of their time, and derived its relevance from them” and concluded: “Economic

⁴ Economic reasoning played a role even in his childhood. Like many other children he loved to draw. But unlike other children he sold his drawings to his uncles and aunts, usually for one or two crowns a piece (depending on their estimated value). He kept only the best ones for himself – by charging an extremely high price.

policy is the main inspiration of economic theory.” He also pointed at “the no-man’s land between the established disciplines which are entrenched in their organised fields, fearful of each other and speaking different languages.” The remedies he proposed were:

- “Close cooperation with other disciplines: engineering, science, history, sociology, biology, political science, etc.” in dealing with questions of organisation, technology and politics. Due to the lack of interdisciplinarity, economists had been focusing too long on the advantages of economies of scale. It took them a long time to perceive the flaws of large bureaucratic and hierarchical organisations with all their rigidities and aversion to innovation.
- Close contacts to economic policy, without which economic theory is bound to decay. While perceiving the dangers of too intimate ties with politics, it was still better to confront those than to operate far away from reality.
- More long-term considerations and greater attention to international economic problems. Steindl himself was very sensitive to the problems of the global economy. At times he resembled the prophet Jeremiah come again.

When it comes to the methodology, we would contend that Josef Steindl was one of those “rare kinds of birds” whom Keynes (1933, p. 173-174) characterised as “master-economists”; such a person

“must possess a rare combination of gifts. [...] He must be mathematician, historian, statesman, philosopher – in some degree. He must understand symbols and speak in words. He must contemplate the particular in terms of the general, and touch abstract and concrete in the same flight of thought. He must study the present in the light of the past for the purpose of the future” (*ibid.*).

3. Steindl at the Austrian Institute of Economic Research

When Steindl returned to Austria he intended to participate in the reconstruction of his country. The Austrian Institute of Economic Research (WIFO) – successor to the organisation in which his career had begun, now an influential economic think-tank for the government and social partners – appeared to be a good place to start. Just returned to Austria, Steindl felt somewhat disappointed by the lack of planning. Like

his friend Kurt Rothschild he advocated better economic planning. Steindl used to say that the Austrians do not plan for the future but look hopefully and confidently to the past.

Back in their respective homelands, Steindl and Kalecki faced quite similar problems. In both cases, their return was not without disappointments; thus, Steindl's great book *Maturity and Stagnation in American Capitalism* did not at that time receive the attention it deserved – except in Marxist circles.

Steindl spent more than three decades of his working life at the Austrian Institute of Economic Research. In the decades after the war, WIFO was a Keynesian retreat. Kurt Rothschild spent two decades there, before he became a professor at the University of Linz. Even after the “return of the Bourbons” (Steindl, 1984, p. 3), WIFO remained a fortress of Keynesianism, and Chancellor Bruno Kreisky stuck to Keynesian policies, a strategy called ‘Austro-Keynesianism’ by Hans Seidel, then WIFO's director.

After Steindl retired from his full-time job at WIFO in 1978, the Summer School in Trieste with all its challenges, friendships and discussions became one of his main concerns and led to a peak in his productivity and theoretical work. This is well documented by numerous articles in the *Quarterly Review* of the Banca Nazionale del Lavoro.

4. Steindl's work in Austria

Nevertheless, the focus of this paper is on Steindl's work at the Austrian Institute of Economic Research. At WIFO, Steindl was called a man of theory, but it is quite surprising how policy-oriented his work actually was. He was never an active member of any political party in Austria, nor a direct advisor to Austrian policy makers. His main influence on Austrian policy derived from WIFO publications, some articles in *Wirtschaft und Gesellschaft* (edited by the Chamber of Labour) and a few lectures. It should be noted that in one of these lectures in the post-war years he advised Social Democrats to concentrate on Keynes, not on Marx (at that time, Marxism influenced many Social Democrats in

Austria). We may say that Steindl's main impact on Austrian policy resulted from his influence on a whole generation of economists at research institutes, ministries, the Chamber of Labour, the 'Kautsky-Kreis', political parties and universities.

5. Macroeconomic policy

In the early 1950s, Steindl wrote a masterpiece on "The impact of an additional expenditure of 1 billion schillings", an appendix to the WIFO monthly reports. This was a Keynesian contribution to a proactive business cycle policy. In the early 1950s, when it was written, it was almost as difficult as today to publish such a plea for demand management. Some people argued that it was too theoretical to be published by an institute that was supposed to concentrate on empirical work.

In another investigation from the 1950s, Steindl (1956) looked into exchange rate policy. He argued against a devaluation of the schilling since wages were rather low and devaluation would have further reduced them in real terms (through rising import prices). For him, the proper way to increase welfare in the long run was an appropriate demand and technology policy, not devaluation. His ideas were not heeded at the time, but twenty years later politicians and trade unions came to share his view on exchange rate policy.

During the Kreisky era (1970-1983), fiscal policy became a focus of economic policy. Chancellor Bruno Kreisky often argued that 100,000 unemployed people would cause him more sleepless nights than a sovereign debt of one billion schillings. For this statement, Kreisky was very much criticised by conservatives. Steindl emphasised that budget deficits come about through low growth rates and hence low tax receipts. Politicians cannot deliberately choose the budget deficit they want. The priority given to budget consolidation and price stability was, according to Steindl, the main reason for the economic slowdown that began in the 1970s (Bhaduri and Steindl, 1980).

6. Industrial structure

More than half a century ago he called, in his unpublished paper on the Austrian steel industry, for a diversification of production; especially at smaller plants, since it had become obvious that steel production at these locations could no longer be profitable. His other case study of that time, on the paper industry, includes a detailed description of production technologies used in that industry and their history. Actually, his investigations in the matter were so precise and detailed that he aroused suspicions. One of his interview partners called the WIFO director to warn him that Steindl might be an Eastern Bloc spy since he knew so much about the Austrian paper industry and wanted to know even more.

In the late 1950s, Steindl (1957) investigated methods to compute productivity indices. He rejected indices that apply to the whole manufacturing sector or, even worse, the whole economy because they rest on data for extremely different products; he proposed to instead use production in work units (at the firm level). This is common business practice today when people ask how many hours it will take to produce a car in Japan or in the USA.

In the 1970s, Steindl (1972) wrote an article on the diffusion of sales, which is to some extent related to his book *Random Processes* (1965a). Here he used the diffusion of sales, i.e. the increase in variation, as an indicator of the dynamics of an industry (analogously to the diffusion of heat in physics). The diffusion of sales was explained as a consequence of competition, mainly stemming from innovations by Schumpeterian pioneers.

7. Technology policy

Following Kalecki, Steindl focused on the important role of technological progress as a stimulus for investment. When in the 1960s he argued for a technology policy, he was much criticised, mainly on the grounds that firms, rather than the government authorities, know which course of action is best. Today, his arguments in favour of technology policy are common wisdom.

When in the 1970s the social partnership concept was widely praised in Austria and the macroeconomic performance of Austro-Keynesianism reigned virtually undisputed, Steindl criticised its short-run orientation that caused structural rigidities in the long run. He called for an industrial policy to promote technical change and emphasised the urgent need for a technology policy to promote the application and development of new technologies in Austria. He proposed technological studies to prepare government agencies for decision-making on new technologies and their promotion. In the following decades, industrial policy gradually changed into technology policy.

So, while Steindl had disregarded the economic function of innovations in his *Maturity and Stagnation* (1952),⁵ he later kept returning to this subject and put much stress on technology policy to promote innovation and technological change. Similarly, in his work on education planning in Austria in the 1960s he pointed out that competition for markets at the country and firm level is largely competition for technological progress: a country must not rely on imports of ready-made technological innovations but needs to aim at new developments of its own in the long run.

Steindl noted that Austria was an industrial latecomer and had for a long time been able to import technologies. But once Austria's economic performance exceeded the European average, the country had to develop new technologies of its own. As a consequence more engineers and technicians were needed.

8. Educational planning in Austria

This was the time Steindl had his greatest impact on Austrian policies. He wrote a book on *Bildungsplanung und wirtschaftliches Wachstum* (1967a) and numerous articles on education (Steindl, 1965b, 1968, 1970a). He argued that, ultimately, growth is limited only by the ability of a society to learn. While he clearly saw that the learning process

⁵ In the new edition of this book (1976a, p. xii) he admitted that he had “denied that innovations stimulate investment [...]. There lay my error.”

could not easily exceed a certain maximum pace, he still put very great emphasis on education and technology, considering the slow growth in the supply of engineers in Austria to be a major impediment to the development of technology and national research in Austria.

The introduction of vocational secondary schools (*Berufsbildende mittlere and höhere Schulen*) in Austria was mainly a consequence of his book on educational planning. The title “Educational Planning and Economic Growth” showed Steindl’s affinity to economic planning.

9. Labour market

In the early 1970s, Steindl (1968, 1976b) prioritised labour market issues. For him, the bottleneck preventing higher growth rates was manpower rather than equipment. A scarcity of manpower would make it impossible for investment to increase beyond a certain level, thereby restraining the rest of the economy through the multiplier effect. Confronted with the large inflow of foreign workers, he argued that while immigration would remove a barrier to growth, Austria should not accept more foreign workers than might be integrated – an early warning of the threat of ghetto formation.

Steindl’s interest in biology is revealed in some papers (1970b) on the labour market in the 1970s. He wrote an article drawing an analogy between technological progress and biological evolution:⁶ both are learning processes. In the same vein, he regarded labour turnover as a renewal process and inflation as a genetic process that is inherited through wages.

In the late 1970s, he analysed the wage bargaining process. He made a sharp distinction between collective bargaining that is largely organised at the industry level and wage drift at the plant level. He concluded that collective bargaining at the industry level is mainly influenced by inflation rates, while wage drift at the plant level is driven by profits. He further argued that, in the long run, high growth should have favoured

⁶ As Alessandro Roncaglia brought to our attention: in these papers he seems to foreshadow the contributions of Nelson and Winter (1982).

profits, but it turned out that the managers and engineers enjoyed a position that allowed them to increase their share of the profit (Steindl, 1977; Sylos-Labini, 1969).

10. Economic policies in the European Union

Steindl (1988b) was sceptical about Austria's membership in the European Union and the euro zone. He would have preferred Austria to stay outside the EU and enter into bilateral agreements with it (similarly to Switzerland). He was particularly sceptical about the EU policy framework. He used to distinguish between two visions of Europe: that of Keynes and that of the EU. The latter is of the supply-side type: a free internal market where the four freedoms of movement of goods, services, capital and people is supposed to lead to economic success.

Referring to Keynes' concept of a "clearing union", Steindl (1988b) pointed out that a European Union needs to balance the interests of creditor and debtor countries. Otherwise, debtor countries would be forced to adopt extremely restrictive policies. The current crisis of the euro shows that this Keynesian idea did not find the acceptance it was due (Guger *et al.*, 2006, p. 433-435).

11. Steindl's Austrian legacy for economics

Steindl's impact on economic policy in Austria concentrated on three areas: Keynesian thinking, educational policy and technology policy.

After returning to Vienna in 1950 Steindl, together with other repatriates, i.e. Kurt W. Rothschild, Philipp Rieger and others, advanced Keynesian and Kaleckian thinking in Austria and thus influenced a whole generation of economists. Most influential was his article "The Impact of an Additional Expenditure of 1 Billion Schillings".

In the 1960s, he pushed for an educational policy in Austria with his study "Educational Planning and Economic Growth" (1968), in which he emphasised the role of engineers, technicians and skilled workers in long-

term economic growth. Closely related to this was his plea for a technology policy. As an industrial latecomer, Austria was able to import technologies for a long time; but once the country had caught up, it needed to stimulate innovation with a conscious technology policy. When Steindl suggested this, he was a few decades ahead of his time; today a whole flock of economists at WIFO are working on technology and innovation policy. Given Steindl's preoccupation with long-term considerations, it is not surprising that he had his greatest impact on the economic policy in Austria through long-run strategies in the fields of education and technology.

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