LaRouche's 1982 SDI Proposal

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Lyndon LaRouche conveyed his thoughts in writing to participants at an April 22–23, 1986 conference in Tokyo, titled "The Strategic Defense Initiative: Its Scientific, Economic, and Strategic Dimensions."

Twenty-four years ago, Soviet Marshal V.D. Sokolovsky wrote his shrewd insight into the flaws of the U.S. ballistic missile defense program then being developed. He foresaw that high-speed interceptor rockets and related kinds of so-called kinetic-energy weapons could never provide an effective defense against offensive ballistic missiles. He foresaw that only by using what we described then as advanced physical principles, such as laser weapons, could defense obtain the superiorities in firepower and mobility needed to supersaturate a strategic thermonuclear offense.

It is a matter of physics principles and therefore, also valid for the United States, that a strategic defense based upon what are called new physical principles, will have at least a 10 to 1 superiority in firepower, mobility, and cost over a ballistic missile offense.

Many techniques for deploying beam weapons have been discussed, including the techniques of strategic defense which my associates and I first proposed in 1982. During my discussions with French military officials in 1982, those officials asked me if it were not true that what I was really proposing was not any single set of defense systems, but rather that I was projecting very high rates of technological attrition in defensive systems over the decade ahead. I responded that the French military's assessment of my proposal was correct. As rapidly as one set of defense weapon systems is deployed, work will begin to develop effective countermeasures against such systems. To overcome those countermeasures, improved defensive systems must be deployed.

The most critical feature of my 1982 proposal fora U.S. strategic defense initiative was my assessment of the economic feasibility of sustaining the costs of such a defense policy. A few, but not most of the military features of my proposal, were original to me. The Soviets have been committed to their own version of SDI since 1962. So, if we pursue SDI we can therefore concentrate on the economic benefits to our economies.

The starting-point of my economic analysis is not unfamiliar to Japan. My standpoint is broadly identical to that of such exponents of the American System of political-economy as Alexander Hamilton, the Careys, and Friedrich List. My opponents among economists therefore label me either a mercantilist or a neo-mercantilist. The basis for my own contributions to economic science is the principles of physical economy first developed by Leibniz. My only original contribution to economic sciences is my use of the work of Bernhard Riemann to solve the problem of correlating measurable advances in technology with resulting rates of increase in the productivity of labor. It was this contribution which has been at the center of my proposals for the U.S. Strategic Defense Initiative.

It is this connection between the new technologies of SDI and increase of productivity in the economy generally to which I turn your attention now. In brief, the functional connection between technological progress and productivity is demonstrated by comparing the potential population of so-called primitive societies, of about 10 million individuals at most, with the present population approaching 5 billions. This increase is due entirely to those kinds of modifications in human behavior which the past 500 years' associates with scientific and technological progress.

We can sum up the results of economic science by stating that the possibility of increasing the potential population-density of humanity depends upon conducting technological progress in an energy-intensive, capital-intensive mode. This means that the amount of usable energy per capita and per square kilometer must be increased. It also means that the portion of work allotted to capital improvements in land and workplaces must increase as a percentage of total work. For example, without development of infrastructure and without increasing rates of capital investment per operative, no nation is capable of sustaining technological progress in agriculture and industry.

By economic science, we mean economic science as originally defined by Leibniz. Instead of simply economic science, we might use the term used to describe the teaching of Leibniz's economic science in German universities during the 18th and early 19th century, physical economy. It may be recalled that Leibniz's founding of economic science was begun with his study of the principle of heat-powered machinery. These principles were introduced to the American economic system by Benjamin Franklin.

There are four principal factors correlating with increase of productive powers of labor. First, the amount of production of capital goods must increase relative to production of household goods. Second, the amount of usable energy supplied must increase, both per capita and per square kilometer. Third, the model energy-density cross-section and the relative coherence of energy supplies must be increased; fourth, technology, as Leibniz defined it, must be advanced.

We are at the verge of the greatest technological revolution in mankind's history. This revolution will be based on greatly increasing the volumes of usable energy, both per capita and per square kilometer, with emphasis in leaps in the levels of high energy-density cross-section, with increasing emphasis on the electro-hydrodynamics of plasma process, and the role of coherent forms of electromagnetic pulses in production, and on new qualities of robotics by means of which operators will be enabled to control production of such high energy-density characteristics.

Perhaps the best way of demonstrating the impact of SDI technologies on the economy is by considering the application of these technologies to the colonization of the Moon and Mars. The establishment of artificial habitat environments on Mars and the need for continuously powered flight by flotillas at one gravity between Earth orbit and Mars orbit, require the technologies of controlled thermonuclear fusion, of coherent electromagnetic pulses of very high energy-density, self-focusing effects, and of optical biophysics. It will also require dedicated types of parallel processing computers, in the megaflop range. We shall be greatly advantaged to have analog-digital hybrids of the quality indicated. If our planet undertakes such a colonization program seriously, we could begin colonization of Mars during the third decade of the coming century.

Such a target has already been recommended by a U.S. commission. Obviously if it is feasible to establish colonies on Mars, it is a much easier task to apply the same technologies to such tasks as developing rich agro-industrial complexes in the middle of the great deserts of Earth. It is even cheaper to revolutionize the design of new qualities of cities in the more agreeable climates of Earth. With these technologies, the Earth's food supplies can be produced far more cheaply, more abundantly, by energy-intensive industrial process methods aided by application of optical biophysics.

The connection between the technologies of an SDI system and space colonization technologies is so immediate that the research and development of one is nearly identical with that for the other. Therefore, the central practical question to be confronted by governments and industries in connection with SDI, is the question of assuring ourselves that this desired kind of spillover of technology into the civilian domain does occur. Technology is transmitted into production chiefly through improvements in the technology of capital goods produced. The greater the rate of advancement of technology in capital goods, the greater the rate of investment in capital goods per capita, the greater the rate of increased productivity generally.

Thus, the buildup of the capital goods sector for SDI and space development is the most efficient mechanism by which such technologies are transmitted directly into the civilian domain. It is merely necessary to build these new capacities on a scale significantly greater than that required from SDI and space requirements, and to cause the excess capacity to spill over rapidly into capital goods for civilian production. To ensure that this desired success occurs, we must adopt the policy of increasing greatly, the percentages of employment devoted to scientific and engineering occupations, while increasing significantly the percentage of national output devoted to capital goods production and infrastructure building.

A target of not less than 10% of national labor for employment in relevant science and engineering occupations and a doubling of present percentages of national incomes allotted to capital goods and infrastructure would be a good choice of targets for the coming 10 years.

We must shift employment away from emphasis on non-scientific services and redundant administrative and selling functions, moving these percentages of the labor force into either science and engineering or capital goods production. This requires, obviously, adjustments in education policies, and also in policies governing priorities in preferential tax rates and in flows of credit.

On condition that we inspire our populations to associate personal achievement with contributions in these directions, and that we educate our populations to cope with the new technologies I have indicated, we shall accomplish the desired victory of strategic defense over thermonuclear offense and we shall solve the principal non-military strategic problems of our planet.

If we adopt the proper policies, the creative powers of many millions of scientists and individual operatives will do the rest for us.