Expression Science

MAURICE ALLAIS (1911-2010)

A Passion for Truth And the Common Good

by Marjorie Mazel Hecht

French thinker Maurice Allais, who died Oct. 9, 2010, is alone among the Nobel Laureates in economics in making the general welfare, and physical reality, central to his economic theories. For this he deserves our thanks. But Professor Allais was more than just an economist; he wrote many books and papers on history, both ancient and modern, and on various political systems. And in physics, he carried out fundamental studies of the anisotropy of space, and his experiments with a paraconical pendulum found evidence of the existence of a new physical force.

For several decades, Allais pursued the question of causality in both economics and experimental physics, with a passion that is notably lacking in both disciplines today. Nothing deterred his quest, and he continued his research and writing into the last year of his long life. Because his work overturned conventional wisdom in both fields, the awards and honors that he won were not without controversy.

Allais received the Nobel Prize in Economics in 1988, when he was 77 years old, for works that he had written four decades earlier: Á la Recherche d'une dis-



cipline Économique—L'Économie pure (In Quest of an Économic Discipline—Pure Economics), written between 1941 and 1943, and Économie et Intérêt (Economy and Interest), published in 1947.

His life-long passion for economics, and for improving the human condition, was sparked by his visit to the United States in 1933, after his graduation and before his military service. It was during the depths of the Great Depression, and he was moved by the terrible social conditions. He wanted to know what caused it, and how to avoid it—how the economy should be organized

for the common good.

A Working-Class Background

Maurice Félix Charles Allais was born on May 31, 1911, in Paris, to parents owned a small cheese shop. His father died in 1915, as a German prisoner of war during World War I, a fact which, Allais said, deeply marked his youth and his entire life.

Allais pursued a higher education, taking top honors in almost all subjects. From college, he entered the

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École Polytechnique in 1931, graduating first in his class two years later from this elite French science school. From there, Allais entered the National Mining Corps (Corps National des Mines), because it was (and still is) from this Corps that France's industrial leaders were drawn. He then completed a year of military service in the Alpine Army, and two years at the National School of Mines (École Nationale Supérieure des Mines) in Paris, beginning work as an engineer in 1936. A year later, when he was only 26, he was in charge of the mines and quarry service in the Nantes region, and also of the general and local railway systems.

At the outbreak of World War II, Allais served briefly

again in the Alpine Army on the Italian Front, returning to his mining duties after the French armistice in 1940, working in Nantes, which was then under German occupation. In 1943, he moved to the Bureau of Mines Documentation and Statistics Office in Paris, where he remained until 1948. It was here that he began his economic study and writing, working at least 80 hours per week, and writing the works on which the 1988 Nobel Prize was based. He worked intensively for 30 months during what he called "the darkest years of World War II," the German occupation of France, when his work as a mining official was slow.

An engineer by training, Allais taught himself eco-

In Memoriam: Maurice Allais

by Jacques Cheminade

PARIS, Oct. 11, 2010—I just learned last night of the passing away of Maurice Allais. The only French Nobel Prize laureate in Economic Sciences has left us, without the written press of this morning paying him due homage.

Indeed, for a certain time, *Le Figaro* refused to publish his articles, and only *l'Humanité* (the French Communist Party daily) and, last year, the weekly *Marianne*, had opened their pages to him.

Today, *Le Figaro* is more prolix, but no media mentions that Allais was always a defender of the separation of the activities of investment banks and deposit banks (his vision of the Glass-Steagall law), and that he had explained, demonstrated, and forecast for more than a decade, in numerous books and articles, the world financial catastrophe which occurred during the Summer of 2008.

Logically, Allais became associated with the wide public debate begun by Lyndon LaRouche, in favor of radically refounding the credit system and the international monetary system, underlining that, on essential points, Mr. LaRouche and his organizations had "often supported ideas close to my own proposals for fundamental reform of the international monetary and financial system." In a letter of Nov. 27,

2009, he authorized us to make this statement public (see full letter).

This "liberal socialist," who, to me, was neither one nor the other, but rather an expert in fundamental physics who looked at the economy from the standpoint of equipment and production, and not simply from a monetarist vision, liked to state that only one of his students lived up to that name, Gérard Debreu. Many other leaders and French officials ... had also followed his classes.

...During my early years of study, I was immersed in the spirit which the works of Maurice Allais had inspired in our country.

Let this spirit be reborn, beyond the present disarray and incompetence, and inspire those who are aghast at the dominant financial system, that they find a way to come out of it, from the top-down, not through the issues of a regressive past, but in a future of science and innovation, which is at the heart of what Allais always defended: an economy in which man is responsible for his species and for nature, discovering, applying, equipping, and producing.

There is urgency, an extreme urgency, because a world whose financial system is disintegrating and decomposing, needs a new generation of leaders, in the image of such a person of character as Maurice Allais.

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nomics, studying all the economics books he could find at the time. Throughout his life, he advised his students to follow the guideline by which he worked: "Read the great thinkers in their original works."

Most impressive, in his own estimation (and that of other French observers), is that Allais managed not only to write a 1,000-page tome (*In Quest of an Economic Discipline*), but also to *publish* it at a time when paper was in extremely short supply. As one of his students put it, that was a real economic miracle!

Allais characterized himself at the time as an "amateur," but, as he stated in his 1988 Nobel lecture, "amateurs possess one very exceptional advantage, that of never having been conditioned by university training and the constant repetition of established truths, and, therefore, of being able to examine every question with a fresh eye, without any preconception and prejudice." Indeed, Allais characterized how he felt about his first economics work, by quoting from a letter by Gottfried Leibniz: "I wished to swim by myself, without any master.... Frequently, in the light of a few lines encountered in my reading, I drew the substance of countless meditations."

Allais began his work in economics by looking for a solution to what he called the fundamental problem of any economy, namely how to promote the greatest feasible economic efficiency while ensuring a distribution of income that would be generally acceptable. In the days of wartime occupied France, when he began his economic studies, he considered how best to organize postwar France, developing the foundations on which an economic and social policy could be validly built. Over the years, he continued to elaborate ways in which the economy would run smoothly, without income inequity.

Reality First

After 1948, Allais left administrative work to concentrate on teaching, research, and writing. He was a professor of economic analysis at the École Nationale Superieure des Mines, a research director at the National Center for Scientific Research (Centre National de la Recherche Scientifique), and he held teaching positions at several other institutions. Although he retired from civil service in 1980, Allais continued his work—teaching, researching, writing, and winning many prestigious awards for both his economic and scientific work.

Throughout his many books and articles, Allais reiterated his philosophy of science and economics, stressing three main points:

- 1. The elaboration of theories and models in which creative intuition must play the determining role, and which must be in agreement with reality;
- 2. The use of mathematics as a tool, not as an end in itself. Allais emphasized the abuse of mathematical formalism in economics and elsewhere;
- 3. The necessity for constant questioning of established truths, which, he said, often tyrannically outlaw new ideas, even when these are more in agreement with reality than the established view. "Science is perpetually growing, always sweeping out established truths," he wrote. "It is the future which is the final judge of the works of man."

Attacking the 'Casino Mondiale'

Although Allais wrote in 1989 that he was more concerned with understanding what men do, than with convincing them, nevertheless, he campaigned in the news media to influence public policy. In the late 1980s, as the world economy disintegrated, Allais took his views to the French public with a series of commentaries in the leading newspapers condemning the *casino mondiale* (world casino), the shift in the world economy away from production of real goods and into pure financial speculation, and warning of a crash to come, unless changes were made. In the early 1990s, Allais added a detailed attack on globalization to his critique of the existing national and world monetary systems.

In this effort, he joined economist Lyndon LaRouche on more than one occasion in calling for fundamental reform of the international monetary system. In a 2008 public statement, he wrote: "Mr. Lyndon LaRouche and his organizations have frequently supported ideas near to my own proposals for fundamental reforms of the international financial and monetary systems, which I have publicly backed for many decades."

Speculation vs. Physical Economy

The clearest way to understand Allais' economic concepts is to see how he applied them to the financial crisis that erupted in October 1987. In a series of polemical articles in the popular press, Allais argued against financial speculation, for tighter government regulation, and for investment in the national physical economy to spur growth. In a front-page article in the national daily *Le Monde*, on June 27, 1989, titled "From Crash to Euphoria: The Plague of Credit," Allais wrote:

My key conclusions are that, just as in 1987, in

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Henry Aujard Maurice Allais' state funeral Oct. 16, 2010, at the Cathédrale Saint-Louis des Invalides.

fundamental terms, the world economy is potentially unstable; that its short-term evolution is essentially unpredictable; and that in order to do away with that potential instability, the international financial and monetary institutions ought to be thoroughly reformed.

The whole world economy rests upon gigantic debt pyramids that mutually sustain one another in a precarious balance. Never in past history had there been such an accumulation of promissory notes. Never had it been so difficult to honor such promises.

Whether it is currency or stock speculation, the world has become one vast casino where gambling tables are spread over all meridians and latitudes.... Speculation everywhere is boosted by credit-issuance, since one can buy without paying and sell without owning.... All our difficulties stem from ignoring the fundamental reality, that no [market system] may properly operate if uncontrolled credit creation of means of payment *ex nihilo* allows (at least temporarily) an escape from necessary adjustments.

In an Aug. 27, 1992 interview with the Spanish newspaper *El País*, Allais stated:

The Western stock exchanges are nothing but complete manipulation. It's a game, taking positions, and then playing not at forecasting events, but playing at divination, what others may think of those events. There is one image which illustrates the problem: people living and working beside Mount Aetna. No one knows when the next eruption will occur. We are in the same situation today.

Allais continued to polemicize against the major trends in the world economy in the 1990s: globalization and free trade. Writing in the daily *Le Figaro* on Nov. 15-16, 1993, Allais roundly criticized the study by

the World Bank and the Organization for Economic Cooperation and Development (OECD), "Trade Liberalization: Global Economic Implications." He specifically defended agricultural subsidies against attack, again stressing the reality of the physical economy as opposed to monetary speculation based on credit *ex nihilo*. He showed that French agricultural subsidies, in real terms, represented only three one-thousandths of a percent (.003%) of the GDP of France. He concluded that the World Bank/OECD conclusions were exaggerated by a factor of between 100% and 1,000%! Allais wrote:

I want to warn against the conclusions of this study, which are based on a highly controversial model of world trade, above all on an incorrect estimation of the gains possible from global free trade....

How do we correctly evaluate the order of magnitude of real costs of agricultural subsidies? We must distinguish between the volume of subsidies and the real cost to the economy, because the subsidies go to create real physical income to the economy. The proper evaluation of this real cost of subsidies is one of the most difficult questions of economic analysis....

The World Bank and OECD bear much of the responsibility for the drive for trade liberalization. The World Bank prediction of enormous "gains" to the world economy is intended to influ-

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ence political policy, using the mask of pseudoscience, which can only fool the naive. To make decisions which have great consequences for many tens of millions of people in the world based on such conclusions, would be ludicrous. The World Bank report is a gigantic mystification on behalf of a simplistic ideology, the ideology of dogmatic and uncontrolled free trade.

Through the 1990s, Allais continued to criticize the dogma of free trade, globalization, floating exchange rates, and the deregulation of the financial markets. He warned that these policies were destroying national economies, engendering unemployment and instability, de-industrializing, and reducing the rate of growth of living standards. He was especially critical of the European Union's policy toward China, forcing it into low-value-added activities. Similarly, he criticized EU policies toward the former Soviet states.

Allais wrote a paper in 1991 (revised in 1992), putting forward a solution to the devolution of the world economy, titled "The Monetary Conditions of an Economy of Markets: From the Teachings of the Past to the Reforms of Tomorrow." In the face of the unstable situation, Allais concluded that "the basic principles upon which the present monetary and financial system rests, on the national and the international level, have to be entirely thought out anew."

Principles of Reform

Allais laid out two basic principles for the necessary reform, which would prevent the creation of money from nothing:

The realm of monetary creation must pertain to the State, and the State only. The Central Bank must therefore be given the total mastery of the money supply.

Monetary creation other than that of the monetary base by the Central Bank must be made impossible, so as to prevent any one other than the State from enjoying the fictitious claims that currently stem from the creation of bank money.

Allais described the *ex nihilo* creation of money by the banking system as identical to the creation of money by "counterfeiters," the only difference being that those who profit are different. He proposed, therefore, that although all banks would be private, except



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Maurice Allais and his wife, Jacqueline, at a 2001 seminar in the Paris office of Solidarité et Progrès. Mrs. Allais died in 2003.

for the Central Bank, all income derived by the Central Bank's creation of money should be returned to the State, enabling the latter, under present circumstances, to do away with practically the whole of the progressive tax on income.

This would eliminate the present circumstance where profits and their beneficiaries are not transparent. Such revenues, he wrote, "merely generate inflation, and by encouraging investments that are not really profitable for the community, they only generate a wastage of capital."

Allais also proposed measures to fundamentally reduce uncertainty concerning the future, by indexation—for example, linking of wages to prices—that would maintain efficiency in the economy and equity in the distribution of income.

Thatcher's New Versailles

In the 1980s and 1990s, Allais penned several articles on contemporary political issues. He defended German Chancellor Helmut Kohl's decision to unify Germany in 1989, and sharply criticized British Prime Minister Margaret Thatcher's opposition to this unification as being in the 19th-Century tradition of Britain's "divide and conquer" strategy. In the March 12, 1990, *Le Figaro*, Allais wrote:

The efforts of all those now who, directly or indirectly, stand in opposition to the reunification

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of Germany and its implications, are fundamentally identical to the efforts deployed after the First World War to reach the Treaty of Versailles, efforts which led in the end to the Second World War. We must choose: Either we create a situation which risks leading us, sooner or later, to a third world war, or we participate, loyally and

without second thoughts, in the integration of a

reunified Germany in a united Europe.

Allais opposed the war in Iraq launched by U.S. President George H.W. Bush, as well as the role of U.S. "coalition" partners in the Mideast. Writing in *Le Figaro Magazine*, on July 23, 1991, Allais said in respect to the Gulf War:

Without question, since the collapse of the Berlin Wall, on November 9, 1989, a new era of the history of the world had begun. The world today must be reformed and a new international order is necessary. However, this international order should not be based on the oppression and humiliation of some and the insolent domination of others. The new international order that we strongly feel we need, must be based on equity and on justice, on an equal respect for all peoples, not proclaimed on by-ways in solemn declarations, but practiced in concrete realities each day. It must be founded on ethical principles that are at the basis of our humanist civilization.

Worldwide recognition of Allais's pioneering work in economic theory came late in his career, partly because his works were not translated from French, and, more so because he trampled on accepted academic economic dogma. Allais's promotion of State intervention in many areas, and his idea that economics should further the general welfare, especially offended economists of the Austrian School. But popular acclaim was not his goal. As he commented in the conclusion to his 1988 Nobel lecture:

Whatever the price he might pay for it in his career, the scientist should never steer his course according to the fashions of the day, or the approval or disapproval of his contemporaries. His sole concern must be with the quest for truth. This is a principle from which I have never departed (emphasis in original).

The Scientific Work of Maurice Allais

Identifying a New Physical Field

by Laurence Hecht

Oct. 24—Maurice Allais' physical researches are often viewed as a counter-position to Einstein's relativity theory. Professor Allais indeed presented compelling evidence that the speed of light is not independent of its direction, and that therefore this precept, which is at the foundation of the special and general theory of relativity, renders the theory invalid. That shocking possibility much intrigued me in 1998, when I first learned of the work of this French genius whom I later came to know both as a friend and a source of scientific inspiration. I shall touch only briefly on that aspect of Allais's work here, rather emphasizing his own experimental researches with the pendulum, leading to the identification of a new physical field, which I believe constitutes the most important of his contributions to science.

As Einstein's unique formulation of the relativity of space-time subsumed the existing laws of mechanics in a new and more comprehensive framework, it would only be the discovery of new physical phenomena that could fundamentally undermine this conception. Einstein's 1921 visit to American physicist Dayton C. Miller, and his later published comments on the Mount Wilson experiments, indicated his openness to this possibility. Miller, who had taught at the Case School of Applied Science in Cleveland with Albert Michelson's collaborator, the chemist Edward Morley, was then attempting to demonstrate with an improved apparatus that the Michelson-Morley experiment had not produced a null result, but rather one which was in accord neither with the assumption of Einstein that there was no ether—that is, a medium through which light and other electromagnetic waves propagated—nor with the older view of a stationary ether. Einstein encouraged Miller, noting that if the experimental results should prove him wrong, a new theory would be required. That exchange, and Miller's experiments, played an important part in Allais' think-

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