Franciso Louçã, *The Years of High Econometrics: A Short History of the Generation that Reinvented Economics* (London and New York: Routledge, 2007), pp. xxiv, 370, \$180. ISBN 978-0-415-41974-1

Mary Morgan's (1990) seminal History of Econometric Ideas saw econometrics as having deep roots—the econometrics of business cycles going back at least to William Stanley Jevons's sunspot theory of the mid-nineteenth century and the econometrics of demand going back even further at least to Charles Davenant's quantification of Gregory King's demand curve in 1699. In contrast, Francisco Loucã in his brilliant history locates the origins of econometrics in the 1930s, quite near the end of Morgan's history, and labels it the "most adventurous and successful innovation" in economics in the twentieth century (p. 1). On Louçã's account, econometrics has a clear founder: Ragnar Frisch. Frisch was an inexhaustible fount of neologisms. His new term, "econometrics," was not meant to rename economic statistics but to designate a new field of study—the one described in the Constitution of the Econometric Society and in the first issue of *Econometrica* as "economic theory in its relation to statistics and mathematics," which unites "... the theoreticalquantitative and the empirical-quantitative approach to economic problems" with "... constructive and rigorous thinking similar to that which has come to dominate in the natural sciences" (Frisch 1933, p. 1).

Louçã's title is meant to echo G. L. S. Shackle's once famous *Years of High Theory* (1967), which documented the development of economics in the late 1920s and 1930s. Louçã's title is perhaps not apt. His book is an account of the foundations—so, in that way, *low* rather than high econometrics. It is as much a history of institutions and institution-building as a history of ideas. Its scope is wide, as indicated by its nine pages of five-line biographies of its "characters." Yet, as Louçã himself acknowledges, Frisch is the central character, and even the most carefully drawn among the others pales in comparison to Frisch.

Frisch presents a set of puzzling contrasts. His vision of economics was explicitly modeled on natural sciences. Economics was a sort of social physics—although he was well aware of the disanalogies. Louçã recounts the elaborate ways in which Frisch developed analogies with complex pendula that applied the mathematics of damped and undamped harmonic oscillations to economic data. But Frisch was not a disinterested scientist committed to positive pursuits. Rather he was a committed Christian and socialist who sought the solution to the economic ills of the 1930s in a deeper understanding of the nature of capitalist economies. He was at heart a central planner, who felt that there were too many independent agents in the economy and that economic decision-making needed to be more centralized (views shared to some degree by Jan Tinbergen as well). With such views present at its foundation, it is small wonder that the liberal, Austrian school has always been skeptical of econometrics.

Frisch was also somewhat imperious and self-promoting—for example, using his position as the first editor of *Econometrica* to disseminate his own work. Yet, he was widely connected. His institute in Oslo enjoyed support of the Rockefeller Foundation; he traveled widely in the United States and Europe, engaging important economists wherever he went; and he was able to mobilize disparate scholars, including

John Maynard Keynes and Joseph Schumpeter, who were intellectually opposed to many of Frisch's own econometric ideas, to support the creation of the Econometric Society.

Frisch's institutional legacy exceeds his intellectual legacy. A prolific scholar, he was driven less by a particular theoretical program than by a broad conceptual scheme: economic theory needed to be tied to data to support policy. Exactly what the theory looked like was up in the air. He was generally pragmatic and willing to let the theoretical analysis be driven by the details of the problem to hand. The premier problem of the 1930s was the Great Depression, and Frisch sought the solution in an analysis of *macrodynamics* (a term which he coined along with our more familiar *macroeconomics*). While thus laying the groundwork for the modern structure of the economic discipline, Frisch nonetheless won few of the intellectual battles. There is no Frisch school.

Macroeconomics got its name from Frisch, but its theoretical program—unchallenged until the 1970s, and still not fully supplanted today—owed much more to John Hicks's (1937) interpretation of Keynes's *General Theory*. His own brand of aggregate dynamics engaged almost no followers. Frisch was sensitive, perhaps overly sensitive, to the difficulties of what he called "inverse inference"—that is, the problem of inferring the underlying structure of the data-generating process from the observed covariation of the data. This led him to propose confluence analysis and the technique of bunch maps—each weaker in its ambitions than structural econometrics. While there are later echoes of Frisch's worries (e.g., in Liu 1960 and Sims 1980), again Frisch's approach gained no significant adherents. Similarly, despite having promoted Trygve Haavelmo, whose "Probability Approach in Econometrics" (1944) is the foundation of modern econometrics, Frisch was deeply skeptical of the utility of probability theory in taming economic data.

Frisch remained in Norway during World War II and for the last year and a half of the war was a prisoner of the Nazis. He returned to his position as editor of *Econometrica* in 1945, but after the lost war years he was intellectually marginalized. The immediate future belonged to Lawrence Klein and others who melded the work of Keynes (macroeconomics) with that of Tinbergen (empirical modeling) and of the Cowles Commission (identification and probabilistic foundations) into a new orthodoxy. Louçã sees only his taxonomy of the business cycle theory into *propagation problems* and *impulse problems* as having lasting influence. In this respect, Louçã takes the Klein-Goldberger econometric model of the United States, particularly as it was evaluated in simulation experiments by Irma and Frank Adelman (1959), as having carried through this part of Frisch's macroeconomic approach.

Louçã is surely right that we see Frisch's conception of business-cycle analysis in Lucas's monetary equilibrium business-cycle theory and in the real-business cycle models after Finn Kydland and Edward Prescott. He is, I believe, more generous than is warranted in taking Kydland and Prescott at their word in seeing such equilibrium business-cycle models as *successfully* integrating growth theory with business-cycle theory. In their theoretical work, the real business-cycle modelers typically linearize around a steady-state solution and typically find the "steady-state" growth path using a Hodrick-Prescott filter, which is just a fancy moving average—an atheoretical trend/cycle decomposition in which the supposedly integrated neoclassical growth

model does none of the work. Frisch, I imagine, would have seen through the subterfuge.

Frisch's institutional legacy is, in contrast, enduring. Without Frisch, the Econometric Society and *Econometrica* would never have gotten off the ground or endured through its early years. Less directly, Frisch encouraged the Cowles Commission. And Frisch promoted both Tinbergen and Haavelmo. The economic profession would not have taken its modern shape without Frisch; and, even though it was not the shape he would have preferred, neither would econometrics.

Louçã draws on archival sources to tell an engaging story. In focusing this review on Frisch, I put the emphasis where Louçã himself puts it. Yet, I have not done justice to a rich tale and all the lesser characters—some of whom, such as Haavelmo, Tinbergen, and Tjalling Koopmans, get significant treatment; nor have I done justice to the wealth of historical detail that makes this a fascinating book.

Kevin D. Hoover Duke University

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Vincent Barnett and Joachim Zweynert, eds., *Economics in Russia: Studies in Intellectual History* (Burlington, VT: Ashgate, 2008), pp. xviii, 198, \$100 (hard-cover). ISBN: 978-0-7546-6149-8.

A book intended to deal with "the growth and development of Russian economic thought" (co-editors' foreword) in order to "fully comprehend the current position of the Russian economy" should claim considerable interest. The peculiar features of Russia's economic and political development, especially the recurring failures of liberal ideology in Russia, cannot be understood without some knowledge of the "environmental determinants of intellectual progress" and their impact on the ensuing economic theory (Eagly 1968). In particular, the student of Russian intellectual history would like to know why, in Russia, modernization occurred in