

2 Godley Moves in Mysterious Ways: The Craft of Economic Judgment in Post-war Britain

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2.1 Knowledge ways

Economists are not memorialized in monuments. Wynne Godley is the exception, his likeness is cast in bronze upon Coventry Cathedral as archangel Michael ('St Michael's Victory over the Devil', 1958) in a sculpture by his father-in-law Jacob Epstein. On his passing, Godley was remembered in obituaries in the major British broadsheets, that recalled his dotted career, his engagement with the arts, his grace as a host and his tragic family history.¹ At the venerable age of 75, Godley penned an essay to the *London Review of Books* on his battles, four decades earlier, with an abusive psychoanalyst (Godley 2001). If one were to write Godley's biography (and I know of no such plans) the defining features of his character would be taken from this autobiographical account: a search for his true voice, and as he took many public roles, a nagging fear that he might disappoint such responsibilities. The tensions that made up the intimate structures of his psychoanalytic self help also to describe his approach to economics: an anxious affirmation of voice and judgment.

One can read Godley's 2007 book with Marc Lavoie, *Monetary Economics*, as setting between covers the likeness of his economics. In this chapter I take the view that Godley's life work has more to teach us if we dispose of narratives of incremental progress and closure. The record shows Godley's continued efforts to enunciate a knowledge that was for him

tact. This record offers the historian a glimpse of economics as a craft. Like the artisans of all ages, and in sociological accounts the natural scientists of today,² economists are enjoined on a long apprenticeship in the developing of models that are able to speak to economic issues. It is a knowledge acquired 'by doing.' Yet Godley was different, because his craft was not in the design of models, but in offering judgment about the prospects of the economy, its challenges, its outcomes. His principal resource was not model building, but an interpretive understanding of the workings of the national accounts system shadowing the workings of the British economy – a skill he honed with public drama throughout his professional life.

My aim in this chapter is to outline a narrative of Wynne Godley's work that probes his ways to knowledge. The chapter challenges a conventional account of knowledge, as first produced in academic quarters and later applied beyond their threshold. In contrast, I argue that Godley developed his understanding of the economy in civil service, and popular media, as well as in academic settings. His core insights were gained prior to his university appointments, in public surroundings. Furthermore, Godley's greatest achievement was not to add to a body of literature but to develop his own, embodied, understanding of the economy in its uncertain dynamic, beyond the enunciation of facts, simulations or model results. The residual and crucial component was Godley's judgment. From my perspective, Godley was always the civil servant and the adviser, so the narrative begins with his tenure at the Treasury.

2.2 Forecaster: An education at the Economic Section

By his own account, Godley abandoned a promising career as a professional musician, principal oboist at the BBC Welsh Symphony Orchestra, because of his increasing stage fright. He had earned a PPE degree from Oxford, and although he recalled more vividly his interactions with Isaiah Berlin, it was his economics teacher, P.W.S. Andrews, who brokered for him an alternative career: first as economist at the Metal Box Co. in 1954, and two years later moving to the Economic Section, the principal institution for economic advice in the British government (Godley, 2000).

The Economic Section was Godley's graduate school and his tutor there was Sir Robert Hall.³ When Hall took over the role of director from James Meade, the Economic Section was still housed in the Cabinet Office, and was on call to give advice to any branch of government. In 1953, its operations moved to the Treasury, and its influence had to be channeled

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through the Chancellor of the Exchequer's personality and prominence in the Cabinet. Hall adapted well to these changes. Whereas Meade was an academic first and an adviser second, Hall resisted the allure of doctrinal disputation and scholarly subtlety. He was of the 'one handed school of advisers,' famously saying that 'it is not much use giving advice to Ministers unless it is very loud and clear' (Cairncross and Watts, 1989, pp. 137, 135). In now dated terms, Samuel Britan noted that 'at his best Hall had an almost feminine intuition for the way the economy was moving' (Brittan, 1971, p. 95). For Hall, the goal was always to grasp a comprehensive view of the whole, the general economic situation (Jones, 1994). The ability to grasp the landscape, and the flexibility to speak about all fields of government action were requisite skills for employment in the Treasury. The institutional set-up in which Godley entered privileged *unambiguous commentary on the general economic situation*. Godley was to make this bureaucratic mandate into his professional voice.

Hall held the longest and most distinguished of tenures at the Economic Section, serving for 14 years. He was a principal in shaping the institutions of government advice, arguing that the number of economists in government was insufficient and that both their quality and their commitment to public service were variable.⁴ Retiring in 1961, it was Hall's replacement, Alec Cairncross, who saw the realization of the dreams of reform. On Godley's arrival in 1956, Hall's section was a small operation of about 15 professional economists. For a further decade it was a tight collaborative community, holding a monopoly over advice. In 1965 the new Labour administration created the Government Economic Service and overnight all ministries were staffed with economists. From under 20 economists in service the numbers leaped to 209, and kept on rising to 390 by 1979 (Coats, 1981). The partitioning of economic advice was the Labour government's design to break the monopoly by the Treasury and its economist advisers over the shaping of policy. It gave every ministry its own intellectual ammunition and installed the Department of Economic Affairs as the clearing house and planning bureau for policymaking. The Department was initially asked to outline supply-side policies to halt Britain's industrial decline. But, less than a year after beginning its operations, such plans were abandoned for more conventional policies, such as those met by the advice of the Treasury's Economic Section (Middleton, 2000).

Among the new arrivals were those known at the time as 'political economists': university faculty that took advising roles with the expressed goal of changing government policy. The welcomed addition of more skilled economists was accompanied by the unwelcomed

prospect of competition for the attention and trust of ministers. Reading Cairncross' diary, one finds him in continuous and often strained debate with Robert Neild, adviser to the Chancellor, and Nicholas Kaldor, adviser at large on taxation (Cairncross, 1997). Thomas Balogh advised the prime minister. The presence of the academics did not change Godley's responsibilities:⁵ to hold the most up-to-date outlook on the economic situation, anticipating official estimates and statistics, on wages, productivity, public expenditure and the balance of payments.⁶

However, Godley found himself more than ever a participant in a policy debate, an increasing element of which was a competition over conflicting claims to economic knowledge and theory.

It is a challenge for the historian to track how a deep understanding of data develops. There is no paper trail of how it arises over many years of looking at how data match, change, and what they mean. It is embodied knowledge. Sociologists of science have recorded this kind of knowledge through participant observation, whereby the sociologist tracks his own difficulties in joining a research community and assimilating their fast-paced and tacit acting.⁷ The second-best approach is to locate the mutual puzzlelement between historical actors who have the fact skill and those that don't. The character of Godley's contribution to the Economic Section can be unpacked by looking at his relationship with Cairncross. Cairncross's mandate was to field the requests of ministers and to react to the grand designs of the multitude of economist advisers. Cairncross had to converse with policy players, about forecasts and statistics that were not his own.

Excerpts from Cairncross's published diaries testify to bonds of trust. Cairncross reports on a lunch with Godley, in July 1967, at which Godley complained about the public sector statistics 'prepared by junior clerks who don't appreciate any of the nicer points' (Cairncross, 1997, p. 223). The communication was done informally, over a meal, yet seems to have been an issue that should have preoccupied Cairncross, since statistics were the basis upon which his recommendations were grounded. But there is no further record of what the 'nicer points' might be, or what might be done to correct the juniors. Cairncross trusted that Godley could find his way to the necessary information. Indeed, the diaries are noteworthy for their brief references to issues of data.

Three months after their lunch, Godley once again complained about public sector statistics. Cairncross writes in his diary that:

W.G. [Wyrne Godley] very interesting on statistics of public expenditure. CSO [Central Statistical Office] use data for local authority

investment quarterly which they disregard completely once they get capital spending figures once a year but these don't really relate to actual investment so we don't get either quarterly or annually any reliable guide of what is happening; and tend every year to be thrown off previous interpretation by annual data. (Cairncross, 1997, p. 239)

This comment provides a sense of how Godley worked, looking for patterns of connection and consistency in the data. In the case at hand, he discovered a glaring mismatch between quarterly and yearly series, arriving at the Economic Section as 'local authority investment' but really being inconsistent. Neither the quarterly nor the annual data gave the information required. A sense of 'what is happening' had to be gained with other sources. The annual data would arrive as a surprise, undermining the Section's standing interpretation. Routinely, for his short-term forecasts, Godley had to rely on incomplete or biased data, on data that swapped definitions depending on the time frame.⁸ His forecasts were no conjurer's trick, but an accounting insight gained from toiling at the numbers for over one and a half decades, grasping for a big interpretative insight.

Godley's role at the Treasury was to provide short-term forecasting. In the late 1960s, he was recruited to a more unusual role, but one that drew on his understanding of the economic landscape. He produced the statistical classification upon which Kaldor's Selective Employment Tax was applied, selecting those industries that would be subsidized and those that would be subject to tax. More famously, Godley did the calculations for the package of policies accompanying the 1967 devaluation of the pound from \$2.80 to \$2.40 (Godley, 2000). In his final years at the Treasury Godley played a more active role in policy design, as the deputy director of the Economic Section. When Godley agreed, at some financial cost, to abandon his civil service job in order to move to Cambridge, he traveled with the expectation that he would remain engaged in policy debates and be free to express his policy views – a discretion that he had been denied as a civil servant.

2.3 New Cambridge: Publicity against the Keynesian consensus

Godley was an outsider to the town and to university life, but in joining Cambridge and King's College he saw plenty of familiar faces. Close by was Kaldor, who was the force behind Godley's appointment, and Robert Neild, who had rejoined the Cambridge faculty. Godley's closest

collaborator, Francis Cripps, had been Kaldor's assistant. Besides the network of people, there are other aspects of continuity between the Treasury and the Cambridge periods. As Director of the Department of Applied Economics (DAE),⁹ Godley set up the 'Cambridge Economic Policy Group' which issued a yearly forecast of the British economy. The initiative was in the spirit of the National Institute of Economic and Social Research, where Godley had worked on secondment from the Treasury. That institute was another of Robert Hall's contributions wanting 'an official set of forecasts' to counter Treasury ones and create an 'independent view on the state of the economy and its forecasts' (Jones 1994, p. 175). Godley believed that this independent view could be nurtured in an academic setting like Cambridge. He was soon proved mistaken.

From the mid-1950s to the mid-1970s, the troubles facing the British economy and the policy tools of government were well identified. The direct controls inherited from the war were quickly dismantled and the exchange rate, budget and monetary policy became the instruments of economic policy. When Godley joined the Treasury in 1955 a deteriorating balance of payments was a primary concern (Jones, 1994). When Godley traded the Treasury for the University of Cambridge, the subject was again in the spotlight. The so-called 'Barber boom', characterized by tax cuts and easy credit, led to record deficits in the balance of payments, which were compounded with the 1973 oil shock (Middleton, 2000). These were times of national urgency.

On January 22-3, 1974, Godley and Cripps authored a two-part article for the *London and Cambridge Economic Bulletin* which was also published in the *Times*.¹⁰ They painted a picture of impending catastrophe, calling for the implementation of 'a new set of principles.' The fundamental mistake was the short-term focus that blinded everyone to the 'predominant source of imbalance' for the economy: the government's fiscal and monetary policies. According to Godley and Cripps, the fundamental error of the orthodoxy was the assumption that private sector surplus was income elastic. In fact, the private sector's 'net acquisition of financial assets, is small and fairly stable.' Consequently, the likely effect of the budget deficit was to aggravate trade imbalances (such as those that occurred in the wake of the 1973 OPEC price hike) and failing to stimulate the private sector. Godley and Cripps argued that Britain should aim to improve its export potential through policies to increase industrial productivity and rely on external demand for growth. Devaluation was ruled out as potentially worsening inflation – export subsidies and import restrictions were preferable.

In print, there was no immediate response to Godley and Cripps' proposals.¹¹ A month later, on February 26, Neild wrote a letter to the *Times* titled: 'Reversing Keynes on budgetary policy.' It addressed a controversy prompted by an editorial divining the shape of the Budget. Neild began: 'I and a number of my colleagues at Cambridge believe that the orthodox [Keynesian] view, to which many of us used to subscribe, is wrong and that its application in policy-making has been a major cause of Britain's postwar economic troubles.' Strikingly, he summarized this policy position as contrary to the Keynesian wisdom: 'the Budget should be used to determine the foreign balance and the exchange rate to determine the level of activity.' Neild made no explicit mention either of the Policy Group research or of the earlier articles by Godley and Cripps.

Neild's polemical reversal of Keynesianism was a catalyst for a response by others in the Cambridge faculty. Richard Kahn and Michael Posner's 'Challenging the "Elegant and Striking" Paradoxes of the New School'¹³ grouped together Kaldor, Neild, Godley, and Cripps distinguishing them from an Older Keynesian School at Cambridge.¹⁴ Godley and Cripps' policy brief was being read as a statement in economic theory. Kahn and Posner distinguished the schools in terms of their composition of the multiplier. Using the scenario of a depreciation of the exchange rate, they argued that the 'new school' only considered the 'leakage' of increased imports following external demand-induced growth. The 'new school' ignored the parallel effects of increased savings, increased profits and improvements in the state's budget deficit. They argued that only by disregarding these effects was it plausible for the 'new school' to claim that the trade balance was insensitive to the exchange rate instrument. Within this setting the 'old' Keynesian view encompassed the 'new' as a restricted and implausible case.

Reflective of his new location, Godley's policy intervention, even in such a worldly publication as the *Times*, was overtaken by an academic debate about the progeny and classification of economic theory. The Kahn and Posner article concerned the Cambridge 'new-comers.' In late May, Godley wrote to Kahn that: 'I am really very sorry that we should be in the position of having a confused debate in public without trying harder to make contact between ourselves and nearer agreement.' Godley's request was soon heeded, and Nicholas Kaldor, Kahn, and Posner had a heated exchange of letters.¹⁵

Kaldor has been credited as the originator of many of the New Cambridge proposals, typically with references to Kaldor (1955, 1955–56). The account that has Kaldor as the prime mover has been confirmed

by his biographers that take for granted the theorist/practitioner hierarchy (Targetti, 1992; Thirlwall, 2004). That account has Kaldor outsourcing public advocacy to the Policy Group because he was bound to silence by his advisory post (Turner, 1993). The relationship between the protagonists is far more complex. John Maloney, studying Treasury documents only recently opened to the public, reveals that Kaldor, Cripps, who had become adviser to Tony Benn, Minister of Industry, and Godley were not always, or often, in agreement. The punchline in Godley and Cripps' proposal was import controls, a proposal that Benn would argue for in the Cabinet. Kaldor was never supportive of this solution (Maloney, forthcoming). What the standard account also misses is the nature of Godley's relationship with Kaldor. While at the Treasury, Godley was not shy from criticizing Kaldor. Cairncross (1997), with some amusement, notes meetings in which by force of argument he beat Kaldor into silence, confiding that: 'This was the only time I have seen it done' (Cairncross, 1997, p. 210). Yet Cambridge was not the Treasury, a different set of values and rules applied, and Godley would have been happy had Kaldor taken charge in the private correspondence to bring the dons to some agreement.

Kaldor, however, only stoked the fire. In a long letter, he criticized the Kahn and Posner *Times* article as 'unnecessarily argumentative and rather tortuous.' He further imputed misunderstanding of the 'new school' position. Posner and Kahn responded in an equally ill-tempered tone. Each side sought to expose the theoretical limitation of the other by attributing the vice of unacknowledged assumptions such as full employment (by the 'old') or a disregard for important multiplier effect (by the 'new').¹⁶ In two subsequent letters in late May, Kahn and Posner refrained from engaging in longer arguments. They concluded in a 28 May letter that:

We did not – and do not now – seek to make a great fuss about passing comments made by you [Kaldor] or other of your friends, we were driven to write our articles only because Robert, Wynne and Francis seemed to be collecting together these passing comments into a theoretical structure that seems to us unacceptable.

The correspondence was being copied to Neild, Godley, Posner, Cripps, Luigi Pasinetti, Adrian Wood, Douglas Wass, and Kenneth Berrill. Of these spectators, it was Cripps that drew a line under the discussion, stating that 'disagreement between any of us is on the behaviour of the private sector. ... The argument is whether there is a tendency to

stability, in the form of some corrective response to abnormal surpluses or deficits.' He added that the DAE was doing 'detailed empirical work' on the question and once these results were out further discussion would be 'useful.' He 'feared' that little is to be gained by a "theoretical" debate with attendant dangers of misrepresentation and misunderstanding.' After his early outburst, Kaldor confessed to having other 'pre-occupations' preventing him from fully engaging the debate with Kahn and Posner. On June 6, Kahn conceded to Cripps that the 'theological' debate was unproductive.¹⁷

The discussions of 1974 testify to Godley's difficult initiation into Cambridge Keynesian quarters. In the articles in the *Times* and the bulletins of the Policy Group, Godley identified the perils and choices facing the British economy. In contrast to his time at the Treasury, however, his expertise was no longer trusted and his statements were read against the academic standards of 1970s Cambridge. They asked how Keynesian was he?¹⁸ To have a voice in these new settings he would have to refashion his insights to the current economic situation into a theoretical structure. He had to build a model.

2.4 Modeling: Obtaining academic credentials

Godley and Cripps were eager to strike a settlement with Kahn and Posner and benefitted from Kaldor's lack of interest in continuing the argument. The debate in the Cambridge correspondence had already moved to academic fora and to the halls of government.¹⁹ Following the *Times* controversy, Godley and Cripps adopted the 'New Cambridge' label with a twist. They did not call themselves the 'New Cambridge school' but instead they referred to a 'New Cambridge hypothesis' and later a 'New Cambridge equation.' The semantic difference defused any challenge to Cambridge's Keynesian heritage, and made their work evidence of Cambridge's vitality. It also hinted at the increasing difficulties they were facing in establishing their claims.

In the wake of the May 1974 correspondence, Godley and Cripps' statements began referring to empirical findings resulting from econometric research. They thus appeared to steer themselves away from doctrinal debate. With the appointment of Denis Healey as Chancellor, the Policy Group was called in for discussions with the Treasury. That month, the Tory-led Commons Expenditure Committee set up an inquiry on the effect of public expenditure on the balance of payments and making direct reference to 'the propositions set out by Godley and Cripps in *The Times* on 22 January 1974.'²⁰ In the hearings, Godley and

Cripps placed their emphasis on empirical evidence. They estimated the private sector's net acquisition of financial assets as a stable function of disposable income (with minor variables of personal hire purchase debt outstanding, change in personal bank advances, and change in book value of stocks), which they called the 'New Cambridge equation' (Cripps et al., 1974). The attention and credibility afforded by these hearings was short-lived.

The empirical claims of Godley-Cripps were soon undermined, in 1975, by the retiring editor of the *National Review* (the journal of the National Institute for Economic and Social Science Research). Marking his departure for the Bank of England, J.A. Bispham made a firm defense of the 'conventional school' of policymaking and forecasting. The targets of the article were the 'New Cambridge Economics' and 'The "Monetarist" Position' (advanced from Manchester's M. Parkin and D. Laidler).²¹ The Bispham critique was particularly severe because it deployed the authority of the National Institute's data and estimations in attacking New Cambridge.²² There were two kinds of empirical counter-evidence. First, the New Cambridge equation did not perform any better than the 'conventional' alternatives in use. Second, it did not hold after 1972. Bispham concluded that: 'The New Cambridge equation has broken down massively' (Bispham, 1975, pp. 42, 47). Bispham argued that New Cambridge theory was built on short-term circumstances and chance alone explained that, in previous years, the balance of payments had seemed unresponsive to devaluation (there had been an independent rise in import prices, also known as oil shock) (Bispham, 1975, p. 44). This criticism greatly concerned Godley. The National Institute had been the first independent forecasting and policy institution that had inspired his Cambridge Policy Group. Godley himself had been at the National Institute in the early 1960s.

From 1975 onward, policy debate and advice began to be seized by doctrine. Despite their media visibility and access to the halls of power, the New Cambridge claims were resisted by Treasury economists. In less than two years of joint seminars and efforts at mutual understanding and appreciation, the only point of consensus was the embargo on fine-tuning. The Treasury's reluctance can be explained as an attempt to protect its field of action from the visitations of foreign academic advisers. But equally important was the emergence of a competitive public debate between University-based policy groups, each wielding their own doctrinal brand and distinct model of the British economy: the National Institute, the Cambridge and Manchester groups, and the London Business School (Budd, 1975).²³ As the *Times* controversy had

hinted, all policy claims were promptly deconstructed by academics for their theoretical plausibility. Denied an empirical relationship by the National Institute, and resisted at the Treasury, the DAE needed a model that would represent as a structure the relationships they were seeing in the data and consolidate their academic authority.²⁴

Aware of their competitors' strengths, the Cambridge Policy Group wrote for *Economica* (Cripps and Godley, 1976). Against the critics – Kahn, Posner, and Bispham – Godley and Cripps lined up a list of 'qualified supporters,' from the empirical economics camp. Their article was the first translation of the Policy Group's views into a macroeconomic model. The main feature of this translation was the replacement of the consumption and investment functions by a single private expenditure function, the New Cambridge equation (estimated in 1974). The model balanced the Cambridge Policy Group's distinctiveness from – and commonality with – other approaches. The authors embraced an unorthodox 'Keynesianism.' They also hedged their policy prescriptions by stating that: 'The effects of inflation and real growth in the above formulation are regarded by the CEPG as relatively uncertain, while the link between the steady-state budget deficit and balance of payments is more clear-cut.' '[T]he exchange rate, export subsidies, import tariffs and import quotas can all be considered potentially effective methods ... assessment of the efficacy of different trade policy instruments depends on assumptions about the determinants of inflation' (Cripps and Godley, 1976, pp. 339, 341).

My claim is that Godley and his associates were attempting to establish academic credentials for their policy interpretations. There was pressure for them to present a model that could be related to other competing representations of the British economy. But 'modeling' was not Godley's strength, as became apparent in 1977, with a conference on 'Public Policies in Open Economies' held in collaboration between the University of Rochester and Carnegie-Mellon University. Half of the conference volume was devoted to American economists examining the 'New Cambridge' model. Disconnected from the British policy context, Godley argued for the doctrinal character of his approach – that is, how it superseded the raging monetarism versus Keynesian controversies. Thus, three years on from the *Times'* altercation, New Cambridge was engaging in 'theological' debate.²⁵

At the American meetings, Fetherston and Godley (1978) contributed a simulation model of the UK economy, illustrating their 'Keynesian-type macroeconomic model' of the 'medium-term framework.' They noted that most of their model's specifications were not essential to

'New Cambridge' and were shared by other models of the UK economy. What was distinctive about their approach was the modeling of total private disposable income and expenditure (Fetherston and Godley, 1978, p. 36). They used the model to study three policy scenarios: a step reduction in imports, or quotas, an increase in public expenditure, and a devaluation of the sterling. They argued that their model saved Keynesianism from much of the recent Monetarist criticism and that New Cambridge models were consistent with the analysis of stock equilibrium in asset markets. They concluded that 'introduction of asset market considerations gives us no reason to alter our view that the principal questions of economic strategy in an open economy concern the appropriate uses of fiscal policy and trade policy' (Fetherston and Godley, 1978, pp. 55, 56).²⁶

The American commentators were unsupportive.²⁷ The principal complaint was that New Cambridge resembled too much the old-style Keynesianism that had lost currency in the United States – 'a simple "Keynesian cross" model' or a 'crude Keynesianism' (Blinder, 1978, pp. 76–7).²⁸ Blinder concluded that:

I am struck by how many aspects have already been jettisoned here [in America], often after a great controversy: the completely passive supply side, the fixed interest rate, the interest-inelastic investment demand, the trivialization of monetary policy, and so on. Revising any of these hypotheses would seem to be taking a step backward.

Following Blinder, two comments defending Monetarism offered further reasons to reject the New Cambridge approach: a flawed conception of the long-run (Frenkel, 1978); a lack of empirical evidence; and failure to comply to the standard of modeling maximizing agents in a coherent general equilibrium framework (Russell and Wakeman, 1978, pp. 96–8).

In 1980, Godley was appointed to the faculty at Cambridge as Professor of Applied Economics. Even if he never thought much of the American criticisms, his writings in popular, policy and academic publications, after early influence and celebrity, were being rejected. Denied allies beyond Cambridge, he was facing academic defeat. As Godley reminisced decades later:

I did find myself badly outflanked by the rise in influence of monetarism . . . It was not, as I now see it, that the monetarists

won any argument in the sense that they made propositions which I was forced to concede, on reflection, were correct. They won it for a different reason which I now admit with some shame and frustration – namely because in my own thinking I was only just beginning to incorporate balance sheet concept systematically and therefore found myself unable, at the elementary level of accountancy, to give convincing answers to perfectly simple questions about where money 'was' in my model. (Godley, 2000, p. 236)

Candidly, Godley acknowledged that his policy advocacy suffered as a consequence of his flawed modeling efforts. And they failed because he had been unable to give a formal analysis of that which he knew best, the national accounts.

2.5 Cassandra: Publicity against monetarism

Throughout the early and mid-1970s, the Cambridge Policy Group was acclaimed in the editorial and business pages of the *Times*. Peter Jay called its contribution a 'brave message of hope' (February 17, 1975). The following year the discourse suddenly changed and Cambridge proposals were derided as 'radical' (March 29, 1976). On March 22, 1977, the editorial column of the *Times* attacked their proposals as fallacious, with the invitation that: 'Those who disagree as completely as we do with their prescriptions have a duty to explain where we think the fallacies lie in their argument.' The change of fortune for the Cambridge Policy Group was part of the ideological shift undergone by the business press during the 1970s towards varied forms of 'monetarism' (see Parsons, 1989).

Matters got worse on March 13 1981, when Frank H. Hahn and Robert R. Neild, on University of Cambridge notepaper, circulated a letter of protest against the 1981 contractionist Thatcher budget. The protest letter was published with 364 signatures, a near clean sweep of the British economics profession. It was an awkward coalition of voices, from conservatives to radicals. The professional economists were most likely reacting to Thatcher's dismissiveness of academic guidance and advice, rather than expressing opposition to specific budget plans. The largest number of signatures was from Cambridge, Godley among them.²⁹ Although tenured, Godley's DAE relied on operating grants, and notably on Social Science Research Council funding. In 1982, the funding was withdrawn by a specially appointed Consortium including the SSRC, the Treasury, the Bank of England and academic consultants

from the UK and overseas. The mandate of the Consortium was to bring some order into the rapid multiplication of models and forecasting approaches. It created the Warwick Macroeconomic Modelling Bureau headed by Kenneth Wallis to conduct comparative analysis of the different models, and it outlined cuts to several programs.³⁰ That the consortium included representatives of the Treasury suggested to many in the press, and at Cambridge, that it was payback for their antagonism, but there were also plausible claims to New Cambridge's academic isolation, as I have argued. The effects of the cut were profound, since it made it impossible for the Cambridge Policy Group to function (Godley, 2000, p. 235).³¹

Godley's grim forecasts in the late 1970s and 1980s clashed with the optimism of the new economic opinion makers. In a series of letters to the *Times* he antagonized the new cadre of advisers. He repeatedly wrote to contradict the lagged correspondence, established by Milton Friedman and others, between the growth of the money supply and inflation. One such statement came on June 6, 1980, recalling an article in the newspaper four years earlier by William Rees-Mogg:

That inflation is now accelerating after a long period of relatively low growth in the excess money supply strengthens the case I made in my original letter – monetarism is completely failing to achieve the main objective claimed for it. At the same time, every day brings more evidence that the Government's policy is inflicting immense and perhaps permanent damage on British industry.

On October 22, 1980, he asked in the *Times* 'How far will the Government let unemployment go?' The article was full of indignation, firing questions such as 'If not two million is it three million? If not three million is it five million? If not five million...' One can argue the case that Godley's 1970s fiscal proposals for the medium term were not so different from those of Thatcher's governments. One difference in content was that Godley believed the Thatcher policies would undermine British industry and the long-term prospects of the economy. Another aspect was that the government seemed to make policy choices on the grounds of doctrinal conviction alone, without presenting clear forecasts of policy scenarios. He asserted that 'unless a government is merely capricious, its policy is essentially based on a forecast, otherwise it can have no grounds for doing one set of things rather than another.' Godley was depressed that forecasters, those that imagined economic futures, had been removed from the policy debate.

References to 'New Cambridge' soon disappeared, and efforts to establish a doctrinal brand were abandoned. Godley continued his modeling efforts but settled for creating toy models to aid in thinking through the range of policy options. As he explained in his 1983 book, *Macroeconomics*:

The analytic solutions are used to generate numerical simulations of the development of the whole economic systems by making specific assumptions about policies and behavioral relationships. We attach great importance to these simulations as they can always be reproduced using only a pocket calculator. . . . By carrying out their own simulations readers may also gain a sense of what is involved in macroeconomic forecasting for policy purposes. (Godley and Cripps, 1983, p. 18, emphasis in original)

This was an abandonment of modeling as representation and as a contribution to theoretical disputation, to endorse a much weaker, didactic use of modeling.³² Godley might have wished his readers (and students) to 'play' with his model economy, but few did, and the book had limited impact.

2.6 Wise man: Simulating the worst case scenario

The narrative that I have outlined appears to be one of defeat. But I argue that it is no indictment on Godley and his economics. In moving from the Treasury to academia, and to secure his academic credibility, Godley was asked to codify into theory and models his understanding of the economy. The record shows him hesitating and equivocating about whether his contribution was an empirical claim, an equation on a model, a model, or a theory. What Godley saw was a changing picture that could not rest on any set of first principles and, in due course, he gave up on the codifying enterprise.

By 1982, the Cambridge Policy Group had lost its funding. Godley and Cripps' 1983 book had little impact. Four years later, Godley retired from his post as director of Cambridge's DAE, and spent a year away as a visiting professor in Denmark. His status in Britain's academic community was not great. But on his return, Monetarism and Thatcher economics began to unravel. The signal event for my argument was the pound's withdrawal from the European Exchange Rate Mechanism in 1992.

The British pound joined the Exchange Rate Mechanism in October 1990 at the instigation of the then Chancellor, John Major. A month

later, Thatcher was forced to resign and Major replaced her as Prime Minister. Major had another victory two years later, winning the general election in April, but on September 16, 1992 he lost the economy. With a record of high interest rates to maintain parity with the German Deutschemark, Britain was facing recession. Learning that the situation was unsustainable, a wave of short selling forced the government to announce defeat. A decade earlier, Thatcher had successfully played against the economics profession. Major, facing economic humiliation, instead tried to bring the economists into the fold. The Treasury set up a Panel of Independent Forecasters, known as the 'six wise men.' Godley was one of them, between 1992 and 1995.

The return to the Treasury was a vindication of Godley's expertise as a forecaster. The record of the 1970s, reviewed here, shows a man seeking to make his voice heard outside the academy in polemical performances in *newsprint* and cautiously inside the academy.

Godley expressed a more unified attitude toward public life and science in an interview with sociologist Robert Evans in the mid-1990s. He was dismissive of the consensus in academic modeling. When queried by Evans about micro-foundations in economic models he replied: 'Well, ... when people speak of micro-foundations they tend to mean by that a very special thing, which is it's all deducible in terms of the optimizing behaviour of individual rational agents, and I don't accept that as an appropriate concept' (Godley in Evans, 1997, p. 414). More importantly, Godley was unequivocal that an accurate and complete model of the economy can never be attained. He remarked that

There's a fantasy that you're going to introduce more and more complexity and more and more realistic features and apply better and better ... and eventually it will work, and it will give you the answer. You see it's all been a great failure, all of that, and forecasting isn't done better, it makes no progress as a result. (Godley in Evans, 1997, p. 436)

For him models were aids to the analyst, and 'the forecasts I publish are not the result of a model working independently of my mind' (Godley in Evans 1997, p. 410).

In the interview, Godley insisted that forecasting is an effort at capturing the economic landscape. Knowing the weaknesses of data he derides the aim of numerical precision. That 'tables of numbers are the enemies of good forecasting; [forecasts] should be judged by whether or not they give a good idea of what the whole situation is going to be like, what

character it will have' and that 'a forecast ought to convey the whole character of the forthcoming period; it shouldn't be thought of as being an entirely quantitative thing' (Godley in Evans, 1997, p. 411, 416). The origins of this insistence on the general economic outlook was an insight Godley gained in his time at the Treasury. But the ability to use models for illustration and reflection was a skill he honed at Cambridge. Faced by the uncertainty of the economic future, Godley relied not on models or on theory, but on his expert judgment, and on his voice.

2.7 Craft and judgment

In this biographical chapter I have purposely omitted Godley's work on stock-flow consistency, his focus after 1994 at the Levy Economics Institute of Bard College. Some of this research originated in the mid-1970s in attempts to provide a non-monetarist account of inflation and had been a secondary subject in his 1983 book. Godley dedicated himself to this research as his real and lasting contribution: a representation of his accounting understanding of the British economy. Although he argued that these insights were more of a method than a theory (Lavoie, 2011), Godley shared the assumptions of his profession that his insights could and should find some inscription.

At the time of this writing, there is robust interest in the formulations of his and Lavoie's *Monetary Economics*, and it might be that Godley will earn, posthumously, the fame of the theorist. By placing the 'six wise men' as the final moment of the narrative, I am dramatizing Godley's affirmation of his voice in public affairs, in deciphering uncertainty in economic futures. The record shows Godley finding his voice without deferring to formal models, through an interpretive and flexible insight into aggregate balances and imbalances of the macroeconomy.

Not all economic judgment (and knowledge) can be codified into theories, maxims, or theorems. Some is embodied and tacit. Godley's work teaches us that some knowledge need not be codified. By Godley's own account, his contributions to macroeconomic theory, which occupied him in the mid-1970s, were unremarkable. What he knew evaded formalism. This insight is ironically lost, even to his close colleagues. Hashem Pesaran, a Cambridge econometrician, told the *Financial Times* how Godley would take a vast spreadsheet of numbers, study them for sometimes hours at a time and then pronounce: 'That figure is wrong'. He was 'invariably found to be right.' Pesaran explained that 'he had what amounted to a full macroeconomic model in his head, which, by some sort of subconscious process, he computed.'³³

Most economists today find it hard to conceive of economic insight without some model as ultimate foundation of knowledge. Even more puzzling is that Godley's informal insight was into that most formal of realms, the national accounts, as he could see the patterns of their interconnectedness.

What Godley knew was not born of genius. He learned it 'by doing economics,' initially at the Treasury, working through the national accounts as the sole forecasting effort in the UK, and later at Cambridge, competing with many alternative (academic) accounts of economic futures. What we learn from Wynne Godley is that to inform public policy and debate it is not enough to build monuments to theory and its formal logic. We must also rely on the men and women that make it their job and lives reading the data and looking for the big picture.³⁴

Notes

1. 'Wynne Godley, British economist, died on May 13th, aged 83', *The Economist*, May 29, 2010. 'Economist known for accuracy of his pessimism', *Irish Times*, May 29, 2010. William Keegan, 'Obituary: Wynne Godley: Economist with a flair for anticipating and responding to crises', *The Guardian*, May 21, 2010. 'Professor Wynne Godley: Controversial Cambridge economist and one of the Treasury's "six wise men" in the 1990s who foresaw the 2008 global financial crash', *The Times*, May 17, 2010. 'Professor Wynne Godley: Obituaries: Maverick Treasury economist who launched devastating attacks on the policies of Labour and the Tories alike', *The Daily Telegraph*, May 22, 2010.
2. The awareness of the craft-like quality is often credited to Michael Polanyi, a chemist and philosopher, and his notion that much of scientific knowledge is tacit (Polanyi 2009). The consequences of this insight, for our understanding of scientific practices and its public authority, are developed in Collins and Evans (2002).
3. Hall has a claim to fame in the History of Economic Thought due to his and C.J. Hitch's 'Price Theory and Business Behaviour', see Lee (1981), with a connection to Oxford and Andrews. I thank Marc Lavoie for bringing it to my attention.
4. Hall was not alone in his campaign for more economic expertise in government, see Middleton (1998, p. 234).
5. Kaldor was the consummate academic. Neild, however, had a more mixed career, having been at the Economic Section in the period 1951-6, and as deputy director of the National Institute for some time thereafter. Neild and Godley were no strangers. In 1963 Neild worked on factors determining real personal income in order to improve forecasting methods. He states that 'we owe a great deal to Mr. W.A.H. Godley, of H.M. Treasury, who first suggested the pricing hypothesis which the study set out to test' and was then working at the Institute (Neild, 1963).

6. Cairncross's diary provides a record of Godley's contributions, see, for instance, Cairncross (1997), pp. 66, 84, 62).
7. The foremost study of this kind is found in Collins (1974), a participant observation study of a team of experimental physicists.
8. Godley would at times codify changes to data collection and calculation. In December 1969, *The Public Expenditure White Paper*, Godley attempted to overhaul the construction of public accounts, so that forward estimates of revenues and expenditures could be made consistent (Brittan, 1971).
9. From the Second World War, economists at the University of Cambridge had been divided between the Faculty of Economics and Politics and the Department of Applied Economics (DAE). The department was headed by a director. The first was Sir Richard Stone, who was in charge from its founding in 1945 to 1955. He was followed by W.B. Reddaway until 1970, and then Godley until 1987. The last director of the DAE was D.M.G. Newbery, until 2004, when the division between the faculty and the DAE was abolished, with the Faculty of Economics and Politics being renamed the Faculty of Economics.
10. The *Bulletin* originated during the Second World War when the London School of Economics was in residence at Cambridge. It was published in the mass distribution broadsheet the *Times* from November 26, 1965.
11. The claims of Godley and Cripps received immediate response in government.
12. 'The right shape for a budget' *The Times*, January 26, 1974, p. 15; Neild 'Letters to the Editor', January 31, p. 17; Professor Little's 'Letters to the Editor', February 6, p. 15.
13. Richard Kahn and Michael Posner, 'Challenging the "elegant and striking" paradoxes of the New School' and 'Theory dogged by its assumptions,' *The Times*, April 17-18, 1974.
14. Kahn and Posner certified that the label of 'Cambridge Economics' was legitimate, in as much as the Neild-Godley proposals rested in a Keynesian meta-structure: 'Although - for convenience - we call ourselves the Old School, we are highly appreciative of the efforts of the New School to force a reappraisal. Their elegant paradoxes, which have evolved strictly within the Keynesian structure of thought, are striking and seem to call into question accepted views.'
15. In Joan V. Robinson papers, Kings' College Cambridge, Wynne Godley to Richard Kahn, May 23, 1974, JVR/vii/228/3/3.
16. Nicholas Kaldor to Richard F. Kahn, May 20, 1974, JVR/vii/228/3/15-16; Richard Kahn and Michael Posner to Nicholas Kaldor, May 24, 1974, JVR/vii/228/3/17-20.
17. In Joan V. Robinson papers, Kings' College Cambridge, Michael Posner and Richard Kahn to Nicholas Kaldor, May 28, 1974, JVR/vii/228/3/24; Francis Cripps to Richard Kahn, May 1974, JVR/vii/228/3/25; Nicholas Kaldor to Richard Kahn and to Michael Posner, May 29 and 30, 1974, JVR/vii/228/3/26; Richard Kahn to Francis Cripps, June 6, 1974, JVR/vii/228/3/27.
18. Godley was often less knowledgeable of Keynes than one might expect, as evidenced in an exchange in the *London Review of Books* where he misremembered the policies contained in 'How to Pay for the War': 'I transposed a course of action which Keynes discussed into one which (I for a moment wrongly imagined) he had advocated' (Godley, 1992).
19. This is not to say that there was no continued debate about New Cambridge in the press. There were several letters to the editor critiquing the Neild-Godley-Cripps proposals (c.f. August 22, 1974 in the *Financial Times* and January 28, 1974 in *The Times*).
20. The committee concluded rather meekly that the Treasury should educate itself on New Cambridge ideas through a series of joint seminars; see Maloney (forthcoming) for more.
21. The Manchester group coalesced around a SSRC research program on 'Inflation, its Causes, Consequences and Cures.' The diverse group included Keynesians. The conviction that it was Monetarist in outlook came from a contemporaneous review by Laidler and Parkin (1975) on 'Inflation' in the *Economic Journal*. Here again, the doctrinal academic frame took precedent over all other typologies.
22. Bispham (1975, p. 45) was aware of Cambridge's recent revising of earlier claims, as he stated: 'By the time evidence was presented to the Expenditure Committee in mid-1974 the simple relationship suggested at the start of the controversy had become considerably more complex, implicitly weakening the argument substantially' (Bispham, 1975, p. 45).
23. To this list, Evans (1997, p. 400) adds the Cambridge Growth Project (CGP) and Southampton University as engaged in macroeconomic modeling. The Social Science Research Council had been giving financial support to these groups since 1965.
24. New Cambridge was not without advocates. The Australian Treasury economist C.I. Higgins (1976, p. 201) believed that: 'the distinction between the New and Old School, ... is an empirical question and depends both on the particular economy and the length of time period being considered.' Higgins believed with New Cambridge, that private expenditure stability, although microeconomically problematic, was plausible in the aggregate. He further suggested channels that tied fiscal policy to balance of payments management as proposed by the 'New School'. With sympathy for the 'New School' was another paper by David Vines in 1976. Vines refers to the Kahn and Posner model introducing to it a New Cambridge equation of private expenditure replacing the traditional consumption and investment functions (Vines, 1976, p. 208). Vines concluded: 'a "New School assignment" of the exchange rate to the level of income and the budget deficit to the balance of trade is appropriate as long as domestic leakages are less than foreign leakages' (Vines, 1976, p. 227, although this is a weak result, see his footnote 26 on p. 226).
25. Posner wrote the introductory article for the conference volume, sharing his experience as civil servant and government adviser. He briefly presented New Cambridge, in what he labeled a 'bastardized' version, and for the American reader concluded favorably: 'These seem to me undisputed gains from an innovation in theory' (Posner, 1978, pp. 19-20). There was no reiteration of the 1974 criticisms.

26. In 1976, Vines had denied the New Cambridge school the attribute of Keynesian. He wrote that
- the instability of expectations is the very basis of the Keynesian 'investment determines savings' doctrine; savings adjusts to whatever investment entrepreneurs' animal spirits give rise to, via changes in the level of economic activity. The New School appear to deny this. (Vines 1976, p. 227)
- Years later, Dixon maintained in equal strong terms that:
- There can be no doubt that both in its analytical core and in its policy assignment, doctrines associated with the New Cambridge School represent a dramatic break with the ideas of Keynes. New Cambridge theory seems to be more pertinent to long-run equilibrium than the world in which we have our being. (Dixon, 1982-83, p. 291)
- For yet another comparison of 'New Cambridge' and 'Chicago monetarist' models of the economy, one of which Godley and Cripps approved of – see McCallum and Vines (1981).
27. The only lukewarm support came from Robert E. Hall that considered that some of 'New Cambridge' formulations may be acceptable on empirical grounds for the British case (Hall, 1978).
28. Blinder argued that it was unclear how the New Cambridge expenditure function could be divided into constituents' consumption and investment; that it was unreasonable to assume that monetary policy can successfully peg the interest rate; or that demand for money was insensitive to GNP. On the issue of prices he charged that they were solely determined by supply factors – 'In the land where the Phillips curve was first discovered, it apparently exists no more'; and that Britain was portrayed as setting the price of its imports. Finally, he noted the absence of any aggregate supply side; and no consideration of efficiency losses arising from import quotas. (Blinder 1978, pp. 69, 73, 74, 76 and 78).
29. There is a poisonous debate about the assessment of this letter, particularly as British libertarians have used the episode to try to undermine the credibility of academic economics. A far more balanced assessment is provided in Wickham-Jones (1992).
30. I thank David Laidler for bringing this to my attention.
31. Evans (1997, p. 400) notes that Southampton University and the Cambridge Growth Project also lost their funding. Grants to the National Institute and London Business School were reduced, and new grants awarded to, and subsequently withdrawn from, Liverpool University and City University Business School.
32. Even sympathetic reviewers found it difficult to forgive Godley and Cripps' disregard for the current literature, and were critical of their insularity (Vines, 1984).
33. Sue Cameron and John Llewellyn Mavertick who endured with ideas undimmed. *Financial Times*, May 14 2010.

34. Great Britain has a better record than most countries in acknowledging this insight. As scholars in science studies have noted, the British polity is acceptant of elite insight into scientific controversies. Those that serve that state, and exhibit a record of independence (and eloquence!) are trusted by public and politicians alike (see Fourcade, 2009; Jasanoff, 2005).

References

- Bispham, J.A. (1975) 'The New Cambridge and "Monetarist" Criticisms of "Conventional" Economic Policy-Making,' *National Institute Economic Review* 74: 39-55.
- Blinder, A.S. (1978) 'What's "New" and what's "Keynesian" in the "New Cambridge" Keynesianism?', *Carnegie-Rochester Conference Series on Public Policy* 9: 67-85.
- Brittan, S. (1971) *Steering the Economy: The British Experiment* (New York, NY: Library Press).
- Budd, A.P. (1975) 'The Debate on Fine-tuning: The Basic Issues,' *National Institute Economic Review* (74): 56-9.
- Cairncross, A. (1997) *The Wilson Years: A Treasury Diary, 1964-1969* (London, UK: The Historians' Press).
- Cairncross, A. (1996) *Managing the British Economy in the 1960s: A Treasury Perspective* (London, UK: Macmillan).
- Cairncross, A. and N.G. Watts (1989) *The Economic Section, 1939-1961: A Study in Economic Advising* (London, UK: Routledge).
- Coats, A.W. (1981) 'Britain: The Rise of the Specialists,' in *Economists in Government: An International Comparative Study* (Durham, NC: Duke University Press), pp. 27-66.
- Collins, H.M. (1974) 'The TEA Set: Tact Knowledge and Scientific Networks,' *Science Studies* 4(2): 165-85.
- Collins, H.M. and R. Evans (2002) 'The Third Wave of Science Studies: Studies of Expertise and Experience,' *Social Studies of Science* 32: 235-96.
- Cripps, T., M. Fetherston and W. Godley (1974) 'Public Expenditure and the Management of the Economy,' in *Public Expenditure, Inflation and the Balance of Payments*, Ninth Report from the Expenditure Committee, Session July 1974, HC328, London, Her Majesty's Stationery Office.
- Cripps, F. and W. Godley (1976) 'A Formal Analysis of the Cambridge Economic Policy Group Model,' *Economica* 43(172): 335-48.
- Dixon, R. (1982-83) 'On the New Cambridge School,' *Journal of Post Keynesian Economics* 5(2): 289-94.
- Evans, R. (1997) 'Soothsaying or Science?: Falsification, Uncertainty and Social Change in Macroeconomic Modelling,' *Social Studies of Science* 27(3): 395-438.
- Fetherston, M.J. and W. Godley (1978) "New Cambridge" Macroeconomics and Global Monetarism: Some Issues in the Conduct of UK Economic Policy,' *Carnegie-Rochester Conference Series on Public Policy* 9: 33-65.
- Fourcade, M. (2009) *Economists and Societies: Discipline and Profession in the United States, Britain, and France, 1890s to 1990s* (Princeton, NJ: Princeton University Press).

- Frenkel J.A. (1978) "New Cambridge" Macroeconomics and Global Monetarism, *Carnegie-Rochester Conference Series on Public Policy* 9: 91–4.
- Godley, W. and F. Cripps (1983) *Macroeconomics* (London, UK: Fontana).
- Godley, W. (1992) 'Mastricht and All That', *London Review of Books* 14(19): 3–4.
- Godley, W. (2000) 'Wynne Godley', in P. Arestis and M.C. Sawyer (eds) *A Biographical Dictionary of Dissenting Economists* (Cheltenham, UK: Edward Elgar Publishing), pp. 232–40.
- Godley, W. (2001) 'Saving Masud Khan', *London Review of Books* 23(4): 3–7.
- Hall, R.E. (1978) 'A Comment on the Fetherston and Godley and Posner Papers', *Carnegie-Rochester Conference Series on Public Policy* 9: 87–9.
- Higgins, C.I. (1976) 'Some Observations on the Cambridge New School of Economic Policy', *Australian Economic Papers* 15(27): 201–6.
- Jasonoff, S. (2005) *Designs on Nature: Science and Democracy in Europe and the United States* (Princeton, NJ: Princeton University Press).
- Jones, K. (1994) *An Economist Among Mandarins: A Biography of Robert Hall* (1901–1988) (Cambridge, UK: Cambridge University Press).
- Kaldor, N. (1955) *An Expenditure Tax* (London, UK: Allen and Unwin).
- Kaldor, N. (1955–56) 'Alternative Theories of Distribution', *Review of Economic Studies* 23(2): 83–100.
- Laidler, D. and M. Parkin (1975) 'Inflation: A Survey', *The Economic Journal* 85(340): 741–809.
- Lavoie, M. (2011) Private communication.
- Lee, F.S. (1981) 'The Oxford Challenge to Marshallian Supply and Demand: The History of the Oxford Economists' Research Group', *Oxford Economic Papers* 33(3): 339–51.
- Maloney, J. (forthcoming) 'The Treasury and the New Cambridge School in the 1970s', *Cambridge Journal of Economics*. (Available at: <http://ideas.repec.org/p/oxe/wpaper/1008.html>) (Accessed April 4, 2011.)
- McCallum, J. and D. Vines (1981) 'Cambridge and Chicago on the Balance of Payments', *Economic Journal* 91(362): 439–53.
- Middleton, R. (1998) *Charlatans or Saviours? Economists and the British Economy from Marshall to Meade* (London, UK: Edward Elgar Publishing).
- Middleton, R. (2000) *The British Economy Since 1945: Engaging with the Debate* (London, UK: Palgrave Macmillan).
- Neild, R.R. (1963) 'Pricing and Employment in the Trade Cycle: A Study of British Manufacturing Industry, 1950–61', National Institute of Economic and Social Research Occasional Paper 21 (New York: Cambridge University Press).
- Parsons, W.E. (1989) *The Power of the Financial Press: Journalism and Economic Opinion in Britain and America* (Aldershot, UK: Edward Elgar).
- Polanyi, M. (2009) *The Tacit Dimension* (Chicago, IL: University of Chicago Press).
- Posner, M. (1978) 'Problems of the British Economy', *Carnegie-Rochester Conference Series on Public Policy* 9: 5–32.
- Russell, T. and L.M. Wakeman (1978) "New Cambridge" – Economics Without Markets: A Comment', *Carnegie-Rochester Conference Series on Public Policy* 9: 95–101.
- Targetti, F. (1992) *Nicholas Kaldor: The Economics and Politics of Capitalism as a Dynamic System* (New York: Oxford University Press).
- Thirlwall, A. (2004) 'Nicholas Kaldor', in D. Rutherford (ed.) *Biographical Dictionary of British Economists* (Brighton, UK: Thoemmes Press).
- Turner, M.S. (1993) *Nicholas Kaldor and the Real World* (Armonk, NY: M.E. Sharpe).
- Vines, D. (1976) 'Economic Policy for an Open Economy: Resolution of the New School's Elegant Paradoxes', *Australian Economic Papers* 15(27): 207–29.
- Vines, D. (1984) 'Macroeconomics (Book Review)', *The Economic Journal* 94(374): 397–9.
- Wickham-Jones, M. (1992) 'Monetarism and Its Critics: The University Economists' Protest of 1981', *The Political Quarterly* 63(2): 171–85.