Luigi Spaventa

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1. Some personal recollections

We dedicate this issue of our journal (and the parallel issue of Moneta e Credito) to Luigi Spaventa, who recently passed away. For many years he collaborated with and (since 1994) sat on the editorial board of Moneta e Credito and the Banca Nazionale del Lavoro Ouarterly Review, confirming his participation after the BNL (Banca Nazionale del Lavoro) ceded ownership of the journal to our association, and the name of the English language journal was changed to PSL Ouarterly Review, in 2008. His first contribution to the Banca Nazionale del Lavoro Quarterly Review appeared in 1959, to be followed by various other articles, often published in both journals (Spaventa, 1959; 1963; 1966; 1973; 1976; 1977; 1984; 1988; 1990; 1996; Spaventa and Ackley. 1962; Spaventa and De Grauwe, 1997; Spaventa and Izzo, 1974; Spaventa et al., 1989). As a member of the editorial board he played an active part in the life of the journals, attending meetings, providing appraisals of articles submitted for publication, and offering suggestions and critical observations.

His writings published in the two journals constitute a by no means negligible part of his output as an economist, on the strength of which he came to occupy a prominent position among Italian economists. Alongside his research activity he was, thanks to his unflagging capacity for work, able to engage in political activity at a notably high level: as a member of Parliament and Government Minister, but also taking part in the internal political debate on an independent footing. His commitments also extended to Italian institutions (his various responsibilities included presidency of Consob, the National Commission for Companies and the

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Stock Exchange; he also presided over or served on ministerial committees, such as the 1989 committee on the public debt) as well as the private sector (for example as president of Monte dei Paschi di Siena, at the suggestion of Carlo Azeglio Ciampi in an attempt to set Siena's historic bank back on its feet), and he authored a steady spate of lively and thought-provoking articles on Italy's economic fortunes (as a *Corriere della Sera* columnist, later moving to *La Repubblica* and as cofounder of CER, the Centro Europa Ricerche, based in Rome).

The scope of his activities was wide indeed, with a fruitful interrelation between basic theoretical issues and topics of economic policy, between abstract analysis and interventions on daily issues through newspaper editorials. A number of contributions commenting on some of these activities is included in the September 2013 issue of *Moneta e Credito*: by Renato Guarini (2013) on his studies and university career, by Antonio Pedone (2013) on the proposals for an in-depth shift of traditional economic policy towards modern Keynesian lines, by Mario Sarcinelli (2013) on public debt, by Filippo Cavazzuti (2013) on Spaventa's activities as President of Consob, and by Maria Teresa Salvemini (2013) on the brief period in which he was Budget minister. This introductory article (slightly revised from the Italian one: Roncaglia, 2013) offers an overview, inevitably partial, of his scientific activity. At the end of this issue we offer a reprint of a series of articles by Spaventa previously published in this journal.

Like so many others, I owe a personal debt to Luigi Spaventa. Unbeknownst to me, he had been a member of the CNR (the National Council for Research) committee that awarded me a scholarship shortly after my graduation in October 1969. After this occasion he suggested to Paolo Sylos Labini, who had acted as supervisor of my degree thesis (defended in late June 1969), my appointment as his assistant at the University of Perugia. Spaventa explained to me that it was a temporary appointment, only lasting until the position could be filled full-time through a competitive examination open to all who wished to take part. I accepted (and then won the competition): as Sylos Labini advised me, I would have the opportunity to collaborate with one of the most outstanding (and internationally recognised) young economists.

As Spaventa jokingly put it, it is the professor who assists the assistant (and, he added, this was a very demanding task). He performed such duty with alacrity, discussing all my work projects and the first drafts of my earliest studies. Indeed, he presented me with many opportunities for professional enrichment, as if they had come raining out of the blue. With the excuse of a toothache he had me deliver my first university lecture in the context of his course – as if by chance, it was precisely at the point in his syllabus where he came to the subject of my graduate thesis, namely fixed capital prices in Sraffa's theory (he made use, as I too subsequently did, of a text that was long to remain the simplest exposition of Sraffa's theory of prices: Spaventa, 1968). He urged me to plan (and helped me organise) a period of study at Cambridge.

I remember the many discussions from which I learned truly a great deal: in our car journeys together, at his home in Via Livorno or his country house in Tivoli, or the small room that housed the Perugia University Institute of Economics. I have, for example, a detailed recollection of a chat we had during an interminable wait for a connection at the railway station of Terontola, on the difference between Hicks's IS-LM model and Pasinetti's sequential interpretation of Keynes (subsequently expounded in Pasinetti, 1974). After that discussion it took years for me to form the conviction that, despite Spaventa's pleading, Pasinetti's interpretation was preferable, being compatible with Keynes's notion of uncertainty (cf. Roncaglia, 2009a).

¹ Hicks's IS-LM model is a simplified model of general economic equilibrium that, as such, has the merit of bringing out the interdependencies that link the money market to the real market: the rate of interest depends among other things on the demand for money for transaction purposes which in turn depends on income, and thus on the level of investments, while the latter depends among other things on the rate of interest determined in the money market. Pasinetti, on the other hand, harks back to the cause and effect sequence originally followed by Keynes: the rate of interest is determined on the money market and, in a logical sequence, then plays its part in determining investments, income and employment in the real market. Pasinetti, however, did not point out the role of uncertainty in determining the speculative demand for money, nor the dominant role played by the latter – which concerns the stock of wealth – in relation to the demand for money for transactions, which concerns the income flow: variations in the former brought about by changing expectations, thus, will clearly dominate over variations in the latter in a market such as the money market, characterised by a very short period equilibrium.

When Giolitti became minister for the Budget and Economic planning in March 1970, he called on Luigi Spaventa with Lucio Izzo, Antonio Pedone and Franco Volpi to collaborate with him, and I too was involved in the work carried out at ISPE (the Institute for the Promotion of Economic Development) under the direction of Manin Carabba. In their work for the Ministry, the 'gang of four' had already come up with a basic idea of a priority reversal in the connection between medium-tolong period economic planning (the five-year plan launched by the then minister Pieraccini in 1966) and short-term economic policy (Spaventa et al., 1970).² Then, when Giolitti joined the government, and Giorgio Ruffolo came in as State secretary for Economic planning, new life was injected into the activity of the small group of advisers. I remember many meetings going on long into the night, in an atmosphere that was both rigorous and playful (on one occasion, on the stroke of midnight Lucio Izzo tried to draw forth from a wobbly table a prediction of the rate of growth for the following year), and the many working documents on the assessment of short-term economic perspectives and economic policy choices (both concerning big issues and issues of detail). The Bank of Italy refused to supply sensitive data to the socialist minister, and there was no lack of real problems. Nevertheless, there was an atmosphere of easy-going enthusiasm. With Spaventa, on one of the journeys back from Perugia, we jokingly drew up a short-term index for the immediate evaluation of manufacturing production, based on the number of cars parked around five thirty p.m. at the factories along the via Salaria: a lot

² A provisional draft of this text had already been published as *Rapporto del gruppo di studio sui problemi di analisi economica e di politica economica a breve termine* ("Report of the study group on problems of short-term economic analysis and policy") in January 1969 by ISCO, the National Institute for Study of the Business Cycle. The report had a great influence on the framing of economic policy, launching a stage of explicit attention to the path followed by aggregate demand, and to fiscal policy as a tool for short-term intervention in support of production, following a broadly Keynesian approach. The report also proposed that the government should draft an annual policy document and that a far more comprehensive collection of data than had hitherto been available be assembled concerning the path of the economy. These themes are better illustrated in Pedone (2013), who also points out the leading role played by Spaventa in the study group.

of cars, a lot of overtime, and the economy's going well; empty car parks, and the economy's stagnating.

As I said, it was Spaventa (as well as Sylos Labini) who spurred me on to Cambridge in October 1971. By the time I returned to Italy, two years later, Spaventa had already moved to Rome, to the Faculty of Statistical Sciences, and he supported my appointment as an economics lecturer at Perugia.

When Spaventa was elected to Parliament in 1980 I took over, as a temporary substitute, his course "Economics 2" in Rome; two years later, I was appointed a full professor to the Faculty where Spaventa and Sylos Labini were teaching. For some years, after his return to the University, and before the department was transferred from Via Nomentana to Via Cesalpino, we shared the study in the Institute, then Department, of Economics.

One could already feel in the air the tensions that would eventually (when both Sylos Labini and Spaventa had retired) lead to the closing down of a Department that had nurtured so many outstanding economists. For the sake of simplicity – labels hardly do justice to the manifold aspects of a cultural position, but they help to form an idea - and confining attention to points relevant to our relationship, I can say that Spaventa had moved on from 'Sraffian' positions to 'Hicksian' positions and, although on his prompting I had studied in depth the works of Hicks (with whom he had spent a period of study at Oxford in 1968-1969, already as full professor), I had stuck to my 'Sraffian-Sylosian' positions. Nevertheless, thanks to his (and, I hope, also my) ethical rigour, our relations were never less than friendly. Although I never told him so, I have always been grateful to him for never having let weigh upon me, in the constant exchange we had over various aspects of department life (from appointments to planning syllabuses or evaluating graduate theses), all the help he had given me in the early stages of my academic career. Indeed, when he happened to be sitting on the board to confirm my appointment as full professor, he came up with a very flattering judgement. He voted for me when I became head of the Department, on its foundation in 1985, and in that role, too, I enjoyed the advantage of his advice. His relations with both myself and the Department grew more distant during the periods of leave for his various appointments before he retired, and then during his retirement, but we had many opportunities to meet, and I remember both his (rare, but for that very reason precious) compliments and his (scathing, but always useful) criticism on the occasion of workshops and roundtables in which we took part together. Having had him first as my 'boss' and subsequently as my colleague has been a great privilege.

2. Background and first contributions

Spaventa took his degree in law at the University of Rome, with a thesis supervised by Giuseppe Ugo Papi. He had already begun to work in the Research Department of ENI (the National Hydrocarbon Corporation), under the direction of Giorgio Fuà. After graduation, he was a voluntary assistant at the Institute of Economics and Finance under the direction of Papi at Rome's Faculty of Law. He was appointed temporary lecturer at the Faculty of Statistical Sciences (between 1961 and 1963) but soon he became professor, Chair of Economic Policy, first at Catania, then at Palermo and finally at the Faculty of Law of Perugia, where he moved to the Chair of Political Economy, the same he would go on to hold at the Faculty of Statistical sciences in Rome from 1970 to his retirement and appointment as emeritus professor.³

In 1959-1960 he spent two years studying at Cambridge in England, where he was a pupil of Joan Robinson, becoming a lasting friend of hers. Also at Cambridge in those years were Luigi Pasinetti and Pierangelo Garegnani, who were studying with Piero Sraffa. And it was here, too, that he met Claire Royce, who became his wife. Of his many friends in those years, I remember Frank Hahn and Geoffrey Harcourt, Joseph Stiglitz and Amartya Sen.

The first important publication I know of came out in the *Banca Nazionale del Lavoro Quarterly Review* in 1959 (Spaventa, 1959), dedicated to the issue of economic dualism, i.e. the divergence that

³ For more details on Spaventa's academic career, see Guarini (2013).

emerges between two parts of an economic system in the course of the growth process. As Spaventa himself stresses, it is a dynamic theory of unequal development, characterized by cumulative divergence. The theoretical stylisation of this process draws on elements of the Italian situation, as far as the non-economic factors of growth were concerned, and on the theory of endogenous technical progress (and the relationship between technology and the extension of the markets) in terms of economic factors. He was to publish a second, much shorter, study on the subject in an Indian journal (Spaventa, 1960a).

1960 also saw publication of a paper written in collaboration with Luigi Pasinetti, "Verso il superamento della modellistica aggregata nella teoria dello sviluppo economico" ("Beyond aggregate models in the theory of economic development", Spaventa and Pasinetti, 1960). After a critical analysis of the aggregate development models formulated by Harrod-Domar, Solow and Kaldor, in the two closing sections Pasinetti pointed out the line of enquiry he had started and would be following in the future (the dynamic analysis of disaggregated economic systems with full employment, cf. Pasinetti, 1981), while Spaventa sketched out an analysis of the case of economic systems in intermediate stages of development, already formulated in part in the 1959 paper.

It was also in 1960 that Spaventa edited a book, *Nuovi problemi di sviluppo economico* ("New problems of economic development": Spaventa, 1960b), presenting Italian readers with texts by Joan Robinson, Domar, Leibenstein, Mathur and Kahn on issues of economic development and technical progress. In addition to the introductory chapter, Spaventa wrote an appendix on the "Effects of structural changes in the composition of demand on labour productivity and employment." A further appendix, by Antonio Pedone, concerned the introduction of demand in a general production model. The work showed the influence of the Cambridge Keynesian school, and in particular Kahn and Robinson, on a theme – the theory of economic development – both important and relatively neglected in the debate surrounding the 'hot' themes of capital theory and the interpretation of Keynes, while also differing from the traditional approach quite significantly. The book constitutes an intelligent attempt at introducing into the Italian economic culture new

theoretical concepts developed abroad, and to apply them to concrete issues of economic policy. Both the opening up to Anglo-Saxon economic culture and the endeavour to link theoretical analysis with interpretation of concrete problems were to remain enduring features of Spaventa's research.

1962 saw the publication, in Italian in *Moneta e Credito* and in English in the Banca Nazionale del Lavoro Quarterly Review, of a short contribution under the joint authorship of Spaventa and Gardner Ackley, an American economist who would be ambassador to Rome from 1962 to 1969, in the difficult years of the 'Hot Autumn.' The article was essentially a critique of a study published by Vera Lutz (1961) on the subject of development in Southern Italy. This amounted to an authoritative exchange of views on issues fundamental to both theory and economic policy – the conditions for development in a backward area in the case of economic dualism, and the relevant policy choices. Applying standard neoclassical theory, Lutz argued that a new balance between the North and South of Italy could be achieved on the basis of free circulation of the factors of production, in particular through large-scale migration from South to North. If this did not come about, there would be a rise in the prices of foodstuffs in the South, under the pressure of demand, with a gap in the cost of living between North and South that would hamper industrialisation in Southern regions. Ackley and Spaventa criticised this mechanism, demolishing the foundations of Lutz's argument and proposing a policy for industrialisation concentrating on the South.

Spaventa had already dealt with these issues in 1960, taking a critical look at a previous article by Lutz and, above all, at the so-called "Vanoni Plan" and the "Saraceno Plan" in an article published in the *Giornale degli Economisti* (Spaventa, 1960c). There, the pre-Keynesian approach connecting the rate of accumulation to the rate of savings and the capital-income ratio to the wage level, is criticized; a policy of financial support of investments is proposed, together with an active

⁴ 'Autunno caldo' ('Hot Autumn') is the name attributed to the period at the end of 1960s in which Northern Italy had reached a condition of near full employment that gave rise to a season of heightened demands for workers rights, better working conditions and higher salaries, especially through frequent large scale strikes.

industrial policy involving the creation of private-public research centres aimed at stimulating technical progress.

The young economist's participation in the debate on economic policy led to a little-known but very important episode: his participation in the drafting of a famous policy document, the so-called "Nota aggiuntiva" submitted to Parliament by the then Minister for the Budget Ugo La Malfa in 1962, constituting a turning point in economic policy in the direction of planning, with active and rationally designed State intervention finding a place in the sphere of centre-left policies.

3. The debate on the theory of capital and distribution

Let us move from the realm of development economics and economic policy to that of pure economic theory. After the publication of Sraffa's *Production of commodities by means of commodities* (1960), Spaventa found himself in the leading group of young Italian economists (alongside Pierangelo Garegnani and Luigi Pasinetti) who adopted the new approach in the famous debate between the two Cambridges on the theory of capital and distribution.

In his book, Sraffa laid the foundations for a critique of the neoclassical theory of distribution based on demand and supply of the factors of production of capital and labour, according to which the wage and the rate of profit are interpreted as equilibrium prices. According to this theory, in a competitive regime the economic system automatically tends towards a situation of full employment: unemployment would push wages down, inducing a reduction of the capital/labour ratio, and this trend would continue until an equilibrium of full employment was reached. Sraffa reminds us that capital is in reality a bundle of heterogeneous means of production, whose prices vary with the variations in the distribution of income between wages and profits. Thus, a fall in wages and a corresponding increase in the rate of profit may bring about a rise rather than a fall in the quantity of capital (measured in value) per worker, or it may induce a change in the techniques of

production leading to a relatively greater use of capital, thus moving in a direction opposite to that needed to reach full employment.

This finding clearly casts doubt on the entire edifice of mainstream macroeconomic theory, which explains why the debate following the publication of Sraffa's book was so important. In particular, Samuelson (1962) argued that the 'neoclassical parable' remained valid even outside the imaginary single-commodity world for which it had been constructed. The critiques of Spaventa (1968b) and Garegnani (1970) were levelled precisely at the 'parable' put forward by Samuelson in 1962; they were developed independently but discussed before publication in a joint workshop. The debate, which also saw the participation of Pasinetti (1966) and was summarised by Harcourt (1972), showed that Spaventa, Garegnani and Pasinetti had been right, and led to confirmation of Sraffa's theses. The fact that these theses and arguments were subsequently ignored by mainstream macroeconomics constitutes a case of the victory of ideology over science – the laissez-faire ideology of the so-called invisible hand of the market, with negative consequences for recognition of the possibility of economic crises and the need for active policies in support of employment (cf. Roncaglia, 2010, on the ideological roots of the recent economic crisis).

A book edited by Sylos Labini (1973) includes, translated into Italian, the contributions by Spaventa, Garegnani and Pasinetti, alongside original contributions by various young Italian economists. The book had been conceived as a homage to Sraffa on his 75th birthday; Sraffa did not want the occasion to be identified explicitly, but everyone involved knew. I mediated between Sylos Labini and Sraffa in the negotiations, and during the revision of the introduction by Sylos Labini, and I can attest that Sraffa was very happy with the publication, which contained some important contributions and evidenced the presence in Italy of a keen group of economists close to his position; he was also pleased about the unspoken birthday present.

Spaventa returned to the subject in his address on the "Significance and import of the critique of marginalist distribution theory" at the 10th annual scientific meeting of the Italian Society of Economists in November 1969 (subsequently published in the *Giornale degli economisti*

as Spaventa, 1970). The subject of the meeting, which saw the participation of Mario Arcelli, Veniero Del Punta, Giulio La Volpe, Siro Lombardini and Spaventa, was the *Essence and limitations of marginalism in economic theories*. Held on the premises of ABI (the Italian Bankers Association) in Rome, the meeting offered the opportunity to air ideas from different positions, with Lombardini and Spaventa arguing the Sraffian theses, Del Punta defending traditional neoclassical theory, and Arcelli and La Volpe proposing the theory of general economic equilibrium. Of the contributions from the public, I remember a vigorous but not well argued attack on Spaventa by one of the powerful deans of Italian economics, Giovanni Demaria. It left him disconcerted, though only for a brief moment before he responded incisively.

At that time the object of debate was identified more in terms of the theory of distribution (the interpretation of the rate of profit as the 'price' of capital and wages being the 'price' of labour, determined by demand and supply of the two 'factors of production') than as concerning the capacity for automatic re-equilibrium of the labour market under conditions of competition. However, the implied critique to this latter tenet is also immediately deducible from the capital theory debate. In both cases, we are confronted with fundamental issues involving the interpretation of the functioning of capitalism, and the 'technical' or 'political' nature of the distribution of income (as was seen with the famous Italian debate on the "wage as independent variable").⁵

Spaventa's 1970 article in *Oxford Economic Papers* represented not only a resumption of the 'Sraffian' criticism of neoclassical distribution theory, but also – perhaps above all – an attempt to take it in a different direction, as indicated by Hicks in *Capital and Growth* (Hicks, 1965: a

⁵ To argue that the wage is *also* a 'political' variable, not automatically determined by the 'laws of supply and demand' does not necessarily mean also supporting the thesis of the 'wage as independent variable.' The latter was rather a widespread slogan during the 'Hot Autumn' (on which see the previous footnote). I remember hearing this thesis, discussed in various articles in the Italian journal *Rinascita*, criticised both by Spaventa and by Sraffa. As Sylos Labini (1972) demonstrated at the time, in devising strategies for Union demands it is necessary to take into account the complex interrelations between trends in wages and prices, profits and investments.

text that Spaventa urged me to study thoroughly, attaching great importance to it). It is a line of analysis that in some respects shows certain affinities (and in other respects differs, but it is beyond the scope of this introduction to go into the matter here) with that adopted by Kaldor (1956) and then by Luigi Pasinetti (see for example Pasinetti, 1962, and his subsequent contributions up to and including Pasinetti, 1981): working on the basis of different saving propensities of capitalists and workers, it forges a link between the rate of growth and rate of profit. The model analysed by Spaventa, like that of Hicks, features two commodities - only one of which is 'basic,' i.e. used as means of production in both productive processes, while the other is a consumption good not utilised in production. In the closing part of his study, Spaventa recognises the limitations of this model, especially if utilised (as Hicks attempted) for the analysis of transitions between different production techniques. In his subsequent research, Spaventa continued to follow the developments in the theory of capital, reading and discussing the various contributions made by others, but showing an increasing scepticism towards Sraffian modelling, eventually losing patience with it, given the urgency of the material problems of economic life.⁷

4. Oil crisis, inflation and income distribution

After his contribution to La Malfa's (1962) "Nota aggiuntiva," Spaventa had the ear of Italian politicians and the authorities responsible for economic policy. These were the years of the centre-left and planning policy, of reinvigorated unions and the reaction to these both political

⁶ Spaventa dealt with the issue of transition between techniques, along the lines of Hicks's approach, with an extensive text entitled "Notes on problems of transition between techniques" presented at a conference in Jerusalem (Spaventa, 1973b).

⁷ The reasons for Spaventa's dissatisfaction with the Sraffian line of research centred on criticism of traditional marginalist theory are clearly indicated in the concluding pages of a paper (Spaventa, 2004) reconstructing the activity of the "CNR group for the study of the problems of distribution, technical progress and development" between 1964 and 1981; together with Giorgio Fuà, Pierangelo Garegnani, Augusto Graziani, Paolo Sylos Labini and others, Spaventa was one of the leaders of this group.

(with General De Lorenzo's bid to carry out a coup) and economic (with the drastic restrictive policies of Carli and Colombo, which put an end to the season of the 'economic miracle'). Economic dualism between North and South persisted, but industrialisation was by then a reality and all the attendant problems – such as urbanisation, building speculation and inflationary pressures – dominated debate, both in the political forum and among the economists. Spaventa collaborated with ministers like Ugo La Malfa and Antonio Giolitti, also through the mediation of Giorgio Ruffolo, appointed Secretary of State for Planning, with whom there would be a lifelong collaboration thanks to the founding in 1981 of CER, the European Research Centre in Rome, and its activities over the following decades.

Economic planning was the subject of a study in which Spaventa (1964) brought the focus to bear on the link between structural needs and short-term difficulties, pointing out that the latter cannot be ignored with economic policy relegated to long-period planning (as was the case, however, with both the "Vanoni Plan" and the first five-year economic plan of the minister Pieraccini). We find the same concern nearly ten years later, in the *Report* written in collaboration with Izzo, Pedone and Volpi (1970), which we had occasion to mention above (but see also Pedone, 2013), and in two texts of a didactic nature in which Spaventa discusses income policy and re-proposes the Keynesian analytic approach (Spaventa, 1970c).

In these years there were also some critical reflections on the use of econometric models for planning, with an article published first in Italian, and then, in a partially revised version in English (Spaventa, 1965; 1966). Spaventa dealt with the contrast between the essentially static nature of econometric exercises, which assume the structural invariance of the economy, and the dynamic nature of the issues that have to be tackled by those in charge of economic policy.

Two publications bridging applied economics and theory were released ten years apart from one another, dealing with inflation and distribution of income. The first (Spaventa, 1963) addresses the issue of the effects of inflation on the distribution of income in Italy, analysing the events of the decade 1953-1962. Its attention focuses on the variation in

income shares both between economic sectors (agriculture, industry, etc.) and by income categories (labour income, separately for the private and the public sectors, rents from real estate, other private sector incomes). The second paper (Spaventa, 1973) critically analyses the thesis of obstacles to Italian economic development stemming from 'parasitic rents' and shows how the issue rather concerns the dynamics of oligopolistic market forms, with its influence on relative prices (and incomes) in the different sectors of economic activity.

Finally, an important publication written in collaboration with Lucio Izzo (Spaventa and Izzo, 1974) deals with the consequences of the oil crisis that broke out in the autumn of 1973, again combining theoretical analysis with close study of the situation, and consideration of the possible measures for intervention. Using a mathematical model sensitive to the distinction between real and monetary variables the authors also identify, alongside the inflationary effect of the rise in the price of crude oil, a decidedly depressive effect on the levels of activity, highlighting the risks of mechanisms of cumulative deflation. Discussing the measures for intervention proposed at the time, such as the issue of Special Drawing Rights to finance the oil importing countries, they point out that if there are serious imbalances in the balance of payments current accounts, these measures can have some effects only if: (i) the oil exporting countries are prepared to accumulate large and growing stocks of financial assets, and (ii) the importing countries do not attempt to accumulate reserve funds to pay back their debt through the pursuit, simultaneous in most or all such countries and thus doomed to failure in the aggregate, of surpluses in their balance of payments (moreover, such an endeayour would also entail generalised deflationary pressures). These theses were also expounded in a more accessible form, and inserted into the context of a broader debate on the difficulties facing Italy, in the report presented at a conference held in Leuven on 26 June 1974 (Spaventa, 1974), where the risk that Italy might be squeezed out of the European Community was stressed: the other speakers at the conference were Basevi. Andreatta and Sylos Labini.

5. Inflation, wage indexation and the international monetary system

The oil crisis put the economy at the centre of the political debate. In this period Spaventa started his regular contributions as a columnist for Corriere della Sera, published until his election to Parliament (subsequently he wrote for la Repubblica). His were important articles, often presenting original theses and arousing great interest: they constituted a contribution to the dissemination of an economic culture in keeping with a modern left, not revolutionary but reformist, not Marxist but Keynesian, and thus opposed to the pre-Keynesian schools of thought still very much alive not only in conservative circles but also in the maximalist left still dominant in the then Italian Communist Party, the PCI (but not only there), and so giving rise to a certain amount of controversy.8 Spaventa's influence waxed stronger both in Italy and abroad. In 1976 he was elected a member of Parliament for the Independent Left, founded by Ferruccio Parri and included in the PCI electoral lists; after two terms of legislature, in 1983 he returned to the University, in the Institute (later, as from 1985, Department) of economics, and to teaching, in the Faculty of Statistical Sciences of the Sapienza University of Rome.

His activity as a columnist and his political role led Spaventa to deal with the concrete issues of current affairs, always with his characteristic scientific rigour, thanks to which he was able to continue with his contributions to the academic debate, with continuing interaction between

⁸ Let us recall, as an example, two of these articles that to me still seem highly relevant: "Gli stregoni della pioggia" ("The rain wizards"), of 16 July 1976, and "I disertori della lira" ("The deserters of the lira"), of 10 August 1976 (Spaventa, 1976b; 1976c). The latter criticised the excessive use of the 'carrot' alongside the inevitable 'stick' in the measures designed to bring back Italian capital that had illegally fled abroad; the former criticised the forms that public debate was taking on economic issues, and the fact that the economists, faced with insistent demands for prophecies and immediate answers by the media, showed scant resistance to the oversimplification of problems and expectations to come up with short, snappy evaluations and proposals, when instead the devil is often in the details, in the possibilities and concrete procedures to implement the remedies proposed. "The degeneration of the expert into wizard," Spaventa observed, risks bringing "serious discredit on the profession of economists."

the level of theoretical analysis and that of interpretation of the concrete situation and the proposal of measures to intervene in it.

To begin with, let us consider the so-called 'single-point escalator mechanism,' i.e. a mechanism of quarterly full indexation of average nominal wages to consumer prices, agreed upon in 1973 by Agnelli's Confindustria (the Italian Employers' Association) and the left-wing trade union CGIL, led by Lama. Coming into force in 1975, it compounded with the oil crisis to produce an inflationary explosion in Italy. Moreover, the mechanism of equal adjustment for all wages and salaries also lead to an automatic redistribution of purchasing power from higher wages to average and below-average wages. Such a mechanism may have been bearable in a growing economy characterised by low inflation, but it proved a source of heavy social tensions in a period of recession and high inflation. In his contribution to Moneta e Credito, Spaventa (1976a) criticised certain assessments that had been made, both of the effects of the mechanism on real wages and of the degree of protection of the various wage levels, developing a precise analytic structure to address the problem.

Characteristically, in his article Spaventa did not take a stand for or against the 'single-point escalator mechanism,' concentrating rather on its actual functioning, a clear understanding of which, he believed – in this as in other similar cases – is an essential precondition for any serious discussion of the validity of the mechanism itself. And Spaventa still sought to pursue this line of discussion when the escalator clause became the object of fierce political contention, until a popular referendum in 1985 marked its end.⁹

Another fundamental political debate of those years arose with the birth of the European Monetary System, towards which Spaventa (to some extent taking the line of Paolo Baffi) showed a certain scepticism. His criticisms, as would also be the case with his observations on the euro project, were always to the point, dealing with the way the projects were developed and not the European ideals behind them. In practice, the

⁹ Spaventa followed various degree theses on the subject, and took part in many lively oral discussions in the debate, which continued on the theoretical level with an extensive study by Modigliani and Padoa Schioppa (1977) and the ensuing comments.

troubles that may result from an imperfect mechanism stand in the way of progress towards European unity. One excellent study, which was to have been developed into a book for the publishing house Laterza, reconstructs the thorny story of Italy's adhesion to the European Monetary System (Spaventa, 1980). Other studies were dedicated to economic policy topics: changes in the Italian tax system, specifically the shift to a new scheme of real estate capital taxation, called INVIM (Spaventa and Visco, 1980); the international monetary system and the policy followed by the IMF with its "letters of intent" (Spaventa, 1983a);¹⁰ and the attendant risks to the stability of the international financial system (Spaventa, 1983b). With mathematical precision, the first of these articles analyses the differences made under the INVIM scheme, a tax falling on the increment of value of residential and commercial houses. The second recounts the story of the letters of intent sent by the IMF to Italy in 1974 and 1977, the responses of the Italian government, the policies adopted and their outcomes. The third illustrates the fragility of the international financial system faced with growing international debt and suggests, taking a Keynesian line, massive (albeit conditional) aid to the debtor countries. In the case of mathematical analysis applied to a problem of finance, as in the case of historiographical analysis guided by a Keynesian approach applied to an economic policy issue, the choice of the methods to be utilized in the analysis depends on the nature of the problem to be addressed, and they are applied with rigour and close attention to detail, producing concrete answers to concrete problems.

6. A U-turn in economic theory

Shortly before he concluded his experience in parliament to return to the university, in 1982 Spaventa published an important theoretical text, "A U-turn in economic theory" (Spaventa, 1982). There he offered a critical reconstruction of the restoration of pre-Keynesian theory that had

 $^{^{10}}$ Reference here is to a report presented at a conference organised by the Institute for International Economics, 24-26 March 1982, Washington (DC)

come about in the previous years, the implications of which few had realised at the time. It was also, but not only, a matter of introducing the theory of rational expectations into the mainstream model of the economy centred on the Phillips curve and the theory of the natural rate of unemployment, together with the studies by Lucas that led to the conclusion that the economic system is always in full employment equilibrium (the unemployment rate emerging from the statistics being interpreted as a manifestation of voluntary unemployment, or the result of unforeseeable events with effects that would rapidly be reabsorbed), and that intervention on the part of economic policy is useless if not counterproductive. Spaventa warned against the repercussions of this "counter-revolution" with its anti-Keynesian implications for the management of economic policy, calling for new efforts to be made in the work of criticism and reconstruction, accepting the ground of discussion common to the 'neoclassical synthesis' and the 'New Classical economics.'

Sparking off heated debate (after Spaventa's return to the Institute of Economics in via Nomentana, also in the study we shared), this text concluded at a very clear distance from the Sraffian line of research, although Spaventa had made important contributions to it. As he saw it, "the neo-Ricardian approach has, at least in some of its extreme formulations, ended up by throwing away with so much dirty water also creatures of vital utility for analysis" (*ibid.*, p. 1056, our translation). Alongside the indisputable merits of the critique of the neoclassical theory of capital and distribution, there were two flaws that Spaventa deemed irremediable: "the attempts to dispense with consideration for the agents' behaviour, or even eliminate it from the theory, by reason of it being imbued with those subjective elements characteristic of marginalist analysis" (with particular reference to the role of expectations in decisions: expectations were an aspect that Spaventa paid great attention to, although he never wrote on the subject)¹¹ and, consequently, confining

¹¹ In this respect Spaventa's critical remarks also regarded Sylos Labini, who had always been sceptical about the role of expectations and in particular about their use in the field of models based on game theory. Spaventa points out explicitly to this opposition in his "Introduction" to a volume of proceedings of a session of the Italian Society of Economists that he had promoted as a member of its Presidency Board (1986-1989). It was held in October 1988, on the subject of the use of game theoretical models for policy

"the neo-Ricardian approach to a uselessly limited scope, in which demand, money, financial assets and even the dynamics find no room" (*ibid.*).

This seems to me a bit too extreme. On the one hand, accepting ground for debate common to the neoclassical synthesis and the new classical economics meant accepting the validity of the traditional marginalist theory of value and distribution, for the long if not for the short run, notwithstanding the validity of the disruptive Sraffian critiques to which Spaventa himself had contributed. The New Classical economics may then be criticized only for what concerns the realism of the assumption of rational expectations: a critique which can be accepted, but which is feeble on the grounds of it being pure theory. Indeed, once the existence of a full employment competitive equilibrium is granted for the long run, it is then difficult to maintain that agents should not take such an equilibrium into account, however large the margin of uncertainty surrounding their decisions may be. On the other hand, the criticism of the so-called neo-Ricardian approach, of it being closed to the consideration of agents' expectations, might apply to some versions of it, but not (or at least not necessarily) to others. Indeed, with the method of distinction between different analytic fields that I had proposed with my very first work on the interpretation of Sraffa (Roncaglia, 1975) and which I still uphold today (Roncaglia, 2009), it is possible to use both the analytic tools of the theory of prices of production in the field of capital theory, and the Keynesian concept of uncertainty, with the associated role for expectations, in the field of employment theory or in that of the financial markets where, by contrast, both the neoclassical synthesis and the New Classical economics are incompatible with a Keynesian notion of uncertainty. As I said, we often returned to the discussion, but it was not a matter of precise analytic questions, where the rights and wrongs of one position or another could be firmly settled. Rather it was, at least as we both perceived it, a matter of choices concerning the basic directions of research, as such difficult to

issues. Sylos Labini (1967, p. 46) playfully quoted Dante's "io credo ch'ei credette ch'io credessi..." ("I believe that he believed that I believed").

reconcile, also on account of the implications they hold in the concrete decisions of teaching or academic policy.

7. Public debt; from the EMS to the EMU

The two oil crises of the 1970s, followed by the international debt crisis of 1982 and the following deflationary pressures, drove up public debt in various countries, and in particular in Italy, both directly and because they had led to the adoption of expansionary fiscal policies. In the second half of the 1980s the issue took centre stage in the debate on economic policy: various scholars tackled the issue of the origins of the growth in debt, its sustainability and the measures that could be adopted to bring it back under control.

Spaventa joined the debate on various occasions. His first extensive article (Spaventa, 1984) originated with a conference at the University of California, Santa Cruz. Historical contextualisation of the issue is followed by an analysis of the debt formation process, based on a simple algebraic model, and by its application to the interpretation of the situation in Italy. Then comes an illustration of the means of deficit financing and the composition of the stock of Italian public debt, to conclude with a discussion of the prospects and open questions.

A second important article (Spaventa, 1987) focuses on the theoretical treatment of the issue of sustainability. The dynamics of fiscal receipts and the effects of the monetary financing of the public sector deficit are analysed by recourse to some models proposed in the mainstream macroeconomic debate. Spaventa concludes that the legislator, in deciding on the current fiscal policy, also determines the future inflation tax, while the monetary authority, in deciding the current inflation tax, also determines the need for future fiscal receipts.

A third article (Spaventa, 1988) had its origins in an address delivered at the Central School of Taxation on 21 January 1988; it retains the easy flow of oral exposition, but is followed by an appendix providing a mathematical treatment of the dynamics of debt and its relation to fiscal pressure.

A fourth important contribution is to be found in the report on public debt by the ministerial committee of inquiry that he presided over, and which included some of the best known Italian economists: Mario Arcelli, Francesco Giavazzi, Mario Monti, Antonio Pedone, Maria Teresa Salvemini and Giacomo Vaciago. The text of the final report was published in English (Spaventa, 1989) in the Banca Nazionale del Lavoro Quarterly Review (on my initiative, gladly accepted by Spaventa). Here the focus is on managing the public debt: having illustrated the importance of the issue, the report goes on to review the institutional aspects (the authorities in charge, the scope for manoeuvre, compulsory reserves and administrative controls), the various types of financial assets issued to finance the public debt (CCTs, CTOs, BTPs, securities pegged to inflation, foreign loans), the functioning of the relevant financial markets, the role of Parliament and the Treasury in managing the public debt. In conclusion, a number of shortcomings in the institutional set-up are pointed out and some proposals advanced.

In the same period he was also a member of the standing committee on the control of public spending at the Treasury. Of his various other contributions on public debt, we may mention the book edited together with Francesco Giavazzi, containing the proceedings of a conference organised by the Centre for Economic Policy Research (CEPR) and held at Castel Gandolfo in June 1987 (Spaventa and Giavazzi, 1987). The introduction by Spaventa is followed by reports by Alesina, Tabellini, Pagano, Giovannini, Bollino and Rossi, which were commented upon by Dornbush, Eichengreen, De Cecco, Fischer, Minford, Flemming, Spaventa himself, Obstfeld, Wyplotz, Frankel and Galli.

Alongside public debt, another issue that continued to be prominent both in the discussion on economic policy and in Spaventa's interests was the functioning of the European Monetary System, with the beginnings of the transition to the euro and the construction of the European Monetary Union.

The political economy of European monetary integration was the subject of the Einaudi Chair Lecture held at Cornell University on 8

November 1989,¹² and subsequently published in the *Banca Nazionale del Lavoro Quarterly Review* (Spaventa, 1990). At the centre of attention was the interrelation between political and economic factors in the birth of the European Monetary Union (EMU), which had just been launched with the *Delors Report* (Delors Committee, 1989). In the opinion of Spaventa, who reconstructs developments up to the advent of the European Monetary System (EMS), events were guided more by political initiatives and decisions than by clear and rational consideration of the economic consistency of the institutional setup proposed. The same thesis, which since the eurozone crisis has become very widespread, is developed in an article published in the following year (Spaventa, 1991).

Illustrated in another study (Spaventa and Giavazzi, 1990) was the change in the setup of the EMS, from a system with flexible but adjustable exchange rates to one in which realignments could be made only in the case of "exceptional conditions" and the consequent change in expectations, and thus in the reactions of the market to fiscal and economic policy measures.

Spaventa followed the evolution of the European Monetary System with a certain scepticism and distinct wariness, but with no preconceived hostility. Rather he sought to clarify, in the light of theoretical analysis, various specific aspects of the functioning of the *pro tempore* monetary system, in force or projected for development of the EMU. We may take the example of a contribution he made to special issues of *Moneta e Credito* and, in English, *Banca Nazionale del Lavoro Quarterly Review*, dedicated to the problems of transition to the single currency at the extremely delicate stage immediately preceding the decision on which countries were to be included, and which excluded, from the initial eurozone (Spaventa, 1996). In this article he illustrated the problems that certain inconsistencies in the Treaty instituting the EMU, concerning the exchange rate between the euro and the currencies of the countries temporarily excluded from the eurozone, created for the latter countries.

¹² Spaventa had been appointed to the Chair named after Luigi Einaudi at Cornell University in the USA by the De Mita government, probably on the recommendation of the Treasury Minister Giuliano Amato or the Minister for Scientific Research and (*ad interim*) for the University, Antonio Ruberti.

Spaventa referred to a "Catch 22" alluding to the famous novel by Joseph Heller: you may apply to be exonerated from missions of war if you are mad, but if you ask to be exonerated it shows that you are not mad. He went on to propose certain modifications to the European treaties that might solve the problem. At that time it was widely believed that Italy would not be able to adopt the euro in the first wave. Spaventa probably shared this opinion; perhaps the hindrances he illustrated, which rendered the admission of a latecomer into the eurozone in the absence of a general consensus among the other members difficult, contributed (together, of course, with other more purely political considerations) to persuading the then Prime Minister Prodi and the then Treasury Minister Ciampi that Italy should join the euro from the outset.

His scepticism towards the adjustment mechanisms of the European Monetary Union allows Spaventa to perceive years in advance a problem that will become dramatically evident to everybody with the recent public debt crisis: the issue of interest rate spreads between a country's Treasury bills and the bonds of different countries. An analysis of the factors determining interest rate spreads, in collaboration with Favero and Giavazzi (Spaventa, Favero and Giavazzi, 1977) identifies such factors in: the expectations of exchange rate depreciation, market evaluation of default risks, and the different tax treatment of long-term yields.

Further writings followed, together with numerous contributions to conferences and debates, which are impossible to list here: up to his comments in more recent years on the outbreak and development of the economic and financial crisis.¹³ In this period we may detect, I feel, some signs of a return to Keynesian ideas, but this is a question that would merit specific analysis. What is certain is that a researcher of his professional honesty had no misgivings about showing that he had changed his mind when it could help understand the world around us and bring about some improvement.

¹³ Let me recall two of them: a reconstruction of the vicissitudes leading to Italy joining the European Monetary Union (Spaventa and Chiorazzo, 2000) and an intervention on the recent economic and financial crisis (Spaventa, 2009).

8. The ethic of the public servant

The tributes that appeared in the press in the immediate aftermath of Luigi Spaventa's death referred mainly to his activity as a 'technician lent to politics,' as a member of Parliament and minister, and as president of CONSOB and the Monte dei Paschi di Siena Bank. All, however, also referred to his long and brilliant university career. What did not receive due attention, to my mind, was his activity as a researcher: intensive, with decidedly significant results even when he was on leave from the university.

In his research activity, which played such an important part in his professional life, Spaventa provided some highly significant contributions in various fields: to the theory of economic development (and dualism), the pure theory of capital and distribution, the framing of economic policy, the connection between inflation and income distribution, the political economy of public debt, and the sequence of monetary regimes within the EU. Intellectual curiosity and the ethical penchant to favour rational intervention in economic policy guided Spaventa in his choice of issues, to tackle them with rigour and to provide original, thoughtful contributions.

It is here, probably, that we can find the link between his activity as a researcher and that as public servant: the civic sense combining sharp critical rationality with a strong public service ethic. Even his research activity has in practice proved to be a committed service to the public: the public of his economist colleagues, obviously, but also to the world of politics in general, and all his fellow citizens.

REFERENCES

CAVAZZUTI F. (2013), "Luigi Spaventa in Consob", *Moneta e Credito*, vol. 66 n. 263, pp. 299-335.

DELORS COMMITTEE (COMMITTEE ON THE STUDY OF ECONOMIC AND MONETARY UNION) (1989), Report on Economic and Monetary Union in the European Community, Brussels: Office for Official Publications in the European Community.

- GAREGNANI P. (1970), "Heterogeneous Capital, the Production Function and the Theory of Distribution", *Review of Economic Studies*, vol. 37, pp. 407-436.
- GUARINI R. (2013), "Il cammino di Luigi Spaventa alla Sapienza: da studente a professore emerito", *Moneta e Credito*, vol. 66 n. 263, pp. 249-259.
- HARCOURT J.C. (1972), Some Cambridge Controversies in the Theory of Capital, Cambridge: Cambridge University Press.
- HICKS J. (1965), Capital and Growth, Oxford: Clarendon Press.
- KALDOR N. (1956), "Alternative Theories of Distribution", *Review of Economic Studies*, vol. 23, pp. 94-100.
- LA MALFA U. (1962), "Nota aggiuntiva", in (id.), Relazione generale sulla situazione economica del paese, presented to Parliament on May 22, Rome.
- MODIGLIANI F. and PADOA SCHIOPPA T. (1977), "La politica economica in un'economia con salari indicizzati al 100 o più", *Moneta e Credito*, vol. 30 n. 117, pp. 3-53.
- PASINETTI L. (1962), "Rate of Profit and Income Distribution in Relation to the Rate of Economic Growth", *Review of Economic Studies*, vol. 29, pp. 267-79.
- —— (1966), "Changes in the Rate of Profits and Switches of Techniques", *Quarterly Journal of Economics*, vol. 80, pp. 503-17.
- ——— (1974), *Growth and Income Distribution: Essays in Economic Theory*, Cambridge: Cambridge University Press.
- (1981), Structural Change and Economic Growth, Cambridge University Press.
- PEDONE A. (2013), "Luigi Spaventa e il controllo dell'economia nel breve periodo", *Moneta e Credito*, vol. 66 n. 263, pp. 261-278.
- RONCAGLIA A. (1975), Sraffa e la teoria dei prezzi, Rome and Bari: Laterza.
- —— (2009a), "Keynes and Probability: An Assessment", European Journal of the History of Economic Thought, vol. 16 n. 3, pp. 489-510.
- ——— (2009b), *Piero Sraffa*, Basingstoke: Palgrave Macmillan.
- ——— (2010), *Economisti che sbagliano*, Rome and Bari: Laterza. English translation (2010), *Why the Economist Got It Wrong*, London: Anthem Press.
- ——— (2013), "Luigi Spaventa", *Moneta e Credito*, vol. 66 n. 263, pp. 219-247.
- SALVEMINI M.T. (2013), "Luigi Spaventa ministro del Bilancio", *Moneta e Credito*, vol. 66 n. 263, pp. 337-343.
- SARCINELLI M. (2013), "Per ricordare Luigi Spaventa", *Moneta e Credito*, vol. 66 n. 263, pp. 279-297.
- SPAVENTA L. (1959), "Dualism in Economic Growth", *Banca Nazionale del Lavoro Quarterly Review*, vol. 12 n. 51, pp. 386-434. Republished in (2013), *PSL Quarterly Review*, vol. 66 n. 266, pp. 201-253.
- ——— (1960a), "Problems of Intermediate Stages of Growth", *The Economic Weekly*, vol. 12 n. 27, pp. 1077-1082.
- ---- (ed.) (1960b), Nuovi problemi di sviluppo economico, Turin: Boringhieri.
- (1960c), "Note su alcune direttive di politica economica recentemente proposte in Italia", *Giornale degli Economisti e Annali di Economia*, January-February, vol. 19.

- (1964), "La programmazione economica in Italia: esigenze strutturali e difficoltà congiunturali", *Annuario politico italiano 1964*, Centro Italiano Ricerche e Documentazione, Rome: Edizioni di Comunità, pp. 3-20.
- (1965), "L'impiego di modelli econometrici globali per la programmazione: un bilancio critico", *L'industria*, vol. 17 n. 4, pp. 3-23.
- (1966), "The Use of Econometric Models for Long-Term Policies: A Critical View", *Banca Nazionale del Lavoro Quarterly Review*, vol. 19 n. 77, pp. 99-120. Republished in (2013), *PSL Quarterly Review*, vol. 66 n. 266, pp. 267-290.
- (1968a), *Appunti di economia politica*, Perugia: Cooperativa Libraria Editrice Universitaria Perugina; second edition (1971), Roma: Mario Bulzoni editore.
- (1968b), "Realism without Parables in Capital Theory", *Recherches récentes sur la fonction de production*, Namur, Ceruna (Centre d'études et de recherches universitaire de Namur), n. 2, pp. 13-45.
- (1970a), "Significato e portata della critica alla teoria marginalista della distribuzione", Giornale degli economisti e Annali di economia, September-October, vol. 29.
- (1970b), "Rate of Profit, Rate of Growth, and Capital Intensity in a Simple Production Model", *Oxford Economic Papers*, vol. 22 n. 2, pp. 129-147.
- (1970c), "La politica dei redditi" and "Schemi keynesiani di formazione e di distribuzione del reddito", in Caffè F., Campa G., Finoia M., Spaventa L., Sylos Labini P. and Travaglini V. (eds.), *Problemi di economia contemporanea*, Corso di aggiornamento in economia politica. Rome: Centro didattico nazionale.
- (1973a), "Note su rendite e profitti: l'esperienza italiana", *Moneta e Credito*, vol. 26 n. 104, pp. 308-335. Republished in (2013), *Moneta e Credito*, vol. 66 n. 263, pp. 345-374
- ——— (1974), "The 'Rules of the Game' and the Italian Case", *Recherches Economiques de Louvain*, vol. 40 n. 3, pp. 237-250.
- (1976a), "Salario protetto dal meccanismo di scala mobile a 'punto pieno'", *Moneta e Credito*, vol. 29 n. 116, pp. 387-402.
- —— (1976b), "Gli stregoni della pioggia", Corriere della Sera, 16 luglio 1976.
- ——— (1976c), "I disertori della lira", Corriere della Sera, 10 agosto 1976.
- ——— (1977), "Ancora sul grado di copertura del salario: un'estensione dell'analisi", Moneta e Credito, vol. 30 n. 118, pp. 217-227.
- ——— (1980), "Italy Joins the EMS A Political History", *Occasional Paper*, n. 32, Research Institute, Johns Hopkins University, Bologna, pp. 67-93.
- (1982), "Una svolta ad U della teoria economica", in VV.AA., *Scritti in onore di Innocenzo Gasparini*, Milan: Giuffrè, pp. 1037-1058.
- (1983a), "Two Letters of Intent: External Crises and Stabilization Policy, Italy, 1973-77", in Williamson J. (ed.), *IMF Conditionality*, Washington (DC): Institute for International Economics, and Cambridge (MA): MIT Press, pp. 441-473.
- ——— (1983b), "Risks to the Stability of the International Financial System: Gloom without Drama", in Fair D.E. (ed.), *International Lending in a Fragile Economy*, The Hague: Martinus Nijhoff, pp. 324-337.

- (1984), "La crescita del debito pubblico in Italia: evoluzione, prospettive e problemi di politica economica", *Moneta e Credito*, vol. 37 n. 147, pp. 251-284; English translation (1984), "The Growth of Public Debt in Italy: Past Experience, Perspectives and Policy Problems", *Banca Nazionale del Lavoro Quarterly Review*, vol. 37 n. 149, pp. 119-149. Republished in (2013), *PSL Quarterly Review*, vol. 66 n. 266, pp. 291-324.
- ——— (1987), "The Growth of Public Debt. Sustainability, Fiscal Rules and Monetary Rules", *IMF Staff Papers*, vol. 34 n. 2, pp. 374-399.
- ——— (1988), "Debito pubblico e pressione fiscale", *Moneta e Credito*, vol. 41 n. 161, pp. 3-20.
- ——— (ed.) (1989b), La teoria dei giochi e la politica economica, Bologna: Il Mulino.
- ——— (1991), "From the European Monetary System to the European Monetary Union: An Uneasy Transition", *Economie Appliquée*, vol. 44 n. 3, pp. 5-27.
- —— (1996), "Fuori al freddo? Inclusi ed esclusi nel 1999: le opzioni realizzabili e quelle non realizzabili", *Moneta e Credito*, supplement to n. 193, pp. 143-165; English translation (1996), "Out in the Cold? Outsiders and Insiders in 1999: Feasible and Unfeasible Options", *Banca Nazionale del Lavoro Quarterly Review*, Supplement to n. 196, pp. 137-159. Republished in (2013) *PSL Quarterly Review*, vol. 66 n. 266, pp. 343-366.
- (2004), "Il gruppo CNR per lo studio dei problemi economici della distribuzione, del progresso tecnico e dello sviluppo. Una infrastruttura di formazione e di ricerca", in Garofalo G. and Graziani A. (eds.), *La formazione degli economisti in Italia*, Bologna: Il Mulino, pp. 555-578.
- ——— (2009), "Economists and Economics: What Does the Crisis Tell Us?", CEPR Policy Insight, n. 38, Centre for Economic Policy Research, London.
- SPAVENTA L. et al. (1989a), "Towards a Public Debt Policy in Italy", Banca Nazionale del Lavoro Quarterly Review, vol. 42 n. 170, pp. 253-302.
- SPAVENTA L. and ACKLEY G. (1962), "Emigrazione e industrializzazione nel Mezzogiorno. (Un commento allo studio di V. Lutz)", Moneta e Credito, vol. 15 n. 58, pp. 135-143; English translation (1962), "Emigration and Industrialization in Southern Italy. A Comment", Banca Nazionale del Lavoro Quarterly Review, vol. 15 n. 61, pp. 196-204.
- SPAVENTA L. and CHIORAZZO V. (2000), Astuzie o virtu? Come accadde che l'Italia fu ammessa all'Unione Monetaria, Rome: Donzelli Editore.
- SPAVENTA L. and DE GRAUWE P. (1997), "La fissazione dei tassi di conversione per la terza fase dell'UME", *Moneta e Credito*, vol. 50 n. 198, pp. 123-138; English translation (1997), "Setting Conversion Rates for the Third Stage of EMU", *Banca Nazionale del Lavoro Quarterly Review*, vol. 50 n. 201, pp. 131-146.
- SPAVENTA L., FAVERO C. and GIAVAZZI F. (1997), "High Yields: The Spread on German Interest Rates", *Economic Journal*, vol. 107 n. 443, pp. 956-985.
- SPAVENTA L. and GIAVAZZI F. (eds.) (1987), *High Public Debt: The Italian Experience*, Cambridge: Cambridge University Press.
- SPAVENTA L. and GIAVAZZI F. (1990), "Il nuovo SME (con un poscritto), *Politica economica*, vol. 6 n. 3, pp. 417-447.

- SPAVENTA L., IZZO L., PEDONE A. and VOLPI F. (1970), *Il controllo dell'economia nel breve periodo*, Milan: Franco Angeli.
- SPAVENTA L. and IZZO L. (1974), "Alcuni effetti interni ed esterni dell'aumento del prezzo del petrolio", *Moneta e Credito*, vol. 27 n. 105, pp. 13-29; English translation (1974), "Some Internal and External Effects of the Rise in the Price of Oil", *Banca Nazionale del Lavoro Quarterly Review*, vol. 27 n. 108, pp. 12-27.
- SPAVENTA L. and PASINETTI L. (1960), "Verso il superamento della modellistica aggregata nella teoria dello sviluppo economico", *Rivista di politica economica*, vol. 50 nn. 9-10, pp. 1-35.
- SPAVENTA L. and VISCO V. (1980), "'Vecchia' e 'nuova' INVIM: un'analisi critica e alcune proposte alternative", *Rivista di diritto finanziario e scienza delle finanze*, vol. 39 n. 3, pp. 347-366.
- SRAFFA P. (1960), *Production of Commodities by Means of Commodities*, Cambridge: Cambridge University Press.
- SYLOS LABINI P. (1967), *Oligopolio e progresso tecnico*, Turin: Einaudi, (IV ed.). English translation (1969), *Oligopoly and Technical Progress*, Cambridge (MA): Harvard University Press.
- —— (1972), Sindacati, inflazione e produttività, Rome and Bari: Laterza.
- ——— (ed.) (1973), Prezzi relativi e distribuzione del reddito, Turin: Boringhieri.