

# Physicist Offers Russia Lessons in Economics

by Rachel Douglas

Russian President Vladimir Putin evidently received some sound economic advice from the scientist he met with for an hour on Oct. 12. This person was not one of his economics advisers, but Academician Zhores (Jaures) Alfyorov, who two days earlier had received the Nobel Prize for Physics. It appears that not only is Dr. Maurice Allais, a physicist, the exceptional Nobel Laureate in Economics who promotes something other than quackery, but now we have also a Nobel Laureate in Physics, who is a better economist than most of the Nobel Laureates in Economics.

Alfyorov is vice president of the Russian Academy of Sciences, having worked for nearly half a century at the A.I. Ioffe Institute for Physical Technology, which he currently directs. Seventy years old, he is also an elected member of the Russian State Duma (lower house of parliament), sitting in the parliamentary group of the Communist Party of the Russian Federation (CPRF).

This year's physics Nobel was awarded jointly to Alfyorov and Herbert Kroemer (University of California at Santa Barbara) for research on semiconductors and lasers, and Jack Kilby (Texas Instruments), who developed the integrated circuit. They were hailed in the media as laying the basis for "the revolution in communications technology."

Alfyorov's response to receiving the Nobel Prize for Physics, was to speak out forcefully on good and bad economics. In interviews with Russian television and print media, Alfyorov spoke to the growing recognition in Russia, that the information-technology-based "New Economy," so much heralded in the West as well as the East, is a hoax. The Russian physicist concurred, citing his own work.

"Today, two-thirds of world finances is composed of capital [derived] from currency speculation, securities, bonds, etc.," Alfyorov was quoted in Moscow *Vedomosti* on Oct. 16. "As for existing systems of communications, to which I personally made a serious contribution—these are rather in virtual reality, while the real economy is reflected only by 10% of global capital. In the U.S.S.R., it was the real economy we were developing."

On Oct. 10, Alfyorov told TV interviewers, "I feel very proud for my country, for St. Petersburg, and for my beloved Ioffe Institute for Physical Technology. . . . I regard this award as a natural recognition of Soviet science. . . . I often read in papers that the Soviet Union was far behind the United States in electronics. Meanwhile, our institute discovered the princi-

ples now used in compact disks, solar batteries in space exploration, mobile phones. All of this resulted from our research on the properties of solids."

## Increase Funding for Science

What would he do with his prize, and how would he celebrate? asked ORT television. "I am going to spend part of the money on financing construction of a new scientific center in St. Petersburg. . . . How will I celebrate? I'll go to the State Duma and demand, once again, that budget spending for science be increased. I hope I'll be given the floor. I believe that the future of Russia is determined by its achievements in science and technology, and not in trade in oil and gas. I believe that the future of Russia is determined by physical science rather than by [financiers Boris] Berezovsky and [Vladimir] Gusinsky. . . . Just imagine: in the draft budget, 1.72% [of spending] is allocated for support of science, and 2.6% for the incompetent tax-collecting bureaucracy."

The next day, Oct. 11, Alfyorov did take the floor in the State Duma, where he has been a deputy for four years. (In 1996, he was elected as part of Viktor Chernomyrdin's Our Home Is Russia group, but he broke with Our Home—he says it was over dismissive statements about the accomplishments of the Soviet state, made by some of Our Home's younger members—and joined the CPRF group.) Speaking in the midst of the parliamentary debate on the 2001 budget, Alfyorov repeated his polemical question: "How is it possible that the Finance Ministry, which merely consists of bureaucrats, gets one and a half times more money than the entire science sector?" In 2000, he said, the latter figure was only 1.72% of all budget spending, as against 3.8% in 1998 and 7% in the Soviet period. An average scientific worker at, for example, the Ioffe Institute, receives a salary equivalent to \$80 per month.

According to *Vedomosti*, Alfyorov is urging re-examination of the better features of the Soviet "industrial sector-based management of the economy, on the basis of specialized ministries," each of which he compares with "a transnational corporation, having within its framework the whole range of science, from fundamental research to applied disciplines."

Alfyorov described his meeting with President Putin on Oct. 12, as "very productive," reported Itar-TASS. He stated that his aims for the discussion had been "500%" achieved.

In the latest round of the Russian budget fight, the Duma passed the second reading of the 2001 draft on Oct. 21, but only after the government agreed to some increase in spending on defense, science, agriculture, and education, and to reduce spending on foreign debt service—albeit by only a small amount. The increases, totalling 30 billion rubles (about \$1 billion), are matched by official acknowledgment of anticipated higher revenues, though not on the scale demanded by several opposition parties.