Antonio Fazio: Two great economists and the challenges we face today

Address by Mr Antonio Fazio, Governor of the Bank of Italy, on the occasion of the granting of the Keynes Sraffa Award, at The Italian Chamber of Commerce and Industry for the UK, London, 25 February 2003.

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John Maynard Keynes was the most influential economist of the twentieth century, a century in which the world economy made greater advances than in any other historical period.

The world's population grew much faster than in the preceding centuries; per capita output also rose at an unprecedented pace.

The growth in population and per capita income accelerated in the second half of the century, not least owing to the absence of wars comparable to those fought in the first half.

The overall improvement in living conditions was accompanied by a widening of the gaps between the economic welfare of countries and geographical areas, and above all by an increase in the perception of the disparities.

I shall return to this point later.

As a subject in its own right, political economy acquired form and substance between the seventeenth and eighteenth centuries. In this respect it is worth recalling: the fundamental contributions of Cantillon and Hume; the Physiocrats and Quesnay with his *Tableau économique*, the precursor of Leontief's input-output analysis; Antonio Genovesi, who held the first chair of political economy in Europe at the University of Naples, with his *Lezioni di economia civile*, and Ferdinando Galiani, whose treatise *Della moneta* remains exemplary for its profundity and enduring relevance. Adam Smith's *The Wealth of Nations* marked a decisive turning point.

But economic analysis had already been developed, as a part of philosophy, by the Schoolmen. In the late Middle Ages, from the thirteenth century onwards, the great Italian, Spanish, French and Flemish moralists, in addressing the emergence of the urban economy and the growth in commerce and fairs after the manorial economy of the great Benedictine monasteries and the feudal estates, discussed the new developments with regard to trade, currencies, prices and the interest rate.

Not far from here, in Oxford, the light of the Franciscan order, John Duns Scotus, developed a theory of prices that is based strictly on the cost and hence on the quantities of labour employed in producing goods.

The underlying idea was constantly to search for and define the just price, in order to pursue commutative justice in exchanges, a concept that, together with distributive justice, was forcefully stressed by Thomas Aquinas as the basis of orderly life in the community.

Later, the doctors of the Sorbonne and the great Italian universities also addressed the question of insurance. Taking a premium to insure goods against the risks of shipwreck and piracy was acceptable, but the insurers had to possess adequate capital, what we would call actuarial reserves today, with which to indemnify the insured in the event of claims.

Fresh impetus was given to the study of economic phenomena by the monetary upheavals that followed the discovery of America.

In the 1500s and the early 1600s, Molina, Lessius and Lugo put forward elegant analyses of the distinction between interest, considered a merely monetary phenomenon in line with Thomas Aquinas, and profits.

In general it was censurable, usury, to charge interest on sums that were lent, because money was deemed unproductive; however, it was morally acceptable to receive compensation, a return or a share of the profits where the money lent gave rise, through commerce, to the creation of new wealth.

The distinction between monetary interest and profits, the fruit of the use of money in commercial and productive enterprises, was lost for several centuries. After Wicksell it was rediscovered by Keynes, who made it a cornerstone of his *General Theory.*

In the nineteenth century Ricardo and Malthus in England observed and theorized the expansion of industry and international trade, the growth of the population and its relationship with resources. Malthus also perceived the problem of effective demand.

Marx, reinterpreting Hegel and Ricardo, drew on the development of mass production and capitalism and the tensions between workers and capitalists to form his palingenetic vision of the end of private property, the triumph of the proletariat, and communism.

In continental Europe and Italy, Christian sociologists and economists - Ozanam, von Ketteler and Toniolo - analyzed the social and political consequences of the industrial revolution and the spread of mass production. They prepared the way for the social doctrine of the Catholic Church and Pope Leo XIII's encyclical *Rerum Novarum*.

In Germany the principles of the welfare state were outlined.

In every epoch, the great economists understand the economic and social changes and upheavals of their times. They put forward new views of the forces that dominate the evolution of the economy. They study stylized facts, theorize them and reduce them to logical relationships and to models of how economic systems work, from which they draw indications for the conduct of business and for the action of the public authorities.

Towards the end of the nineteenth century the role of credit and banking and, more generally, of finance emerged in all its importance.

The separation, the real and logical distinction, between economic agents who save and those who use savings or make investments by borrowing capital has enormous implications not only for the expansion of economic activity but also for the stability of the growth process, both within individual economies and across economic systems.

Keynes fully understood these changes and derived revolutionary economic theories from them, as well as setting out their far-reaching implications for policy.

His genius is to be seen in the *Economic Consequences of the Peace*, which, it gives me pleasure to recall, was immediately translated into Italian by the Milanese publisher Treves.

Keynes foresaw the devastating effects of the Treaty of Versailles on the European economy.

He envisaged the losses suffered by Germany and Russia being a source of major political instability in Europe.

He made a fierce attack on the work of President Wilson, the French president and the British prime minister.

He examined the advisability of partially or completely cancelling war debts that had become unbearable for the smaller countries, and analyzed the dire consequences that application of the peace treaty would have for international trade and the prosperity of some regions.

In the background, there seems to emerge a positive vision of economic relations among European countries along the general lines of what would take shape in the design of the European Community.

In *A Tract on Monetary Reform*, which was also promptly translated into Italian by Piero Sraffa, Keynes delineated a new and different role for monetary policy.

The objective of the banks of issue, which had developed predominantly in the nineteenth century and the early decades of the twentieth, was basically reduced to maintaining the gold parity.

Stressing the powerful repercussions of inflation and deflation on the orderly working of the economy, prosperity, growth and employment, Keynes indicated the stabilization of the price level in terms of fiduciary money as the objective of monetary policy.

He advocated the abandonment of the gold standard, which he called a "barbarous relic".

Several years later, in his criticism of Britain's return to the gold standard, he reiterated his objections to restoring the pre-war parity, or at any rate to setting an exchange rate well above the one then obtaining.

In *The Economic Consequences of Mr. Churchill*, a pamphlet he wrote in 1925, Keynes argued that restoring the pre-war parity would generate deflation, with adverse effects on income, a contraction in the volume of business and economic crisis. The only way to avoid these effects was to reduce wages and prices.

His warning went unheeded. In the opinion of many scholars, the return of all the major countries to the gold standard with a marked revaluation of their currencies was the underlying cause of the Great Depression of the 1930s.

In Italy, Mussolini's "quota 90" policy for the lira, implemented in an authoritarian fashion in 1926 by the Finance Minister, Giuseppe Volpi, despite the misgivings of the Governor of the Bank of Italy, Bonaldo Stringher, appears to have been influenced by Keynes's suggestions. In order to mitigate the deflationary effects, the revaluation of the lira to 90 against sterling, from a market rate that had reached nearly 150, was accompanied by an overall reduction in wages of 20 per cent. In the 1930s the Fascist regime also began a large programme of major public works that supported domestic demand.

The Great Depression and the economic crisis that gripped Germany were the main cause, together with the country's severe institutional difficulties, of the advent of Nazism.

The hyperinflation of the early 1920s had been the consequence of the impossibility for the German economy to expand again under the heavy burden imposed by the peace treaty.

The Second World War was not unrelated to the First, partly owing to the serious errors committed in the 1920s in international relations and monetary policies.

The problem of unemployment emerged in all its drama.

In the United States economic policy reacted with the New Deal and with a monetary policy appropriate to the new conditions. Economists laboriously rediscovered the problem of effective demand. The Polish economist Michael Kalecki is among those to be recalled in this regard.

But it was Keynes who fully developed a new paradigm with which to grasp reality and make economic policy prescriptions.

In his *General Theory of Employment, Interest and Money*, the classical vision in which supply generates demand in accordance with Say's Law is criticized and the causal relationship is reversed: the level of economic activity depends on the demand for consumption and investment.

The separation between the units where savings are formed and those where investment is decided, through banking and financial intermediation, renders investment independent of the availability of savings. In the absence of full employment, the expansion of public and private investment generates an increase in employment, consumption, production and, ultimately, savings that is sufficient to cover the new investment.

The rediscovery of the distinction between the interest rate and the marginal rate of return on investment gave Keynes the theoretical model for determining the demand for capital goods on the part of firms. The equilibrium between saving and investment is re-established through changes in income, while the interest rate is determined in the money market.

The model's originality, the theoretical revolution, was grasped by economists. John Hicks offered an elegant interpretation of it in *Mr. Keynes and the Classics.*

In 1944 Franco Modigliani extended the analysis of Keynesian theory and formalized it in *Liquidity Preference and the Theory of Interest and Money*.

In the United States the new theory's implications for the public finances were worked out by Alvin Hansen.

The great effort to rebuild an international monetary order towards the end of the Second World War, culminating in the Bretton Woods agreements of 1944, again saw Keynes among its protagonists.

Instead of his proposal based on the creation of an international currency, the bancor, the agreements mainly adopted the plan formulated by Harry Dexter White of the United States, based on the dollar, which was in turn linked to gold.

America and the Federal Reserve came to play a role akin to that of a world central bank. The ascendancy of the dollar as the most important currency in international trade had major consequences for the US economy.

Like all great thinkers, Keynes interpreted his times. His theories have had an immense influence on the economic policies of all the major countries up to today; they have also been subjected to stretched interpretations and used for shortsighted policies in the field of public finances.

That public works could be used to alleviate unemployment was something rulers had always known. It will suffice to recall the examples of public spending in the Papal States and the Kingdom of Naples in Italy before national unification.

One example of a programme designed to increase the level of effective demand was Roosevelt's New Deal in the United States. In England, the Beveridge plan was influenced by the same philosophy. Post-war Italy's on-the-job public works training scheme, the Vanoni plan and the programme of special measures for Southern Italy are other examples.

Keynes's original idea was to concentrate on public works and infrastructure, on expenditure intended to orient production and not on unproductive expenditure, although he later used the paradox of digging holes in the ground and then filling them in to explain the principle of effective demand.

On the theoretical level, the Keynesian model is definitively established as an explanation of how an economy works.

I was brought up on Keynesian theory by Modigliani and Samuelson at the Massachusetts Institute of Technology in the 1960s. Solow's classes introduced me to the theory of growth. Those were the years of Kennedy's New Frontier and the new economic policy. Keynesian theory was taught and applied, but Modigliani also encouraged me to look into the work of Friedman, who was refocusing attention on classical monetary theory.

Friedman had restated the quantity theory of money in 1956. In his Presidential address to the American Economic Association in December 1967 he prefigured the explanation of the stagflation of the 1970s. He reasserted the need to control the quantity of money and not only interest rates. His ideas formed the basis for the monetary policies of the leading industrial countries in the 1980s and 1990s after the period of inflation that followed the cutting of the link with gold and the oil crises.

An elegant and insightful synthesis of these two theories, the classical and the Keynesian, was developed by Patinkin in *Money, Interest and Prices*.

In the Bank of Italy's econometric model, which we began to build in 1963 and which is continuously updated and used to analyze the evolution of the Italian economy, the starting point is a Keynesian approach to the operation of the real sector of the economy; this is then integrated with an analysis of financial flows, à la Tobin.

The stabilization of Italy's economy in 1974 after the first oil shock, which involved limiting the volume of bank lending in order to control domestic demand, capital outflows and the exchange rate, was planned and estimated using the model. The outcome was more than satisfactory.

The same model was the basis for deciding the massive fiscal adjustment undertaken in 1977 to improve the balance of payments and curb inflation. In both cases the measures were set out in agreements with the International Monetary Fund.

For the stabilization programme of 1994-96 we relied on a stringent monetary policy.

The objective was to subdue inflation, and the rate was rapidly reduced from almost double digits to around 2 per cent. Following the drastic monetary restriction, in roughly two years the lira appreciated by more than 25 per cent against the German mark.

The growth in the money supply was virtually nil in the two years 1995-96. Initially, short-term interest rates had to be raised to an exceptionally high level by rationing central bank credit to banks. Inflationary expectations were stamped out; the lira appreciated and long-term interest rates fell from almost 14 per cent in early 1995 to 6 per cent within the space of two years.

Although a Keynesian model was employed in order to analyze demand, output and employment, the monetary tightening proved effective in disinflating the economy.

In some respects even the supply-side economics of the Reagan Administration in the 1980s, which was also a major factor in the strong performance of the US economy in the 1990s, can be interpreted as a stimulus to domestic demand based on a reduction of taxation and an increase in the budget deficit.

The economic policy pursued by the United States in 2001 and 2002, consisting in large interest-rate reductions, tax cuts and increased public spending, also displays pronounced Keynesian traits. It was made possible by the existence of a budget surplus, the relatively low level of public debt, the strength of the dollar and the growth in productivity, itself ascribable to the flexibility of the labour market, which prevented inflationary repercussions.

In several cyclical phases in recent decades, and to some extent at present as well, the interpretation of international economic developments has indicated an insufficient level of effective demand, especially of investment expenditure in the leading economies.

Piero Sraffa developed his ideas largely in the intellectual milieu of Cambridge, to which Keynes brought him in 1927. The year before, the *Economic Journal* had published an essay of Sraffa's that shook the foundations of Marshall's model of perfect competition.

Sraffa was a student of Einaudi's. For many years he kept up an intellectual correspondence with such philosophers and political thinkers as Wittgenstein and Gramsci. But he was a scholar open to practical problems. We see this in his writings on money and banks in Italy in the stormy aftermath of the First World War, from which he drew some principles concerning the advisability of public involvement in banking supervision in periods of instability, in economies where finance was still developing.

Until 1950 he worked on the critical edition of the works of Ricardo.

Exhuming an approach that had been "submerged and forgotten since the advent of the 'marginal' theory", Sraffa formulated a theory of prices and distribution on rigorous analytical foundations.

The result was a critique of the neoclassical theory of value, which was the consensus doctrine of the day. His analysis contradicts the Marxian labour theory of value. Like Keynes, Sraffa distinguishes the share of output that remunerates capital from the interest rate. He mentions the possible influence of the rate set by the central bank on the rate of profit.

Sraffa's *Production of Commodities by Means of Commodities* was not published until 1960, after more than three decades of intense work to make sure of the logical and mathematical consistency of his theory. It was published in English and an Italian version was brought out almost simultaneously.

The new theory triggered lively debate. One of Sraffa's students, Luigi Pasinetti, crossed swords, successfully, with two eminent representatives of neoclassical economics, Solow and Samuelson, my own professors. Another of his students, Pierangelo Garegnani, continued to elaborate Sraffian capital theory. He is now working on the complete edition of Sraffa's papers, still largely unpublished, with support from the Bank of Italy.

In 1965-66, in his course on "Advanced Economic Theory", Samuelson described Sraffa's work with the greatest respect and linked it to the great school of thought beginning with Quesnay's *Tableau économique* and continuing, three centuries later, with Leontief's input-output tables and linear programming.

Professor Samuelson reaffirmed this judgment in an article in the *Corriere della Sera* of 6 September 1983 on the occasion of Sraffa's death, with the statement that if his work had been published a decade or two earlier it would have exerted a powerful influence on the subsequent development of economic theory by Leontief, von Neumann, Knight and Koopmans.

Professor Pasinetti has extended Sraffa's theoretical vision to the analysis of economic development. So far, to my knowledge, this has had limited application to current economic events.

I should like, instead, to put forward the hypothesis that it can be of considerable help in understanding several important phenomena of our age.

Sraffa's model is an analytical interpretation of subsistence, of the conditions for the existence and survival of an economic system. The relationships between the quantities of commodities produced and used for production and prices must correspond to certain conditions connected with technical relationships.

The model offers a new view, which also differs from classical economics, of the relative importance of different goods in the functioning of the economy. Some goods are essential for the production of the others; their disappearance would derail the economy. On the contrary, luxury goods only satisfy the needs of certain groups of consumers; their disappearance would have no significant repercussions on the economy, nor would it affect the distribution of income between wages and profits.

The model shows very clearly that the value of non-reproducible goods of which a given amount is found in nature, such as land, depends on all the other relationships existing between the goods that are produced, which in turn are means of production.

In the same way as for luxury goods, taxes on rents have no effect on prices or the distribution of income.

The meaning of Sraffa's laconic remark on the possible dependence of the rate of profit on the rate of interest may be less elusive today. With the globalization of financial markets, the rate of profit must be correlated with and is certainly powerfully influenced by the level of interest rates established in the international money market.

Classical models can be extended along the lines developed by von Neumann to the link between the interest rate and the rate of growth. In a global economy with unrestricted international financial transactions, this has implications for the sustainability of growth in economies with a large foreign debt, the interest rate on which is determined exogenously by the level prevailing in international markets. It also has implications for the distribution of income between wages and profits within such economies.

Finally, I would like to read Sraffa's work in the light of an ideal connection with the profound thought of the medieval Schoolmen in their search for the just price.

Given the rate of profit, commutative justice is established in the exchange of goods within the economy, based on the quantity of labour directly or indirectly embodied in them.

Every worker's purchasing power is determined exactly as a function of the structure of production, as defined by technical ratios. In other words, every worker's purchasing power reflects the values of the goods that remunerate the effort required to produce them.

In addition to commutative justice this also results in a sort of distributive justice as the foundation of society.

Considerable progress has been made over the past two decades in the economic and institutional situation of the advanced and the developing countries, in global economic interdependence and in international economic cooperation.

Observers and politicians are fully aware of the need to take up the challenge of a globalization process that, while greatly improving living conditions throughout the world, has also aggravated and above all highlighted the disparities between the supply of essential goods and the level of economic development in different countries and geographical areas.

Financial globalization has progressed at a very fast pace in the past twenty years, thanks in part to the use of information technology. Today it can be said there is a single, worldwide money and financial market.

The growth in world trade has mainly concerned industrial products.

These developments in the exchange of goods, services and capital are a source of wealth for all who take part in them. Yet the liberalization and globalization of financial flows can be accompanied by outbreaks of instability that harm the weakest economies.

In a system that rests basically on fiduciary money, the principles of free trade and comparative advantage typical of trade in manufactures have sometimes been extended unquestioningly to movements of financial capital. Past errors in fixing exchange rates and instituting specific monetary regimes have been repeated in new ways.

Reflection on the mistakes made and the need to limit and rectify the adverse effects on the stability of intermediaries, to protect savings and to restore conditions for a recovery in output have prompted the monetary authorities of the industrial countries to establish more extensive and closer cooperation among themselves and with the developing countries.

The Governor of the Bank of England, Sir Edward George, plays a leading role in this new phase of international monetary cooperation that we could say began with the meeting of the Group of Seven leading industrial countries in Toronto in February 1995, shortly after the Mexican crisis erupted.

The international financial system's ability to cope with the repercussions of the uncertainty that followed 11 September 2001, the difficulties created by the cyclical slowdown in the leading economies and the consequences of the discovery of serious irregularities in the management of major international economic and financial groups, without suffering serious damage, testifies to the positive results.

To date, agricultural commodities and textiles have been excluded from the liberalization of trade.

The leading industrial countries must make an effort to reduce the enormous subsidies to their agricultural sectors and remove the regulatory and tariff barriers to imports of agricultural products and textiles from the developing countries.

By concentrating on the production of high-quality goods and opening up to imports of widely-consumed goods from the developing countries, the wealthiest economies can make an important contribution to increasing world output and, above all, to ensuring it is more equitably distributed.

The great economists are men of their times, but they also have the ability to shed light on the future.

The twentieth century gave us examples of instability and of economic and political upheaval of extraordinary magnitude.

At some crucial moments people feared for the very survival of our civilization, owing to the wide-scale use of weapons of mass destruction.

The experience of the two world wars, with their legacy of death and destruction, must impel us to relegate war to the past as a means of solving international disputes. Great philosophers have taught us that peace lies at the core of the future of humanity. Closer cooperation between the advanced countries and the emerging economies can contribute to the progress of the world economy.

It is necessary to rely on the decision-making power of the United Nations. It is necessary to oppose all the forms of violence that offend the dignity of the person, such as terrorism. It is necessary to strengthen, also in the light of ethical principles, the foundations of international law and institutions.

For its part economic theory has made major advances.

There is room to refine the analytical instruments that the great thinkers of the distant and recent past have handed down to us and adapt them to today's situations.

This is a task for universities, but also for the institutions that are continuously faced with new phenomena and problems. Further intellectual revolutions may not be indispensable; if they are, enlightened minds will put them forward.

Fruitful results can still come from the analogical application of existing theories, formulated for essentially closed economies, to increasingly open and integrated economies.

The institutional orders and policies adopted for national financial systems can provide guidance, taking account of the differences, for world finance.

Theoretical models developed in the age of free banking can be applied to the analysis of international finance, in which the national monetary systems of individual countries play a role similar to that played by banks in national economies in the early decades of the 1900s.

There exists a problem of controlling global liquidity, in addition to the stability of intermediaries.

As rightly pointed out by Fausto Vicarelli, an economist who died prematurely some ten years ago, the basic characteristic of capitalism in the age of finance is instability. He considered the analysis of this phenomenon, and the consequent proposals for economic policy, to be one of Keynes's most important contributions.

Sraffa's theory and the exhumation of classical doctrine, from Smith to Ricardo, not to mention the neoclassical models of growth, provide us with interpretations of the underlying relationships that link the variables of the economy.

We know the mechanisms, but our grasp of what sets them in motion is often tenuous.

Investment remains a fundamental variable for comprehending the evolution of an economy. Our knowledge remains incomplete, however, our forecasting power fragile. The current difficulties of the European economy and the uncertain outlook in Japan suffice to demonstrate this.

The links between economics and the other social sciences must be rediscovered, beginning with the adjacent and most closely interrelated disciplines, such as demography.

There remains the wider realm of the moral sciences. Economics is part of philosophy and politics.

In his writings Professor Dahrendorf compels us to re-examine critically the relationship that has developed between freedom and society, between the market and regulation, between democracy and self-determination. Raising the issue of a new international order, he has affirmed that "democratizing international decision-making is the greatest challenge posed to our political imagination".

There is a need for a "strong philosophy" of which economic theory must be an organic part. Adam Smith was a professor of moral philosophy; *The Wealth of Nations* springs from a social and political vision.

The development of marginal analysis and the theory of markets and the study of general equilibrium have made fundamental contributions to our understanding of the economic behaviour and facts that surround us and in which we are immersed.

They are not sufficient. We must investigate the underlying determinants of economic phenomena.

The advances by Keynes and Sraffa beyond microeconomic analysis, with one considering aggregate quantities and the other the value relationships between wages and goods, directly seek to understand the variables of greatest importance for the welfare of society.

The ancient themes of commutative justice and distributive justice maintain all their relevance.

Economic analysis must go back to investigating first principles, rediscovering the links with the other dimensions of society of which the economy is part. This can come about in empirical fashion, as often happens. But that is not sufficient. It is up to social scientists, to philosophers, to return to a more systematic study that will set our understanding and action in the field of economics on a firmer foundation.

The century that has just begun, with society marked by uncertainty and based on knowledge, demands an even greater capacity for government and participation, nurtured by a higher cultural level. It is the way to invest in the future, preparing a better tomorrow for the younger generations.