



Rethinking Economics, the Role of Insurance: Adam Smith Upside Down—The Central Role of Insurance in the New Post-Industrial (Service) Economy*

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Abstract

*In the first page of *The Wealth of Nations*, Adam Smith described an apparently trivial issue, the making of a pin. In his search for ways to effectively fight poverty, he formulated the basis for a new view of economy based on the Industrial Revolution. Two centuries later, the perspective he developed remains intact and is largely outdated. It does not reflect the radical shift from an industrial to a service economy, which occurred during the later half of the 20th century and prevails today. Insurance, a very important component of the modern service economy, was and has been ignored or dismissed by past and contemporary economists. Founded on the principle of uncertainty, insurance now provides the basis for valuable insights into the unique characteristics of the service economy. A rethinking of economics is needed from this perspective.*

Adam Smith's analysis in *The Wealth of Nations* gave birth at the end of the eighteenth century to what is today called 'Economics'. A moral philosopher, Smith wanted to provide a better understanding of how to fight poverty. Most of his contemporaries insisted that wealth could only be developed from agriculture. Smith perceived that the beginning of the industrialisation process was the key and priority to promote human wealth and welfare in the future. He was right.

This article proposes some unconventional considerations to promote the Wealth of Nations by a reconsideration of key economic issues.

Economics did not start as a general social discipline concerning wealth in general, but as a consequence of the industrial revolution, an important historical event, which had a beginning, and had a glorious development for over two centuries. Contemporary economics is markedly different from the economics of the Industrial Revolution as Smith conceived it and has lost its initial and traditional connotations. We now live in a Service Economy, which implies that the economic theories and analyses built from the classical industrial framework need a serious, fundamental reappraisal. Many economists have long agreed that macroeconomics in particular is in a crisis. In addition, still today there are no clear economic explanations as to why after 1973 the rate of growth in GNP terms in the "industrialized

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countries” fell from an average of 6% or more to an average of 2% or less. An understanding of these events is essential for understanding the real reasons for the recent financial and economic crises.

Some basic reference issues have to be reconsidered to address the problem: what is economic value and how is it produced today? What is productivity and how is it measured? These along with the other main indicators used today still reflect the basic industrialized manufacturing system. For instance, one calculates value added on the basis of the remuneration of production factors, say cost of machines and labor for an automobile and productivity measures, say the possibility of producing two cars instead of one in the same time period. But all this is less and less relevant. Classical theory divided economic activity into three sectors: agricultural, industrial-manufacturing, and services. Now the services sector, as a consequence of technological development, has become the main production factor in ALL activities: in total about 70 to 80% of economic value produced (whatever the way to account for it). Services are the key production function today.

It must be stressed, right away, that services do not exist without tools that are manufactured and manufacturing cannot exist without recourse to a wide range of services, so the two sectors are inextricably intertwined. The development of the modern Service Economy implies simply that there has been a reversal in dominance from manufacturing to services as the main contributor to the production of economic wealth.

Today, what we call a “production” system consists very largely of service functions. It begins with investments in R&D, long before a new product is ever manufactured. Research requires management of a system in which a portfolio of projects with perceived commercial potential has to be proposed, approved and managed in order to achieve usable results in an uncertain period of time. The research period is uncertain, although a good professional manager will do his best to reduce the risk resulting from time overruns. The size and the nature of the portfolio itself have to conform to the characteristics of the sector under enquiry i.e. pharmaceutical industry, high speed trains etc. to determine whether several projects or only a few should be selected. Here too there are risks and uncertainties to be controlled and reduced as far as possible. Doesn't all this remind us of the management of an insurance contract?

Services are becoming increasingly important within every phase and aspect of manufacturing activity such as control, design, planning, financing, security and safety, which are essential for storage, distribution, logistics and maintenance.

The outcome of systems and products is measured with respect to time. Here it is the UTILISATION value that is important, which is based on real PERFORMANCE for a PERIOD of time. The utilization value of a physical product depends on both its utility, its lifespan, the liabilities for service and repair. The utilization value of a service such as education may depend on its relevance for employment or productive application. The last step involves disposal, an ex-post production cost. The length of time projected into the future is by definition uncertain. The magnitude of the value is subject to uncertainties regarding lifespan, service and warranty costs, product liability, etc. Furthermore, even the

best estimate of this period can be reduced by any sort of accidents or unanticipated interruption. Uncertainty and risk are therefore the rules of the game in the modern “service” economy.

This reality conflicts with the idea held by many that the enormous advances in research should make reality more and more defined, predictable and foreseeable. This is simply not true, which appears paradoxical. If economic value is linked to performance in time, the future remains at least in part unpredictable. Many insurers themselves believed once that because of science, the market of insurable risks would disappear, as a result of the anticipated increase in predictability. The opposite has happened: the market for insurable risks is constantly increasing.

There is also another basic reason well understood by engineers. As technology advances, the margins of error possible in any operating system producing destructive results tend to get more and more reduced. In an automobile one can drive with open windows, but what about in the airplane? Moreover, as the Fukushima nuclear accident, the BP Gulf of New Mexico oil rig accident and recent launch failures by SpaceX so dramatically illustrate, giant technological performances tend to produce what are referred to as uninsurable risks.

It is also important to understand that the risks linked to the vulnerabilities of systems implicitly interconnected with the environment where one operates are not of the same kind as the so called entrepreneurial risks. One can take or refuse to take entrepreneurial risks, but the risks related to system vulnerability are unavoidable “acts of God”. The notion of Risk Management today has to take into account two types of risk which are often confused: entrepreneurial risks and “pure risks”.

Since the time of the industrial revolution, insurance has been traditionally considered as secondary. At best it was sometimes wrongly identified with banking and finance. If an automobile company does important investments and financial activities, it still remains an automobile company. However, today insurance is at the center of the service economy, concerned with performance in time. Insurance is a necessary and an indispensable gear for the functioning of the modern world economy which reflects the centrality of risk and uncertainty in the modern service economy and the need for a serious reevaluation of many prevailing tenets of Economics.

It is essential to remember that for over a century after Smith, knowledge of economics was considered a dispensable luxury. The emphasis after Smith was on the supply side, on how to produce wealth. During and after Keynes, it has been concentrated on the demand side (first in its solvable version, and then extended more and more into its insolvable version, hence the present financial crisis). The service economy requires an equal understanding of the supply side as well.

The present indicators of the “value added” economy such as the GNP measure both positive productive activities and negative destructive activities such as war as if they were

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of similar and equal value. Instead a vital distinction needs to be made between positive contributions to wealth and the cost of conservation, remediation and recovery from natural disasters which do not reflect positive contributions to economic welfare. These costs should be deducted rather than added to GDP. Obvious examples of deducted value are the cost of disposal of wastes and controlling pollution. On the other side, advances in technology/communications have resulted in many performance enhancements which are only partly accounted for by the “value added” system of accounting. The contribution of IT to the wealth of nations is largely underestimated (in particular in mobilising non-monetarized contributions). It is clearly obvious that the accounting of the wealth of nations has to be deeply revised.

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I have suggested in various publications two main possibilities. The first is to adopt indicators integrating economics with other social disciplines (sociology, demography, psychology, etc.). The other—remaining exclusively within the field of monetarized systems, but adopting the definition of utilisation value in the service economy—is to use the analogue methods of calculation or evaluation employed by insurance companies to ascertain the value of future events, for which they collect a premium that takes uncertainty into account.

In the older industrialized countries there are daily hundreds of articles and papers written in the hope of achieving a new wave of “traditional” growth soon: the optimists mention 2 or 3%, within essentially the same traditional system of reference (the classical industrial revolutionary perception). No vision has yet emerged of something practically and intellectually stimulating. The future has something much better under preparation, providing us with the opportunity now to rethink economics for a new, better understanding of the Wealth of Nations. All this depends on our upgrading our understanding of insurance.

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