Till Düppe and Ivan Boldyrev, eds., *Economic Knowledge in Socialism*, 1945–89, annual supplement, *History of Political Economy* 51 (6) (Durham: Duke University Press, 2019), pp. 328, \$18. ISBN: 9781478009375.

doi: 10.1017/S1053837221000250

What was the problem with the socialist economy? According to most economists discussed in the *Economic Knowledge in Socialism* collection, the problem seemed to have been socialism itself. Most of the individuals and groups presented in the volume believed that the economies of the Soviet Union and its fellow socialist states in Eastern Europe were inherently flawed and at risk of suffering irreparable damage in the postwar era. Radical measures were to be taken immediately. "There is no alternative," many of these economists must have thought, anticipating by one or two decades some of their colleagues in the capitalist world. This terrific new edited volume explores the myriad analyses produced and solutions proposed in the USSR, Hungary, Czechoslovakia, and Yugoslavia between 1945 and 1989.

Prices were an especially thorny issue for the majority of economists covered in the collection. In theory, in socialist systems, prices were set "arbitrarily" (a word that recurs often in the volume) by the state, rather than determined by the iron laws of supply and demand. In the theory of socialism, those "arbitrary" prices served to make goods and services available according to need rather than wealth. However, the practice of socialism created distorted incentives for producers, which led to widespread inefficiencies. Many economists in the USSR and Eastern Europe believed that introducing market mechanisms in the socialist economy would "fix" the incentives to produce and thus reduce inefficiency. Since the end of the Second World War, to different extents and with different degrees of success, a significant number of Soviet and East European economists and intellectuals argued for more market and less state to save the socialist economy.

Issues with prices, of course, are the bread and butter of economists everywhere. The "heterodox" economist Piero Sraffa, who lived in Italy and Britain, believed that the theory of prices and wages in capitalist economies was flawed. He strove to demonstrate that in any economic system at least two different equilibria that maximized efficiency were possible, one with high wages and low profits and one with low wages and high profits. Sraffa's point was that the balance of forces between social classes determined which equilibrium a certain economic system reached, and not the deterministic interplay of supply and demand.

Most economists discussed in *Economic Knowledge in Socialism* were Sraffa's mirror image: they believed that socialism as a "really existing" political system prevented the economy from reaching efficiency. They advocated market prices, but how to introduce them in a socialist economy remained a matter of discussion and controversy. In Eastern Europe, where socialism was always resented and widely contested, the local governments were often forced to introduce some degree of market mechanisms in the hope of improving living standards. Martha Lampland and György Péteri discuss the fascinating and sometimes surprising ways in which reform-minded economists introduced their ideas in postwar Hungary. Vítêzslav Sommer shows how research in economics in Czechoslovakia around 1968 was directly connected to the attempt to overcome socialism, also beyond the strictly economic sphere. Johanna Bockman shows how the discourse of "structural adjustment" was born out of the desire

to restructure the global economy in favor of developing countries. Actors such as Yugoslavia and the United Nations Conference on Trade and Development promoted structural adjustment from the early postwar era to the 1980s, when the terminology was appropriated by international financial institutions with a different agenda.

In the Soviet Union, which is the focus of two-thirds of the contributions to the volume, efforts to reform the economy coalesced around the Central Economic Mathematical Institute (TsEMI) of the Soviet Academy of Sciences. The idea behind the creation of TsEMI was to apply modern mathematical and technological tools to the Soviet economy in search of optimal planning, following the insight of Leonid Kantorovich—one of the USSR's most famous economists. The TsEMI community was the same one depicted by Francis Spufford is his 2010 novel, *Red Plenty*, which Till Düppe and Ivan Boldyrev evoke in their introduction. However, while the TsEMI economists in Red Plenty appear flawed but ultimately sympathetic in their doomed search for prosperity in the USSR, the individuals and groups discussed in Economic Knowledge in Socialism cut starker figures. With backgrounds in "hard" science and engineering, they approached the Soviet economy as a giant optimization problem—one that may be complicated to solve but that definitely has a best solution. Advanced mathematics, and the use of powerful computers, would allow TsEMI to find it. In a nutshell, their idea was to "simulate" market behavior through formal models run by computers, in order to work out optimal prices that could then be used in the "real" planned economy. The actors in the model were assumed to seek profit maximization. In this context, Richard Ericson explores the evolution of the troubled relationship between political power and the economists who argued for market incentives through optimal planning; Olessia Kirtchik explores Emmanuil Braverman's intellectual journey from cybernetics for machine building to cybernetics applied to the economy; and Egl⊠ Rindzevi⊠i⊠t⊠ investigates how scientific dissent led to widespread political dissent among economists who advocated system analysis to assess the validity of infrastructure building. They all had something in common: a deep skepticism for the theory, culture, and practice of socialism in the USSR and beyond.

Other Soviet economists were less interested in mathematics and science but just as committed to reforming the system. They tended to work in research agencies with tight connections to the state, such as the Institute of World Economy and International Relations. Their approach was more political economy than mathematical economics, but some of the conclusions mirrored those of their colleagues in TsEMI. Chris Miller analyzes the process that led intellectuals like Karen Brutents and Fedor Burlatskii, who worked between academia and policy making, to "lose faith" in state-led development. They came to regard the countries in Africa, Asia, and Latin America in which the USSR had sponsored development projects as reflections of the Soviet Union itself—inefficient economies and societies ridden with corruption. The hypertrophic state born out of development efforts was consuming these societies from the inside, and it was consuming the Soviet Union too. Both Brutents and Burlatskii eventually embraced Mikhail Gorbachev's reforms enthusiastically. Joachim Zwynert looks at economists who moved in the same intellectual and political milieu. Since the 1960s, they became fascinated with the notion of "convergence," as exposed by John Kenneth Galbraith. However, where Galbraith maintained that capitalist systems were also acquiring some characteristics of socialist ones, his Soviet admirers were more interested in the notion of

socialism becoming more and more similar to capitalism. Many became prominent supporters of *perestroika* under Gorbachev.

In their introduction, Düppe and Boldyrev state that the volume eschews "the view from the West" and avoids "a comparative tone." Considering most contributions to the volume, this may not be entirely accurate. Reform economists in the USSR and beyond always compared the socialism they knew with their idea of the Western capitalist economy. Even implicitly, that was the model they aspired to—an economy that always grew, in which resources were always allocated optimally, and in which the marginal rate of productivity always equaled the marginal revenue product of labor. This was an idealized vision of the capitalist economy. The recent research boom in the "history of capitalism" has showed how widely the practice of capitalism differed from its theory. In future research on socialist economics, it will be interesting to address comparative perspectives head on, focusing on "really existing" capitalism and socialism, and going beyond the paradigm of the dissenter/reformist intellectual.

There were, of course, dissenting opinions even among dissenters, and *Economic Knowledge in Socialism* covers them in detail. Yakov Feygin introduces Iakov Kronrod, a Soviet economist who had a different idea of reform in mind from that of most dissenters. He criticized the proposals that came from TsEMI and accused some of his colleagues of seeking an ideologically driven project of reform, masked by layers of mathematics. Steeped in classical Marxism, Kronrod was less interested in the potential of an economy and more preoccupied with how to manage the "surplus" that the USSR produced. He argued that the Soviet Union should become more egalitarian, and to do so it needed a system of planning able to assign the correct price, based on labor input, for multiple productive branches at the same time. Few listened, and Kronrod's intellectual legacy is often mistakenly associated with that of his TsEMI rivals.

In what is perhaps the most interesting contribution to the volume, Adam Leeds discusses another advocate of reform who remained committed to socialism: Iurii Iaremenko. Spurred by the USSR's declining growth rates since the late 1960s, he set about studying the root causes of the Soviet economy's malaise. Sustained by a solid econometric model, his conclusion was simple enough: the "high priority" sectors of the Soviet economy, inevitably related to the military-industrial complex, hoarded nearly all high-quality inputs, leaving mostly low-quality materials to the consumer sector. Moreover, the defense sector's insatiable appetite for raw materials forced a limitless expansion of basic extractive industries with low potential for technological development and growth. The result was sluggish macroeconomic growth but also a large population that worked dead-end jobs in obsolete sectors, plagued by poverty and depression. Many pointed at the administrative gigantism of the Soviet Union and its hypertrophic military as problems, but Iaremenko's solution was different from theirs. Counterintuitively, he believed more state oversight was necessary. Since the beginning of the Leonid Brezhnev era, the USSR's political leadership had allowed the military to cannibalize the rest of the country like never before. As Leeds explains, Iaremenko believed that military competition with the West had come to be the essence itself of the Soviet Union, requiring immense sacrifices for the sake of an "irrational," unattainable goal. This had to end. Iaremenko's model required a complete rethink of the Soviet Union and its place in the world. "Technocratic" solutions, such as introducing market incentives in the Soviet economy, were destined to fail. It was politics that determined the course of Soviet economics, and not vice versa. Fixing the economy required fixing Soviet politics first.

Likewise, Oleg Ananyin and Denis Melnik look at those Soviet economists who for better or worse accepted socialism and strove to improve it. They present a fascinating overview of the field of political economy in the USSR. Generations of Soviet economists tackled one of "really existing" socialism's central problems: Should the state attempt to abolish market exchanges or simply regulate them? Iosif Stalin himself cut the discussion short: as long as the USSR did not achieve abundance, elements of the market remained necessary to govern production and consumption.

In conclusion, *Economic Knowledge in Socialism* is a remarkable achievement and a major contribution to an expanding field. Düppe and Boldyrev have brought together a diverse group of scholars, who showcase some of the most exciting research in the history of economics. Through painstaking work and innovative concepts, the authors in *Economic Knowledge in Socialism* take the reader on a fascinating tour of the meaning, evolution, and struggles of the socialist economy and its discontents since 1945. In the future, as Düppe and Boldyrev themselves wish for in the introduction, it will be interesting to investigate economic knowledge in socialist countries outside of Europe and to see the influence on socialist economics of ideas that came not only from the capitalist West. *Economic Knowledge in Socialism* is indispensable reading for scholars interested in the economic history of socialism, but it will be of great interest to anyone interested in economic knowledge in the post-WWII world in general.

Alessandro Iandolo Harvard University