

began with a junior high-school text on "Popular Geochemistry" published in 1948 in the Soviet Union, which identifies the components of an airplane in terms of chemical elements. Noting the Soviets' pioneering work in titanium development, and asking how many U.S. students know what makes up a plane, he went on to stress the Warsaw Pact's self-sufficiency in petroleum and most other strategic materials, and the fact that each nation needs those not simply for military equipment but for agricultural machinery, machine tools, and the other elements of a modern industrial base overall. The Club of Rome is wrong, he said: "The only resource we can run out of is common sense, and we may have crossed that line some years back."

Dr. Morgan proposed to expand both government and private stockpiles, and improve U.S. merchant shipping and port infrastructure to facilitate raw-materials imports, since, he said, the United States will remain import-dependent. How these imports are to be secured—whether through mutually beneficial economic accords with producing nations, through neo-colonial grabs, or through "limited war for control of resources," he did not specify; he focused on the evidence that the U.S. is lagging behind the rest of the Western industrial nations, not to speak of the U.S.S.R., in militarily essential fields like steel production.

With his practiced Yankee twinkle, Morgan added during a question-and-answer session that the obstacle to greater private-sector reserves of petroleum and other strategic resources is that "high interest rates make it hard to finance stock levels. I am not an economist, but I believe we must make essential activity more remunerative, and less essential activity less attractive, or we won't survive as a country."

On the stockpiling question, David Goldman commented that nuclear energy development would both secure domestic power production and open the way for development of new resources through high-temperature processing and ionization techniques. To Landicho's implicit pessimism, Mr. Goldman replied that there is no great disjuncture between making the civilian economy function again and ensuring war-preparedness, once Americans stop accepting the fact that the McDonalds fast-foods chain is now the single largest employer in the United States. It would be perfectly feasible, Goldman said, to provide gold-backed Treasury credit to the banking system at the 6 percent interest-rate level, with "first dibs for productive investment"—gold backing is required, he insisted, "to convince people we're serious, after our bad record."

Defining the gap

Two other seminar presentations, excerpted below, directly addressed the question of U.S.-U.S.S.R. military imbalance. Dr. Franklyn Holzman of the George F.

Kennan Advanced Russian Studies Institute at the Woodrow Wilson Center, who is a professor at Henry Kissinger's Harvard Russian Research Center, took price-tags on manpower and equipment as the criterion of strength, and asserted that the CIA has overestimated Soviet defense spending. While conceding that he is not an expert on strategic matters, he claimed that in any case, a major portion of Soviet capabilities is directed against China, and thus somehow permanently unavailable for deployment against NATO. His conclusion was not only that the Soviets are not moving ahead of the United States militarily, but that the U.S. defense budget should be cut.

Dr. Steven Bardwell of the Fusion Energy Foundation, a plasma physicist well acquainted with the leading edges of Soviet R&D, asserted that the gap is defined by the great and growing disadvantage suffered by the United States in industrial productivity, broad-based scientific and technical training, and commitment to the West Point tradition of "winning the peace" for industrial development, as opposed to the technetronic, body-count conception of limited wars like the Vietnam war.

What the latter policy has already inflicted in South-east Asia, was recalled in a new and extraordinarily chilling way as *EIR* Asia Editor Daniel Sneider reported on his recent trip to Cambodia (see *EIR*, Sept. 29), where he discovered the extent of complicity between Peking and the Kissinger State Department to depopulate and destroy every potential for modernization and independence of nations that could threaten China's "hegemony"; Latin American Editor Dennis Small described how veterans of the Cambodia betrayal like Thomas Enders of the DOS are preparing civil wars throughout Central America, with the explicit purpose of eliminating population there.

Prof. Holzman compares defense expenditures

Dr. Franklyn Holzman, currently at the Woodrow Wilson Center's Kennedy Institute for Advanced Russian Studies, is a professor of economics at Tufts and the Harvard Russian Research Center. He has written two books Financial Checks on Soviet Defense Expenditures and Inter-

national Trading Under Communism, and an article for the Spring 1980 issue of *International Security Review*, "Are the Russians Really Outspending Us on Defense?"

... I would like to say that I actually feel that the aggregate military-spending figures that I am going to talk about are not a very good or necessary indicator of the relative military strengths of the two countries, because how well a nation spends its money will also determine the strength of its armed forces, and you can be spending on all the wrong things or spending an awful lot of money producing bad weapons, and so the total amount of money spent is not a very good indicator of power. . . .

The problem that the CIA faces is a very difficult one, because the Russians publish, and have since the early 1920s published, only one figure for defense spending in their budget. The Soviet budget is a document usually of about 20 or 30 figures, of which defense spending is one. Now that figure is also obviously not their total defense spending. For example, that figure, since about 1970—over the past 10 years—has varied between about 17.1 and 17.8 billion rubles. I mean, even if they *tried* to spend the same amount every year, I don't think they could come that close; so it is clearly a phony figure, and it also is small. It's much smaller—no matter how you translate the ruble—much smaller than their defense spending must be. So the CIA has to calculate a figure.

Furthermore, even if they [the Soviets] did give us a true and accurate defense-spending figure, there is no market exchange rate by which one could convert this into dollars.

Now, what does the CIA do? They have put an enormous amount of resources into estimating Soviet defense spending, and the way they do this is that they attempt to get an inventory of everything that the Soviet defense establishment produces or spends money on each year. Now, the simplest figure, of course, is the figure for the number of the armed forces, although the Defense Department in their statement yesterday [Sept. 29], comes up with a 4.8 million figure whereas the CIA—I haven't seen the CIA's last word on this—but their figure has typically been in the last few years around 4.3 million. So there is even a difference there; but certainly the ballpark figure is pretty clear.

Other figures are much more difficult for the CIA to get estimates of; and what they do is, through all sorts of clandestine means, through surveillance by satellites, I suppose through spies on the spot, and so forth, they try to get the number of tanks, the number of machine guns, the number of military trucks, the number of missiles, the number of submarines; they try to find out exactly all of the qualities of these—the dimensions, how they are made; and then they put an American price on it. A large part of the job is to get the numbers of these things and

then put an American price on them, adjusting for the differences between the American models and the Russian models.

The R&D requires still another method, and nobody—at least nobody who's not in the CIA—really knows exactly how they do it, but they come up with a figure somehow, and they admit that that's a pretty fanciful figure, a big range of error.

Now as a result of their estimates, they come up usually with two kinds of estimates. One is: how much more are they spending this year than the United States, or what is the comparison this year between the Soviets and the United States; and the other is the 10-year gap. If I may put a diagram on the board [the graph shows U.S. defense spending relatively stable from 1970 to 1980 at 100, and shows the Soviets starting slightly below the United States and going up to 150 by 1980—ed.], they overtook us, according to the CIA, during 1971 or 1972, and the gap was until very recently 300 billion [rubles], but the latest figure, which just recently came out, is 420 billion rubles over the 10-year period.

Now one of the reasons there's such a big jump is because each year, when they make their new calculations, the CIA puts it in the newest year's current prices. . . .

My feeling is that most of that military-spending gap is like the old bomber gap of the fifties, the missile gap of the sixties, and so forth—these gaps which turned out not to be real gaps, but to have been really just phony gaps, and I think that this gap is really a phony gap, and it's a fiction largely of the methodology of the CIA. And I'm going to try to demonstrate it.

Now, typically, when an international comparison like this is made—and this applies to the CIA's own other international comparisons—the way it is done is, you make a comparison in dollars—let's say it's the CIA's comparison of Soviet and American GNP, which the CIA regularly does. The first—when they make the comparison, they make it first in dollars, they value both countries' GNPs in dollars; but then they *also* value both GNPs in rubles, because the different pricing ratios between the two countries will often give you different results. And then they take the geometric mean of the two.

Now, it turns out that when you value another country's GNP in your prices, you tend to get a higher figure. The reason is that the things that you spend a lot on are the things that are cheap in your country; but these things are not always cheap in the other country. That is, every country tries in a sense to minimize the cost of the things that it's buying. We have very high wages in our country, and therefore we have a relatively small army and we have an enormous amount of capital equipment. They have very cheap labor: for example, the wages of our soldiers are, on the average approximately \$18,000 to

\$20,000 per man, wages plus upkeep; in their country, it's probably around \$3,000. In fact their soldiers, their draftees, get something like 4 rubles per month—it's a trivial amount, around \$100 a year—and then there's the upkeep. So it's natural for them to have more soldiers, and per soldier, less equipment.

Now what happens is that, for example, if you value Russian soldiers in dollars, you put this high salary, this \$18,000 or whatever it is per man, on their soldiers—and they have a large army and their soldiers don't have high wages—so it makes their defense establishment look much bigger. On the other hand, our very expensive capital equipment, higher technology in general than theirs, better quality, is very expensive for them to produce because they're not as efficient in producing capital equipment. And so if you use rubles, it makes us look bigger.

For example, in the GNP estimate that the CIA makes in dollars, the United States' GNP is 36 percent more than the Russians; but in rubles it's 102 percent more. And what the CIA does, is it then takes the geometric mean of these two figures.

Now the CIA presents almost exclusively these dollar figures which give a very high estimate. If they did it in rubles, and did it correctly in rubles—they do make unofficial ruble estimates, but the ruble estimates are not good estimates, because they don't have enough ruble prices to make really good estimates—if they did it properly in rubles, it would turn out that the Russians had *not* overtaken us in 1971—that is these figures being used as ratios of the two countries, U.S.S.R. over U.S.—if the CIA did it in rubles, the ratio of U.S.S.R. over U.S. would show that the U.S.S.R.—now I don't really know how it would show it, but it would show that the U.S.S.R. would have been spending at a much lower rate. Nobody could know unless they calculated the whole thing accurately in rubles, but it would be much smaller than it is. . . .

Now let me give you some idea as to how this business of measuring the Russians in dollars can lead to a distortion. To give you an example: the American pay scale right now, the average pay for all people in the armed forces is roughly \$20,000. It's a little bit less, maybe, but let's say it's \$20,000. And let's say that the number of armed forces in the Soviet Union is 5 million; the Department of Defense said 4.8 yesterday, but let's say 5 million for round figures. And suppose that there were a 10 percent raise given to our soldiers: 10 percent raise on \$20,000 would be a \$2,000 raise. Now what would that do to the military-spending gap if we gave our soldiers a \$2,000 raise? Well, the first thing that would happen is that the \$2,000 to our 2 million men, on the average—and we have 2.05 million men, something like that—that would be a \$4 billion increase in our spending. With their almost 5 million-man army, that would add to theirs \$10

billion. So in other words, in this year it would suddenly appear that they were spending \$6 billion more than we were, which, without any change—just because our men got a raise—their expenditures go up by \$6 billion. But if you then look at it over this military-spending gap, the 10-year business, that is applied over the preceding 10 years, because each year the CIA updates the prices and revalues the whole 10 years—it would be \$6 billion times 10 years, because the armed forces remain fairly constant over 10 years. So, a \$2,000, that is, 10 percent raise, in our United States pay scale for its soldiers in one year, increases the spending gap that the CIA presents to the American public by \$60 billion. That has nothing to do at all with the armed forces.

In fact, when we moved over to a volunteer army, we raised the pay of our soldiers by a large amount, maybe \$5,000 over a couple-of-year period, to get that volunteer. It was so expensive that we reduced our armed forces from over 3 million men down to 2 million. The Russian military didn't have to pay that wage increase, so they didn't reduce the number of soldiers in their armed forces. If they had had to pay a pay increase, they would have reduced their armed forces also, and the gap wouldn't have been so great.

There are other ways in which there are exaggerations. For example, the CIA admits that when they value Russian military equipment there has been a tendency for them to overvalue it when it's military equipment that they haven't seen. And there is a lot of that. . . .

Also, there is a fair amount of American technology in weapons that Russians can't produce; so this keeps the CIA from making ruble estimates; because how do you put a ruble price on something that the Russians can't produce?

One of the things the CIA does when it tries to make a ruble estimate is it assumes that the Russians *can* produce it. And so you don't get this extremely high price—the fact that they can't produce it—included in those ruble estimates, and that's why the ruble estimate isn't a good one.

What the gap is supposed to describe is, if the countries confront each other, the military spending gives you some idea as to what's confronting what. That is, they are confronting us with 50 percent more expenditures, they have confronted us with \$420 billion more expenditures over a decade. But, a lot of those expenditures are not against us, especially since about 1968; a lot of those expenditures every year are directed at China.

Now, if you assume—and the CIA admits—that a large percentage of that is not something that's also against us, when they have an almost 1-million-man army over a thousand-mile supply line, that's money down the drain as far as we're concerned, and they spend it every year.

Well, if you took that out, 20 percent of the Soviet

expenditures, you'd virtually eliminate this gap—this \$420 billion gap. . . . This is former Secretary of Defense Harold Brown's point. . . .

Now, Harold Brown says another thing here. . . . It's not just the United States against the Soviet Union, although the CIA's figures are always *exclusively* U.S. against the Soviet Union; but actually it's NATO versus the Warsaw Treaty Organization. Now, even in dollars, the NATO countries are outspending the Warsaw Treaty Organization—even in dollars. . . . which exaggerates the Warsaw Treaty Organization and doesn't exaggerate NATO.

The gap here is something like \$250 billion over a decade according to the the Defense Department, which is the relevant gap.

Now, the thing that worries people is that the Warsaw Treaty Organization is catching up, and there's no question about that, and that's the reason these charts are presented—to show that they're catching up. But if you want to look at this history, this is a more relevant one; and if you add to this \$250 billion the fact that the Warsaw Treaty is spending 20 percent of the Soviet expenditures against China, then the gap (you could add another \$200 billion to this gap, if you want to get the confrontation between the Warsaw Treaty Organization and NATO), you'd have to subtract the fact that of these expenditures over the decade, about \$200 billion is directed at China and not at the United States.

Now, I feel that this constant stress on the United States being outspent by the Russians, in light of these kinds of figures, is extremely mistaken.

Now, one possibility is that military power is something that has an enormous number of dimensions; just in terms of equipment and types of missions, you have dozens and dozens of them. I don't know how many, because I'm not a military expert in that sense. And some people will concentrate on strategic, and others on tactical, and so forth. By stressing one thing, you can come up with the result that you think that the Russians are ahead, or they're not ahead: But maybe it's true that the Russians aren't ahead of us; that may be one implication of my figures. If I'm right that they really haven't been outspending us, the implication may be that the reason that they're ahead of us is that we're spending badly, that there is too much of what is called gold-plating; that there is money being put into technology which is worthless and yet costs an enormous amount; that there is too much pork-barreling going on, bases being kept in states where they shouldn't be kept, because some Senator or Congressman insists on it. Now, if that's the reason we're not ahead of them, even though as I'm arguing they haven't outspent us, then it's because we're inefficient; and the moral of that story is that we shouldn't throw more money into defense, but we should try to spend our money more wisely and more efficiently.



Dr. Bardwell on the science-technology gap with the U.S.S.R.

Excerpts follow from the conference presentation by Dr. Steven Bardwell, Editor-in-Chief of Fusion magazine.

There was a document published in the closing days of the Carter administration, called *The Global 2000 Report to the President*, which is at this point providing the strategic underpinnings of the assigned missions of the armed forces of the United States. It describes a foreign policy based on continual, enforced underdevelopment of the rest of the world population.

In terms of identifying its roots in U.S. policy, it's an efficient starting place to look at James Schlesinger and his tenure in various posts in the U.S. government. He wrote a book in 1960 which I think defines most sharply the philosophical roots of this *Global 2000* document, which is now determining our military policy. This book was called *The Political Economy of National Security*, and it lays out an explicitly Malthusian view of man's condition in the world, and then uses that Malthusian overview to define military and strategic policy. Basically, what Schlesinger says is that the raw materials for modern life—industrial raw materials, energy, and land—are of necessity finite.

Since they are finite, it's either us or the other guy who gets those resources. Both of us can't have unlimited resources, given a finite supply.

He summarizes this in a couple of paragraphs I'd like to read to you:

Economics is the science of choices in a world of limited resources. The same dualism that underlies economics underlies the true condition of man: for anything you have missed, you have gained something else; for anything you gain, you lose some-