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Economics as a Public Science. Part II: Institutional Settings

edited by Harro Maas,
Steven G. Medema, and Marco Guidi

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In Memoriam

Evert Schoorl (1940–2018)

Bert Tieben*

On 24 June 2018 the historian of economic thought Evert Schoorl died in his home town, Amsterdam.

To his colleagues, Evert is best known for his lifelong work on Jean-Baptiste Say (1767-1832), the great classical French economist. Say formed the topic of his PhD-dissertation in 1980, which was the reflection of research he had started 10 years earlier (Schoorl, 1980). The dissertation was a blueprint for the research Evert would carry out in the decades to come: it combined careful historical analysis with an investigation of Say's economics. We all know Say for his infamous 'law of markets', but Evert tried to show that the 'added value' of Say's work was so much more. His thesis presented education and population as topics were Say was able to make progress. Moreover he was one of the first to use the Say archive to study the economic thought of Say and to sharpen our understanding of the historical context of his life and work. In 1980 we lacked a proper biography of Say. Evert's thesis was one of the first attempts to fill this void. The subject would occupy him for the rest of his professional life. After his retirement he found the time to finish the biography: *Jean-Batiste Say: Revolutionary, Entrepreneur, Economist* (Routledge, 2013).

How different the situation is today. Thanks to the efforts of André Tiran and others the study of Jean-Baptiste Say and his work has greatly advanced, which resulted in, amongst other things, the publication of his collected works. In word and print, Evert contributed to this development (e.g. Schoorl, 1992; 2002; and 2010).

Evert's biography was well received. Inevitably it rekindled the debate about the law of markets, exactly the type of discussion Evert tried to prevent. But he was very pleased with the assessment of Evelyn Forget in her review for the *Journal of the History of Economic Thought* (Forget, 2015). Forget correctly underlined that Evert aimed to combine history and economics. The search of the REAL law of markets is fruitless endeavor. Those who want to understand Say's contribution to economics need to appreciate that Say lived in a tumultuous period of history. For Evert, Say actively took part in

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three revolutions: the French revolution, the Industrial revolution and the establishment of economics as an academic discipline. The image of Say as a revolutionary in several ways forms the backbone of his biography. As Forget stressed, a work like this cannot just rely on a study of the published works of Say like the *Traité d'économie politique* (1803) and the *Cours complet d'économie politique* (1828). One of the strengths of the work is that Evert relied on the notes, letters and diaries from the Say archive but also on magazine articles and pamphlets to bolster his story. Forget acknowledged the "hard work of an historian of economic thought who tries to understand the historical context within which ideas are developed" and that is exactly what Evert tried to achieve.

Though he may not have belonged to the scientific *avant-garde*, Evert greatly enjoyed his contribution to several international projects led by esteemed colleagues, such as Istvàn Hont, Bob Coats, Marco Guidi, Michalis Psalidopoulos, José Luis Cardoso and others. Coats, the godfather of the sociology of economics approach, became a personal friend. Through these projects Evert found his second niche: the history of Dutch economic thought. Hont's institutionalization project inspired Evert to explore the role of societies in the development of Dutch economic thought (Schoorl, 2001). He also teamed up with Henk Plasmeijer, an economist whom we remember for his studies on the history of marxism in the Netherlands. Evert and Henk formed a duo for many years. For Coats' internationalization project they reviewed the development of postwar Dutch economic thought (Plasmeijer and Schoorl, 2001). Additionally they explored the role of textbooks in the development of 19th and 20th century Dutch economic thought (Schoorl and Plasmeijer, 2012). One of their key publications, written jointly with E. Buys and I. Maes, is the article "Comparing the Development of Economics during the Twentieth Century in Belgium and the Netherlands", which was published in HOPE (2005). His last contribution to these international cooperative projects was published in José Luís Cardoso's & Michalis Psalidoupolos' book on the impact of the German Historical School in European Economic Thought. For this last work Evert and I wrote the chapter on the Netherlands (Tieben and Schoorl, 2016).

That Evert aimed to combine history and economics is not surprising: he was trained as both an historian and an economist. In spite of his PhD he never considered himself a researcher *pur sang*. Jokingly he would say that he belonged to the academic 'foot soldiers'. He was a devoted teacher of economics and taught the subject on all levels: from high school to the post-graduate level. It was perhaps inevitable that his career would peak with his appointment as director of the graduate school of economics of the University of Groningen, a kind of *uber teacher* as he would say. His activities were not confined to academic research and teaching. He acted as ghostwriter and editor of the biographies of several Dutch economists, such as Emile van Lennep and Wim Drees. An art-lover, he cherished his first art historical publication—on the painter Hendrik Valk and his brother, sculptor Willem Valk—just as much as his PhD-dissertation (Van der Laan, IJsselstein Mulder and Schoorl, 1999).

Evert excelled in the social aspect of our science: networking. He was a veteran of the diverse history of economic thought conferences around the globe. He attended the British history of economics society meetings from the early 1970s and hosted one of them at Groningen. In the 1990s Evert actively supported the foundation of the European Society of the History of Thought (ESHET). He was present at the ESHET founding sessions at Sophia-Antipolis 1994 and certainly did not forego the opportunity to enjoy the Mediterranean beach at that occasion. That also marked Evert: Enjoy life, while you can. He certainly practiced this motto himself. We jointly worked on a paper for the conference on Economics and Public Reason at Lausanne, last year. Evert planned the present our work there, but unfortunately his illness suddenly worsened and prevented him from going.

In the Netherlands he likewise operated as a bridge-builder between his two main interests, history and economics. In 2015 he took the initiative to organize an informal network for historians and economists studying the history of Dutch economic thought. The network hosts a successful yearly conference. We will certainly continue his initiative and shall miss his presence there. A good friend and inspiring colleague has passed away.

Evert left behind his wife Mieke, their three children and grandchildren.

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Economics as a Public Science.
Part II: Institutional Settings

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Introduction to Economics as a Public Science. Part II: Institutional Settings

Harro Maas*, Steven G. Medema**, and Marco Guidi***

This issue of *Œconomia* contains the second set of essays that emerged from the conference "Economics and Public Reason" hosted in May 2018 at the Centre Walras-Pareto for the History of Economic and Political Thought at the University of Lausanne.

Keywords: methodology, public reason, expertise, institutions

Introduction à l'économie comme science publique.
Partie II : le contexte institutionnel

Ce numéro d'*Œconomia* contient la seconde série d'essais issue de la conférence « Economics and Public Reason » qui a été organisée en mai 2018 par le Centre Walras Pareto d'études interdisciplinaires de la pensée économique et politique à l'Université de Lausanne.

Mots-clés : méthodologie, raison publique, expertise, institutions

JEL: A11, B20, B40, Z18

In the introduction to the first special issue, we referred to Hirschman and Berman's much cited article of 2014, "Do Economists Make Policies?" which highlights the importance of what Science and Technology Studies refers to as the socio-technical infrastructures of economic knowledge production and transmission (Hirschman and Berman, 2014). We could also have referred to Eyal and Levy's contribution in Mata and Medema's HOPE conference volume on economists as public intellectuals (2013), "Economic Indicators as Public Interventions," in which the authors use the Foucauldian distinction between general and specific intellectuals to argue that economists do not gain their public traction so much as *individuals*, but rather through the institutions in which they work or with which they are otherwise associated and through the tools they develop. Eyal and Levy then cleverly apply this argument to the rise to prominence of the GDP as an indica-

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tor of growth. In doing so, they show the close-knit relations between economic agents and the modes in which and arenas where they intervened. In this issue we see similar relations between and within, for example, the Social Science Research Council, or OECD, and the tools and techniques developed and promoted to intervene in the public sphere. While John Rawls and Jürgen Habermas, in different ways, concentrate their analysis of "public reason" on how a political society sets its priorities and agrees on its procedures of decision making, both Hirschman–Berman and Eyal–Levy remind us that the interventions of economists as a rule do not take place in the public arena, but gain their effectiveness from the way their tools shape the arenas of economic and political decision making, with National Income Accounting or Merton–Black–Scholes option pricing as stellar examples. This of course opens the door to the larger literature on how economists "perform" the economy. It is in this spirit that the initial conference behind these two special issues concentrated not on *economists*, but on *economics* and public reason.

While the first issue, published as volume 9(2) of *Œconomia*, focused on the ethos of economists vis-à-vis their publics and on their means of expression (such as models and memos), this issue zooms in on the institutional settings in which and through which economists become socially and politically relevant. As we noted in the first issue, and emphasize here again, the distinction may seem neat, but in the contributions to both issues we see many crossovers between these themes. The institutional settings in which economists operate or in which economic tools and thinking are proposed or applied range from learned societies which created middle grounds between experiments in households and emerging states, to ad hoc committees of economists that mediated between academic economic knowledge and hands-on economic policies, to international organizations that came to serve as vehicles for specific visions of economic policy. These visions may be concerned with how to translate theories into action, or with the promotion of specific tools that serve the same purpose. The essays gathered in this issue also feature a concern with the travel of such theories and tools from centers of economic and political power to the periphery or the reverse, including the resistance with which they are met and/or the need to adjust them to local circumstances.

The first two essays find us at opposite ends of the British Empire. Aida Ramos uses her contribution to examine how the Dublin Society through the eighteenth century functioned as a collective that promoted agricultural and other experimentation to improve the Irish condition, in the absence of a central government with other than exploitative interests. Lacking political clout, the Dublin Society promoted economic innovations and experimentation via prize-schemes and, eventually, low-cost publications that spread new, experimental knowledge to a wider audience. As with much of the knowledge produced at the time, this was not "pure economic" knowledge in the sense of high theory, but it consisted of a mixture of (especially) agricultural and economic experimentation that facilitated the improvement of local constituencies. While focusing on economic knowledge, Ramos's contribution fits in the recent rise of interest in low-key scientific initiatives that transgressed from the homely sphere of the family-economy into wider orbits of public conversation.

With Sharmin Khodaji's contribution we move from the colonial relation between England and Ireland to that between India and Great Britain in the early twentieth century. By then, there was a corpus of classical political economic knowledge in Britain that was considered authoritative, especially when presented to its colonies. It was against this authority that a growing group of Indian-trained economists took a stance. Taking up Mahadev Givind Ranade's appeal of 1892 to develop an 'Indian Political Economy', these Indian economists aimed at a political economy that would no longer take its examples from Britain and Europe, but from Indian local conditions, to thus further the growing Indian nationalist creed. Khodaji examines how the British colonial administration responded by tightening its grip on Indian university teaching through the dissemination of textbooks that reaffirmed the truths of British political economy, yet modified their message by allowing the Millian caveat that the universal laws of political economy do not always manifest themselves identically because of disturbing causes coming in their way. Khodaji shows how Indian political economists in response increasingly drew on the ideas of Friedrich List and the German Historical School, attracted by their focus on protectionism and the need for attention to the distinct conditions of different nations as against the classical free-trade universalism. Some of these texts were intended as academic textbooks, while others were targeted at wider audiences but came to be used as textbooks as well. Thus, in the early decades of the twentieth century, economic textbooks became the battleground to challenge the colonial vision of the Indian economy and to carve out an Indian road to economic development.

With the second pair of papers we move to a more recent period in history, one in which institutional settings were becoming increasingly formalized. Yet, more or less informal gatherings of economists created a space in which new methods of analysis and forecasting were ventured or policy advice was whispered that would cater to different audiences. Daniel Schiffman and Eli Goldstein tell the story of the organization of economic advice in Israel in the short window of time between 1952 and 1954 during which a group of American Jewish economists was contracted to help the Israeli government with the means and goals of economic policy. The young and embattled new state was clearly still under construction and highly dependent on external financing for its survival. Using the public choice distinction between 'learning' and 'signaling', Schiffman and Goldstein examine how the Israeli government organized a committee of economic advisors, somewhat along the lines of the Council of Economic Advisors to the US President. The cast of economic characters hired by the Israeli government consisted of high profile American Jewish economists, amongst whom was Abba Lerner. The government thus aimed to signal to an American audience a willingness to learn, yet it did so mainly to the largely liberal and democratic American Jewish community—not unimportant for its financial support, but far less so to the Eisenhower administration. The increased focus of the US government on the Israeli-Arab conflict also entailed a diminishing interest from the Americans in this economic advisory board. Schiffman and Goldstein explain in fascinating detail how the economic advisory board lost its efficacy and was discontinued when it became enmeshed in internal Israeli disputes over the meaning of economic planning, the weighing of long and short-term economic goals, and the importance of nation building over economic efficiency. It is a healthy reminder that the road to the performativity of economics is paved with failures.

Reversing the relation between center and periphery, Juan Acosta and Erich Pinzón-Fuchs tell the story of the Committee on Economic Stability of the Social Research Council, which promoted the use of large-scale macro-economic models with even more detail than their original Klein and Klein-Goldberger examples, specifying these details to the level of parameters that could be plugged in for policy purposes. Given the fledgling status of empirical macro-economic modeling within high-profile economic research centers like Cowles in the United States, it is an unlikely story. Yet luminaries such as James Duesenberry, Franco Modigliani and, less surprising, Lawrence Klein were sitting in the Committee on Economic Stability, working towards a conference that would take lessons in the possible benefits of macro-econometric modeling for economic policy from smaller countries such as Japan, France, Norway, and the Netherlands. If we remember that Dutch economist Jan Tinbergen received, with Ragnar Frisch, the first Nobel memorial prize in 1969, this may be less surprising, but with a waning of enthusiasm for notions of "planning" in the sixties (a notion of importance in Schiffman and Goldstein's story as well), an exploration of the possibilities of macro-econometric modeling for policy purposes is remarkable. Though Acosta and Pinzón-Fuchs show how the status of participants at the conference on quantitative policy analysis organized at the Brookings Institute, with financial support of the Ford Foundation, was less than initially expected, these participants had exactly the right profile to promote quantitative macro-econometric modeling within important policy institutes such as the Fed. Acosta and Pinzón-Fuchs thus provide an important building block leading to the famous Fed-MIT-Penn macro-econometric model. A more or less institutionalized group of economists interested in macro-econometric modeling and policy planning became an enabling device for the acceptance of quantitative policy analysis within highly institutionalized settings such as the Fed.

The last paper deals with economists within international economic institutes. Pedro Teixeira examines the extent to which ideas within the OECD about education changed over time. While Matthias Schmelzer recently claimed the early adoption of human capital theory within the OECD's growth paradigm, Teixeira nuances Schmelzer's account by distinguishing between such an adoption at the macro and micro levels. According to Teixeira, it amounts somewhat to a 'truism' that education contributes to economic growth, an argument regularly supported with reference to the factor labor in the Cobb-Douglas function and Solow's growth theory. But causal claims about links between education, labor productivity growth, and the growth of GDP say little about how these links are brought about at the micro level. Teixeira then contrasts sympathies within the OECD for governmental support for education as a form of long-term planning for growth with what he takes as an essential element of human capital theory in the Mincer-Becker-Schultz program—that is, that individuals themselves invest in their own education according to market pay-offs. These two views entail very different conceptions of the functioning of labor markets. In the first case, labor markets are imperfect and in need of governmental steering; in the second case, they are institutions that can be left to themselves. Teixeira's essay thus signposts the important point made in Eyal and Levy (2013), that economic expertise becomes political exactly when it is searching for neutral and technical modes of expression.

The contributions found in this volume, covering three centuries of economic thinking about economic improvement and policy making, bring to the fore developments in the types of institutional settings in which such thinking finds its voice. Ranging across friendly societies such as the Dublin Society, evolving university curricula, more or less informal committees of economic experts, and staff economists working in the service of established international institutions, the essays implicitly demonstrate the stabilization of economic knowledge and instrument making as a regular and continuing input in institutions which themselves came to serve as enabling devices for the functioning of the modern capitalist world and the governance enterprises that have at times attempted to (re)shape it.

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We would be remiss if we did not point out that this symposium issue would have contained a sixth contribution were it not for the untimely passing away of Evert Schoorl, after an illness that seemed to have waned. In March 2018 Evert was in a good mood and expecting to come to Lausanne in May, but in mid-April it became clear his illness had returned and he would be unable to attend the workshop. Evert Schoorl was a well-known scholar of the work of Jean-Baptise Say, and within and outside of the Netherlands highly appreciated for his wit and support, especially for young, new students in our field. He was also an early participant in and promoter of research on the economist's roles in the public realm and the broader transmission of economic ideas—projects in which the entrepreneurial work of one of us, Marco Guidi, and the late Bob Coats loomed so large. As a tribute to Evert's person and scholarship, we are glad to have Bert Tieben's obituary in this issue and dedicate this two-volume symposium to his memory.

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"An Invitation to All Persons:" The Dublin Society and Public Reason in Eighteenth-Century Ireland

Aida Ramos*

The paper explores the activities of the Dublin Society as a form of public reason. Founded in 1731 when the Irish legislature and all trade policy was under the oversight of the British parliament, the Dublin Society undertook two roles usually under the purview of the government: economic improvement and public reason. Rawls' definitions of public reason, with some qualifications are used. Given the nature of Irish governance, the Society transmutes the idea of public reason into the economic realm. Through its various projects, experiments, contests, schools, and publications, which all had public input, the Society develops a process whereby factual conclusions and social consensus can be made on the Irish economy. Although it did not fully escape the prejudices of its time, the Society provides a larger space than Irish political institutions for members of the public to engage in public reason as economic citizens rather than political or religious ones.

Keywords: Dublin Society, public reason, eighteenth-century Ireland, economic development, economic growth, Prior (Thomas)

« Une invitation pour tout le monde » : la Dublin Society et la raison publique dans l'Irlande du 18ème siècle

Cet article explore les activités de la Dublin Society en tant que forme de raison publique. Fondée en 1731, alors que la législature irlandaise et l'ensemble de la politique commerciale relevaient du parlement britannique, la Dublin Society assumait deux rôles qui relevaient généralement du gouvernement : l'amélioration de la situation économique et la raison publique. Nous utilisons ici les définitions de la raison publique de Rawls, en y apportant toutefois quelques nuances. Compte tenu de la nature de la gouvernance irlandaise, la Society transforme l'idée de la raison publique dans le domaine économique. À travers ses divers projets, expériences, concours, écoles et publications auxquels le public a contribué, la Society développe un processus permettant de tirer des conclusions factuelles et

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A very different version of this paper was read at the workshop on public reason at the University of Lausanne in May 2018. The author wishes to thank the participants in the workshop and the editors of the journal, especially Harro Maas, and two anonymous referees, all of whose comments have improved the final product. The research for this paper was made possible by a King-Haggar Scholars grant from the University of Dallas and a Library Research Grant from the Keough-Naughton Institute for Irish Studies at the University of Notre Dame, for which I am very grateful. I also wish to thank the editors and two anonymous referees, all of whose comments greatly improved the final draft.

de parvenir à un consensus social sur l'économie irlandaise. Bien qu'elle n'ait pas complètement échappé aux préjugés de son époque, la Society offre aux membres du public un espace plus vaste que les institutions politiques irlandaises pour s'engager dans la raison publique en tant que citoyen économique plutôt que politique ou religieux.

Mots-clés : Dublin Society, raison publique, 18ème siècle irlandais, développement économique, croissance économique, Prior (Thomas)

JEL: B1, B3, O1

John Rawls (1997) claims that a political society "has a way of formulating its plans, of putting its ends in an order of priority, and of making its decisions accordingly" (93). Public reason is the means by which this process is accomplished. Additionally, he says that, a society's "ability to do these things is also its reason, though in a different sense: it is an intellectual and moral power, rooted in the capacities of its human members" (ibid.). But what happens when the political process in a democracy is superseded in some way, such that the direct form of public reason through the political action of its citizens and representatives is disrupted? How does public reason assert itself when the standard channels for doing so are temporarily disconnected or disjointed? Can Rawls' concepts still apply in such a case, or does it apply only to politically liberal communities? What I wish to explore in this paper is the emergence of public reason in non-political form in eighteenth-century Ireland in the activities of the Dublin Society.

Founded in 1731, the Society's stated purpose was to promote the economic development of the country through improvement in "husbandry, manufacturing, and the useful arts," according to the first issue of its *Weekly Observations* (1736-1737, 1). The Society's goals were to be accomplished through several means such as grant-sponsored research, contests, widely disseminated publication, experimentation, and education, all of which had input from the general public. Despite its name, the Society's impact reached beyond Dublin through a variety of projects, publications, and competitions. The *Observations* issued "an invitation to all persons, who truly love their country" to share their own best practices with the Society for dissemination (1736-1737, 8).[1] Similarly, the Society's subsequent competitions and sponsored projects enjoined the participation of all segments of Irish society to generate improvement for all of the economy.

Although acknowledged as "the most successful instrument of social and economic reform in Ireland in eighteenth century" (Maxwell, 1949, 201), and "the only national forum for the promotion of enlight-

[1] The title of the present article is drawn from this passage.

ened agricultural practice" (Dickson, 2005, 172), analyses of the Society's work are lacking in the economics literature. Such could be said of the study of eighteenth-century Irish economic thought overall, but the lack of coverage has started to be rectified for major figures like George Berkeley and Jonathan Swift. Berkeley's monetary theory and philosophy are explored in Caffentzis (2000; 2003) and Johnston (1940; 1953). More recently Swift's economic thought has been analyzed in both his satirical work in Prendergast (2015), and his non-satirical economic pamphlets in Ramos (2017). The economics literature on the Dublin Society remains relatively thin. *A History of Irish Economic Thought* (Boylan et al., 2011) mentions the Society but does not dedicate an individual chapter to their work. Beyond Salim Rashid's (1988) contribution as part of his broader discussion of the Irish School as a whole, most of the work on the Society has come from history and literature, such as in the works of Patrick Kelly (2003), James Livesey (2004; 2012), and Gordon Rees (2014), rather than economics. Due to its concerns and stated aims, the work and writing of the Society is an overlooked chapter of eighteenth-century economic thought that deserves further attention. This paper is one attempt to do so but focuses on only one aspect of the Society: its interaction with the Irish public to generate economic improvement, and how this can be viewed as a form of public reason.

The eighteenth-century Irish economy faced various obstacles. Besides cycles of crop failure, the economy faced restrictions on its exports due to English trade law, which suppressed local manufacturing. Although Ireland had its own Parliament and was not officially a colony of Great Britain, its economic decision-making power was constrained by the UK Parliament, which had oversight over Irish decisions to ensure that the Irish would not pass legislation that the British might perceive to be hurtful to their economic interests. Further, the disenfranchisement of most dissenters from the Church of Ireland, Catholics, and the native Irish meant that any public reasoning that took place between the parliament and the people was necessarily limited. Rawls discusses public reason in terms of the political, but he acknowledges that it does not only take place in the political realm. I argue that the Dublin Society, in the absence of the Irish government's will or capability, engaged in a form of public reason in an attempt to accomplish in the economic realm what seemed impossible in the political realm: the improvement of the Irish economy. The Society's publications and meetings became a locus of discourse on the Irish economy where needs and concerns could be expressed and Irish solutions to them could be generated and disseminated without interference from Westminster. The Society initiated public reason on economic matters through its invitation for public input to its publications and meetings, and sponsoring of public competitions to discover best practices in a variety of fields. Through their work and public engagement, the Society thus undertook activities concerning economic growth and development that under freer political circumstances the government would perform.

Section one provides the political and economic context of eighteenth-century Ireland in which the Society formed. In section two, the activities of the Society are discussed as a form of public reason on economic issues. Examples of the Society's public interaction are drawn from its publications, projects, and competitions concerning agriculture, arts, science, and education. Section three explores the ways in which the Society functioned like a government ministry both in its operation and in its advocacy of public participation, self-sufficiency, and domestically generated solutions. The extent to which the Society did and did not deal effectively with the biases of eighteenth-century Anglo-Irish political and social views, is discussed in the conclusion in section three.

1. The Irish Economy in the Eighteenth Century and Early Responses

The Irish economy in the eighteenth century was severely disadvantaged by English trade policies fueled by mercantilist theory. Given the English mercantilist theory of nation building, as described by Lars Magnusson (2002; 2015), economic plenty was desired in order to assert and display national power. The mercantilist framework to maximize specie, trade, and power provided the economic rationale for England's Navigation Acts and subsequent restrictions on the wool trade. Due to the possibility that English exports to the colonies and the English cattle market would suffer from Irish competition, the Navigation Acts of 1660 prohibited Irish exports to the colonies and in 1663 prohibited the Irish export of cattle to England. Duties imposed on Irish wool in 1699 destroyed the next best Irish industry. By 1701 exports had fallen by one-third compared to 1698 (Connolly, 2008, 344). In strict mercantilist fashion, Ireland was to be used as a source of raw materials for English manufacturing and England would have the sole privilege of exporting finished goods. The restrictions of the Acts had crippling effects on the majority of the country.[2]

The decline of Irish industry increased competition for land use. Due to the prohibition against cattle exports, in the 1670s Irish cattle owners began to sell hides, dairy products, and tallow to other European markets and the plantations and sheep owners began to increase their flocks to sell raw wool to England, which was not prohibited. Landowners began to use more of their land for pasturage than till-

[2] A major exception was the linen industry, which experienced immense growth due to demand from the English market (see Dickson, 2000, 114-116 and 138-141).

age, leaving tenant farmers less land on which to plant, leading to food shortages in the early 1700s that led to further economic decline due to emigration. In 1713 a period of respite came after the Peace of Utrecht ended the War of the Spanish Succession, and restored Irish trade with the Continent. However, food shortages due to a weak harvest in 1720 led to an increase in food imports, and the collapse of the South Sea Bubble in the same year led to a decrease in demand from England for Irish goods. The Bubble had the additional deleterious effects of first broadening the prospects for and then eroding the wealth of subscribers from Ireland. Due to the restriction of its exports, increasing demand for English imports, and absentee landlords' expenditure of their rental income abroad, Ireland faced a coinage crisis for most of the early to mid eighteenth century. A series of crop failures in from 1727-1729 compounded the difficulties already in place and led to more economic hardship. At the same time the Irish Parliament was limited in the actions it could take to rectify the situation. The centuries-old Poynings' Law gave the English Parliament oversight over drafts of Irish legislation and the Declaratory Act of 1720 granted the UK Parliament the power to create laws for Ireland. Any changes in Irish policy that were suspected to advantage Ireland over Great Britain would be vetoed (Connolly, 2008, 344-350; Dickson, 2018; Kelly, 1991; Kelly, 2003, 128-130).

In the midst of these economic and political challenges, an argument arose in the popular pamphlet literature that the Irish should take steps to change their situation through economic rather than political means. Jonathan Swift, George Berkeley, and others pointed to the illogical nature of Ireland's poverty, given its abundant natural resources and healthy population size. Swift powerfully protests the country's condition in the *Universal Use of Irish Manufactures* in 1720, just one of a number of non-satirical pamphlets he wrote on economic matters. Rather than condemning either the Irish people, as was the standard English response to Ireland's poverty since the time of William Temple, he condemns the trade restrictions which caused exported wool to be lucrative and fields turned to pasturage rather than tillage, the penal laws, the excessive imports of consumers, and overall inaction of the Irish legislature to amend the situation. Acknowledging that political solutions are not forthcoming he instead argues that changes in domestic consumption would improve the country's output, employment, and income. Berkeley argues similarly for a change in consumption patterns in *The Querist* (1735-1737).

The founder of the Dublin Society, Thomas Prior, a successful land agent who worked closely with the landlord class, shared Berkeley's and Swift's opinions on the causes of Ireland's economic issues. Previous to establishing the Society, Prior published *A List of the Absentees of Ireland* (1729), which asserted that landlords should engage in improvement of their lands and the encouragement of Irish agriculture and manufactures rather than spending Irish money abroad. Prior discussed three classes of landlords, who spent most, some, or none of their time in Ireland and their yearly expenditures outside of the country and expenditures by the wealthy in Ireland on imported goods (ibid., 1-17). Thus even those landlords who spent their time in Ireland were responsible for its lack of domestic demand. Like Swift and Berkeley, Prior advocated that the landed class stop importing goods from Britain that could be produced in Ireland. This theory of demand-driven growth for the economy through import substitution is common among the writings of the Irish School, whose prominent members include Swift, Berkeley, Prior, David Bindon, Samuel Madden, and Arthur Dobbs.[3] With this demand-based theory in mind, Prior founded the Society and he and his fellows set about implementing ways in which they and the public could establish improved methods and disseminate knowledge of better practices across the country to increase Irish production and demand for Irish goods.

The Dublin Society is regarded as one of a number of "improving" societies that preceded and existed alongside it in the eighteenth century, as discussed in Stapelbroek and Marjanen (2012). It was aligned with the ideas of betterment of self and society and a belief in a better future that Paul Slack (2015) identifies as arising in seventeenth-century England. The Dublin Society also shared with other improvers the stress on dissemination of knowledge and the harnessing of information and experiment to accomplish improvement (1-8). There were other Irish improving societies in the eighteenth century, but as David Hayton (2012) explains, contemporary groups focused variously on religious, personal, and social improvement. To some improvement meant the conversion of Irish Catholics to Protestantism; to some landlords it meant the establishment of ornamental gardens as a form of conspicuous consumption; and to others it meant the spread of "civility" through the education of the native population in English speech and customs (ibid., 175-198). To the Dublin Society improvement meant dedicated research, discussion, application, and dissemination of practices that generated economic growth and development. Other Irish improvement organizations narrowed their focus to individual issues, such as the Incorporated Society's promotion of Protestant education. The Dublin Society was unique amongst its fellows for its diffuse support for improvement across the economy, in agriculture, industry, the arts, sciences, education, and infra-

[3] Rashid notes that the aims of the Irish thinkers differed from those of later Scottish political economy in that Smith seeks "to maximize the monetary value of the nation's output," but the Irish sought to generate full employment (1988, 3). While full employment is a major theme of the Irish writers, their theory of increasing growth through changes in domestic consumption patterns is also important and distinctive in an age of mercantilist growth theory focused on external trade that shaped English policy and practice.

structure. The Society's closest intellectual predecessor, the Society of Improvers of Knowledge in Agriculture, founded in Scotland in 1723, was similarly concerned solely with economic change rather than religious conversion. Members were invited to participate in the collection and discussion of knowledge from their own practices and experiments in agriculture and husbandry. Input was sought from farmers the members interacted with, but they did not invite the general public to submit and discuss their ideas (Bonnyman, 2012). The Dublin Society was thus unique also in that it called for dialogue and participation in its activities from people across a broad range of occupations and interests.

Besides its economic focus and partnership with the general public, the Society also differs from the other improvement societies in its political context and its rhetoric that viewed all Irish people, regardless of class, religion, or other characteristics, as contributors to the economic success of the nation. James Livesey (2004) views the Society's work as an attempt to form a civil society for Ireland in the absence of a normalized system of governance. Similarly, I argue that the Society focuses on the economic realm as the civil, creating economic governance for themselves in the absence of political governance by the Irish people for themselves. As a private association it could achieve what the Irish government was not allowed to: the implementation of public-sanctioned, positive economic change without British approval.

2. The Society's Projects, Publications, and Public Participants

2.1. The Projects of the Society

The Society both conducted a variety of projects in private and sponsored experiments and contests for the public. All of them focused on economic improvement. Samuel Madden helped establish a fund for granting premiums for certain activities and grants for those who proposed the best ideas. His plan for the Premium Fund was presented to the Society and passed. Mostly the fund was intended for the development of manufacturing of goods that were currently being imported but could easily be produced in Ireland, such as lace, paper, saltpeter, and table goods. Madden appealed to Society members and prominent members of Irish society at large to subscribe to the fund, and provided seed money himself. He also advocated that the Society begin experimental farms, all near Dublin, in order to test different kinds of soil and establish best practices for agriculture (Madden, 1739).

In 1740, the Society placed an ad in all Irish newspapers of their intention to encourage manufacturing and the arts through grant funding. The ad further stated that, "To carry out this design, they desire that gentlemen and others who are conversant with husbandry, trade, and manufactures, and wish well to their country, will favour them with their company and advice" in order to have the best input on the variety of trades and what practices should be encouraged, "what encouragements are convenient, and in what manner they may be best applied for the benefit of the public" (ibid., 1).

Premiums were granted for experiments on growing flax, producing linen, improvements in agricultural implements, growing of various vegetables and grains, and also for the arts. Contests were also established for painting and sculpture as well as largest orchard of fruit trees, largest field of wheat, and so on. Because the markets themselves were not sufficient to provide economic incentives for improved production, the Society provided the initial seed through cash and silver prizes. It was the public who determined best practices through the outcomes of their experiments or through competition with each other and the Society who made sure the results were published and disseminated. Winners of the grant premiums were required to report the results of their experiments first to a local authority such as a magistrate or clergyman, who then reported to the Society. Successful applicants had their methods and results published by the Society in pamphlet form. A committee was formed to oversee the process and judge the samples presented by applicants. Rewards were also advertised in 1740 for the best hops, lace, cider, thread, and flaxseed, among others (Berry, 1915, 55).

Those who applied for the premiums included not only those in manufacturing and husbandry, but also in the fine arts. The first premiums were awarded to those who worked in linen, napkins, lace, and for improvement of ploughs and shears, and "instruments for spinning, weaving, and cutting fustians" (ibid., 56). A new round of premiums was then advertised for wheat, barley, and hops, and the greatest number of fruit trees, largest quantity of wheat, and other similar ventures. Premiums for sculpture and brewing followed in 1742 and extended to projects as varied as hats, cider, glassware, rags for the paper trade, art, and literature in the years following (*Premiums*, 1768). By 1769, premiums were being offered for the production of a variety of goods, such as silk, wool, leather, iron, steel, glassware, earthenware, saltpeter, and oil of vitriol. Rewards were also given for land reclamation (bog-clearing), building a better jail, improved thread milling, cotton manufacture, and other agricultural exploits and exploration.

Educational outreach was also an important part of the Society's work. The Society's Drawing School and the School of Art, which promoted painting and sculpture, were established in the 1740s. Attendance was free for all students from 1749 until 1849 when tuition began to be charged (Berry, 1915, 135). The purpose of the schools was not simply to further the fine arts in Ireland, but also to prepare its students for professional occupations and thus further contributions to Ireland's society and economic improvement. For instance the Plan of Instruction for the Drawing School discusses the inclusion of courses in mathematics, geometry, and the natural sciences purposefully to prepare students for occupations in navigation, engineering, astronomy, and related fields (Fenn, 1769).

John Wynne Baker, an English agriculturalist, was hired by the Society in 1764 to conduct initial experiments in growing cabbages and turnips. On the Society's behalf he began an apprenticeship program for youths in husbandry and began to manufacture better farming tools than those currently available in Ireland. The Society published his plan of instruction in 1765. In 1772 a committee was established to assess the progress of the country in literature and the arts. Schools of Chemistry and Mineralogy were established in 1786. The Society's Library was established in 1731, in accordance with its rule that all literature pertaining to improvement at home and abroad be purchased and maintained. Members also donated their own writings and results of experiments.

The work of the Society was undertaken with the cooperation of other private and public forces. In the 1730s a number of gardens were purchased for the purpose of experimenting but these plans were abandoned eventually in 1740. The project of establishing the Society's Botanic Garden was successfully brought to fruition in 1790. Undertaken with the cooperation of the University of Dublin and the College of Physicians, it is assumed that the Garden's purpose was seen as one contributing to instruction and improvement in botany and medicine rather than as purely ornamental (Berry, 1915, 186-188). Manufacturers and merchants likewise cooperated with the 1764 project of establishing warehouses for the retail silk and wool trades, for the sale only of silks and wools made in Ireland. A percentage of sales would go to the Irish manufacturers (ibid., 198-200).

2.2. Publications of the Society

The Society was fortunate to exist in a time when Irish print was expanding, which allowed them to more easily disseminate their ideas and engage with the public. In 1732 the Society hired the printer Aaron Rhames to publish its work (Munter, 1967, 166). The Society published pamphlets containing essays and letters by both members, individuals hired to complete specific projects, and members of the public who the Society felt could contribute to the improvement of knowledge of improved methods in agriculture, husbandry, and the arts. For instance, multiple pamphlets by Baker on agricultural methods were published in the 1760s and early 1770s. It also annually published ads for the upcoming premium competitions and detailed outcomes of the previous year's contests. Most of the pamphlet essays were on agricultural topics, such as *The Management of Bees* (1733), *An Account of Saffron* (1734), and the *Art of Curing and Tanning* (1764), but also expanded into other areas concerning development. Prior's publications, *An Essay to Encourage and Extend the Linen Manufacture in Ireland* (1749), *A Proposal for Erecting Granaries in the City of Dublin* (1741), and an essay on the wonders of tar water, also demonstrate the varied areas of interest of the Society.

Recognizing that there were many in Ireland who could benefit from its findings but who had limited income, the Society also published its *Weekly Observations* in the less expensive *Dublin News Letter* in 1732. The essays were so popular that they were regularly copied in two other major Dublin newspapers, *Pue's Occurrence*s and the *Dublin Journal*.[4] Regional papers, such as the *Belfast New-Letter* also regularly copied the essays into its contents (Munter, 1967, 166 and n2). Given this and that the Dublin newspapers were circulated throughout the country, the Society's essays and advertisements reached the public beyond Dublin.[5] The *Observations* encouraged input from its readers and often included lengthy sections from the readership on various matters related to agriculture, the wool and linen trade, and other manufactures. It also continued to post lengthy ads encouraging application for its continued grants and rewards systems.[6] The advertisement in the frontispiece of volume I, issue 2 of the digested version of the *Observations* states that it is circulated for free to its members, whose numbers included 800 in Dublin alone and the "principal Nobility and Gentry of Ireland, and to the leading Scientific Institutions of the United Kingdom" and will also be sold to the public (n.p.). Subsequent issues of the newsletter covered various topics from members' scientific studies to Irish natural resources.

In the first issue of the *Weekly Observations* the authors explain that the Society's members also published pamphlets to communicate their ideas. The author asserts that ideas in the shorter newsletter will have more of a direct impact because "Directions to the Husbandman and others, confined and cramped by the Dimension of the Paper, something must be lost of the clearness and exactness, which are ab-

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[4] The Society also placed ads in these papers. Some contemporaries said that Catholics preferred *Pue's Occurences* and Protestants preferred the *Dublin Journal* (Barnard, 2014, 65). Thus the Society may have allowed the reprint of its essays, and certainly the circulation of its ads in all papers, to reach both groups. Circulation numbers were approximately 2,000 per paper in the 1720s and saw increases throughout the eighteenth century (Munter, 67-90). However, because more people than just the individual buyer of a paper accessed its contents, the circulation estimates do not fully indicate the number of readers.

[5] Barnard (2010) estimates that the Society published announcements of its premiums in 1000 pamphlets and in 2000 broadsides (79). As mentioned in note 4, due to how print material changed hands and was read aloud, the numbers of people that this information reached likely exceeded these numbers.

[6] The Society established a formal *Journal* in 1855.

solutely requisite to make such Writings useful" and that this new format will make the Society's instructions "more distinct and more explicit" (ibid., 4). The newsletter was a source not for rumination but for communicating direct practical knowledge to readers who would implement it.

The introduction also stresses the benefits of the succinct newsletter over pamphlets in that "Pamphlets fall into few hands, and are useful only to those only who are in a Capacity to purchase, and at leisure to peruse them" (ibid., 6). In terms of income classes, the Society wanted to reach not only the wealthy reading public who had time and money to ponder the contents of pamphlets but also those of lesser means in time and money. Pamphlets were reasonably priced at 1 to 2 pence each in the first half of the eighteenth century, such that "these prices put the costs within the reach of a substantial proportion of the literate anglophone population" (Kelly, 2006, 217). The Society thus was trying to make their work even more accessible through the availability of the even lower cost newsletter.[7]

The main intended readers of the weekly publication were those who would implement the knowledge of the Society in their husbandry and production. Rather than publishing instruction for the wealthy, the newsletter was intended for the lower and middle income classes: "The poorer sort, the Husbandman and Manufacturer, are the proper Objects of Instruction, which can hardly ever reach them in any other Method other than the present" (ibid., 6-7).

The stated purpose of the Society and the *Weekly Observations* are in the first volume:

> Their Intention is not to amuse the Publick, with nice and labored Speculations; or to enrich the learned World … But to direct the Industry of common Artists; and to bring practical and useful Knowledge from the Retirements of Libraries and Closets into publick View: in short, to be universally beneficial is their only End (ibid., 7).

This end was to be attained either through new discovery, or making known old discoveries through publications, "by conveying present Knowledge, or by conveying it into more Hands," (ibid., 8).

Although the weekly was mostly intended for tradesmen and those working in husbandry and agriculture, the newsletter extended its invitation to participation to "all Persons, who truly love their

[7] The Society's various publications appeared at a time of immense growth and circulation of Irish print. Growth in literacy, estimated to be near 80% among the Anglo-Irish of both upper and middle class incomes, increased demand from middle class urban and rural readers, and access to more printing presses contributed to the increase of numbers of pamphlets and newspapers (Kelly, 2006, 219). Barnard (2014) details the surge in printing in Ireland in the early 1700s. Works on "improvement and utility" had increased from 1% of total titles in 1719 to 10% in 1729. By 1739 the percentage had fallen to 7% but was the fourth most popular category of printed works in Ireland (47).

Country" (ibid.). They asked the public to submit their own experiments, observations, comments, and criticism to the Society and the weekly newsletter. It regularly published letters from the public to add insight and sometimes correction on the suggestions of previous issues' observations. Letters and essays criticizing suggestions that had appeared in previous issues and offering different solutions were also published. Reasoned argument on the best soil in which to grow flax (vol 1, issues 8-15), "Directions for Making Roads (issues 21-22), "Instructions for Making Cyder" and others on turnips, flax, bogs, brewing, and raising riverbanks to avoid floods are examples of the contents, some of which were reprinted with expanded details in pamphlet form.

The *Weekly Observations* ceased publication in 1740 when the Society put more of its focus on the premiums for encouraging improvement. The accounts and the proceedings of the Society were also published at least since the 1760s, making the processes of the Society transparent, as if they were a formal public institution.

Neither a lack of income nor a lack of literacy was a barrier to those who wanted to know the news or a familiarity with popular print. Newspapers were commonly lent to coffee house customers and were read aloud in taverns and other public spaces for those who could not read (Barnard, 2014, 67-68 and Kennedy, 2012, 148-149). The native Irish were not excluded from the proliferation of print. Although very few works were printed in Irish, most of the native Irish were bilingual and thus had access to the same English print culture as the Anglo-Irish. Additionally, works in English were often purchased and then translated by hand or read to others in Irish (Barnard, 2014, 17-20). Therefore those native Irish who participated in the Society's competitions learned about them not only through word of mouth or local magistrates, but also through the print culture. The Society's active use of various forms print both disseminated its economic ideas and allowed it to reach beyond its own membership to include other parts of the Irish public.

2.3. The Public Contributors

The activity of the Society was neither for the sole benefit of its members nor Dubliners alone, but for the growth and development of the country of Ireland. Its activity meets Rawlsian criteria because the practices and ideas that were promoted by the Society were not developed by the membership of the Society alone. Society members tended to be lawyers, businessmen, physicians, clergy, gentry, and politicians but the participants in the competitions and projects of the Society came from varied professions. Craftsmen, agriculturalists, artists and others all provided their input either in writing, through presentation of results, or by winning a competition that had proved one's methods yielded the best results.

Widespread public participation can be gauged by the Society's pamphlets on the upcoming year's competitions, which each had hundreds of categories, and the lists of the competition winners. Once the premium system was instituted, ads were placed throughout the country in newspapers and in the Society's newsletters announcing the categories of competition, such as for the person who could produce the most honey and beeswax, plant the most oak trees, plant the greatest quantity of hops, establish fisheries in certain locations, produce the most linen, or produce the most lace. The competitions also included art and writing on various subjects, such as the 1765 entries for the person who could write a natural history of Ireland and another to write a "farmer's calendar," indicating adherence to the Society's goal of gathering and disseminating practical knowledge to all people (ibid., 21). The lists of winners published every year show that people from various professions, including small holding farmers, milliners, brewers, artisans, artists, farmers, miners, silversmiths, papermakers, clothmakers, clergy, and merchants participated from both high- and low-income groups (see *Premiums*). Even the rat catcher Michael Neadley was awarded a premium for catching and killing 1300 rats with ferrets and nets (*National Review*, 1890-1891, 797).

Unlike the formal political processes in Ireland, anyone who was resident in Ireland and earned below a certain income could compete for the Society's numerous awards. The rules of the premiums also attempted to level the playing field between wealthy landowners and smaller agriculturalists. Those with incomes above £2000 or holders of 200 or more acres of land were barred from cash prizes for those categories for "renters of land," but could still receive medals if they met criteria for improvements (1765, 22). To maintain fairness, Society members similarly could only earn medals rather than cash prizes. Catholics and Presbyterians were allowed to participate, which they could not fully do in all areas of the rest of Irish social and political life. Catholics often won the premium competitions (Barnard, 2010). As Samuel Madden observed, the majority of tradesmen and "at least four-fifths" of laborers were Catholic and thus an improved economy depended upon their participation (1739, 193).

Although men feature largely in the publications of the Society, the presence and active contribution of women is seen in the competition winners and also in the input published by the Society. The Society's published accounts of premium winners show that women won many of the premiums for knitting, lace, spinning, and production of dyes. They also directly competed with men as the 1758 award to both Elizabeth Nix and George Kent for cutlery attests (*Accounts*, 1764). Women were also represented in the awards for agriculture and planting of fruit trees and elms (Berry, 1915, 62). In 1732 the Society published a letter from Abigail Greenfield, a dairy farmer, who wrote on behalf of her field asking the Society to research the best methods for cheese making and included other practical advice. Besides accepting input from women on improved practices, the Society also supported women's entrepreneurship. Elizabeth Madden, a widow of a reverend with thirteen children, requested a premium for a thread manufacturing enterprise, and was awarded £100 to purchase a mill and other equipment (Sonnelitter, 113).

Youth participation can also be seen in various competitions, especially in the arts, for example in the award for the best drawing by boys or girls under fifteen years old. The Society also engaged with younger people through its educational programs. Children and youths from all classes were eligible for places in the Society's academies for the arts and drawing. Entrance depended upon ability, tested through an entrance exam, rather than income as the tuition for students was paid for by the Society. A perhaps less savory form of engagement of the young were premiums awarded for "most employment of children" by a single employer as in the 1765 premium announcements, the objective of which was to reduce household poverty.

Through the trial and error process of experimentation and competition, the current best practices available were arrived at by many sectors of society together. Input from the wealthier reading public and the poorer were both included in the publications of the group. Anyone demonstrating a proper level of ability could attend the Society's schools. Therefore the solutions to an array of issues in Irish production and longer-term growth were developed by the Society not through authoritarian or arbitrary decision-making but in conjunction with those of the Irish public who chose to participate. The knowledge gained from these processes was disseminated as widely as possible through print and through sponsored demonstrations, making the reasoning of the participants transparent. The solutions and methods generated were not for the benefit of any one person, although an individual farmer or essayist might gain momentary individual financial gain and renown, but were for the improvement of all economic sectors and thus the entirety of the country.

3. Public Reason, Paternalism, and Public Success

To what extent the Society saw itself as creating a substitute for what would otherwise be the activities of a properly functioning Irish government can be debated. They were aware that they were conscious in taking actions in order to advance Ireland's economy because they knew that on the one hand they could not wage this battle through a change in Irish legislation and on the other that even if the Navigation Acts and Penal Laws were to change there were still changes required in Irish production methods and the dissemination of knowledge that needed to occur. The published works of the leadership were always careful to discuss the work of the Society in terms of improvement rather than alternate governance, for understandable political reasons. Thus they often presented their work as an expression of patriotism for Ireland and asserted that Ireland's prosperity would add to rather than harm British greatness. Joep Leersen (1986) shows that Madden and Arthur Dobbs in particular appeal to readers that to promote the commerce of Ireland is a part of promoting the commerce of Great Britain (349-350).

However, the different methods in production and choices in consumption encouraged by the Society were seen by the Society leadership as a means to create their own "laws." Samuel Madden wrote, "Though we cannot at will make acts of parliament the nation, we can certainly prescribe laws for ourselves and our own conduct" and cautions gentlemen in individual households to make their choices in alignment with the good of the country (1738, 29). The Society was organized similarly to a government ministry overseeing the economy, with subcommittees and an official presence in different regions of the country. Initially the founding members were each charged with building expertise through research and experimentation in a particular area of agriculture, husbandry, trade, the arts, science, and any other field deemed useful to improve the economic situation of the country. The member overseeing a particular area also directed the experiments and had a say in the publications and presentations of the public to the Society in his area of expertise. In terms of local governance and representation, the Society eventually established the system recommended by Madden in the 1730s. Rather than rely on local magistrates and clergy to report back to the Society, committees of local Society members were established in the major cities across the country to establish more organized communications and disbursement of award funds between Dublin and the people of the country and for local participants to more easily apply for premiums or to have their work presented at the Dublin meetings (*Premiums*, 1775).

The members charged with developing an expertise in an area eventually each became heads of committees for the categories above mentioned. However it was not until 1773 that a select Committee on Commerce was established to oversee matters relating to manufacturing and trade, including gathering information not only on production, imports, and exports, but also on matters that affected them such as agriculture, population, and "the oppression of poor working manufacturer by low wages" (Appendix 12). The Committee on Commerce is very clear that it is performing a similar role as that of government boards in other countries. They observe that "every state in Europe have their Chambers of Commerce" and that Great Britain "has her Board of Trade," but that Ireland had been denied such a means of gathering useful information on matters relating to manufacturing and trade. Although they know that they could not engage in free exportation, the council saw itself as a means to analyse the Irish trade defects and to improve wages "for the industrious poor" (ibid., 5-6). The report of the Committee further opines that they could also be useful in recommending policy to the legislature and that the reason the government had given funds to the Society for distribution was because the government realized that the Society members were "the most proper judges of applying their bounty to the advantage of the country" (ibid., 6).

Thus there is by the late eighteenth century acknowledgment not only by the Society, but also informally by the Irish government that the Society is performing functions of governance. Rees (2014) observes that the Irish legislature passed agricultural bills on the subjects addressed in the Society's pamphlets and contests, but always after the Society had done so. Political action on economic issues was driven by the Society rather than the other way around. The Parliament had made its own premium scheme publicly available but the general public would not participate. The Society applied for the funds with the proposals for their various experiments and premiums schemes, thus establishing a means for the Parliament funding to reach its intended sources. Eventually Parliament did away with its premium scheme and allotted annual direct grants of £12,000 to the Dublin Society starting in 1761 (1 Geo III, c. 1). This indicates that the Society had a stronger relationship with the public than the Parliament did.[8] In addition to allowing it to purchase land, the royal charter granted to the Society in 1750 gave official recognition to what was already informally known.

In many ways the Society was seen to be more effective than the Irish government in engagement with many sectors of society and accomplishment of economic goals. They were able to generate the public's enthusiasm "to engage nationally with National concerns, and pursue the common welfare with a truly publick spirit," as the final issue of the *Weekly Observations* exhorted its readers to do (1736-1737, 342). Observers outside of the Society also noted its success relative to the government. The English Lord Chesterfield wrote to Thomas Prior in 1747 that the Dublin Society "have done more good to Ireland, with regard to arts and industry, than all the laws that could have been formed" and emphasized their use of premiums as a form of public "invitation" (6 May 1747). Chesterfield also confided to Madden his fear that the "infinite good" done by the Society could be

[8] This is of course also not to say that the perception of the people was always correct. The Parliament's premium scheme, its support for the Society, and its encouragement of the Linen Board and linen industry indicates its members knew and understood the importance of economic development. Indeed, as Dickson shows, several Irish M.P.s were also members of the Dublin Society (2005, 172).

threatened once it had a charter, that due to the parliamentary funding that such entailed, it could "become subservient to the worst rather than the best designs" (15 September 1748). In becoming beholden to the government for its charter and some of its funding, the Society could lose its ability to be an effective economic ministry working with the public for the public interest.

The Society's engagement also reached beyond Ireland. Again mimicking a government function, the Society had a secretary for foreign affairs, of which Thomas Prior was the first, to provide outreach to other countries' improving societies and to exchange knowledge with one another (Berry, 1915, 21 and Livesey, 2012). Besides the various projects outlined, the Society also established programs for the poor and those unable to work, and incentives for local solutions to unemployment. A pharmacy for the poor, the Pharmacopeia Pauperum, was established in 1767 and overseen by the chemist John Wade. The pharmacy not only supplied the poor with "pure, unadulterated medicines" but also provided medical advice and simple treatment free of charge. By 1770 the pharmacy had treated 1570 patients in Dublin and its surrounding area (*Dublin Quarterly*, 90-92). Although not offered every year, premiums in many years were offered for the city that could eliminate begging by providing employment for the indigent. Kilkenny won in 1745 for employing over a hundred former beggars (*National Review*, 797). Premiums were also regularly offered, according to the Society's reports for "discharged soldiers," "employment of the blind," and "employment of children" (*Premiums*, 1768).

How then is the Dublin Society, as a private organization, not a private association as defined by Rawls, such as churches, universities, and other groups, making decisions for the public? I argue that the Dublin Society is a different case of a private association working not only on behalf of the public, but also *with* the public. The Society's interaction with the public manifested itself in a variety of forms. Members of the Irish public were able to generate input into the projects of the Society, and therefore of their own economy, as they would have done in a politically independent situation. The Society was strongly egalitarian in its outlook that improvement was for everyone and made efforts to disseminate its knowledge to the relevant segments of the public. Because the Society viewed all citizens as participants in the economic community, it offered a sense of egalitarianism in participation and a voice to effect change that the political realm did not offer.

3.1. Public Reason and Paternalism

It is relevant to question to what extent the actions of the Society, despite its laudable activities and rhetoric of inclusion, improved upon or simply maintained attitudes of paternalism of the Anglo-Irish ruling class towards the Irish people. Did the Society merely replicate the paternalistic norms of the Anglo-Irish Parliament and centuries of English oversight of the Irish economy? Barnard (2008) for instance views the Society as another iteration of longstanding Anglo-Irish and English attempts to "civilize" the Irish under the aegis of improvement.[9] The changes that the Society promoted, he argues, were still based on the prejudiced views of earlier authors, such as William Temple, that Ireland was a backward place, the workforce was lazy, and the land unworkable due to its bogs. The Anglo-Irish landed gentry, Barnard argues, were of course interested in such a movement if it "appealed to the self-interest and altruism of the landed" (ibid., 31). It can be argued that the Society's goals of increasing employment to help laborers and the poor native Irish in general appealed to the gentry's altruism, and overall improvements to the economy benefitting their own manufacturing ventures and consumption choices appealed to their self-interest. While these things can be true, it is also true that the Society requested the input of the other classes of Ireland, rather than working as a private enterprise that could have collected their data, hired various persons for their experiments, and published personal pronouncements of their findings and therefore of what they recommended the practices of the nation should be. It is also true, as shall be discussed below, that the Society included many members of the gentry but that the majority of active members were clergy, doctors, lawyers, tradesmen, merchants, and academics (Breuninger, 2014).

As many English authors had done since Edmund Spenser in the sixteenth century, the writings of the Society discuss Ireland's backwardness. However they do so in terms of economic diagnosis and prescription, rather than identifying underdevelopment as caused by the character flaws of the native Irish. Rather than changing Irish culture or making the Irish into Englishmen, they see the solution to Ireland's economic "backwardness" in growth and development. The rhetoric of the Society focuses on the goal of working together on a joint enterprise, and it is this that sets it apart from the publications of individuals past and present who tried to "improve" Ireland. The publications of the Society and writings by its leaders do not denigrate the native Irish for their own poverty or the Irish land itself for not being productive. For instance, instead of seeing bogs as evil representations of the hidden sloth of Ireland, as Barnard (2008) says

[9] Programs to transform the Irish into Englishmen through land management, forced relocation, and cultural change had precedents in the policies of Cromwell and the writing of William Petty. A discussion of Petty's theory of Irish transmutation can be found in McCormick (2009) and of how this theory relates to the notion of Irish dependency, and was applied to Scotland in the Act of Union, is in Ramos (2018, see chapter 3). An exploration of earlier policies, such as the plantation system, to change the landscape of Ireland is in Canny (2001).

other writers did, the Society's leaders take a practical approach and study how bogs can be turned into land used for tillage. The bogs can be cleared, not to make Ireland like England as Barnard claims, but because the drained land could be used for crops that would feed the people of Ireland.

Similarly, what sets the mindset and methods of the Society apart from the Anglo-Irish parliament is the acknowledgment that the improvement of Ireland's economy requires the input, or public reason, of all the Irish, regardless of class, political, or religious affiliation. The Society's view of the Catholic majority of the population is cast in a more active and less paternalistic light in this context. Rather than ignore them or focus on their conversion to Protestantism to make them "useful" subjects, as successive governments and other improving societies had, the Society invited engagement with Catholics as contributors to the economy. Society leaders such as Francis Hutchison and Arthur Dobbs recognized that the reason for the natives' poverty lay neither in their Catholicism nor in an inborn indolence, but rather due to, "having no fixed property in their land, the want of which deprives them of a sufficient encouragement and industry" (Dobbs, 1729-31, 81 and Sneddon, 2008). Madden has prejudiced views regarding "papists" but acknowledges that there is nothing inherent in the native Irish that makes them poor and that they make up "many thousands of merchants and mechanicks" (1738, 103). Similar to Dobbs he argues that "our poor People" who are "idle for want for Employment," their "Labour would be all clear Gains to the Kingdom" if work could be generated for them (ibid., 128). As previously noted by Leersen (1986), rather than blaming the most vulnerable segment of society for their own poverty, the Society presents a new viewpoint as far as the Anglo-Irish Ascendancy was concerned in their arguments that absentee landlords, bad trade policy, and the consumption of luxury goods were the causes of the poverty of the native Irish (77-78).

The inclusivity of the Society in terms of soliciting the input from all people of Ireland, disseminating the methods of people of various confessions, ages, and backgrounds, and seeking to improve economic conditions for all the people of Ireland, besides being unique for its time and place, is an important aspect of why I characterize their work as a form of public reason. Ideally public reason should be inclusive of all in society, and as has been shown the ability to do this in the political realm was constrained. Another factor that sets the Society apart and likely contributed to its viewpoint that practical action could be taken by all members of society and that agency did not belong only to the gentry is that the majority of its members were not aristocrats. As Breuninger comments, "within two years the vast majority … were drawn from law and business, which explains the more 'practical' bent to their deliberations" (2014, 69). He shows also through data analysis that the members' interests were more diverse than those of its precursor, the Dublin Philosophical Society, reflective of the members' variety of professions and backgrounds (ibid., 70).

Unlike the earlier waves of improvers in Ireland, the Society's work was more prescriptive than paternalistic. Rather than dictating to the Irish people what they ought to do to change the economy, the group invited participation and dialogue to determine as a public what the best methods for production of various goods were and to encourage development, as seen in the larger-scale projects such as the Society's schools. The projects and publications of the Society involved sharing of information rather than an imposition of directives. That the process was facilitated mostly by the Anglo-Irish Ascendancy can be seen as a form of paternalism because they brought an Anglo sense of what improvement meant could be argued, but is also problematic because the Anglo-Irish by this period also started to view themselves as Irish rather than English. The Anglo-Irish of the Society differed in their outlook from earlier Englishmen like William Petty who sought command and control over Irish resources, and instead sought a better allocation of resources such that the quality of life for the population as a whole might improve.

The Society solicited the input of gentlemen, small farmers, scientists, and the laboring classes in multiple fields. Although the native Irish did not have the social power of Society members, their input was still received and sought through a variety of means. The members conducted their own experiments, but mostly relied upon the efforts of the people actually working in agriculture, manufacturing, and the arts for the best practices that they disseminated. More outreach could have been done of course, especially to counter the disadvantages suffered by the Catholic population. However, this also underscores that the native Irish were allowed to participate in the improvement of the country in a way that they were not allowed to participate in the polity of Ireland due to the penal laws that prevented Catholics from owning property, voting, and having other legal rights.

Due to the limits of their inclusivity, however, it is arguable whether or not the Society fully performed the function of a government engaged in public reason. Although Presbyterians could be non-voting members, Catholics were denied full membership in the Society. Barnard (2010) observes correctly that Catholics could win prizes but because they could not vote on the awarding of funds, were denied the power to decide where the funds went. One could argue that in entering competitions, individual Catholics could make this allocation, but the problem remains that institutionally the Society replicated a major fault of the government's policies of exclusion, which had implications for allocation of resources. If there were religious bias amongst those who granted the certificates for prizes, then they had a means to further disadvantage Catholics in the distribution of financial resources and knowledge promotion. Although the prizes were awarded based on empirical observation, weight, and measure for the agriculture and husbandry prizes, "official" numbers could be altered to give an entrant a false advantage. The stated ideology of the Society leadership was to encourage productivity and employment and that not allowing Catholic entrants to claim their just rewards would create further disincentives for them from work. Longstanding institutionalized prejudice already ensured the playing field between Catholic and Protestant entrants was not level because the average initial conditions of each were not equal. Indeed, the 1750 royal charter mentioned the king's support of improvements the Society made to further "civilize the natives" and make them less likely to rebel (quoted in Sonnelitter, 2016, 115). It is notable that various Society members wrote about the inequality that existed and the potential of economic activity to alleviate it, but did not seek to eliminate it in its own membership rules in the eighteenth century. While all the people of Ireland could vie for prizes and submit work for publication, it was still the Anglo-Irish leadership who determined who won the prizes and what would be published. In so doing the Society also replicated Davenant's argument that the Irish were dependent on the English, or in this case, their Anglo-Irish descendants, to lead them out of a stagnant economy.

3.2. Public Reason and Self-Sufficiency

Because the Society's engagement in public reason was based on Ireland's prosperity through economic rather than political, religious, or class-based action allowed both for it to operate more freely and to attain more public trust in its works than the parliament. Additionally because they were not bound by British oversight the Society was freer to pursue its goals and to encourage its vision. Its economic focus and invitation to all to contribute made the Society more inclusive compared to the parliament. Under the conditions of absentee landlordism and the various strictures on Catholics and Presbyterians in political life, as well as the necessity in parliament of being either Whig or Tory, public reason could not have occurred between the many sectors of the Irish public and the Irish parliament. However, the restrictions on full voting membership for Catholics, and exclusion of women from membership altogether, however, demonstrate that the Society's engagement with public reason was still bounded by the prejudices of its time.[10]

[10] Women were acknowledged in the 1760s as patronesses of Society projects, such as the Dublin silk warehouse, but not as members of the Society (Berry, 1915, 199). One notable exception is Lady Arabella Denny, a philanthropist who

However the overall goals of the Society to improve Ireland's economy provided potential improved living standards for all. The proposals and projects were homegrown, rather than imposed from abroad, and the self-generation of ideas and their exchange in the sponsored projects, programs, and publications likely lent to their attractiveness to the Irish people compared to proposals or earlier premiums offered by the government. Participation by the public in the projects and publications of the Society demonstrate how diverse parts of Irish society supported the idea reinforced in the Society's motto, *nostri plena laboris*, that Ireland's economic needs and wants could be filled by its own labor, and had the skills to put it into practice. The Society provided an outlet for Irish participation and innovation that could not occur through political means and that needed some stimulus to occur through economic means. Its work and writing demonstrated that public reason took place through economic participation when public, political participation to improve the economy was hindered. The public reasoning of the Irish people and the Dublin Society demonstrated that while external issues harmed the economy, there was a problem from within, a lack of demand for Irish products that could be solved from within. Economic success for the whole people of Ireland stemmed from the participation of the whole people of Ireland.

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helped found the Magdalen Asylum and was a patron of Dublin's Foundling Hospital (see Sonnelitter, 2016, 121-145). She publicly supported the work of the Society, and was awarded honorary membership in 1766 for promoting lacemaking to those laboring in the Dublin workhouses (Berry, 1915, 142 and Meenan and Clarke, 1981, 248-249).

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A Nationalistic Framework for Political Economy: Textbooks on Indian Economics during the Early-Twentieth Century

Sharmin Khodaiji*

The end of the nineteenth century witnessed the emergence of the idea of Indian Economics, which its proponents hoped would address the issue of the scientific method of studying the Indian economy, and help in laying out a path for economic development. Some of the best sources to study these views are textbooks written as introductions to Indian Economics during the early-twentieth century. This paper will explore the manner in which the textbooks dealt with these issues.

Keywords: Indian economics, development economics, textbooks

Un cadre nationaliste pour l'économie politique : les manuels d'économie politique indienne au début du vingtième siècle

La fin du XIXème siècle voit émerger l'idée d'une théorie économique indienne, concentrant tous les espoirs de ses promoteurs pour trouver une méthode scientifique appropriée à l'étude de l'économie indienne, et pour ouvrir la voie au développement économique. Les manuels d'introduction à l'économie politique indienne, écrits au début du XXème siècle, sont une source précieuse pour étudier ce projet théorique. Cet article se penche ainsi sur la manière dont les manuels traitent ces problématiques.

Mots-clés : économie politique indienne, économie du développement, manuels

JEL: A14, A22, A23, B15

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This paper will discuss textbooks written in English as introductions to the emerging field of Indian Economics during the early-twentieth century, aimed at providing undergraduate and graduate students with an overarching view of the contours of the Indian economy. They are important because the authors took divergent positions on the relevance of classical political economy to Indian conditions and discussed certain aspects of British economic policy like trade. These textbooks are amongst the earliest sources available where a vision for the field of Indian Economics as the scientific method of studying economics was laid out more systematically, which the paper will elaborate upon.

Most textbooks on Indian Economics referred back to a lecture titled 'Indian Political Economy,' delivered by Mahadev Govind Ranade (1842-1901), the Maharashtrian social reformer, in 1892.[1] Ranade found that the teaching and dissemination of political economy, during the nineteenth century, by colonial administrators, educators and English textbooks, was not suited to Indian historical conditions (Ranade, 1906, 2).[2] He specifically targeted English writings following David Ricardo, for their universalism, and favoured the work of Friedrich List, the German economic nationalist, and the German Historical School, borrowing from them the view that the body politic was the centre of modern thought, and not individualism and universality (ibid., 20-22). In order to be scientific, economics had to base itself on 'Relativity' and not 'Absoluteness' (ibid., 23). Ranade wanted to induct history and nationalism to the study of political economy in India.[3]

While Ranade's lecture expressed discontentment with British economic policy, he appealed for a developmental agenda based on an understanding of Indian historical particularities. This influenced economists to follow, who worked upon this notion of the scientific study of the Indian economy, exemplified by these textbooks on Indian Economics during the early-twentieth century. They were authored by a generation of scholars trained in history, political economy, philosophy, and the natural sciences in Indian universities established by the British state in 1857.[4] Notably, some of the earliest text-

[1] See Maria Bach (2018) for a detailed account of Ranade's views on progress; see John Adams (1971) for his view of Ranade as an institutional economist.

[2] Anti-colonial nationalist sentiments emerged in India during the late-nineteenth century, aided by the growth of a class of elite English-educated intellectuals, who voiced their opposition to colonial economic policy.

[3] Manu Goswami (2004) illustrates the territorialization of abstract notions of the economy by Indian economic nationalists of the late-nineteenth and early-twentieth century, who created a discourse around the composition of the national economy of colonial India.

[4] Based on university records of Calcutta University and Bombay University, their education included a familiarity with the established canon of political economy starting with Adam Smith, Ricardo, Malthus, J.S. Mill, and the margin-

books were authored by British administrators and educationists, such as Theodore Morison in 1906, who urged Indian students to not get swayed by public opinion critical of British economic policy, and offered a defense of classical political economy.[5] The Indian authors being covered in this study, while displaying diverse views, took a contrary position and questioned the applicability of classical political economy in India.[6]

The argument being made here is that the emergence of Indian Economics towards the early-twentieth century was linked to the political environment of the time and two important factors contributed to this. The first was increasing political agitation by nationalists, who were also discontented with the teaching of political economy and wanted a framework more suited to Indian developmental requirements. The second factor, also a response to the first, was the governmental imperative of having a better grasp of Indian social and economic conditions, which led to the encouragement of research in economics by the 1910s (Savur, 2011, 11-12). Pedagogy and politics were intimately connected, and academic economics became an arena of contestation between the colonial government and nationalist forces. Textbooks on Indian Economics are being treated here as a site of this political contestation.

This paper is utilizing the approach of viewing textbook-writing in tandem with the institutionalization of political economy in India, and more specifically the attempt to create an Indian Economics responsive to national interests. Textbooks are being considered as the form of representation of this process of institutionalization (Augello and Guidi, 2012, 2).[7] Section Two of the paper will provide a historical background to the textbooks on Indian Economics by flagging important educational policies in colonial India and briefly trace the development of political economy as a discipline. The following section on textbooks will elaborate on the inter-relation between politics and academic economics during the early-twentieth century by focusing on certain themes covered by textbooks on Indian Economics. A dis-

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alist school. By the 1890s, Alfred Marshall's *Principles of Economics* was introduced to the M.A. syllabus.

[5] Nationalist political mobilization increased rapidly by the early-twentieth century, including many college students, which concerned the Education Department of the government.

[6] The authors highlighted here are Jadunath Sarkar, Pramathanath Banerjea, Vaman Govind Kale, Radhakamal Mukherjee, and G.B. Jathar and S.G. Beri.

[7] The early-twentieth century witnessed the crystallization of the discipline of economics with the formation of university departments for postgraduate teaching and research on Indian Economics from 1908 onwards (Krishnamurty, 2009, xvi). Simultaneously, the *Indian Journal of Economics* was established in 1916 and the Indian Economic Association was established in 1917 for the growing community of economists to create platforms for the discussion and dissemination of Indian Economics (Krishnamurty, 2016).

tinction is made between British and Indian authors of textbooks as they advocated the task of economics as a science differently to students. The category of science was utilized by the authors to put forward their positions on the scope of Indian Economics, with an underlying political motive.[8] A sub-section on the critique of British trade policy has been included as it was an important point of public discussion and was covered extensively in the textbooks authored by Indian economists. Lastly, the text by Radhakamal Mukherjee has been discussed separately since it was a unique communitarian approach to Indian Economics, thereby setting itself apart from others.

1. The Discipline of Political Economy and Educational Policy in Colonial India

A few salient moments in the history of education would help contextualize the world of textbooks better. By 1835 Western education and English as the medium of instruction was officially adopted. The Education Despatch of 1854, commonly known as Wood's Despatch, led to the establishment of universities in Calcutta, Bombay and Madras in 1857, modelled along the lines of the University of London (Ghosh, 2000, 79). The universities were only examining bodies that conferred degrees, while teaching took place in recognized colleges, and a system of grants-in-aid was instituted, giving government funding to many schools and colleges (ibid.). Departments of Public Instruction were set up in all the provinces, headed by a Director of Public Instruction (ibid., 78). This body finalized the syllabi and list of textbooks for schools and colleges, thereby enhancing government control over education.

Political economy was a popular subject amongst students, and instruction in the subject in vernacular languages was officially adopted by 1856 (Mitra, 2016, 511). It was subsequently introduced to the college curriculum due to the popularity of vernacular textbooks and the satisfactory performance of the younger students who sat for exami-

[8] A clarification on the category of science used throughout this paper needs to be made. 'Science as legitimiser' was widely used by people of varying political hues in colonial India as the category broadly implied 'rational' and 'progressive' activities (Zachariah, 2001, 3692). It was used to counter the colonial construction of the 'backwardness' of Indian society, economy, and knowledge. Works on economic development and nation-building tended to invoke 'science' alongside. Most claims to science were not well thought out in terms of a philosophy of science, but 'science,' when used as a universal category had the ability to legitimize the colonized and their work, placing it on an equal plane with the colonizer (ibid., 3693). This could possibly explain the heavy invocation of this category in textbooks on Indian Economics.

nations (ibid.).[9] Jane Marcet's *Conversations on Political Economy,* J.S. Mill's *Principles of Political Economy,* Richard Whately's *Easy Lessons on Money Matters*, Millicent Fawcett and others were translated to a few languages.[10] However, the officials of the Education Department also believed that Indians lacked the scientific temperament required for the comprehension of principles of political economy, the misinterpretation of which would lead to political discontentment (Education Branch, West Bengal State Archives, 1899). Therefore syllabi and textbooks in subjects like history and political economy were closely monitored by the Education Department.

From the mid-nineteenth century, textbooks became central to pedagogy in the vernacular and anglo-vernacular government aided institutions. Increased bureaucratic control of education, which promoted the cultural values and economic interests of the colonial state, created a centralized and impersonal system of examinations which required the standardization of education across a region. Students at the university level studied European political economists, reading texts abstracted from their own conditions. The syllabi and texts were alien to the context and experiences of students, leading to a 'textbook culture' in schools and colleges, based on the memorization of prescribed textbooks (Kumar, 1988, 454). This problem persists till date, with prescribed economics textbooks being unrelated to the experiential referents of students (De and Thomas, 2018). The lack of original textbook-writing in colonial India has been attributed to an 'imperial symbiosis' in the university system, whereby the syllabus at the University of London was followed in the wider empire (Tribe, 2012, 44). The discontentment expressed by Ranade can be attributed to these features of the education system during the nineteenth century.

George Curzon, the Viceroy and Governor-General from 1899 to 1905, believed that the growing nationalism was directly linked to the liberal education of Indians, which needed curtailment (Basu, 1974, 9). He therefore enacted the Indian Universities' Act of 1904, which allowed for a university department to directly teach and engage in research for the first time, but also increased the hold of government officials over colleges and the governing bodies of universities (Habib, 2017, 57). It was viewed as a measure to contain political agi-

[9] Low rates of literacy in India during the nineteenth and early-twentieth centuries meant that, numerically, a 'mass reading public' would refer to some thousands of readers and not tens of thousands (Stark, 2008, 17).

[10] Iman Mitra (2016) discusses three Bengali textbooks based on Richard Whately's primer for children during the nineteenth century, examining the modality of translation and linguistic exchange necessitated between different social contexts; Veena Naregal (2018, 204) briefly mentions four Marathi translations of J.S. Mill during the mid-nineteenth century, in her work on translations in the Indian social sciences; Neeraj Hatekar (2003) covers the same Marathi translations as Naregal (2018), but considers their economic thought as being constrained by colonial dominance.

tation on the part of students and teachers, leading to protests from several quarters against the perceived government interference in academic life (ibid.). As the government's role in higher education went up, the officials of the Education Department felt that a better understanding of Indian economic, political and social conditions was required, out of which emerged an emphasis on research to be carried out in Indian universities (Education Department, Maharashtra State Archives, 1914; Savur, 2011). Teaching departments were established at the university level, starting with the first Department of Political Economy and Political Philosophy at Calcutta University in 1908. Manohar Lal, a former student of Alfred Marshall, was appointed the first Minto Professor of Economics at Calcutta in 1909. His job was to lecture and encourage research on topics in Indian Economics (Education Branch, West Bengal State Archives, 1913).[11]

This context of politics and pedagogy laid the ground for the writing of textbooks on Indian Economics. By 1906, when the first recorded textbook was published, a decade and a half had passed since Ranade spoke of an Indian political economy and the nationalist movement had gained further ground. Once courses on Indian Economics were introduced in universities around this time, textbooks on the subject were required for students.

2. Textbooks on Indian Economics

Courses on the Indian economy were introduced towards the beginning of the twentieth century, throwing up a demand for adequate textbooks. The books are classified as textbooks since they explicitly targeted students, and certain books such as Vaman Govind Kale's *Introduction to Indian Economics* (1917), addressed general readers as a secondary audience. These texts charted new terrain by defining the composites of the national economy. They served a dual function, the first of which was to serve as reading materials for examination-based courses. The books were organized in a manner similar to that of standard textbooks written for pedagogical purposes, but comprised of an introductory chapter or preface dealing with the applicability of classical political economy to India, the answer to which varied amongst authors. The remaining chapters detailed the overall geography of the national economy of India, and covered different concepts such as production, consumption, exchange, currency, commerce, banking, capital, the cooperative movement etc. They were more descriptive than analytical in nature (Datta, 1978, 21). The second purpose of these texts was political in nature, encouraging their

[11] The Minto Professorship was instituted after Lord Minto, who became the Viceroy and Governor General of India in 1905. The Minto Professorship was supported by a grant from the government.

readers to adopt a specific interpretation of classical political economy, which in their view was scientific. Some of the earliest textbooks were written by British educationists and administrators, which will be discussed first. They critiqued the teaching of classical political economy in Indian universities, but ultimately upheld the canon of political economy. In contrast, Indian nationalist economists were critical of the established canon and asserted that economics had to be based on history and nationalism, with the exception of Jadunath Sarkar, who occupied a more unique position between these strands. The textbooks and authors have been demarcated on the basis of their varied objectives in writing these texts and their view on the scientific study of the Indian economy which students should adopt.

Nineteen books were written in English between 1906 and 1930, identifiable through library and archive catalogues in India and Britain. All the authors were either college lecturers or university professors. The textbooks of the most prominent scholars, who were also public figures, have been selected for this paper. Theodore Morison and William Harrison Moreland have been selected since their textbooks were part of university reading lists, while J.R. Cornah's book was selected for its explicit position on the task of economics as a science. The Indian authors were important figures in educational institutions, being instrumental to the creation of departments of economics, and contributed significantly to upcoming journals and associations of economists. The following sections will explore how these textbooks were defining political economy as a science in the colony and the manner of its recasting as the result of nationalist critique.

2.1. Defense of Classical Political Economy

The earliest textbook on Indian Economics on record was Theodore Morison's *The Industrial Organization of an Indian Province*, published in 1906. Morison was the former Principal of the Mohammedan Anglo-Oriental College at Aligarh (now known as Aligarh Muslim University). The text was based upon information gathered from the United Provinces of British India. Morison found that there were many official studies available on particular economic problems in India but none that were suitable for students, and there was no existing study of industry in India written from the point of view of the economist (Morison, 1906, vi).

This text represented the concern of British officials to assuage the claims of economic nationalists that the doctrines of political economy adopted by the administration were not in tune with the reality of the country. Morison felt that Indian students were taught economics far too abstract for their comprehension because the 'industrial facts' provided by English texts were drawn from Europe. His stated objective was to 'review the principal facts in the society,' which students could connect with, and to build the relation between those 'facts to the abstract economics' which they had previously studied (ibid., v). Since no textbooks on Indian economics were recognized by the Education Department during the early 1900s, texts had to be written by collecting material from government publications, which Morison relied upon.

Morison addressed nationalist critiques of classical political economy by stating that the part of 'economic science' considered universally applicable only comprised of a few concepts. The majority of economic doctrines were not universal in nature, but only statements on general principles which may be applicable in specific conditions. The most prominent economic theories which influenced public opinion were those based on industrial organization in Europe and America (ibid., 1).

Contrary to the conventional position of the colonial administration, Morison acknowledged that any study of Indian economic conditions was 'not the type tacitly assumed in most books upon abstract economics' (ibid., 2). This stance on the limitations of classical economic theory to empirical conditions in India, was indicative of the larger shift within British educational policy.[12] Morison almost suggested a relativistic view of political economy by stating it should aim at the creation of 'an independent body of economic doctrines which could be logically deduced from the observed facts of Indian society' (ibid.). However, it was not realizable since the materials at hand for such a study were insufficient (ibid.).

An often-quoted textbook prescribed to university students was *An Introduction to Economics for Indian Students* by William Harrison Moreland, published in 1913 and reprinted for the sixth time by 1923. Moreland was the Director of Land Records and Agriculture in the United Provinces for many years. He wrote two handbooks on agriculture and revenue administration in the United Provinces, and later worked on Mughal history (Case, 1965). *An Introduction to Economics* was not a textbook on Indian Economics but a book on general economics. Its uniqueness lay in the explicit reference to Indian society and history to illustrate general concepts, by incorporating examples based on familiarity and experience, which differentiated it from previous textbooks.

Similar to Morison, Moreland highlighted the historically contingent nature of economic laws to students. However, Moreland went further by trying to remove the sense of universality, rigidity and prescriptiveness associated with a term such as 'law' while upholding the position of economics as a science, defining science as the knowledge of a subject which could be expressed in terms of laws or

[12] Morison had stated in another work of his, *Imperial Rule in India* (1899), that Indian students were not inherently 'disloyal'. They were capable of 'correct reasoning' only if 'facts and arguments' were placed before them, which textbooks at the time were not providing (Alston, 1910, 152).

generalizations: 'in science there is no idea of telling people what to do. In science a Law is simply a statement that *something is likely to happen in certain conditions* … we are referring to the conclusions that have been drawn from experience as to what is likely to happen when certain conditions exist' (ibid., 5). Laws were conclusions drawn from experience and observation, and were not to be mistaken for commands, with people being free to accumulate and spend their wealth in any manner they pleased. The economic law was contrasted with laws in the natural sciences, where the former could be conclusively arrived at through observation, while the latter could also avail of the method of controlled experimentation (ibid., 6). Moreland identified this as the cause behind the divergent interpretations of economic phenomena, as changes in economic conditions could not be controlled but only observed. He used this point to caution Indian students against reports in the press as they 'may attribute a result to a cause which, in fact, has had little or nothing to do with it, just because they have overlooked the true cause or causes' (ibid., 7). He instead urged students of economics to focus on the acquisition of 'facts on which the laws are founded,' based on an extensive study of economic history and statistics (ibid.).

A lesser known textbook was J.R. Cornah's *Simple Economics for Indian Schools and Colleges* (1912).[13] Cornah had studied at Pembroke College, Cambridge, and was the former Vice-Principal of the Mohammedan Anglo-Oriental College at Aligarh. At the time of writing *Simple Economics,* he was the Assistant Principal at Aitchison Chiefs' College, Lahore. Cornah openly expressed his concern that the results of teaching economics in India from a Western standpoint were 'mischievous' (Cornah, 1912, v). He hoped to address the 'misrepresentation and prejudice' that had built up and 'train the mind of young India towards sound judgement and fair inquiry' (ibid.). Cornah was attempting to steer students away from an association of political economy with normativity by not paying heed to the 'moral view … which one may feel is the truly right and just view of what *should* be the aim and scope of the Economist' (ibid., 1). The notion of economics as an amoral, positivist science was harnessed to 'take facts as they really *are*, and to leave the question of what they *should* be to teachers of social reform' (ibid.). However Cornah did not consign economics to value neutrality and ahistoricism. In discussing two different approaches to the discipline, he first quoted J.S. Mill to pitch economics as a 'pure science,' concerned only with the relation between cause and effect. For the second approach, Cairnes' views on imbibing social institutions and custom were put forth, termed as economics' attempt to fashion itself as an 'art,' or that which spoke of desirable

[13] Cornah referred to Francis Walker's *Political Economy* to provide the student with an introduction to wealth, production, consumption, and distribution; and Theodore Morison (1906).

ends. The objective was to combine the two approaches by which the laws governing production, exchange, distribution, and consumption of wealth would be arrived at in a scientific manner, in the first place, only after which this foundation would be used to build an economics committed towards social purposes (ibid., 6). The student was instructed to prioritize the scientific or dispassionate reading of economics, or 'to apply the Science to build up the Art' (ibid.).

The period under consideration was during the aftermath of widespread protests in 1905, when the government announced the partition of Bengal. Students participated in these protests in large numbers which saw a campaign for *swadeshi*[14] and the boycott of British manufactured goods (Habib, 2017, 59). Alternative educational institutions, like the Technical College at Jadavpur, Calcutta, was established in 1907 in response to events in Bengal, maintaining itself through private contributions (ibid.). In retaliation against the Indian Universities' Act of 1904, the National Education Movement was initiated in Bengal in 1905, which aimed to establish educational institutions more suited to national requirements (Mukherjee and Mukherjee, 1957). The following set of textbooks by Indian economists should be considered as flowing from this tumultuous period in Indian politics.

2.2. The Critics of Classical Political Economy

Ranade gave an impetus to the scientific study of the Indian economy, resulting in a number of textbooks by authors who were the first generation of academic economists in India, having studied in Indian universities and a few studying abroad at London, Cambridge, and Germany. The number of reprints and revised editions of these textbooks suggests that they were being widely read by the student community.

The earliest textbook was by Jadunath Sarkar (1870-1958), titled *Economics of British India* (1909), and by 1917 the fourth edition of the book was printed. Sarkar is better known for his contributions to history as an academic discipline in India. His prominent works are several volumes on the last major Mughal ruler, Aurangzeb, and the seventeenth-century Maratha ruler, Shivaji.[15] Sarkar was knighted in 1929 and was the first Indian historian to become an honorary member of the American Historical Association. Sarkar's text differed in one crucial manner from the rest of the textbooks by Indian economists. While others tried defining Indian Economics or addressed the

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[14] The *swadeshi* movement emerged towards the end of the nineteenth century for the promotion of indigeneous manufactures.
[15] See Dipesh Chakravarty's *The Calling of History: Sir Jadunath Sarkar and His Empire of Truth* (2015) for a detailed analysis of Sarkar's place in the tradition of historiography in India.

question of the applicability of classical political economy to India, this issue remained untouched by Sarkar. Other Indian authors acknowledged Ranade for his contribution to Indian Economics, but Sarkar did not mention Ranade in this regard.

The textbook was an exposition of Indian economic affairs, stating the 'advantages' and 'disadvantages' of British rule. Sarkar was not an avowed critic of Empire and favoured some of its effects on Indian social structures and values. In his chapter on 'The State,' Sarkar considered the 'modernisation' of the Indian economy as beneficial, since it brought India out of isolation and within the circuit of global commerce (Sarkar, 1917, 113). The British had introduced competition in the economic sphere, by rewarding 'merit' and creating 'opportunities' not possible in medieval India. The 'collectivism' of Indian society regulated and restricted individual economic activity, but it was being replaced by 'individualism,' which would be socially destructive at first, but would eventually become the 'root of invention' (ibid., 115). Sarkar believed that the British had 'placed Science at the service of man' by not leaving room for old customs and conventions. The advancement of science would usher in a social and economic reconstruction (ibid.). This contrasted the views of Sarkar's contemporary, Radhakamal Mukherjee, who felt that modern exchange relations had disrupted the indigenous village-based economy and social structure (Mukherjee, 1916). However Sarkar's endorsement of the modernization of Indian economic life was not absolute. He quoted J.S. Mill and List to support the protection of infant industries in India (Sarkar, 1917, 318-321). Being amongst the earliest textbooks on economics in India, Sarkar's text was initially proposed for inclusion in the list of books for students of Bombay University in 1912. Its inclusion was supported by some members of the Board of Studies for History and Economics in 1912, but due to unknown reasons it was cut from the final list. Theodore Morison, who had left India by that time, also supported its inclusion (Education Department, Maharashtra State Archives, 1913).

The second textbook on Indian Economics written by a prominent economist was *A Study of Indian Economics* by Pramathanath Banerjea (1879-1960), published in 1911. Banerjea completed his M.A. from Calcutta University and D.Sc. (Econ.) from the London School of Economics in 1916, writing a thesis on public administration in ancient India under the supervision of H.B. Lees-Smith, who was interested in the project of Indian Economics (Lees-Smith, 1909).[16] Banerjea was appointed the Minto Professor of Economics at Calcutta University in 1919, and was amongst the founders of the Indian Statistical Institute

[16] Lees-Smith visited India to draft a report on the state of the study of Indian economics. He mentioned that that there was neither 'perpetualism nor cosmopolitanism' in the larger discipline and that a proper textbook on Indian Economics for students was required (Lees-Smith, 1909, 20-22).

in 1931, being closely associated with the statistician, P.C. Mahalanobis. In the preface to the first edition of the textbook, Banerjea wrote that it was from the point of view of a 'scientific inquirer,' implying an absence of political bias (Banerjea, 1927, vii).[17] Indian economists upheld the project of national political economy as a science, defending it against accusations of prejudice and misinterpretation, in order to gain legitimacy for the scheme of building an Indian Economics.

Indian and British authors diverged on the question of the applicability of classical political economy to India. Morison, Moreland and Cornah stated that classical economists did not intend for economic laws to be universal, while the Indian critics believed there was an assumption of the universal validity of economic doctrines akin to laws in the physical sciences, with the exception of a few classical economists. This divergence signalled the contentious relationship between political economy and the colony. Following Adam Smith, political economy consolidated itself as a body of knowledge during the nineteenth century. However, in its filtration down to the public, students, and its role in framing economic policy, the corpus of ideas coalesced around a few principles considered to be universal, ignoring the nuanced views of Smith and later political economists (Ambirajan, 1978, 26). For instance, state intervention in the economy is not altogether absent in theory, but in practice the laissez-faire doctrine was considered the foundation of British economic policy in India, and was received as such by students of political economy and civil servants during the nineteenth century (ibid.). Emergent economic nationalism during the late-nineteenth century opposed the British policy of one-way free trade and demanded the protection of Indian industries, attacking the tariff policy on cotton and sugar (Chandra, 1966), or the economic drain becoming a focal point of nationalist discourse. The Indian nationalist intelligentsia was responding to this sense of the universality of political economy, and were less liable to acknowledge the qualifications built in by theorists, as opposed to British administrators and educationists.

In opposition to this perceived universality of the principles of political economy, Vaman Govind Kale (1876-1946) worked on the incorporation of history into Indian Economics. Kale graduated from Fergusson College in Pune and was Professor of History and Economics for many years at the college. Kale was Ranade's reader and writer for a short while and was influenced by his political work. He was a member of the Indian Council of States from 1921 to 1923, and served on the first Indian Tariff Board from 1923 to 1925 (Krishnamurty, 2009, 1). He founded the Historical and Economic Association at Fergusson College in 1916, creating a platform for students to pre-

[17] Banerjea's textbook was reprinted several times. The first edition was reprinted once in 1912. The second edition of the book, published in 1915, was reprinted eight times until 1926.

sent papers on various issues (Karve, 1941). Kale's most prominent work was his textbook, *An Introduction to the Study of Indian Economics*, published in 1917.[18] Multiple editions of the book were published within the span of a few years, making it one of the most popular textbooks on Indian Economics.[19] Bhabatosh Datta (1978) mentioned that while Banerjea's textbook was widely considered, it was not analytical in nature. Students found Kale's textbook more up to date (Datta, 1978, 21).[20]

Kale argued for a 'scientific investigation' of the 'peculiar' conditions in colonial India. In contrast to Moreland and Cornah, Kale set out the task of economics in India for the student and general reader, very differently:

> Indian Economics … is not an independent science, because it does not seek to discover new laws which were not known to earlier thinkers. We have indeed to observe things as they are, describe the economic activities of the different classes of the population and to study the different economic phenomena like high prices, low wages, expanding trade and increasing rents, and have to point out the relation of cause and effect. But we have also to indicate how improvement may be effected by individual and collective action, and how evils may be prevented and remedied. It thus suggests an application of economic laws to Indian conditions and partakes more of the nature of the art of Economics or of a *normative science*. It is, besides, national in this sense that it deals with the peculiar conditions of India and has in view the special requirements of the *material advancement* of its people. [*emphasis added*] (Kale, 1920, 9)

These assertions by economists in textbooks and other forums such as the conferences of the Indian Economic Association, has led existing literature to classify the economists of the early-twentieth century as the early development economists of India (Krishnamurty, 2009; Krishnamurty and Kale, 2009; Omkarnath, 2016). By setting the task of Indian Economics as the 'material advancement' of people, it was labelled as a normative science by Indian economists, thus distinguishing themselves from the British authors. Since Indian Economics did not aspire to be an autonomous discipline but set the pragmatic goal of creating a national developmental agenda, it 'located its standpoint of critique within and against the structural and experiential contradictions of colonial state space' (Goswami, 2004, 235).

[18] Kale co-authored a Marathi textbook in 1929, titled *Bharatiya Arthashastra*, based on *An Introduction to the Study of Indian Economics*. He also published a textbook, *Indian Administration* (1913), intended for Bombay University students.
[19] 1100 copies of the first edition were printed in 1917 (Catalogue of Books Printed in the Bombay Presidency, 1918), which was a significant number at the time for a book in english. This information was catalogued because it was printed by an Indian publishing house, Aryabhushan Press.
[20] Datta cited the edition of *An Introduction to the Study of Indian Economics* published in 1925. This paper is referring to the third edition published in 1920.

Kale advocated the historical method for economics, believing that any meaningful study of contemporary economic conditions mandated an inquiry into the evolution of 'practices and institutions' through its historical stages in India, starting from antiquity. Responding to the view that Indian spirituality and culture were responsible for its passivity and lack of economic growth, Kale devoted a chapter to provide 'evidence from history' that prominent social institutions such as religion had not hampered prosperity in India (Kale, 1920; Krishnamurty and Kale, 2009). He drew a comparison with Europe to show the dominance of churches in social and economic life. The reasons for India's lack of economic development lay not in its culture, but in extraneous factors which arrested its progress. Kale, like many contemporary Indian economists, was not willing to give up on tradition in the hope of modern economic advancement (Kale, 1920, 40). Yet, Kale's views in the debate on tradition versus modernity in India were more complex since he believed that spirituality and material prosperity could coexist. He did not accept the colonial construction of the 'spiritualism' of India, which distinguished him from many contemporary Bengali *swadeshi* nationalists, who embraced the orientalist reading of India (Goswami, 2004, 236). Kale defended Ranade against the interpretation that Western economic theory had no role to play in the 'economic progress' of India. In his estimation, Ranade pitched different schools of Western theory against each other, to guide economists to follow, who had to repeat the process to find the most suitable model for the Indian economy (Krishnamurty and Kale, 2009, 303).

The books discussed thus far were not in-depth analytical studies or research based publications. According to Datta these texts only served the purpose of drawing the attention of readers to major facts of India's economy (Datta, 1978, 22). Consequently, Datta claimed that 'a new stage in the world of textbooks was reached' with the publication of the first edition of the two-volume, *Indian Economics: A Comprehensive and Critical Survey*, in 1928, by G.B. Jathar and S.G. Beri. For two decades following its publication, Jathar and Beri's textbook was the predominant text on Indian Economics (ibid.). Its popularity can be gauged from the fact that the seventh revised edition of the book was printed by 1942, within a span of fourteen years. The authors claimed not to have a 'viewpoint,' and every chapter began with a historical analysis where 'different viewpoints of the crucial issues were presented objectively' (ibid., 22). Jathar and Beri wrote on agriculture in the first volume and the second volume focused on various aspects of industry, finance and exchange in India, treating these subjects in much greater detail than previous textbooks. They belonged to a generation of economists trained in economics at Cambridge University, and their interpretation of economics was influenced by the Marshallian exegesis. Nonetheless, their essential understanding of the scope and meaning of Indian Economics did not differ from the authors discussed before. They argued in favour of the unity of economics as a science, based on the assumption that basic human nature held true everywhere, and so the fundamentals of economics held good (Jathar and Beri, 1937, 3). However Indian Economics could be considered as a separate subject of study where the economic conditions of the country needed to be studied in detail (ibid.).

In the preface to the first edition of the textbook, Jathar and Beri claimed 'absolute impartiality and moderation' and that their aim was 'to be accurate rather than exciting, useful rather than polemical' (ibid., vi). However, in contrast to Datta's opinion of this textbook, Jathar and Beri positioned themselves in favour of protection for Indian industries. The objectivity that Datta referred to perhaps stemmed from the style and syntax of the textbook, which was closer to what is today accepted as an academic text.

As mentioned earlier, these textbooks fulfilled both pedagogical and political functions. The impact of the policy of free trade on the Indian economy was a major issue in political discourse at the time. One of the major points of focus in these textbooks, which was addressed to students, was a critique of the trade policy of the British state.

2.3. Free Trade and Protection: The Nationalist Critique of British Economic Policy in Textbooks

The nationalist economic critique of colonialism coalesced around a few crucial issues: free trade and protectionism; an economic policy of laissez-faire or a state that developed the 'productive powers' of the nation, with reference to List; the industrialization of India and its confinement as an agrarian economy that produced raw materials in the global division of labour; a debate on deindustrialization and the immiserization of the peasantry; land revenue policies; and the question of whether British investments in India were beneficial or did they imply an economic drain (see Chandra, 1966; Ganguli, 1977). In principle, many Indian economists had no objection to the idea of free trade, provided that economic conditions were advanced enough to no longer require the protection of industries. On the issue of protection, the opinion in India was not uniform, with support and opposition for tariff protection. Some economists, such as Gyanchand, proposed tariff protection as a policy of last resort after providing state assistance, cheap capital, communications, and subsidies to promote industrial activity (Krishnamurty and Kale, 2009, 310). Ranade promoted the idea of state assistance to industry in the absence of any prospects for tariff autonomy (ibid.), with tariff protection for industry in India only being enforced a few decades later. Pramathanath Banerjea positioned himself against the free trade doctrine in his textbook, terming the trade relations with Britain a 'drain' upon the resources of India (Banerjea, 1927, 180).

Kale found it important to introduce the student to the debate on free trade, in a chapter titled 'Commercial Policy,' which opened with the salvo that trade had to be regulated if it was to benefit the nation (Kale, 1920, 218). Kale argued for protection by referencing contemporary international relations to support his ideas on national interest and patriotism. He drew an analogy with the 'pacifist,' represented by the creation of the League of Nations and the drafting of Woodrow Wilson's Fourteen Points for international peace. The cosmopolitan ideals of international cooperation and harmony, which also rested on free trade, were stated to be desirable but could not ignore the existence of nationalist sentiment (Kale, 1920, 225). In support of the protectionist lobby, Kale argued that if nations were left free to develop their resources in their own capacities, the international community would be better off as it would comprise of 'a commonwealth of fully developed peoples' (ibid.).

Ranade and Kale were reformists who attempted a historical and institutional analysis of Indian society and economy. Their understanding was that if India wanted to be a member of the global capitalistic community, it was necessary to replace caste and status with contractual relations as the principle of economic organization (Ranade, 1906). While the application of the tenets of classical political economy—its reduction to laissez-faire as economic policy—was the object of criticism, there were some economists who saw it as an ideal, provided the nation had the same advantages and historical conditions from where the principles of political economy emanated. There was no agenda for the structural transformation of national and global society but to bring the nation on a level playing field with industrially developed nations, which also entailed a degree of social reform within the nation. However, in this debate on the influence of colonial social and economic policy on the socio-economic fabric of India, the work of Radhakamal Mukherjee has to be included, as he provided a divergent approach to the matter. Amongst the set of prominent authors of textbooks on Indian Economics, Mukherjee gave a communitarian view on the subject.

2.4. The Communitarian Approach to Economics

The work of Radhakamal Mukherjee (1889-1968) requires separate consideration from the texts and authors discussed thus far. Mukherjee completed his education at Presidency College, Calcutta, later becoming the first Chair of Sociology at the Department of Economics and Sociology at Lucknow University in 1921. He was deeply influenced by his teacher, Patrick Geddes, the urban planner and a critic of Empire (Madan, 2011, 21).[21]

Mukherjee wrote *The Foundations of Indian Economics* in 1916, with an introduction by Geddes. Geddes stated that the purpose of the text was to draw attention back to village society, which had lost its self-sufficiency as a result of Western notions of progress, based on industrialization and urbanization. Mukherjee emphasized on the communitarianism of Indian social life and that the essence of the nation was found in its villages. His views were part of a body of economic thought during the late-nineteenth and early-twentieth century called the Bengal school, which rose to eminence during the period of anti-colonial *swadeshi* politics, concerning itself with issues such as the restructuring of the land revenue system, agrarian relations, rural indebtedness, and the revitalization of indigenous institutions and practices (Goswami, 2004, 236). Radhakamal Mukherjee's brother, Radhakumud Mukherjee, was closely associated with the efforts of the National Education Movement, initiated in Bengal in 1905 (Mukherjee and Mukherjee, 1957).

Mukherjee believed there was a 'relativity of economic life and institutions,' and 'theories,' 'practices' and 'economic systems and methods,' which had not been successful in the West, were imposed on India. Instead a proper study of 'the regulative social and ethical ideals of India' was required, and the adaptation of 'economic institutions' to it (Mukherjee, 1916, xix). According to him the 'historico-comparative method,' taken from sociology needed to be applied to economics, thereby widening the ambit of the 'science of pure economics' (ibid., xx).

The method adopted by Mukherjee in *Foundations of Indian Economics* was the inductive study of cottage and village industries, and the examination of 'socio-economic data drawn from caste and the joint family as well as the economico-religious ideas and institutions … and special features of Indian consumption' (ibid.). The main source of information was his field research of these industries and their systems of trade, credit and transport. Mukherjee wrote of the laboriousness of his research, moving from village to village collecting data from artisans and traders, making them overcome their 'fears and suspicions' of him. The researcher's place in the field was important as 'the real sources of information are accessible only to sympathy and fellowship with simple labour and life, in its distress and sufferings, its aims and aspirations' (ibid., xx-xxii). He estab-

[21] Geddes was appointed the first Professor of Sociology when the School of Economics and Sociology was established in Bombay University in 1919. For a more detailed history of the discipline of sociology in India, and its relation to the pedagogical imperatives of the colonial state, see Sujata Patel (2011) and Manorama Savur (2011).

lished a cooperative credit society in Murshidabad district for agriculturalists and traders in the countryside (ibid., xxii).

Mukherjee's edifice for the construction of Indian Economics differed from other texts. He acknowledged Ranade's contribution to the growth of Indian Economics but utilized methods from the emergent field of economic sociology, using Ernst Engels' method to collect statistics on consumption (ibid., xxii). Mukherjee also drew on the observations of Werner Sombart, the German historical economist, and quoted selections from Marshall's *Principles of Economics,* to create an argument in favour of workshop- and home-based industries, and cottage industries, instead of large enterprises as the basis of industrial and agricultural organization (ibid., 356-376; Goswami, 2004, 237). For a few industries, such as mining, iron works, steamers and shipbuilding, not in competition with cottage industries, Mukherjee supported large-scale production to take advantage of the economies of scale (Mukherjee, 1916, 344). A sound policy of development entailed space for both small and large industries (ibid., xxi). He supported a cooperative system for cottage industries to facilitate access to credit through cooperative societies. Development entailed a revitalization of the village for Mukherjee, who believed in diminishing the increasing divorce between the urban and the rural, manifested through the exploitation of the countryside by the city. He put forward two social institutions as fundamental to the organization of economic life in India: *caste*, which was the social ideal and took the shape of a community for artisans; and the *joint family system* as the basic unit of economic organization, in opposition to individualism, considered a product of Western civilization.

Mukherjee's ideas based on rural economic development were challenged by his contemporaries, such as Brij Narain, who dismissed the notion of a civilizational difference between India and the West based on spirituality (Krishnamurty and Kale, 2009, 302). Although Mukherjee's analysis explained the 'historical production of forms of unevenness on multiple scales'—urban versus rural, metropole versus colony—he sought to revive the autonomous village economy built on the social hierarchies of caste, making his ideas deeply problematic (Goswami, 2004, 239). Mukherjee's communitarianism offered a different conception of the priorities of economic organization and economic development from the authors discussed previously, indicating the heterogeneity amongst nationalist economists.

3. Conclusion

A study of textbooks on Indian Economics has made apparent the close relationship between pedagogical political economy and the evolving political forces during the early-twentieth century. Public discourses that were critical of British economic policy and were envisioning an economic future for India (Ranade for example), made their mark on academic economics. Even though nationalist critiques of classical political economy overlooked subtleties in the body of economic thought, the challenge was serious enough that textbooks prescribed at the university level, like those by Morison and Moreland, had to clarify the task of economics as a science in India. The British authors were compelled to defend classical political economy and its place in India, while Indian economists used these textbooks to advocate for a national developmental agenda, invoking the category of economics as a 'science' to try and further historical analysis in Indian Economics. Through the textbooks authored by Kale and Mukherjee, we get a sense of the different methods that Indian economists were borrowing and looking to apply in India. Kale's was a modernist vision based on the Listian developmental framework, looking to develop Indian Economics by focusing on Indian historical particularities. Mukherjee, in contrast, gave an institutional analysis of Indian social and economic life, building his developmental framework on the indigenous village economy.

These textbooks represent an important phase in economics in India, both chronologically and intellectually, as they set the stage for the later, more far-reaching work on development. Indian Economics, as presented in these books, was a forerunner to the debates on development and planning that took place in India from the 1930s onwards, culminating in the consolidation of the post-colonial Nehruvian developmental state.

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The Economic Advisory Staff and State-Building in Israel, 1953-1955

Daniel Schiffman* and Eli Goldstein**

This paper documents the activities and influence of the Economic Advisory Staff (EAS), a group of US economists that advised the Government of Israel (GOI) between May 1953 and July 1955. The EAS' senior members were Oscar Gass (Director), Bernard Bell (Deputy Director), Bertram Gross, Abba Lerner, Marion Clawson and Arye Gaathon.

We evaluate the EAS' influence using the conceptual framework of learning and signaling. The EAS promoted learning by producing 120 memoranda on a broad range of topics, more than paying for itself through project evaluation, and developing good relationships with four GOI ministries. However, several factors impaired learning and signaling, thus preventing the EAS from actualizing its full potential.

The following factors impaired learning: GOI policymakers disparaged advisors while boasting of their own expertise; the GOI had multiple foreign and domestic advisors who often disagreed with the EAS; and there was no problem-solving intermediary between the GOI and the EAS.

The following factors impaired signaling: The GOI recruited a Democratic/New Deal-oriented EAS, just as the Eisenhower Administration (EA) was taking office; the EAS failed to produce a long-term plan, as demanded by the GOI and the Eisenhower Administration; the Eisenhower Administration showed complete indifference towards the EAS; when Israel's short-term debt situation improved, the Eisenhower Administration reduced Israel's aid for fiscal year 1955, thus creating perverse incentives for the GOI; and the Eisenhower Administration completely lost interest in Israeli economic policy, beginning in August 1954.

The EAS' recommendations were broadly consistent with the Washington Consensus, but with some significant exceptions (e.g. the EAS' support for export subsidies). Despite the EAS' efforts to persuade policymakers and the public, the GOI rejected most of the EAS' recommendations in the money doctoring fields, industry, agriculture/irrigation and antitrust (project evaluation was the only exception). This was almost inevitable, because the EAS and the GOI had divergent policy goals: The EAS priori-

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tized allocative efficiency and cost control, while the GOI prioritized state-building—national security, regional development and full employment.

Our findings support the view that the Eisenhower Administration failed to promote economic reform abroad via conditionality, because of its general policy of cutting foreign aid, and its prioritization of strategic considerations over economic considerations.

Keywords: economic policy advice, development, planning, Israel, learning and signaling

L’ « Economic Advisory Staff » et la construction de l’Etat en Israël, 1953-1955

Cet article documente les activités et l’influence du « Economic Advisory Staff » (EAS), un groupe d’économistes états-uniens qui conseilla le gouvernement d’Israël (GOI) de mai 1953 à juillet 1955. Les membres le plus en vue de l’EAS étaient Oscar Gass (directeur), Bernard Bell (vice-directeur), Bertram Gross, Abba Lerner, Marion Clawson et Arye Gaathon.

Nous évaluons l’influence de l’EAS via une grille conceptuelle basée sur les notions d’apprentissage et de production de signal. L’EAS promut l’apprentissage, via la production de 120 memoranda sur une vaste gamme de sujets, plutôt que de s’engager lui-même dans l’évaluation de projet, et via le développement de bonnes relations avec quatre ministres du GOI. Cependant, différents facteurs faisaient obstacle à l’apprentissage et à la production de signal, en empêchant ainsi l’EAS d’atteindre son plein potentiel d’influence.

Les facteurs suivants faisaient obstacle à l’apprentissage : les décideurs du GOI dévalorisaient les conseillers de façon générale, tout en ayant une haute estime de leur propre capacité d’expertise ; le GOI disposait de divers conseillers nationaux et étrangers qui étaient souvent en désaccord avec l’EAS ; il n’y avait pas d’organisme intermédiaire qui puisse construire une médiation entre le GOI et l’EAS.

Les facteurs suivants faisaient obstacle à la production de signal : le GOI recruta dans l’EAS des Démocrates ou des soutiens du New Deal, au moment même où l’administration Eisenhower (EA) prenait ses fonctions ; l’EAS échoua dans la production d’un plan de long terme, comme le lui demandaient le GOI et l’administration Eisenhower ; cette dernière se montra complètement indifférente vis-à-vis de l’EAS ; lorsque la situation d’Israël sur le front de la dette de court-terme s’améliora, l’administration Eisenhower réduisit l’aide à Israël pour l’année fiscale 1955, en créant ainsi des incitations négatives pour le GOI ; enfin, l’administration Eisenhower perdit, à partir d’août 1954, tout intérêt pour la politique économique en Israël.

Les recommandations de politique économique de l’EAS étaient globalement cohérentes avec le Consensus de Washington, tout en comportant de exceptions significatives (par exemple le soutien de l’EAS à des mesures de subvention aux exportations). Malgré les efforts de l’EAS pour persuader les décideurs politiques et le public, le GOI rejeta la plupart des recommandations de l’EAS dans le domaine monétaire, de la politique industrielle, de la politique agricole et d’irrigation et des politiques de la concurrence (la seule exception étant l’évaluation de projet). Ceci était presque prévisible, puisque l'EAS et le GOI avaient des objectifs politiques divergents : l'EAS privilégiait l'efficience en termes d'allocation et de contrôle des coûts, alors que le GOI privilégiait la construction de l'Etat dans une logique de sécurité nationale, de développement régional et de plein emploi.

Nos résultats montrent que l'administration Eisenhower échoua dans la promotion de réformes économiques à l'étranger via la conditionnalité, en raison de sa politique générale de coupe dans l'aide à l'étranger et de la priorité accordée à des considérations stratégiques vis-à-vis de considérations économiques.

Mots-clés : conseil aux politiques, développement, planification, Israël, apprentissage et signal

JEL: N45, O19, O20

A small but growing literature studies the advisory missions of Western economists in developing countries in the 1950s and 1960s, using recently discovered archival materials: Douglas North in Brazil (Boianovsky, 2018), Wolfgang Stolper in Nigeria (Morgan, 2008), Arthur Lewis in Ghana (Mosley and Ingham, 2013, chap. 6), and Albert Hirschman and Lauchlin Currie in Colombia (Bianchi, 2011; Alacevich, 2011; Sandilands, 2015; Alvarez et al., 2017). This paper documents the activities and influence of the Economic Advisory Staff (EAS), a group of American economists that advised the Government of Israel (GOI)[1] between May 1953 and July 1955. The GOI established the EAS with the US Government's approval, and asked the EAS to formulate policies that would move Israel towards economic independence—that is, the elimination of Israel's dependence on foreign debt. GOI officials hoped that the EAS' establishment would demonstrate the GOI's commitment to achieving economic independence, and thus signal its creditworthiness to the US Government, US banks and American Jews.

To evaluate the EAS' influence, we use a simple conceptual framework taken from the public choice literature—learning and signaling. To the best of our knowledge, we are the first historians of economics to apply this conceptual framework to foreign advisory missions. As Letterie and Swank (1997) explain, policymakers have in mind two objectives when they choose advisors: Learning about the likelihood of success of a proposed policy, and signaling other agents that the policy has a high likelihood of success. The policymaker faces a tradeoff between learning and signaling: To maximize learning, the policymaker should choose an advisor with preferences that are close to her own. However, to maximize signaling, the policymaker should choose an advisor whose preferences are close to those of the agents

[1] For a list of recurrent abbreviations, see Appendix A.

whom she wishes to signal. In our case, the GOI faced a tradeoff between maximizing learning by choosing advisors who sympathized with the GOI's ideology, and maximizing signaling by choosing advisors who were ideologically close to the Eisenhower Administration (EA).

Although several researchers have evaluated the EAS' contribution (Halevi, 1969; Tishler, 1975; Kleiman, 1981; Krampf, 2010), their conclusions are based on (at best) a partial examination of the archival record. This paper is the first to utilize the complete archival record of the EAS' activities, which is located primarily at Israel State Archives.

During its 26 months, the EAS produced 120 memoranda in various fields, of which 114 have survived (for the full list, see Appendix C). A detailed analysis of the hundreds of recommendations contained in these memoranda, and the extent to which they were implemented, would require a book-length treatment. Therefore, we focus on the EAS' recommendations in the following fields: money doctoring—fiscal policy, central banking and monetary policy, international trade, exchange rates and the balance of payments (BoP), wages and foreign debt management;[2] industry; agriculture and irrigation; and antitrust.

The rest of this paper is organized as follows: Sections 1-2 describe the EAS' formation and its complex relationship with the GOI, in light of the learning and signaling framework. Section 3 presents the EAS' recommendations and the GOI's policy decisions, in the fields of money doctoring, industry, agriculture and irrigation, and antitrust.

1. The EAS' Establishment

1.1 The Israeli Economy (December 1952)

The GOI decided to establish the EAS in December 1952. Israel was a developmental state with a heavy defense burden; large-scale immigration; a massive fiscal deficit financed by money printing; monetary chaos in the absence of a central bank; a massive trade deficit; an acute short-term debt problem; and government control over organized labor, capital investment, credit and foreign currency. In 1952, GDP per capita was at 26.0% and 63.8% of the US and Western European levels, respectively (Maddison Project Database, 2018). Agriculture and industry accounted for 11.4% and 21.7% of National Domestic Product, and 17.4% and 20.1% of employment, respectively

[2] Bianchi (2011, 220) defines money doctoring as "[Advice on] how government authorities should act to establish a central bank, regulate the financial sector, reform the fiscal system, and secure access to foreign capital." We expand Bianchi's definition to include the interrelated topics of international trade, exchange rates, the balance of payments and wages.

(Michaely, 1975, 193). Israel's leading exports were citrus fruits (37.9% of total exports), diamonds (26.4%), other industrial products (12.9%) and textile products (11%) (Appendix D, Table 11).

The State of Israel was established in May 1948, and was immediately compelled to fight for its survival. Despite its dramatic victory in the War of Independence, Israel continued to face existential threats. Over 1948-1951, mass immigration increased the population by 82% (ibid., Table 1).

From mid-1948, the GOI, led by Prime Minister David Ben-Gurion and his Mapai party, imposed austerity and rationing, which resulted in large-scale excess demand and suppressed inflation (Gross, 1990). By mid-1951, the need for reform was painfully obvious: The public had tired of austerity and rationing, and foreign currency reserves were dangerously low (Appendix D, Table 8). In February 1952, Ben-Gurion and Finance Minister Levi Eshkol introduced the New Economic Policy (NEP): devaluation via two new exchange rates (100% and 180% above the original rate); fiscal and monetary contraction; increased capital inflows; near-elimination of rationing and price controls; and price increases on (price-controlled) essential goods (Barkai and Liviatan, 2007, 48-52).

Israel and West Germany signed the Holocaust reparations agreement in September 1952. Germany promised to pay DM 3 billion to the GOI ("reparations") and DM 450 million to survivors ("restitution") over the next 12 years.

The Israeli economy stagnated in 1952, primarily due to the NEP, which significantly reduced money growth (Appendix D, Table 4) and the fiscal deficit (ibid., Table 5). Growth in real per capita GNP and consumption fell to -0.1% and zero, respectively, from 11% and 3.9% in 1951 (ibid., Table 2). Real investment fell 14.1% (ibid., Table 3). Inflation rose to 58.2%, vs. 14% in 1951 (ibid., Table 4). The trade deficit and capital imports were almost 20% of GNP (ibid., Table 6). However, exports grew, both absolutely and as a percentage of GNP (ibid., Table 6), and unemployment fell to 8.1%, vs. 13.9% in 1949 (ibid., Table 1).

From April 1952-June 1953, Israel asked the US eight times for emergency aid to repay/refinance external short-term debt (see Table 9 for details). In June 1952, with Israel's external short-term debt at $124 million (equivalent to 8.1% of GNP) and the ratio of gross reserves to external short-term debt at just 0.26 (ibid.), Secretary of State Dean Acheson sent Raymond Mikesell to Israel as to play the role of money doctor—a Western economist who brokers money for reforms (see Flandreau, 2003, 4).[3] In July 1952, Mikesell recommended approving Israel's request to use $25 million of its 1953 Mutual Security

[3] Mikesell was appointed after Milton Friedman declined the State Department's invitation to go to Israel (FRUS, June 17, 1952; Friedman to Patinkin, April 2, 1952, cited in Leeson, 1998).

Agency grant to cover short-term debt, conditional on avoidance of new short-term debt and implementation of a foreign currency budget.[4] Israel accepted these conditions and the US authorized the $25 million (Mikesell, 2000, 121).

Israel's short-term debt problem came to the attention of Presidents Truman and Eisenhower; both approved the State Department's policy of imposing tougher conditionality on Israel (Truman-Byroade meeting, FRUS, August 8, 1952; NSC meeting, FRUS, July 9, 1953).[5] By March 1954, the situation had improved: External short-term debt fell to $73 million, and the ratio of gross reserves to short-term external debt rose to 0.68. This allowed the US to "substantially reduce" grants to Israel in fiscal year 1955 (Nolting to Dulles, FRUS, March 18, 1954); the economic grant and total aid were cut by 60% and 29%, respectively (Appendix D, Table 7).

1.2 Why Did the Government of Israel Establish the EAS?

Following the Mikesell mission, Israel and the US reached a mutual understanding that Israel should establish a foreign advisory group. In October 1952, Teddy Kollek, Director-General of the Prime Minister's Office, met with Mikesell in Washington. Kollek and Mikesell formulated the following proposal: The GOI would recruit 6-10 foreign experts, who would be acceptable to both Jerusalem and Washington. These experts would be employed by the GOI within various ministries, but would be paid by the US Technical Cooperation Administration (Kollek to Shalit, October 23, 1952, 5364/11-Gimmel).[6] (The Technical Cooperation Administration ultimately decided not to fund the EAS; Gass to Kollek, April 24, 1953, 5509/3-Gimmel). Ben-Gurion stated his strong preference for "foreign Jewish economists" (Avriel to Gaathon, May 1, 1952, 5509/3-Gimmel, 375) with a "Zionist spark" (Knesset Minutes, June 9, 1953); apparently, he understood intuitively that ideological compatibility maximizes learning.

On December 1, 1952, Ben-Gurion decided to establish a "Central Bureau for Economic Coordination and Planning," whose "ultimate aim" would be "the balanced planning of the national economy for

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[4] On the subsequent evolution of the foreign currency budget, see Michaely (1975, 29).

[5] The State Department had the following goals: a. promote Israeli economic independence through structural reforms (FRUS, August 8, 1952; July 9, 1953); b. avoid (indirectly) financing increased Jewish immigration, thus angering the Arabs (FRUS, July 9, 1953); c. stop antagonizing the Arabs via repeated bailouts of Israel; d. Avoid setting a precedent for other debtor nations (FRUS, March 24, 1953).

[6] The State Department saw Middle East Technical Cooperation Administration/Point IV programs as a means "to strengthen the Arab States and Israel … and to increase their will and ability to resist penetration by the USSR" (Hoskins to Byroade, FRUS, April 7, 1952).

several years in advance and the consolidation of the independence of the State."[7] Ben Gurion said nothing about signaling (Ben-Gurion to Kollek, December 1, 1952; "Proposal," November 19, 1952, 5509/3-Gimmel). Kollek, however, thought that the Bureau was essential for both learning and signaling (December 26, 1952, 5509/3-Gimmel; translated from Hebrew):

> Questions are [asked of] us with increasing bluntness: How long will we continue to require financial aid? How will the isolated development plans that are in different stages of implementation be coordinated? What form will [our] economy take once it reaches the stage of a balanced economy? ... Isn't Israel a bottomless barrel?
>
> These questions arise whether we intend to apply to the US Export-Import Bank for another development loan[8] or for consolidating our short-term debt. The same question is [asked] also by the American authorities, to whom we have applied for a third grant of over $1 million to finance our foreign currency budget ... Similar questions come up even when we turn to [Diaspora Jews to] sell ... bonds ...
>
> We need to know how to answer these questions not only in order to answer ... [foreign financial] institutions whose financial resources we require, but also and in the main to ourselves.

Kollek elaborated: In the past, the GOI had not been required to demonstrate that it was utilizing foreign funds efficiently, so the GOI had gotten by without accurate economic data. But in May 1952, foreign creditors started asking more questions; GOI ministries, especially the Ministry of Finance (MOF), were repeatedly embarrassed "because they could not answer the most direct and simple questions regarding our financial condition."[9] Furthermore, the incoming Eisenhower Administration would almost certainly demand greater accountability. Time was of the essence: The Truman-Eisenhower transition opened a brief window of opportunity to recruit experienced US government economists, whose services were essential due to the shortage of qualified GOI economists.

By early 1953, Kollek was even more convinced of the importance of signaling. Writing from Washington, he told Ben-Gurion that Israel needed an economic plan (to be prepared by the foreign experts) to signal the US government and its financial agencies, or else lose access to US government credit and possibly grants (Kollek to Avriel, undated, ca. February 1953, 5509/3-Gimmel). Ben-Gurion did not dispute Kollek's assessment. Nevertheless, Ben-Gurion continued to focus exclusively on learning, as evidenced by his letter of invitation

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[7] The word "balanced" suggests the possible influence of Rosenstein-Rodan's Big Push theory.

[8] This was not to be; only in 1958 did Israel borrow again from the EIB (Sharp, 2016).

[9] Israel had no sovereign credit rating until 1988.

to Gass (undated, ca. March 1953; 5509/3-Gimmel), which discussed learning extensively without mentioning signaling at all.

1.3 Negotiations and Establishment of the EAS

The EAS was established in April 1953 after three months of contentious negotiations between EAS Director Oscar Gass and GOI representatives Kollek and Ehud Avriel (5509/3-Gimmel). The major issues were as follows:

1. The EAS was almost aborted because Eshkol wanted the EAS to engage in long-term planning (henceforth LTP) and avoid short-term issues; Gass was vehemently opposed (more on this below).
2. GOI ministers had serious reservations regarding Gass, due to his reputation for abrasive behavior. Kollek persuaded them to appoint Gass nevertheless, because Gass would recruit an excellent staff.

1.4 Recruiting the EAS Staff: Learning vs. Signaling

Despite Kollek's emphasis on signaling, in recruiting the EAS staff (February-May 1953), Kollek and Gass demonstrated either prioritization of learning over signaling, or a total lack of awareness regarding effective signaling strategies vis-a-vis the EA:

a. Kollek and Gass sought Truman Administration veterans. Therefore, they did not contact any Republican-connected economists, even if only to solicit recommendations. Gass did not exploit his connections with Arthur Burns, Chairman of Eisenhower's Council of Economic Advisers (during 1951-1953, Gass and Burns were both active in the Columbia University Center for Israel Studies; Salo Baron Papers, Stanford University, 55:1, 55:5), and Burns' student, the labor economist Eli Ginzberg, who had "continuing contact with Eisenhower [throughout his Presidency] both in person and by letter" (Ginzberg, 1989, 78).[10]

b. To minimize costs, Kollek (unsuccessfully) sought one or two British economists. For unknown reasons, Kollek limited his search to Labour circles: Kollek's British contact was the industrial economist Herbert A. Silverman (an associate of G.D.H. Cole), who, in turn, spoke with Hugh Gaitskell and Richard Kahn. At the height of the Cold War, Gass (on Kollek's recommendation) tried to recruit Solomon Adler, who had left the US Treasury in 1950 after being accused of communist sympathies (5509/3-Gimmel)![11]

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[10] Ginsberg would visit Israel in Summer 1953 to advise on human resources. It is unlikely that Gass or the GOI knew of Ginzberg's personal connection with Eisenhower.

[11] Kollek and Gass were unaware of these accusations. Note that Mikesell was Adler's close friend, and did not believe the accusations (Mikesell, 1994); in any event, Kollek and Gass did not know this, and did not know (at this point) whether Mikesell would continue as State Department representative under Eisenhower.

Kollek and Gass ultimately formed a New Deal/Democratic EAS, which was a poor choice for signaling the EA; this may explain why the GOI never even mentioned the EAS to Washington-based Eisenhower Administration officials. However, the EAS was an excellent choice for signaling American Jews, who overwhelmingly voted Democratic (only 36% voted Eisenhower in 1952; Aridan, 2017, 81). The EAS' formation (which was widely reported in American Jewish newspapers) most likely contributed to the surge in transfers from World Jewry to the GOI, from \$75 million in 1953 to \$123 million in 1954 (Michaely, 1975, 200), and to the United Jewish Appeal's consolidation loan, which transformed \$65 million in short-term debt into five-year debt by November 1954 (Kollek personally persuaded US Jewish communities to participate; Haaretz, March 1, 1954).

1.5 EAS Personnel

As Kollek predicted, Gass recruited a stellar staff. The six senior members were:

- Oscar Gass (Director) was an economist in the office of the US Treasury Secretary (1938-1943) and the War Production Board (1943-1944), and Israel's economic advisor in Washington (1946-1953). He represented Israel in its successful applications for Export-Import Bank (EIB) loans (1949, 1950) and its dealings with Mikesell (1952), and designed Israel's first foreign currency budget (1952). Gass coauthored a seminal study on the economy of Palestine (Nathan, Gass and Creamer, 1946).
- Bernard Bell (Deputy Director, specializing in international finance) was formerly chief economist of the EIB. In that capacity, he spent three weeks in Israel in January 1953.
- Bertram Gross (Senior Officer—construction/housing, education and health) was formerly Executive Secretary of the US Council of Economic Advisers (1946-1952) and a leading Democratic Party operative. He was one of the drafters of the 1946 Employment Act.
- Abba Lerner (Chief Monetary and Fiscal Officer) was a world-renowned theorist.
- Marion Clawson (Senior Officer—agriculture) was formerly director of the US Bureau of Land Management (1948-1953). Clawson was the only non-Jew, and the only Ph.D. besides Lerner.
- Arye Gaathon (Senior Officer—investment and development plans) was Israel's leading government economist, and the former Director of Economic Research in the Prime Minister's Office.

Gass and Gaathon's extensive experiences with Israel greatly reduced the possibility of "visiting economist syndrome"—"the habit of issuing peremptory advice and prescription by calling on universally valid economic principles and remedies ... after a strictly minimal acquaintance with the 'patient'" (Hirschman, 1984, 93; see also Bianchi, 2011). The EAS had a Democratic/New Deal orientation: Gass' personal attorney was the general counsel to the Democratic National Committee; Bell had left the EIB over a policy disagreement with Eisenhower; Gross and Clawson were staunch Democrats; and Lerner was nonpartisan.

2. The EAS-GOI Relationship

Israel's leading economic policymaker was Finance Minister Eshkol, who enjoyed almost complete autonomy under Prime Ministers Ben-Gurion and Sharett. Nevertheless, the GOI placed the EAS within the Prime Minister's Office.[12]

The EAS-GOI working relationship was problematic from the start. The GOI/MOF did not cooperate with the EAS as promised: The EAS was not consulted regarding GOI investment plans (Gass to Eshkol, May 7, 1954, 5509/14-Gimmel), did not receive timely information from the ministries, and was excluded from key interministerial committees and from regular participation in the Council of Economic Ministers (chaired by Eshkol; Sharett, 1978, March 1, 1954).

The following factors complicated the GOI-EAS relationship, thus reducing the EAS' contribution to learning:

a. Eshkol and other policymakers had a "know-it-all" attitude—they did not welcome advice in their own areas of expertise.

b. The GOI had other advisors who often disagreed with the EAS: David Horowitz, Eshkol's informal macroeconomic advisor and (from December 1954) Governor of the Bank of Israel (BOI); the American water engineers John S. Cotton, Abel Wollman, Harry Bashore and John Savage; the labor expert Eli Ginzberg; and the United Nations's Food and Agriculture Organization of the United Nations (FAO).

Gass had acrimonious relationships with Eshkol, Sharett, Horowitz and others. By March 1954, he was effectively replaced by Bell. Gass left Israel on May 30, 1954 and did not return; in total, Gass was abroad for 16 of the EAS' 26 months.

The EAS took an independent, non-partisan approach, and did not hesitate to question some of Mapai's core beliefs. As Clawson wrote, "one of our chief functions should be to subject to critical scrutiny those ideas which are widely and uncritically accepted ... we would be seriously failing in our responsibilities if we hesitate to speak up on unpopular issues" (#84). The EAS' independence enhanced the quality of its advice but made partisan policymakers less receptive to it.

Despite all the tensions, the EAS-GOI relationship had significant positive aspects. By the end of its term, the EAS established good

[12] Kollek would later regret this (Kollek to Eshkol, February 23, 1955; Kollek to Gass, February 7, 1955; 5509/15-Gimmel).

working relationships with four ministries (Trade and Industry, Agriculture, Labor, Development). Furthermore, the EAS more than paid for itself through project evaluation;[13] the GOI saved large sums by rejecting poorly conceived projects based on EAS advice (Kollek to Eshkol, February 23, 1955, 5509/15-Gimmel).

We now detail the Eshkol-EAS disputes regarding LTP and breaches of confidentiality—disputes which significantly affected both learning and signaling.

2.1 The Dispute over Long-Term Planning

The EAS was almost aborted due to a dispute between Eshkol and Gass regarding its mandate (Gass to Kollek/Avriel, March 31, 1953, 5509/3-Gimmel). Eskhol, a true believer in LTP,[14] expected the EAS (which he called "Office of Economic Planning and Advice") to engage in LTP and avoid short-term issues entirely. Gass, on the other hand, disparaged LTP[15] and insisted that the EAS must address short-term issues of "larger significance" (Gass to Kollek/Avriel, April 1, 1953, 5509/3-Gimmel). Accordingly, Gass insisted on omitting the word "planning" from the name and the contract of the new advisory body.

Kollek (who advocated LTP for signaling purposes) saved the EAS by convincing both parties to accept the following compromise language (Letter of Terms [attached to EAS contract], March 15, 1953, 5509/3-Gimmel):

> The EAS may ... render recommendations on the most immediate economic problems, on questions involving a limited time span, or on issues connected with ... long-run development ... It is however the understanding of the GOI that ... it would be particularly to issues of long-run development that the EAS would wish to devote its most continuing efforts.

[13] The typical project proposal was a request for GOI loans to build a privately owned factory.

[14] In 1952, the GOI had serious discussions about establishing a LTP office; it told Gass explicitly that he would play an important role in LTP (Avriel to Gass, in Eshkol's name, September 15, 1952, 5509/14-Gimmel). Eshkol's reasons for embracing LTP are unknown.

[15] Gass' reasons for opposing LTP during the EAS contract negotiations shifted over time: LTP implies the EAS' exclusion from fiscal and monetary issues (March 31, 1953); LTP "deals with the future which being future never comes … could not get people of discrimination to come to Israel with me to work on such planning"; "only long run in which economist is interested is that which consists of a series of short runs" (April 1, 1953); LTP implies executive authority that the EAS lacks (April 28, 5509/3-Gimmel, 1953). Gass' assertion that LTP was not intellectually respectable is consistent with Balisciano's (1998) finding that planning (except Keynesian macroeconomic planning) went out of style in the US by 1950. Gass never mentioned the "program" vs. "project" controversy in early development economics (see Alacevich, 2011).

Gass won—the word "planning" was omitted. But as we shall see, Eshkol's concession was illusory; he never stopped believing that LTP was the EAS' raison d'être.[16]

In June 1953, Eshkol met with Mikesell (who had arrived on a second mission) and Bruce McDaniel, Technical Cooperation Administration (US) director in Israel; no EAS representative was present. McDaniel urged Eshkol to draw up seven-year plans for agriculture, industry and natural resources (5364/11-Gimmel).[17] On October 26, Eshkol presented seven-year plans for agriculture and industry to Diaspora Jewish leaders (702/7-Peh Tzadi). The agricultural plan (known as "Plan C") was a serious but flawed plan prepared by the Jewish Agency Planning Center and the Ministry of Agriculture, without EAS input. The industrial plan, whose authorship is unknown, was not a serious effort (Sharett, 1978, November 4, 1953). There is no evidence that Mikesell and McDaniel noticed these shortcomings.

Gass continued to oppose LTP, due to his conviction that the GOI harbored serious misconceptions regarding LTP and was unprepared to implement it properly (Gass to Eshkol, May 7, 1954, 5509/14-Gimmel). Gass made four criticisms in this context [our interpretation appears in brackets]:

a. Eshkol wrongly denies the need for planning in fields where Israel possesses significant technical knowledge. Mere technical knowledge does not constitute planning. [The GOI refuses to learn.]

b. "Each [minister] thinks 'planning' is needed in the sphere of others but not in his own ... because each does not so much as entertain the thought that the very fundamentals of [his] policy ... may need reconsideration ... No one should pretend to plan unless he thinks *genuinely* that he may be going wrong without planning" [emphasis in original]. [The GOI refuses to learn.]

c. The GOI does not desire genuine planning, defined as "the comprehensive consideration of all those factors of costs and returns, in appropriate time perspective, which taken together should govern the determination of an economic policy." This was (largely) why he insisted on omitting the word "planning" from the EAS' name and contract. Genuine planning would improve governance by counteracting the common perception that "[the] authorities have no clear and consistent idea of what they are doing." [Because the GOI refuses to learn, it cannot signal the Israeli public.]

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[16] Why didn't Eshkol hold firm, and insist on a contractual commitment to LTP? Eshkol believed that any outstanding issues could be resolved once Gass arrived in Israel, and (presumably) he did not wish to block the implementation of Ben-Gurion's decision.

[17] After World War II, the US Government promoted LTP abroad even though it was out of style in the US. For example, France (Cazes, 1990), Brazil (Boianovsky, 2018) and Nigeria (Morgan, 2008) all used LTP in their financial aid negotiations with the US Government.

d. The GOI confuses planning with "advertising, negotiation or public relations," which the EAS is contractually prohibited from undertaking. [The GOI thinks LTP is just a signaling device—no learning is necessary.]

Gass' first two criticisms were valid (as we shall see). The third is difficult to evaluate. Gass' fourth criticism amounted to a denigration of Eshkol's need for LTP to satisfy US policymakers. Obviously, an advisor who denigrates the policymaker's signaling needs cannot be effective; to maximize his effectiveness, Gass should have accepted LTP as a necessary evil.

On August 3, 1954, Eshkol (ignoring Gass) presented a planning document to the Council of Economic Ministers, which began:

> Out of recognition of the need for a comprehensive plan ... the government established the EAS ... After the EAS spent about a year in Israel, and had the opportunity to ... learn [Israel's] economic problems, [its members] are now approaching the implementation of their main task: the preparation of the comprehensive plan.

With the Council of Economic Ministers about to authorize a LTP initiative, Bell, recognizing LTP's inevitability, tried to influence Eshkol's thinking (Yochanan Beham to Gass, August 12, 1954, 5509/15-Gimmel):

> [Bell] tried very hard ... to convince Eshkol that a lot will depend on how the case is presented. Eshkol promised to make it clear to all [Economic Ministers] ... that planning is more than trying to show the other fellow what he ought to do, and that in many cases it might hurt the affected parties considerably ... [Bell] said, "Let's take an example that is close to home, Mekoroth [the national water carrier, founded 1937 by Eshkol]. We expect the Irrigation Committee to go into all aspects of Mekoroth ... Eshkol reacted, as expected, by saying, "Well, how, as far as irrigation and Mekoroth are concerned, we know pretty well what we want to do.[18] Planning in industry is much more important and you should ... stress ... those areas where nothing has been done in the past." ... Eshkol seemed ... to have come round to [Bell's] point of view ... We will see ... whether [Eshkol will] make it clear that some people's pet plans might get lost in the shuffle.

In September 1954, the Council of Economic Ministers authorized a committee of DG's of all economic ministries, five sectoral committees (agriculture/irrigation, industry/mining/electricity, transportation, commerce and construction/housing) and a Planning Secretariat appointed by Eshkol. The Secretariat—MOF Director-General Pinhas Sapir, Kollek, Bell and Shimon Horn (MOF)—first met on September 15. As Kollek recalled: "the [Council of Economic Ministers] decided

[18] "We have a skill for the Land of Israel, which is greater than … [some] expert who comes … for 1-2 months. Why shouldn't we utilize the experience that we gained over fifty years of conquest, draining swamps and finding water?" (Eshkol, cited in Nevo-Eshkol, 1988, 35).

on a system which would encourage greater cooperation between the EAS and their Ministries. The chances for ... success ... were not overestimated by anybody. In fact, Eshkol, Bell, as well as Sapir ... were a bit doubtful of its ultimate success; nevertheless, everybody believed it was worth trying" (Kollek to Gass, February 7, 1955, 5509/15-Gimmel).[19]

On November 17, 1954, Eshkol wrote Gass in Washington (5509/15-Gimmel). Eshkol complained that the EAS "[has] not made a determined attempt with regard to the one thing we so badly need—a plan," and asserted that "it would ... be a great pity to disband the EAS without making a determined [LTP] effort." He updated Gass regarding the LTP initiative, and after acknowledging "some differences of opinion between us on this subject," he requested the EAS' "whole-hearted cooperation."

At a February 16, 1955 meeting, Eshkol stated that he "wanted the EAS in the remaining period [until its term expired on July 31, 1955] to devote itself exclusively to preparing an overall economic plan or framework ... this would represent the culmination of the two years' work." All "agreed ... that every effort ought to be made by the EAS to prepare at least an outline for an overall [LTP] ... Bell said that he believed [this could be done] within ... five or six months ... Kollek said that of course the contract could be extended for a month or two if necessary [this never happened—authors] ... Eshkol said that if Gass were willing to participate actively ... , such participation would be more than welcome [Gass never participated—authors]" (5509/15-Gimmel).

In an address published that month, Eshkol (1955) announced:

> The Office for Economic Advice and Planning [Eshkol's name for the EAS] is now diligently preparing [a comprehensive development plan]. I hope that within a certain [period] the Office for Economic Advice and Planning will be able to prepare a "blueprint" for [the comprehensive plan]. Certainly, under our conditions it is difficult to prepare a plan in the manner of "this you shall follow to the letter." Most probably there will be changes to it. But I believe that this time an effort will be made to prepare a comprehensive plan, based on the coordination of the needs and possibilities of the various sectors of the economy

The EAS ultimately failed to produce this "blueprint," but Bell was unconcerned (Bell to Eshkol, August 2, 1955, 5509/15-Gimmel):

> The [GOI] has a great deal of planning to do, not as extensive as that of the Soviet Government but more extensive than that of the US Government ... [This] must ... be ... planning of policies and actions which will induce ... non-government entities to invest, to produce, to export, etc. This involves both fiscal and monetary actions and the creation of certain facilitating,

[19] This was an attempt "to salvage something out of the idea of an economic advisory unit" (Bell to Kollek, April 21, 1955, 5509/15-Gimmel).

> controlling, and regulating institutions. The [GOI] is doing planning in many fields, will continue to do it and has personnel capable of it.

Bell's conception of planning, in which private sector decisions are influenced but not controlled by the government (see also #14), resembled French indicative planning. However, no one in the EAS, GOI or US government ever discussed European planning models and their possible applicability in Israel.

When the EAS' term ended, Eshkol expressed his disappointment with Bell (Beham to Eshkol, September 5, 1955, 5509/15-Gimmel), but this was unfair: As Kollek told Eshkol (February 23, 1955, 5509/15-Gimmel), the GOI/MOF had "neither the time nor the inclination" for LTP, because it was too preoccupied with short-term issues; the GOI's administrative and political problems hampered LTP (Gilboa to Ben-Artzi, September 9, 1956, 901/8-Peh); EAS personnel sought new positions as the EAS' term wound down (Bell to Kollek, April 21, 1955, 5509/15-Gimmel).

Why didn't Eshkol extend the EAS contract, and thus extend the LTP effort? Direct evidence is lacking. Presumably, Eshkol was motivated by the following:

a. By 1955, Israel's financial condition had improved significantly, especially short-term debt and external reserves (Appendix D, Table 9), unilateral receipts from abroad and the fiscal deficit (*ibid.*, Table 5). The Eisenhower Administration responded by cutting aid to Israel, thus creating a perverse incentive for Israel to avoid signaling its progress towards economic independence.

b. The Eisenhower Administration showed complete indifference towards the EAS.[20] Presumably, because the EAS was uninvolved in brokering money for reforms (that was Mikesell's role), it had no value as a signal to the EA.

c. The Eisenhower Administration lost interest in Israeli economic independence. Mikesell's second mission of June 1953 was his last, and the State Department did not replace him. From August 1954 (when the GOI launched its LTP initiative), the Eisenhower Administration had no substantive discussions regarding Israeli economic independence; its interactions with Eshkol focused exclusively on the Arab-Israeli water dispute (authors' reading of FRUS).

d. Eshkol wished to sever ties with Gass.

2.2 *Breaches of Confidentiality*

Both sides routinely violated the EAS' confidentiality clause, which prohibited the GOI from "[making] any public attribution of any view to the EAS," and the EAS from "any public discussion of any issue on which the EAS is making any recommendation" (Letter of Terms,

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[20] Gass/EAS is only mentioned once in FRUS; Gass' interlocutor was a US Embassy official.

March 15, 1953, 5509/3-Gimmel). GOI personnel leaked the latest EAS memoranda to the newspapers, which gladly published the memoranda, accompanied by sensationalized, politicized reporting that made rational discussion impossible (Applebaum, 1955). This reduced the EAS' ability to signal the Israeli public.

Eshkol clashed with the EAS over Gass' unauthorized press conferences, especially that of May 26, 1954 (just before Gass' departure for the US). Gass told the public the unpleasant truth about Israel's BOP situation: Over the past 12 months, Israel had spent $250 million in foreign currency, only 20% of which was obtained from exports; the other 80% was obtained from German reparations, US aid, bond sales and contributions from Diaspora Jewry. "Israel's economy continues to be based on the bread of charity." To change this reality, he suggested three policy options:

a. Cut wages by almost half to reduce export prices;
b. Real devaluation—implement a 50% nominal devaluation, and avoid inflation resulting from compensation of workers for that devaluation.
c. Massive export subsidies, financed by increasing taxes by 12.5% (on average) on (unchanged) wages.

Gass argued that Israeli exports (except citrus) are negligible and stagnant due to excessive wages. For example, to make Israeli clothing exports competitive with the UK, a 35%-40% wage cut is required. Higher labor productivity growth will take many years to achieve, because it requires improved management/organization. Israel should aspire to Western living standards, but it cannot pretend that it has already achieved them (Jerusalem Post, May 27, 1954; Davar, May 28, 1954).

Eshkol objected vehemently (Eshkol to Gass, May 28, 1954, 5509/14-Gimmel):

> [Your] statement [to the press] constitutes a clear breach of a specific stipulation in your contract ...
>
> I am gravely concerned about the repercussions on the public morale which inevitably will result from this statement, as it is bound to create confusion and serve as a destabilizing factor in our economy.
>
> I came to realize now, more than ever, how necessary and pertinent was the above-mentioned stipulation, and I sincerely hope that you will act accordingly in the future.

Bell, replying to Eshkol in Gass' absence, was unapologetic (June 4, 1954, 5509/14-Gimmel):

> I am troubled because ... you do not contest the accuracy of Mr. Gass' diagnosis ... but rather are concerned that the public[21] should know that the economic situation is grave and that drastic and immediately painful steps need to be taken to remedy it. My own regret is, and I think I speak for Mr. Gass as well in this, that no such courageous statement of the truth has been made by a high officer of the GOI. Certainly it should be the obligation of an advisor to do so.
>
> I am sure that you recognize that Mr. Gass made this statement out of his deep and sincere concern ... for the future of Israel and because he felt that it was the obligation of someone whose words would command attention to focus the eyes of the Israeli public on the true facts of its situation.
>
> ... one of the greatest dangers to Israel today and one of the greatest blocks to effective action is the mood of public complacency and self-congratulation which has been permitted to develop in place of honest and courageous facing of the facts.

Presumably, Eshkol was offended for two reasons:

a. By sounding the alarm regarding the BOP, Gass had sent the public a negative signal regarding Eshkol's competence (as Swank, 2000 demonstrates, the policymaker prefers to hear advice in secret, because public knowledge of advisor-policymaker disagreements harms the policymaker's reputation).

b. The EAS believed that learning must include the public.[22] It sought to educate the public regarding the BOP situation, so that the public would support Eshkol in implementing difficult (but unavoidable) measures.

Eshkol rejected the EAS' attempt to promote American-style participatory democracy, which was the antithesis of Mapai's hierarchical, highly centralized system (see Bareli, 2007 and Lammfromm, 2014, 86-87).

2.3 Was Teddy Kollek a "Problem-Solving Intermediary"?

Mosley and Ingham (2013, 165-169) emphasize that a foreign advisor's success depends critically on the presence of a "problem-solving intermediary." The intermediary must be credible and must be willing and able to "translate what the adviser needs into a language that the [policymaker] understands," so that the advisor's recommendations receive serious consideration (ibid.). In our terminology, the intermediary's role is to facilitate learning.

Did Teddy Kollek play this role? No. Kollek brokered the compromise that led to the birth of the EAS, mediated (with little success) the interpersonal conflicts between Eshkol and Gass, and played a major role in facilitating the GOI-EAS LTP effort (a learning and signaling enterprise). However, there is no evidence that he ever tried to

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[21] Presumably, Eshkol and Bell were referring to the Jewish public only. The non-Jewish public (11% of the population) lacked influence over GOI policy.
[22] Currie and the IBRD held the same view (Alvarez, Guiot and Hurtado, 2017).

persuade the GOI to pay attention to an EAS recommendation; the task of persuasion was left to Gass and Bell.

3. EAS Recommendations and GOI Policy Decisions

3.1 Money Doctoring Fields

Fiscal Policy

The EAS called on the GOI to plan for the cessation of capital imports over 5-8 years, by abolishing or reforming "institutional devices for maintaining real consumption," and using tax and investment policies to stimulate investment and reduce consumption (#12). If the GOI took any significant measures in this direction, they were a colossal failure: From 1955-1961, 90% of GNP growth was accounted for by growth in private and public consumption (Schiffman et al., 2017, 71).

The EAS recommended issuing CPI-linked government bonds (#18); the GOI began doing so in 1955. On the other hand, Lerner's call to index all loans exceeding 12 months (#21) was ignored. Instead, the GOI introduced partial indexation of 2-8 year loans, effective April 1, 1954.

The EAS adopted Lerner's Functional Finance theory: "Narrowly fiscal considerations should not trump the needs of price stability and growth" (#35).[23] In the Israeli context, the EAS opposed fiscal deficits for fear of inflation. In a letter to Eshkol, Bell "urgently" recommended contraction on both expenditure and tax sides (Expenditure: cut IL 15-20 million, except for education, health, investment; cut 7-10% in each ministry. Tax: subsidy rebate, direct tax increases, do not broaden income tax exemptions, improve tax collection) (#25). Bell warned that "if [expenditures] are not cut, you will be forced to finance them by directly inflationary means"—printing money or cutting subsidies via devaluation (the GOI subsidized certain commodities by importing them at artificially low exchange rates). Eshkol did not cut expenditures or increase direct taxes. He proposed a subsidy rebate, but did not implement it due to the opposition of the General Zionist ministers (Maariv, July 15, 1954). Tax exemptions and tax collection remained problematic: Even in 1959, tax officials were still negotiating special income tax rates with specific groups of workers (Rubner, 1960, 76).

[23] Oddly, this statement appears in a memorandum on cement.

Central Banking and Monetary Policy[24]

Eshkol asked his friend David Horowitz to draft what became the Bank of Israel Law (1954) and serve as the founding governor of the BOI. Horowitz prepared the draft legislation without EAS input. In late April 1954, Lerner (with Gass) recommended that the GOI not pass Horowitz's draft legislation, for two reasons (#8):

1. The Governor sets monetary policy alone but lacks true independence. An independent monetary board should set monetary policy.
2. The Governor's banking supervision powers are excessive and "arbitrary." The BOI will exploit these powers to limit competition in return for banks' cooperation with the GOI's directed credit program, all in the name of protecting depositors. Instead, the GOI should permit free competition, replace directed credit with direct subsidies, and introduce US Federal Deposit Insurance Corporation-style deposit insurance.

Lerner urged reconsideration, with the help of a Fed or IMF expert who would be brought to Israel, but Horowitz refused, citing endorsements from Edward Bernstein (IMF), Robert Triffin (Yale University), Arthur Bloomfield (New York Fed) and Louis Rasminsky (Bank of Canada). Eshkol supported Horowitz; he wanted a dependent BOI that would develop the country via directed credit and regulate the banks.[25] Eshkol overcame the opposition of the right-liberal parties (which was partially based on Lerner's memorandum): The final BOI law (August 1954) was essentially identical to Horowitz's draft.

International Trade, Exchange Rates and the BOP

Lerner and Bell advocated export subsidies as means of promoting economic independence (#10, #19).[26] The GOI utilized export subsidies; in 1956, the GOI changed the basis for export subsidies from gross value to value added (Pomfret, 1975), consistent with what Bell had recommended. However, the GOI failed to keep the trade deficit constant, as recommended by Lerner—over 1954-56, the trade deficit/GNP ratio ballooned from 19% to 25% (Appendix D, Table 6). Furthermore, Gass' call to abolish the system of discretionary exchange rate-linked export premiums (#15) was not heeded.

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[24] This material is taken from Schiffman et al. (2017, 21-24).

[25] Two points (based on Helleiner, 2003): a. Eshkol's expectation that the central bank would develop the country via directed credit was standard in developing countries. b. In the 1950s, US money doctors legitimized developing countries' rejection of classical monetary orthodoxy, due to the rise of Keynesianism and the need to prevent the spread of Soviet influence. This may explain why Bernstein, Triffin, Bloomfield and Rasminsky endorsed Horowitz' draft.

[26] Israel was free to give export subsidies because it did not join the GATT until 1962.

Bell advocated unifying the exchange rate at IL 1.8/$ (accompanied by compensation of low-income households for the resulting food and fuel price increases (#20). This was never implemented: Although the exchange rate was officially unified in 1955, in practice, the highly complex multiple exchange rate system was maintained.

Four months later, Bell opposed on anti-inflationary grounds a GOI proposal to cut subsidies on certain imported goods by raising the relevant exchange rates. Instead, he suggested what he saw as a noninflationary alternative—a subsidy rebate, in which higher income workers rebate to the GOI the food and other subsidies which they currently receive (#23; also #20, #25). The GOI did exactly the opposite: It rejected the subsidy rebate, and in July 1954, Eshkol raised exchange rates for some imports, including wheat for baking bread.

The EAS supported import substitution via export subsidies (#19). However, it opposed import substitution where consumers were forced to pay more for import substitutes than they would pay for freely imported goods. The EAS also opposed import substitution in intermediate goods because it harmed export competitiveness (#33, #48, #113). The GOI rejected this advice; it favored import substitution so strongly that it blocked imports even when domestic goods cost over 50% more (Rubner, 1960, 171).

Wages

Lerner (#24) warned that the Cost of Living Adjustment (CLA) was highly inflationary and hurt international competitiveness: When the CPI increased, wages increased more than proportionately. He strongly implied that major CLA reform was necessary (in 1956, he would advocate abolishing the CLA). Although Eshkol publicly supported Lerner's view (Schiffman et al., 2017, 31), no CLA reform was implemented.

Gass (and Lerner) advocated wage cuts (in both traded and nontraded sectors) to improve international competitiveness and promote economic independence. Gass excoriated the "false and meretricious prophets" who denied the need for wage cuts, based on overoptimistic projections of future productivity growth (cover letter to #29, May 24, 1954). Gass' public advocacy of wage cuts (including his May 26, 1954 press conference) generated a firestorm of controversy. The GOI strongly rejected the EAS' recommendation. In a 1957 speech (5535/9-Gimmel), Eshkol prioritized equality over efficiency in wage setting, and enthusiastically adopted the optimistic productivity growth projections that Gass had excoriated.[27]

[27] Both the EAS and the GOI ignored Keynesian arguments against nominal wage cuts.

Foreign Debt Management

The GOI considered asking the EIB to rearrange the maturities of Israel's debts. Gass warned that this action was irreversible and would harm Israel's credit abroad. Apparently, the GOI decided not to request rearrangement. Thus, Gass made a modest contribution to the GOI's signaling effort.

3.2 Industry

Bread

The EAS recommended the following: freeze bread prices, cut excessive bakery wages, abolish the compulsory linkage between bakeries and flour mills, cut distribution costs by prohibiting deliveries in urban areas until after 11 AM, mechanize bakeries with GOI assistance, and allow free entry into the bakery sector (#29). On July 18, 1954, Eshkol increased bread and flour prices simultaneously, so that the bakers gained nothing. The EAS' finding that bakery wages were excessive was harshly criticized in GOI and Histadrut (General Federation of Labor) circles; the other EAS recommendations were ignored.

Bell and Deputy Trade and Industry Minister Zalman Susayeff (of the right-liberal General Zionist party) declared that bread prices should be based on the costs of large, mechanized bakeries, not small, primitive bakeries (#31). The GOI adopted this principle by 1958.

Sugar

Bell sat on the GOI's Sugar Committee, which was optimistic that sugar beet could be grown and processed profitably, and advocated subsidies for these purposes (#45). To minimize transport costs, Gass recommended six small, geographically dispersed sugar refineries, using West German-made equipment (#43). However, the GOI established just two refineries by 1956—an excessively large refinery in Afula (#45) using US-made equipment (the investment was made before the Committee could oppose it) and a small one in Ramat Gan.

Cement

Gass affirmed two principles (#35): a. In setting official prices, cost-plus pricing should be rejected, while guaranteeing producers "an adequate profit return for prudent investment and efficient operation." b. Consumers should not pay higher prices to support excess capacity. The GOI rejected these principles.

Tires

The EAS (#33) recommended maintaining the price freeze that it had advocated three months earlier, merging the two existing firms (Alliance and General) to reduce excess capacity/overhead, and giving the merged firm a "transitional" export subsidy. Eshkol maintained the price freeze but ignored the merger recommendation.

Kaiser-Frazer Auto Plant

The EAS gave Kaiser-Frazer a lukewarm endorsement, as follows: Kaiser-Frazer is Israel's largest industrial exporter (accounting for 20% of Israel's industrial exports, with 90% of output exported), and is (unlike many other industrial enterprises) a net contributor to foreign currency reserves. However, Kaiser-Frazer is a "pygmy operation" whose exports depend entirely on clearing agreements with "dollar-short countries"—Turkey, Finland and Yugoslavia. Furthermore, Israeli consumers pay 10%-32% more for an Israeli-made Kaiser-Frazer auto, vs. a US-made Kaiser-Frazer auto. The EAS recommended that Kaiser-Frazer manufacture or purchase more parts domestically, and begin manufacturing trucks. The EAS rejected cost-plus pricing in favor of a pricing formula based on prices of imported equivalents (#48). Implementation of EAS recommendations was partial at best: From 1961, Kaiser-Frazer manufactured parts at its new Ashkelon facility; the extent of import substitution is unknown. Cost-plus pricing was replaced by return-on-investment-based pricing in 1957 (Haaretz, August 21, 1957); domestic consumer prices remained high because the GOI generally blocked competing imports (Rubner, 1960, 275). The demise of Kaiser-Frazer USA's passenger car division in 1955 led to drastic changes at Kaiser-Frazer Israel: By 1961, Jeep trucks accounted for 28% of total sales (all Jeep vehicles accounted for 70%) (Edgar F. Kaiser Papers 343:12). Kaiser-Frazer Israel was sold in 1969.

American-Israel Paper Mills

The EAS argued that the American-Israel Paper Mills monopoly, with its exorbitant prices, caused a net loss for the economy; Israel would be better off importing all of its paper needs (#36). Nevertheless, the GOI supported American-Israel Paper Mills in various ways, including infant industry protection and acquiescence to unauthorized price increases (Kelman, 2016).

3.3 Agriculture and Irrigation

Marion Clawson identified the following major weaknesses (#62, unless otherwise indicated):

1. Agriculture is not geared to land characteristics.
2. The types and sizes of farms result in low productivity, high costs and hence low real incomes.
3. Compared to the US, Israeli agriculture is often more capital intensive, although capital is more expensive and labor is cheaper.
4. Distortions are rampant in agricultural markets; some distortions worsen Israel's foreign reserve shortage (#53). GOI controls of credit, supplies and equipment stimulate production in high-cost regions.
5. Current and projected irrigation costs are 5-10 times the maximum costs in similarly situated countries. Therefore, crops such as cotton cannot be grown competitively. Irrigation construction costs are excessive (#54).
6. The timing of irrigation development by region has been very poor. Costly irrigation in the Negev desert comes at the expense of much cheaper irrigation in the coastal plain.
7. GOI agricultural plans are "unrealistic" because they almost completely ignore economic considerations (#64). Plan C projects a massive increase in agricultural output by 1960, without taking into account that prices must decline sharply in order to sell the increased output. Therefore, Plan C's projections for agricultural income, farm units and employment are extremely overoptimistic (#83).

Clawson recommended the following:

1. Reduce central irrigation construction costs by 20% (#54).
2. Reduce local irrigation distribution costs (equivalent to 1/3 of total irrigation costs), by setting a minimum field size of 40 dunams (#6) and exploiting gravity (#58).
3. Cease establishing new agricultural settlements until the number of partially developed settlements declines from 300 to 100 (#62). For the next 5-7 years, establish at most 10 new Negev settlements, and reduce planned diversion of water to the Negev from 200 to 90 million cubic meters—less than enough for full irrigation of existing settlements (#82).
4. Agriculture should not absorb many more workers, at least for several years (#84).

Clawson knew that he was bucking the conventional wisdom on Negev irrigation and settlement:

> I recognize that there is strong sentiment and powerful forces pushing for maximum irrigation development ... The idea of dry but fertile land lying more or less unused, and of potential irrigation water wholly unused, impresses many people as unsound national policy, if not downright unmoral. But costs cannot be escaped (#51).

The GOI rejected Clawson's recommendations. Eshkol declared that expensive irrigation projects would continue, regardless of foreign experts' disapproval (Knesset Minutes, January 13, 1954). He also told Gass to discard the EAS' agricultural plan, and prepare a new plan that would allow for costly Negev irrigation (Nevo-Eshkol, 1988, 80):

> Mr. Gass: According to your plan, Israeli agriculture ends here [50 km south of Tel Aviv] ... We want it to end here [170 km south of Tel Aviv] ... Please take care of this, expert gentlemen.

Similarly, Eshkol stated: "[The LTP] must take into account the development of *all* parts of the Land, from Metulla to Eilat" (emphasis in original; August 3, 1954, 762/7-Peh).

3.4 Antitrust

During the 1950s, monopolies and GOI-sanctioned cartels were rampant (Rubner, 1960, 81); Israel had no antitrust law. On January 1, 1954, the GOI formed a Cartel Committee, consisting of Deputy Minister Susayeff (Chair), Bell (EAS), Shimon Horn (MOF) and A. Arieli (MOF) (Haboker, January 3, 1954). In April 1954, Gass brought Democratic National Committee general counsel Harold Leventhal (who was also Gass' personal attorney) to Israel. Leventhal drafted an antitrust law, providing for a "Competitive Practices Authority ... to ensure ... free and fair competition ... to the maximum extent, and to reduce trade restraints ... except where ... necessary and desirable in the public interest." Leventhal allowed two exemptions—exports and labor agreements, with the important caveat that labor-managed firms were not exempt (#42).

When the Cartel Committee finished its work in January 1955, it unanimously supported an antitrust law providing for a Competitive Practices Authority, but was deadlocked on one key issue: Horn and Arieli wanted to exempt vertically integrated arrangements, which were common in the Histadrut sector, from Competitive Practices Authority oversight. Susayeff and Bell opposed this exemption, consistent with Leventhal's caveat. After efforts to break the deadlock failed, the Cartel Committee submitted two separate reports (7752/6-Gimmel). Mapai and the left-wing parties adopted the Horn-Arieli report; Eshkol called the Susayeff-Bell report "a blow to the foundations of the Histadrut ... economy" (Maariv, January 10, 1955). The right-liberal parties adopted the Susayeff-Bell report.

Bell went public. In a February 2, 1955 address to the Israeli Political Science Association (reported by multiple newspapers), he argued that all concentrations of economic power that are being abused should be subject to the antitrust law, with no distinction between horizontal and vertical arrangements. He also lamented the public's indifference to the economic harm caused by the cartels.

The Knesset finally passed Israel's first antitrust law in July 1959. The new law categorically exempted vertical arrangements, in accordance with Eshkol's position; Leventhal and Bell-Susayeff were ignored.

Conclusion

When policymakers choose foreign economic advisors, they have two objectives: Learning about a proposed policy's likelihood of success, and signaling to others that the policy has a high likelihood of success.

How successful was the EAS in maximizing learning and signaling, in its role as foreign advisor to the developmental State of Israel? The EAS contributed to learning in the following ways:

a. The EAS' staff produced 120 memoranda in various fields;

b. The EAS more than paid for itself through project evaluation;

c. By the end of its tenure, the EAS developed good working relationships with four GOI ministries.

However, several factors impaired both learning and signaling, thus preventing the EAS from actualizing its full potential. Some of these factors were attributable to the GOI, some were attributable to the EAS, and others were beyond either party's control. The following factors impaired learning: a. GOI policymakers disparaged advisors while boasting of their own expertise.[28] b. The GOI had multiple foreign and domestic advisors who often disagreed with the EAS. c. There was no intermediary who could persuade the GOI to seriously consider the EAS' recommendations.

The following factors impaired signaling:

a. With an incoming Republican president, the GOI recruited a Democratic/New Deal-oriented EAS, most probably because it saw a Democratic EAS as more ideologically compatible and thus more conducive to learning;

b. The EAS failed to produce a LTP as demanded by the EA, due in part to a delay caused by Gass' opposition;

[28] Ben-Gurion and Eshkol repeatedly claimed that they knew better than foreign advisors, and were unafraid to say so to Mikesell (Mikesell, 2000, 125; 5364/11-Gimmel and Russell to State Department, June 26, 1953, FRUS). Bell said of Eshkol: "It was really only the abstract idea of having foreign … experts around which appealed to him. Abstractly, ... he feels that on the whole they are useful and that he should … be able to call upon their knowledge and experience … Concretely, and when the chips are down … he does not really feel that he either needs or wants any help or advice from foreign (or probably local) … experts … [Therefore,] it practically never occurs to him to consult the people who are available here or to discuss with them whatever they may write to him" (Bell to Kollek, April 21, 1955, 5509/15-Gimmel).

c. The Eisenhower Administration showed complete indifference to the EAS;

d. When Israel's short-term debt situation improved by March 1954, the Eisenhower Administration reduced Israel's aid for fiscal year 1955, thus creating a perverse incentive for Israel to avoid signaling its progress towards economic independence;

e. From August 1954, the Eisenhower Administration completely lost interest in Israeli economic policy, and shifted to an exclusive focus on the Arab-Israeli conflict.[29]

The EAS' recommendations were broadly consistent with the "Ten Commandments" of the Washington Consensus (as formulated by John Williamson in 1989; see Williamson, 2004), with the following exceptions: The EAS did not call for cutting marginal tax rates, repealing the 9% interest rate ceiling (known as the "Ottoman Law") or privatization. The EAS emphasized antitrust policy, which was not an element of the Washington Consensus. The EAS also advocated export subsidies, contrary to GATT rules.[30]

Despite the EAS' efforts to persuade policymakers (and the public), the GOI rejected most of the EAS's recommendations in the money doctoring fields, industry, agriculture/irrigation and antitrust (the only exception was project evaluation, in which the GOI adopted most of the EAS' recommendations). This was almost inevitable, because the EAS and the GOI had divergent goals for economic policy: The EAS prioritized allocative efficiency and cost control, while the GOI prioritized state-building—national security, regional development and full employment. This divergence led to fundamental disagreements on many issues: central bank independence and DC, multiple exchange rates, import substitution and export promotion at domestic consumers' expense, exemption of vertically integrated arrangements from antitrust laws, costly irrigation projects and new agricultural settlements—especially in the Negev region, and wage cuts as a remedy for excessive wages.

We close with a general observation regarding the Eisenhower Administration's economic diplomacy. Calvo-Gonzalez (2006) argues that the Eisenhower Administration failed to promote economic reform abroad through conditionality, for two reasons:

a. Due to its general policy of cutting foreign aid, the Eisenhower Administration was unwilling to increase foreign aid in exchange for reforms;

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[29] Therefore, the EAS would most likely have had little signaling value, even if it had been comprised of Republican economists, and/or had produced a LTP.

[30] A broader definition of the Washington Consensus includes adherence to GATT/WTO rules. The GATT always prohibited industrial export subsidies; agricultural export subsidies were severely restricted in 1979.

b. The Eisenhower Administration prioritized strategic (i.e. Cold War) considerations over economic considerations.

Our story supports this narrative: By opportunistically cutting Israel's foreign aid in fiscal year 1955, the Eisenhower Administration sent a clear message that it would punish (and certainly not reward) the GOI for improved economic outcomes or free-market reforms. By losing interest in Israeli economic independence to focus exclusively on the Arab-Israeli conflict, the Eisenhower Administration demonstrated that strategic considerations would always be paramount; this tendency would only intensify during the 1956 Suez crisis and its aftermath.

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Appendices

A. List of Abbreviations

BOI	Bank of Israel
CLA	Cost of Living Adjustment
EA	Eisenhower Administration (US)
EAS	Economic Advisory Staff
EIB	Export-Import Bank (US)
GOI	Government of Israel
LTP	long-term planning/long-term plan
MOF	Ministry of Finance
MSA	Mutual Security Agency (US)
MTI	Ministry of Trade and Industry
NLI	National Library of Israel

B. Chronology of Major Events, 1952-1955

1952

February 13	New Economic Policy announced.
April	Israel's first appeal to the US for emergency aid to repay/ refinance short-term debt.
June 11	Ben-Gurion appoints Eshkol Minister of Finance, replacing the ailing Eliezer Kaplan.
Late July	Mikesell Report recommends that the US allow Israel to use $25 million of its MSA grant to pay down short-term debt, on condition that Israel avoid new short-term debt and implement a foreign currency budget.
August 8	Truman approves imposing tougher conditionality on Israel.
September 10	Reparations Agreement signed with West Germany.
September 12	Gass submits a foreign currency budget for July 1, 1952-June 30, 1953.
November 4	Eisenhower is elected President of the US.
December 1	Ben-Gurion decides to establish a "Central Bureau for Economic Coordination and Planning," which will later be called EAS; asks Kollek to expedite it.
December 2	In a three-page document, Kollek explains why the EAS is needed.
December 22	Ben-Gurion presents his new government, which includes the General Zionist and Progressive parties.

1953

January	Beginning of intensive preparations to establish the BOI. Beginning of negotiations to establish the EAS.
March 27	Reparations Agreement with West Germany goes into effect.
April 2	After contentious negotiations, Gass and Eshkol agree to go forward with EAS.
April 7	Gass signs the EAS contract and Kollek's "Letter of of Terms."
April 26	The Council of Economic Ministers approves Gass' appointment as EAS Director.
May 27	Gass arrives in Israel and the EAS begins work.
June	Mikesell's second mission to Israel.
June 13	Eshkol appoints Pinhas Sapir Director-General of the MOF, replacing Ehud Avriel.
July 9	Eisenhower approves imposing tougher conditionality on Israel.
July 16	EAS meets with Ben-Gurion and the Council of Economic Ministers.
August 24	Gass leaves for Stockholm on his way to the US; expected to spend a month abroad.
October 20	The US announces that it will withhold $50 million in MSA aid over the Jordan River water project.
October 28	US-Israel agreement: Israel will cease construction on the Jordan River water project, and the US will resume MSA aid to Israel ($26 million for first half of fiscal year 1953).
October 28	Ben-Gurion announces his retirement as Prime Minister.
December 7	Ben-Gurion officially resigns as Prime Minister, broadcasts farewell address.
December 10	The United Jewish Appeal launches its Consolidation Loan campaign with a $75 million goal; in June 1953 Dulles had rejected Israel's request for a $75 million consolidation loan from the EIB.

1954

January 26	Prime Minister Sharett takes office. The Sharett government is chaotic in many respects; Ben-Gurion manages many affairs of state from his home in Sde Boker (160 km from Jerusalem).
March	The short-term debt situation improves significantly.
March 4	Gass returns after approximately two months in the US.
March 27	Bell-Eshkol meeting without Gass. Preliminary discussions about a potential EAS role in LTP. By now, Bell has effectively replaced Gass as the EAS' leader.
Ca. April	Gass and Bell form the consulting firm Gass, Bell and Associates.
May 12	Cabinet approves BOI Law drafted by Horowitz, ignores the objections of Lerner and Gass.
May 13	Gass denies a report that he will soon resign.
May 26	At a press conference, Gass sounds the alarm regarding Israel's BOP.

May 28	Eshkol rebukes Gass in writing for his May 26 press conference.
May 30	Gass departs for the US and remains there for 11 months. Bell becomes Acting Director.
June 4	Bell defends Gass for his May 26 press conference.
July 12	Israel joins the IMF.
July 23	The "Rotten Business"–Egyptian authorities arrest the first of thirteen Israelis, for a failed plot to bomb American and British targets in Cairo and blame Egypt. The resulting "Lavon Affair" would dramatically influence Israeli politics through the 1960s.
Early August	GOI-EAS push for LTP.
August 29	The Council of Economic Ministers approves LTP proposal.
September 15	First meeting of the Planning Secretariat.
September 15	The Prime Minister's Office denies rumors of Gass' impending resignation.
November 5	Eshkol lauds American Jewry for the United Jewish Appeal's $65 million Consolidation Loan.
December 1	The BOI opens.
1955	
January 1	Beginning of "Operation Alpha," an unsuccessful US-UK initiative for peace between Israel and Egypt.
January 31	Kollek notifies Bell that the EAS will terminate on July 31, 1955.
February 16	Bell, Eshkol and Kollek agree that over the next few months, the EAS will make "every effort ... to prepare at least an outline for [a LTP]."
February 21	Ben-Gurion returns to the GOI as Minister of Defense, replacing Pinhas Lavon, who was forced out over the "Rotten Business."
February 28	Launch of Operation Black Arrow (a counterterrorism operation) on the Egyptian border.
April	Eshkol asks senior EAS staff members (excluding Gass) to remain for an additional year on individual contracts.
Ca. April 30	Gass arrives for a visit after an 11-month absence.
May 20	Gass departs.
June 29	Sharett drops the General Zionist and Progressive parties from the coalition.
July 14	Gass returns to Israel to close his office.
July 26	General election. Ben-Gurion leads Mapai to victory and begins to form a new coalition (this would take until November 3). Meanwhile, Sharett presides over a caretaker government.
July 31	The EAS terminates its operations. Lerner accepts Eshkol's offer to remain for one more year as advisor to the MOF. Gross accepts Labor Minister Golda Meir's offer to direct the Institute for Labor Productivity.
August 1	Bell holds farewell press conference.
August 2	Bell-Sharett farewell meeting.

C. List of EAS Memoranda by Topic

Macroeconomics and International Economics
(including Economic Independence, Planning and Public Finance)

#	Title	Author	Date	Note	Location
1	Israel's Economic Performance, 1949-1953	Gaathon	5/12/54		5509/5-Gimmel, 10757/10-Gimmel
2	Projection of Israel's Economic Development Towards Economic Independence	Gaathon	?/?/55		1956 revision AGP, 1831/2-Peh
3	Provisional Estimates of Israel's National Accounts, 1954	Gaathon	5/19/55		AGP, 1831/2-Peh
4	Resources Available and Their Use, 1953 and 1954, at Current and at 1953 Prices	Gaathon	5/11/55	Draft	AGP 1831/2-Peh
5	The Israel Economy in 1954	Bell and entire EAS Staff	7/25/55	Hebrew	AGP, 1831/4-Peh
6	National Income in 1954	Gaathon	3/25/55	3rd draft	AGP 1831/2-Peh
7	Prices in Clearing Agreements	Rosenberg	1/24/55	Cited by Rubner (1960, 204)	Did not survive
8	Report on the Bank of Israel Bill*	Lerner	4/27/54		5617/13-Gimmel
9	Bank of Israel's Annual Report on Money Supply Expansion, January 1954 to January 1955*	Lerner	5/16/55	with handwritten marginalia by Bell	5509/15-Gimmel
10	Export Subsidies and Unemployed Resources*	Lerner	7/5/55		5509/15-Gimmel
11	Growth of Industrial Exports*	Bell	2/22/54		4569/21-Gimmel
12	Utilization of	Riemer,	8/9/54	In response	Ben Guri-

	Capital Imports in Israel 1948-1954*	assisted by Bell, Lerner, Beham		to inquiries by Ben-Gurion	on Archives
13	The Nature and Requirements of Industrial Planning	Perloff	9/17/54		5780/11-Gimmel
14	The Major Functions of Economic Planning and Coordination	Perloff	9/20/54		5509/15-Gimmel
15	Some Suggestions on Assisting Israel Industrial Exports*	Gass	8/4/53		5509/14-Gimmel
16	Memorandum for Discussion at Finance-EAS Meeting 4 PM, Thursday December 31*	Gross	12/30/53	Topic: Fiscal Policy	5780/11-Gimmel
17	A memorandum on the BOP (title unknown)*	Kessler		Cited by Gaathon in #2	Did not survive
18	Outline of a Proposal for a Stable Purchasing Power Bond to be Issued by the Treasury of the State of Israel*	Gass	6/27/53		718/11-Peh, 5509/14-Gimmel
19	Letter to Eshkol on 1955/56 budget*	Bell	12/1/54		5509/15-Gimmel
20	Letter to Eshkol on 1954/55 budget and Appendix II on Cash Subsidy Proposal*	Bell	1/20/54		718/11-Peh
21	Dissenting Opinion, Lehman Committee on Indexation of Government Loans*	Lerner	1/4/55		NLI
22	Financial Effect of the Elimination of the United States Grant-	Bell	10/20/53		718/11-Peh

	In-Aid*				
23	Letter to Eshkol: "Removal of Subsidies by Raising Exchange Rates"*	Bell	5/20/54	cc. Dov Yosef	718/11-Peh
24	The Inflationary Potential of the Current CLA Agreement*	Lerner	3/30/54		718/11-Peh
25	Letter to Eshkol recommending budget cuts/improved tax collection*	Bell	2/14/54		718/11-Peh
26	Should the Terms of the Consideration to be Received by the GOI, as Countervails for Loans under the Development Budget, be Adjusted in Relation to General Fluctuations in the Value of Money?*	Gass	7/22/53		718/11-Peh
27	Advisability of Attempting to Postpone Repayment of Israel's Indebtedness to the Export-Import Bank of Washington*	Gass	7/12/53		718/11-Peh
28	Materials Required for Economic Decisions by the Government of Israel	Bell	9/13/54	Topic: Planning	5509/15-Gimmel

* denotes memoranda in money doctoring fields, including recommendations for improving the BOP at the macroeconomic (not sectoral) level.

Industrial Economics and Microeconomics

#	Title	Author	Date	Note	Location
29	The Price of Bread in Israel	Beham and Rosenberg	5/24/54	Requested by MTI	718/11-Peh, 4126/14-Gimmel
30	Comments on Memorandum Prepared for the Council of Economic Ministers by Ministry of Trade and Industry on the Economic Advisory Staff Bread Report	Beham and Rosenberg	7/4/54		4126/14-Gimmel
31	Joint EAS-MTI memorandum on bread prices	Bell and Deputy Minister Susayeff	7/6/54		4126/14-Gimmel
32	Production Costs, Sales, Prices and Profits in the Israel Tire Industry	Edna Gass	2/1/54		
33	Tire Prices Maximums and Related Issues	Edna Gass	5/23/54	Requested by MTI and MOT	5509/5-Gimmel
34	Official and Free Prices	Ramati	9/22/53	Cited by Rubner (1960, 59)	Did not survive
35	Production Costs, Sales, Prices and Profits in the Israel Cement Industry	Erdreich, assisted by A. Schweitzer	5/17/54	Requested by MTI	5509/5-Gimmel
36	American-Israel Paper Mills	E. Altschuler	7/27/55	Cited by Rubner (1960, 170) and newspapers	
37	Citrus Packing Cases	E. Altschuler	6/6/55	Cited by Rubner (1960, 186n1)	Did not survive
38	Report on Watch Industry Study	A. Kessler and Erdreich	10/10/54	Cited by Rubner (1960, 270-271)	1865/26-Gimmel
39	Comments on the Report of the Stanford Research Institute	Perloff	9/13/54		5780/11-Gimmel
40	The Stanford Study on the Industrial Economy of Israel	Lerner	8/25/54		5780/11-Gimmel

41	First Draft of Possible Statute Establishing Competitive Practices Authority – Competitive Practices Act	Leventhal	5/12/54		5780/11-Gimmel
42	Suggestions Relating to the Problems of Restrictive Business Practices; Recommendation of Competitive Practices Authority	Leventhal	5/10/54		5780/11-Gimmel
43	Sizes and Sources of Raw Sugar Factories for Israel	Gass	8/6/53	Requested by MTI	5509/14-Gimmel, 4568/8-Gimmel
44	Tentative Themes Regarding the Production of Sugar From Sugar Beets in Israel	Anonymous	10/19/53		4568/8-Gimmel
45	Letter to Bernstein-initial recommendations of Sugar Committee	Bell	1/6/54	Requested by MTI. There was also an EAS memo that was discussed in the media but did not survive.	5780/11-Gimmel, 4568/8-Gimmel
46	Junk and Scrap Problems in Israel	Arieh Nesher	4/5/54	Sent to Gross	1219/7-Gimmel Lamed
47	Projected Investment in Mining and Mineral Exports	Bell		Development Minister Dov Yosef read and rejected it (718/11-Peh, 102)	Did not survive
48	Profitability of Kaiser-Frazer Operations to the Israel Economy	Erdreich, assisted by EAS Staff	3/30/55		3460/18-Gimmel

Agriculture and Irrigation

#	Title	Author	Date	Note	Location
49	Per Capita Food Consumption in Israel and in Other Countries		6/30/53		
50	Progress Report. Training for Agriculture in Israel		8/11/53		
51	Proposed Purchases of Irrigation and Agricultural Equipment under Reparations Program (Shilumim)		9/7/53		
52	Comprehensive Economic Program		9/14/53		
53	General Survey of Agriculture in Israel		9/20/53		
54	Cost of Irrigation Water in Israel, and its Economic Significance		9/20/53		
55	Retail Food Prices in Israel and in United States		9/21/53		
56	Agricultural Planning in Israel		9/30/53		
57	Agriculture and Food in Israel, 1952-53		10/6/53		
58	Estimated Future Cost of Irrigation Water to be Provided by Mekorot Water Co., and its Economic Significance		10/12/53		Subsequent drafts: 5486/1-Gimmel (undated, sent by Gass to Ben Gurion 11/19/53), MCP (11/13/53) and 10757/10-Gimmel (11/13/53)
59	General Survey of Agriculture in Israel		10/12/53	Revision of #49	
60	Agricultural Plan-		10/16/	Revision of	

	ning in Israel		53	#52	
61	Letter to Ben Gurion on irrigation plan	Gass	10/22/ 53		718/11- Peh
62	General Survey of Agriculture in Israel		11/12/ 53	Revision of #49 and #55	
63	Summary of Memo-randum "Estimated Future Cost of Irri-gation Water to be Provided by Me-korot Water Co., and its Economic Signifi-cance"		11/19/ 53	Summary of #54	Also in 5486/1- Gimmel
64	Agricultural Plan-ning in Israel		11/16/ 53	Revision of #56	
65	Summary of Memo-randum "Agricul-tural Planning in Israel"	Anony-mous	11/19/ 53		
66	Research Plan for Agricultural Re-search Station (with Consideration of Economic Aspects)		Undat-ed		
67	Storage of Irrigation Water in the Loessal Soils of the Negev		12/10/ 53		
68	Use of Reclaimed Sewage from the Tel Aviv Metropolitan Area, in the Negev and on the Coastal Sand Dunes		12/24/ 53		
69	Farm Organization to Economize Use of Water in the Negev		12/28/ 53		
70	Study of Livestock and Feed Price, De-mand, and Subsidy Problems		1/1/54		
71	Tables on Irrigation Practices		Undat-ed		
72	Current Proposals about Grain Import, Feed Prices and Prices of Livestock Products		1/19/5 4		
73	Price Relationships Among Agricultural Commodities		1/22/5 4		
74	Amount of Farm Machinery Needed in Israel		1/29/5 4		

75	Current Status of Irrigation Studies		1/29/54		
76	Suggestions for More Efficient Use of Farm Machinery in Israel		2/5/54		
77	A Program to Subsidize the Cost of Living Index as far as Eggs, Bread and Related Commodities Are Concerned		2/14/54		
78	Use of Reclaimed Sewage from the Tel-Aviv Metropolitan Area, in the Negev and on the Coastal Sand Dunes		2/17/54		
79	Suggestions for More Efficient use of Labor and Farm Machinery in Israel		2/22/54		
80	Some Notes on Marketing of Vegetables in Israel		3/22/54		
81	Alternative Possibilities on Egg and Grain Prices		2/1/54		
82	Irrigation, Agricultural and Settlement Problems and Policy for the Coastal Plain-Negev Regions. Appendix: Farm Organization to Economize the Use of Water in the Negev		4/25/54	Attached to letter to P. Naphtali from Gass, 5/3/54, relating to "Memorandum on Irrigation Policy"	
83	Prices at which Agricultural Commodities Estimated in Plan C to be Produced will Sell in 1960		6/8/54		
84	Manpower for Agriculture		6/23/54		
85	Prospective Prices of Agricultural Commodities, and What to Do about It		6/29/54	Abridged version of #78 with implications	
86	Economic Factors in the Development of Agriculture in Israel.		7/8/54		

	Remarks presented at a meeting of the Farmers' Federation of Israel, Tel Aviv				
87	Israel Agriculture in Recent Years, article submitted to Journal of Agricultural History		1955	Published in *Agricultural History* 29:2 (April 1955). "Journal of Agricultural History" appears to be a typo.	
88	Labor Required to Produce Agricultural Commodities in Israel		7/14/54		
89	Major Economic Problems and Policy Issues in Agriculture and in Irrigation		7/18/54		
90	Labor Requirement of Israel Agriculture, and Related Policy Issues		7/29/54	Hebrew translation 12/25/54	
91	Review of Current Status of Studies on Demand for Agricultural Commodities and Some Further Possible Steps		8/25/54		
92	Cotton Report for the Development and Utilization of the Water Resources of the Jordan and Litani Basins		9/12/54		
93	Statement on Settlement Program for Planning Committee/Formulation of the Best Settlement Program		9/26/54		
94	Letter Addressed to Mr. D. Kahane, Min. of Ag., Tel Aviv		9/27/54		
95	Theoretical Aspects of Milk Marketing in Israel		10/26/54		
96	Same Memorandum Translated into Hebrew		2/14/55		
97	Inducing Farmers to		12/22/		

	Use Irrigation Water Wisely		54		
98	Survey of Moshavim		Ca. Jan. 1955	reported by *Zmanim* newspaper, 1/24/55	Did not survive

Unless otherwise stated, all memoranda were authored by Clawson and are located in MCP Box 8, Folder 1.

Housing and Construction

#	Title	Author	Date	Note	Location
99	Problems in Israel Housing	Gross	8/28/53		5780/11-Gimmel
100	Memorandum on the “Shikun Olim” Proposals for the 1954/55 Development Budget	Gross	3/25/54		5780/11-Gimmel
101	The Size and Composition of Construction in Israel: 1949-1953	Gross, in collaboration with Arieh Nesher and Haim Duvshani	1953		NLI
102	Small Cities in Development Areas	Gross	12/13/54	Hebrew	2756/8-Gimmel Lamed

Project Evaluation

#	Title	Author	Date	Note	Location
103	Use of Group II (Machinery and Equipment) of German Reparations	Bell	9/13/53		17/15-Chet
104	Reparations Investments: Proposal for Acquisition of Six Vessels by the Israel Navigation Company, Ltd.	Bell	10/26/53		718/11-Peh, 5509/14-Gimmel
105	Reparations Investment in Construction Equipment	Gross and Arieh Nesher	?/?/53		NLI
106	Proposed Sale of Enameling Plant to Turkey	Erdreich and E. Altschuler	3/21/55	Cited by Rubner (1960, 181)	

107	Preliminary Observations on the Phosphate Calcination Project to Produce 300,000 Tons of Calcine Product Annually	Erdreich	8/24/54	Requested by Ministry of Development	5509/15-Gimmel
108	Aluminum and Brass Rolling Mill—A Project Evaluation	Erdreich	8/5/54	Similar to #100 ("Interim Report"); often referred to as "non-ferrous rolling mill." 718/11-Peh has cover letter by Bell to Dov Yosef, Aug, 6, 1954, requesting his comments	10757/10-Gimmel
109	Interim Report on Steel Rolling Mill	Erdreich	?/?/54	Cited by Rubner (1960, 233)	
110	Letter to Eshkol regarding proposed Frutarom project	Gass	10/2/53		4569/21-Gimmel
111	Letter to Dov Yosef regarding proposed agreement with Palestine Electric Corporation	Gass	10/5/53		718/11-Peh, 5509/14-Gimmel
112	Letter to Dov Yosef on proposed 140,000 Kw power station	Gass	12/1/53		718/11-Peh
113	Findings and Recommendations on the Growing and Processing of Flax in Israel	Rosenberg	8/4/54	Requested by MTI	10757/9-Gimmel and 10757/10-(pages out of order)
114	Project Review Memorandum for Ministry of Industry and Trade on Aluminum Packaging Containers	Erdreich and B. Sadove	12/14/53		4569/21-Gimmel
115	Letter to Dr. S. Lipschitz, Direc-	Gass	11/3/53		5780/11-Gimmel

	tor-General of Ministry of Industry and Trade regarding Raymond Lepow's proposal to erect buildings for export				
116	Planning and Purchasing for Heavy Construction	Gass	11/5/53		718/11-Peh
117	Suggestions as to Tnuva Central Co-op. Request for Government Financial Assistance to Construct a New Winery at Rehovot	Rosenberg	3/4/54	Requested by MTI	4119/8-Gimmel
118	Letter to Bernstein on Cargal Straw-paper Plant (possible use-to pack citrus exports)	Unknown	6/16/55	Only first page survived	4612/15-Gimmel

CPI Measurement

#	Title	Author	Date	Note	Location
119	Recommendations for COL Measurement Program	Ullman	7/23/54		5509/14-Gimmel
120	The Problem of Fresh Fruits and Vegetables in the Consumer Price Index	Smith	ca. October 1954	only an extract has survived	3557/22-Gimmel Lamed

D. Tables

Table 1. Population Growth, Labor Force Growth and Unemployment

Year	Population (1000s, End of Year)	Population Growth (%)	Civilian Labor Force (1000s, Annual Average)	Civilian Labor Force Growth (%)	Unemployment Rate (%)	Unemployment Rate Including Labor Force Potential of Immigrant Camps (%)
1948	867.0					
1949	1,173.9	35.4	343		9.5	13.9
1950	1,370.1	16.7	450	31.2	6.9	11.2
1951	1,577.8	15.2	545	21.1	6.1	8.1
1952	1,629.5	3.3	584	7.2	7.2	8.1
1953	1,669.4	2.4	599	2.6	11.3	11.5
1954	1,717.8	2.9	608	1.5	8.9	9.2
1955	1,789.1	4.2	619	1.8	7.4	
1956	1,872.4	4.7	646	4.4	7.8	
1957	1,976.0	5.5	690	6.8	6.9	
1958	2,031.7	2.8	698	1.2	5.7	
1959	2,088.7	2.8	714	2.3	5.5	
1960	2,150.4	3.0	736	3.1	4.6	

Sources: Population, Population Growth and Civilian Labor Force Growth (Michaely, 1975, Appendix A, Table A-1). Civilian Labor Force is an annual average and includes persons aged 14 and older. Unemployment Rate (Pomfret, 1976, 142).

Table 2. GNP and Consumption Growth

Year	Real GNP Growth (%)	Real Per Capita GNP Growth (%)	Real Per Capita Consumption Growth (%)	Consumption/GNP Ratio (%)
1950				84.9
1951	30.9	11.0	3.9	79.4
1952	7.4	-0.1	0.0	79.5
1953	1.2	-1.5	0.8	81.3
1954	21.9	19.2	12.4	76.7
1955	12.2	8.3	4.3	73.9
1956	8.6	3.9	4.7	74.3
1957	9.1	3.4	1.2	72.8
1958	9.4	5.6	6.3	73.3
1959	13.2	9.8	6.6	71.2
1960	8.1	5.3	4.2	70.4

Source: Michaely (1975, Appendix A, Tables A-2, A-3)

Table 3. Saving and Investment

Year	Real Investment Growth (%)	Gross Savings /GNP Ratio (%)*	Investment/ GNP Ratio (%)	Net Savings /NNP Ratio (%)**	Share of Investment Undertaken by Public Sector (%)	Share of Residential Investment Undertaken by Public Sector (%)	Share of Investment Financed by Public Sector (%)
1950		7.2	55.3	3.4			
1951	18.2	13.4	49.9	9.8			
1952	-14.1	7.7	39.9	1.3	34		
1953	-16.3	5.2	33.0	-3.3	45		
1954	11.5	7.2	30.2	-1.2	50		
1955	23.2	6.1	33.1	-2.3	59	41	
1956	-5.4	0.2	28.9	-9.0		39	52
1957	17.0	6.2	31.0	-2.6		51	57
1958	7.4	8.6	30.4	0.4	45	47	53
1959	9.3	10.4	29.4	2.6	38	45	52
1960	5.0	4.2	28.5	2.8	41	40	53

*Gross Savings = GNP – Consumption
**Net Savings = GNP – (Consumption + Depreciation)
Source: Michaely (1975, Appendix A, Tables A-3, A-4, A-6)

Table 4. CPI Inflation and Money Supply Growth

Year	CPI Inflation (%)	Money Supply Growth, Series 1 (%)	Money Supply Growth, Series 2 (%)
1949			39.1
1950			35.4
1951	14.0	31.8	27.2
1952	58.2	10.3	6.5
1953	28.1	6.5	24.5
1954	12.1	24.7	20.1
1955	5.9	20.4	20.4
1956	6.5	17.7	23.2
1957	6.4	20.0	11.5
1958	3.4	15.1	14.5
1959	1.5	12.8	10.0
1960	2.3	13.3	21.3

Sources: CPI Growth and Money Supply Growth Series 1 (Michaely, 1975, Appendix A, Tables A-16 and A-17). Money Supply Growth Series 2 (Michaely, 1975, 124, 126; BOI, 1962, Table XIV-3; 1965, Table XV-5).

Table 5. Public Finances, % of GDP

Fiscal Year*	Expenditures	Tax Revenues	Unilateral Receipts From Abroad	Absorption = Tax Revenues + Unilateral Receipts From Abroad	Deficit = Expenditures – Absorption	Long Term Foreign Loans
1949/50	54.4	11.2	8.9	20.1	34.3	2.0
1950/51	55.2	13.1	5.5	18.6	36.6	3.7
1951/52	42.4	14.0	5.0	19.7	22.7	4.7
1952/53	38.4	15.6	8.2	23.8	14.6	7.5
1953/54	36.8	17.7	6.7	24.4	12.4	6.3
1954/55	39.8	18.9	13.3	32.2	7.6	7.0
1955/56	39.6	21.4	10.7	31.1	8.5	5.4

* Fiscal Year: April 1-March 31. For 1948/49, May 1, 1948-March 31, 1949.

Source: Barkai and Liviatan (2007, 36)

Table 6. Exports, Imports, Trade Deficit and Capital Imports

Year	Nominal Export Growth (%)*	Nominal Import Growth (%)*	Exports (% of GNP)**	Imports (% of GNP)**	Trade Deficit (% of GNP)**	Capital Imports*** (% of GNP)
1950			3.6%	25.7%	22.1%	12.7%
1951	45.7	29.9	3.4%	21.9%	18.5%	13.9%
1952	28.4	-7.7	5.7%	25.5%	19.8%	19.9%
1953	18.6	-7.1	8.9%	22.7%	13.8%	15.1%
1954	32.4	2.2	12.7%	31.9%	19.2%	28.8%
1955	6.7	14.5	12.2%	36.1%	23.9%	24.9%
1956	23.6	25.3	12.6%	37.9%	25.3%	23.1%
1957	24.7	4.1	13.6%	34.0%	20.5%	19.4%
1958	5.9	2.2	12.4%	29.9%	17.6%	18.8%
1959	21.7	5.8	13.1%	27.7%	14.5%	16.5%
1960	25.5	15.6	14.7%	28.5%	13.8%	17.7%

*Original series in current US dollars.
**Original series for exports, imports and trade deficit are in current US Dollars. Original series for GNP is in current IL. Exports, imports and trade deficit have been converted to current IL using the formal IL/$ exchange rate.
***Including national institutions (i.e. the Jewish Agency). Original series for capital imports in current US Dollars. Original series for GNP in current IL. Capital imports have been converted to current IL using the formal IL/$ exchange rate for imports.
Sources: Michaely (1975, Table 5-1, Appendix A, Tables A-10 and A14) and authors' calculations.

Table 7. US Assistance to Israel, in Millions of $, from Fiscal Year 1949 to Fiscal Year 1960

Fiscal Year	Total	Military Loan	Economic Loan	Economic Grant	Food For Peace Loan	Food For Peace Grant	Export-Import Bank Loan
1949	100.0						100.0
1950							
1951	35.1			0.1			35.0
1952	86.4			63.7		22.7	
1953	73.6			73.6		<$50,000	
1954	74.7			54.0		20.7	
1955	52.7		20.0	21.5	10.8	0.4	
1956	50.8		10.0	14.0	25.2	1.6	
1957	40.9		10.0	16.8	11.8	2.3	
1958	85.4		15.0	9.0	34.9	2.3	24.2
1959	53.3	0.4	10.0	9.2	29.0	1.7	3.0
1960	56.2	0.5	15.0	8.9	26.8	4.5	0.5

Source: Sharp (2016)

Table 8. Gross External Reserves ($ millions), End of Year

Year	External Reserves	Percentage Change
1948	141	
1949	117	-17.0
1950	66	-43.6
1951	34	-48.5
1952	31	-8.8
1953	39	25.8
1954	81	107.7
1955	90	11.1
1956	87	-3.3
1957	84	-3.4
1958	130	54.8
1959	168	29.2
1960	270	60.7

Source: Michaely (1975, 35)

Table 9. External Debt and Short-Term External Debt ($ Millions), Israeli Requests and US Responses

Date	External Debt	Of Which: Short- Term External Debt*	Ratio of Gross Reserves** to Short Term External Debt	Israeli Request	US Reply
April 1952				Allow use of MSA funds to repay past due short-term debt.	Allowed use of part of the fiscal year 1951 MSA grant to repay past due short-term debt; asked Mikesell to go to Israel (Acheson note of April 30 said US would send an anonymous representative).
June 18, 1952		124	0.26	Sharett: Debt consolidation by EIB or purchase of IL by US Treasury Stabilization Fund; The latter is preferable because it is "a secret operation."	Acheson: "What must be determined is whether Israel's financial policy will be effective or whether Israel will continue policies which would recreate the present situation ... Mr. Mikesell is being sent to Israel to try to find an answer." MSA funds may not be used. Unaware of Treasury SF possibility; "had assumed the only possibility was an EIB transaction."
June 30, 1952		124	0.26	Sharett to meet Truman July 1, may discuss the debt problem.	Bruce: Truman should tell Sharett: "(1) The subject is now under study by Dr. Mikesell, who is on his way to Israel; (2) that any action

					will depend in part on the nature of his findings; and (3) that Israel should by no means assume that a favorable reply is a foregone conclusion.”
July 1952		115 (all in $)			
Late July 1952					Mikesell (2000, 121): “In my report ... I recommended that $25 million of the MSA grant for fiscal 1953 be made available to pay selected short-term obligations; that the Israeli government agree not to enter into new short-term obligations; and that the Israeli government establish a foreign exchange budget and system of accounting that would enable the MOF to know its financial position at all times. The basic provisions of my report were agreed to by the Israeli government, and the funds were made available.”
March 10, 1953		98 (Mikesell 2000, 122) Reduced by >20 [not clear relative to what amount]. “shortfall $20 million expected from April 1 through June 30.” GOI “estimates refunding operations	0.34	Sharett (with Eshkol present) to Davis, McDaniel, other US officials: GOI “will in any event have to come to United States Government for ‘one time’ special assistance after June 30. Proceeds to be used only for refunding purposes. Amount not specified.”	

		would yield $10 million saving”			
May 5, 1953				“Israel has requested a ‘one-time’ grant of $70,000,000 to pay its ... short-term debts”	State Dept.: “We question whether large-scale aid to pay Israel’s debts would be justified at this time. ... we are inclined to feel that if default becomes imminent, consideration might first be given to meeting the problem from loan funds or, if this is not feasible, by making emergency use of MSA funds already appropriated.”
May 13, 1953	387	100	0.34	Eshkol to Stassen, McDaniel, and other US officials: “the major problem now facing Israel was that of ‘debts’”	Stassen: “for budgetary and other reasons the US Government was screening its foreign aid programs carefully this year and consequently was very much interested in the efforts recipient countries were making toward attaining economic stability and self-sufficiency.”
May 14, 1953	380	100	0.34	Eshkol, Bernstein and Horowitz: “the most urgent of the problems was that of the external short-term debt ... by refunding the short-term debt and by discontinuing this short-term borrowing, from $15 to $20 million would be saved annually in procurement.” “It was feared that the use [the EIB] for refunding purposes might preclude obtaining a further	Stassen (with Dulles present): “[the US] will prefer to see the Israeli problem handled, by refinancing of the short-term debt through the present holders of that debt or to private financial institutions.”

				loan from this source at a later date for development purposes.”	
June 18, 1953	386 Creditors: “Eximbank, American and foreign private interests”	111	0.32	a. “$7 million remaining from unused 1953 appropriations” to repay short-term debts; b. a $75 million consolidation loan from the EIB	“[Dulles] agreed to $7 million only and disapproved the rest.”
March 11, 1954	400	73***	0.68		

*Payable within one year

** For this calculation, monthly values for Gross Reserves are interpolated using year-end values from Table 8.

*** By December 1954, short-term external debt was reduced to $34 million, thanks to the consolidation loan from US Jewry (Eshkol budget speech, *Haaretz*, February 9, 1955). The ratio of Gross Reserves to Short-Term External Debt rose sharply to 2.38.

Table 10. Formal and Effective Exchange Rates

Year	Formal Rate-Exports	Formal Rate-Imports	Effective Rate-Exports	Effective Rate-Imports
1949	0.34		0.35	0.39
1950	0.36		0.39	0.40
1951	0.36		0.41	0.40
1952	0.70	0.69	0.81	0.81
1953	1.16	0.83	1.28	1.17
1954	1.66	1.51	1.73	1.80
1955	1.8		1.83	2.21
1956	1.8		2.05	2.26
1957	1.8		2.21	2.33
1958	1.8		2.37	2.35
1959	1.8		2.49	2.50
1960	1.8		2.58	2.57

Source: Michaely (1975, 122)

Table 11. Composition of Exports (% of Total)

Year	Citrus Fruits	Other Farm Prod.	Citrus Prod.	Other Foodstuffs	Diamonds	Textile Prod.	Chemicals	Tires And Tubes	Mine And QuarryProd.	Other Ind. Prod.
1950	47.2	0.6	3.9	4.8	24.7	11.0	1.4	—	0.3	6.2
1951	35.5	0.4	7.1	3.3	26.1	14.5	2.9	—	0.2	9.8
1952	37.9	0.5	7.1	1.8	26.4	11.0	1.4	—	0.9	12.9
1953	37.5	0.9	4.3	1.0	22.2	9.4	2.6	1.6	2.6	17.9
1954	38.8	2.7	3.2	1.4	18.2	5.3	3.1	2.7	3.6	21.0
1955	35.5	2.9	2.4	1.5	22.8	6.2	3.3	2.9	3.3	19.4
1956	37.7	3.2	3.6	2.2	23.2	5.3	3.6	3.5	3.5	14.4
1957	34.5	4.3	2.7	2.8	25.2	5.7	5.4	3.5	2.9	13.1
1958	34.8	6.0	4.1	2.1	23.9	6.7	4.3	4.2	1.7	12.3
1959	26.0	6.9	3.0	3.4	25.6	6.4	4.9	3.7	3.7	16.4
1960	22.1	7.9	1.3	3.4	26.7	8.6	4.9	3.7	3.3	18.1

Source: Michaely (1975, 197)

Peddling Macroeconometric Modeling and Quantitative Policy Analysis: The Early Years of the SSRC's Committee on Economic Stability, 1959-1963

Juan Acosta* and Erich Pinzón-Fuchs**

Using the Social Science Research Council's records, we discuss the two projects that the Committee on Economic Stability carried out during its first three years of existence: (i) the construction of a macroeconometric model (1960-1963) and (ii) the organization of a conference on quantitative policy analysis (1963). In line with the central theme of this special issue, we focus on the effect of the Committee's activities on public economic discourse and argue that, while the Committee did not participate directly in the policy debate, it did purposefully contribute to the growing importance of macroeconometric models in policy analysis. Thus, with its activities, the Committee helped usher in an age of quantified and model-based economic discourse that was not, however, exclusively technical but that recognized both the importance of the political character of the policy-making process and the limits of the economists' toolkit.

Keywords: modeling, Social Science Research Council (SSRC), quantification, macroeconometrics

La modélisation macroéconométrique et l'analyse quantitative, de nouveaux outils de prise de décision de politique économique : les premières années du Comité pour la Stabilité Économique du SSRC, 1959-1963

En utilisant les archives du Social Science Research Council, nous discutons les deux projets que le Comité pour la Stabilité Économique réalisa durant les trois premières années de son existence : (i) la construction d'un modèle macroéconométrique (1960-1963) et (ii) l'organisation d'une conférence sur l'analyse quantitative de politique économique (1963). Ce papier s'inscrit dans la thématique centrale de ce numéro spécial dans la mesure où nous nous concentrons sur l'effet que les activités du Comité ont eu sur le discours public économique. Nous soutenons que le Comité a contribué délibérément à établir l'importance des modèles macroéconométriques dans le débat politique, malgré le fait

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qu'il n'ait pas participé directement au débat public. Ainsi, à partir de ces activités, le Comité a joué un rôle décisif dans l'instauration d'une ère caractérisée par un discours économique basé sur la modélisation et la quantification. Toutefois, cette période ne fut pas exclusivement basée sur la technique puisque les économistes reconnurent le caractère politique du processus de prise de décisions politiques et les limitations méthodologiques de leur boîte à outils.

Mots-clés : modélisation, Social Science Research Council (SSRC), quantification, macroéconométrie

JEL: B22, B23

The Committee on Economic Stability of the Social Science Research Council (SSRC) was established in 1959 and played a key role in the construction of large-scale macroeconometric models during the 1960s and early 1970s. Using archival material from the SSRC, we discuss the two projects that the Committee carried out during its first three years of existence:[1] (i) the construction of a macroeconometric model (1960-1963) and (ii) the organization of a conference on quantitative policy analysis (1963). In line with the central theme of this special issue, we focus on the effect of the Committee's activities on public economic discourse and argue that, while the Committee did not participate directly in the policy debate, it did purposefully contribute to the growing importance of macroeconometric models in policy analysis. Thus, with its activities, the Committee helped usher in an age of quantified and model-based economic discourse that was not, however, exclusively technical but that recognized both the importance of the political character of the policy-making process and the limits of the economists' toolkit.

The Committee was created as a joint venture of economists in academia, think tanks, and government institutions that were interested in better understanding economic instability in postwar United States. Although the available evidence suggests that advising government agencies on economic policy was not a clear priority when the creation of the Committee was initially discussed, a much stronger interest in influencing economic policymaking is clear in the two projects that the Committee carried out during its first years and that

[1] The SSRC's records include mainly minutes and correspondence related to the functioning of the Committee and its activities. Several of the papers presented at the different meetings and conferences organized by the Committee are also included. They thus offer a window into the everyday planning and discussions of the Committee members, which we hope will be complemented as archives from individual participants become available. References to the records of the SSRC—located at the Rockefeller Archive Center—are identified by SSRC1 (Record group 1, Accession 1, series 1.) and SSRC2 (Record group 2, Accession 2, Series 1).

we discuss here. First, the Committee's model was designed to be useful for policy analysis and not just for forecasting: it was considerably more disaggregated than the models built by Lawrence R. Klein at the Cowles Commission (Klein, 1950) and the Klein-Goldberger model built at the University of Michigan (Klein and Goldberger, 1955), and it included parameters that represented actual policy instruments to accommodate the needs of policy makers. In addition, the project successfully engaged important government agencies that provided data series and whose officials also contributed with their expertise in the construction of individual sectors of the model. Second, the 1963 conference deliberately reinforced the Committee's role as a promoter of quantitative methods for policy analysis in the United States by showcasing the experiences of Japan, France, and the Netherlands—which relied in these methods to a much greater degree than the United States. The Committee, however, did not offer ready-made solutions. Instead, they promoted the more modest view that quantitative policy analysis had the potential to make economic policy better and that it was worth investing resources in its development.

The activities of the Committee also offer a useful contrast with some of the institutions and people considered elsewhere in this special issue. The Committee's active and purposeful engagement with government institutions and officials contrasts with Robert Lucas's careful distancing from the world of policymaking described in Goutsmedt *et al.* (2019, this issue). At the same time, contrary to the privileged place of Walter Heller at the Council of Economic Advisers and the direct policy advice he provided to President Kennedy (Cherrier, 2019, this issue), the Committee's activities involved the technical staff and mid-ranking officials, and they were related to the creation of tools and to the promise of providing better ways of thinking about economic policy instead of giving concrete policy advice. Finally, the Committee's outsider position and its efforts in peddling the potential uses of the methods it promoted are in stark contrast to the authority and legitimacy that the Central Planning Bureau and its model exerted, from the start, in Dutch policy making, given that the Bureau occupied a central position at the heart of the Dutch government (Kayzel, 2019, this issue).

1. The Establishment of the Committee on Economic Stability

The establishment of the Committee was the result of an SSRC "Conference on Economic Instability" held on June 17-19, 1959 at the University of Michigan. According to Robert A. Gordon (Berkeley), he and other economists associated with the SSRC who were interested in creating a committee on business cycle research proposed the conference to explore this possibility further (Gordon, 1975, 31; 1959, 38). As the first column of Table 1 shows, participants came from academia, government agencies, and private institutions like the Brookings Institution and the National Bureau of Economic Research (NBER). Gordon opened the discussion by briefly introducing the topics that would be discussed at the conference, centered on understanding what was known about the instability of the US economy and whether there were fundamental differences between pre and postwar business cycles. He stressed three characteristics of the postwar experience: "(1) the absence of a serious depression associated with a fairly rapid rate of growth, (2) the persistence of inflationary pressures, and (3) the continued recurrence of what have come to be called 'minor cycles."[2] These phenomena needed an explanation, and Gordon noted in particular the lack of interest that theoreticians working on models based on the multiplier-accelerator mechanism seemed to have on explaining these minor cycles and even the extraordinary ones like the 1930 depression. Not surprisingly, Gordon considered that "this theoretical model-building ha[d] been largely divorced from the empirical and policy literature of the postwar period."[3]

Table 1: Participants in Committee activities.[4]

	Michigan (1959)	Dartmouth 1 (1961)	Dartmouth 2 (1962)	1965 Volume	Conf. QPA (1963)
Number of participants	19	29	30	25	32
Participants with PhDs	16	21	20	21	-
Participants from academia	11	18	21	21	11
Participants from gov. agencies[5]	5	8	7	4	13
Participants from private institutions	3	3	3	1	9

Source: Records of the SSRC.

[2] "Notes for the SSRC Conference on Economic Stability," SSRC1, box 145, folder 801. Gordon (1957) had previously discussed these characteristics of the US economy in the postwar.
[3] *Ibid.*
[4] A couple of the participants had double affiliations and were thus counted twice. The information about the education of participants is not complete, so the number of PhDs presented is a lower bound. Given the amount of international participants for which we do not have adequate information, we do not report the number of PhDs for the 1963 conference.
[5] This includes multilateral agencies and foreign government agencies.

Geoffrey Moore (NBER), Bert Hickman (Brookings Institution), and James Duesenberry (Harvard) also presented papers that looked in detail at the characteristics of the business cycle and at the changing role of specific elements in making the economy more or less stable (e.g., fiscal policy, financial distress, and the so-called automatic stabilizers that had been put in place in the postwar). The paper presented by Duesenberry—co-authored by Gary Fromm (Brookings Institution) and Otto Eckstein (Joint Economic Committee)—had been specifically commissioned by the organizers of the conference and was the only paper that contained an econometric model.[6] The core of the paper consisted of the various simulations, "policy experiments," that Duesenberry, Eckstein, and Fromm carried out to consider the effects of different fiscal policies and of the automatic stabilizers on economic instability. The model had several intentional limitations that the authors willingly acknowledged—it only considered an economy in recession and it did not consider monetary policy or price changes—but it showcased effectively the type of questions that could be investigated with such a model. As Lawrence R. Klein (Pennsylvania) later put it, the model played an important role in "the whetting of the appetites" for a large-scale macroeconometric model (Klein, 1975, 13).

The summary of the discussion shows that there was an active debate around each of the papers presented, not only on the specific elements that were considered to contribute to the stability or instability of the postwar economy of the US but also on the methodological and organizational aspects of carrying out research on this subject.[7] The conference concluded with a vote in favor of the establishment of a committee at the SSRC that would fulfill several functions. As reported in Gordon's summary of the conference (1959, 39) for *ITEMS*—the SSRC's magazine—these functions were to (i) "facilitate the coordination of research," (ii) "help integrate current research methodologies,"[8] (iii) "facilitate the collection and publication of

[6] "Stability and Instability in the American Economy," SSRC1, box 145, folder 801. A revised version of the paper appeared later in *Econometrica* with a different title: "A Simulation of the United States Economy in Recession" (Duesenberry et al., 1960). Note that during our period of interest Eckstein was part of the CEA's staff, not a member. He did serve as a member later, during 1964-1966.

[7] Discussion summary, SSRC1, box 145, folder 801. These notes were taken by someone with the last name Barlow, perhaps Robin Barlow, who is unfortunately not included in the conference's list of participants. Inter-office correspondence mentions he did a good job considering the difficulty of the task, but that some individual views might not have been captured completely faithfully. We thus stress the contents of the discussion more than the individual views presented in the discussion. See inter-office correspondence, September 22, 1959, SSRC2, box 151, folder 1721.

[8] While econometric modeling clearly occupied a central role, the "historical" approach of the NBER was seen as a potentially useful complement. The

needed data, particularly by the Federal Government," and (iv) "serve as a channel of communication and a facilitating agency in the field of research on problems of economic instability." The first function was specifically geared towards helping researchers working on econometric models come together. Gordon highlighted the need to take stock of the research available in order to avoid duplication of work and to channel efforts into disaggregation. He hoped that "[i]n this way econometric business-cycle research could have much more of a cumulative effect than has been true in the past, when each investigator has started largely from scratch" (*ibid.*). Judging from the summary of the discussion at the conference it would seem that the idea to build a larger, more disaggregated model was explicitly considered, but this is not completely clear. Gordon (1959) is equally unclear in this respect.

It should also be noted that a fifth function of the committee, not reported in Gordon (1959) but discussed at the Michigan conference, was that of "providing information to policy-making agencies of the government." Specifically, the conference's discussion summary reports that Henry Wallich (CEA staff) emphasized "the value that the model-building project could have in providing government agencies with policy recommendations" and that Duesenberry "said that simulation experiments with a model could easily be made to provide policy implications."[9]

However, and this might explain why this function did not appear in Gordon (1959), the discussion summary of the Michigan conference also reports that "[t]here was some debate on the question of whether the task of providing recommendations for current policy would conflict with the *basic research objectives* of the project."[10] Unfortunately, there is no further record of the specific points that were advanced against this function during the conference. On the contrary, the attitude towards policy analysis of the group of researchers that built the Committee's model would be clearly positive.

The proposal to establish the Committee on Economic Stability was accepted in September of 1959 and the initial members of the Committee were recruited in the following months (Gordon, 1959, 39).[11] Table 2 lists the Committee members during the early 1960s—the exclamation sign (!) denotes the chairman—and it can be seen

discussion summary of the conference explicitly shows these approaches were seen as complementary rather than substitutes. As we mention in Acosta and Pinzón-Fuchs (2018), however, the NBER's approach ended up playing only a minor role in the activities of the Committee.

[9] Discussion summary, SSRC1, box 145, folder 801. See footnote 7 above.

[10] *Ibid*. Our emphasis.

[11] See the "Proposal for committee on economic instability," Sept 12, 1959, SSRC2 Box 151, folder 1721. In the end, though, the last word of the committee's name was replaced by "Stability," SSRC inter-office correspondence, September 22, 1959, SSRC2, box 151, folder 1721.

from their affiliations that most of them were academics. However, as Table 1 shows, the Committee's activities had a broader reach and engaged more government officials in an effort to develop macroeconometric models and promote the use of quantitative policy analysis.

Table 2: Members of the Committee on Economic Stability, 1959-1964

Members CES	Affiliation	1959-1960	1960-1961	1961-1962	1962-1963	1963-1964
Klein, Lawrence R.	U. Pennsylvania	X	X	X	X	X
Duesenberry, James	Harvard University	X	X	X	X	X
Hickman, Bert	Brookings Institution	X	X	X	X!	X!
Gordon, R. A.	UC Berkeley	X!	X!	X!	X	X
Moore, Geoffrey	NBER	X	X	X	X	X
Lusher, David	CEA	X	X	X	X	X
Abramovitz, Moses	Stanford		X	X	X	X
Bronfenbrenner, Martin	U. Minnesota			X	X	X
Modigliani, Franco	MIT				X	X
Fox, Karl	Iowa State University				X	X

Source: Records of the SSRC

2. The Macroeconometric Model of the CES

Planning for the construction of a large-scale macroeconometric model started in early 1960. The team of experts that would be in charge of each of the individual sectors of the model was almost complete by October 1960 and funding was sought from the National Science Foundation (NSF).[12] Preliminary work on the model began in February 1961, although the NSF's grant seems to have been awarded in June of that year.[13] From 1961 to 1963 a team of more than 20 researchers led by Klein and Duesenberry worked on the model.[14] Re-

[12] Herring to Riecken, October 4, 1960. SSRC2, box 151, folder 1721.
[13] Fouraker to Klein, June 16, 1961. SSRC2, box 151, folder 1721.
[14] It is noteworthy to point out that Klein did not attend the 1959 Michigan conference, but was invited to participate in the Committee soon afterwards. We

searchers worked mostly individually, meeting only a couple of times a year, most notably during two multi-week conferences at Dartmouth during the summers of 1961 and 1962 (Klein, 1961; 1962). The model was handed over to the Brookings Institution for management and further development in September 1963, thus becoming the Brookings model. Several volumes appeared afterwards describing its structure and simulation results—starting with Duesenberry *et al.* (1965), which reports mostly the work carried out during the Committee phase of the model. The model was a milestone in the practice of large-scale macroeconometric modeling due to its size, its technical innovations, and the way it was built. These aspects have been discussed elsewhere, but two important elements stand out in connection with the relationship that the model helped build between academic economists, private institutions, and government agencies.[15] First, the model was conceived from the beginning to be useful for economic policy analysis, and second, the model drew extensively on both data and expertise from government agencies. Although it took a few more years of work on the model beyond its Committee phase to obtain the type of quantitative policy analysis that the project promised (Fromm and Taubman, 1968), the project was successful in gaining the attention of government agencies and in building important connections between academia and government that paid out in the following years.

As we mentioned in the past section, at the Michigan conference there was some discussion around the potential role that the Committee could have in advising government agencies. And although we have not located the proposal presented to the NSF, the cover letter sent by the SSRC's president did not mention anything related to economic policy either.[16] It is possible that emphasizing the scientific aspect of the project was a strategic choice to appeal to the NSF, but it is in any case clear that, on the contrary, the team behind the model project had a clearly positive attitude towards the potential uses of the model for policy analysis. The intention to "produce a system that [would] be jointly useful in forecasting and policy formation" was explicitly stated in February 1960 meeting where the construction of the model was decided, and it was confirmed a year later in the first preliminary meeting between the team of researchers in charge of the

ignore the reasons for his not having attended the conference given his stature as one of the main proponents of macroeconometric modeling, but we conjecture it might be related to his previous experience at the University of Michigan, where he had been accused of sympathizing with communism and driven out into exile. Pinzón-Fuchs (2017, ch. 2) describes this episode in detail.

[15] See in particular Bodkin *et al.* (1991). Acosta and Pinzón-Fuchs (2018) describe in detail the approach followed in the construction of the model and its importance for the consolidation of the practice of macroeconometric modeling during the 1960s.

[16] Herring to Riecken, October 4, 1960. SSRC2, box 151, folder 1721.

individual sectors of the model.[17] In terms of the structure of the model, this concern for policy usefulness meant an overall higher degree of disaggregation in the production sectors and other segments of the model, and the explicit inclusion of parameters representing actual policy instruments. These parameters would allow the model to produce quantitative estimates of the effectiveness of any specific policy instrument considered.[18]

The relationship with government agencies was crucial due to the amount and variety of data series that were used to build the model, some of which were specially put together for the project. Officials from the Department of Commerce's Office of Business Economics (OBE) seem to have been particularly helpful in getting the needed data series.[19] The detailed specification of each of the individual sectors was left to experts whose models would then be combined into a full model of the whole economy. As shown in columns 2-4 of Table 1, some of the experts involved in the discussion and construction of the model also came from government agencies. Columns 2 and 3 refer to the participants of the two Dartmouth conferences where the team of researchers involved in the project, as well as occasional guests, met to discuss their progress and worked on turning the various parts of the model into a consistent whole; column 4 refers to the researchers that authored the individual sector models included in Duesenberry *et al.* (1965). Although our data still has some gaps, we found that at least four (out of eight) of the government-affiliated participants at Dartmouth 1, at least three (out of seven) of the participants at Dartmouth 2, and three (out of four) of the government-affiliated contributors to Duesenberry *et al.* (1965) held Ph.D. degrees. This information is not a perfect indicator, but it does suggest that the connections established during the model project involved the technically oriented government officials, that is, staff members who could understand the technical discussions or, that at the very least, were interested in hearing about them.

Even if the connections between the model building project and government agencies were not built directly with people high up in the decision-making ladder, they did have a long lasting effect by helping some of these agencies establish macroeconometric modeling

[17] Meeting minutes, Feb 24, 1960, SSRC1, box 147, folder 810; meeting minutes, Feb 3, 1961, SSRC1, box 147, folder 810.

[18] For comparison, a model focused exclusively on forecasting the GDP or the price level need not worry with a disaggregated, detailed specification of the model as long as it produces good estimates. Thus, explicit variables for the different types of taxes on personal income or corporate revenues, which represent actual fiscal policy instruments, need not be used if a general "tax" variable produces good enough forecasts.

[19] "The Dartmouth Conference on an Econometric Model of the United States," August 7-25, 1961, SSRC1, box 147, folder 810. Our emphasis. A slightly reduced version of this summary appeared in *ITEMS* as Klein (1961).

research agendas. This is particularly clear in the case of the Board of Governors. The Committee initially contacted the Board looking for funding, but the Board's response was lukewarm. They would let Daniel Brill—who was initially in charge of building the model of the financial sector—and other members of the staff participate in the project but were hesitant to fund it.[20] Paul Webbink, who handled the administrative affairs of the Committee at the SSRC, reported that:

> [f]urther discussion with Jack Noyes [Director of the Board's Division of Research and Statistics] has made it clear that getting financing from the Federal Reserve would require a more specific statement of plans and anticipated results. It would probably be better to err on the modest side of this rather than on the expansive side, but it might also be necessary to make some contention that *what will be accomplished is something that the Federal Reserve otherwise, sooner or later, would have to do, or at least ought to do, with its own staff.* [21]

The request for Board funds was eventually dropped. The Committee was confident that they would get the funding from the NSF and considered that following up on the request for funds from the Board would take up too much valuable time from Klein.[22] Even so, the proposed strategy is noteworthy and proved to be prescient. The idea that the model project was in the Board's best interest and, even more so, unavoidable, fits in well with the attention given to the policy usefulness of the model and with the agenda pursued in the 1963 conference. And the Board did in fact develop a macroeconometric model afterwards, in collaboration with the Committee's Subcommittee on Monetary Research. The Board's model was another joint project led by Frank de Leeuw (Board's Division of Research and Statistics, DRS), Franco Modigliani (MIT), and Albert Ando (Pennsylvania). Brill, who became the director of the DRS in 1963, established a modeling project led by De Leeuw—who had replaced him as the final responsible for the financial sector in the Committee's project (De Leeuw, 1965). The DRS's project merged in 1966 with a project at MIT led by Modigliani and Ando, and that became the Federal Reserve Board-MIT-Pennsylvania model project (1966-1970). The project was fully funded by the Board via the Committee's Subcommittee on Monetary Research, an initiative that had brought the DRS staff and academic monetary economists together since 1964.[23]

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[20] Minutes of the Board meeting of September 23, 1960, 4ff. The minutes of the Board meetings are available at https://fraser.stlouisfed.org/title/821.

[21] Webbink to Gordon, Oct 05, 1960, SSRC2, box 151, folder 1721. Our emphasis.

[22] *Op. Cit.* See also Gordon to Webbink, Oct 10, 1960, SSRC2, box 151, folder 1721.

[23] For details on the Fed-MIT-Pen model see Acosta and Rubin (2019), Backhouse and Cherrier (2019), and Rancan (2019). For a discussion of what the model meant for the Board's relationship with economists see Acosta and Cherrier (2019).

A less well documented, though equally interesting relationship, emerged between the Committee and the Department of Commerce's Office of Business Economics. The Department was a major source of data as it produced the national accounts, but a group of their officials was also interested in obtaining help from the Committee in kick-starting its own econometric research group at the OBE.[24] The OBE had taken up and updated Klein's quarterly model (Klein, 1964), and they had the intention of doing further work on econometric policy analysis. Researchers at the Department wanted the Committee to help them guide their research agenda and find adequate personnel.[25] There is some evidence in the SSRC's records that suggests that the Committee advised the OBE at least until 1965, but the details are unclear.[26] In any case, the first version of the OBE's model was ready by 1966, which later became the BEA model, when the OBE changed its name to the Bureau of Economic Analysis (Bodkin *et al.*, 1991, 120).

Finally, it is worth noting that the CEA also showed some interest in the model project and got involved in the initial phase of its construction. Both Henry Wallich (CEA member) and David Lusher (CEA staff) attended the 1959 Michigan conference, and Lusher became the expert in charge of the Government revenues and expenditures sector together with Louis Weiner (DRS).[27] The Committee approached Council members James Tobin and Walter W. Heller, its chair, early on with an open invitation to discuss and see if the Council would be interested in the Committee's work, apparently getting an enthusiastic response from both of them.[28] It would seem that a meeting took place on May 17 of 1961 but we have not found any further evidence of collaboration. Lusher dropped out of the model project—but not the Committee—due to an illness and his work was taken up by Albert Ando, Cary Brown, and Earl Adams (1965).[29]

[24] Gordon to Webbink, August 28, 1961; Gordon to Webbink, October 16, 1961, SSRC2, box 151, folder 1721.

[25] See the minutes of the meeting between the OBE team and the Committee, November 5, 1963, SSRC1, box 147, folder 811.

[26] See for example Klein to CES members, March 29, 1965. SSRC1, box 147, folder 812.

[27] Lusher also received help from the Treasury and Klein was glad they were showing interest in their work. Klein to Webbink, July 1962, SSRC2, box 151, folder 1721.

[28] See Gordon's memos of April 7 and April 19, 1961, as well as the minutes of the Committee's meeting of December 28, 1960, SSRC1, box 147, folder 810. Tobin had been initially considered as a candidate to take over the work on consumption for the model. It would seem that he was officially invited, and declined, but there is no further evidence on this in the Committee's records. See Klein's letter of invitation to collaborate on the model project, July 13, 1960, SSRC1, box 147, folder 810.

[29] It is also worth noting that, as Bodkin *et al.* (1991, 93) point out, the OBE's model's forecasts were used by many government agencies, including the CEA.

It would be impossible to say for sure whether the Board of Governors or the OBE would have carried out their model projects if the Committee's own project had not existed. But the Committee's project certainly helped move things along, particularly because it showed officials from these and other agencies how a large-scale model could be built and what was needed to do so. Thus, the Committee's model project helped diffuse macroeconometric modeling by example. The conference on quantitative policy analysis organized by the Committee in 1963 reinforced the message, but it did so in a much more direct and open way.

3. Promoting Quantitative Policy Analysis in the United States

The Committee organized an international conference in August 1963 that supplemented the interest that the macroeconometric model project had provoked in some government agencies. The conference was explicitly aimed at giving quantitative policy analysis more visibility among economists in the United States, including government officials. Bert Hickman (Brookings Institution), Charles Holt (Wisconsin), Karl Fox (Iowa State), and Erik Thorbecke (Iowa State) were in charge of the planning of the conference. Concrete plans started taking shape in late 1962 and Hickman suggested that it might be a good idea to contact the organizers of an NBER conference on the same topic (*i.e.*, planning).[30] It is unclear whether the organizers actually contacted the NBER but the evidence suggests that, if they did, nothing came out of this. The NBER did carry out a conference on "National Economic Planning" in November 1964 (Milikan, 1967), but none of the Committee members seem to have participated in it and, similarly, nobody from the NBER participated in the Committee's conference. As we point out in Acosta and Pinzón-Fuchs (2018), this shows that despite the presence of George Moore (NBER) in the Committee, there doesn't seem to have been much collaboration between the Committee and the NBER.

The conference had a clear goal from the start: to promote quantitative policy analysis in the United States by showcasing the experience of other countries. Indeed, early in 1963 Hickman emphasized this objective:

> I believe that we should be careful not to lose sight of the educational function of the conference, both for the participants and profession at large. There should be heavy emphasis on milking the experience of the foreign economists who have been working with the tools and the associated political and administrative problems. A volume of collected papers on country experience[s] with "Quantitative Planning of Economic Policy"

[30] Hickman to Fox. December 4, 1962. SSRC2, box 151, folder 1722.

> on the national level, rounded out with a general report on the proceedings of the conference and possibly supplemented by other papers, should attract wide attention among US economists.[31]

The initial version of the conference proposal, sent later to the Ford Foundation, emphasized this educational purpose. The proposal noted the experience accumulated in other countries "concerning the quantitative formulation and planning of economic policy on a national and regional level" and explicitly stated that the purpose was to "acquaint American economists with this body of foreign experience and to stimulate research on the application of quantitative tools to policy problems in the United States." Papers would be commissioned from "persons actively at work in the field and [would] not be burdensome to prepare" so that the conference volume could be published soon afterwards.[32]

The conference would last five days and bring together up to 40 economists to discuss the techniques of quantitative policy analysis and the experience of countries that had led the path in their use. In the proposed agenda mornings would be occupied with technical papers dealing with the theory of economic policy, and estimation and specification issues. The Friday session also included two papers about "the political-economic process, dealing with problems of communications between economic advisers and policy makers, interpretation of results by economists to policy makers, administration and implementation of the policy process, etc." Technical discussions would be supplemented with afternoon discussions based on the relevant parts of papers that presented the experiences of the Netherlands, Norway, France, Italy, and Japan with "quantitative planning and [the] implementation of economic policy." The structure of these papers would follow the proposed agenda of the conference so as to facilitate comparisons and would be "solicited from the chiefs of the relevant government bureaus or close associates. These papers would not be delivered at the conference but would be prepared as background papers and circulated in advance of the conference."[33]

The proposal was also explicit on the pedagogical objective in regards to the selection of US participants who were "selected in conformity with the basic purpose of fostering interest in research on quantitative analysis of economic problems." The organizers not only invited young and senior scholars, but they also sought to have "a wide coverage of institutions." In addition, "[e]conomists with basic policy interest but comparatively little econometric training [were]

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[31] Hickman to Fox. January 2, 1963. SSRC2, box 151, folder 1722.
[32] "Proposal for a conference on 'Quantitative Planning of Economic Policy' under the sponsorship of the SSRC Committee on Economic Stability." January 18, 1963. SSRC1, box 147, folder 811.
[33] *Ibid.*

asked to participate, and conversely, econometricians who had not previously done research on policy matters [were] also ... invited."[34]

The Ford Foundation's initial response to the grant application was negative. Despite the apparently balanced agenda of the conference, which included both technical and real-world implementation discussions, the Foundation considered that there was too much emphasis on the technical side. As Hickman reported to the rest of the planning committee:

> The Ford Foundation is cool to the conference as we planned it—cool to the point of refusing to finance it. Their principal objection is that too much emphasis is planned on techniques and too little on the actual contribution of quantitative methods to economic policy. Does the advice of the technicians get accepted? Is the advice straight from the models or does the judgment of the planning chief and his staff enter heavily into the final recommendations? What role do political factors play in setting constraints on admissible goals? On crucial variables like the money wages? What means are used to implement the policies?[35]

The proposal was modified to increase the emphasis on the pragmatic problems and was finally approved by the Ford Foundation.[36] The new proposal had similar language, insisting on the fact that "American economists and policymakers are largely uninformed about these important developments" made in France, the Netherlands, Norway, and Japan, and that "[a] critical appraisal of the contribution of quantitative techniques to the planning and implementation of economic policy in these countries could significantly affect the future direction of economic research and economic policy in the United States."[37] The new proposal also explicitly emphasized the effort made to communicate these techniques to a wider public, insisting that technical papers should be "expository in nature and [confine] any difficult mathematical material to appendixes."[38] In addition, the new agenda explicitly incorporated the questions suggested by the Ford Foundation, which would be treated in the papers prepared on the experiences of the above mentioned countries. Policy papers now appeared explicitly in the agenda and occupied the last three full days of the conference, with the technical papers confined to the first two days. The country experiences to be discussed were cut to three: France, the Netherlands, and Norway instead of Japan. A couple of months later,

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[34] *Ibid*.

[35] Hickman to Fox, Holt, Thorbecke. March 4, 1963. SSRC2, box 151, folder 1722.

[36] Hickman to Fox, Holt, Thorbecke. April 12, 1963. SSRC2, box 151, folder 1722.

[37] "Agenda for a Conference on 'Quantitative planning of economic policy' under the sponsorship of the SSRC Committee on Economic Stability." March 15, 1963. SSRC2, box 151, folder 1722.

[38] *Ibid*.

however, this last choice was reversed, and Japan was included again.[39]

It is unclear how the final choice of the authors of the policy papers was made, but Hickman does point out that he got some suggestions from Jan Tinbergen—who could not personally attend the conference but was reportedly very enthusiastic about it.[40] In any case, the educational purpose of the conference was also made explicit to the authors of the policy papers,[41] and the questions included in the conference's instructions clearly echoed those proposed by the Ford Foundation:

> How is the economic policy problem identified and defined? How or to what extent is the policy decision problem formulated in quantitative terms? How are the specific objectives or targets of economic policy determined? How are the relationships between proposed policy actions and desired economic outcomes estimated and how successful are the models in forecasting economic activity and the influence of policy actions on economic activity? If a formal quantitative model is used, how is the mathematical solution of the decision problem obtained? How do the results of the quantitative economic analysis contribute to the political decision process?[42]

The conference took place in August 19-24, 1963 at the Brookings Institution in Washington. As shown in Table 1, in the end there were 32 participants and those associated with government agencies outnumbered academic economists: 13 participants were affiliated to government agencies, 11 to academic institutions, and 9 to private organizations; 10 out of 23 US participants were associated with government agencies. In particular, there were officials from the Board of Governors of the Federal Reserve System, the Council of Economic Advisers (CEA), the Department of Commerce's Office of Business Economics (OBE), the Department of Labor's Bureau of Labor Statistics, the Treasury's Office of Financial Analysis, and the Agency for International Development. With the exception of the Joint Economic Committee and the Bureau of the Budget, the organizers were suc-

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[39] See the May 1, 1963 version of the conference agenda. SSRC1, box 147, folder 811. Unfortunately, it's unclear from the records why exactly this choice was made and then reversed.

[40] Hickman to Fox, Holt, Thorbecke. January 29, 1963. SSRC2, box 151, folder 1722.

[41] See for example Hickman to Bauchet. June 18, 1963. SSRC2, box 151, folder 1722.

[42] 19630501 "Note to authors of country papers." May 1, 1963. SSRC1, box 147, folder 811. These questions seem to follow Charles Holt's steps for quantitative policy formulation. As reported by Hickman these are: "identification of the problem; discovering the relevant relationships; specifying the objectives; quantitative formulation; mathematical solution; interpretation of the results for policy makers; and administration and control of either the research process or the policy process or both — this was not clear to me." See Hickman to Fox, January 2, 1963, SSRC2, box 151, folder 1722.

cessful in getting officials from the agencies they originally wanted, although they did not get some of the high-profile officials they had considered, such as Gardner Ackley (CEA) and George Jaszi (OBE). It is also noteworthy that none of the Harvard and MIT economists associated with the Committee such as Franco Modigliani, Edwin Kuh, Duesenberry, and Eckstein attended the meeting. Other major names like James Tobin, Arthur Okun, and Kenneth Arrow were considered initially but did not participate in the conference.[43]

The presentations of the conference and the published volume (Hickman, 1965a) provided a broad introduction to the technical aspects of quantitative policy analysis as well as a presentation of the experiences of the Netherlands, France, and Japan. The conference showed even more clearly why proponents of the use of quantitative tools in economic policy considered these tools valuable. A short note published as a Brookings Research Report summarized their view:

> The techniques of policy planning provide a *rigorous and systematic* method of exploring the impact on the economy of specific governmental actions. Their purpose is to supply the policy maker with a more *scientific* basis for choosing among alternative economic policies than is given by the rough estimates or intuition frequently underlying policy decisions.[44]

The conference volume conveyed a general support for the use of quantitative tools and also showed that there were different approaches available. The chosen countries illustrated this well: Japan and France focused on long-term planning and the Netherlands focused on short-term planning. The Committee's macroeconometric model was closest in type to the work done in the Netherlands, but there too, it was possible to choose between using previously specified values for the target variables (Tinbergen's approach) or deriving the optimal values from a maximization program using a decision-maker's preference function (Theil's approach) (Hickman, 1965b; Theil, 1965). It was clear that in order to apply either of these approaches in a rigorous way, "a complete econometric model must be built in which all relevant target and instrument variables are included and all coefficients are numerically estimated" (Hickman, 1965b, 6). The kind of econometric model used in the Dutch case was studied in van den Beld's (1965) and Fox and Thorbecke's (1965) papers in the volume. And yet, an important message that the book wanted to convey was that, even if it was still under construction and preliminary, a project already existed in the United States that tried to build such an econometric model with the purpose of doing quantitative policy

[43] See the initial list of potential candidates: Hickman to Fox et al., April 12, 1963. SSRC2, box 151, folder 1722.

[44] "The uses of quantitative economic planning." SSRC2, box 151, folder 1722. Our emphasis. The note was not signed, but it could well have been authored by Hickman—who wrote the introduction to the conference volume (Hickman, 1965b)—or any of the other members of the planning team.

analysis in a rigorous way. This project was, of course, the Committee's macroeconometric model that had now been passed on to the Brookings Institution.

Another important point emphasized both during the conference and in the book, was the political character of quantitative economic policy analysis. More specifically, Hickman (1965b, 9) reminded the readers that the "determination of desired values of targets and instruments ... and the weights attached to them" was conditioned to higher order political aims. Indeed, Etienne S. Kirschen and Lucien Morissens (1965) described how higher order political aims such as full employment, price stability, improvement in the balance of payments, expansion of production, or improvement in the allocation of factors of production, had affected the formulation of different targets in nine Western countries in the postwar era. Kirschen and Morissens (1965, 133) insisted that the choice of these political aims depended on the preferences of the political parties, administrators, and interest groups. As Hickman (1965b, 9) put it, "these last findings serve[d] as a healthy reminder to the economist that quantitative policy analysis was not only a technical endeavor, but that it was essentially a political problem."

In this sense, the message that the Committee was trying to pass on was not that quantitative tools were the ultimate and infallible way to make policy analysis. Rather, they conceived these tools as a way to help policymakers make decisions, but they understood pretty well that the decision-making process could not be mechanistic, and that the political dimension was, in the end, the most important dimension in this process. In addition, the conference participants recognized that the contributions of quantitative policy analysis, while promising, were still modest and should be further developed.[45] In particular, Holt (1965) called attention to the important difference between simply using quantitative tools as a way to make policy decisions and the quantitative decision analysis approach. The use of quantitative methods for policy analysis, on the one hand, helped policy makers achieve a "coherent and timely set of economic policies" at all the levels of the decision process using economists' "unconditional and conditional forecasts ... of the outcomes of alternative courses of action" (Holt, 1965, 254). Yet, however important economists' contributions were, these were scattered within a complex process that was sometimes "reduced to the art of finding legislation that stands a chance of passage in Congress" (*ibid.*, 253) and that was dispersed among the political power of "various agencies, committees, and chairmen, as well as the Senate, the House, and the President" (*ibid.*, 254). The quantitative decision analysis approach, on the other hand, consisted in posing the decision making problem in terms of the max-

[45] "The uses of quantitative economic planning." SSRC2, box 151, folder 1722.

imization of the "accomplishment of a welfare function subject to the constraint of economic relationships" (*ibid.,* 255). This provided the economists with a "framework for thinking about the decision process that is less simplified," and that "implies, not a change in the process itself, but a different way of relating the work of economists to it" (*ibid.,* 254).

Yet Holt was careful in his formulation of the advantages of this approach as well as of the "limited knowledge [of economists] and the genuine differences between objectives of various groups, the conclusions of the formal analysis will be, not a single 'best' action alternative, but rather several 'good' alternatives depending upon the assumptions that are made," which clearly left the door open for the importance of the political aspects in the decision making process (Holt, 1965, 255). Holt also made clear that they were not "visualizing a benevolent dictatorial technocracy run by professional economists" but a way to make economists "better able to offer sound advice on a professional level to politically responsible decision-makers" (*ibid.,* 255). The Brookings Research Report quoted above summarized well not only Holt's idea on the limits of an exclusively technical approach, but also reinforced the SSRC's pluridisciplinary approach to the process of policy decision making:

> Of equal or perhaps greater importance is the less technical problem of relating the professional advice of the economist to the political decision process so that quantitative analysis can be of maximum effectiveness and use to the responsible decision makers. Fundamental to this aim is a greater understanding of how economic policy decisions are actually made. These are problems which cannot be solved with the economist's toolkit alone. The skills, techniques, and theories of other social science disciplines must be utilized more fully before the promise implicit in quantitative decision analysis can be realized.[46]

In summary, the conference did not propose a program for making policy decisions that was blindly based on quantitative methods. Rather, the organizers of the conference were willing to recognize that this process was conditioned by higher order political aims, that it was complex, and that the economists' toolkit alone was not sufficient to provide sound evaluation of alternative policies.

4. Conclusions

The two activities we have discussed, the construction of a large-scale macroeconometric model and the organization of the 1963 conference on quantitative policy analysis, were certainly important in furthering the Committee's guiding objective of channeling efforts into the understanding of instability in the United States. The model project, in

[46] "The uses of quantitative economic planning." SSRC2, box 151, folder 1722.

particular, was at the forefront of macroeconomics and played an important role in the consolidation of macroeconometric modeling. But besides the scientific contributions of the Committee in these years, its activities helped promote quantitative policy analysis in the United States. The model did so by establishing and promoting direct collaboration with government officials, who provided much needed data and expertise. The type of highly disaggregated model that was conceived and the concern for its policy usefulness made collaboration with government officials unavoidable, but the project also built important communication bridges between the Committee and government agencies that helped other model projects come into being at the Board of Governors and the Office of Business Economics.

The 1963 conference further emphasized the usefulness of quantitative policy analysis. Having a macroeconometric model was the first step—and the Committee's model was certainly going to be bigger and "better" than anything available until then—but it was also necessary to rethink the approach to economic policy. The conference sought to show economists in the United States how a deeper involvement of quantitative analysis could help make economic policy better, more rigorous. Although countries that had taken the lead in the use of quantitative policy analysis had obtained only modest results so far, the conference showcased these various experiences and approaches to try to convince economists in the United States that this was a path worth following. It was also clear that the politics of economic policy were a fundamental part of the policy process that was not going to go away. However, once a policy was formulated, quantitative analysis could help policymakers carry it out more effectively.

The Committee and its activities thus provide a rich historical example of how economists and economics progressively gained influence in the policy making process. Following Hirschman and Berman's (2014) classification of the modes in which economists can influence policy, the Committee clearly contributed to the creation of a "cognitive infrastructure" favorable to economists. They did so by constructing a model, a "policy device," but also by pushing for a greater role for quantitative policy analysis and thus contributing to the change in the style of reasoning in economic policymaking.[47] At the same time, the model projects related to the Committee's own model that emerged at key government agencies became important parts of the policymaking process and helped open up spaces for a specific type of economists, thus increasing their "institutional position." Further research into the history and internal dynamics of the agencies where econometric modeling gained these spaces should help us better understand the Committee's role in the consolidation

[47] Such a change, of course, followed the change that the economics discipline itself had gone through since the end of World War 2 (Morgan and Rutherford, 1998).

of the practice of macroeconometric modeling. Finally, this research should also illuminate the effect that macroeconometric modeling had on the "professional authority" of economists, in particular regarding the contribution (or lack thereof) of policy results and of ideas about rigor and scientificity in economics.

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Early Interest, Lasting Scepticism: The Views about Education at the OECD (1960s-1980s)

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In this article we reflect about the dissemination of economic ideas among international organizations by looking at the case of the OECD and its views on education from the early sixties to the mid-eighties. Although previous studies have tended to present the OECD as an early supporter of human capital ideas, our analysis will highlight the strong and persistent resistances of this organization throughout the 1960s and 1970s to human capital theory. The analysis of major institutional events, projects, and reports of that period point out to an institutional context dominated by other views about education that reflected in its policy recommendations. This text will provide an interesting example about the dissemination of economic ideas within a certain type of political institutions and the role of economists in influencing the agenda of international organizations, which are important (yet understudied) aspects in the relation between economists and economic ideas and power in the second half of the twentieth century.

Keywords: human capital, education, OECD, manpower planning, screening

Intérêt précoce, scepticisme durable : l'éducation à l'OCDE (1960-1980)

Cet article s'intéresse à la diffusion des idées économiques parmi les organisations internationales en examinant le cas de l'OCDE et son point de vue sur l'éducation du début des années 1960 au milieu des années 1980. Bien que des études précédentes aient eu tendance à présenter l'OCDE comme l'un des premiers partisans de l'idée de capital humain, notre analyse met en évidence les résistances fortes et persistantes de cette organisation tout au long des années 1960 et 1970 à la théorie du capital humain. L'analyse des principaux évènements institutionnels, projets et rapports de cette période fait ressortir un contexte institutionnel dominé par d'autres points de vue sur l'éducation reflétés dans ses recommandations politiques. Cet article fournit un exemple intéressant de la diffusion des idées économiques au sein d'un certain type d'institutions politiques et du rôle des économistes dans l'influence du programme des organisations internationales, qui constituent des aspects importants (mais peu étudiés) de la relation entre économistes, idées économiques et pouvoir dans la seconde moitié du 20ème siècle.

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Mots-clés : capital humain, éducation, OCDE, planification des effectifs, screening

JEL: B20, I25, I28, J24, O15, O21

One of the major developments in policy-making in the post-World War II period was the rise of international agencies, which became significant actors in intergovernmental and transnational relations (Pechman, 1989). Organizations such as the International Monetary Fund (IMF), the International Bank for Reconstruction and Development (IBRD), and the Organisation for European Economic Co-operation (OECE) that later became the Organisation for Economic Co-operation and Development (OECD), became significant actors and influential regarding the definition of priorities for economic policy-making.[1] These international agencies gained increasing visibility with the rise of professionalism in modern society and the expansion of governments' role in the economic arena, nationally and also internationally.[2] Their impact was enhanced due to the spread of the activities of those organizations to a wider range of topics covering almost every relevant issue for national policy and economists becoming a distinctive professional group with a strong presence within these agencies.[3] However, there have been very few studies of these organizations' role, activity, and influence on the design of public policy, namely in what concerns the role of economists (for a few exceptions, see Furner and Supple, 2002; Schmelzer, 2016; Teixeira, 2018).

One of the areas that became very important to the activity of those international agencies was education, especially due to the development of human capital theory and the growing interest of economists in exploring the role of education (Teixeira, 2005). These debates about the economic role of education (and the role of governments in this sector) became very important to the work of those international organizations, including the OECD, especially regarding international trends in educational policy-making. It is therefore interesting to see how this institution reacted to this insistence on a link between education and growth/development and what kind of con-

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[1] This is certainly the case of the OECD whose activities depend upon convincing national policy makers of the organisation's recommendations, calling for a persuasive capacity in promoting the organisation's point of view (Marris, 1986; Schmelzer, 2016).

[2] On the evolution of the economics profession and the role of economic expertise in policy-making see Furner and Supple (2002), Lacey and Furner (1993), and Fourcade (2009).

[3] Economists seemed to play a significant role in almost every international agency due to their generalist training which neatly suited the multifarious needs of those organisations (see Coats, 1986).

ceptual, methodological, political, and organisational difficulties were faced by those attempting to win over the organization for the cause of the economic role of education and to human capital in particular.

This article analyses the views about education at the OECD from the late fifties to the early eighties. The analysis will focus in particular on main institutional activities linked to education such as the Economics of Education Study Group, key policy conferences, and the main educational planning projects developed by the OECD on education during that period.[4] Although previous studies have tended to present the OECD as an early supporter of human capital ideas (see Papadopoulos, 1994; Schmelzer, 2016), our analysis will highlight the strong and persistent resistances faced throughout the 1960s and 1970s by the proponents of the human capital theory in presenting their ideas and in influencing the views of the organization about education, due to an institutional context dominated by other conceptual and policy views about education. We will start by analysing the views of the OECD in the early 1960s, after the transformation from OECE into OECD and how education came to play a relevant role in this new phase of the organization. Then, we will analyse the activities of the Economics of Education Study Group. This will be followed by an analysis of the involvement of the OECD in educational planning projects in the sixties and early seventies and the waning of that interest in the late seventies. The later sections will analyse the shift of the OECD in the early eighties away from educational planning, which would eventually lead to a hesitant and slow endorsement of a more favourable position regarding human capital theory.

1. Economists' Growing Interest on Education at the Turn of the 1960s

Until the late fifties the contribution of education for economic growth and for the labour market did not receive much attention in either academic circles or in public debates (Schultz, 1961; 1963; Teixeira, 2005; 2007). However, the revival of interest in economic growth and development that characterized the post WWII period was one of the major factors that promoted the exploration of the economic role of education. Alongside more theoretical developments, there was a long tradition of empirical work devoted to the organization, development, and analysis of data on past growth (see Abramowitz, 1956; Jorgenson, 1990). By the early sixties there was an increasing amount of empirical research emphasizing education as a potential major source of economic growth. Although attention

[4] The material supporting the analysis has been collected through major reports and proceedings of the conferences organized by the OECD on education during that period.

turned initially to the quantity of inputs (especially to physical capital), subsequent debates and the empirical difficulties of growth-accounting stimulated the quest for other sources of growth.

As time went by, education and training became a prime candidate for that quest and, despite many limitations, the first empirical exercises contributed to strengthen their case placing them firmly on the research agenda and more importantly in the public and political arena. This was also strengthened by the emerging development from what became known as human capital, which was being spearheaded by Theodore W. Schultz (1902-1998) and a group of younger researchers among which were quickly attaining prominence Jacob Mincer (1922-2006), and Gary Becker (1930-2014). This group of economists aimed to explore the metaphor of human capital as an analytical tool to explain a variety of economic behavior (Teixeira, 2000). These three economists were particularly interested in exploring the factors that made education and training relevant in economics and to understand to what extent a human capital theory could provide an explanatory principle to issues of income inequality, economic growth and development, and labour markets. The role of these three economists would also be very important at an early stage of the development of this field because they played a critical role to attract and support a growing community of young researchers willing to extend and develop this field of research (Teixeira, 2005; 2007).

The early developments of human capital research reflected this diverse array of topics, combining more macro (growth and development) approaches with more micro (especially in the labour market) ones. T. W. Schultz, in his presidential address to the AEA in 1960 (Schultz, 1961) stressed the role of human capital as a major contribution to the past performance of Western economies. Moreover, he regarded human capital as something that made people more productive, especially in terms of an activity that made people aware of new and better opportunities and their ability to seize them (Schultz, 1963). For Mincer human capital was mostly pursued in terms of schooling and especially on-the-job training and their effects on the labour market (see Mincer, 1958; 1962), and a large part of his work was on the returns to these two sources of human capital (Teixeira, 2007). For Becker, human capital started as an analysis of lifetime patterns of income and decisions concerning investment on these activities (schooling and on-the-job training) (Becker, 1964), though it would eventually become a framework for understanding several aspects of human behaviour, including individual decisions in non-market contexts (Becker, 1975).

The work of these pioneers in human capital research contributed to stimulate economists' interest in education and led to the development of multiple studies exploring the potential contribution of education to national and individual betterment (Rostow, 1990). From generally superficial remarks, the debate evolved to more significant theoretical and empirical controversies about the extent of which education was an important factor in promoting economic growth and development (Bowman, 1966; Blaug, 1985). Subsequent to these debates, it became increasingly important to discuss to what extent government policies could (or could not) enhance that contribution, notably by promoting a faster expansion of access to education. It was in this context that the OECD would become increasingly interested on the topic of education.

2. Early Interest at the OECD and the Washington Conference of 1961

By the early sixties, when the human capital research program was taking off, the visibility of education and training among economists and policymakers was growing and rapidly becoming a hot topic on the agenda. The OECD had been transformed from OECE, with an enhanced focus on to issues of economic growth and development, as the Europe's reconstruction efforts were finally on its back (Papadopoulos, 1994; Schmelzer, 2016).

The signs of an increasing attention of the OECD to the economic role of education came with the Washington Conference (16th-20th October, 1961), entitled "Economic Growth Policies and Educational Investment" (OECD, 1962). This represented a landmark in the activities of the organisation, being for instance the first OECD conference to take place in the US. The conference was attended by several high-rank officials from member countries, both from the ministries of education and finance, as well as by several of the leading economists at that time with interest in issues of education and development.[5] The main document of the conference was the text "Targets for Education in Europe in 1970," by Swedish economist Ingvar Svennilson, developed with the support of German educationalist Friedrich Edding and the British educationalist Lionel Elvin. The first two would be active members of the study group on the economics of education that was about to be launched and the latter was Director of the Institute of Education of the University of London and a regular participant in the activities of the aforementioned study group. The importance of the report was also enhanced by the fact that it was initially planned to be co-ordinated by Thorkil Kristensen, who mean-

[5] The conference benefited from a previous meeting in July 1960, that took place in Bellagio (Italy), organized by the International Association of Universities (with financial support of the Ford and Rockfeller Foundations) and focused on the "Economic Aspects of Educational Development in Europe" (Schmelzer, 2016).

while became Secretary-General of the OECD, and hence passed it to Svennilson.

In a context of increasing focus by governments on economic growth, and of progressively greater attention to the role of education in promoting it, the conference, and particularly this report, attempted to define objectives of educational expansion for OECD countries that met foreseeable demographic, social and economic needs. The report exhibited a visible confidence on the capacity of education to promote growth, integrated in a broad optimistic perspective towards society's growth potential. Education was regarded not only as a consumption good to which more resources were allocated with the increasing prosperity of society, but also as a powerful force in promoting society's progress. Hence it was important to adjust education, in terms of the quantity and the quality of its provision, notably due to its effect on the distribution of income, level of employment, and economic progress in general. The prevailing view among the participants indicated that its expansion had to be planned and led by governments due to the shortcomings of market mechanisms as far as education was concerned. Hence, significant attention was devoted in the debates and in the official documents of the conference to explore the potential of educational planning techniques.[6]

If the Washington Conference indicated that the views of economists interested in exploring the economic relevance of education were present, the structure and content of the debate indicated that there were already emerging some differences vis-à-vis the positions of the pioneers in human capital theory. The main one was the view that the expansion of education should be led and planned by governments, which contrasted with the assumptions underlying human capital theory (and Chicago economists), that privileged an expansion of education supported by market supply and demand forces and based on individual decisions and rationality. Moreover, whereas the debates at the Washington Conference emphasised the consumption and social motivations of education, the human capital pioneers tended to underline the investment and economic motivations underlying educational decisions. These emerging differences would consolidate in the following years, especially with the establishment of the Study Group on the Economics of Education.

[6] The importance of planning was also present in Tinbergen and Bos' paper (1964), who presented a pioneering model of educational planning, and in the fourth volume of proceedings devoted to the analysis of three countries attempting to develop experiences of manpower planning (France, Sweden, and Yugoslavia).

3. The Study Group on the Economics of Education (1960-1965)

The Washington Conference was followed by the creation of the *Study Group in Economics of Education* in 1960, which operated mainly between 1962 and 1965 and was responsible for organising some very important work in the field, namely some high-profile international conferences that congregated academics and policy-makers interested in the discussion about the economic relevance of education. The group started with the Danish Social Scientist Henning Friis, Friedrich Edding, the North-American economist Seymour Harris, the French top bureaucrat Raymond Poignant, Ingvar Svennilson, and the British educational economist John Vaizey. They were later joined by the French Educationalist Michel Debeauvais, the North-American economist Selma Mushkin, and the Dutch economist Jan Tinbergen.

This group included several pioneers in the Economics of Education who had become interested in the topic either through the analysis of its costs and funding (Edding for Germany, Harris for the U.S., Vaizey for the U.K., and Poignant for French-speaking African countries), or via the analysis of economic growth (Svennilson and Friis). This group was largely pro-Keynesian, in favour of some degree of planning, and somewhat sceptical about the perfect working of the market. Most of the members of the Study Group believed that markets had far more failures than neoclassic models assumed, and education was clearly one of the areas in which markets underperformed. This helps to understand why altogether the tone of the group was significantly critical towards human capital economists (see Vaizey, 1962). They saw the role of education on economic development as a matter of long-term planning that should not be left to the working of market forces as most of the human capital pioneers believed (see, for instance, Harris, 1962).

The core of the activities of the Group was the organisation of a series of important international conferences that took place between 1962 and 1965 and that gathered some well-known economists and high-rank governmental officials and policy-makers. The dominant topics of the conferences were the issues of funding and planning, which were becoming increasingly relevant to several of the member countries, especially due to the increasing expansion of their educational systems (namely at the secondary and higher levels). Thus first conference was devoted to "Economic Aspects of Higher Education" (Paris, June 1962) and focused on the aforementioned issues of funding and planning in higher education. From the proceedings it is clear that there were disagreements within the group on the topic, namely regarding human capital and cost-benefit as useful guidances for educational planning. Whereas Fein, Friis, Harris, and Mushkin expressed the view that calculations of the return to education based on income differentials made a valuable contribution, Vaizey was very critical of the assumption that those differentials reflected educational achievement (see their remarks in OECD, 1963).

This scepticism towards human capital research, notably on the assumption of correspondence between remuneration of factors and productivity levels, continued in the following conference, which was focused on "The Residual Factor and Economic Growth" (May, 1963) and centred on Edward Denison's presentation (OECD, 1964). The members of the study group showed again their scepticism and, once again, Vaizey (1964) summed up the criticisms by talking about the "the economics of human resources" (OECD, 1964, 201) and stating that he found it "difficult to visualize the computing of private rates of return on 'investment in human capital,'" since it rested in a fallacy of comparing it to physical capital and pressing the analogy with it too far. Several of the members considered that educational planning was preferable to allowing expansion to be guided by market forces. Hence, in the following conference, centred upon the "Organisational Implications of the Link between Education and Economic Growth" (November 1963), they advocated the need to integrate education into economic planning, in order to adapt it to the needs of the economy (OECD, 1965). This was linked to the growing involvement of the OECD at large with educational planning, especially after launching the Mediterranean Regional project (see below).

This Conference was followed by two others on the implications and challenges of educational expansion. The first one was devoted to the "Financing of Education for Economic Growth" (21-24 April 1964) and analysed the role of education in economic growth in a context of increasing competition of funding for education with other essential branches of the public sector (OECD, 1966a).[7] The financial issues were becoming a pressing topic due to the rapid expansion of educational enrolments in many member countries, fostered by high political and social expectations about the benefits of education, and the general tone was again critical about a cost-benefit approach to educational funding. The second conference, which was one of the last activities of the Study Group and focused on "Social Objectives in Educational Planning" (March 1965), underlined the interest of the group and of the OECD on the topic of educational planning. In his contribution, John Vaizey argued that the educational gap between different social groups remained stable and that education had a mild effect on inequality (OECD, 1966b).[8] This sceptical view about the actual effect of education on inequality would become more prominent

[7] The financial dimension of education was very relevant to several members of the Study Group such as John Vaizey (1958), Seymour Harris (1962), and Friedrich Edding.

[8] This was a topic already covered in an earlier report on "Ability and Educational Opportunity" (OECD, 1961).

in subsequent years, especially when the organization would start questioning the effects of the previous decades' educational expansion.

The activities of this Study Group were very important in shaping the initial views of the OECD about the economic role of education. Through their activities, especially the conferences and its proceedings, they contributed to raise the interest of the organization in education and to its awareness about major research about human capital and the economics of education. Nonetheless, the members of the study group had a more sceptical view about markets and their effectiveness in guiding the educational system and contributed to consolidate the view in the OECD favouring planning of education instead of a more market-oriented approach. The influence of the members of the Study Group would be visible in subsequent activities, not the least since several of them would continue to be regular participants in subsequent activities of the OECD related to education.

The position of the Study Group also illustrates one aspect that hindered the acceptance of human capital research within the OECD in particular and Europe in general (Teixeira, 2018). Human capital research remained for a long time centred in North America and there were fewer contacts with European economists. Moreover, the European pioneers in the economics of education (several of whom participated in the activities of the OECD) were critical of the assumptions of human capital theory in terms of the working of the labour market. Although some American economists would participate in activities of the Study Group, voicing support for a cost-benefit approach to educational expansion, they were a small group and their influence was clearly more limited.

4. Educational Planning and the Mediterranean Regional Program

Alongside the promotion of *fora* for the interaction between researchers and policy-makers, the OECD developed during the sixties a significant activity in educational planning. In the early sixties it launched the *Mediterranean Regional Project* (MRP), which became the first major international experience of educational planning, attempting to relate educational needs to economic growth and social advancement. The project had its origins in a request from Portugal, in 1960, for technical support from the organisation in the creation of a plan of development of technical manpower (Teixeira et al, 2003; Stoer, 1986). This was enlarged to cover all types of manpower requirements, and to include Spain, Italy, Portugal, Turkey, Yugoslavia, and Greece. The group of countries covered in the study presented several interesting common features. They included some of the less developed countries of the OECD, with very low educational qualifications (the lowest in the organization) and significant shortage of educational facilities. The main objective of the project, at least in its initial stages, was to gather the needs for education over the period 1961-1975 for the countries participating in the exercise. Each country was supposed to provide a complete survey of its educational system and of future needs for education (by looking at major demographic, social, and economic trends). In a second phase, the project aimed at translating the long-term educational plans into shorter operational programs.

National teams, formed by economists, statisticians, and educationists, were established with the task of defining educational needs for the period 1961-1975 and suggesting proposals to achieve it, and to the OECD was ascribed the task of co-ordination and technical assistance, notably in the training of human resources planners. The first training course for experts on human resources planning and development, under the framework of the MRP, took place in 1962, and it focused mostly on the link between education and economic growth. Also in 1962, Herbert Parnes published a handbook about educational planning, which was the first report of the project and would become the main guide to the MRP's national teams in their forecasts and the national reports (Parnes, 1962a). In his report, he explored some of the main conceptual and methodological problems involved in assessing educational needs and discussed alternative approaches to achieve that goal. According to Parnes, the main issue was how to estimate future manpower requirements, given the dynamic nature of the educational system and the need to define certain assumptions about the educational content of occupations and the links between productivity, education and occupations. These were fundamental issues about planning exercises in education and educational policy and would loom persistently over manpower planning debates.

In 1962 would also be established the Educational Investment Planning Program (EIP), which would later absorb and broaden most of the Study Group's activities by focusing on the social and economic complexities of education. The EIP aimed at promoting educational planning and had a significant activity in promoting country reviews of educational planning practices.[9] An important role was also in developing activities with the Scientific Directorate such as seminars and training courses, especially in the framework of the MRP. One of the most significant in this respect took place at Frascati (Italy) in late 1962 and focused on "Planning Education for Economic and Social

[9] A similar but far more active and lasting body was established in 1963 by UNESCO—the International Institute for Educational Planning (IIEP), which would play a major role in training, research and technical assistance in matters related to educational planning in addition to an extensive activity of reports and pamphlets about the specificities of educational planning.

Development" (Parnes, 1962b). Among the lecturers participating in this training seminar we would find the usual names associated with OECD activities related to education (and with the Study Group) such as Herbert Parnes (editor of the volume), John Vaizey, Michel Debeauvais, Raymond Poignant, Friedrich Edding, Lionel Elvin, Gareth Williams and Jan Tinbergen.

The activities related to the MRP attained significant international visibility and created opportunities to expand the OECD's role on educational planning (OECD, 1967). This experience was extended to Latin America in 1965, in order to compare experiences in MRP and Latin American countries on long-term forecasting of manpower needs by level of training, and its consequences for educational planning. It aimed also to promote the inclusion of the development of human resources in development policy, namely through two pilot schemes of educational planning in Argentina and Peru. The extension of the MRP experience to the Latin America included a seminar of experts from seven Latin American countries and several OECD member states that was held in Lima in 1965, just before the two pilot schemes were launched (Hollister, 1966). Alongside this interest in planning the OECD developed an activity of promoting statistical methods and data on education, that ultimately supported the planning efforts. In particular, it attempted to provide a comparative classification of the systems (cf. classification of educational systems, OECD, 1972). An attempt was also made to expand this initiative to Arab countries, though with more limited results.

Despite the international visibility, several problems remained to be tackled with the current exercises of planning. First, there was a lasting dispute about the alternative approaches to educational planning, which undermined the political support for any of the solutions to be adopted. Moreover, different countries tended to prefer different approaches and the OECD could not do much more than try to systematize, assess, and compare those choices. Second, a major general difficulty referred to the degree of uncertainty surrounding those planning exercises, especially due to the time-span involved (15 years in the case of the MRP). Third, there were significant qualitative differences between the various educational systems that were hard to reconcile in a quantitative analysis of educational expansion, which would be amplified by possible differences in the economic and labour structures of each of the countries involved in the MRP (and despite the apparent similarities). Finally, the claim that educational planning should be integrated with economic and social planning reinforced the national embeddedness of those exercises and the limited relevance of international comparisons. Hence, after a few years of significant political visibility, the project would lose its appeal. Moreover, with the Review of Operational Activities (1964) several activities were discontinued (Papadopoulos, 1994, 60), which affected the MRP and eventually led to its end (for a critical analysis, see Hollister, 1966).

Notwithstanding the phasing out of the MRP, this experience would have importance lasting effects in the activities of the OECD in education. In the mid-sixties the organization decided to launch country reviews of education, which benefited from the experience of educational planning and also that acquired in the country reviews of economic policy (Papadopoulos, 1994).[10] The first country reviewed was Ireland (1966), then followed by Italy and Austria. In the reports, as in those of the MRP, the emphasis was on the role of education in economic growth, manpower planning, and issues of educational equity. These early reviews were permeated by optimism about the economic and social role of education, though the economic role of education was taken for granted in most of the reviews of this period and was hardly analysed beyond a few superficial references.

5. The Decline of Manpower Planning

By the end of the sixties the activities of the OECD began to reflect fading optimism about the link between education and the economy, and to be dominated by fears of oversupply of graduates and mismatch between skills and economic needs. Propelled by poor results in terms of social mobility and economic growth, many started to question the real economic effect of education in explaining income distribution and in raising individual prospects (Griliches and Mason, 1972; Arrow, 1973). Many challenged the view that education had a major cognitive role and that earnings were rewarding these enhanced cognitive capacities, arguing instead that the educational system was embedded in the social and political system (Bowles and Gintis, 1975). This view of the role of education also contributed to emphasize the importance of the socioeconomic background for students' educational achievement, and their economic position (Taubman and Wales, 1973).

This growing scepticism about the economic contribution of education was notable in the *Paris Conference* of 1970 (OECD, 1971), where the attainments in terms of growth, in member-states, were regarded as insufficient and many voices echoed a concern that growth should be regarded as an instrument rather than an aim in itself (as it was somehow in the Washington conference). The increasing crisis of confidence in the economic role of education affected negatively human capital theory, regarded as too optimistic about the

[10] These reviews were preceded, during the mid-sixties, by some Reviews of National Policies for Science and Education, which tended to be more specific than the subsequent country reviews. For an analysis of the OECD country reviews on education see Kogan (1979).

economic potential of education to promote growth and especially social mobility. The conference was also embedded in a context of increasing awareness of the social issues on education, focusing on issues such as the equality of educational opportunity, and on the socialisation and individualisation dimensions of education as policy goals. However, and although the conference called for a renewed educational planning "less technocratic and more speculative" (Papadopoulos, 1990, 124), reflecting a more sceptical context among research and policy circles on the economic achievements of education and in educational planning, it did not lead to a better acceptance of human capital theory.[11]

The reflections about the effectiveness of manpower planning came at a time when educational planning was becoming increasingly institutionalized among member countries. This was supported by a series of meetings organized by the OECD that started by 1966 and that would take place roughly twice a year. In the summer of 1969, 18 reports on educational planning submitted by member countries were presented and discussed at a meeting. One of the major issues emerging from the discussion was the perception that educational planning was being developed within governmental units and with very limited interaction with higher education institutions and public opinion. The technical difficulties of these efforts also seemed to overshadow the dynamic nature of education as an object of planning (especially in view of the huge expansion of the education system). The outcomes of that discussion would be published in 1973 and highlighted a growing concern about the adequacy and effectiveness of educational planning (OECD, 1973a).

These policy challenges would continue to be discussed throughout the seventies as in meetings of the OECD Education Committee at the Ministerial level. One example of that was the one that took place in October 1978 and whose summary was presented in the report "Future Educational Policies in the Changing Social and Economic Context" (OECD, 1979a). The report highlighted the widespread recognition that the conditions that had promoted the massive expansion of the previous two decades had changed, due to the economic crisis and the limitations in public expenditure that characterized much of the 1970s, which conditioned further expansion. Moreover, the development of mass systems of higher education in the 1960s and 1970s created significant organizational and systemic challenges that needed to be addressed by policy-makers. There was a broad perception that the economic crisis had undermined the confidence of governments and societies in the economic and social roles of education. Hence, the need to shift the focus towards qualitative improvements, rather than quantitative ones, and to the efficiency and effec-

[11] See also OECD (1973b).

tiveness of the educational system and educational expenditures (see also OECD, 1973b). This also reflected the evolution of the field, which was increasingly concerned with issues of quality and efficiency (Teixeira, 2000). Interestingly, the report used the expression "human capital" a few times, especially in the context of accumulation of skills and its return in the labour market. This was mainly done in the technical report prepared the Secretariat, suggesting that the internal institutional context was becoming more congenial to that kind of language and rationales.

Around that time the Education Committee commissioned a report to reassess educational planning in view of the developments of the previous 20 years and the degree of uncertainty faced by educational systems and educational policies in the turn to the eighties—"Educational Planning: A reappraisal" (OECD, 1983). This exercise took into consideration both the unprecedented expansion of the previous two decades of the education system of most member-states and the economic and social crisis of the 1970s that had affected the demand for qualified labour, eroding the beliefs that underpinned most of the aforementioned expansion. In the background report prepared by the Scientific Secretariat it was attempted to identify the major factors that had affected the evolution of educational planning and what role could be played by educational planning in the future, bearing in mind the changes in the socio-economic context. This overview report was followed by a series of contributions reflecting about national experiences with educational planning in several OECD countries and a couple of contributions reflecting about the policy issues, the technical challenges and the future of educational planning.[12]

The predominant tone reflected a defence of the usefulness of planning, but the need to rethink the approach that had prevailed over the previous decades. First, a softer approach to planning that focussed on qualitative changes and improvements in the educational system. Second, a greater account of the uncertainty and dynamic nature of the object and context faced by educational planning. Finally, a plea for a greater interaction between the results of educational research and the practice of educational planning, namely by taking into account the bottlenecks and the complexities presented by massified education systems. Although the organization remained interested in educational planning, the tone was more detached and the topic had lost interest in the agenda of the OECD.[13]

[12] The latter chapters were prepared by prominent economists of education, several of which had been long-time collaborators of the organization in this field such as Jan Tinbergen and Gareth Williams.

[13] On the change of tide against manpower planning in educational policy see Ahamad and Blaug (1973).

6. From Manpower Planning to Credentialism

The waning of support for manpower planning did not benefit immediately the human capital approach to educational policy, favouring instead a more critical view about the economic contribution of education to social and individual welfare. The economic context of the 1970s, affected by sluggish productivity, economic crisis, and disappointing improvements in social mobility, had clearly affected the confidence that investments in education could contribute to enhanced productivity, faster growth, and more dynamic labour markets. This would provide another barrier to the dissemination of human capital views within the OECD.

One of the critical points referred to the debates about the role of education in economic growth. The sluggish performance of most western economies during the late sixties and most of the seventies, especially at the productivity level, contributed to cool down the expectations from training and technological progress (cf. Jorgenson, 1990). The question that was raised by some was that if education was supposed to enhance productivity, hence growth, how come that in a period of great educational expansion the levels of productivity were showing such a poor performance (Thurow, 1982). Moreover, at the same time that growth and development issues were losing much of their disciplinary momentum, some questioned the way the link between schooling and growth and development had been portrayed and deemed it simplistic and/or naïve (cf. Carnoy, 1977). Although schooling could have a positive contribution to growth and development, this was neither automatic nor independent of the way these resources were allocated.

Furthermore, whereas the early sixties were characterised by great hopes in terms of the potential role of education in promoting social mobility, notably in improving the lot of traditionally disadvantaged groups such as women or ethnical minorities, by the end of the decade these hopes had given way to serious scepticism. Moreover, although there were significant expectations that the expansion of education would bring an increasing equality of economic opportunities and of income, some authors implied that the empirical evidence suggested otherwise, based on an increasing disparity of income (Thurow, 1975). The contribution of education to greater equality and social mobility, already a matter of concern in the 1960s, would receive further attention in the 1970s. Several documents of the organization would question the effective role of the educational system in broadening opportunities at the entry, let alone in the labour market.

To make things worse, the situation in the labour market as a whole was not very favourable, since with the arrival of the first groups of baby-boomers on the labour market the private returns to education were falling rapidly (see Freeman, 1976). It was argued that, because earlier estimates of returns to education had been based in cross-section data, they had overestimated the returns to education, and with the progressive expansion of educated labour the returns would diminish steadily. The rising unemployment, especially affecting younger cohorts, would become a matter of concern for the OECD and that would pervade several of the organizations' reports from the 1970s onwards. Hence, the organization placed a growing emphasis on issued of effectiveness and the performance of the educational system, especially at the higher levels, and its articulation with the labour market.[14] The tone was less on quantitative expansion, and more on the effectiveness and efficiency of the social investments allocated to education.

The environment in the turn to the seventies became infused with a growing scepticism with the employment and wage effects of education in the labour market, in what was often labelled as credentialism (Berg, 1970), and that undermined a view that saw education and enhancing productivity and growth (as in the human capital theory). These claims would have a strong impact in economics through the work of Michael Spence on market signalling (Spence, 1973) or the criticisms of Kenneth Arrow (1973), who also wanted to challenge 'the current human capital orthodoxy' and intended to 'formalize views expressed by some sociologists,' which had suggested that education had mainly a *credentialist* effect.

This challenge to human capital raised by screening had significant implications for policymaking in general and development policy in particular. On a general basis it questioned the existence of significant productivity effects of education, let alone the externalities normally associated with education. If the productive behaviour was hardly influenced by education, it was even less obvious that other secondary effects were significant. Thus, the main reason advanced for public funding of education was severely weakened.

7. The Growing Dissemination of Human Capital Research

Initially, the doubts on the role of educational planning gave place to a general scepticism on the role of education altogether rather than to a change in methodologies or perspectives that would be more favourable to human capital research (see Papadopoulos, 1994, 67). This meant that human capital would still face a hard task within the OECD corners, even after the waning of the manpower approach on educational debates and policy-making. Nonetheless, and despite those resistances, there were some isolated signs of the increasing use of human capital research in OECD reports and documents, which

[14] See, for instance, the Reports "Development of Higher Education, 1950-1967" (1971) and "Indicators of Performance of Educational Systems" (1973).

started already in the early 1970s, but would become more visible in the late 1970s and, especially, in the 1980s.

The presence of human capital research in the debates about educational systems was already significant in a report published in 1973—"Indicators of Performance of Educational Systems" (OECD, 1973). This was the most extensive use to date of several works related to human capital theory, with references to the work of, among others, Gary Becker, Jacob Mincer, T. W. Schultz, Mary Jean Bowman, Mark Blaug, Finis Welch, and Zvi Griliches. The report is also interesting for the extensive use of academic research in footnotes supporting the arguments presented regarding the relationship between education and the economic system, much more detailed than in previous reports. This covered the contribution of education to economic growth, the indicators assessing the quality of the labour force, and the efficient allocation of educated labour.

A few years later, the OECD, through the Education Committee, commissioned a study coordinated by Kjell Härnqvist about the Individual Demand for Education (1978). The study included an analytical report and several national case studies from France, Germany, Greece and the United Kingdom. The first volume presented the theoretical framework used for the study and an analysis of empirical findings observed on that issue, with particular attention to the Swedish case (from where the coordinator of the study originated). In a second volume were presented the four case studies and a general report summarizing the main findings. The study presented several interesting features, not the least the focus on individual demand, rather than on social decision-making. Thus, the study gave a much greater attention to individual motivations and the social factors influencing the former, and in doing this provided a much greater visibility to issues of cost-benefit analysis and rates of return analysis and their relevance to the individual demand for education, especially at the higher education levels. Although the study was not restricted to economic factors, and gave significant attention to social, cultural, and psychological factors, it emphasised the relevance of economic and financial motivations, especially in the context of higher education.

Hence, it would take a good few years until it became popular within the OECD to revisit the link between education and the economy, which would happen only well into the eighties. This trend reflected the renewed vitality of human capital research from the mid-eighties onwards, which garnered increasing attention among policy-makers. As it happened before, in the early sixties, the renewed interest of international organizations like the OECD was largely associated with developments in growth theory that gave enhanced visibility to human capital, notably due to the development of the so-called endogenous growth literature (Romer, 1986; Lucas, 1988). This more recent work challenged a certain mechanistic view that to a certain extent had proliferated in the early years of human capital research (Nelson and Phelps, 1966). Moreover, this new wave of research on growth and development emphasised the externalities associated with education and training, giving additional strength for government support to these activities. The strengthening of the relevance of human capital for economic growth had also to do with the developments regarding the role of technology and its impact in enhancing the demand for more and better qualified workers (Goldin and Katz, 2004). Moreover, research about returns to education confirmed that the role of education was significant and common to all groups, though far more complex than initially suggested and with unequal effects among different groups (Card, 2001).

In several of the contributions to the aforementioned report of 1983, the term human capital was being more frequently used and not anymore to be criticised or qualified as a misguided metaphor or fallacy (as it was frequent in the debates of the 1960s). The expression 'investment in human capital' (by employers and by individuals) was used three times in the chapter by Tinbergen and Psacharopoulos.[15] Several of the contributors conceded that there could exist a small screening effect but they asserted it was neither lasting nor as relevant as sometimes supposed. However, many economists and policymakers consider that though the correlation between schooling and earnings was well documented empirically, doubts remained about the factors explaining it and that the empirical evidence available at that time was insufficient to clarify this issue in a definitive way (Blaug, 1985; Rosen, 1977).

The attention at the OECD to human capital topics would grow significantly in the late 1980s and would become a central issue in several reports published henceforth. Relevant examples of that pattern would be the following ones: "New Technologies in 1990s: A Socio-economic strategy" (1988); "Education and the Economy in a Changing Society" (1989); "Measuring What People Know: Human Capital Accounting for the Knowledge Economy" (1996); "Human Capital Investment: An International Comparison" (CERI, OECD, 1998).

[15] Psacharopoulos was a strong supporter of a human capital explanation of earnings differences and had participated actively in those debates throughout the 1970s in academic circles (see, for instance Psacharopoulos, 1973a; 1973b).

8. Concluding Remarks

In this article we have followed the evolution of OECD's views about the economic role of education from the sixties to the eighties and have shown how it became rapidly interested in the emerging economic analysis of education and assembled a study group on the subject by the early sixties. This early interest has tended to be identified as an early adoption of the views of human capital theory, increasingly popular at that time. However, our analysis has revealed that the process has been far more complex and that this early interest in the economic role of education has evolved to consolidated views that were at odds with human capital theory.

If at a superficial level human capital research had some impact on the (educational) activities and the discourse of the OECD, our analysis indicated that the organisation was less permeable that it seemed at first to the analysis of human capital economists. The idea of investment in education had clearly become part of the jargon, the investment approach seemed to pay off, and human capital/education became established as an engine of growth. However, the OECD did not take on board the approach of human capital theorists to educational expansion. Whereas the latter privileged a demand-based expansion in which individuals would feedback to the government their expectations of return to education by demanding more education, the OECD tended to assume that educational expansion was too important to be left to private decisions.

Instead, the OECD embarked on a series of activities that promoted educational planning and manpower forecasting. In this respect the critical stance of most members of the study group played an important role in undermining the investment perspective and the rate of return approach. Most of the members of the Study Group considered that the specificities of education and the imperfections of the labour market prevented a straightforward application of microeconomic neoclassical theory, rather choosing an approach that called governments to play a much more active role in the development of educational provision. Their influence promoted therefore a focus on educational planning at odds with human capital pioneers.

Although short-lived, the activities of this Study Group were very important in shaping the initial views of the OECD about the economic role of education. Although the initial development of human capital theory played a major role in stimulating the organization's interest in the economic role of education, the composition of the group influenced the OECD towards greater emphasis in educational planning. Moreover, their enduring influence in the activities of the organization on education have consolidated that initial scepticism about the adequacy of human capital theory as a guidance for educational policy.

This case also suggests the relevance of the views of those economists influential in an international organization and how those shape the dissemination of ideas in certain public and political contexts. In the case of the OECD, its main forums of discussion were persistently dominated by voices critical of a human capital theory strongly anchored on a neoclassical framework. To this dominance of critical views of human capital theory also contributed the general absence of the pioneers on human capital research from the main forums of debate promoted by this organisation. If the OECD did not have too much difficulty in embracing the idea of an economic value of education, it clearly diverged with human capital researchers on the methods to operationalize this policy target by privileging a manpower planning approach that limited for many years the influence of human capital research in its policy advice and positions.

The analysis of these debates indicates that nuances of economic debates in the public sphere and how often they are superficially understood. In this case, the absorption of human capital was very superficial and mostly rhetorical, being restricted to a sort of truisms on the beneficial properties of an educated labour force, or the promotion of technological progress. Furthermore, and although economists working on human capital topics managed to put education and training in the policy agenda of the OECD, the process was influenced by peculiarities related to the staff's economic views and internal dynamics. In particular, the crisis of educational planning of the seventies corresponded to a general crisis of the optimism that linked education and economic growth in the early sixties. The dissemination of human capital theory within international organisations suggests that a group of economists can influence the policy-view of these institutions and that some individuals can make a difference, though they need to find an environment that has to be congenial (or at least not too sceptical) to a certain theory and its underlying economic assumptions.

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June A. Sekera, *The Public Economy in Crisis. A Call for a New Public Economics*

Berlin: Springer, 2016, 128 pages, ISBN 978-331940486-8

Maxime Desmarais-Tremblay*

The state is a difficult realm to conceptualise for economists. It used to be the main object of early treatises of political economy in the seventeenth and eighteenth centuries. As the classical and neoclassical approaches, with their focus on commodity production and market interactions, established themselves as the core of economic matters, the public economy has been relegated to a derivative subfield. In this *Springer Brief,* Sekera is motivated by the question of "how to restore the role of the state as a strategic agent that creates and implements collectively binding solutions on behalf of all citizens" (23). She blames market-centric economics for the government's failure to achieve what should be its goals, that is to satisfy social needs. Her objective is twofold: To identify the limitations of mainstream economic and managerial visions of the government and to suggest a way to conceptualise the reality of the public sector. Ultimately she hopes that adopting positive representations of the state might change the way public policy is conducted and participate in a constructive democratic dynamic.

Sekera is a public policy practitioner who brings three decades of experience at the Federal, State and Local levels of government in the United States to her reflection. She observed on the ground how the neoliberal vision gradually transformed public administration practises without any explicit and public discussion on how it affected the capacity of the state to realise its purpose. She did not find in the existing literature in public economics and public management a convincing alternative to market-centric theories of the state. This vantage point explains the interesting range of references on which

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Sekera relies, especially from outside the academic literature in public economics.

The neoliberal vision presents itself as the only rational approach to government, imposing blinders on alternative perspectives. One of Sekera's target is New Public Management which she characterises as a "real-world manifestation of neoclassical economic theory" (17). She provides a few examples of failed administrative reforms in the US (prisons, jobseekers support, the "Obamacare" website) that were motivated by narrowly conceptualised goals of efficiency improvement. In each case, the importation of private sector management techniques disregarded the particular nature of the public sector. Sekera shows how outsourcing at every step of the production and delivery of public services has often resulted in significant cost increases. Paradoxically, financial scandals involving many contractors fuelled resentment toward the government which, in turn, helped the advocates of privatisation in their ideological quest for shrinking the scope of the public sector. More generally, so the argument goes, by seeing citizens as consumers, "market mimicry" would pose a threat to democratic governance.

Sekera's main argumentative strategy is to identify the differences between the market economy and the public economy in order to show why the "transplant" does not work. For instance, the logic of competition does not apply to the public sector because the government acts as a monopsonist and because free entry and free exit in governmental services are often not possible. Information asymmetries and principle agent problems are also widespread. Prices do not restrict supply. Rather, administrative rationing follows from the legislative appropriation of a determined quantity of financial resources. Most goods are provided for free, or sold at prices that are not economically significant. Moreover, the state is less risk-averse than corporations and private individuals, and can therefore invest in very long-term projects. Its indefinite horizon also explains why it can protect natural resources from overexploitation, with a duty of care for future generations. Some goods and services provided by the government have been conceptualised by Richard A. Musgrave as nonrival and non-excludable. This definition assumed that citizens-consumers are able to assess the benefits of public services, which is not the case for merit goods like healthcare, education, and many cultural goods. What is more, a substantial share of public expenditures funds useful, but partly invisible, programmes for the prevention of catastrophes, for the maintenance and repair of infrastructure, etc. To be fair, Sekera should have acknowledged that many of these features are not differences of nature between the market economy and the non-market public sector, but more differences of degree. The causes of market failure, such as asymmetry of information, principal agent problems, increasing marginal returns and non-rivalry are also present, to some extent, in the market economy.

For Sekera, contrary to the bilateral exchange of markets, the public economy can be represented as a "three-node production flow" between the government as a producer, the public beneficiaries and the elected representatives (62). The government must work with often ambiguous demands from the population and conflicting goals from its elected representatives. As Musgrave remarked a long time ago, political processes are central to the public economy. Unfortunately, economists have taken narrow paths to conceptualise them, either in public choice or in social choice theory. Sekera's suggestion for a realistic institutional theorisation of the public non-market is interesting, but it is only a call for a new theory, as the subtitle of the book states. Contrary to what the publisher insinuates on its website, the short book does not propose a fully fledged alternative theory of public economics or public management.

The main flaw of the argument is the amalgamation between neoclassical economics, the neoliberal vision and public choice theory. A more nuanced presentation of the different economic approaches to the state would have prevented some sweeping generalisations about the "mainstream". A sympathetic reader might be convinced by the author's rejection of any catallactic approach to government and might support the idea that public action should be driven by "societal needs". This reader might have been interested to know that this way of conceptualising the public sector was common among German economists in the nineteenth century and it was also Musgrave's starting point in public finance. This reader might not be convinced by Musgrave's efforts to bring this vision of a distinct public sphere in line with the market failure approach in the 1950s. Yet, the broad spectrum of conceptualisations within the neoclassical family calls for a more qualified judgement on their fruitfulness for any theorisation effort on the functioning of the state (see Marciano and Medema, 2015).

The book is part of a new series of short *Briefs* published as ebooks and printed on demand by Springer (similar to the Palgrave Pivots). The price tag of €44 for a softcover is more reasonable than many other academic books, but for 128 pages it still comes up to a hefty price per page. What is more disappointing is the lack of editorial work by the publisher. Sekera writes in a clear and easily accessible language, but the argumentation is often sketchy with many very small paragraphs and numerous lists of elements. Furthermore, there are some repetitions over the chapters that could have been avoided by a thorough editorial job. The layout also leaves something to be desired, especially coming from a renowned academic publisher.

All things considered, this thought-provoking book should inspire future conceptual work on the public economy. One unaddressed question is the extent to which the unsatisfactory nature of mainstream economic visions of the state is due to a defective theoretical framework, as the author argues, or rather to the values promoted by these visions. With hindsight, the new public management that guided policy reforms in the 1990s focused on making efficiency gains (perhaps at the cost of promoting equality of opportunity), which is one of the values at the heart of the welfare state. Another question is whether it is possible to develop a theory of the public economy centred around the production of goods and services. Against those who argued that the nature of public goods laid in their joint supply, Musgrave and Samuelson showed that some goods were public because of the particular way in which they are consumed (Desmarais-Tremblay, 2017). Goods are public because their consumption is nonrival and because it is difficult to exclude consumers from their enjoyment even if they do not pay for it. These features stand irrespective of who actually produces these goods. Beyond this neoclassical framework, Mariana Mazzucato (2013) has recently shown how the government plays a crucial role in growth-fuelling technological innovation. This is perhaps a good starting point for a more systematic understanding of the productive role of the state in economics.

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James Forder, *Macroeconomics and the Phillips Curve Myth*

Oxford: Oxford University Press, 2014,
306 pages, ISBN 978-019968365-9

Aurélien Goutsmedt*

Science studies contain a wealth of stories about discoveries and the emergence of an idea at a certain point in time, which was to bear significant changes in a field. In economics, those stories are often initiated by economists themselves and tend to be repeated through review articles, textbooks or interviews. Macroeconomics appears as a fertile ground for such stories—think of the Keynesian multiplier, the rational expectations hypothesis, the birth of endogenous growth theories. Among those edifying stories, the one about the discovery of the Phillips Curve and its critics, laying the ground for the expectations "revolution" in macroeconomics, is probably the most famous.

James Forder valiantly speaks against this well-anchored narrative which has been told for years among economists. The story could be summed up like this:

> In what quickly became a classic paper, Phillips (1958) discovered a negative relation between inflation and unemployment; then, either under the influence of Samuelson and Solow (1960) or otherwise, policymakers treated it as offering a selection of inflation-unemployment combinations from which they could choose, depending on their … aversion to the two evils; much work was done investigating this tradeoff and, because of it, inflationist policy was pursued until Phelps (1967) and Friedman (1968a) revolutionized thinking by pointing out that continuous inflation would change expectations and thereby shift the Phillips curve so that there was no long-run tradeoff; and although this was initially disputed, in due course it was accepted. (1)

As the title of the book suggests, Forder's goal is to demonstrate step by step that "each component of that story is false" (*ibid.*). To that end, he provides detailed proofs documenting how the reality of the study of the relationship between inflation and unemployment was far more different and complicated than—and sometimes quite the opposite of—what the "myth" tells us.

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Forder directs the first blow against the supposed centrality of the "curve of Phillips": neither did Phillips (1958) *discover* a relationship between wage change and unemployment, nor was his article "instrumental in promoting the idea" (11). Forder first shows that several economists investigated the correlation between the two variables before—among them, Tinbergen or Klein and Goldberger—and that Phillips' work was weaker than the ones of his predecessors. Besides, in the following years, the literature did not rely on the work of Phillips. When he was quoted, most of the time the author was rejecting Phillips' idea that market forces (i.e. tight labour market), rather than non-economic institutional factors, constituted the primary determinant of wages variations. It is not before the end of the 1960s that the "Phillips curve" expression spread and that more acknowledgement was granted to Phillips.

Then, Forder discredits the common beliefs about Paul Samuelson and Robert Solow's (1960) article which Milton Friedman contributed to diffuse: the two MIT economists never used the Phillips curve to advocate inflationary policy in order to reduce unemployment. Instead, they focused on the instability of the curve and the way to improve the trade-off, to reach full employment and price stability at the same time. Forder analyses Solow's and Samuelson's retrospective view on their own article, as well as the way economists talked about the article in the 1960s. He concludes that in the 1960s, economists did not interpret their article as a defence of inflationary policies. However, Forder shows that this false interpretation emerged progressively in the 1970s and became common thought even if not substantiated.

However, the most crucial point of contention of the book concerns the assumed "revolution" in the story of the Phillips curve: Friedman and Phelps discovering the role of expectations in inflation mechanisms. Forder offers here a considerable survey of the literature on inflation at the time of Friedman's 1968 *AEA* presidential address. This literature focuses mainly on wage determination, and many works took into account the role of inflation in it. In other words, this literature did not confuse nominal wages with real wages, contrary to what Friedman later argued; neither did it calculate any optimal trade-off and advocate inflationary policies. Forder also convincingly details how the importance of expectations was acknowledged before Phelps and Friedman, and how even the latter did not seem to consider, in the 1960s, that his presidential address brought revolutionary insights. Nevertheless, it has to be noted here that Forder did not deal with the success of Friedman's (1968) article. Contrary to Phillips (1958) or Samuelson and Solow (1960), Friedman (1968) quickly encountered tremendous success as well as many economists opposed to it. By dismissing the idea that the article was innovative, Forder tends to suggest that it was not really important and that it did not profoundly change macroeconomics. However, Forder has dealt with this issue in a later article (Forder and Sømme, 2019).

Finally, the last part of Forder's demonstration concerns how policymakers would have used the Phillips curve in the 1960s to promote inflationary policies. Here again, it is a mere myth. By analysing official documents and how economists related the policy issues of the time, Forder proves that the Phillips curve was not central in the policy decisions of the 1960s. Interestingly, the Phillips curve more regularly appeared in reports after 1975, notably to criticise the policies of the 1960s. It is at the same moment that the myth developed and that economists began to interpret the policies of the last decade through the Phillips curve framework. The best examples are authors who, like Haberler or Brittan, did not describe 1960s policies in terms of the Phillips curve in the late 1960s, but began to do so after 1972. Forder dated the appearance of the whole myth in the mid-1970s, within the writings of several economists (Friedman, of course, but also Robert Lucas, James Buchanan, Karl Brunner and Allan Meltzer). With the next decade came the routinization: the story of the Phillips curve was narrated again and again without any factual proofs.

The reading of the first six chapters (over eight) leaves a feeling of accomplishment: thanks to a careful analysis of a large sample of articles and books, we observe every piece of the well-known Phillips curve story collapsing. Forder brilliantly proves why contextualization is an essential weapon for any intellectual history. Understanding how a discipline evolved and how some ideas diffused needs putting the "classics" of the discipline in the context of the time. By confronting many contemporaneous works, by understanding how grand ideas (from today's perspective) were received, by studying the economic context of the time, the historian offers a broader and more vibrant picture of the problems at stake in the discipline at the time. It then enables to dismiss the imagined pasts that circulate, rebuilt *a posteriori* by the scientists.

Thanks to this great effort of contextualization, Forder shows that the Phillips curve was not central in the 1960s and early 1970s for thinking about inflation and employment. By dismissing every piece of this tale, he sketches an alternative history of the treatment of the relationship between inflation and unemployment, rich, complex and displaying useful insights for today's debates.

Nevertheless, the book does not go without limits. First, it has the weaknesses of its qualities: Forder's demonstration goes through the analysis of a large sample of articles, books, reports, etc. Often, references add on references to make the case, to the point where the reader would be tempted to jump to the conclusion. It sometimes seems like a never-ending enumeration, which makes it hard to follow the argument at stake. The aridity of the numerous lists and enumerations leaves the reader with the impression that this story lacks an institutional and network background. Most of the time, Forder does not connect economists with one another, does not provide us with biographical information, institutional details, research programs, to go beyond the mere fact of enumerations. There is one telling exception in the book, when Forder details the influence of Popper's falsificationism at the London School of Economics and how it pushed Richard Lipsey to work on the Phillips curve and to popularise it. He thus gives a lively colour to the alternative story he is sketching.

In the seventh chapter, Forder tentatively proposes some leads on how the myth could spread or persist. First, he reminds us that the famous founding papers of the myth (Phillips, 1958; Samuelson and Solow, 1960; or Friedman, 1968) were not representative of the whole literature of the time on the topic. Retrospectively, today's economists are more prone to (even if still wrong in) believing the myth if they only read these papers rather than more representative works of the time. Another argument hinges upon the semantic confusion surrounding the "Phillips curve" term. Through the 1960s and 1970s, the "Phillips curve" was used in turn to designate cost-push or demand-pull mechanisms, a relationship between unemployment and either wage inflation or price inflation, short-run and long-run relationships, complex representations of wage and price inflation determination or a basic correlation between only two variables (inflation and unemployment). This considerable semantic floating contributed to misleading economists after the 1980s and thus to the passive diffusion of the myth. Forder also gives importance to some initial "misdatings" (181)—like Friedman and Phelps being the first to talk about expectations—which persisted and strengthened over time. Forder finally underlines that opponents to Friedman poorly answered him—and so gave some credence to the story he developed—and that the inflation of the 1970s favoured the story which Friedman, Lucas or Buchanan were developing.

All these elements surely have a grain of truth, but Forder lacks a systematic analysis of the diffusion of the myth, as a general lesson to learn for the history of economics. He enables us to understand how the myth circulated and strengthened, but not how it imposed itself to start with. One could legitimately aspire to broader and more decisive conclusions.

There is a fantastic topic for the sociology of science here. "Imagined pasts" remain understudied (Wilson, 2017) and Forder's book offers a wonderful field of investigation. It raises questions on the consequences of scientific practices, like naming concepts or imposing literature survey section in published articles. Schools of thought and concept labels offer a more organised view of the discipline, but they oversimplify its complexities and lead to misreading its history. The diffusion of the Phillips curve myth is good focus for seeing these mechanisms at work.

In the concluding chapter, Forder defends the quality and relevance of the work done by economists in the 1960s on inflation and unemployment against the common picture of naivety drawn in the Phillips curve myth. He sharply criticises the Phillips curve and the fact that its existence was never established empirically, whereas it is central in today's macroeconomics. This quick discussion actually raises essential questions. The transformation of macroeconomics in the 1970s through the impulsion of New Classical economists (Lucas, Sargent, or Edward Prescott) but also of disequilibrium economics (see Backhouse and Boianovsky, 2012) represented a return of "high theory" to the foreground. To what extent did the history of the Phillips curve parallel this process? The rise of the Phillips curve, its conceptualisation and formalisation could be seen as a rationalisation of the research in the field. It offered a platform for discussing inflation in a unified framework, but at the risk of losing the diversity of inflation explanations that could not easily fit the Phillips curve framework. Then, Forder's conclusion would have deserved a more in-depth discussion of this process and its consequences for macroeconomics.

The last issue that would deserve more investigation concerns the concrete consequences of the diffusion of the myth. In the introduction, Forder argues that discrediting the myth represents an essential task because the story constitutes a crucial part of the post-1980 consensus and of "the story of the origins of early twenty-first century policymaking presumptions" (4). Nevertheless, Forder does not much pursue this line of investigation in the rest of the book (although he worked on related topics; Forder, 2001). How did the emergence of the myth influence the change in economic policy in the late 1970s? Was the myth instrumental for economists or policymakers to impose some changes of practices? The Phillips curve standard narrative also has some importance for the explanation of the 1970s stagflation. Today, the "ideas hypothesis" (Romer, 2005) constitutes the dominant explanation: the inflation of the 1970s was the result of bad economic policies inspired by false economic ideas (namely the belief in a long term trade-off between inflation and unemployment). The story of the Phillips curve myth debunked, what is left of this explanation? How should the debunking of the myth transform our vision of the 1970s?

However, if all these critical issues appear during the reading of Forder's book, it is a proof of how stimulating it is to read and how it opens new paths of inquiry for the future. Undoubtedly, it constitutes an important step in the field of macroeconomics history, and it will inspire innovative future works.

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Łukasz Hardt, *Economics Without Laws: Towards a New Philosophy of Economics*

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220 pages, ISBN 978-331954861-6

D. Wade Hands*

This book is a critical investigation of universal natural laws in economic science—the idea that laws in economics are like scientific laws in natural science, such as the laws of Newtonian mechanics. It is both a history addressing whether economists have historically employed the idea of such laws, as well as a philosophical assessment of whether such a natural law-based approach is appropriate for economic science. Although the book is both an interpretative history and a philosophical assessment of universal law-based thinking in economics, the majority of the chapters focus on the latter in light of relatively recent developments in philosophy of science. Hardt's discussion of recent philosophy of science focuses on philosophers' general move away from "law-centrism" (6), increased emphasis on models rather than theory, and investigation of the relationship between idealized models and scientific explanation. The author's extended philosophical discussion draws on a wide range of resources including Cartwright (1983; 1989; 1995; 1999; 2007), Mäki (2009a; 2009b; 2011; 2013), Reiss (2012; 2013), and others.

In both the historical part and the more extensive philosophical discussion, Hardt's central claim is clear from the book's title: economics without laws. The argument is that "economics without laws is not only possible but it is desirable if we really want to better understand the way in which the economic world works" (3). The laws that economists should do without are universal laws of nature "operating in all possible contexts" (85). The argument against universal laws is pursued both *descriptively* (through the history of economic thought) and *prescriptively* (through contemporary philosophy of science). The historical argument is that most of the major figures in the history of economic thought doubted "the existence of universal laws in economics" (47). The philosophical argument is much more com-

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plex, but the main point is that contemporary philosophy of science is characterized by "the demise of law-centrism" (66).

I will discuss Hardt's main arguments proceeding as they appear in the book: first his history of universal laws in economics, second his discussion of laws and models in contemporary philosophy of science, and finally, how he characterizes the overall moral of his story. I will close with some critical remarks, but also some praise for the author's attention to certain ideas.

Chapter 2 contains the majority of the historical discussion. It starts with the classical economics of Adam Smith, David Ricardo, and John Stuart Mill, and closes with early neoclassicism, particularly Alfred Marshall. Although it is clear that the author has done extensive research, the historical material is very targeted and selective—the goal clearly seems to be to find arguments and quotes to support the view that these economists were not committed to universal laws in economics—rather than the thicker, often archival and more contextual, style of history that characterizes much of contemporary history of economic thought. This said, the targeting uncovers considerable evidence to support the author's position that "Smith as well as Ricardo, Mill, and Marshall simply do not believe in fundamental universal laws of economics" (63). Even though I would disagree with several specific claims in the chapter—for example: that Ricardo was reluctant to draw "inferences from models to the world" (91) even though every chapter of his *Principles* implied that the corn laws should be repealed, and that Walras emphasized "directly applying model's conclusions to the real world problems" (11) when his *Elements* offered a purely abstract mathematical model that some experts have argued was primarily normative (Jaffé, 1977)—overall it does seem that Hardt weaves together a reasonably plausible defense of his main historical thesis.

His extended philosophical discussion is contained in chapters 3-6, although chapter 6 is somewhat of a special case (discussed in the final section below). There are many crosscrossing and interrelated arguments within these philosophical chapters, so I will focus on what seems to be a few main themes. The first major theme is that not only have philosophers moved away from the Humean, event-regularity, view of scientific laws that dominated the literature of the nineteenth century, they have also steadily moved away from the syntactic view of scientific theories associated with logical empiricism: theories as axiomatized systems of sentences linking theoretical terms and observational terms, generally through some version of correspondence rules. There are many aspects to the recent philosophical developments Hardt discusses, but three of the most important are (i) an increased concern with the actual practice of science (I would call this the naturalistic turn), (ii) an increased emphasis on scientific models and a decreased emphasis on scientific theories, and

(iii) the development of various versions of the semantic (or model-based, or non-statement, or predicate) view of scientific theories in which scientific theories are simply families of models.

A second major theme, associated with Cartwright (1989; 1999; 2007) and others, is the idea that what philosophers have traditionally thought of as scientific laws are not found directly in nature; they are manifestations of nature's capacities, but capacities seldom reveal themselves directly because of complex countervailing forces and disturbances (this is similar to J. S. Mill's discussion of tendency laws in economics). Scientific laws only manifest themselves through specifically constructed *nomological machines*, and models serve as blueprints for such nomological machines. As Hardt explains:

> the practical problem with such an approach is that capacities can be present, while at the same time they need not manifest themselves … Therefore, how to identify them? Cartwright's answer is the following: build models, the blueprints of nomological machines … Laws are not discovered, but they are created in models, since only models (ideal circumstances) offer arrangements in which nature is reliable. In other words, only in models, without the presence of disturbing factors, is it possible to analyze manifestations of capacities. (82)

Perhaps the most important thing that Hardt takes from Cartwright is "that models come first and laws only later, since models are what produce laws" (93).

The third main theme concerns one of the most controversial questions within contemporary philosophy of economics: How can highly idealized (fictional) models explain, or provide other epistemic value regarding, real world phenomena. As Petri Ylikoski and Emrah Aydinonat recently put it:

> Highly abstract and simplified theoretical models have an important role in many sciences, for example, in evolutionary biology and economics. Although both scientists and philosophers have expressed doubts about the epistemic import of these idealized models, many scientists believe that they provide explanatory insight into real-world phenomena. Understanding the epistemic value of these abstract representations is one of the key challenges for philosophers of science who attempt to make sense of scientific modeling (Ylikoski and Aydinonat, 2014, 19)

Hardt subsumes many of the different philosophical accounts of highly idealized scientific models into two categories—isolationist and constructivist (133)—but in the end argues for a position that he calls the *believable worlds* account which is "neither pure isolations, nor pure constructions, but believable worlds depicting structures … that enable the workings of mechanisms that refer to the ones operating in the real world" (134-135). Under the believable world conception "a model is an entity containing mechanisms that are believed to be similar to the ones operating in the real world" and they "are similar because a model of a mechanism demonstrates the reality of a mechanism by isolating it" (148). Hardt's believable world conception draws heavily (with proper recognition) on both Cartwright's nomological machines and Robert Sugden's notion of a *credible* world or model (Sugden, 2000; 2009; 2011), but is not identical to either. Hardt summarizes his account of the relationship between idealized economic models and scientific explanation toward the end of the book:

> models explain by depicting structures which enable the workings of mechanisms, or models are just mechanisms' descriptions. And such models of mechanisms produce beliefs about the real world and thus those beliefs are always true in models producing them. Here my answer to the question of how models explain refers closely to Cartwright's idea of models as blueprints for nomological machines that produce 'insights' about regularities in the actual world. (150-151)

All in all I think the main points the book are well-taken. Most classical and early neoclassical economists were not committed to universal context-independent natural laws and such laws play little role in contemporary philosophy of science. I agree. The problem is that while I agree, I cannot really say I was persuaded by the arguments in the book. Since I never thought that universal natural laws had a serious role to play in economic science—either descriptively or in terms of normative methodology—I was already persuaded. But my response to the book was more than simply not needing to be persuaded; I also wondered about the book's motivation and audience. After reading just the first few pages of the introduction, my thought was "The point seems correct, but why do we need a two hundred page book on it"? The book is an effort to eliminate law-centrism in economics, but I do not see evidence that most economists think that way about economics—either now or in the past—and it is certainly clear that philosophers of science have moved away from such views. Given this, who is the book for? Who is it that needs to be persuaded? Hardt drops some hints about a possible answer—"A nice example comes from my home country, Poland, where even after 25 years since the end of communism many economists still think that a transition towards a full market economy can be based on a context-independent set of laws taken from neoclassical economics textbooks" (4)—but I will stay away from such speculative issues. On the other hand, I do have some critical remarks about the book of a less speculative sort. I have many specific concerns, but will try to roll them up into one general complaint about the book's organization and the way various philosophical topics are discussed.

My concerns are motivated by the question of how a person who *did* initially think that economics was, had been, and should be, committed to universal natural laws would react to the book. Would such a person change their mind after reading it and abandon law centrism? I think not. I believe the book represents a significant amount of research and introduces a considerable amount of interesting and important ideas—ideas that are some of the most discussed in the current philosophy of economics literature—but they are not necessarily presented in a very clear and systematic way and would thus be unlikely to persuade those who were not already disposed toward the author's bottom line. Moreover, Hardt is not only trying to persuade readers that economics has not been, and should not be, guided by the idea of universal natural laws, he is also trying to defend his own account of various philosophical concerns like the problem of explanation with idealized models, the role of mechanisms in economic explanation, the way ceteris paribus laws work and should work, scientific explanation versus scientific understanding, and a host of other issues. Although he offers some interesting ideas on these philosophical topics, they are often presented in insufficient detail or coherence to be persuasive or, perhaps more importantly, to compete effectively with the many other competing accounts of these topics within the recent philosophy of economics. I will discuss only one general category of concerns, but give several specific examples.

My concern is that the entire argument, particularly chapters 3-5, could have been delivered more effectively. The main problem I see, and it percolates throughout the philosophical discussion, is that while all of these various accounts of models, theories, explanation, understanding, and such, are important, none is given a sufficiently detailed discussion for the reader to understand exactly how they all fit into a coherent story line. Ideas from various philosophical authors seem to pop in and out of the narrative, often in ways that make independently interesting points, but are almost never given the sustained attention or discussion that they deserve, or that the reader needs to understand how the author sees the various parts of his narrative hanging together. I will give a few examples that come from various parts of the book and pertain to different topics, but the general point is the same. There are too many ideas presented too quickly for the reader to get a coherent picture of the author's philosophical position.

Early on in chapter three Hardt discusses the change from philosophers of science thinking primarily in terms of theories, to thinking primarily in terms of models, and the associated conception of scientific theories as clusters of models. He says this "is called the semantic view of theories," but this view "is not itself opposed to laws, since the models are specified by laws" (73). This makes models the "central units in theorizing" which is significant because "if a model is not something linguistic but is rather an abstract object, then one cannot assess it as being true or false but rather the focus of attention converges towards asking questions on the relation between the model and the modelled, thus the issue of isomorphism" (73). Later in chapter five (152) Hardt also endorses Hausman's (1992) version of the semantic view, in which a model just defines a predicate ("is a Newtonian system," "is a Keynesian economy," etc.) and that "we do not test the model as such *vis-à-vis* the real world" (152), but rather we test only theoretical hypotheses like "X is a Newtonian system," or "Y is a Keynesian economy," etc. (see Hausman, 1992, 73-76).

Although what Hardt says about the semantic view of theories is often clear within any particular sentence in which it appears, consistency problems emerge across different sentences and larger blocks of text. The problem is that there are many different versions of the semantic view of theories and while sentences may seem fine standing alone, as one moves on various inconsistencies develop because "semantic view" is being used in different ways in different places. Only certain interpretations of the semantic view consider models as isomorphisms, and some are opposed to laws. Hardt notes Giere (1999) and Suppes (2002) as semantic views, which broadly they are, but they are quite different. Giere's version is fundamentally pragmatist which seems inconsistent with Hardt's emphasis on mechanisms, and Suppes version, while also informed by pragmatism, emphasizes set-theoretic axiomatization which also seems to be at odds with the kind of economic science Hardt is arguing for. There are also structuralist variants of the semantic view—for example Sneed (1971) and Stegmüller (1979)—which require set-theoretic characterizations of scientific theories that are related to, but different from Suppes' characterization. This form of structuralism is problematic because there is an extensive literature applying it to abstract economic theory (e.g. Stegmüller, Balzer and Sophn, 1982) that is in many ways at odds with most of what Hardt is saying (particularly in his remarks about Walrasian general equilibrium theory, 3; 11; 186-189). Hausman has a semantic view of the model-theory relationship but uses the terms "model" and "theory" in ways more guided by the practice of economists rather than by that of philosophers and thus ends up being different from other semantic views. It is of course extremely difficult, if not impossible, to sort all this out in a 220 page book with other goals, but if that is the case, it seems to me that it would have been better for the author to simply pick a particular semantic conception that is particularly consistent with his point of view and use it to make the relevant points, thus avoiding the potential confusion of mixing bits and pieces of various philosophical accounts and leaving the reader to try to sort them all out and find coherence.

Of course the discussion of the semantic view of theories is just one small part of the philosophical discussion, but similar concerns also surface in other parts of these chapters. Another example is the brief discussion of the relationship between learning from scientific models, obtaining understanding from scientific models, and explaining with scientific models (146-156). Learning and understanding have received a lot of attention as philosophers try to figure out ways in which highly idealized models may be able to provide some useful epistemic value without actually providing (even approximately) accurate representations or adequate scientific explanations. There is a massive philosophical literature on these topics—far too much to be discussed in a book on natural laws in economics—but rather than simply bypassing it because there is not sufficient room to treat it in depth, or picking one or two consistent accounts and adopting those, Hardt approaches the material much like the semantic view of theories: introducing quite a few different ideas, but none in much detail, and then trying to isolate useful parts for his story, without being certain, or making it clear to the reader, that the relevant parts can possibly work together.

I have similar concerns over many other philosophical topics, but I will only mention one more since it is so fundamental to his entire story: universal natural laws. Hardt starts the discussion of natural laws, as one should, with the Humean event regularities (there is an excellent statement of the Humean view, 66), but then moves on to a number of different non-Humean views, followed by a very brief discussion of the syntactic view, and ultimately his discussion of the semantic view, while introducing various relatively recent philosophical ideas that he wants to employ in his own account along the way. As a result the reader may lose track of exactly how Hardt characterizes universal laws of nature, which is of course *the main topic of the book*. It might have been much better to follow a relatively standard textbook discussion of the evolution of the philosophical conception of scientific laws—as in say Nagel (1961) or Suppe (1977)—and then move from their relatively simple summary of the topic, directly to a particular version of the semantic view that best serves the author's purposes.

I have discussed three specific examples but I think they are representative of systematic concerns I have about the way the author handles the philosophical portion of the book. As I noted above, I think the main points the author is trying to make are correct, and the philosophical literature discussed is interesting and important. But it seems that his believable worlds account of how we should think about economic theory with respect to idealization, explanation, understanding, mechanism, and a host of other issues, is simply not detailed enough to persuade someone to give up the notion of universal laws in economics or to compete with many of the other philosophical accounts in the literature.

Even given these concerns, I want to be clear that Hardt deserves a great amount of credit for introducing these philosophical ideas to his readers. While most of the ideas he discusses are in the recent literature in philosophy of science and philosophy of economics, it is a vast amount of literature to assimilate, and perhaps more importantly, this literature is almost exclusively produced by philosophers. Hardt is not only an economics professor, he is also a member of the Monetary

Policy Council at the National Bank of Poland, and thus an active economics practitioner, and deserves substantial praise for his philosophical commitment.

One specific part of the book where I think Hardt deserves particular credit is chapter 6. I think chapter 6 makes an extremely important and original contribution to the philosophy of economics literature; it discusses the philosophical literature on what Lange (2013) termed *distinctively mathematical explanations* (DME) in the context of economics. Style-wise it has some of the same issues that I have complained about in previous chapters, but in this case, since the point is simply to introduce the reader to some potentially interesting new ideas rather than trying to develop a coherent non-natural-law-based account of economic models, I think it works just fine. Hardt draws primarily on Baker (2009), Lange (2013), and Steiner (1978a, 1978b), which are key contributions to the literature, but I would also add Anderson (2018), Batterman (2010), Knuuttila and Loettgers (2017), Morrison (2015), Potochnik (2009), and Rice (2019), and others. Although many of these authors note in passing that DME explanations may be relevant to idealized economic models, there has been little or no serious research on the relevance of DME to mathematical economic theory. Hardt says that "To my knowledge there are no papers dealing with this issue in social sciences, including economics" (171) and that still seems to be the case. Although some of the discussion of DME and the related literature is primarily concerned with the ontology of mathematical objects and thus not relevant here, the arguments that are relevant to economics are those asking the question whether mathematical objects and relations can play a distinct explanatory role in empirical science. Of course the traditional answer has been "no," but some of this recent research on mathematical explanation suggests it may be "yes." The literature is relatively new and very controversial, but since so many highly idealized mathematical models in economics have *ineliminable* mathematical parts to them—say optimization or the stability of a system of differential equations—the mathematics is a necessary part of the explanation. If we had an acceptable account of exactly how such explanations work epistemically it could usher in a significant change in the way economists and philosophers think about highly mathematical models. Perhaps it could even be combined with some of the recent work on how-possibly explanations in mathematical economics (e.g. Vereault-Julien, 2017; 2019). Hardt's own investigation of the topic concludes that "the norm in economics is not to use distinctively mathematical explanations" (186) and perhaps he is right, but even if that ends up being the case, dedicating a chapter to such an interesting, and perhaps potentially fertile, topic is an important contribution to the literature. Although I would note in closing that Hardt argues (186-189) that Thomas Schelling's checkerboard model of housing discrimination (Schelling, 1971; 1978) *is* actually an example of DME—perhaps a distinctively checkerboard explanation—while the Arrow-Debreu general equilibrium model *is not* an example of DME. I will leave it to the reader to ponder that assessment.

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Ryan P. Hanley (ed.), *Adam Smith: His Life, Thought and Legacy*

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Ecem Okan*

With an astute analogy Hanley compares this collection of essays with a travel guide: travellers are offered invaluable guidance throughout the universe of Adam Smith which, as Buchan notes in taking up the analogy, "is one of the sights of philosophy and, as the old Michelin tourist guides used to say, merits the detour" (15). Smith's universe is indeed that of a philosopher and in presenting him overall as a moral philosopher the book gives Smith his due. Yet the proclaimed purpose of the book is not only to further the appreciation of the richness and breadth of Smith's thought beyond economics, but also to "rediscover his relevance for our time" (ix) by proposing intellectual voyages through which Smith can be shown to "inform and contribute to current live debates in the contemporary academy as well as the contemporary public sphere" (x). In this regard too, the volume is to a great extent successful and the editor should be credited for having brought together outstanding scholars from a wide range of disciplines, many of whom have written illuminating books on Smith's life, thought and legacy or have engaged with Smith in their works as important contemporary philosophers or as a businessman (i.e. John C. Bogle who passed away earlier this year).

The book is comprised of thirty-two chapters, divided into five sections. After an introductory section presenting Smith's published and unpublished works along with his life and the Scottish context, the remainder of the chapters seems to be somewhat arbitrarily organized into four sections treating "Smith's social vision", his economics, "Smith beyond economics" and "Smith beyond the academy".

Part 1 begins with "The Biography of Adam Smith" by James Buchan who thoroughly covers the subject in approaching it from a historiographical perspective: besides providing a succinct biography,

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Buchan summarizes the history of Smith's biographies (including his own) while at the same time assessing the different Smiths presented by his various biographers. Thereafter, a series of chapters on Smith's works alternates chronologically starting with Vivienne Brown's piece on his very first lectures on rhetoric and belles lettres. After noting that "Smith would be horrified to think that scholars would read the student notes of his lectures as if they were a finished statement of his mature views" (18), she gives a critical examination of his rhetorical theory. Eric Schliesser presents the key concepts of *The Theory of Moral Sentiments*, highlighting that the latter should be read in relation to Smith's "more theoretical science of man" (34). Knud Haakonssen explores the intertwining of Smith's theory of justice, law and government in his lectures on jurisprudence with a careful attention to the evolution of his teaching. In this regard, Haakonssen restates his previous concern for the change Smith effectuated in the order of presentation of his lectures (treating government first rather than property) at his final year at the University of Glasgow. Whereas the possible reasons for this change had previously been studied (Haakonssen, 1996; Metzger, 2010), neither of these studies nor the present piece discuss the change Smith made in relation to the obviously less fundamental but interesting fact (though mentioned by Haakonssen himself (49)) that Smith knew beforehand that he was to leave Glasgow and arranged the remainder of his course to be taught by his former student Thomas Young. In the following chapter, Jerry Evensky turns to the *Inquiry into the Nature and Causes of the Wealth of Nations* and provides a proper guide to the economic dimension of Smith's system. Reminiscent of his most recent book *Adam Smith's Wealth of Nations: A Reader's Guide* (2015), the emphasis is laid upon the Smithian take-off theory of growth and the dynamic of the circuits of capital flow. There follows Craig Smith's chapter on the *Essays on Philosophical Subjects* published posthumously according to Smith's will. Alongside a plea for their wider consideration by scholars, the chapter mostly focuses on the Scot's historical essays on astronomy, ancient physics, ancient logics and metaphysics which combined together outline "a theory of growth of human knowledge" (92). In the closing chapter to this introductory section, Nicholas Phillipson, Smith's most recent biographer, recapitulates the Scottish intellectual and historical context in which Smith's science of man is embedded and upon which he had powerful influence (remarkably chiefly by his theory of rhetoric). According to Phillipson, a sophisticated theory of needs forms the basis of Smith's attempt to propound a secular science of man, "a project of Aristotelian proportions". (105)

In the second part, Ryan Patrick Hanley, the editor of the present volume, reminds us that an often neglected yet significant purpose of Smith's project was that of offering a guide to a good way of life. Hanley shows that the Smithian way of becoming virtuous requires transcending our self-concern. Leonidas Montes' contribution constitutes an appropriate follow-up to this issue. Analysing the interplay between sympathy, self-interest and the four main Smithian virtues (prudence, justice, beneficence and self-command), Montes argues that Smith is more than a mere virtue ethicist. Elizabeth Anderson then reflects on Smith's stance on moral, social and political equality (in comparison with Rousseau's) and deduces that "Smith's work is a milestone in the history of egalitarianism" (169). In the following chapter, Nicholas Wolterstorff provides an illuminating analysis of Smith's theory of justice while underlining its originality on the one hand and its failure to integrate "the idea of the worth and dignity of a person" (188) on the other. According to Wolterstorff, an account of justice that lacks such an idea fails. Remy Debes revisits in chapter 12 Smith's theory of sympathy as the groundwork for his account of human sociability. He also contrasts Hume's "contagion" theory with Smith's "simulation" theory of sympathy by stressing the role imagination plays in the latter (193). Next, David Schmidtz, in a somewhat discursive final chapter, undertakes the reconstruction of a Smithian theory of freedom. Drawing much on Hanley's previous work, Schmidtz first considers the liberating effects of markets in Smith's thought and then explores the reasons why for Smith the realization of these effects might be hindered.

Agnar Sandmo's appraisal of the *Wealth of Nations* from the perspective of modern economic theory makes up the first contribution of the third part devoted to Smith's economics. Sandmo takes heed not to succumb to anachronism by distinguishing the Smithian economic concepts from the contemporary ones. Still, he conflates Smith's price theory with the neoclassical one by identifying the Smithian distinction between the natural and market price with "the modern distinction between the long-run and short-run equilibrium price under perfect competition" (233). In the next chapter which aims at revising the literature by vindicating the consistency of Smith's considerations on banking, Maria Pia Paganelli shows how Smith's particular treatment of the Scottish banking system reflects his general view of society as "a complex web of entangled relationships among the economy, the polity, laws, and morals" (248). Vernon L. Smith's piece "Adam Smith and Experimental Economics: *Sentiments* to *Wealth*" stands out among the other contributions by its difference in approaching the subject matter: rather conversational in style, Vernon Smith traces the evolution of his own thinking about experimental economics through his further engagement with the Scot's works. Notwithstanding his idiosyncratic approach, he manages not to leave the main character in the background. The shortest part of the volume concludes with Amartya Sen's chapter where a case is made for the relevance of appreciating Smith as a development economist. It appears odd that Sen presents such an approach as new insofar as there is a vast literature associated with Smith's awareness about the developmental issues of his day (e.g. "the rich-poor country debate" or the developmental gap between the Scottish Lowlands and Highlands; Hont, 1983; Robertson, 2005). Still, it is evident that Sen's interest lies in new perspectives Smith can offer to the contemporary development economics illustrated by his call for a broader scope for the field.

In Part 4, Gordon Graham dissects all the possible aspects pertaining to the topic of "Adam Smith and Religion": his personal faith, the theological dimension of his thought, and his philosophy of religion, namely his inquiry into "the source of religion in human nature" (312) (which has great affinity with what Hume does in the *Natural History of Religion* (1757)—surprisingly unmentioned by the author despite many references to Hume and his *Dialogues*). Through a critique of Lisa Hill's much-debated article on "The Hidden Theology of Adam Smith" (2001), Graham cogently argues that the extent of Smith's natural theology should not be overvalued, all the more so that there is no evident logical connection between the theological components and the moral and economic dimension of his thought. Lisa Hill, in the next chapter, reiterates the central role Smith's providentialism plays in his spontaneous order theory, which, as she suggests, is the cornerstone of his political theory. Understanding the balance between liberty and gradualism, i.e. the "two key tenets of the spontaneous order theory" (332) is, according to Hill, a requisite for acknowledging the coherence of Smith's political project. Lisa Herzog then sorts out how Smith's moral theory can contribute to an ongoing debate of modern ethics about the stability of identity by providing an account of moral self, which is more or less malleable by the social context. In a similar vein, Jacqueline Taylor uses Sandra Lee Bartky's work on sympathy and solidarity to illustrate what feminist ethics can gain from Smith's moral theorizing. Chad Flanders, in turn, exploits the *Theory of Moral Sentiments* in an engaging analysis of resentment, punishment and justice in Smith's thought. Lurking in the background is his critique of modern analytical jurisprudence which goes hand in hand with his endorsement of the rationale of Smith's unfinished project of natural jurisprudence. In the following chapter, Stephen McKenna forges a link between Smith's rhetorical theory and rhetoric as an academic discipline, thereby underscoring the modern twist Smith gave to the classical question of the role of the study and practice of rhetoric in the formation of moral character. He also urges for further studies in rhetoric "most particularly at a moment when the humanities are thought to be in crisis, due at least in part, it is often said, to utilitarian pressures of capitalism driven by neoliberalist politics" (400). Right afterwards, Karen Valihora aptly discusses the narrative structure of the *Theory of Moral Sentiments* and how it prompts the reader to adopt different point of views which in turn enables the formation and the maintenance of social standards. Michaël Biziou in "Adam Smith and the History of Philosophy" takes quite a different track from the previous contributions, by providing a guide to historians of philosophy who want to do research on Smith. He considers the methodological issues to be encountered and traces out some research plans regarding the philosophical context of Smith's thought. The section ends with Fredrik Albritton Jonsson's interesting contribution on Enlightenment studies, which is quite extensive in scope. Jonnson starts off with a survey of some different interpretations attempting to make sense of the Enlightenment and to gauge the extent of Smith's understanding of the newly emerging industrial society. He then passes, through a discussion of Smith's view on empire, to a rather neglected yet relevant topic, namely the impact of ecology, environment and natural history on Smith's political economy.

The final part of the book starts off with Gavin Kennedy's refutation of common misreadings of Smith's ideas by generations of academics and politicians. The bulk of the chapter tackles the use and abuse of Smith's metaphor of the invisible hand in relation to the regulation of markets and thus sets the scene for the two following chapters on whether Smith's politics should be considered left- or right-wing. This never-to-be-resolved debate is epitomized by Samuel Fleischacker's and James R. Otteson's contributions (respectively, on the left and right) in which they seem, with hindsight, to be talking past each other because, as both of them are cautiously aware, all depends on how one construes the term "left" and "right". Whereas Fleischacker deems them cluster terms, "defined by general aims and orientation rather than specific policies and strategies" (489), Otteson concentrates on the specific strategies as their defining feature: (de)centralization of political-economic decision making. Meanwhile, Luo Wei-Dong provides a survey of Smith scholarship in China throughout the twentieth century by pointing out the role of ideology (first Marxist, then neoliberal) in academia. Note that he presents the sea change towards Smith as a result of the search for new theoretical support required by the economic, political and social transformations of the Chinese society. John C. Bogle then draws a compelling parallel between the nascent capitalism of Smith's day and today's shareholder capitalism in the USA. He detects in the latter a kind of pervasive agency problem which is similar to what Smith was apprehensive regarding the joint stock companies of his day: the conflict of interest arising between capital owners and managers stemming from the fact that investors do not manage their own capital. Deploring this "malfeasance in our system of modern capitalism" (532), Bogle proposes concrete solutions in order to prevent further financial market failures. Finally, Douglas A. Irwin gives a lucid exposition of Smith's arguments for free trade (carefully demarcated from *laissez faire*) and against protectionism. He also reminds us of the novelty of Smith's idea according to which economic policies should be evaluated by their overall impact "on the real value of a country's national income, or what he called the real annual revenue (or produce) of society" (548)—which sounds trite to our contemporary ears.

Just as Hanley thinks good traveller guides should do (xi), the collection offers something more than a survey of Smith's universe. This bonus partly comes from what may be considered to be the very weakness of the guide: the considerable overlaps and repetitions constitute the basis for many different and sometimes controversial interpretations which cause the readers to ponder over the subject, thereby pushing them toward an independent point of view. The book as a whole is imbued with the same thought-provoking tendency, especially when promoting multidisciplinary research. The one qualification to note is the lesser attention paid to the *Essays on Philosophical Subjects*—thus comforting Craig Smith's observation (91, 102)—which is exemplified by the manner in which Smith's treatment of religion, one of the recurring themes of the book, is handled without any discussion of arguably Smith's most irreligious views in the *History of Astronomy* (Section III). This is not to say that the guide attracts the readers only to the more touristic or popular sights. Indeed many pristine locations are hinted to as well, and at any rate, as any good guide, it appeals both to first-time and frequent visitors of Smith's universe.

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Nicola Acocella, *Rediscovering Economic Policy as a Discipline*

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The economic policy of the title of the book is that of macroeconomic policy rather than microeconomic or mesoeconomic (e.g. industrial) policy. The use of "rediscovering" in the title serves to indicate that the book covers the development of the targets and instruments perspective in the 1940s through 1960s. In Chapter 1, the "classical theory of economic policy with fixed and flexible targets" is formalised and set in a macroeconomic framework. The author presents the subsequent undermining of that perspective in the 1980s onwards by the rational expectations school, and then what the book views as a revival of theory of economic policy in the past two decades. There is a consideration of some of the factors which brought the discipline into decline—"destructive critique of part of its core—and some theoretical advances that could or should contribute to its resurgence" (3). At a number of points in the book, the opportunity is taken to relate some general points being made to the experiences of the Economic and Monetary Union and the euro.

The discipline of economic policy is here viewed as "to some extent autonomous from economic analysis" (3). It is viewed as emerging in the Scandinavian countries and the Netherlands. The discipline is taken to build on two pillars. One pillar is the "logic" of economic policy justifying on democratic grounds the actions of the government in a market economy, and the other a "theory" of economic policy, "to be applied to real situations of specific countries or regions according to their historical and institutional backgrounds" (3). There is an overview of how a discipline of economic policy developed which went well beyond "the nightwatchman view" of the State. There is an explanation of why the theory of economic policy flourished in Continental Europe but not elsewhere. In particular, Acocella

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seeks to explain (section 2.1) why the discipline did not pass to other countries that were different from those where it was born as well as why it did not survive there.

Acocella argues that "The second step in the process of formulating economic policy as an autonomous discipline is associating the theory of economic policy with the existence of market failure." (20) The focus of economic policy is then to be viewed in terms of the correction of market failures. The discussion illustrates the ways in which the formulation of economic policies is complicated by the difficulties of starting from individual values to define goal choices of the social welfare function.

In effect, Chapter 2 covers the evolution of the debates on economic policy in the 1970s onwards, and the shifts away from the ideas on economic policy discussed in the previous chapter. Amongst the major ideas promoting the shifts described are the general idea of "government failure" and the inability of government to evaluate and rectify market failures. In the realm of macroeconomics, the Lucas critique—that the prediction of effects of change in economic policy based on historical relationships would be unreliable when the policy adopted and expectations on policy outcomes change the parameters of the economic model—undermined the targets and instruments approach. The notion of rational expectations applied to a competitive view of the world was seen to generate market clearing outcomes, including in the labour market full employment. The scope of market failures which were to be addressed by economic policy becomes rather limited.

In this chapter, there is extensive elaboration of the challenges posed by the policy ineffectiveness perspective. There is also much consideration of the development of rules and constraints to govern macroeconomic policies (for example, independent and conservative central banks) to limit discretionary policy actions.

The major theme of Chapters 3 and 4 is the re-establishment of economic policy, undertaken in terms of the two pillars identified above. The difficulties of constructing a social ordering are fleshed out along the line of Arrow's impossibility theorem. It is though argued that "political institutions … can be arranged in such a way as to reduce or even eliminate these difficulties by skirting the conditions under which they arise" (67). The possibilities of a democratic social-welfare ordering and the need for a theory of justice are discussed at length. The various attempts to circumvent Arrow's impossibility result are evaluated, and Sen's capability approach also brought into the picture. But for me there were no clear propositions on how to proceed in the analysis of economic policy. There is also a strong sense that a social ordering is determined by the technocratic experts rather than somehow through a democratic process and/or the formulation of a social ordering.

The purpose of Section 3.2 is to provide rebuttals of the propositions which supported the ineffectiveness of (macro-) economic policies. In each case there is a long and comprehensive discussion. Several factors are identified as underpinning the policy ineffectiveness propositions which have been central to new classical macroeconomics and the new consensus in macroeconomics. The factors involved include (i) the idea that it is only policy "surprises" which affect economic outcomes; (ii) the idea that the long-run Phillips curve was vertical and thereby the economy was destined to operate at the "natural rate of unemployment"; (iii) that low rate of inflation should be the key target of policy; (iv) the promotion of the political independence of central banks; and (v) the argument that "conservative" and inflation averse central banks should be drawn upon for counter-inflation policy, and (vi) the arguments for low or zero values of fiscal multipliers and the diminished role of fiscal policy.

Chapter 4 is entitled "Re-evaluation of the classical approach to economic policy", with the sub-title "re-establishing the second pillar". In effect, the purpose is to address the Lucas critique through some formal analysis. For example, it is shown that "rational expectations do not impair policy controllability if certain conditions are met: even with rational expectations static controllability is guaranteed if the number of instruments equals that of targets" (261). This chapter reviews the ways in which macroeconomic policy has been formally modelled where that policy is used in some form to guide economic activity.

Part 2 is entitled "Economic Policy in our Time" and includes three somewhat contrasting chapters. Chapter 5 is entitled "challenges of the financial crisis, rising inequality, secular stagnation and globalisation", though no mention is made to environmental and ecological issues nor the threats of climate change. The crisis in question is the global financial crisis of 2007/2009 though there is no recognition of the many other financial crises of the past four decades. There is a focus on the limits imposed on fiscal and monetary policies and the development of new policy instruments in response to the global financial crisis. Acocella then discusses the development of new rules for fiscal policy on deficit and debt limits, though how far they can be seen as new is debatable. Various sections then consider policies addressing rising inequality, stagnation and globalisation, though little by way of concrete proposals emerges. Indeed, many policies to address inequality and secular stagnation would not fall under the heading of macroeconomic policies. There is rather little by way of discussion of the underlying causes of the global financial crisis, and how those causes relate to the theory of economic policy. The occurrence of financial crises, of which the global financial crisis can be seen as having more widespread effects than most crises, raises questions about the suitability of the equilibrium framework that underlines the formal analysis in this book and elsewhere of the theory of economic policy. The roles of the financial liberalisation and deregulation as well as financialisation more generally in the generation of the global financial crisis are largely ignored.

Chapter 6 is entitled "One step forward towards realism in theories relevant to effective and accountable policy making". It seeks policy solutions which are "necessary to ensure proper working of a capitalist system" (253) and takes a closer look at issues to tackle for building a democratic society. The chapter states that it is concerned with two basic issues. The first is about how "information, in terms of signals [is] built into market institutions or as offered by the policy makers" (253) and moral hazard and adverse selection. The second is the "incentives for both private agents and policymakers to engage in opportunistic behaviour deriving from self-interest." (253)

Communication between policy makers and the public (or what could be termed the government and the governed) features heavily in this chapter. The difficulties of the private sector "in discerning signals" is acknowledged (256), though the implications of that are not explored, and there appears to be no consideration of how the private sector "signals" to the government. The discussion rather emphasises the government communicating "in a clear and effective manner, the intent and purpose of their policies and how exactly those policies can be expected to produce the desired result." (268)

In order to illustrate the arguments in this chapter a formal model is presented and described in the following terms. "In a game between the two sectors of the economy, where the reaction function of private agents is expressed in terms of Res [rational expectations] whereas that of government may be the object of forward guidance, the model of the economy can be as follows" (279). There are many features of the model (and the general approach) which, in my view, limit the insights gained from its application. The model is a linear one and hence is not examined for cyclical behaviour or instabilities. It is not path dependent, and hence does not examine the longer-term impacts of policy on the path of the economy. And, as with the discussion throughout the book, there is no considerations of fundamental uncertainty.

In Section 6.4 three ingredients which are deemed essential to "enrich economic policy as a discipline along the lines indicated" (281) are discussed. There is first the reliability of analytical propositions. There is mention of "expansionary austerity" as a policy prescription derived from very "heroic" and specific theoretical assumptions and not backed by the data. However, this does raise the significant question of who decides whether the theory being drawn upon for policy formulation has realistic assumptions and empirical support.

Second, there is "welfare and social-choice theory, as well as the normative theory of economic policy, which can both be enriched by incorporating political economic concepts". In this respect, Acocella recognizes that political economy takes on different meanings. He states that a major issue explored by political economists is the explanation of socio-political relations and interests, preferences of voters and the results of elections "as well as divergences between real policy actions and the social optimum deriving from specific incentive-constraints of policymakers" (281). Although there is discussion of in effect "buying" votes, there is very little mention of the exercise of power by corporate and financial interests and others.

The third ingredient relates to "realistic possibilities to devise democratic institutions" (289). This is then divided into the issue of "the logical (and procedural) possibility of finding a government's maximand representing the citizen's—usually conflicting—preferences" (289). The other issue is "the possibility that in practice the various interests in the society and the government are composed in a non-conflicting way, enabling us to reach that maximand or to get close to it. Democracy should ensure this." (289)

The final Chapter 7 is entitled "Why economic policy can be a useful discipline?" In seeking to address that question, it ranges over a number of issues. It starts with the stance claim that "Institutions as the ring connecting the three parts of economic policy" (295). It then moves on to the roles of social choice and institutions for building a fair society. Further, it assesses "whether democracy as an institution can implement social choice and ensure some kind of equality" (304). It puts out a call for the central role of education for democracy, and thinks about the institutions for building a well-functioning society. It concludes with "a restatement of the need for a unitary discipline of economic policy" for a "democratic, fair and efficient society" (324). Each of the subjects covered is dealt with a length which is not possible to summarise here. The concluding chapter is not closely related to the preceding chapters. It seems more like an exposition of the approaches to economic and social policy in a democratic society which the author would favour, than the continuation of the presentation of the theory of economic policy.

To sum up, Acocella's book provides a "theory of economic policy" *à la* Tinbergen in part 1. The applicability of such an approach appears to require a good knowledge of the "true" model of the economy, and to formulate the appropriate targets of policy. The struggles to formulate a social welfare function (or similar) are well illustrated. The general dependency on a "market failure" approach to underpin the theory of economic policy also becomes evident. The counterpoising of "government failure" to "market failure" was one of the forces pushing against the theory of economic policy. There were, as indicated, other sources of "push-back" including different perceptions of the "true" model of the economy. The decline of the theory of economic policy is treated in terms of the theoretical challenges to it, and there is little consideration of the political and ideological forces which may lie behind those theoretical challenges. The strengths of Part 1 are the thorough exposition of the theory of economic policy along with the detailed setting out of the challenges to that theory which developed in the 1980s onwards. Part 2 is rather wide ranging, which makes any form of summary difficult. It ranges over policies addressing inequality, secular stagnation and globalisation though without providing any concrete proposals or offering any analyses of the causes of inequality, secular stagnation and globalisation and the policy dilemmas which they present. The book strives to introduce democracy into economic policy-making, though with little discussion on participation in decision-making or on voting systems.

Amanar Akhabbar, *Wassily Leontief et la science économique*

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Francesco Sergi*

How should economists connect economic theories with observation and measurement? Amanar Akhabbar's book *Wassily Leontief et la science économique* investigates one specific view about this fundamental issue. The narrative thread of the book is Leontief's work and his views on the methodology and epistemology of economics: a 50-year long constant call for (and practice of) a closer articulation between measurement and theory. For Leontief, Akhabbar argues, economics should aim at building "empirical meaning" for theoretical concepts. In a nutshell, economics needs to establish unambiguous, direct relationships between measurement and theoretical concepts. The book permanently puts Leontief's case in the context of the methodological debates of the time about theory and measurement and compares it with alternative views. This encompasses notably three key moments for the evolution of the discipline: the Vining-Koopmans (or "measurement without theory") controversy in the 1940s (the book is mostly focused on this episode); the critique and crisis of (macro)econometrics in the 1970s; and finally, the most recent debates about contemporary dynamic stochastic general equilibrium (DSGE) macroeconomics.

Given the ambition of the book, besides those readers interested specifically in Leontief's thought, those who have a broader interest in the history of macroeconomics and in the methodology and epistemology of economics will find Akhabbar's work highly stimulating and insightful. Similarly, although the book is published in French, its main findings will hopefully find an echo beyond the community of French-speaking economists and historians of economics.

The main claim of the book is that Leontief held a distinctive view about the articulation between economic theory and empirical observation. Leontief's "operationalist" view (as Akhabbar calls it) hinges on two ideas: (i) measurement and observation are providing eco-

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nomic concepts with meaning and purpose; (ii) all theoretical concepts should be (re)shaped in such a way that their formulation allows for direct measurement.

Moreover, Leontief's view was not just a "positive" methodology, but also a critical methodology. Indeed, Leontief's distinctive articulation of theory and measurement was rooted in his conscious quest for a "third way", which should be an alternative to both the Cowles Commission "hypothetico-deductive" (macro)econometric approach (14) and what Leontief called "the radical inductivism" of NBER (*ibid*.). This vision was embodied in Leontief's work, particularly in his "input-output analysis" framework, for which he gained wide recognition (ultimately, the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel in 1973). Indeed, the input-output analysis provides a distinctive way of combining and articulating statistics and data collection (the input-output tables) with mathematical modelling inspired from the general equilibrium theory (the Leontief model).

The book follows Leontief's intellectual journey starting from the 1920s, highlighting some crucial episodes: his early acquaintance, scepticism, and finally rejection of econometrics and macroeconometric modelling à la Cowles Commission (Chapter 1): the development of the "input-output" analysis (Chapter 2 and 3). Chapter 4 and 5 constitute the actual core of Akhabbar's book, where he provides his most general discussion of the methodology underlying Leontief's input-output analysis. Furthermore, Akhabbar illustrates the distinctive character of such a methodology through a discussion of the application of the input-output method to international trade and the resulting "Leontief paradox" (Chapter 6). The last chapter goes back to Leontief's use of the input-output framework to discuss economic dynamics. Finally, appended to the book is a re-edition and a comment by Akhabbar of the French translation (by Marc Savona) of Leontief's "Mathematics in Economics" (1954). This Leontief's talk, given in 1953 to the American Mathematical Society, constitutes a genuine manifesto of his views about economic methodology.

Chapter 1 begins by taking us back to 1927, when the young Leontief started working at the Kiel Institute for the World Economy. As it has been abundantly pointed out by historians, these inter-war years were the early times of new methods for economics: traditional economic analysis was combined with mathematics, models, national accounting, and probability theory, in what Alain Desrosières (to whom Akhabbar dedicated his book) called "a late encounter between statistics and economic theory" (2000). During this period (and actually for quite a long time after that), the study of the business cycle was the frontline for the struggles among different visions on the measurement-theory relation. Among other reasons, this relates to the fact that the collection and analysis of statistics was first organized on a large scale through institutes devoted to business cycle analysis—such as the National Bureau for Economic Research in the United States, but also at Harvard (where Warren Pearson developed his "barometers") or in Moscow (where Kondratiev developed his analysis of the business cycle), just to name a few. Leontief participated to this dramatic renewal of methods; his econometric estimation of demand and supply curves, undertaken at the Kiel Institute, was published between 1929 and 1932 as a series of articles in German.

Nevertheless, Leontief abandoned this research path right afterwards. This first chapter of Akhabbar's book is entirely directed at explaining this turn, and the reasons and arguments for Leontief's scepticism toward econometrics (51-53). In both his early writings (in particular his controversy with Ragnar Frisch, 45) and retrospective works (Appendix), Leontief's main line of argument focused on the "tautological" character of structural econometrics à la Tinbergen. In his 1954 methodological manifesto, Leontief summarizes this concern as follow:

> As long as a theoretical assumption is logically embedded in statistical analysis, it is almost impossible to verify this same assumption via a comparison with the results obtained by this same investigation (Leontief, 1954, 7)

The structural forms of econometric models are one of the main targets of this criticism; according to Leontief, these are simply inferred from theory and not justified by any direct observation. A "vicious circle" is then prompted through the estimation of these forms (i.e. the quantification of coefficients that have no counterpart in any observable variable) and its use as a form of corroboration of the underlying theory. Henceforth, for Leontief, the pretence of econometrics to assess theories against observation is undermined by this logical flaw. He even characterizes the methodology of structural econometrics as "indirect statistical induction" or "indirect statistical inference".

These considerations, Akhabbar argues, motivated Leontief's quest for his own alternative approach to economics and a different method for connecting measurement and theory. He notably pursued two main principles for economic investigation: first, economic analysis should start (and not end) with undertaking the "painstaking" data collection work, which requires discipline and dedication in order to collect more and "better" data (i.e. data that will "better", "more directly", correspond to theoretical concepts). However, this footwork should be disciplined by theoretical guidelines, which should provide the organizing principles for gathering information through observation and measurement. To secure this use of the theory, the economist should engage with reformulating economic theory in order to bring its basic concepts closer to a form that allows direct measurement (54). The input-output analysis developed by Leontief resulted from this twofold ambition.

Chapter 2 and 3 set the stage for understanding the methodological foundations of Leontief's work on input-output from 1932 onwards at Harvard. Chapter 2 carefully summarizes the logic of the input-output analysis. Those readers who are not entirely familiar with Leontief's work are not left behind, since the exposition in this chapter is highly pedagogical. Incidentally, those who are interested in integrating input-out analysis to their teaching of macroeconomics will find here some great material. That being said, the bottom line of the chapter is to illustrate how Leontief's input-output reflected his distinctive methodology, as outlined in the previous chapter. On the one hand, the analysis is structured along the fundamental lines of the general equilibrium theory (i.e., a set of equations defining equilibrium prices and quantities for many interdependent branches and households in the economy); on the other hand, theory is disciplined and marshalled by the needs of data collection, which is actually the starting point of the analysis (and not its final stage). Finally, Leontief's model is a computable general equilibrium model, and the whole apparatus was developed in the perspective of being integrated to calculators and computers, with the help of relevant applied mathematics. (The book deals very quickly with computerization, although it seems quite essential to Leontief's project; besides, recent developments and debates about disaggregation of macroeconomic models—and the rise of agent-based modelling—could be purposefully nourished by a more in-depth investigation historical investigation of this aspect.) Chapter 3 develops the analysis of these three dimensions. It clarifies how Leontief's re-elaboration of general equilibrium theory is sourced both in the Ricardian and the Russian tradition; it outlines how the technical coefficients are directly measured through ratios between (directly observed) quantities of inputs, and how this is distinct from econometric "indirect statistical inference". The combination of these three dimensions makes the unique character of the input-output framework, which works both as a "measurement device" (organizing empirical observations through tables) and as a "mediator" between measurement and theory.

After having built a vivid and clear picture of Leontief's approach, Akhabbar develops in Chapter 4 and 5 a more systematic discussion of the unique character of this approach when compared to alternative methodologies. Chapter 4 takes us back to the Vining-Koopmans controversy "measurement without theory". After a brief presentation of the main lines of the debate and the surrounding context (99-102), Akhabbar illustrates how Leontief's position fits within this debate. Let me add here a disclaimer for those historians that are familiar with the Vining-Koopmans controversy: the author gives a very short and synthetic account of this debate, taking the risk of cutting short on some nuances in the arguments and positions. It is not unlikely that this specific part of the book would raise some scepticism, especially among those who know well the over-abundant historical literature on this episode. That being said, if one considers the overarching narrative of the book itself, the approximation seems reasonable, to the extent that it illustrates Leontief's views, notably, his reject of NBER's "radical inductivism".

Leontief agrees with Koopmans, against Vining, about the cornerstone role that economic theory should play in economics. Furthermore, both Leontief and Koopmans bear in mind similar conceptions of economic theory as mathematical modelling devices, in the style of neoclassical or general equilibrium approach (102-104). This agreement is also clearly reflected in the great success, within the members of the Cowles Commission, of Leontief's intersectoral models embedded in the input-output analysis (104-109). Despite agreeing with Koopmans on the importance of mathematical modelling in clarifying theoretical debates and producing consistent analytical frameworks, Leontief expressed in several occasions his deep concerns about the path taken by Koopmans and the Cowles Commission. For Leontief, their views of economics had been drifting, indeed, towards a "theory without measurement", an over-investment in mathematical rigour at the expense of empirical work. This is also an important point raised by Leontief (1954): economics suffered from a chronic lack of empirical foundations, which then failed to "suppor[t] the overachieving super-structure of economic theories" (112). These repeated criticisms by Leontief against the Cowles Commission led to harsh replies and attacks against some aspects of his work (109-112).

Chapter 5 develops further on Leontief's methodological vision, which is interpreted as a form of operationalism. In contrast with the Cowles Commission hypothetico-deductive method (where it is admitted that some concepts, axioms, and assumptions are not observable), Leontief championed an approach to theory constrained by a criterion of direct observability. In other words, no theoretical concepts should be admitted into economic analysis before a "factual inquiry" could bring to its direct observation and/or measurement. For Leontief, the development of economics in the 20th century was unfortunately characterized by the opposite process, with theoretical concepts outnumbering observations and measures. This view, as mentioned by Akhabbar in the introduction of his book, echoes a famous metaphor of economics as a collection of "empty boxes" by John Harold Clapham (1922). For Leontief, this state of affairs is an obstacle to building a scientific method for economics. As he argues in his methodological manifesto:

> Economics, mathematical economics, in particular, acquired very early in its development the attitudes and manners of the exact empirical sciences without really having gone through the hard school of direct, detailed factual inquiry. Possibly it will do us good to be sent down in order that we may catch up with the experience we have missed. (Leontief, 1954, 222)

Leontief conceives his own input-output framework as such a "catch up with experience" (*ibid*.), "filling the boxes" of the general equilibrium theory.

In chapter 6 we continue the chronological route, following Leontief's work in the after-war. Chapter 6 focuses in particular on the "internationalization" of the input-output analysis, which Leontief conducted relying on a growing volume of available international data. This brought him to formulate, in the late 1950s, the observation that came to be well-known as the "Leontief's paradox". This is based on Leontief's input-output tables, where one can easily observe how the U.S. economy exports labour-intensive goods, despite being a capital-abundant country. This observation qualifies as a paradox since it contradicts the basic predictions of the Heckscher-Ohlin theory. The discussion of the paradox by Akhabbar emphasizes two ideas. First, the paradox (or more precisely, its making) can be replaced in the perspective of Leontief's critical methodological stance against the hypothetico-deductive method (as developed more in abstract in chapter 5). Second, the reactions to the paradox reveal the divide between Leontief and other economists. Indeed, as Akhabbar ironically notes, there is a paradox within the paradox: despite Leontief's forceful demonstration, the Heckscher-Ohlin theory continued to constitute a benchmark for international trade theories—though Leontief's paradox stimulated countless departures, amendments and reappraisal. The discussion of these reactions to the paradox are particularly interesting in that it highlights the limitations (or inconsistencies) of an ideal vision of economic methodology as truly based on the sequence "theory, model, econometric corroboration" (145-150). These remarks introduce a few more general themes that are key to the conclusive remarks of the book (cf. *infra*).

Finally, chapter 7 focuses on what is perhaps a less well-known aspect of Leontief work, namely his ambition to build an analysis of economic change, i.e. a framework able to analyze variations of prices and quantities of goods and, therefore, cycles and growth. In short, this could be broadly understood as an attempt as developing dynamic input-output models, where the change in technical coefficients triggers changes in prices and quantities. This final chapter of the book is quite short and descriptive, but it provides some interesting insights about how this part of Leontief's work could fit with other more well-known strains of the business cycle literature, including the real business cycle approach pioneered by Finn Kydland and Edward Prescott.

The book features no less than three conclusive chapters ("Synthesis", "Epilogue", and "Post Scriptum"). Besides the standard summing-up, the reader will find here some very stimulating insights, which open several interesting leads.

The "Post Scriptum" briefly develops the historiographical perspective of the author. As the book tries to highlight, the historical evolution of economics went hand in hand with the transformation of its methodological principles, notably the changing or opposing views about the articulation of statistics, observations, modelling and economic theory. Yet, historians of economic thought typically focus on the evolution of theories alone—though there are notable exceptions. Akhabbar calls for a shift towards a type of history of economics that builds a more comprehensive picture. Akhabbar's view fits well with several other recent contributions that make similar claims (see for instance Boumans and Duarte, 2019, for the history of macroeconomics).

Akhabbar's "Epilogue" is a provocative take on the "What happened to macroeconomics?" (193) question, where Akhabbar tries to put in perspective the broader evolution of the field since the 1970s—with respect to the rise of the new classical/DSGE macroeconomics. Indeed, no matter how celebrated or purposeful Leontief's input-output framework has been, it is hard to deny that macroeconomics has taken a different path. Expect a few exceptions (such as for instance Anne Carter, to whom *Œconomia* devoted its first special issue in 2011), Leontief's methodology has had few followers within academic ranks. Akhabbar points out two major differences to explain this fact. On the one hand, there is a sharp contrast between the use of disaggregated, multi-sector macroeconomic models (Leontief) and the macroeconomics of the "representative agent" characteristic of the DSGE approach (but also the neoclassical growth models *à la* Solow). On the other hand, there is an opposition between Leontief's operationalism and the hypothetico-deductive method, which has been common to both the old and new neoclassical synthesis in macroeconomics. There is, however, a subtler thread in this conclusive discussion, raising doubts about how Leontief's own view could be understood as contributing to the rise of the neoclassical synthesis (old and new).

The reader interested in more contemporary questions will find no definitive answers in *Wassily Leontief et la science économique* (since that is obviously not the purpose); nevertheless, he will certainly appreciate the many stimulating insights that this well-documented book has to offer.

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