# Russia's summer bout of optimism

**To have survived this far is a triumph, perhaps also an augury for the future, but Russian researchers remain anxious about the long-term future.**

**St Petersburg**. "The trouble with Russia is that it's governed by optimists", Dr Sergei A. Korolenko, from the Institute of Cytology of the Russian Academy of Sciences, said last week after a brief conversation about the economy. Then, by way of afterthought, "That's only natural. It's natural selection: all the pessimists have left."

Whatever the cause, pessimism is less palpable now than for three years, since Gorbachev's version of *perestroika* began to sour. For laboratories and whole institutes to have survived these years, let alone Russia itself, is now recognized as a triumph, even a sign that the undefined problems ahead may also be surmountable.

The optimism might, of course, have been moderated if the Korolenkos of this world had known that, on the very day they were exchanging pleasantries with a foreigner, their government was trying to mortgage its strategic stocks of heavy metals to pay a debt to a Swiss bank, or if they had seen the women and children from some southern republic, perhaps thirty altogether, huddled together as if thrown in a heap, alongside one of the station platforms from which the sleeper-trains to Moscow leave; the men were circling around, begging.

So optimism must be tempered with realism, the essence of which is that the hardships and humiliations of mere living are no less than in Brezhnev's time, although different. Inflation is the bugbear, the general level of prices having increased more than a hundredfold, but unevenly. The price of a metro-journey in Moscow has gone from 5 kopecs to 5 rubles since 1987, but minor luxuries (such as air travel or international telephone calls) are now pegged to the US dollar and are more than 1,000 times what they were. (In 1987, one dollar would buy 60 kopecs; last week, it would buy 2,000 times as many.)

Salaries have risen, but not as quickly. At the Institute of Organic Chemistry in Moscow, the average salary is about 20,000 rubles a month, just a little less than the 22,000 rubles offered last week to those who clean metro stations. But a dozen researchers earn extra by working as typesetters for the desktop publication of three chemistry journals, to be produced more or less simultaneously in Russian and English.

Inevitably, hardship is forcing people out of science, or out of Russian science. One physicist in St Petersburg said he had almost wept when one of his brightest post-diploma students (on the way to the equivalent of a PhD) had left to work in a hotel; "He's now opening the door for guests, I think." Fixing things for foreign businesses is a favourite alternative to science, but there is a small army of research-qualified general traders and a sprinkling of people who have set up technical enterprises in Russia. Some have already become bankrupt.

The flight overseas preoccupies the research managers, but its pattern varies. At the Ioffe Physical Technical Institute in St Petersburg, the largest in the Russian academy system (now that the Lebedev Institute in Moscow has been split), only five people are known to have found permanent jobs overseas. And although a hundred people left last year, some probably for short spells, all the vacancies have been filled with younger people already on the institute's books, keeping the roster of active researchers at about 1,200. The Ioffe institute attributes that success to its close involvement in the teaching programme of the St Petersburg Technical University. But the managers say they will not be able to repeat that trick for more than a year or two.

"Active" may not be the right word. With the general squeeze on budgets and the need to keep as many researchers as possible above the bread-line, spending on equipment and supplies has declined drastically. Overseas visits have been curtailed by Aeroflot's new realism on air-fares.

On the other side of that coin is the sad case of the Euler Institute in St Petersburg, named after the mathematician who helped Peter the Great to found the Russian academy, and opened less than a year ago by Sir Michael Atiyah, president of the Royal Society of London. One day last week, it housed only its director, the distinguished theoretical physicist Professor Ludwig Faadeev, his administrator and their two secretaries. The plan to use the handsomely restored bourgeois palace for seminars lasting several months is in abeyance, awaiting funds with which to bring up to a dozen mathematicians from overseas. Fadeev plans to apply to the new Soros fund. Or UNESCO may be able to help a little (as it has done with the restoration of the palace).

Faadeev may be disappointed that the germination of his institute has been postponed, but he is "bitter" to have been deserted by most of his senior colleagues at the Institute of Applied Mathematics, where he is also director. As recently as last August, he insisted that his hand-picked people, although perpetually on the wing, would not abandon St Petersburg. But now they have gone, mostly to academic posts in the United States. Faadeev says that when he meets them, they portray themselves as the diaspora of his institute. For his part, he does not have the stomach for beginning all over again, finding bright students and bringing them on. And there is the generation gap.

The Russian Academy can no longer solve all problems. Its direct support of institutes ranges downwards from 90 per cent (at the Ioffe institute) to as little as 25 per cent at the Shemiakin institute (active in biotechnology) in Moscow. The physics institutes are the more dependent, and complain that Russian industry (an alternative source of funds) is more concerned to keep its plants at work than to invest in research. The Russian Foundation for Fundamental Research has been a lifeline for many research groups; high hopes are pinned on the Soros fund, due to publish the conditions of its research awards (up to $100,000 each) this week.

A curious ambivalence towards the academy is emerging. With institutes having to survive by the wits of their members, central control is less obtrusive than formerly, and so is less widely resented. On the other hand, the trappings of privilege (limousines with drivers, the vulgar and expensive new headquarters building in Moscow, $400-a-night suites in Washington hotels), although attenuated, are at odds with the delay in paying salaries, now one or two months in arrears at many institutes.

Some of these grumbles will be aired at a meeting organized for this Wednesday at the Institute of Foreign Relations, originally called to complain that President Boris Yeltsin has abandoned his pre-referendum promise that scientists' and teachers' salaries would be maintained, and has now decreed a freeze of public budgets.

The most serious danger for the academy and thus for its researchers is that it will fall out of step with the government. Its response to the removal of Andrei Gonchar, the deputy president of the academy and its most effective member, from his interim job as president of the fundamental research foundation (see *Nature* **363**, 662; 1993) was to demand the dismissal of the able science minister, Boris Saltykov. For his part, Gonchar said last week that the government was "right" (in the sense of being within its rights) to act as it did. In an earlier conversation, Satlykov had remarked that the academy "has done nothing to assist the reform process" in the past few years, but has "looked after itself". There are the makings of trouble. **John Maddox**