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From public finance to public economics

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ABSTRACT

The emergence of the expression of ‘public economics’ marked an epistemological rupture in the economic discourse about the state. The local problems and national intellectual traditions that had shaped the centuries-old field of public finance were cast aside in favour of new problems and new methods. From the 1970s onward, public economics became an integrated international field defined by a methodological approach embodied in general equilibrium. Mathematics and optimisation changed the nature of the questions considered. After briefly outlining the historic constitution of the field of public finance and how it was transformed in the middle of the twentieth century, we explain how a new economic theory of public expenditures emerged with one foot in the old public finance and one foot in the new public economics. We then hint at how the integration of risk into economic theory unexpectedly transformed the way economists conceptualised the public sector. Last, we consider how the maximisation of social welfare functions exhibiting a trade-off between equity and efficiency replaced principles of taxation.

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This special issue has shed new light on several important subjects in the history of public economics; it has also raised new questions. Some relate to classic problems in the history of economics, including how to write recent history, the separation between positive and normative economics, and the role of the economist. Others speak to the development and use of models, the meaning ascribed to models, rational reconstruction, and the motivation of economists. Drawing on the nine papers included in this issue and our own previous work on the history of the field, we conclude that the mid-century linguistic shift from “public finance” to “public economics” marked an epistemological rupture in the normative economic discourse about the state, from pluralistic modes of rationalisation about policy to the unifying framework of optimisation theory allowing for the homogenisation of efficiency and equity concerns.

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In English, the use of public economics became increasingly common following its adoption by Leif Johansen as the title of his book (Johansen 1965).¹ In the interest of clear translation, Johansen sought to distinguish his theoretical treatment of the “problems of the public economy” from the “description[s] of national institutions, fiscal system[s] and policy” (Johansen 1965, ix) that characterised earlier texts (e.g., Groves 1939; Hicks 1947). The change gained traction the following year at the Conference on the Analysis of the Public Sector.² Rather than taxes or public debt, the topics of discussion were social justice, public goods, public utilities pricing, and socialist planning. Papers by Serge-Christophe Kolm, Amartya Sen, Richard A. Musgrave, Paul Samuelson, Edmond Malinvaud and Stephen Marglin, among others, were published in French (Guitton 1968) and in English (Margolis 1969) as *Public Economics*.

The conference was an important moment in the construction of the new international field of public economics (Hauchecorne 2018, 2020). In his introduction, Margolis remarked that it was fitting that the conference was held in France “where there existed a tradition of economic analysis for public works planning” (Margolis 1969, xi). Indeed, the expression of “*économie publique*” had been used in French for some time. In 1945, François Divisia dedicated a part of his applied political economy lectures delivered at the *Ecole nationale des ponts et chaussées* to the subject of “*Économie Publique*”; for him, the subject comprised both public finance and public works (Divisia 1945; Fèvre and Mueller, 2023). Divisia taught Maurice Allais and Kolm; Kolm subsequently used the expression as the title of his lectures delivered in French at the Institut français du pétrole in 1965 on the economic role of the state.³

Simultaneously, Margolis served as chair to the advisory Committee on Public Expenditures, part of the larger interdisciplinary research programme on urban economics at the US think tank Resources for the Future. The committee, to which Musgrave and Buchanan also belonged, organised large conferences and smaller seminars in the 1960s and early 1970s. In 1966, it changed its name to the Committee on Urban Public Economics (Hoch 1969, 75). Given the rising concern associated with urbanisation, including pollution, sprawl, segregation, violence, and poverty, urban economics briefly emerged as a distinct research field in the 1960s before it was reabsorbed into public economics in the 1970s.⁴

By the 1970s, the importation of optimisation results from welfare economics had completed the transformation of the centuries-old field of public finance into the new field of public economics (Drèze 1995; Laffont 2002). Indeed, the reframing of the central problems of the public sector into the mathematical language of equilibrium and optimisation would likely have proven incomprehensible to public finance experts working in the early decades of the century. We argue that changes in

¹ *Offentlig Økonomikk* was first published in Norwegian in 1962.

² The conference was organised in Biarritz by the International Economic Association, of which Paul Samuelson was at the time president.

³ Kolm (1987, 8183; 2010) claimed incorrectly that his lecture notes, in French, were printed in 1964 before the translation of Johansen’s book, making him the inventor of the label ‘public economics’. However, he seemed to have forgotten the use made by his mentor and thesis supervisor, Divisia (see also Hauchecorne 2018).

⁴ Public finance specialists had studied traffic congestion, the pricing of public services, cost sharing amongst levels of government and other issues that fell at one point under the umbrella of urban economics, on which see Kuehn, 2023; and Cherrier and Rebours 2023.

presentation and method were accompanied by an epistemological shift in normative theorising, especially in the field of tax theory, where a discussion of “principles of taxation” was replaced by the maximisation of a social welfare function allowing for a trade-off between equity and efficiency. When public expenditures, taxation, and redistribution were brought under the same theoretical and methodological umbrella, public economics gained a unified framework for its varied ‘microeconomic’ subjects. For economists of the previous generation like Musgrave and Buchanan, however, this theoretical consistency was gained at the expense of policy relevance.

The first section of this conclusion briefly maps the historic constitution of the field of public finance, its central problems, and its plural methodologies, with a particular focus on the United States. The distinct field was transformed in the twentieth century to address new policy challenges and was also reshaped by developments at the heart of the economic discipline. Still, we argue that public finance retained a normative concern for equity inherited from natural law even after WWII, notably in the works of Buchanan and Musgrave. In the second part of the paper, we show how the theorisation of public expenditures proceeded with one foot in the old public finance and one foot in the new public economics. We then hint at how the integration of risk into economic theory unexpectedly transformed the way economists conceptualised the public sector, notably in the normative approaches to the distribution of income. The third section considers how optimal taxation theory displaced traditional tax principles, emerging in the interstices of these broader trends to epitomise the transformation of public finance to public economics.

1. A History of public finance

1.1. *The science of public finance*

Although this has not been systematically studied, public finance has probably always reflected the structure of the economy where a particular discourse emerged. From the Cameralist analysis of mines and forestry dues in central Europe, to the Physiocratic insistence of a land tax for the eighteenth century French agrarian economy, to Smith’s focus on excise and customs duties in commercial Britain, the discussion of fiscal instruments reflected the flow of resources that public authorities could tap. In this sense, both the positive and normative parts of public finance can be seen as rationalisation of the national laws, institutions, and the practices of fiscal policy. But the influence could be bidirectional. At the time of consolidation of fiscal states, public finance knowledge was called to provide solutions to fiscal crises (Kennedy 1913; Silvant and Arrupe 2020). Public finance discourse has shaped political debates and framed the language of tax reform from the sixteenth century to the present (Desmarais-Tremblay 2022). Yet, more work needs to be done on how the international circulation of public finance ideas influenced tax reform debates in specific countries.

In the second half of the nineteenth century, the extension of the franchise had profound consequences in the liberal parliamentary regimes of the Western world. Economists who specialised in public finance began to adapt their liberal principles to mass democracies. Anticipated by writers such as Montesquieu who integrated

fiscal issues in constitutional theory as well as by less systematic and older approaches pertinent to state finances, such as the insurance theory of taxation (“Assekuranztheorie”), state-individual interactions were reconceptualised as voluntary exchanges. Fiscal justice and collective decision processes became important questions in the writings of Maffeo Pantaleoni (1883), Antonio de Viti de Marco (1888, 1936), and Knut Wicksell (1896).

The quest for a democratic or popular theory of public finance similarly occupied economists in the United States during the Progressive Era. *Laissez-faire* policies were seen as having led to the excesses of the Gilded Age and gross disparities in income and power. An activist state flanked by federal agencies and informed by scientific economics could curb pollution, educate the masses, check the concentration of capital, and bring about social justice. However, to grow the scope and scale of government required additional resources – at a time when the burden of sales, import, and land taxes already fell disproportionately on small landowners and the lower classes. Tax reform was thus part-and-parcel of the progressives’ agenda for both eminently practical reasons in addition to being a mechanism to social change (Johnson 2023).

In an important wave of internationalisation for public finance, American economists who would set the stage for the institutionalist movement in the early twentieth century pursued graduate studies in Germany (Carlson 1999). From the German economists, Americans specialising in public finance acquired an understanding of the tax system situated in its historical specificity and political context and an appreciation for statistical data collection. Both E.R.A. Seligman and Henry C. Adams adopted the German view that public finance was a distinct science, related but not subsidiary to economics.⁵ And while public finance had to embrace questions of justice and fairness, it could also contribute to scientifically training experts who could advise local commissions, states, and the federal government on tax reform (Johnson 2014b).

The necessity of institutional embeddedness of public finance knowledge explains why Seligman considered the mathematical approach of Antoine-Augustin Cournot and F.Y. Edgeworth to the question of tax incidence as useless for policy purposes (Moss 2003). Indeed, American public finance specialists were consumed with practical problems of taxation throughout the 1890s and early 1900, as they struggled to convince the country to adopt a federal income tax. Direct taxation was a necessary fiscal tool, they argued, appropriate to the modern state. As part of their campaign, ability-to-pay replaced the benefit principle as the normative foundation of taxation (Mehrotra 2013b). Adam Smith’s first maxim of taxation stating that everyone “ought to contribute towards the support of the government, as nearly as possible, in proportion to their respective abilities” was cited by politicians as a source of normative authority for the new income tax, as it had been in the United Kingdom (Smith, [1776]1976, V.ii.b; San Julián Arrupe 2022; Daunton 2001, 179).⁶

The emergent fiscal needs of the Great War increased the reliance on the newly enacted direct taxes in many countries including France, the UK and the US

⁵ A similar disciplinary position was occupied in Italy by the *Scienza delle finanze* (on which see Buchanan 2001[1960], Fausto and De Bonis, 2003, and Silvestri, 2023).

⁶ This is despite that Smith’s maxim could also lay support to the benefit principle, as Seligman (1908, 164) and others have pointed out.

(Cardoni 2014, Brownlee 1996). After the war, tax rates were lowered but the new direct taxation fiscal regime endured (Mehrotra 2013a; Johnson 2011). Direct taxation was argued to be a fair instrument by which to fund the state and public goods, while limiting the concentration of economic power and thereby mitigating inequalities. What was quickly realised was that defining income – particularly in a way to capture that of capitalists and stockholders – was not simple. Anticipated by Georg von Schanz (1896), Robert Murrey Haig, a protégé of Seligman, gave an economic definition of income as “money value of the net accretion to one’s economic power between two points of time” (Haig 1921, 7). A decade later, Henry C. Simons refined Haig’s accretion definition as the “algebraic sum of the individual’s consumption expense and accumulation during the accounting period” (Simons 1938, 206).⁷ The Haig-Simons definition represented but one technical obstacle that public finance economists needed to overcome to create the modern fiscal state. Subsequent decades would be devoted to measuring income distributions, tax burdens, and tax shifting in an effort to refine the tax code to achieve economic and political objectives (Desmarais-Tremblay and Johnson 2023).

With a pluralistic training in economics from the universities of Munich, Exeter and Heidelberg, Musgrave arrived in the United States in 1933, part of the second wave of German influence on American economics. This wave was induced by émigrés, who came in the 1930s often to escape German fascism. Émigrés included Jacob Marschak, Oskar Morgenstern, and Joseph Schumpeter. Some found jobs in the expanding federal bureaucracy. Gerhard Colm, for example, integrated fiscal thought into an idiosyncratic vision of long-run Keynesianism that emphasised the stabilising potential of built-in flexibility of the tax system. He became the Assistant Chief in the Bureau of the Budget in 1940 and the chief economist of the new Council of Economic Advisors during the Truman Administration. As dozens of students and established professors left Europe, they brought with them knowledge of different intellectual traditions that contributed to the flourishing of US economic science after the Second World War (Backhaus 1997; Musgrave 1997; Hagemann 2011).

In his dissertation, Musgrave combined different continental traditions in public finance from the classical triad of German Finanzwissenschaft (Lorenz von Stein, Albert Schäffle, and Adolph Wagner) with interwar marginalist work in taxation, including Pigou’s *Public Finance* (1928) and his *Economics of Welfare* (1932), to shed light on the concept of the burden of taxation (Musgrave 1937). Influenced by Max Weber, Musgrave envisaged what rational conduct of the public economy should look like, but ran into various difficulties, notably the estimation of individual benefits derived from the activity of the state. Upon graduation, Musgrave assisted his former supervisor, the classically orthodox Harold H. Burbank, in the teaching of the undergraduate course in public finance at Harvard. Despite the year 1938, readings assigned to the students comprised textbooks the first edition of which had been written at the turn of the century – those by C.F. Bastable, Bullock, and Seligman (see also Medema, 2023). Alongside those, students would have also read somewhat more

⁷ In other words, income is defined as consumption plus gains in net worth whether they are realised or not. It includes, for instance, owner-occupied imputed rent.

recent works by Hugh Dalton and A.C. Pigou, British Commission Reports and Bulletins of the National Tax Association.⁸

The Keynesian revolution transformed the field of public finance. Trained in the Midwestern institutionalist analysis of the business cycle, Alvin Hansen propagated a domesticated variant via his fiscal policy seminar at Harvard that mixed public finance, business cycle theory, and money and banking. With its direct pipeline to elite economic policy-makers, the seminar had a profound influence on American economic policy in the 1940s and 1950s (Desmarais-Tremblay and Johnson 2019). Musgrave's work for the Federal Reserve Bank and his regular participation in the seminar undoubtedly influenced his foundational characterisation of the role of government as allocation, distribution, and stabilisation. A history of the mutually constitutive relationship between public finance and macroeconomics in fiscal policy theorising could add valuable insights to understanding both post-war economic policy choices and the direction and shape of state-sponsored economic research.

1.2. Post-War public finance

As we argued in the introduction to this special issue, the fiscal needs of the Second World War led to a fundamental reconsideration of the tax system in many countries. In the US, personal and corporate income tax rates were increased significantly, and the excess profit tax was reinstated. From a tax paid only by those in the upper parts of the income distribution, the personal income tax became a mass tax (Brownlee 1996). While rates were reduced post-war, the proportion of the population subject to an income tax remained high, leading to growing interest in the normative basis for tax policy. Perceptions of fairness were also being shaped by the expansion of federal and state statistical capacity. Beginning with the federal personal income tax in 1913 but vastly expanded under the New Deal, various federal agencies developed surveys to capture trends in personal income and consumption. During the Second World War, these studies were bolstered by new efforts to track production, rationing, bond-buying, and savings (Bowman 1946). Before the war, two important studies attempted to estimate the distribution of the tax burden; both concluded the tax system was U-shaped, regressive at the lower end of the income distribution and only becoming progressive at high income levels (Blough et al. 1937; Colm and Tarasov 1940). In 1949, Musgrave embarked upon a project to generate estimates of the post-war distribution of the tax burden, with the goal of providing better information to policy-makers. "The question of who pays the taxes must be answered ... informed judgment ... should prove a better basis of policy than random guesses or political slogans" (Musgrave et al. 1951, 1). Although Musgrave had access to new and better sources of data, the methodology still required a large number of assumptions about the shifting of the various taxes, particularly of the corporate income tax (Musgrave et al. 1951; see also Desmarais-Tremblay and Johnson 2023). Nonetheless, Musgrave et al.'s (1951) empirical estimates were in high demand, discussed widely in congressional committee hearings and at conferences of tax experts.

⁸ <https://www.irwincollier.com/harvard-undergraduate-public-finance-reading-list-and-semester-exams-burbank-and-musgrave-1938-1939/>

While corporate representatives often challenged the new post-war high-tax regime as detrimental to business and national economic growth, public finance economists were generally supportive of the expansion of government entailed.

Having completed his military obligations, James M. Buchanan enrolled at the University of Chicago in 1946, where he studied price theory with Frank Knight and fiscal policy with Simons (Johnson 2014a; Marciano 2019a). Buchanan's quick conversion to classical liberalism at their hands would motivate his individualistic and government-sceptic reimagining of public finance in the 1960s.⁹ In his doctoral dissertation, Buchanan recognised that federalism was not efficient from an economic standpoint, yet from a neo-Jeffersonian political perspective, federalism had to be preserved (Marciano 2020). Local autonomy safeguarded individual liberty against the expansion of the federal government (Buchanan 1948, 10–12). From Knight (1935) and Simons (1934), Buchanan adopted the idea that that liberal democratic societies relied on consensus building through discussion; his innovation was to emphasise the importance of rules design to shape the arena in which the discussion could take place. Keenly aware of the fundamentally normative nature of public finance, Buchanan argued that economists should make explicit their political value judgments as part of their policy advising (Buchanan 1948, 18; see also Simons 1934).

Buchanan sought an abstract and general solution to the fiscal problem (Buchanan 1948, 5). With an integrated national market where goods, people, and firms could move freely and a political system in which different states and cities each had their own fiscal rules, the “equal treatment of equals” would become Buchanan's cardinal virtue of the fiscal system. Simons recognised this principle as an important aspect of justice in taxation, but he did not want a “casuistic” discussion on the meaning of equity to interfere with resolving technical issues in taxation (Simons 1938, 30 and 139). More inclined to the benefit principle than the progressives' ability-to-pay, Buchanan rooted his treatment of taxation in the work of Aristotle, Thomas Hobbes, John Stuart Mill, and Wicksell, in addition to a host of German-language interwar scholarship. Drawing from Henry Sidgwick, Pigou had argued that when it came to equity, “different persons should be treated similarly unless they are dissimilar in some *relevant* respect” (Pigou 1928, 9, italics in original). Simons had distinguished considerations of equity with persons in “similar financial circumstances” from those applying to persons in “different economic (wealth and/or income) levels” (Simons 1950, 8).¹⁰ These ideas formed the basis of Buchanan's principle of “‘equal treatment for equals’ and its corollary ‘unequal treatment for unequals’” (Buchanan 1948, 31). The originality of Buchanan's conceptualisation was to compare individuals not merely on the basis of their fiscal burden, but on the net effect of benefits minus taxes, which he called the “fiscal residuum” (Buchanan 1948, 44). Buchanan was well aware that the benefit principle of taxation had fallen out of favour at the turn of the twentieth century, seen as

⁹ Several abrupt personnel changes in public finance at Chicago left Buchanan to write his dissertation on fiscal federalism under the newly hired Roy E. Blough (Johnson 2014a; Mitch 2016). Buchanan seemed little influenced by Blough, although they would have agreed on the general point that acceptable standards of justice in taxation were necessary for the functioning of economic and political organisations (Blough 1944a, 24).

¹⁰ Simons died in 1946. His *Federal Tax Reform* was published posthumously in 1950. However, drafts had been circulating since at least as early as 1944.

incompatible with a modern fiscal state that relied on income taxation (*Ibid.*, 36). Nonetheless, he was sympathetic to de Viti de Marco's (1936) methodological lens of looking at fiscal processes as an exchange between individuals and the state. Acknowledging Musgrave's (1939) critique of the voluntary exchange models, Buchanan still aligned himself with Wicksell (1896) and Lindahl (1919). The fact that it was difficult to measure the benefits accruing to individuals from public expenditures did not mean that they were not real. For the purpose of comparing the fiscal residuum between individuals living in different states, it was sufficient to impute benefits on the basis of expenditures per capita (Buchanan 1948, 53–54). Thus, Buchanan's normative solution to the question of fiscal equity was to call on the federal government to act as “adjustor of the total fiscal system” by providing unconditional grants to equalise the fiscal residuum of individuals “with those of other individuals in similar economic circumstances throughout the whole federal state” (Buchanan 1948, 192 and 53; see also Buchanan 1949, 1950).

Tax incidence, fairness, and policy design, particularly as they intersected with conceptions of the role of the state, continued to occupy Musgrave's attention throughout the 1950s. With his deep knowledge of public finance traditions, Musgrave was aware of how ability-to-pay had been interpreted in radically different ways over the previous centuries. Principles of justice in taxation inherited from the seventeenth century natural law and passed down through Smith, Sidgwick, Pigou, and Seligman had to be reinterpreted for the age of the mass tax. In *Theory of Public Finance*, Musgrave (1959) advanced his novel distinction between horizontal and vertical equity (Desmarais-Tremblay 2021a). Although the difference had been noted in passing by Simons (1950) and given the new expression of “equal (unequal) treatment for (unequal) equals” by Buchanan (1950, 1951), Musgrave's treatment broke new ground. What it did not do was prescribe specific tax rates. While people in different positions had to pay different amounts of tax, there was nothing in Musgrave's formulation to set tax rates or to specify proportionate differences. Rather than a theoretical question, Musgrave believed that the level of progressivity was a matter for society to decide via its political process. Musgrave's monograph was used for the graduate teaching of public finance for decades. Yet, in retrospect, the grand synthesis he attempted between continental European public finance traditions, neoclassical welfare economics, and American fiscal policy discussion often appears more like a “collage” than a stylistically uniform painting (Medema 2023). Indeed, the pluralism that characterised interwar American economics had not yet vanished from the field of public finance. Laurence Moss (2005) argued that the echoes of interwar institutionalism in Musgrave's explicitly moral purpose and the policy orientation contributed to the book's successful reception.

Other public finance economists trained in the interwar period also adapted to the growing formalism and the place of fiscal policy in the post-war period. Harold Groves replaced much of the institutional description of tax systems in his early textbook editions with new chapters on fiscal policy; he simultaneously incorporated more theoretical economic analysis (Groves 1939, 1964). Much the same could be said of Shoup's *Public Finance* (Shoup 1969). Published at the twilight of his academic career, the textbook reflected the long legacy of institutionalist public finance

at Columbia that originated with Seligman and ran through Haig and William Vickery (Medema 2006).

The teaching of public finance in British universities was moving in a similar direction. Although her own textbook offered no theory of expenditures and harkened more to Adam Smith than Pigouvian welfare theory, elsewhere Ursula K. Hicks provided an early, though not always articulate, voice for a modernised public finance. She insisted the field needed to break from its narrow focus on finance to consider problems of distribution and governmental expenditures (Hicks 1938; 1955). Expanded scope was also needed to address the growing size of government and account for the welfare state. While the insight first emerged in her thesis, her *Public Finance* (Hicks 1947) offered a more comprehensive bridge between welfare theory and public finance, recognising the usefulness of a coherent theoretical foundation for the field while still acknowledging the importance of social and historical context.

On the policy front, many of the same issues dominating US discussions achieved even greater urgency in Britain, given the heavier tax burden and the necessity to rebuild after the war. The war had reinvigorated the ancient attention paid to government financing in emergency and exigent circumstances. In addition to Keynes, theorists such as John R. Hicks and Lionel Robbins and public finance specialists such as A.R. Prest, Hugh Dalton, and Ursula Hicks worked on problems at the intersection of debt financing, tax burdens, money, and macroeconomic outcomes. After the war, the question of the tax burden remained at the forefront of public discussion, with the British government reprising its use of Royal Commission enquiries.¹¹ The Royal Commission on the Taxation of Profits and Income (Prest 1956) reaffirmed the country's commitment to a progressive income tax and highlighted many of the same problems assessing the corporate tax as Musgrave et al. (1951) had encountered. When attention was given to tax principles, equity concerns still trumped those of efficiency (Prest 1956).

2. Towards public economics

2.1. Welfare economics and public expenditures

Mid-century public finance economists perceived that welfare economics could provide a coherent theoretical foundation for the field. However, integration of the two was far from straightforward. Pigou's concept of national dividend, measured in monetary terms, was one attempt to provide an objective measure of welfare (Cooter and Rappoport 1984, Backhouse and Nishizawa 2010; Takami 2014). Still, his willingness to engage in interpersonal utility comparisons was challenged on methodological grounds, leading economists to develop an ordinal interpretation. While following Pareto and Robbins seemed to provide a more scientific foothold, this choice limited the ability of economists to make policy recommendations. Economists quickly found themselves limited to pointing out incoherence, waste, and inefficiencies, restricted to

¹¹ Following the First World War, the Commission on the British Income Tax (1920) and the Colwyn Committee (1927) both took up problems of the definition of income and provided some of the earliest empirical estimates of the tax burden; their method and findings influenced both Blough, Shoup, and Newcomer (1937) and Colm and Tarasov (1940).

only considering uncontested Pareto-improving policies. For example, provided that agreement could be reached on the benefits of flows of services, cost-benefit analysis provided engineer-economists with a metric to assess the social desirability of public infrastructure. Pricing natural monopolies at marginal costs could also be recommended based on a consensual concern for efficiency (Desmarais-Tremblay, Johnson, and Sturn 2023). In retrospect, what was lacking was a framework by which to evaluate policies affecting equity and distribution.

With the groundwork laid by *Foundations of Economics* (Samuelson 1947), Samuelson engineered the first significant application of the social welfare function to problems of the public sector (Samuelson 1954). The exercise was undertaken specifically to illustrate the usefulness of mathematics for solving economics problems (Pickhardt 2006). Referring to “collective consumption goods which all enjoy in common in the sense that each individual’s consumption of such a good leads to no subtraction from any other individual’s consumption of that good”, Samuelson (1954) derived the conditions to reach a Pareto-optimal allocation in an economy with private and collective goods. Due to the possibility of free riding, no decentralised market could attain this optimum, argued Samuelson. The specific allocation attained depended on the choice of the social welfare function optimised by an omniscient social planner. As such, Samuelson’s model successfully demonstrated how welfare economics could solve a crucial problem of the public sector by respecifying it within the framework of modern neoclassical theory. Given “jointness of consumption” of collective goods, Samuelson concluded that efficiency called for public subsidy of pure public goods.

Not all economists were convinced by Samuelson’s individualistic conceptualisation of public goods. For example, Colm (1956, 409) was “unwilling to accept the philosophy or the semantics which ma[de] Samuelson speak of the individual’s ‘enjoyment’ of national defence.” Musgrave accepted the ingenuity of Samuelson’s conceptualisation but found it was not sufficient for constructing a theory of the public sector that accounted for the plurality of activities done by modern states. Out of the range of goods provided by government, one category was what Musgrave termed a merit want – these were needs such as housing for the poor, the satisfying of which was considered socially important. Although these types of needs could technically be fulfilled by private goods, Musgrave argued it made sense for government to supervise (Desmarais-Tremblay 2017a). Ubiquitous incentives to free ride meant that coercion in tax collection was a necessary facet of the system. Combined with Musgrave’s (1959) suggestion that governments were justified in the choice to provide such goods – even in violation of consumers’ sovereignty – his approach was judged as unacceptable paternalism by many. Compared to Samuelson’s definition of a pure public good, the failure of merit goods to take hold can be attributed both to its loose definition and the difficulty to reconcile the concept into the individualistic framework of the neoclassical individual utility and social welfare functions (Desmarais-Tremblay 2019).

One strategy that proved fruitful in the conceptualisation of mechanisms for the provision of public goods was the idea of decentralisation. Samuelson had argued that the absence of a decentralised mechanism to reach an optimal allocation with

public good was a matter of indisputable logic. In contrast, Charles Tiebout (1956) suggested that in a spatial setting of local public finance, households could be induced to reveal their preferences if mobility was allowed, and neighbouring suburban towns would offer different packages of public services and tax arrangements in equilibrium. Tiebout assumed that citizens would vote with their feet, moving to the location that best matched their preferences. As a left-leaning liberal, Tiebout may have intended his model to be a provocation to show how far the logic of market allocation could be stretched in the face of public goods (Singleton 2015). Samuelson could not condone the implications of the model. In a segregated America, he contended that “people often like heterogeneity even though it involves conflict,” departing from an agnostic scientism, he argued that “people want to ‘improve’ their community” rather than “run out” on their “social responsibilities” (Samuelson 1958, 337). Samuelson’s desire to normatively judge social outcomes illustrates the difficulties economists faced living within the constraints of their models (see also Coker and Marciano, 2023).

Buchanan strongly believed that decentralisation was part of the solution, but he also thought that mobility patterns assumed by Tiebout’s model would create inefficiencies (Boettke and Marciano 2017). The failure to come to an agreement with Samuelson on the issue of revealed preferences and individual-market incentives served as a challenge for Buchanan to articulate his own theory of public goods. His answer was to focus on small-scale public goods provided by private institutions that exclude non-paying individuals from the benefits (Coker and Marciano 2023). In the case of club goods such as swimming pools or highways, the exclusion mechanism induced preference revelation (Buchanan 1965). Moreover, by charging individualised prices, clubs could account for any loss in benefits generated by the congestion of increased membership (Marciano 2021).

Mancur Olson (1965) extended the problem of free riding as a general explanation for the failure of collective action in groups. By 1970, economists had devised a taxonomy of goods based on assumptions of rational behaviour that was quite different from the legal and administrative classification of public expenditures (on which, see Hunter 1930). According to Musgrave (1969), the consumption of goods could be rival or nonrival, and their provision could be excludable or nonexcludable. Taken as binary, these two criteria generated four possibilities: from pure private goods, to pure public goods, with toll goods (nonrival and excludable) and what Ostrom and Ostrom (1977) would later call common pool resources as intermediate cases, while Buchanan’s club goods combine excludability with variable degrees of rivalry (cf. Musgrave and Musgrave 1973). Showing a greater degree of institutional sophistication than Samuelson’s 1954 definition, this typology was a rationalisation of government expenditure even if it was not meant to be an actual description. As a normative typology, it provided a *prima facie* case for government intervention – although Buchanan and later Ostrom would argue that clubs and commons could organise themselves voluntarily without the need for government intervention. On a methodological level, what is striking is that Musgrave’s typology was constructed on qualitative criteria. In this respect, Musgrave’s theorising shared more with the nineteenth century classification of activities in public finance than the

mathematical modelling of Samuelson. While Musgrave's typology continues to dominate introductory textbooks, it was Samuelson's approach that was picked up in the theoretical public economics literature from the 1970s onwards. It would notably spark attempts to construct mechanisms to incentivise individuals to reveal their preferences for public good, the history of which is still unwritten.

2.2. Risk and uncertainty

One profound ontological difference between the conceptualisation of the public sector in its relation to individuals in public finance and that of public economics is the introduction of uncertainty. While further research is needed to fully understand this transformation, we note a few important contributions. During the war, Evsey Domar and Musgrave (1944) had shown that the income tax did not reduce the incentive for firms to take on risk, as long as tax law allowed for full-loss offset. Their argument was inspired by the non-quantifiable understanding of uncertainty of Knight, Keynes, and Albert G. Hart, rather than conceptions of calculable risk.

During his war work at the Treasury, Vickrey (1939, 1945) studied the tax treatment of the insurance industry. He then pondered whether a von Neumann-Morgenstern utility function over risky alternatives would be a good way to model preferences in order to derive the optimal level of tax progression. Individual choice over risk provided typically utilitarian thinking with a new way to move from individual rationality to normative questions of social justice.¹²

After the war, prominent theorists at the Cowles Commission, including Jacob Marschak and Tjalling Koopmans, and at the University of Chicago, including Milton Friedman and Leonard J. Savage, refined the concept of expected utility. The normative turn at the Cowles commission (Herfeld 2018) would make their work more directly relevant to public economics. Relying on axiomatic mathematics and pairwise comparisons of alternatives, Arrow shifted the terms of the discussion on the question of social welfare with his impossibility theorem. But, while he cited Vickrey (1945) and was concerned with problems of risk from early on, Arrow believed that the issue of risk was orthogonal to the problems exhibited by his multi-profile framework of Social Welfare Functions: "It has nothing to do with welfare considerations, particularly if we are interested primarily in making social choice among alternative policies in which no random elements enter. To say otherwise would be to assert that the distribution of the social income is to be governed by the tastes of individuals for gambling" (Arrow 1951, 11; Dimand 2023). Yet, through his work at Cowles, Arrow became a major contributor to the economics of risk, including issues of measurement and allocation. Also initially reluctant, by 1952, Samuelson had been converted to the new understanding of utility (Moscato 2016).

¹² "If utility is defined as that quantity the mathematical expectation of which is maximized by an individual making choices involving risk, then to maximize the aggregate of such utility over the population is equivalent to choosing that distribution of income which such an individual would select were he asked which of various variants of the economy he would like to become a member of, assuming that once he selects a given economy with a given distribution of income he has an equal chance of landing in the shoes of each member of it" (Vickrey 1945, 329).

John Harsanyi sought to formalise political theory through “maximising behaviour” (Fontaine 2010, 151). In his first paper, Harsanyi (1953) suggested that the von Neumann-Morgenstern conceptualisation of choice under risk might give new life to a cardinal understanding of utility. While the new welfare watershed had sucked the air from the utilitarian argument for income redistribution based on the declining marginal utility of income, Harsanyi candidly argued that a disinterested judgement on the income distribution could be modelled as a choice involving risk: “An individual’s preferences satisfy this requirement of impersonality if they indicate what social situation he would choose if he did not know what his personal position would be in the new situation chosen (and in any of its alternatives) but rather had an equal chance of obtaining any of the social position” (Harsanyi 1955, 317). Harsanyi was the first to apply the framework of the individual decision under risk for justifying utilitarian social welfare functions in a single-profile context (see also, Hammond 1987, Weymark 1991). By translating the linear structure of the expected utility function to social welfare, he rehabilitated utilitarianism as an ethically relevant framework.¹³

In 1964, John Rawls discussed a draft of his *Theory of Justice* at the preliminary meeting of the Public Choice Society; in attendance were Buchanan, Harsanyi, and Olson, in addition to Gordon Tullock, Anthony Downs, William Riker, and Vincent Ostrom (Amadae 2003, 149; Buchanan 2003). Over the next decade, Rawls continued to engage with economists, exploring the construct of rational choice as it related to the “original position” of his contractarian approach to justice.

Rawls explained that the utility principle was deficient as a principle of justice because it did not care about the distribution of welfare amongst individuals; the Pareto criterion similarly failed because it only provided a partial ordering of distributions (Rawls 1967, 64). Not unlike what Harsanyi and Buchanan and Tullock (1962) had envisaged, Rawls argued that the resolution of the unacceptable sacrifice of liberty for some to increase the welfare of others lay in the design of the decision process, the rules of the game. Rawls argued that an impartial choice made from behind a “veil of ignorance” could mitigate the possibility of unjust outcome by agreement over reasonably acceptable principles for a fair society. It was important to get the institutional structure of society right “since even a perfectly efficient price system has no tendency to determine just distributive shares when left to itself” (1967, 79).

In the published version of his *Theory of Justice*, Rawls upheld his two principles of justice: equal liberty and the difference principle. The difference principle would remove the “indeterminateness of the principle of efficiency by singling out a particular position from which the social and economic inequalities of the basic structure are to be judged” (Rawls 1971, 75). Inequality would be acceptable as long as society worked towards improving the expectations of the worse-off members. This implied making interpersonal comparisons, which Rawls suggested should not be based on

¹³ Both Vickrey’s (1945) and Harsanyi’s (1955) papers would be cited as precursors to the public economics literature of the 1970s, breaking away from the new welfare constraints and operating a return to utilitarianism (Sandmo 2015). They received many citations since their authors each received an economics Nobel in the 1990s, but citations to either of them were quite esoteric after their publication. According to Google scholar, Vickrey’s paper was cited only 22 times and Harsanyi’s only 45 times before 1971.

utility or merely on income, but on an index of primary goods composed of “rights and liberties, powers and opportunities, income and wealth (1971, 62). Rawls went to great length to explain the original position and how it should lead to the difference principle, often drawing analogy with economic choice under uncertainty. Yet, the maximin remained a heuristic, or an analogy, as the participants of the deliberation behind the veil of ignorance had “no basis for attributing probability” to their respective positions in the society once the veil would be lifted (Rawls 1971, 155; Igersheim 2023).

In 1963, Arrow dedicated a series of lectures to the *Theory of Risk-Bearing*. His concomitant paper in the *American Economic Review* secured the place of moral hazard as a paradigmatic case of market failure (Latsis and Repapis 2016). Arrow’s lectures, together with Pratt (1964), helped to crystallise the conception of risk that proved central to the first papers published at the end of the 1960s by the young Agnar Sandmo, Stiglitz, Kolm, and Atkinson. Indeed, in his groundbreaking paper on the measurement of inequality, Atkinson (1970) made the surprising claim that his interest in measuring inequality was stimulated by reading a draft of Michael Rothschild and Stiglitz 1969s Cowles Discussion paper on “Increasing Risk: A Definition and Its Economic Consequences” that cited Arrow’s Helsinki lectures (Arrow 1965), a book which Stiglitz had reviewed the previous year. Just as a certainty equivalent could be calculated for a gambler facing a lottery, Atkinson calculated the “equally distributed equivalent income” of a given distribution as “the level of income per head which if equally distributed would give the same level of social welfare as the present distribution” (Atkinson 1970, 250, Hauser 2023). This allowed Atkinson to define an index of inequality characterised by a parameter of “aversion to inequality.” In a paper presented at the Conference on the Analysis of the Public Sector (1966) and published shortly before Atkinson’s, Kolm (1969) proposed a similar notion of “equal equivalent,” that is “the individual income which, if everybody had the same income, would yield a situation as good as the one under consideration.” This allowed Kolm to define as a measure of “social injustice” the difference between “the per capita income and this equivalent” (Kolm 1969, 150). Because political philosophy had “failed to propose scientific criteria” for dealing with distributive justice, contra Rawls, Kolm proposed to do so “with the traditional tools of efficiency analysis” (1969, 147). What was common to both Atkinson and Kolm, thanks to the use of continuous functions, was a presumed trade-off between total welfare and equality.

3. Optimal taxation

3.1. The early days

From the Classics through Pigou, public finance economists devoted significant attention to the incidence and relative economic burden of taxes. The mathematician Frank Ramsey (1927) reframed the question to consider a situation where a given amount of revenue had to be collected by taxing commodities with different elasticities of demand. Ramsey’s rule demonstrated that to minimise utility loss, “taxes should be such as to diminish the production of all commodities in the same

proportion” (Ramsey 1927, 54; see also Duarte 2009). Although Pigou devoted five pages to Ramsey’s finding in his public finance treatise, the rule failed to gain traction in public finance – likely attributable to the mathematically sophisticated exposition. Indeed, citation counts in JSTOR for the first three decades after its publication are in the single digits (Duarte 2010, 132). John R. Hicks, Harold Hotelling, and Marcel Boiteux reached similar conclusions regarding tax rates in other contexts, leading to a ‘rediscovery’ of the Ramsey Rule in the middle of the century (Duarte 2010, 123).

In 1951, Samuelson provided a theoretical analysis of the Ramsey result as part of his consulting work for the U.S. Treasury, which was then considering various plans to raise taxes to fund the Korean War. In his analysis, Samuelson maximised the utility of a representative agent, abstracting from questions of equity. Qualifying Ramsey, Samuelson concluded that to minimise the deadweight loss, excise rates should be set to achieve “an equal percentage change in all goods and services,” assuming that the consumer’s loss of income was compensated – that is, the ad valorem tax rates depend on the Slutsky compensated elasticities. Samuelson inferred that once we consider the burden of any tax that is not lump sum, the arguments of Irving Fisher (1939) and Pigou (1928) against the ‘double taxation’ of savings under a personal income tax were not definitive. There might be cases where the burden of a given set of excise taxes was higher than that of an income tax, or the other way around, but he saw no “a priori presumption that one case is likely to be more optimal than the other” (Samuelson 1986, 142).

Given the technical difficulties of application, it is perhaps not surprising that Samuelson’s formal analysis failed to manifest in the package of tax hikes proposed by the Treasury to Congress.¹⁴ Although Congress did increase excise and income taxes, the general trend since the Second World War was for decreasing reliance on indirect taxation. In Ramsey’s era, indirect taxation had until very recently been the primary source of fiscal revenues in Britain as well as in the United States. But when Samuelson wrote his memo for the U.S. Treasury, excises accounted for less than half of the revenues collected.¹⁵

With no obvious policy usefulness and relying on mathematics beyond reach of many economists, Samuelson’s memo remained unpublished for many years. Musgrave (1959) concluded against Pigou (and Ramsey) that a “neutral” pattern of ad valorem taxes was preferable to selective excise at differential rates. In a footnote, he uncharitably dismissed Ramsey’s result as embedded in old welfare economics assumptions.¹⁶ Like Samuelson, Musgrave concluded that when lump-sum taxes were unavailable and when labour supply responses were allowed, “there is no general presumption that one [selective excise] or the other [income] tax is superior. The only over-all conclusion that one may venture is that the best taxes are those on goods (including leisure) which have the lowest rates of substitution.” (Musgrave 1959, 152). For Musgrave, efficiency concerns had to be balanced against potentially conflicting

¹⁴ <https://www.jct.gov/CMSPages/GetFile.aspx?guid=e8c41b1f-d45a-4911-8ca8-9e90eb607693>. On the Revenue Act of 1951, see also Miller, 1952.

¹⁵ Bank of England, A Millenium of macoeconomic data, A27, <https://www.bankofengland.co.uk/statistics/research-datasets>. White House, Office of Management and Budget, Historical Tables, Table 2.1, <https://obamawhitehouse.archives.gov/omb/budget/Historicals>

¹⁶ Bishop (1968) later pointed out Musgrave’s misinterpretation.

equity considerations, but he did not conceptualise it in terms of a homogenous trade-off. Because tax policy was as much art as science, the expert needed to recommend taxes that would be acceptable to politicians on both grounds (Musgrave 1959, 158).

3.2. The turn of the 1970s

Ramsey's optimal taxation framework remained marginal in public finance until the late sixties, not even appearing in Shoup's (1969) treatise. Despite no specific intention to work on problems in public economics, reactions to his solution for public goods provision periodically drew Samuelson back to the problem. In 1966 at the Conference on the Analysis of the Public Sector in Biarritz, Samuelson provided a more general framework for the optimal provision of collective goods which included taxation. The Ramsey Rule was presented as a special second-best case scenario (Samuelson 1969, 123).¹⁷ Samuelson's Treasury memo also received a second life with the increased mathematical sophistication of the newest generation of economists.¹⁸ For instance, Peter Diamond had become familiar with Ramsey's (1928) work on savings while working on his dissertation. His transition to the problems of public finance and collaboration with James Mirrlees led to two joint papers on optimal taxation and public production; the very short reference lists included both Ramsey and Samuelson on optimal taxation (Diamond and Mirrlees 1971a, 1971b; see also Duarte 2010).

The challenges of conducting recent history of economics means little work has yet been done on the generation of economists who finished their studies in the 1960s and launched the optimal distribution literature – individuals including Stiglitz, Mirrlees, Diamond, Atkinson, and Partha Dasgupta. Of the turn-of-the-seventies contributions (such as Baumol and Bradford 1970, Diamond and Mirrlees 1971a, Dixit 1970, and Atkinson and Stiglitz 1972), Mirrlees's (1971) paper on optimum income taxation was the most directly embedded in the public finance literature. Though taking his departure point as Vickrey (1947), Blum, and Kalven (1953), Musgrave (1959), and Shoup (1969), his analysis looked nothing like theirs. Mirrlees argued that there was “virtually no relevant economic theory to appeal to” to determine the optimal progression of income tax. Assuming a benevolent and perfectly informed government, an up-to-date theory would be based on the maximisation of a utilitarian social welfare function. Individuals were identical in their consumption-leisure utility functions, but they were distinguished by their level of ability to earn (skills) which Mirrlees represented by a continuous density function. The optimum tax

¹⁷ Note that this general framework started with a social welfare function whereas in the 1951 Treasury memo, Samuelson restricted himself to the framework of Ramsey of a single utility function, even if he had already defined the concept of the social welfare function in his *Foundations* in 1947. Whether Ramsey's utility referred to a representative agent or something like a social welfare function is subject to interpretation. In any case, Ramsey's function was likely interpreted as the former by postwar economists (Duarte 2009).

¹⁸ By the middle of the decade, Atkinson remarked to Samuelson “about once a month, I get someone suggesting to me that it would be very nice if the *Journal of Public Economics* could publish your famous US Treasury memorandum on the Ramsey problem” (1976). A.B. Atkinson to Paul A. Samuelson, 25 May 1976. PASP, Duke University, Box 143, cited by Roger Backhouse who has generously shared with us a draft chapter of the second volume of his biography of Samuelson. Samuelson's memo was finally published in 1986.

schedule thus depended on the distribution of skills and the form of the utility function assumed. With a larger dispersion of skills, the optimal marginal rates were found to be higher, leading to more redistribution as a part of the population would choose not to work and live off the subsidy (pay a negative income tax). Mirrlees (1971) calculated a few examples of income tax schedule and was surprised to find fairly low (and declining) marginal rates ranging from 15 to 50 percent at the top of the ability distribution. He concluded that “the income tax [was] not as effective a weapon for redistributing income, under the assumptions we have made, as one might have expected” (Mirrlees 1971, 206). In retrospect, Mirrlees (1997) recognised that his surprising result came in part from the high (unitary) elasticity of substitution between consumption and labour of his utility function. The more agents responded to wage incentives, the less redistribution the social planner should achieve. Just as labour and capital were more or less substitutable as inputs in the production process, Mirrlees embedded the trade-off between consumption and leisure to attain a given level of utility in his conceptualisation of the rational agent behaviour as part of his calculation of the socially optimum tax schedule. The trade-off between efficiency and equity was thus derivative of the more fundamental trade-off between work and leisure.¹⁹ Although this neoclassical model owed to Edgeworth, Wicksteed, Knight and Robbins’s conceptualisation of leisure (Derobert 2001; Montesano and McLure 2021), it is interesting to note that Dalton (1923) and Black (1939) had both studied the trade-off in the context of the effect of the taxation of income on the elasticity of the “supply of efforts.” Mirrlees added the Hicksian idea of substitution, the Bergson-Samuelson social welfare function, and presented his argument in theorems and proofs using modern algebra and calculus.

Atkinson and Stiglitz (1976) returned to the debate over direct versus indirect taxation, taking stock of the recent developments in optimal tax theory. Following Diamond and Mirrlees (1971a), they generalised the Ramsey formula to cases where individuals differ in terms of both their taste for consumption and leisure, and their ability to generate income, neither of which was assumed to be directly “observable” to the government or taxing authority. To fall back on the Ramsey result, they then assumed identical tastes, differentiating individuals only by ability. If only commodity taxes were allowed, differential rates acted as a “screening device” to achieve an efficient result. Atkinson and Stiglitz (1976) did not take into account public goods, but they did leave room for a distributional objective. This brought into light an equity-efficiency trade-off: taxing a low-elasticity good might be good from an efficiency point of view, but it may be suboptimal depending on the shape of the social welfare function and the distribution of abilities. In the second half of the paper, Atkinson and Stiglitz assessed whether the availability of income taxation changed the previous results of optimal commodity taxation. They demonstrated that if the utility function was weakly separable between labour (leisure) and consumption, then commodity taxation was not necessary to reach the optimum provided that a general income tax function was available.

¹⁹ The equity/efficiency tradeoff is explicit in Diamond and Mirrlees (1971a): “The optimal redistribution by this method occurs when there is a balance between the equity improvements and the efficiency losses from further taxation.” The expression is also used by Cooter and Helpman (1974), Sandmo (1976), Atkinson and Stiglitz (1976), and Stern (1976).

3.3. Maximin

Discussing Mirrlees (1971), Atkinson (1973) tweaked the social welfare function to put more weight on the utility of the worst-off individual. He demonstrated that an optimal marginal rate in the order of 50 percent could be derived in the limiting case of “maximis[ing] the utility of the worse-off person” (Atkinson 1973, 95). This result was an extension of his work on the measurement of inequality; it was also a reference to Rawls’s maximin (Rawls 1967; 1971; Walraevens 2023). For Atkinson, the “maxi-min criterion did seem to capture some of the notions of ‘fairness’ which are current in public discussion” (1973, 105). Edmund Phelps (1973) also considered the implications of Rawls’s maximin for optimal labour taxation. Although Phelps acknowledged Rawls’s criticism of utilitarianism, he remarked that “Rawls’s original position is reminiscent of the neo-utilitarian approach of Harsanyi and Vickrey in which an individual’s ‘ethical preference’ is for that social structure, with its redistributive policies, which maximises the mathematical expectation of utility when he believes it is equiprobable that he will be in each person’s” (Phelps 1973, 335).

Rawls responded politely to economists’ interest in his *Theory*, but he could not always follow their mathematics (Igersheim 2022; 2023; Walraevens 2023). Robert Cooter and Elhanan Helpman (1974) subsequently showed that marginal rates higher than the ones derived by Mirrlees and Eytan Sheshinski (1972) could be obtained with a Rawlsian maximin social welfare function and higher elasticities of substitution. Cooter and Helpman (1974) compared the optimal tax schedule derived under a utilitarian ‘Bentham’ social welfare function, with the ‘Rawls’ maximin, but also other distributional objectives, including ‘Nash’, ‘elitist’, ‘egalitarian’, ‘democratic’ (median rule), and ‘max GDP.’ Relying on earlier empirical work by Musgrave on the distributional effect of the tax system, Cooter and Helpman imputed the social welfare function from empirical data and found that a ‘democratic’ social welfare function “which maximises the utility of the class of median ability” was the best fit with the data when the distribution of wages was taken as a proxy for the ability distribution. If ability were to be normally distributed, the Rawlsian maximin would most closely match the observed level of governmental redistribution. Thus, within a few years of the publication of Rawls’s *Theory*, a selectively interpreted version of his maximin had entered the field of public economics as an alternative social welfare function to compare optimal taxation schedule and income redistribution (Guizzo and Paré Ogg 2023; Walraevens 2023).²⁰

3.4. Musgrave and Buchanan push back

Musgrave (1974) wondered whether Rawls had gone too far deploying economic logic. The veil of ignorance, conceived as choice under maximum risk, was “fun and games for the economists,” but was it the proper framework for a philosophical theory of justice? While Musgrave recognised that optimal taxation constituted a more

²⁰ As Rawls put it in a letter to Buchanan: “people focus on risk aversion and maximin far too much and seem unaware of the main features of the theory [of justice]” (Rawls to Buchanan, 25 February, 1975, James M. Buchanan Papers, Box 84 George Mason University Libraries).

sophisticated framework for judging the efficiency cost of various tax instruments than the sacrifice theory, Musgrave questioned whether differences in ability to earn should be given normative significance when thinking about tax system design (Musgrave 1976, 13–15). While lump-sum taxes and transfer were of little practical use, perhaps they should still form the basis of a philosophical theory of tax justice? Rawls argued that in opting for the maximin, parties behind the veil of ignorance would give moral significance to the negative effect on work incentives from increasing taxes to redistribute income. In other words, it amounted to allowing higher-ability individuals to reduce the level of redistribution to the poorest by having a strong preference for leisure. From the point of view of horizontal equity, it was doubtful whether society should accept that individuals be treated differently because they had a higher preference for leisure (Musgrave 1974).²¹ At the end of the day, Musgrave's criticism of Rawls was mainly a critique of the optimal taxation research programme and how it conceptualised the equity-efficiency trade-off.

Buchanan's critique of optimal tax theory was more radical. The question was not whether the government had access to lump-sum taxes and transfer, but rather whether assuming an omniscient social planner, as all the optimisation models did, was realistic or desirable. Buchanan (1976) repeated his plea for an exchange approach that integrated public goods and taxes in the same fiscal decision process. Tax theory should not abstract from the political processes: "fiscal decisions are made through a very complex political process which involves parties, pressure groups, political entrepreneurs, periodic but sometimes infrequent elections, legislative assemblies operating under complicated rules and with ordered committee structures, and bureaucratic hierarchies" (Buchanan 1976, 23). Like Musgrave, he believed that opportunities for political exploitation made tax equity rules necessary, but Buchanan rejected the efforts by Musgrave and Rawls to articulate "value judgments that 'should' be universally held by all informed persons" (Buchanan 1976, 26). Buchanan did not think that an economist could identify a priori the weight to give to equity and efficiency in the tax design: "'equity' and 'efficiency' will characterise observed results only as they are embodied in the choices made by individual participants" (Buchanan 1976, 21). For example, tax loopholes were a problem for "traditional proponent[s] of equity objective" like Musgrave because they violated horizontal equity, but by the 1970s Buchanan thought an economist could not judge them as a priori bad if they were the outcome of a bargaining process in which individuals considered them to be the "least bad" option within the given political decision structures.

Buchanan (1972) agreed with Rawls's characterisation of the original position as appropriate for constitutional decision-making choices, but he criticised Rawls for concluding that the difference principle would necessarily be selected by the participants. For Buchanan, the contractarian framework "must allow for the possible emergence of many alternatives; and indeed the emphasis must be placed on the process rather than on the specific outcomes" (Buchanan 1976, 27). In contrast the consequentialist approach of optimal tax theory assumed "the presence of a decision-maker

²¹ In Rawls's theory, a solution could be to include leisure in the index of primary goods upon which different social positions were compared, a suggestion which Rawls (1974) supported, while also challenging whether the very idea of natural ability could be well defined considering that talents were socially constructed.

for individuals in the community,” something it shared with Musgrave’s allocation branch of his theory of the public household. Moreover, optimal tax theory formulated judgments aimed at modifying “results” (Buchanan 1976, 29).

Rawls, Buchanan, and even Musgrave to a certain degree, favoured a procedural approach to justice based on the formulation of principles that contrasted with the consequentialist approach of utilitarian welfare theorists, whether in its original sacrifice theory or the modern optimal tax theory. Both Buchanan and Musgrave left the question of the tax rate open to the political process; similarly, the “correct” level of redistribution could not be determined by economists, but instead depended on the values of the members of the community. As Buchanan once wrote to Musgrave: “both you and I are Kantians; whereas all of the optimal tax people are really Benthamites.”²² Buchanan and Musgrave theories could provide structure to the public discourse over public expenditures and the tax system, but they could not provide a closed model of the optimal tax schedule. Whether the new models which generated such answers constituted progress in the field was, according to Musgrave (1976), itself a question of value judgement.

Conclusion

The science of economics underwent profound changes in the middle of the twentieth century, which in turn impacted the field of public finance. By adopting the neoclassical equilibrium and optimisation apparatus, the newly emergent public economics brought itself into alignment with the core methodology being employed across all ‘microeconomics’ subjects. In other words, public finance was a pluralist field coloured by national institutions and national intellectual traditions. In contrast, public economics became a shared global discourse fully integrated in the mainstream neoclassical approach. However, unlike the core of economics, the transition of the field from pluralism to neoclassicism did not happen in the 1940s nor in the early 1950s (see Morgan and Rutherford 1998; Düppe and Weintraub 2014). As late as 1959, Musgrave’s celebrated synthesis combined the neoclassical insights of Marshall and Pigou with Keynesian macroeconomics influenced by Hansen’s institutionalist theory of the business cycle; partial and general equilibrium analysis was mixed with principles of taxation inherited from natural law. The German concern for communal needs stood alongside Paretian restrictions on interpersonal comparability imposed by new welfare economics.

The transformation that started in the post-war years would see the translation and adaptation of the neoclassical framework from individual consumer choice to the questions of social and collective choice. General equilibrium set the norm for rigorous theorising across the western world. As a general theoretical field, welfare economics lost its identity and was incorporated in the nascent field of public economics where the social welfare function thrived, while Arrow’s (1951) critique provoked formulations of possibility theorems (often hinging on weakening ordinalist axioms) at various levels. Considered in a secular perspective, the idea that

²² Buchanan to Musgrave, 29 January 1975. James M. Buchanan Papers, Box 66, Folder 10, George Mason University Libraries.

the “right” government policy package could follow from postulated axioms would probably have sounded ludicrous to the public finance experts of the early twentieth century.

In a sense, the transition from public finance to public economics thus illustrates the “long road to acceptance” of the neoclassical vision defended by Robbins in 1932 (Backhouse and Medema 2009a; 2009b) – including its ambivalence. Robbins is important for this story in many ways. First, because he imposed a methodological restriction on the interpersonal comparisons of welfare which gave rise to a new welfare economics. Robbins was not the only one to wrestle with the question of how scientists could formulate value judgments, but his *Essay* (1932) had a tremendous influence, first on his London School of Economics colleagues and students, and then on economists across the Atlantic well into the 1960s. In a surprising twist, von Neuman and Morgenstern’s *Theory of Games and Economic Behavior* (1944), besides promoting the use of axiomatics, indirectly licenced a return to interpersonal comparisons of utility provided that the situation under study was reconceptualised as a choice under risk. By the late 1960s, utilitarianism had returned as an acceptable way to frame policy objectives. It would take the renewal of political philosophy and the work of Rawls and Amartya Sen to propose alternative criteria for comparing individuals.

Robbins also crystallised the neoclassical definition of economics as the study of individual choices between alternative means to reach given ends. Scarcity led to choices which the rational agent perceived in terms of trade-offs. In the interwar period, a new consumer theory was built on these premises. In this paper we have hinted how public finance economists gradually reconceptualised the public sector in terms of private values (see also Buchanan 1975). First, came public goods, defined as homogeneous quantities alongside private goods in utility functions. Then came redistribution, which could also be conceptualised as a public good in utility functions (Hochman and Rodgers 1969), or as the indirect consequence of a social planner’s aversion to inequality (Atkinson 1970). Finally, the burden of taxation was explained in terms of a consumer’s substitution between two commodities, or between leisure and consumption goods. The gap between individual choice and social choice could be bridged by a social welfare function, a meta-utility function for some (rarely well defined) individual social planner. Even merit goods could be reconceptualised as private goods entering directly a non-individualistic social welfare function (Pazner 1972).

The result of this methodological transformation was that solutions to public finance problems that were considered “general” by Buchanan (1948) or Musgrave (1959) were seen as incomplete and not rigorous a generation later. As Michael J. Boskin and Stiglitz remarked, nothing embodied this change better than the shift in normative tax theory from the enunciation of principles to the optimal taxation paradigm:

The utilitarian framework has the advantage of providing a simple, unified, reasonably flexible ethical basis for judging among tax systems. For instance, by positing social welfare functions with different degrees of elasticity of substitution among the utilities of individuals, one can consider, at the one extreme, the Rawlsian criterion of maximising the utility of the worst-off individual, and at the other, the Benthamite criterion of

adding up utilities. The traditional approach has involved ‘listing’ criteria, e.g. horizontal equity, vertical equity, administrative costs, without providing any criterion for trading off among these objectives (Stiglitz and Boskin 1977, 296).

The formulation of *principles* was at the heart of the normative theorising of economists like Roy Blough (1944b) and Luigi Einaudi in the 1940s, as it had been and continued to be in other normative fields like law and political philosophy, notably in Rawls’s *Theory of Justice* (on Einaudi, see Silvestri 2023). The distance between the ‘institutional’ volumes of Shoup (1969) and Fritz Neumark (1970) and the papers of Atkinson (1970), Atkinson and Stiglitz (1972), and Diamond and Mirrlees (1971a; 1971b) appeared almost incomprehensible. However, the transition did not happen all at once. Many of the public finance academics who were trained in the interwar period continued to defend their principle-based approach throughout their career, notably Musgrave and Buchanan – even as they contributed in other substantive ways to the emergence of public economics. Compared to Samuelson, who looms large in the transition both for his solution for the optimal provision of public goods and his contributions to optimal tax theory, Buchanan and Musgrave remained sceptical of the formal exercises of optimal tax theory until their deaths in 2013 and 2007, respectively. By this time, their approach to public finance was no longer considered theory in university economics departments. Still, their more realistic approach continues to inform public discussion over policy and the role of government, as well as how we think about the pitfalls of majoritarian politics and the processes of tax reform.

Two decades ago, the history of economic fields was mostly uncharted territory (Backhouse and Biddle 2000). Public finance, public choice, and public economics have become the subject of study both by field practitioners and by historians of economics (e.g. Diamond 2002; Desmarais-Tremblay 2017b, 2021b; Faccarello and Sturn 2010; Feldstein 2002; Kuehn 2022; Kolm 2010; Marciano 2021; Laffont 2002; Medema 2009; Stiglitz 2018; Sturn 2010, 2016). As such, these various contributions and including the ones contributing to the present special issue, have started to map the evolution of the field of public finance. While many papers portrayed the specificity of national traditions and their interpenetration, some recent ones have also focused on the history of key models that have since become the bread and butter of public economists.

Throughout this concluding paper, we have pointed to topics we believe need further investigation, and we hope that this special issue will inspire new research on the history of public finance and public economics. The differentiation, co-evolution, or merging of the related and overlapping fields of public choice, social choice, public finance, urban economics, environmental economics, the economics of education, health economics, transport economics, industrial organisation, etc. still call for an integrated narrative.²³ Moreover, how the transition took shape through personal interactions amongst economists in key universities on both sides of the Atlantic and beyond is still largely unknown. The history of the public

²³ Among recent contributions, see Cherrier (2017), Cherrier and Fleury (2017), Backhouse and Cherrier (2017), Cherrier and Rebours (2023); but also, Teixeira (2000), Panhans and Singleton (2017), Panhans (2018), Dupont-Kieffer et al. (2021), and Banzhaf (2023).

choice society has received some attention, but the role of other large associations like the International Institute of Public Finance (IIPF), as well as smaller ones such as the International Seminar in Public Economics (ISPE), and the Committee on Urban Public Economics (COUPE) invites further research. From an ideational perspective, besides the conceptualisation of risk, which we hinted at here, asymmetry of information is another ontological difference between public finance and public economics which bears exploration. The expulsion of monetary and fiscal policy leading to the characterisation of public economics as a purely microeconomic field also deserves analysis. Finally, we have focused on normative theoretical developments, leaving open for future contributions to explore how the empirical turn of the 1970s fuelled by large datasets and increasing computer power impacted the rise of public economics.

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References

- Amadae, S. M. 2003. *Rationalizing Capitalist Democracy: The Cold War Origins of Rational Choice Liberalism*. Chicago: University of Chicago Press.
- Arrow, Kenneth J. 1951. *Social Choice and Individual Values*. 2nd edition. 1963. Cowles Foundation for Research in Economics at Yale University. New York: John Wiley & Sons.
- Arrow, Kenneth J. 1965. *Aspects of the Theory of Risk-bearing*. Helsinki: Yrjö Jahnssoin Säätiö.
- Atkinson, Anthony B. 1970. "On the Measurement of Inequality." *Journal of Economic Theory* 2 (3): 244–263. doi:10.1016/0022-0531(70)90039-6.
- Atkinson, Anthony B. 1973. "How Progressive Should Income Tax Be?." In *Essays in Modern Economics. The Proceedings of the Association of University Teachers of Economics: Aberystwyth 1972*, edited by Michael Parkin and A. R. Nobay, 90–109. London: Longman.
- Atkinson, Anthony B., and Joseph E. Stiglitz. 1972. "The Structure of Indirect Taxation and Economic Efficiency." *Journal of Public Economics* 1 (1): 97–119. doi:10.1016/0047-2727(72)90021-7.
- Atkinson, Anthony B., and Joseph E. Stiglitz. 1976. "The Design of Tax Structure: Direct versus Indirect Taxation." *Journal of Public Economics* 6 (1-2): 55–75. doi:10.1016/0047-2727(76)90041-4.

- Backhaus, Jürgen G. 1997. "On the Migration of Skills and Ideas in Public Finance." In *Zur deutschsprachigen wirtschaftswissenschaftlichen Emigration nach 1933*, edited by Harald Hagemann, 81–94. Marburg: Metropolis-Verlag.
- Backhouse, Roger E., and Jeff Biddle. 2000. "The Concept of Applied Economics: A History of Ambiguity and Multiple Meanings." *History of Political Economy* 32 (Supplement): 1–24. doi:10.1215/00182702-32-Suppl_1-1.
- Backhouse, Roger E., and Béatrice Cherrier. 2017. "The Age of the Applied Economist." *History of Political Economy* 49 (Supplement): 1–33. doi:10.1215/00182702-4166239.
- Backhouse, Roger E., and Steven G. Medema. 2009a. "Robbins's Essay and the Axiomatization of Economics." *Journal of the History of Economic Thought* 31 (4): 485–499. doi:10.1017/S1053837209990277.
- Backhouse, Roger E., and Steven G. Medema. 2009b. "Defining Economics: The Long Road to Acceptance of the Robbins Definition." *Economica* 76 (S1): 805–820. doi:10.1111/j.1468-0335.2009.00789.x.
- Backhouse, Roger E., and Tamotsu Nishizawa. 2010. "Welfare Economics, Old and New." In *No Wealth but Life*, 223–236. Cambridge: Cambridge University Press.
- Banzhaf, H. Spencer. 2023. *Pricing the Priceless: A History of Environmental Economics*. Cambridge: Cambridge University Press.
- Baumol, William J., and David F. Bradford. 1970. "Optimal Departures from Marginal Cost Pricing." *The American Economic Review* 60 (3): 265–283.
- Bishop, Robert L. 1968. "The Effects of Specific and Ad Valorem Taxes." *The Quarterly Journal of Economics* 82 (2): 198–218. doi:10.2307/1885894.
- Black, Duncan. 1939. *The Incidence of Income Taxes*. London: Macmillan.
- Blough, Roy. 1944a. "Conflict and Harmony in Taxation." *Proceedings of the American Philosophical Society* 88 (1): 22–28.
- Blough, Roy. 1944b. "Economic Research and Tax Policy." *The American Economic Review* 34 (2): 1–21.
- Blough, Roy, Mabel Newcomer, and Carl Shoup. 1937. *Studies in Current Tax Problems, Prepared in Connection with a Survey of Taxation in the United States under the Direction of the Twentieth Century Fund*. New York: Twentieth Century Fund.
- Blum, Walter J., and Harry Kalven, Jr. 1953. *The Uneasy Case for Progressive Taxation*. Chicago: The University of Chicago Press.
- Boettke, Peter J., and Alain Marciano. 2017. "The Distance between Buchanan's "an Economic Theory of Clubs" and Tiebout's "a Pure Theory of Local Public Expenditures". New Insights Based on an Unpublished Manuscript." *The European Journal of the History of Economic Thought* 24 (2): 205–237. doi:10.1080/09672567.2016.1168464.
- Bowman, Mary Jean. 1946. "A Graphical Analysis of Personal Income Distribution in the United States." *American Economic Review* 35 (4): 607–628.
- Brownlee, W. Elliot. 1996. "Tax Regimes, National Crises, and State-Building in America." In *Funding the Modern American State, 1941-1995*, edited by W. Elliot Brownlee, 37–104. Woodrow Wilson Center Series. Cambridge: Cambridge University Press.
- Buchanan, James M. 1948. *Fiscal Equity in a Federal State*. PhD thesis. Chicago, Illinois: The University of Chicago.
- Buchanan, James M. 1949. "A Pure Theory of Government Finance: A Suggested Approach." *Journal of Political Economy* 57 (6): 496–505. doi:10.1086/256880.
- Buchanan, James M. 1950. "Federalism and Fiscal Equity." *The American Economic Review* 40 (4): 583–599.
- Buchanan, James M. 1951. "Fiscal Equity in the Unequal Treatment of Unequals: A Rejoinder." *Journal of Political Economy* 59 (4): 358–359. doi:10.1086/257097.
- Buchanan, James M. 1965. "An Economic Theory of Clubs." *Economica* 32 (125): 1–14. doi:10.2307/2552442.
- Buchanan, James M. 1972. "Rawls on Justice as Fairness." *Public Choice*, 13, 123–128.
- Buchanan, James M. 1975. "Public Finance and Public Choice." *National Tax Journal* 28 (4): 383–394. doi:10.1086/NTJ41863132.

- Buchanan, James M. 1976. "Taxation in Fiscal Exchange." *Journal of Public Economics* 6 (1-2): 17–29. doi:10.1016/0047-2727(76)90038-4.
- Buchanan, James M. 2001[1960] "La Scienza Delle Finanze": the Italian Tradition in Fiscal Theory." In *The Collected Works of James M. Buchanan. Volume 15: Externalities and Public Expenditure Theory*, 59–105. Indianapolis: Liberty Fund.
- Buchanan, James M. 2003. *Public Choice: The Origins and Development of a Research Program*. Fairfax: George Mason University.
- Buchanan, James M., and Gordon Tullock. 1962. *The Calculus of Consent*. Ann Arbor: University of Michigan Press.
- Cardoni, Fabien. 2014. "The "Science" of French Public Finances in the First World War." *Accounting History Review* 24 (2-3): 119–138. doi:10.1080/21552851.2014.967931.
- Cherrier, Beatrice. 2017. "Classifying Economics: A History of JEL Codes." *Journal of Economic Literature* 55 (2): 545–579. doi:10.1257/jel.20151296.
- Cherrier, Beatrice, and Jean-Baptiste Fleury. 2017. "Economists' Interest in Collective Decision after World War II: A History." *Public Choice* 172 (1-2): 23–44. doi:10.1007/s11127-017-0410-7.
- Cherrier, Beatrice, and Anthony Rebour. 2023. "Land, Space, or Cities: A History of 'Urban Economics' as a Field." Working Paper. Available at SSRN: doi:10.2139/ssrn.4450141.
- Coker, David C., and Alain Marciano. 2023. "Samuelson's Social Welfare Function and Buchanan's Critique: the Struggle with Normative Science." *The European Journal of the History of Economic Thought* 30 (5). doi:10.1080/09672567.2023.2248322.
- Colm, Gerhard. 1956. "Comments on Samuelson's Theory of Public Finance." *The Review of Economics and Statistics* 38 (4): 408–412.
- Colm, Gerhard, and Helen Tarasov. 1940. "Who Pays the Taxes? Allocation of Federal, State, and Local Taxes to Consumer Income Brackets." *Investigation of Concentration of Economic Power*. Washington, D.C.: Temporary National Economic Committee, U.S. Congress.
- Cooter, Robert D., and Elhanan Helpman. 1974. "Optimal Income Taxation for Transfer Payments under Different Social Welfare Criteria." *The Quarterly Journal of Economics* 88 (4): 656–670. doi:10.2307/1881828.
- Cooter, Robert D., and Peter Rappoport. 1984. "Were the Ordinalists Wrong about Welfare Economics?" *Journal of Economic Literature* 22 (2): 507–530.
- Dalton, Hugh. 1923. *Principles of Public Finance*. London: Routledge.
- Daunton, Martin. 2001. *Trusting Leviathan: The Politics of Taxation in Britain, 1799-1914*. Cambridge: Cambridge University Press.
- Derobert, Laurent. 2001. "On the Genesis of the Canonical Labor Supply Model." *Journal of the History of Economic Thought* 23 (2): 197–215. doi:10.1080/10427710120049228.
- Desmarais-Tremblay, Maxime. 2017a. "A Genealogy of the Concept of Merit Wants." *The European Journal of the History of Economic Thought* 24 (3): 409–440. doi:10.1080/09672567.2016.1186202.
- Desmarais-Tremblay, Maxime. 2017b. "Musgrave, Samuelson, and the Crystallization of the Standard Rationale for Public Goods." *History of Political Economy* 49 (1): 59–92. doi:10.1215/00182702-3777158.
- Desmarais-Tremblay, Maxime. 2019. "The Normative Problem of Merit Goods in Perspective." *Forum for Social Economics* 48 (3): 219–247. doi:10.1080/07360932.2016.1196593.
- Desmarais-Tremblay, Maxime. 2021a. "Généalogie du principe d'équité horizontale." *Une contribution à l'histoire de la normativité en théorie des finances publiques*. *Revue de Philosophie Économique* 22 (2): 149–176. doi:10.3917/rpec.22.0149.
- Desmarais-Tremblay, Maxime. 2021b. "Paternalism and the Public Household: On the Domestic Origins of Public Economics." *History of Political Economy* 53 (2): 179–211. doi:10.1215/00182702-8905977.
- Desmarais-Tremblay, Maxime. 2022. "Richard Musgrave in Colombia: The Art of Tax Reform in a Developing Country." 2022–06. CHOPE Working Paper. <https://www.ssrn.com/abstract=4112321>.

- Desmarais-Tremblay, Maxime, and Marianne Johnson. 2019. "The Fiscal Policy Seminar: Its Early Stages" by Richard A. Musgrave'. *Research in the History of Economic Thought and Methodology* 37C (October): 147–179. doi: [10.1108/S0743-41542019000037C007](https://doi.org/10.1108/S0743-41542019000037C007)
- Desmarais-Tremblay, Maxime, and Marianne Johnson. 2023. "Distributing the Tax Burden in Postwar America: Between Empirical Estimates and Normative Principles." Presentation at the Annual Conference of the *European Society for the History of Economic Thought*, 2 June 2023, Liège, Belgium.
- Desmarais-Tremblay, Maxime, Marianne Johnson, and Richard Sturn. 2023. "Mapping the History of Public Economics in the Twentieth Century: An Introduction to the Special Issue." *The European Journal of the History of Economic Thought* 30 (5). doi:[10.1080/09672567.2023.2248319](https://doi.org/10.1080/09672567.2023.2248319).
- Diamond, Peter A. 2002. "Public Finance Theory – Then and Now." *Journal of Public Economics* 86 (3): 311–317. doi:[10.1016/S0047-2727\(01\)00189-X](https://doi.org/10.1016/S0047-2727(01)00189-X).
- Diamond, Peter A., and James A. Mirrlees. 1971a. "Optimal Taxation and Public Production I: Production Efficiency." *American Economic Review* 61 (1): 8–27.
- Diamond, Peter A., and James A. Mirrlees. 1971b. "Optimal Taxation and Public Production II: Tax Rules." *The American Economic Review* 61 (3): 261–278.
- Dimand, Robert W. 2023. "The Emergence of Social Choice at the Cowles Commission, 1948–1952: Arrow's Social Choice and Individual Values in Context." *The European Journal of the History of Economic Thought* 30 (5). doi:[10.1080/09672567.2023.2248313](https://doi.org/10.1080/09672567.2023.2248313).
- Divisia, François. 1945. *Cours d'économie Politique Appliquée et Finances*. Paris: Ecole Nationale des Ponts et Chaussées. <https://heritage.ecoledesponts.fr/ark:/12148/bpt6k10907625>.
- Dixit, Avinash K. 1970. "On the Optimum Structure of Commodity Taxes." *The American Economic Review* 60 (3): 295–301.
- Domar, Evsey D., and Richard A. Musgrave. 1944. "Proportional Income Taxation and Risk-Taking." *The Quarterly Journal of Economics* 58 (3): 388–422. doi:[10.2307/1882847](https://doi.org/10.2307/1882847).
- Drèze, Jacques H. 1995. "Forty Years of Public Economics: A Personal Perspective." *Journal of Economic Perspectives* 9 (2): 111–130. doi:[10.1257/jep.9.2.111](https://doi.org/10.1257/jep.9.2.111).
- Duarte, Pedro Garcia. 2009. "Frank P. Ramsey: A Cambridge Economist." *History of Political Economy* 41 (3): 445–470. doi:[10.1215/00182702-2009-035](https://doi.org/10.1215/00182702-2009-035).
- Duarte, Pedro Garcia. 2010. "Beyond Samuelson's Chapter on Ramsey." *History of Economic Ideas* 18 (3): 121–159.
- Dupont-Kieffer, Ariane, Sylvie Rivot, and Jean-Loup Madre. 2021. "The Penetration of Engineering by Economics: McFadden and the Transformation of Road Demand Estimation." *Journal of the History of Economic Thought* 43 (2): 262–278. doi:[10.1017/S1053837220000322](https://doi.org/10.1017/S1053837220000322).
- Düppe, Till, and E. Roy Weintraub. 2014. *Finding Equilibrium Arrow, Debreu, and McKenzie and the Problem of Scientific Credit*. Princeton: Princeton University Press.
- Faccarello, Gilbert, and Richard Sturn. 2010. "The Challenge of the History of Public Economics." *The European Journal of the History of Economic Thought* 17 (4): 537–542. doi:[10.1080/09672567.2010.517901](https://doi.org/10.1080/09672567.2010.517901).
- Fausto, Domenicantonio, and Valeria De Bonis, eds. 2003. "The Theory of Public Finance in Italy from the Origins to the 1940s." *Il Pensiero Economico Italiano* 11 (1).
- Feldstein, Martin. 2002. "The Transformation of Public Economics Research: 1970–2000." *Journal of Public Economics* 86 (3): 319–326. doi:[10.1016/S0047-2727\(01\)00190-6](https://doi.org/10.1016/S0047-2727(01)00190-6).
- Fèvre, Raphaël, and Thomas Michael Mueller. 2023. "The Emerging Discipline of Public Economics in Postwar France." *The European Journal of the History of Economic Thought* 30 (5). doi:[10.1080/09672567.2023.2248315](https://doi.org/10.1080/09672567.2023.2248315).
- Fisher, Irving. 1939. "The Double Taxation of Savings." *The American Economic Review* 29 (1): 16–33.
- Fontaine, Philippe. 2010. "The Homeless Observer: John Harsanyi on Interpersonal Utility Comparisons and Bargaining, 1950–1964." *Journal of the History of Economic Thought* 32 (2): 145–173. doi:[10.1017/S1053837210000155](https://doi.org/10.1017/S1053837210000155).
- Groves, Harold. 1939. *Financing Government*. New York: Henry Holt.

- Groves, Harold. 1964. *Financing Government*. New York: Holt, Rinehart, and Winston.
- Guitton, Henri, 1968. ed *Économie Publique*. Paris: Éditions du Centre national de la recherche scientifique.
- Guizzo, Danielle and Carles Paré Ogg. 2023. “Economics With(out) Ethics? An Interdisciplinary Encounter Between Public Economists and John Rawls in the 1970s.” *The European Journal of the History of Economic Thought* 30 (5). doi:10.1080/09672567.2023.2248321.
- Hagemann, Harald. 2011. “European Émigrés and the ‘Americanization’ of Economics.” *The European Journal of the History of Economic Thought* 18 (5): 643–671. doi:10.1080/09672567.2011.629056.
- Haig, Robert Murray. 1921. “The Concept of Income.” In *The Federal Income Tax*, 1–28. Columbia University Lectures. New York: Columbia University Press.
- Hammond, Peter J. 1987. “On Reconciling Arrow’s Theory of Social Choice with Harsanyi’s Fundamental Utilitarianism.” In *Arrow and the Foundations of the Theory of Economic Policy* edited by G. R. Feiwel, 179–221. London: Palgrave Macmillan.
- Harsanyi, John C. 1953. “Cardinal Utility in Welfare Economics and in the Theory of Risk-Taking.” *Journal of Political Economy* 61 (5): 434–435. doi:10.1086/257416.
- Harsanyi, John C. 1955. “Cardinal Welfare, Individualistic Ethics, and Interpersonal Comparisons of Utility.” *Journal of Political Economy* 63 (4): 309–321. doi:10.1086/257678.
- Hauchecorne, Mathieu. 2018. “L’État des économistes au « Miroir Transatlantique ». Circulations et hybridation de l’économie publique française et états-unienne.” In *De l’autre côté du miroir: Comparaisons franco-américaines*, edited by Daniel Sabbagh and Maud Simonet, 119–131. Rennes: Presses universitaires de Rennes.
- Hauchecorne, Mathieu. 2020. “The Transnational Making of a Subdiscipline: The Biarritz Conference and the Institutionalization of “Public Economics.” In *Ideas on the Move in the Social Sciences and Humanities*, edited by Gisèle Sapiro, Marco Santoro, and Patrick Baert, 181–206. Cham: Springer. doi:10.1007/978-3-030-35024-6_7.
- Hauser, Ignacio. 2023. “Welfare, State, and Values: The Winding Road of the Normative Approach to Inequality Measurement (1912–1970).” *The European Journal of the History of Economic Thought* 30 (5). doi:10.1080/09672567.2023.2248309.
- Herfeld, Catherine. 2018. “From Theories of Human Behavior to Rules of Rational Choice: Tracing a Normative Turn at the Cowles Commission, 1943–54.” *History of Political Economy* 50 (1): 1–48. doi:10.1215/00182702-4334997.
- Hicks, Ursula K. 1938. “Reviewed Work(s): Miti e Paradossi Della Guitstizia Tributaria by L. Einaudi and Personal Income Taxation by Henry C. Simons.” *The Economic Journal* 48 (192): 719–721. doi:10.2307/2225064.
- Hicks, Ursula K. 1947. *Public Finance*. London: Nisbet & Co.
- Hicks, Ursula K. 1955. “Reviewed Works: Principles of Public Finance by Hugh Dalton.” *Economica* 22 (88): 360–361. doi:10.2307/2551194.
- Hoch, Irving. 1969. *Progress in Urban Economics. The Work of the Committee on Urban Economics 1959-1968 and the Development of the Field*. Washington, D.C.: Resources for the Future.
- Hochman, Harold M., and James D. Rodgers. 1969. “Pareto Optimal Redistribution.” *The American Economic Review* 59 (4): 542–557.
- Hunter, M. H. 1930. “The Problem of Classification: Public Expenditures and Public Revenues.” *American Economic Review* 20 (1): 46–53.
- Igersheim, Herrade. 2022. “Rawls and the Economists: The (Im)Possible Dialogue.” *Revue Économique* 73 (6): 1013–1037. doi:10.3917/reco.736.1013.
- Igersheim, Herrade. 2023. “Samuelson Against ‘Rawls’s Gratuitism’: Some Lessons on the Misunderstandings Between Rawls and the Economists.” *The European Journal of the History of Economic Thought* 30 (5). doi:10.1080/09672567.2023.2248314.
- Johansen, Leif. 1965. *Public Economics*. Amsterdam: North-Holland.
- Johansen, Marianne. 2011. “Public Finance and Wisconsin Institutionalism, 1892-1929.” *Journal of Economic Issues* 45 (4): 965–984. doi:10.2753/JEI0021-3624450411.

- Johnson, Marianne. 2014a. "James M. Buchanan, Chicago, and Post-War Public Finance." *Journal of the History of Economic Thought* 36 (4): 479–497. doi:10.1017/S1053837214000571.
- Johnson, Marianne. 2014b. "Progressivism and Academic Public Finance, 1880 to 1930." *History of Political Economy* 46 (1): 1–32. doi:10.1215/00182702-2398912.
- Johnson, Marianne. 2023. "Taxation in the Progressive Era: From Revenue to Social Policy." *Review of Political Economy*, forthcoming. doi:10.1080/09538259.2022.2164184.
- Kennedy, William. 1913. *English Taxation, 1640-1799. An Essay on Policy and Opinion*. London: Routledge.
- Knight, Frank H. 1935. "Economic Theory and Nationalism." In *The Ethics of Competition*, 277–359. London: George Allen & Unwin Ltd.
- Kolm, Serge-Christophe. 1969. "The Optimal Production of Social Justice." In *Public Economics: An Analysis of Public Production and Consumption and Their Relations to the Private Sectors*, edited by Henri Guitton and Julius Margolis, 145–200. London: Macmillan.
- Kolm, Serge-Christophe. 1987. "Public Economics." In *The New Palgrave Dictionary of Economics*, edited by John Eatwell, Murray Milgate, and Peter Newman, 8182–8199. London: Palgrave.
- Kolm, Serge-Christophe. 2010. "History of Public Economics: The Historical French School." *The European Journal of the History of Economic Thought* 17 (4): 687–718. doi:10.1080/09672567.2010.482994.
- Kuehn, Daniel. 2022. "The Hardest of All the Problems': Hochman, Rodgers, and Buchanan on Pareto Optimal Redistribution." *Erasmus Journal for Philosophy and Economics* 15 (1): 56–82. doi:10.23941/ejpe.v15i1.658.
- Kuehn, Daniel. 2023. "James M. Buchanan as an Urban Economist." *Journal of Public Finance and Public Choice* 38 (1): 20–41. doi:10.1332/251569121X16717078287437.
- Laffont, Jean-Jacques. 2002. "Public Economics Yesterday, Today and Tomorrow." *Journal of Public Economics* 86 (3): 327–334. doi:10.1016/S0047-2727(01)00188-8.
- Latsis, John S., and Constantinos Repapis. 2016. "From Neoclassical Theory to Mainstream Modelling: Fifty Years of Moral Hazard in Perspective." In *What is Neoclassical Economics?: Debating the Origins, Meaning and Significance*, edited by Jamie Morgan, 81–101. Abingdon: Routledge.
- Lindahl, Erik. 1919. *Die Gerechtigkeit der Besteuerung: eine Analyse der Steuerprinzipien Auf Grundlage der Grenznutzentheorie*. Lund: Hakan Ohlssons Buchdruckerei.
- Marciano, Alain. 2019a. "Buchanan and Public Finance: The Tennessee Years." *The Review of Austrian Economics* 32 (1): 21–46. doi:10.1007/s11138-018-0419-2.
- Marciano, Alain. 2020. "The Origins of Buchanan's Views on Federalism, Chicago 1946–1947." *Journal of Institutional Economics* 16 (3): 319–335. doi:10.1017/S1744137419000742.
- Marciano, Alain. 2021. "Retrospectives: James Buchanan: Clubs and Alternative Welfare Economics." *Journal of Economic Perspectives* 35 (3): 243–256. doi:10.1257/jep.35.3.243.
- Margolis, Julius. 1969. "Introduction." In *Public Economics: An Analysis of Public Production and Consumption and Their Relations to the Private Sectors*, edited by Julius Margolis and Henri Guitton. London: Macmillan.
- Medema, Steven G. 2006. "SHOUP, Carl Sumner (1902-2000)." In *The Biographical Dictionary of American Economists*, edited by Ross B. Emmett. New York: Oxford University Press.
- Medema, Steven G. 2009. *The Hesitant Hand: Taming Self-Interest in the History of Economic Ideas*. Princeton: Princeton University Press.
- Medema, Steven G. 2023. "Theorizing Public Expenditures: Welfare Theorems, Market Failures, and the Turn from 'Public Finance' to 'Public Economics'." *The European Journal of the History of Economic Thought* 30 (5). doi:10.1080/09672567.2023.2248320.
- Mehrotra, Ajay K. 2013a. "From Seligman to Shoup the Early Columbia School of Taxation and Development." In *The Political Economy of Transnational Tax Reform : The Shoup Mission to Japan in Historical Context*, edited by W. Elliot Brownlee, Eisaku Ide, and Yasunori Fukagai, 30–60. Cambridge: Cambridge University Press.
- Mehrotra, Ajay K. 2013b. *Making the Modern American Fiscal State: Law, Politics, and the Rise of Progressive Taxation, 1877-1929*. Cambridge: Cambridge University Press.

- Miller, Donald C. 1952. "The Revenue Act of 1951: A General Survey." *National Tax Journal* 5 (1): 40–52. doi:10.1086/NTJ41789922.
- Mirrlees, James A. 1971. "An Exploration in the Theory of Optimum Income Taxation." *The Review of Economic Studies* 38 (2): 175–208. doi:10.2307/2296779.
- Mirrlees, James A. 1997. "Information and Incentives: The Economics of Carrots and Sticks." *The Economic Journal* 107 (444): 1311–1329. doi:10.1111/j.1468-0297.1997.tb00050.x.
- Mitch, David. 2016. "A Year of Transition: Faculty Recruiting at Chicago in 1946." *Journal of Political Economy* 124 (6): 1714–1734. doi:10.1086/688878.
- Montesano, Aldo, and Michael McLure. 2021. "Edgeworth's Figure 1 and the 'Complicated Double Adjustment': Labour Exchange, Production and Remuneration." *History of Economic Ideas* 29 (3): 29–53.
- Morgan, Mary S., and Malcolm Rutherford. 1998. "American Economics: The Character of the Transformation". *History of Political Economy* 30 (Supplement): 1–26. doi:10.1215/00182702-30-Supplement-1.
- Moscati, Ivan. 2016. "Retrospectives: How Economists Came to Accept Expected Utility Theory: The Case of Samuelson and Savage." *Journal of Economic Perspectives* 30 (2): 219–236. doi:10.1257/jep.30.2.219.
- Moss, Laurence S. 2003. "The Seligman-Edgeworth Debate about the Analysis of Tax Incidence: The Advent of Mathematical Economics, 1892-1910." *History of Political Economy* 35 (2): 205–240. doi:10.1215/00182702-35-2-205.
- Moss, Laurence S. 2005. "Richard A. Musgrave and Ludwig von Mises: Two Cases of Emigrè Economists in America." *Journal of the History of Economic Thought* 27 (4): 443–450. doi:10.1080/10427710500370273.
- Musgrave, Richard A. 1937. *The Theory of Public Finance and the Concept of "Burden of Taxation"*. PhD Thesis. Cambridge, MA: Harvard University.
- Musgrave, Richard A. 1939. "The Voluntary Exchange Theory of Public Economy." *The Quarterly Journal of Economics* 53 (2): 213–237. doi:10.2307/1882886.
- Musgrave, Richard A. 1959. *The Theory of Public Finance: A Study in Public Economy*. New York: McGraw Hill.
- Musgrave, Richard A. 1969. "Provision for Social Goods." In *Public Economics: An Analysis of Public Production and Consumption and Their Relations to the Private Sectors*, edited by Julius Margolis and H. Guitton, 124–144. London: Macmillan.
- Musgrave, Richard A. 1974. "Maximin, Uncertainty, and the Leisure Trade-Off." *The Quarterly Journal of Economics* 88 (4): 625–632. doi:10.2307/1881826.
- Musgrave, Richard A. 1976. "ET, OT and SBT." *Journal of Public Economics* 6 (1-2): 3–16. doi:10.1016/0047-2727(76)90037-2.
- Musgrave, Richard A. 1997. "Crossing Traditions." In *Zur deutschsprachigen wirtschaftswissenschaftlichen Emigration nach 1933*, edited by Harald Hagemann, 63–79. Marburg: Metropolis-Verlag.
- Musgrave, Richard A., and Peggy B. Musgrave. 1973. *Public Finance in Theory and Practice*. New York: McGraw Hill.
- Musgrave, Richard A., J. J. Carroll, L. D. Cook, and L. Frane. 1951. "Distribution of Tax Payments by Income Groups: A Case Study for 1948." *National Tax Journal* 4 (1): 1–53. doi:10.1086/NTJ41770954.
- Neumark, Fritz. 1970. *Grundsätze gerechter und ökonomisch rationaler Steuerpolitik*. Tübingen: Mohr Siebeck.
- Olson, Mancur. Jr. 1965. *The Logic of Collective Action*. Cambridge, MA: Harvard University Press.
- Ostrom, Vincent, and Elinor Ostrom. 1977. "Public Goods and Public Choices: The Emergence of Public Economies and Industry Structures." In *Alternatives for Delivering Public Services: Toward Improved Performance*, edited by E. S. Savas, 7–49. Boulder, Colo.: Westview.
- Pantaleoni, Maffeo. 1883. "Contributo alla teoria del riparto delle spese pubbliche." In *Studi di finanza e di statistica*, 1–43. Bologna: Nicola Zanichelli Editore.
- Panhans, Matthew. 2018. "Health Economics: Scientific Expertise and Policymaking". *Economia* 8 (3): 279–311. doi:10.4000/oecnomia.3091.

- Panhans, Matthew T., and John D. Singleton. 2017. "The Empirical Economist's Toolkit: From Models to Methods". *History of Political Economy* 49 (Supplement): 127–57. doi:10.1215/00182702-4166299.
- Pazner, Elisha A. 1972. "Merit Wants and the Theory of Taxation." *Public Finance/Finances Publiques* 27 (4): 460–472.
- Phelps, Edmund S. 1973. "Taxation of Wage Income for Economic Justice." *The Quarterly Journal of Economics* 87 (3): 331–354. doi:10.2307/1882009.
- Pickhardt, Michael. 2006. "Fifty Years after Samuelson's 'the Pure Theory of Public Expenditure': What Are We Left with?" *Journal of the History of Economic Thought* 28 (4): 439–460. doi:10.1017/S105383720000941X.
- Pigou, Arthur Cecil. 1928. *A Study in Public Finance*. London: Macmillan.
- Pigou, Arthur Cecil. 1932. *The Economics of Welfare*. 4th ed. London: Macmillan.
- Pratt, John W. 1964. "Risk Aversion in the Small and in the Large." *Econometrica* 32 (1/2): 122–136. doi:10.2307/1913738.
- Prest, Alan R. 1956. "The Royal Commission on the Taxation of Profits and Income." *Economica* 23 (92): 366–374. doi:10.2307/2551463.
- Ramsey, Frank Plumpton. 1927. "A Contribution to the Theory of Taxation." *The Economic Journal* 37 (145): 47–61. doi:10.2307/2222721.
- Ramsey, Frank Plumpton. 1928. "A Mathematical Theory of Savings." *The Economic Journal* 38 (152): 543–559. doi:10.2307/2224098.
- Rawls, John. 1967. "Distributive Justice." In *Philosophy, Politics and Society: Third Series*, edited by Peter Laslett and Walter Garrison Runciman, 58–82. Oxford: Basil Blackwell.
- Rawls, John. 1971. *A Theory of Justice*. Cambridge, MA: Harvard University Press.
- Rawls, John. 1974. "Reply to Alexander and Musgrave." *The Quarterly Journal of Economics* 88 (4): 633–655. doi:10.2307/1881827.
- Robbins, Lionel. 1932. *An Essay on the Nature and Significance of Economic Science*. London: Macmillan.
- Rothschild, Michael, and Joseph Stiglitz. 1969. "Increasing Risk: A Definition and Its Economic Consequences." *Cowles Foundation Discussion Papers* N° 275.
- Samuelson, Paul A. 1947. *Foundations of Economic Analysis*. Cambridge, MA: Harvard University Press.
- Samuelson, Paul A. 1954. "The Pure Theory of Public Expenditure." *Review of Economics and Statistics* 36 (4): 387–389. doi:10.2307/1925895.
- Samuelson, Paul A. 1958. "Aspects of Public Expenditure Theories." *The Review of Economics and Statistics* 40 (4): 332–338. doi:10.2307/1926336.
- Samuelson, Paul A. 1969. "Pure Theory of Public Expenditure and Taxation." In *Public Economics: An Analysis of Public Production and Consumption and Their Relations to the Private Sectors*, edited by Julius Margolis and Henri Guitton, 98–123. London: Macmillan.
- Samuelson, Paul A. 1986. "Theory of Optimal Taxation." *Journal of Public Economics* 30 (2): 137–143. doi:10.1016/0047-2727(86)90041-1.
- San Julián Arrupe, Javier. 2022. "When Lawmakers Met Progressives. Debating the American Federal Income Tax of 1894". UB Economics Working Papers E22/418. <https://www.ssrn.com/abstract=4075762>.
- Sandmo, Agnar. 1976. "Optimal Taxation: An Introduction to the Literature." *Journal of Public Economics* 6 (1-2): 37–54. doi:10.1016/0047-2727(76)90040-2.
- Sandmo, Agnar. 2015. "The Principal Problem in Political Economy: Income Distribution in the History of Economic Thought." In *Handbook of Income Distribution*, edited by Anthony B. Atkinson and François Bourguignon, 2A, 3–65. Amsterdam: Elsevier.
- Seligman, Edwin Robert Anderson. 1908. *Progressive Taxation in Theory and Practice*. 2nd ed. N.J.: Publications of the American Economic Association.
- Sheshinski, Eytan. 1972. "The Optimal Linear Income-Tax". *The Review of Economic Studies* 39 (3): 297–302. doi:10.2307/2296360.
- Shoup, Carl S. 1969. *Public Finance*. Chicago: Aldine Publishing Company.

- Silvant, Claire, and Javier San Julián Arrupe. 2020. "Introduction: Public Finance in the History of Economics: A Field on Its Own." *Research in the History of Economic Thought and Methodology* 38 (A): 3–12.
- Silvestri, Paolo. 2023. "Luigi Einaudi's 'Scienza delle Finanze' or the Science of Good Government." *The European Journal of the History of Economic Thought* 30 (5). doi: [10.1080/09672567.2023.2249295](https://doi.org/10.1080/09672567.2023.2249295).
- Simons, Henry C. 1934. *A Positive Program for Laissez Faire*. Public Policy Pamphlet N° 15. Chicago, IL: The University of Chicago Press.
- Simons, Henry C. 1938. *Personal Income Taxation*. Chicago: The University of Chicago Press.
- Simons, Henry C. 1950. *Federal Tax Reform*. Chicago: The University of Chicago Press.
- Singleton, John. 2015. "Sorting Charles Tiebout." *History of Political Economy* 47 (Supplement): 199–226. doi:[10.1215/00182702-3130511](https://doi.org/10.1215/00182702-3130511).
- Smith, Adam. 1776 [1976]. "An Inquiry into the Nature and Causes of the Wealth of Nations." *The Glasgow Edition of the Works and Correspondence of Adam Smith*. Indianapolis: Liberty Fund.
- Stern, Nicholas H. 1976. "On the Specification of Models of Optimum Income Taxation." *Journal of Public Economics* 6 (1-2): 123–162. doi:[10.1016/0047-2727\(76\)90044-X](https://doi.org/10.1016/0047-2727(76)90044-X).
- Stiglitz, Joseph E. 2018. "Working with a Great Public Intellectual: Remembering Tony Atkinson." *The Economic and Labour Relations Review* 29 (1): 38–40. doi:[10.1177/1035304618757111](https://doi.org/10.1177/1035304618757111).
- Stiglitz, Joseph E., and Michael J. Boskin. 1977. "Some Lessons from the New Public Finance." *The American Economic Review* 67 (1): 295–301.
- Sturn, Richard. 2010. "Public Goods" before Samuelson: Interwar Finanzwissenschaft and Musgrave's Synthesis." *The European Journal of the History of Economic Thought* 17 (2): 279–312. doi:[10.1080/09672560903320084](https://doi.org/10.1080/09672560903320084).
- Sturn, Richard. 2016. "Public Economics." In *Handbook on the History of Economic Analysis. Volume III: Developments in Major Fields of Economics*, edited by Gilbert Faccarello and Heinz D. Kurz, 480–498. Cheltenham: Edward Elgar.
- Takami, Norikazu. 2014. "The Sanguine Science: The Historical Contexts of A. C. Pigou's Welfare Economics." *History of Political Economy* 46 (3): 357–386. doi:[10.1215/00182702-2796185](https://doi.org/10.1215/00182702-2796185).
- Teixeira, Pedro Nuno. 2000. "A Portrait of the Economics of Education, 1960-1997." *History of Political Economy* 32 (Supplement): 257–288. doi:[10.1215/00182702-32-Suppl_1-257](https://doi.org/10.1215/00182702-32-Suppl_1-257).
- Tiebout, Charles. 1956. "A Pure Theory of Local Expenditures." *Journal of Political Economy* 64 (5): 416–424. doi:[10.1086/257839](https://doi.org/10.1086/257839).
- Vickrey, William S. 1939. "Averaging of Income for Income-Tax Purposes." *Journal of Political Economy* 47 (3): 379–397. doi:[10.1086/255390](https://doi.org/10.1086/255390).
- Vickrey, William S. 1945. "Measuring Marginal Utility by Reactions to Risk." *Econometrica* 13 (4): 319. doi:[10.2307/1906925](https://doi.org/10.2307/1906925).
- Vickrey, William S. 1947. *Agenda for Progressive Taxation. Reprints of Economic Classics*. Clifton, N.J.: A. M. Kelley.
- Viti de Marco, Antonio de. 1888. *Il carattere teorico dell'economia finanziaria*. Roma: Loreto Pasqualucci.
- Viti de Marco, Antonio de. 1936. *First Principles of Public Finance*. London: Jonathan Cape.
- Von Neumann, John, and Oskar Morgenstern. 1944. *Theory of Games and Economic Behavior*. Princeton, N.J.: Princeton University Press.
- Walraevens, Benoît. 2023. "Rawls's Maximin and Optimal Taxation Theory." *The European Journal of the History of Economic Thought* 30 (5). doi: [10.1080/09672567.2023.2248316](https://doi.org/10.1080/09672567.2023.2248316).
- Weymark, John A. 1991. "A Reconsideration of the Harsanyi-Sen Debate on Utilitarianism." In *Interpersonal Comparisons of Well-Being*, edited by J. Elster and J. Roemer, 255–320. Cambridge: Cambridge University Press.
- Wicksell, Knut. 1896. "A New Principle of Just Taxation." In *Classics in the Theory of Public Finance*, edited by Richard A. Musgrave and Alan Peacock, 72–118. London: Macmillan.