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Making Things Technical: Samuelson at MIT

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MAKING THINGS TECHNICAL: SAMUELSON AT MIT

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Making Things Technical:

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Abstract:

This paper examines how Samuelson defined his own role as an economist as a technical expert, who walked what he called 'the middle of the road' to – seemingly – stay out of the realm of politics. As point of entry I discuss the highly tempting offers made by Theodore M. Schultz in the 1940s to come over to Chicago, which Schultz persistently repeated over a period of three years and despite strong Chicago faculty resistance. A contrast between Schultz's own experiences as an economic expert at Iowa State, Samuelson's work as an external consultant for the National Resources Planning Board during the Second World War and the firm support of the MIT administration for Samuelson's research, serve to pinpoint the meaning of being technical for Samuelson, and the relation of the technical economic expert to the realm of politics.

Keywords: technical expertise, economic modeling, 'middle of the road' economists, National Resources Planning Board, MIT, University of Chicago.

JEL classification: A110, B2, B310, B410

Making Things Technical:

Samuelson at MIT¹

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Going to MIT turned out to be the best things [*sic!*] that could have happened to me and for my lifetime productivity. That is why I never left for Chicago, Harvard, or numerous other prestigious research centers. I always had the best of two worlds: Solow, Modigliani, Kindleberger et al. at MIT with marvelous graduate students and research facilities. At the same time close contact with Widener Library, Schumpeter, Leontief, Haberler, Hansen, Musgrave, and Arrow.

Samuelson to Stolper, 11 March 2002

In 1961, at the age of 46, Paul Samuelson delivered his Presidential Address to the American Economic Association on economists and the history of ideas. Samuelson promised not to discuss “technical economics”, but to concentrate on the political and ideological importance attributed to economists in the public sphere. Yet it quickly became clear that Samuelson’s address actually was a tribute to those economists who, outside of the “limelight”, had brought rigor and precision to the discipline.

Samuelson clearly identified with this analytical lineage that had helped to turn economics into a mathematical, modeling science in which analytical precision outweighed

¹ I would like to thank Roger Backhouse for generous help at various stages of this essay, Roy Weintraub, Tiago Mata, the participants of the 2013 HOPE conference and the referees of this journal for encouragements and comments. A special word of thanks goes to the librarians of the David M. Rubenstein Rare Book & Manuscript Library at Duke University for their great help at all stages in writing this essay. Remaining faults and flaws are of course mine.

ideological impact.² He referred to his own modeling work on “welfare economics and factor-prize equalization; turnpike theorems and osculating envelopes; nonsubstitutability relations in Minkowski-Ricardo-Leontief-Metzler matrices of Mosak-Hicks type, or balanced-budget multipliers under conditions of balanced uncertainty in locally impacted topological spaces and molar equivalences” (1962, 1).

Thus emphasizing technicality might obscure Samuelson’s more important message that the technical economist, in the post-war era, had brought rigor and precision to economic policy. Economics freed from ideology enabled the economist to speak precision to power.³ Indeed, a technical analysis could well lead to conclusions that ran against the popular or political current. That, at root, was the meaning of Samuelson’s famous (or notorious) closing words of his address that economists, at the end of the day, were only interested “in our own applause.” Technicality implied impartiality and detachment. Samuelson thus exemplifies for economics the general move of science in the postwar era to define itself as technical (Porter 2009), a move that fitted well with the teaching and research profile MIT developed in the postwar era.

This essay examines the history of this stance. My aim is to show how Samuelson from the 1940s defined his own role as an economist as a technical expert. I will connect this theme with Samuelson’s decision to stay at MIT, despite tempting offers from prestigious institutes as Chicago and Harvard, with his consultancy work for the NRPB, and with his defense of his textbook as a technical introduction to then come back to Theodore Schultz, who made the Chicago offer. Halfway the 1950s this strategy of defining economics as technical had transformed the economics department of MIT into one of the centers of economic academia, with Samuelson as its nucleus. Paradoxically, Samuelson’s emphasis on

² Samuelson mentions his “astonishment”, when Schumpeter singled out three French economists out of the four he considered still relevant for this lineage: Quesnay, Cournot, Walras.

³ On speaking precision to power, see Porter (2006).

technical expertise made him an economist that everyone, from whatever political denomination or layer of society, could and did turn to for advice. It moved him from the wings into the limelight.

The promise of an institute

On November 15, 1949 Paul Samuelson wrote a long letter to Theodore W. Schultz, Chairman of the economics department at Chicago, declining the offer for a full professorship and explaining his decision to stay at MIT.⁴ In retrospect, in a letter of condolence to Schultz's son Paul of 4 March 1998, Samuelson reminisced about Schultz's perseverance in getting him over to Chicago which, at some moment, "almost" made him accept the Chicago chair.⁵ That moment was in March 1947, when after refusing Chicago's "flattering offer", Samuelson came to regret his decision and then "without telling anyone in the department" called Schultz to accept "the Chicago job". When his colleagues at MIT recognized Samuelson's "acute uneasiness of mind" they suggested him to take leave for a "quiet weekend to think the matter through" with his wife Marion.⁶

That weekend James Rhyme Killian, at the time vice-president of the Institute, came over for lunch to talk things over. Then, after reconsidering the situation, Samuelson found it "very easy to arrive at" his final decision "to stay at M.I.T."⁷ A raise in salary that leveled with the Chicago offer may have helped and the MIT decision just a week earlier to raise his rank to a full professorship, but from the records it is clear these considerations were not

⁴ PASP box 68, Schultz, Samuelson to Schultz, November 15, 1949.

⁵ PASP box 68, T.W. Schultz, Samuelson to T. Paul Schultz, 4 March 1998.

⁶ PASP box 68, T.W. Schultz, Samuelson to Schultz, March 11, 1947. Earlier, Samuelson had rejected an offer at a salary of \$ 8,500. PASP box 68, Schultz, Schultz to Samuelson, February 17, 1949, and Samuelson to Schultz, February 28, 1947. Schultz also suggested suitable housing. Roy Blough, one of Chicago's institutionalists, praised Chicago as a family place and Schultz for showing "real leadership as a departmental chairman". PASP box 17, Blough, Blough to Samuelson, February 4, 1947.

⁷ PASP box 53, MIT correspondence 1940-2007, Samuelson to Killian, March 11, 1947.

decisive.⁸ Samuelson was especially appreciative of Killian's firm determination to support Samuelson's research "in every possible way." What did this promise mean in practice?

Cowles' interest in Samuelson

Schultz began his campaign to win Samuelson for Chicago early in 1946, to the shock and dismay of important faculty members as Friedman, Knight, and others.⁹ Schultz possibly acted in consultation with the Cowles commission, which on its turn prodded Samuelson to accept a job offer, if made. On March 20, 1946, Jacob Marschak wrote to Samuelson that he would soon receive an invitation for a "customary visit" with the administration and the department. He went at great length to explain the meaning of such a visit, which might not be clear to outsiders, and perhaps wasn't clear to insiders either.

Marschak clearly wrote on the assumption the economics department was about to make Samuelson an offer. It was "usually agreed" that a visit to the department did not "commit" the department or the administration, while it was also unlikely the administration would act against the recommendation of the department. Marschak did not leave his own hopes and expectations in doubt: "I so hope you will be able to come, and that the visit will bring positive results," meaning that Samuelson would "consider accepting a position here, if offered."¹⁰ If Samuelson accepted, it would bring him back to the city where he spent an important part of his youth and to the university department where he studied as an undergraduate.

⁸ PASP box 53, MIT correspondence 1940-2007, Killian to Samuelson, March 3, 1947; Killian to Samuelson, March 10, 1947. The Chicago offer was matched in violation of the 'standing policy' not to do so. Killian emphasized that in this case the Institute decided to give a clear message of support to Samuelson's "own program and the general program here in Economics and to do everything possible to insure that this program be as strong as we can make it."

⁹ Hammond and Hammond (2006, 4, 46, letter of Friedman to Stigler of November 27, 1946). I thank Roy Weintraub for bringing this source to my attention.

¹⁰ PASP box 68, Schultz, Marschak to Samuelson, March 20, 1946.

Samuelson visited Chicago from 16-18 April, shortly after receiving the invitation. Immediately after his return to Cambridge Samuelson expressed his gratitude about the warm welcome and intense conversations with the members of the department, with Schultz himself, and with Maynard Hutchins and Robert Redfield, respectively Chancellor of the University and Dean of the Division of Social Sciences. Then there was silence. If an offer was made, it was only by the end of November that the archival records show Schultz explicitly mentioning “the genuine long run interest” in having Samuelson into the economics department, hopefully by the “beginning of next fall”.¹¹ In this intermediate period tensions within the department must have grown to boiling point, but Schultz, backed by a faculty vote forced by Paul Douglas, pushed through. Friedman of course feared his plan of bringing in Stigler from Columbia would fall to pieces, and the department would be lost to the Keynesians.¹² Samuelson sent Schultz a telegram that he was willing to discuss things over at the January meeting of the AEA in Atlantic City.¹³

Following on this correspondence and in close consultation with Marschak, Tjalling Koopmans explained Samuelson how much Chicago needed him.¹⁴ Samuelson combined interests in a “sharper mathematical formulation of economic theory” with an interest in the “sharper formulation of statistical procedures” for testing. These interests in rigor and precision combined with Samuelson’s strong Keynesian profile; an interest in macro-economics and an interest in the practical and pressing question of how to reach a full

¹¹ PASP box 68, Schultz, Schultz to Samuelson, November 25, 1946.

¹² 27 November 1946 Friedman wrote to Sigler: “We don’t know yet the end of the story, but whatever it is, I am very much afraid we’re lost. The Keynesians have the votes & mean to use them. Knight is bitter & says he will withdraw from active participation in the dep’t. Mints, Gregg [Lewis HM] & I are very low about it. Brown [University] or Hopkins [University] may be pretty good after all. (Hammond and Hammond 2006, 46, letter of Friedman to Stigler of November 27, 1946. In this same letter Friedman discussed Douglas’ role in the matter).

¹³ PASP box 68, Schultz, Samuelson to Schultz, January 18, 1947.

¹⁴ The rapid sequence of Schultz and Koopmans’ correspondence suggests that both coordinated in their efforts to get Samuelson to Chicago, which may well mean that the much discussed uneasy relation between the economics department and the Cowles Commission only build up in later years.

employment economy, a clear reference to Samuelson's consultancy work for the National Resources Planning Bureau during the war. Such interests Koopmans found underdeveloped if not altogether wanting in the Chicago economics department, which was either way an understatement. "Of all theoretical economists" Samuelson would be most receptive to the Cowles Commission's adaptation of statistical methods to "real economic problems" and to its urge to have economic theorists engage with measuring and testing their theories.¹⁵

Koopmans rightly considered Samuelson one of the prominent Keynesians in the immediate aftermath of the war, but Samuelson emphasized rigor and precision in theory rather than in the testing of the Keynesian stance. This does not mean that Samuelson was uninterested in statistics. But separating the modeling from the statistics enabled Samuelson to separate his defense of the technical apparatus of Keynesian analysis from the concomitant political profile of a market interventionist. This does not mean Samuelson's own political profile was absent or unimportant (as witnessed from the upset in the Chicago faculty), but it was concealed behind technicality. After ideology all too visibly had eclipsed reason before and during the war, who could be against rigor and precision in arguments and facts? Put otherwise: emphasizing the operational significance of economic theory was for Samuelson another way of defending its ideological neutrality.

Weaving the social sciences into the MIT curriculum

For a then still young associate professor, the offer of a full professorship in one of the premium economic departments must have been extremely tempting. Samuelson left Harvard for MIT in 1941, exchanging an offer on the level of a teaching assistant for that of an assistant professor.¹⁶ For much of the war Samuelson had been involved in projects outside of

¹⁵ PASP box 45, Koopmans, Koopmans to Samuelson, December 17, 1946.

¹⁶ This episode is extensively treated in Roger Backhouse and Roy Weintraub's respective contributions to this volume.

the economics department; at the National Resources Planning Bureau and at MIT's Rad Lab. As argued by Backhouse (this volume) E.B. Wilson's advice played an important role in Samuelson's decision to change a prestigious Ivy League university for an unassuming economics department in a technical university that had only recently significantly increased its visibility because of the war.

Shortly after the war MIT began reconsidering its place in the US research and educational landscape, and this was especially important for the place of the social sciences, including economics, in the curriculum.¹⁷ From its inception, MIT had combined professional training in the sciences with courses in the social sciences and the humanities at bachelor-level, mimicking in an engineering context the educational profile of a liberal arts school. The Committee investigating the curriculum considered that the new demands posed by the aftermath of the war asked for more, and more serious training in the social sciences, as well as more training in science fundamentals.¹⁸ With this emphasis on the social sciences MIT followed the general trend in post-war social science education and research that saw a veritable explosion in growth until the beginning of the 1970s (Solovey, 2012).

The response of the administration to these challenges was principled as well as pragmatic. Published in 1949 after a full two years of investigation, the committee report recommended to extend the role of the social sciences in the curriculum and to do so by building on its current strengths. The humanities and social sciences department should become a full-fledged department next to that of the sciences, where not only undergraduate and graduate teaching should be given at a competitive level with neighboring institutes and universities, but where also research should aspire to be competitive with research elsewhere. This of course would imply serious investments.

¹⁷ See Cherrier, this volume.

¹⁸ On this report, see also Cherrier, Weintraub and Giraud [check], this volume.

Clearly the institute had already committed itself to such investments. Killian's delicate maneuvering with Samuelson fitted the committee's recommendation to strengthen the research profile of the social sciences by building on the quality that was already there. Even if we don't know exactly what Killian promised to Samuelson, appointments over the ensuing years confirm Killian's retrospective account that MIT's school of economics was built around Samuelson by hiring promising economists as Robert M. Solow, Franco Modigliani and Charles P. Kindleberger, "who found satisfaction in being members of a team that included Samuelson" (Killian 1985, 201). Killian most likely promised Samuelson to build a team from which he could benefit, without being responsible for daily affairs.

Thus, the enfolding policy at MIT promised Samuelson a congenial intellectual research environment that would secure his role as premium researcher who was guaranteed the freedom to follow his research interests without being bound by institutional constraints. In the years that follow, Samuelson moved around places. The prestigious Guggenheim fellowship brought him to Britain in the Fall of 1948. The department enabled Samuelson to extend short research trips to RAND at Palo Alto over several months. Samuelson's engagements with RAND would lead to his contribution to the Activity Analysis conference that was organized by Tjalling Koopmans in Chicago. By bringing in an interdisciplinary group of scholars from mathematics and economics, as D ppe and Weintraub argue (forthcoming), this conference enabled mathematics to bring rigor to economics, and economics to innovate applied mathematics.¹⁹

Samuelson thanked Killian for the "highly satisfactory provisions for leave of absence" arranged by Killian and Ralph Freeman that "could not be better". If we look at the management of daily affairs in the economics department, Samuelson was, as Cherrier (this volume) shows, remarkably absent. But that does not mean he was absent intellectually. The

¹⁹ On Samuelson's role in this conference, see Backhouse 2012.

period in which Schultz tried to talk Samuelson over to Chicago were crucial years for the institutional profiling of the economics department within MIT and consequential for Samuelson's ultimate decision to stay at MIT.

To better understand the parallels between the self-image of the institute and Samuelson's intellectual pathway, I will now turn to Samuelson's years as a non-resident consultant to the National Resources Planning Board (NRPB) during the war years. These years make visible how Samuelson translated his profile of a mathematical economic theorist into the domain of empirical and policy research, broadening himself out, as E.B. Wilson suggested, to applied work (Backhouse, this volume). As will be seen, Samuelson's consultancy work put him in a position to organize applied economic research, situating himself in the center intellectually without being administratively responsible. This consulting role of research to politics became an essential part of MIT's self-assessment after the war.²⁰

Modeling scenarios

Early in 1947 Samuelson wrote to Schultz that one of his reasons to stay at MIT was his "feeling" that an academic position at the East coast that was not "limited by the University of Chicago form of professional contact" and could give him more opportunities in "outside consulting activities." For a "potentially "narrow" theoretical economist" like himself, such activities had a value that went far beyond their "pecuniary return".²¹ Even though Samuelson in the next sentence downplayed these consulting activities as a "very minor point", their consequences were not.

²⁰ See Part I, chapter 4 and Part III of the Report of The Committee on Educational Survey (1949). See Fourcade (2009) on the general importance of consultancy for the economics discipline in the post-war period.

²¹ PASP box 68, Schultz, Samuelson to Schultz, January 13, 1947. Samuelson's remark echoes the suggestion of E.B. Wilson to Samuelson that his move to MIT might give "a chance to broaden yourself out on certain types of application", apart from Wilson's hope that such a move might in fact strengthen both departments. See Backhouse, this volume.

Samuelson indicated that his consultancy work helped to convert an abstract, modeling approach to theory to a format that could be used to generate empirically informed scenarios for policy purposes. Consultancy work taught Samuelson to see models as a site for policy exploration and as a technology for policy advice, characteristics that would become markers of the MIT economists' approach to modeling (Halsmayer, this volume). Thus, his consulting work for the NRPB enabled Samuelson to become an expert who stayed in the wings, to let the model speak to its audience. While Samuelson got the taste of his consultancy work during the war-years, MIT enabled Samuelson to maintain and expand his consultancy network and to use the inflow of information for his theoretical work.

Before he became involved in consultancy work, Samuelson had developed a generic modeling strategy. Samuelson outlined different scenario's and indicated ranges of inferences that could be drawn from models encapsulating assumptions that were not too far off the economists' intuitions, sometimes producing highly unexpected results. A good example is his 1939 article on the multiplier-accelerator mechanism that outlined qualitative scenarios showing the different types of interactions for different parameter values of the propensities to consume and invest. This modeling approach showed (policy) possibilities in logical space; the generic characteristics of a problem that was in need of specification in the concrete.²²

Becoming a technical expert

Samuelson had started his consultancy work for the NRPB in exactly this vein. On Alvin Hansen's request Samuelson had agreed to do consultancy work on the question of how to "plan" for full employment after the war.²³ Hansen had his doubts about the section within the NRPB which had "hurriedly" produced a report that, he was sure, could improve greatly from

²² For a recent discussion of generic versus specific modeling strategies, see Morgan 2012. See also Maas 2014.

²³ PASP box 55, NRPB, Hansen to Samuelson, July 10, 1941. Thomas Blaisdell confirmed the invitation in a letter of 23 July 1941. See Marcia Balisciano (1998) for different notions of planning in that period.

Samuelson's criticism. Beginning of August 1941, Samuelson started his activities in Thomas Blaisdell's Full Employment Stabilization Section, which was responsible for reporting on business trends, science activities, and economics and government (Clawson 1981, 50). This section fell under Oscar L. Altman's responsibilities. The contract was for 15 days a month consulting work at a maximum.²⁴

In a meeting chaired by Hansen, Samuelson's project was described as "making varying assumptions about income distribution under a stalemate economy, high consumption economy, a redistributed income economy, and a full employment economy," mimicking in an applied setting the format of scenario-analyses he had explored in his 1939 Keynes-Hansen model. Samuelson could handle the small scale simulation on this model very well by himself, but to bring the NRPB project to a successful end, he needed a team of collaborators. Though not formally responsible for personnel, Samuelson made suggestions whom to hire for what part of the job. This figure of standing in the wings while leaving responsibility to others is exemplary for how Samuelson defined his own detached position of the economic academic. It impersonalized the results of his work, while everyone knew he had an important hand in it. It was exactly because of this combination of detachment and know-how that his advice became much asked for.

Samuelson started at the NRPB beginning of August 1941 and quickly became much more involved in the activities of the NRPB than could have been inferred from Hansen's initial request.²⁵ In part, this was because the war-effort itself would soon draw a large part of the economists and statisticians' community to the military and state-agencies that asked their skills and advice. Reflecting on his Washington years, Samuelson wrote that by 1943 the

²⁴ PASP box 55, NRPB, approval of contract by L. A. Moyer, executive office of the president, August 11, 1941.

²⁵ Samuelson was appointed per 7 August 1941. PASP box 55, NRPB, letter of August 11, 1941 of L. A. Moyer, Executive Director and Chief Examiner of the United States Civil Service Commission, to Samuelson.

“center of population (in the sense of Gini) of the American economics profession” was to be found somewhere between 10th and 11th Avenues, near Pennsylvania Avenue, N.W.”²⁶

Setting up a team by remote control

Samuelson traveled back and forth on the night train from Cambridge to Washington on a fortnightly basis, mostly sleeping over with friends for his days in Washington. By “remote control” he had to “build up and maintain” a research staff, a team, of which possible candidates now and then were “pirated away” during his trips back and forth to Washington. On the positive side, living in Cambridge also meant being outside of the cabal of daily administrative affairs and having at hand economic and statistic journals that even a small town state college would have, but that were absent in Washington.²⁷

Following on his comment on Alvin Hansen’s “masterly” memorandum on Post-Defense Full Employment, Samuelson made suggestions for the composition of his team. His group was not going to collect data first hand, but would seek, analyze, and interpret data-sets often painstakingly collected by others.²⁸ Samuelson therefore emphasized the “urgent need for personnel” with sufficient imagination to “formulate the right questions and enough ingenuity to dig out the answers.” He needed economist-statisticians who mastered “high powered theoretical and statistical tools”. As a minimum staff he considered two economists, one to keep contact with the other units, two assistant economists and for computing and secretarial assistance he expected to draw upon the general pool available at the NRPB.²⁹

²⁶ PASP box 152, Post-war planning as seen by a retired post-war planner, 1940s, undated and unfinished typescript speech.

²⁷ PASP box 152, Post-war planning as seen by a retired post-war planner, 1940s, undated and unfinished typescript speech.

²⁸ Especially by Kuznets at the NBER.

²⁹ PASP box 135, Getting to an economy of post-war full employment, 1940s. Memorandum by Samuelson of August 25, 1941 on a Research Unit to Study Implications of Full Employment Economy. In a memorandum by Samuelson of October 3, 1941 the number of staff to be hired had grown to nine economists in grades from P-1 to P-5, two statistical clerks at CAF-4, and three

In consultation with Samuelson, a list of scholars was made the study unit might recruit from. Some of them Samuelson knew from his Harvard years. Thus, on an undated list, we find James Tobin, whom he had taught as a teaching assistant, Abram Bergson and Sidney Alexander, all co-signers of the petition that asked Schumpeter to stay at Harvard,³⁰ or Dudley Dillard, Walt Rostow, Avron Douglass and Martin Bronfenbrenner, the last two of whom he knew from his undergraduate years in Chicago. They were listed with their current affiliation and most important skills. Samuelson sent letters to a selection of them and, though his section was formally headed by Oscar L. Altman, also held interviews.³¹ Some, such as Rutledge Vining, had to decline Samuelson's offer because work at the NRPB could not be combined with obligations at their home university.³² Avron Douglass, an economist with strong mathematical interests, declined because he was on the draft, but made suggestions for other names. Samuelson was also approached by economists who had heard "through the grapevine" that he was looking for personnel for his full-employment post-war study.³³ Thus, setting up an empirical study, of the evaluative kind he envisaged, put Samuelson in the position to not only estimate the work to be done, but also the qualities of those to do it. Not in charge formally, he nevertheless functioned as the intellectual and institutional organizer.

Samuelson's arm reached into the (semi-)governmental institutes the study group was in contact with. The files contain the following list of persons and institutions consulted in an

stenographers. This second memorandum is mentioned in a letter from Altman to Blaisdell of December 11, 1941, in PASP box 55, National Resources Planning Board.

³⁰ When Samuelson was only offered a teaching assistantship at Harvard, Schumpeter threatened to resign. See Backhouse, this volume, for details.

³¹ Samuelson sent letters to Abram Bergson, W.W. Rostow, F.L. Kidner, H. Gregg Lewis, Mr. Alfred Neal, David Durand, Rutledge Vining, M.F. Millikan, and Ray Jastrum. PASP box 55, NRPB, letters of August 23, 1941.

³² PASP box 55, NRPB, Vining to Samuelson, September 21, 1941.

³³ PASP box 55, NRPB, John W. Seybold to Samuelson, September 24, 1941.

early stage of the project (see Figure 1). By remote control Samuelson's consultancy work thus gave him access to the inner offices of almost any government agency of importance.³⁴

Without Government Intervention: Unemployment Ahead

Various versions of the report appeared in 1942. The study would stand at the basis of Samuelson's failed forecast of an economic depression after the war, which he published in his *New Republic* article "Unemployment Ahead" for September 18, 1944.³⁵ "Studies in Wartime Planning for Continuing Full Employment" was a mix of description and analysis. It described the state of the economy in the run-up to the war and its most likely state after the ending of the war. It made an extensive comparison with the demobilization and return to a peace-time economy after World War I, lining out differences with that period and ending with policy suggestions.

The report was sent out for "technical criticism and comment" and received specific criticism and suggestions from economists from within the NRPB and other government agencies, but also from academics and men of business. Among the academics were Jacob Marschak, then still at the New School, Paul Sweezy, from Harvard, and George Stigler, then at the University of Minnesota. Stuart Chase, whose 1932 book had been foundational for Roosevelt's New Deal, went "entirely overboard" on the interim report, receiving it with "whoops of joy" and considering it a "swell job".³⁶

The report was clear in its Keynesian message.³⁷ It could not be expected that market forces by themselves would transform the economy from a war- to a peace-time economy so

³⁴ PASP box 55, NRPB, memorandum from Altman to Blaisdell on the status of Studies of War-Time Planning for Consumer Demand and Continuing Full Employment.

³⁵ The second version lists Oscar Altman, in charge of the unit, and Samuelson, as consultant, first, and then in two separate sections the list of collaborators.

³⁶ PASP box 55, NRPB, memorandum of Bernard Jacobs to Herbert Goodwin, December 14, 194, General Criticism, p. 1.

³⁷ See Backhouse 2012 for a more extensive analysis of this report.

that government intervention in the economy would be necessary to sustain full employment after the war. But this was not just a Keynesian message. The sheer magnitude of the demobilization made it highly unlikely, by any estimate, that markets would be able to absorb all by themselves the increase in labor supply that ran in the millions. On any theoretical account Government action would be necessary.

This sense of urgency for government action was also clear in the two off-springs of this study that more explicitly carried Samuelson's signature, a separate NRPB brochure on the demobilization after the First World War, and Samuelson's contribution to Seymour Harris's edited volume *Postwar Economic Problems* (1943). The first study, prepared under the direction of Samuelson and Everett Hagen, who would become a professor of economics and political science at MIT's Center for International Studies in the 1950s, looked at how returning soldiers were re-integrated in the American economy after the ending of the First World War.

Relying on Kuznets's estimates of US National Income Accounts, the study investigated the course of events in and after the demobilization after the First World War, especially paying attention to the causes of and possible relations between the post-war boom and successive depression. Their descriptive analysis revealed that what in the public image had been remembered as a healthy upswing followed by an unfortunate downturn, had rather been the result of the unplanned, unstable, but fortunate circumstances of high government expenditures that could not be lowered immediately, a substantially increased export-demand from a war worn-out Europe, and the fading from the public memory of an economic depression following the return to the US of millions of soldiers in 1918.

The lack of a public memory of the brief depression of 1918 was also due to the lack of appropriate statistics. At the time, there had been no plan how to accommodate the

returning soldiers in the economy and the initial course of events had been sheer luck rather than foresight. But the collapse of the economy halfway the 1920s could have been avoided when appropriate actions would have been taken. This report was published in 1943, and its message to Washington policy makers was perceived in the Keynes-Hansen line that was prominent among economic consultants in the Washington arena.

Precision is in the arguments, not in the forecasts

Samuelson's contribution to Seymour Harris's volume *Postwar Economic Problems* was a combination of this assessment of the economic course of events after the Great War with a graphical exposition of Keynes' multiplier analysis (the Keynesian cross), without which, according to a note added by Harris, one could not "understand the problem of unemployment and its relation to savings and a rising standard of living" (Samuelson 1943, 27). Samuelson's explanation of the diagram loosely used stylized facts about the business cycle to show the effects of shifts in the consumption function and thus the effects of different policies.

Within the economics profession Seymour Harris's *Postwar Economic Problems* was considered a partisan collection of contributions that "for the majority of the writers" was a "manifesto of a very definite credo of the shape of things to come." This creed was stated forcefully by Alvin Hansen, and subscribed to by the "majority of the writers" (Weidenhammer 1943, 664). However, Samuelson presented his Keynesian message not as a policy creed but as a technical assessment.

Samuelson made clear he saw it his task as an economist to "weigh the strategic factors and considerations" that speak in favor for or against specific assessments of the current and future economic condition of the US and to give a survey of possible strategies of response. Samuelson did not consider it his task to be partisan for one particular line of economic policy, nor to compromise between opposite policy positions, but to step back, or

better, “step aside”, and offer an analytic perspective from which to choose. Also Seymour Harris’s note to the article made clear Samuelson’s contribution was pitched as technical, not as political (Samuelson 1943, 27n).

Samuelson carefully explained that a difference should be made between policy prescriptions that were considered Keynesian, and the applications of a “technique of analysis” that could be considered Keynesian, but that was neutral in principle in its policy prescriptions (31). On this second notion of Keynesianism that Samuelson himself adhered to, one could investigate different “hypotheses” that could well conflict in their policy prescriptions, but it was an empirical question which of these hypotheses was true as a matter of fact.

Samuelson cautioned especially against the “better informed observers” and “experts” who were “taking the pulse of public opinion” and were running “ahead of the business community” in seeing “clear signs” of a “postwar boom of some duration.” Whatever “hidden” or “unknown” facts such optimists might be in the possession of, given the state of data-collection and forecasting powers, “precision in forecasting is simply out of the question.” It would be shortsighted to follow “those who are optimistic concerning the prospects for a spontaneous postwar boom of some duration based upon private demand alone” (46). Such a boom would only occur “if we are lucky”. Expertise had to be based on an assessment of the available evidence, but precision was not in the forecast, but in the weighing of the range of possibilities in the light of uncertain evidence.³⁸

Thus Samuelson was led to conclude that ‘statistically, theoretically, and institutionally’, it was better to be on the safe side. The “bitter experience” of the Great

³⁸ When he did, in his two New Republic articles for 1944, Everett Hagen reproached him for not having distinguished “between an estimate of the single most probable course of events and the contingencies against which policy measures should be adopted.” *PASP* 36, Hagen, Hagen to Samuelson, November 20, 1944. In answer, Samuelson apologized if his articles would have done “any harm”. *PASP* 36, Hagen, Samuelson to Hagen, November 28, 1944.

Depression, “if not of the last century and a half,” had shown that “there is no invisible hand guaranteeing that we shall always be lucky”. It was highly unlikely, though not impossible, that the sheer luck of the boom after the First World War would be repeated, but at least policymakers would do good to prevent a repetition of the unplanned handling of the subsequent slump.

Thus, Samuelson used the technical and theoretical apparatus he claimed at his disposal to step back and to weigh the outstanding evidence, carving out possible strategies of response. To a large extent, Samuelson had created and systematized this apparatus in his Harvard thesis, in what was to become *Foundations*. This apparatus enabled him to act as a technician, not as a judge or advocate. In contrast with the advocate or judge, the technician analyses and weighs, but leaves the decision elsewhere. Samuelson’s choice for this last role embodies a transformation in the role of the academic economist that sits well with the rise of scientism and a technical definition of the role of (economic) science in the US in and after the Second World War (Furner 1975, Fourcade 2009, Hands 2007, Porter 2009).

In a note (1943, 36n1) Samuelson implicitly subscribed to the Keynes-Hansen creed, but explicitly he was reluctant to participate in outspoken political projects and preferred to be the technical expert in the wings. His reactions to Seymour Harris’s appeals for partisanship are exemplary. I don’t know whether Samuelson followed Harris’ “command” to be “present at the Hayek seminar” of April 6, 1945, that I venture will have been devoted to Hayek’s *Road to Serfdom*.³⁹ But he declined Hansen and Harris’s request to contribute to a discussion on the 30 hour working week because he had “no specific expertise” on that topic.⁴⁰ He was willing to contribute to Harris’s *Harvard Economic Handbook* series, even though by then the writing of *Economics* was limiting his availability, and might also make his contribution to

³⁹ PASP box 37, Seymour E. Harris, Harris to Samuelson, March 23, 1945.

⁴⁰ PASP box 37, Seymour E. Harris, Samuelson to Hansen and Harris, May 9, 1945.

the *Handbook* ill-timed.⁴¹ He gave rather technical comments on Harris' political response to Albert G. Hart's criticism to use economic blueprints for policy purposes.⁴² He declined Harris' invitation of September 1947 to contribute to a volume *An Economic Program for Liberal America* though Samuelson's decision may well have been influenced by the row over his textbook that by then started to unfold at full strength (Giraud, this volume).⁴³ On a planned reply from Hansen on a "Chicago outburst" on monetary policy, Samuelson considered it a "mistake" to react, but continued to suggest changes in Hansen's draft answer that made reasons for criticism 'technical' and so not in need to be argued at length in the popular press.⁴⁴ There is no question Samuelson was annoyed by all too enthusiastic libertarian initiatives at Chicago and Virginia, but even in a rare outburst of anger against Friedman (who was a "bloody nuisance"), Samuelson's concern was that it took so much scholarly effort to correct his "provocative stands", efforts that could have been used more productively than for "sterile debate".⁴⁵

"Stepping aside" to become the middle of the road

We find this same attitude in Samuelson's comportment over the row that evolved over his own and Tarshis economic textbooks after the war (Giraud, this volume). When Killian asked Samuelson if something more positive and productive could be made from the tensions around the textbook, Samuelson referred to the experience of the Committee for Economic Development, that consisted of 'top-knotch (sic!) business executives' and suggested as a "constructive step in the general direction of mutual understanding" to use the Sloan program,

⁴¹ PASP box 37, Seymour E. Harris, Samuelson to Harris, April 27, 1946.

⁴² PASP box 37, Seymour E. Harris, Samuelson to Harris, February 27, 1946. Harris responded to Albert G. Hart's "model-builders and Fiscal Policy, published in the AER for September 1945, pp. 531-558. The phrase model-builders misleadingly might be read as referring to mathematical modeling, whereas Hart is rather criticizing economic blueprints that put high confidence in government action to steer the economy.

⁴³ PASP box 37, Seymour E. Harris, Samuelson to Harris, September 19, 1947.

⁴⁴ PASP box 37, Seymour E. Harris, Samuelson to Harris, February 4, 1948.

⁴⁵ PASP box 36, Alvin Hansen, Samuelson to Hansen, January 18, 1966.

and various other “get-togethers and conferences” as something MIT might do to move in the same direction.⁴⁶

Samuelson attached a fragment of Albert G. Hart’s review of *Economics* for the AER whom he considered just like himself a “distinguished middle-of-the-road” economist. After the war both Hart and Schultz had become active in the Committee for Economic Development that had as its motto: “neither left nor right, but responsible” (Burnett 2011, 389-90). Hart praised Samuelson’s “systematic effort to find points of contact between different points of view,” which made the book “congenial to teachers and students over a wide range to the right and left of Samuelson’s own political position” (Hart 1948, 912).

In testing Time For Prophets,” a short article for the *Economic Digest* for April 1954 on the assessment of the present condition of the American economy, and how to respond to it, Samuelson wrote that if Arthur Burns (and the Eisenhower’s administration) “wager about the brevity and the mildness of the recession proved correct”, he “earned his grey hairs and is deserving the highest congratulations.” But Samuelson’s own “misgivings” were, first, that he lacked the courage of making policy decisions himself, and second, that if he had to err, he “preferred to be wrong on the expansionary rather than the contractionary side” (Samuelson 1954, 147).

It is on this vital point, and only in this, that I perceive any partisan difference between the Republicans and the Democrats: rightly or wrongly the former show greater concern for the fixed-income widow and *rentier*, the latter for the non-seniority negro worker in Detroit who is last to be hired and first to be laid-off.

It is not very difficult to see Samuelson’s own personal predilection for the Democrat position but it is clear that even here, Samuelson does not judge or advocate (“rightly or

⁴⁶ PASP box 45, Killian, Samuelson to Killian, August 30, 1950. In reply to Killian’s letter of August 29, 1950.

wrongly”). It was not to the economist, but to the voters to decide on such matters: “On this vital clash of interests, the professional economist must step aside and the voters must decide” (Samuelson 1954, 147). “Stepping aside” precisely indicates the role of the technical expert, who cedes his place to those who should judge – the voters and politicians.

Institutional backing

I think it had not escaped Schultz’s notice that Samuelson defined his own economic role as technical, much as Schultz had perceived his own role at Iowa State College. But there was an important difference with Samuelson’s stance. Before moving to Chicago, Schultz had been the director of Iowa State’s important agricultural economics study group. Like Samuelson, Schultz and his colleagues, such as Mary Jean Bowman and Arthur G. Hart, put emphasis on innovative quantitative analysis – on economics as a technique. In contrast with Samuelson, at Iowa State the emphasis was on a statistical analysis of the data, rather than on a modeling approach that sketched alternative scenarios to its audience. Samuelson’s scenario-analysis secured his independence, Schultz’s statistics did not do so at Iowa State College.

In the notorious oleomargarine controversy that erupted in 1943, the empirical analysis of Schultz and his colleagues became a bone of contention. In his recent analysis of this episode, Paul Burnett writes that “quantitative work, unlike naked lobbying, could at least appear to have a transparency that brought it above narrow parochial interests” (Burnett 2011, 375). But the unequivocal conclusions Schultz and his colleagues drew from their data, that price-regulations of agricultural produce had been counterproductive, left no space for alternative policies. When partisan farming interests broke out over their work Iowa State College’s president Charles E. Friley did not back their stated intention to deliver an objective quantitative, statistical analysis.

Samuelson was heavily backed by the MIT administration, and reciprocated by committing to the Institute. Schultz, in contrast, felt that Friley lacked the stamina to support him and his collaborators in their scientific independence and expertise against the interests of state farming organizations. This made Schultz lose all confidence in the College administration and to accept Chicago's open offer for a chair that had been made in early 1941, taking Margaret Reid, Hart and Brownlee with him (Burnett 2011, 389, see also Burnett 2010).

From the records, it is unclear if there was any interaction between Schultz and Samuelson during the war even though it is unlikely they never met or corresponded in that period. The more so since Oscar Altman suggested Hart as his replacement when Altman was enlisted for military service in 1942. On that occasion Hart preferred not to move to Washington to better be able to function as an independent voice against Washington's policy proposals, and made the suggestion to move some of the statistical work from the NRPB to Iowa State College, a suggestion that Altman asked Blaisdell to consider very carefully.⁴⁷ Significantly, Hart, whom Samuelson considered a middle-of-the-road economist like himself, declined his own job offer at Chicago to move to Columbia instead.

When Schultz tried to enlist Samuelson for Chicago, Samuelson was right in the process of writing his textbook. While it was not difficult to identify its Keynesian policy agenda, Samuelson's response to criticism stressed the technicalities of new theories and methods, and in this was fully backed by the institute (Giraud, this volume). Not being at Chicago or Harvard, by any standards the premium economics institutes in the country, but at an institute that defined its mission as consulting enabled Samuelson, the political liberal, to

⁴⁷ As this correspondence is among Samuelson's papers, Samuelson at least was kept on the current of these movements.

define his own role as the detached technician to all the better pronounce on the state of the economy and on the government's policy options.

When Harvard in 1954 tried to piggy bag on the prestige created by making good on its "biggest recruiting blunder in the history of social science,"⁴⁸ it had spilled its chance. MIT's president James Rhyme Killian wrote "how delighted" he was about Samuelson's decision "in regard to the neighboring institution" and added his hope Samuelson would "know how fully you have our enthusiastic support in your work here at the Institute."⁴⁹ McGeorge Bundy, Dean of arts and sciences at Harvard somewhat belatedly wrote that however disappointed he was about Samuelson's decision, he was at least glad that Harvard would have Samuelson and the "excellence" of the MIT community in its proximity.⁵⁰

Taking stock, Samuelson acknowledged that MIT had become one of the best economics departments in the country, which made its competition with "the older established departments ... sorely felt."⁵¹ By then Samuelson was littering the academic journals with his papers and figured prominently on committees and in public outlets in which he was taking the pulse of the current state of the US economy and laying out possible lines of response. He wrote the one after the other letter of recommendation, and actively promoted the career of scholars he considered good for the profession. The new hired staff contributed of its own to the prestige of the department. Men of business sent their data to Samuelson in the hope he would report back on the results of the analysis, or they dropped by for a talk over lunch.

⁴⁸ PASP box 45, Kindleberger. Quoted from Kindleberger's abc presented on the occasion of Samuelson's retirement from MIT in 1985: "H stands for Harvard Graduate Department of Economics and the biggest recruiting blunder in the history of social science; and for the History of Economic Thought: poor old Smith, Ricardo, Mill, Marx, Jevons et al never knew what Hit them."

⁴⁹ PASP box 45, Killian, James R. (president), 1944-1954, letter from Killian to Samuelson, December 20, 1954.

⁵⁰ PASP box 12, General correspondence B 1939-1954, letter from McGeorge Bundy to Samuelson, December 13, 1954. Samuelson declined the offer in a letter to Bundy of 3 December 1954, in PASP box 12 General correspondence B 1939-1954.

⁵¹ PASP box 45, Killian, James R. (president), 1944-1954, letter from Samuelson to Killian, December 22, 1954.

Being technical enabled Samuelson to stand in the wings and yet define the center of the economics profession. Halfway the fifties Samuelson had become the inescapable expert and the economics department at MIT a world center of economic expertise.

Situating technicality

Not all agreed with economics becoming technical. From 1947 Samuelson had been in irregular correspondence with a Brooklyn Jew and economics school teacher, Martin Wolfson. Samuelson clearly had been charmed by Wolfson's aphorisms, complaints about the state of economics, and requests for free copies of his books. But in later years "old Wolfson" was getting "uppity".⁵² In 1972, Wolfson lambasted "the people who choose the Nobel Prize Winners in Economics" and angrily complained that economics had become a "technology, A Techne" and MIT 'too mechanical, too technical, too technological' and summoned Samuelson to change the name of MIT to Charles Sanders Peirce University and to name the economics department after Thorstein Veblen (see Figure 2).

One can of course dismiss such postcards from minor figures though it speaks for Samuelson he never did so. There was a mild irony in Wolfson's command. If there ever was an economist who trusted technicians, it was Veblen. "Veblen's experts," as Theodore Porter notes, "were hired experts who could serve capitalists as well as communists" (Porter 2009, 305). But Veblen's technicians were engineers, knowledgeable about nature's principles. In the post-war era, economists themselves had become engineers who carved out, with "neutral, self-effacing objectivity" (Porter 2009, 305), the logical space of economic policy. Naming the economics department after Veblen would have marked that shift.⁵³

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⁵² PASP box 77, Martin Wolfson, Brooklyn, Martin Wolfson to Samuelson, received October 30, 1972 and undated.

⁵³ On the twentieth century economist as an engineer, see Morgan (2003).

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Agency	persons
Department of commerce	Arthur Upgren H.W. Bissell, jr.
Department of Labor	D.H. Davenport Dal Hitchcock J.M.G. Pierson Wassily Leontief
Department of Agriculture Bureau of Agricultural economics	Roy Kimmel Oris Wells Mrs. H.F. Goldsmith
Office of Price Administration	Hildegard Kneeland
Securities and Exchange Commission	H.W. Goldsmith
Federal Reserve Board	A.H. Hansen A.B. Hersey Harvey Perloff
Bureau of the Budget	Gerhard Colm
Board of Economic Warfare	Louis Beam

Figure 1. List of institutes and persons the Section “Full Employment After the War” had been in contact with. PASP box 55, NRPB, memorandum from Altman to Blaisdell on the status of Studies of War-Time Planning for Consumer Demand and Continuing Full Employment.

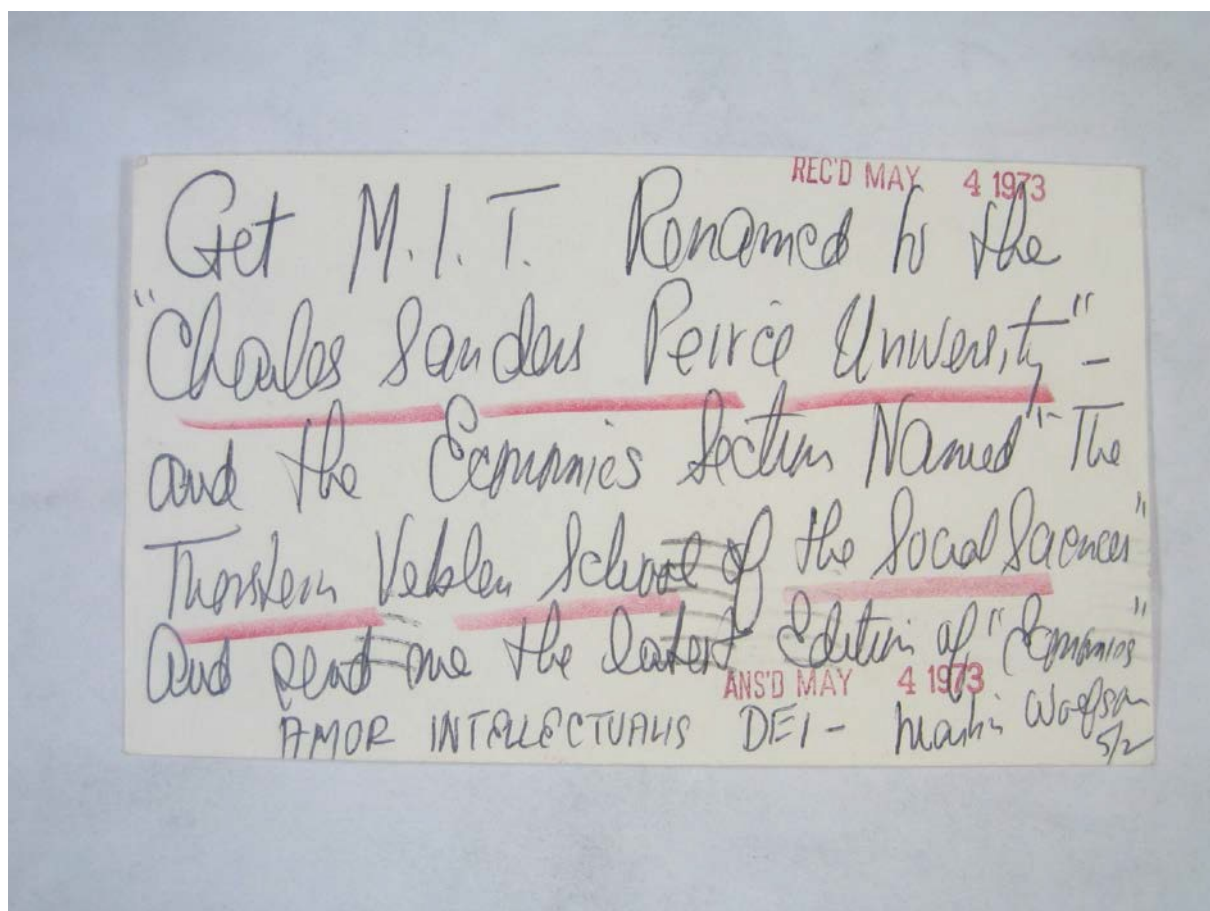


Figure 2. "Get M.I.T. Renamed to the "Charles Sanders Peirce University" – and the Economics Section Named 'the Thorstein Veblen School of the Social Sciences'" And send me the latest Edition of "Economics" AMOR INTELLECTUALIS DEI – Martin Wolfson 5/2. Received May 4, 1973. Card of Martin Wolfson to Paul Samuelson, PASP box 77, Martin Wolfson, Brooklyn, 1947-1984.