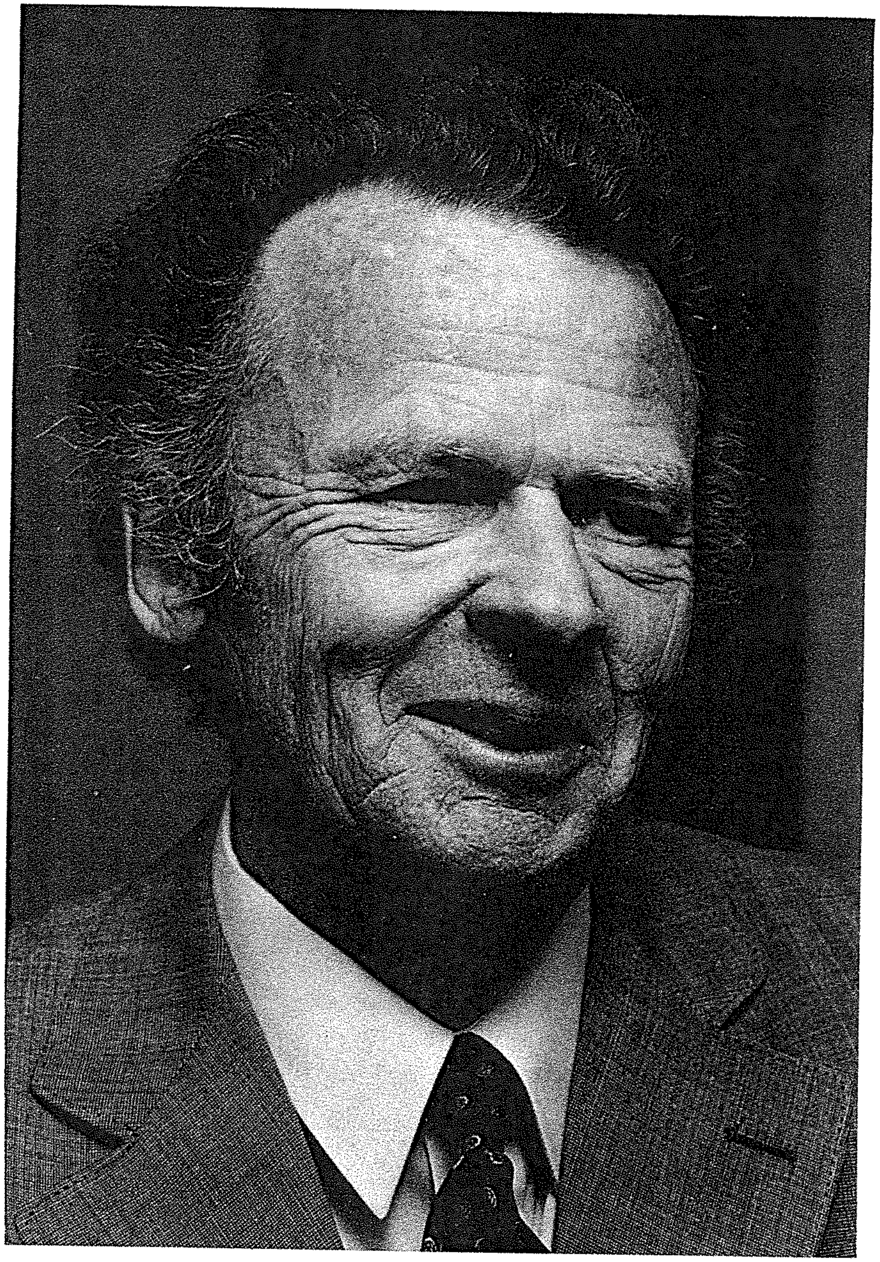

The Collected Economic Papers of C. L. Barber

Edited with an Introduction by
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"Canada's Unemployment Problem" *
"Canadian Tariff Policy" *
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Introduction: Clarence Barber and Canadian Economics

by A. M. C. Waterman, D. P. J. Hum, and B. L. Scarfe

Clarence Lyle Barber was born near Wolseley, Saskatchewan in 191 and spent the first nineteen years of his life on the farm. Both ti and place are crucial to an appreciation of his work. He underwent t trauma of the Great Depression during the most impressionable years his life. And he witnessed its devastating impact upon one of the mo vulnerable sectors, in one of the most vulnerable regions, of the Nor American economy.

This indelible experience has largely shaped his choice of stu and has profoundly affected his way of thinking. His recurrent conce with business cycles and the origin of the Great Depression, his abidi interest in the problems of Canadian farmers, his vivid awareness of t openness and dependence of the Canadian economy, and his willingness work at unglamorous but useful tasks for provincial and national gover ments all reflect it.

So, in a less obvious way, does the special cast of his mind. H clear, patient analysis has never been for display but rather for t elucidation of some pressing, real-life problem. His undogmati "Keynesian" approach to economics, slightly dated now but always effe tive in his hands, is the obverse of an impatience sometimes amount to contempt for those scholastic refinements of macro-economic the which so often serve merely as a cloak for heartlessness. And the wh course of his professional career has remained true to his early insi into the scope and purpose of political economy.

Clarence Barber entered the University of Saskatchewan in the F of 1937, having accomplished the first year undergraduate programme tramurally. He graduated with Honours in Economics in 1940, took an at Clark in 1941, and spent the next two years at the University of M nesota completing the course-work for his doctorate. After two ye with the Royal Canadian Air Force he joined the staff of the Dominion Bureau of Statistics as a statistician in the National Income unit. The academic year of 1948-49 he spent at McMaster University, and it was there that his first professional writing appeared in print (18). In September 1949 he came to the University of Manitoba where he has since remained. From 1963 until 1972 he served as Head of the Department of Economics, presiding over an unprecedented and largely successful expansion.

Barber's doctoral thesis on Inventories and the Business Cycle, with Special Reference to Canada, which was accepted by the University of Minnesota in 1952, was in some ways the most important turning point in his career. It brought to an end an apprenticeship unduly protracted by military service and his three years with the Bureau of Statistics; and inaugurated that intensely productive period of eighteen years during which his reputation became firmly established. A. R. Upgren supervised Barber's thesis, and among others at Minnesota who taught him were George Stigler and Arthur Marget. None was a Keynesian, and Marget, being an intransigent devotee of the quantity theory, was highly critical of Keynes. A summer course at the University of Chicago, with lectures by Oskar Lange, Henry Simons, Lloyd Mints and Frank Knight had done little to encourage a taste for the New Economics. Yet Marget advised his Canadian graduate student to read all of Keynes, all of Hawtrey, and all of D. H. Robertson. Unlike the general run of graduate students, Barber followed his supervisor's advice. It was this private reading programme, together with his strong desire to understand the Canadian business cycle, which resulted in his very Keynesian thesis, a book based upon the thesis, and a series of articles and monographs exploiting and further developing the new macro-economics of the early post-War years.

The years from 1953 to 1971 were crowded with academic achievement, public service and those useful but distracting activities which in the contemporary university dissipate so much of an able and successful scholar's creative energy. In 1954-55 Barber was Visiting Professor at Queen's University; from 1957 to 1959, Economic Advisor and Director of Research for the Manitoba Royal Commission on Flood Cost-Benefit; in 1958-59, he was President of the Canadian Association of University Teachers; in 1959-60, Senior United Nations Advisor on National Income to the Government of the Phillipines; in 1964-65, Visiting Professor at McGill University; and from 1966 to 1970 implemented single-handedly the Canadian Royal Commission on Farm Machinery. For the last nine years of this period he was also Head of the Department of Economics and fully involved not only in routine administration but in the formulation of those policy changes which were thought necessary in many Canadian universities in the 1960s. During these years he published eleven articles in learned journals, at least one and perhaps two of which may fairly be regarded as seminal; one book and four book-length research reports for various bodies; chapters in others' books, briefs to public inquiries, and newspaper articles; and no fewer than five very solid Royal Commission reports, culminating in the massive Report of the Royal Commission on Farm Machinery (1971).

In 1971, having brought his work for the latest Royal Commission to a successful conclusion, Barber gave up the Headship of his Department and entered a more tranquil stage of his scholarly career. Though he never abandoned his perennial interest in Canadian macro-economic

policy, much of his work began to take on a more reflective charact and to be addressed to long-term issues and fundamental questions. S of this was encouraged, no doubt, by the public recognition he now be to receive, yet as a whole it must be seen as a natural development his life-long concern for the stability of the capitalist economy.

In 1972, Barber was Commissioner on Welfare for the government Manitoba, and prepared a study on welfare policy. In the same year became President of the Canadian Economics Association having previou served on the Council. In 1977 he was elected to the Royal Society Canada, and in 1979 became a member of the short-lived National Comm sion on Inflation - the only professional economist to be appointed. produced two study papers for the Economic Council of Canada and journal articles on the long-term, demographic determinants of busi fluctuations, and a Presidential Address to the Canadian Economics As ciation which took a judicious view of industrial strategy. In the l three or four years he has returned to his old interest in Canadian m etary and fiscal policy, and his fruitful collaboration in this a with Dr. J. C. P. McCallum shows no sign as yet of coming to an end.

II

For many years now, Clarence Barber has been acknowledged as on Canada's most thoughtful and respected economists. His contribut have made a permanent mark in the theory of monetary and fiscal pol international trade and finance, industrial organisation, economic bilisation, and the problems of inflation and unemployment. Taken a whole, moreover, Barber's writings on Canadian economic issues serve chronicle the historical circumstances and political context in w post-War economic policy has evolved in this country. Almost as im tant, especially in later years, are his interest in and contributio the long-run implications of population trends and growth. Whatever particular field of application however, the theme which permeates his work is a recognition of Canada's special circumstances: that of ing an extremely open, "dependent" trading nation, richly blessed natural resources, strained by regional disparity, and over-shadowe the immediate proximity of the United States. In all of Barber's there is a clear recognition of the limits to which economic models propriate to closed, independent and highly industrialised nations have relevance to the formulation of policy in Canada.

Such total dedication to the interpretation of economic anal within the context of Canadian national policy ought not to blind u the very solid credentials which Barber has brought to his craft. methodological approach, to be fully appreciated, must be viewed aga the background of post-War, Keynesian macro-economic theory.

The starting point, of course, was the publication in 1936 of Maynard Keynes' General Theory of Employment, Interest and Money. U that time professional opinion and conventional wisdom were agreed a market economy - if left undisturbed for long enough - would gravi towards a unique equilibrium at full employment of all available la and capital. Changes in wages, interest rates and other prices w occur as necessary, and with enough rapidity, to bring about result. But in the new Keynesian theory of the determination of income and employment, the emphasis was placed not upon price adjustment but rather upon the adjustment of volume of production to changes in aggregate demand. Institutional and other constraints may inhibit the wage reductions necessary to restore full employment; interest rates might also fail to respond because of "liquidity preference" - that element of Keynes' monetary theory which postulates that beyond a certain level it might be difficult if not impossible to reduce the nominal interest rate. The rate of private investment may then be too low to determine a full employment level of aggregate demand. Accompanying these conceptual innovations was the important work of Kuznets and others who were developing the now familiar National Accounts and Gross National Product measures. The translation of Keynes' analytical categories into (relatively) concrete numerical magnitudes thus proceeded almost simultaneously. Yet, although first presented to professional economists in 1936, Keynes' ideas took many years to influence public policy, especially in the United States. Keynesian prescriptions were first seriously discussed by academics at Harvard, not by officials in Washington. And though the U.S. Employment Act of 1946 might be interpreted as according some explicit support for Keynesian ideas (Galbraith 1965), it was not until the Kennedy administration of the 1960s that Keynesian policies achieved a wide measure of acceptance in that country. Even then Keynesianism "never became a governmental and elite orthodoxy" (Johnson 1976, p. 587).

The political significance of Keynes' replacement of the price-adjusting system with a "fix-price", quantity-adjusting system was the implication that full employment could only be guaranteed by the deliberate manipulation of effective demand through government policy measures. The pivotal feature of the Keynesian theory of effective demand was the consumption function. Its behavioral underpinning was a psychological law governing the income-consumption relation, summarised by a measure of the amount desired to be spent on consumption out of each additional unit of income: the "marginal propensity to consume". Keynes emphasised the importance of current income receipts as a determinant of current consumption plans, and made use of the marginal propensity to consume in his concept of the national income "multiplier".

It was in the early post-War years when both the explication of Keynes' ideas and the quantification of his concepts had yet to reach full development, that Barber emerged as a conceptual and empirical Keynesian scholar. And it is in this work that we may perceive his distinctive methodological approach. One of his earliest pieces examined the concept of disposable income with the view of specifying the version most appropriate for inferring the consumption function from the data afforded by a system of national accounts (18). Not for him were arguments about the possible alternative definitions of disposable income, nor such impractical issues as the arbitrary nature of all such definitions. Barber saw quite clearly that the conceptual question concerned that income in terms of which decisions to consume and save are made (18, p. 227). As a result, he examined the treatment accorded to depreciation allowances, investment income of financial intermediaries and net change in farm inventories. He illustrated with Canadian figures the wide variation possible in calculated measures of the marginal propensity to consume when farm inventories are alternatively included in

and excluded from the definition of disposable income, and demonstr that these estimates may differ by as much as one hundred percent p. 229).

The elaboration of Keynesian theoretical concepts also led Ba to question the widespread view of the instantaneous theory of the tiplier (19). This work was in some respects a continuation of his cern with the marginal propensity to consume. The analysis stressed danger of assuming lengthy lagged adjustments and argued that an crease in investment need not always be viewed as preceding an incr in consumer expenditures. Producers, in anticipation of improved co tions, might well undertake expansion in consumption goods indust almost immediately when investment expenditures increase. Barber p. 79) cites Keynes as having foreseen this possibility; but the i is much deeper and has to do with difficulties in translating a dyn sequence of adjustments into appropriate notions of periods and within the Keynesian framework. The importance of specifying the Ke sian theoretical relations across different time periods was recogn briefly in investigating the multiplier (19, pp. 80-1) but it was until 1953 that Barber fully synthesised his discussion of period an sis with such topics as the relation between current expenditures current income (21, p. 86), the nature of lags (21, p. 86) and cer concerns over the velocity of circulation of money. In criticising Robertsonian system of period analysis Barber again showed himself t an advocate and defender of Keynesian definitions (21, pp. 86-7), th correspondance with Sir Dennis Robertson (21) reveals that there less difference between them than might appear from Barber's publi paper.

Although in these early works Barber often illustrated his a ments by reference to Canadian facts and figures, it is a serie studies and articles beginning in the later 1950s which mark him Canadian policy analyst of importance. This period - from the 1950s until the mid 1960s - was especially productive. His study of cost of public welfare expenditures to Canadians appeared in 1955 study of the electrical manufacturing industry for the Royal Commis on Canada's Economic Prospects was released in 1956. Barber's m study of inventories and the Canadian business cycle was publishe the University of Toronto Press in 1958. An article on inventory f tuations in Canada appeared earlier in 1952 (20), one on cyclical t ing points in Canada in 1954 (25), and an analysis of the impac United States farm policy on Canadian agriculture was included in a ume examining the American economic impact on Canada (11). It was ing this period too that Barber wrote the first of many papers exami monetary policy in Canada (32).

One of his most significant and enduring contributions was published in these years. The now familiar concept of the effec protection rate of a tariff was introduced into the economic litera in 1955 (31, p. 523). Characteristically its role was to sharpen analysis of the open, trading Canadian economy, the manufacturing se of which adds a smaller contribution to final value than in other c tries because of the high proportion of raw material costs to valu final product. Other writers since have examined the effective pro tion rate with more formal apparatus, but typically it was Barber's ception of the need to clarify the Canadian situation which led hi introduce the new concept.

Barber returned to certain conceptual and measurement issues associated with the Keynesian framework in the 1960s, though with a much stronger sense of the Canadian policy setting. In the classic debate which centred upon the question of whether the quantity-theory approach to income changes is more useful than the income-expenditure approach, he came out on the side of "autonomous investment" (35). Once again the error of extending arguments "originally tested against non-Canadian data" is identified (35, p. 376). The openness of Canada's economy and its eccentric exchange rate regime is presented as an important consideration; the significant causal role of autonomous expenditures rather than the money supply is advanced; and a reference is made to the importance of agricultural inventories when measuring change (35, pp. 376-7, fn).

At this stage, Barber's analysis of macro-economic theory could no longer be separated from his assessment of the Canadian context for application. Thus we see his scepticism of the widely held view that a budgetary surplus would only be deflationary if accompanied by monetary restraint; and his pointing out the neglect by Canadian economists of the relation between surplus budgeting and Canada's dependence on foreign capital (36). Increasingly however, though continuing to use the Keynesian analytical framework, he began to formulate the modifications required for the Canadian case, and his attention focused more and more upon the specifically Canadian questions of appropriate fiscal and monetary policy direction (5, 34, 53, 54).

Problems of the conceptual basis for the measurement of national income still occupied some of Barber's attention during this period. In 1965 he published a critical evaluation of the national income estimates of the Phillipines (37) based upon work done as early as 1959. He had previously been Senior Advisor on National Income Statistics at the Statistical Centre, University of the Phillipines. By this time the Barber approach was unmistakably clear, and may be characterized as that of a conceptual and an empirical Keynesian.

His earliest work displays a rapid progression from a critique of important Keynesian definitions (18), to the study of a relation (19) to the extension of the model to period analysis (21). Throughout, Barber was concerned to adjust and extend the Keynesian framework to an open, trade and foreign capital-dependent economy. His policy focus reflected this sensibility and his concern with proper measurement led him to a sophisticated use of data. Though eschewing the primitive econometrics of the 1950s, he nevertheless displayed a true appreciation of data and its informational content. In modern parlance, Barber showed great concern for data quality as well as the proper relation between theoretical concept and statistical measure. This concern was to reflect itself in all of his policy-oriented work. Wherever the starting point, Barber seldom drew his conclusions before he had "looked at the numbers".

The other characteristic feature of Barber's method was its deliberate lack of formality. He was more concerned in each instance to investigate the behavioral assumptions underlying the use of the concept than to explore other inapplicable alternatives. One seldom finds in Barber's writing explicit mathematical models or diagrams displaying sets of intersecting lines. Yet his understanding and mastery of formal theoretical models is apparent: one has only to read such a piece as

his "Canadian Tariff Policy" to see his complete grasp of the pure th ry literature of that time. This approach was motivated in large me ure by his immense interest in the implications of economic analysis Canadian policy. Again and again some examination of economic theory brought to bear on Canadian policy issues. This alone justified use, and also the ruthless neglect of all considerations not relevant the Canadian scene. There was no trace, therefore, of the taxonomic proach to theory or policy. Barber preferred to present and exam what, after reflection, seemed to be the most appropriate scenario. pursuing this task, he brought to bear all his powers of observati not to mention political insight. Yet his method was to present analysis from a solidly economic approach. His style of exposition direct, and his writing is not interspersed with flights of philosoph ing, nor interrupted with long passages of social commentary. Bar has always trusted the cogency and clarity of the message itself.

III

A Keynesian diagnosis of the determinants of deficient national come and employment supplies its own remedies. Its policy prescripti imply that increases in aggregate demand can be achieved by governm through public expenditures. Monetary considerations retreat to background. During the late 1950s and early 1960s Barber applied extended considerably the Keynesian framework in analysing Canadian m ro-economic policies.

He acknowledged Canada's reliance on trade, the importance of capital inflows for Canada's economic development, the complications an economy dominated by the United States and the meaning of all this terms of the appropriate monetary and fiscal policy strategy for Cana It is the series of papers beginning in 1957 that identify Barbe lasting contribution to the field of monetary and fiscal policy in Ca da. In 1957 he analysed Canada's post-War monetary policy (32), char terised the impact monetary policy can have on curbing inflation by straining demand (32, p. 350) and claimed that tighter monetary pol in the early post-War years would have been more appropriate. Argu that certain shortages in the post-War period might have justified higher short-term interest rate to "ration the supply ... over tim Barber saw clearly the distinction between short- and long-term rat or in other words, the term structure of interest rates (32, p. 352, 54). Canada should have allowed its short-term rate to rise and stab ised its long-term rate in an attempt to "twist" its rate structure, well as adjusting its exchange rate policy (32, p. 357). What is h adumbrated is the inextricable connection between interest rates and exchange rate and the importance of this relation for a highly o economy. Barber also recognised the importance to Canada of capital flows from the United States and considered the possibility that a hi er interest rate in Canada might attract a large flow of United Sta funds. Here then is one of the first applications of the theory of ternational capital flows as a function of interest differentials.

By the early 1960s Barber had produced several fairly complete critical accounts of Canadian monetary, fiscal and exchange rate poli

Once again the theme of Canada's openness, and vulnerability to American conditions was emphasized, as well as the inappropriate nature of the monetary-fiscal policy mix then being followed. Rising unemployment in Canada since 1957 was attributed to external conditions, that is to the slowing down of the North American economy (34, p. 88). A large net capital inflow into Canada brought about a relatively poorer performance than the United States, caused in large measure by an unwise policy mix of expansionary fiscal and restrictive monetary policies (34, p. 89). Tight money in Canada, however, was not the only cause of the increased interest differential and huge capital inflow from the USA. Barber acknowledged the deficiencies of a theory of capital flows based solely on interest differentials and pointed to the increasing importance of direct investment, which in 1960 amounted to more than half the total inflow (34, p. 94).

The tapering off in the mid-1950s of the capital expenditure boom in Canada and an "unbelievably bad" economic policy were the cause of much of Canada's economic ills from 1958 to 1962 (5, p. 4). Barber argued that instead of a tight monetary and expansionary fiscal policy, the reverse should have been followed. This would have lowered interest rates and reduced the value of the Canadian dollar in order to encourage expenditures switching to domestic sources and to discourage capital inflows (5, p. 5). Although he held that capital inflows responded in large measure to "this extraordinary and wholly unwarranted interest differential" between the two countries, he no longer ascribed the latter solely to differing degrees of monetary restraint. Instead he came to realise that an important cause of the differential was a drastic increase in the Canadian demand for money resulting from a lengthening of the average maturity of the national debt brought about by the Conversion Loan programme of 1958. This view, which was confirmed econometrically by H. G. Johnson and J. W. L. Winder (Johnson, 1963, p. 181), Barber developed in more detail much later (42). In 1962 he warned that Canada might again experience capital expenditure booms requiring larger capital inflows, and many of his suggestions to the Royal Commission on Banking and Finance have come to pass (5, pp. 15, 19-20). His most detailed and comprehensive treatment of monetary, fiscal and exchange rate policy was prepared as a working paper for the Banff Business Policies Conference of 1963, which because of its length was unfortunately never published (54). But his important research monograph on the theory of fiscal policy as applied to a province was printed by the Ontario Committee on Taxation in 1966.

It may be instructive at this point to recall the economic circumstances of Canada during the late 1950s and early 1960s, and to appraise Barber's contribution to the policy debate of those years in the light of those of two of his most distinguished contemporaries.

It was the misfortune of the first Diefenbaker government to take office a few months after the end of the strongest post-War Canadian boom; and of the second to preside over the longest and deepest post-War recession (Waterman, 1981, pp. 161-3). In 1958 the new government brought down what was and still remains in relative terms one of the most expansionary budgets in Canadian history. Yet all the wrong things continued to happen and unemployment actually worsened. Meanwhile the Governor of the Bank of Canada, Mr. James Coyne, wrongly supposing the constitutional relation between central bank and government to resemble

that in the United States, waged public opposition to the economic cy of the cabinet. In the Governor's view it was inflation (ther ning at about 3% p.a.) rather than unemployment which was the chiei ger, and monetary expansion was ruthlessly curbed.

During the Winter of 1961 - 62 two important articles appeai the Canadian Journal of Economics and Political Science, one by Mundell (1961), the other by Clarence Barber (34), which clearly nosed the Canadian unemployment problem in terms of the relation b monetary and fiscal policy, interest rate differentials, capital and the exchange rate. Excess demand for money in Canada, by attr a portfolio inflow, appreciates the Canadian dollar; the balan trade worsens and unemployment increases. A fiscal deficit has tially the same effect. Hence in a world of capital mobility and ing exchange rates, tight money can make unemployment worse, but expansion can make it no better.

Mundell's contribution was one in a brilliant series of expo articles in which he presented in lucid, simplified and diagra form the results of applying Samuelsonian stability analysis t Mathematical Supplement of Meade's famous treatise on The Balar Payments (1951 a). The treatment is abstract and formal, with b brief footnotes referring to Canadian conditions: one alluding Coyne's views on policy, the other to the need to quantify theor policy discussions for countries like Canada. Barber's paper, whi prepared and delivered verbally six months before Mundell's app stands in complete contrast. Though the analysis is essentially i cal, it is informal and implicit, hedged around by qualifications acknowledge the complexity of the real world, and solidly imbed the concrete historical circumstances of Canada in the Diefe years. Neither Mundell nor Barber alluded to Meade, possibly beca the fact that although the capital flow schedule is specified in tion 1.19 of the Mathematical Supplement, (1951 b) Meade seems t ignored its significance for "financial policy" directed towards " nal balance".

The other distinguished compatriot to respond with analytical vation to his country's economic malaise was the late Harry G. Jo the most prolific and deservedly eminent Canadian economist of hi eration. Johnson (1966), drawing from his knowledge of Canadian e ence, distinguished between capital mobility in response to chan relative interest rates (interest mobility) and capital mobility sponse to changes in income and the profitability of real inve (income mobility). Johnson may therefore be regarded as formalis some crude sense the model of direct, or non-portfolio capital only partially attempted by Meade.

Johnson's construction of a formal, short-run Keynesian mo examine economic policy in a world of capital mobility was motiva Canadian conditions, a fact he explicitly acknowledged (1966, p. The presentation, however, as in the case of Mundell, was entirely retical and aimed at an international professional audience. Mundell, who did not write directly on Canadian institutions and at all, Johnson spoke frequently and at great length on Canadian issues. But Johnson tended to separate his contributions to the pline in general from his numerous, and unashamedly polemical wr castigating Canadian economic policy before Canadian audiences (

For informed, detailed description and assessment of macro-economic policy in Canada during this period, we must turn to Barber. Here the specifically Canadian political and policy context is kept in the foreground and theoretical queries remain implicit and understated. In Mundell and Johnson the theory is autonomous and central: the Canadian experience which gave rise to the issues is mentioned only in passing.

IV

Clarence Barber's contribution to our understanding of industrial organisation and the nature of competition in Canada is particularly difficult to convey. This is partly because he conducted no general surveys of the structure of industry in Canada: only careful and detailed examinations of particular industries and sectors. In some instances Barber's study of a particular industry remains the most complete, or even the only one. There is no doubt that Canada's openness and dependence on trade and foreign investment was crucial to his shaping of the issues. Nowhere is this clearer than in the 1955 article on Canadian tariff policy, in which he suggested that Canada might have the most open economy in the world.

Tariff policy has always been a particular concern for Canadians and Barber focused upon the role of the tariff in determining the structure, competitiveness and development of Canadian industry (31). This seminal piece is now best remembered for its introduction of the concept of "effective protection". It also reflects its author's concern with the definition of appropriate concepts and their measurement, and above all his commitment to employ economic theory for the analysis of Canadian policy issues. But the article's central focus was upon the structure of Canadian industry, its competitiveness with respect to other countries, the appropriateness or otherwise of unthinking support for free trade, and the need to consider tariff and employment policy in the context of changing international developments. This was to be Barber's most general discussion of competition and industrial structure until his Presidential Address to the Canadian Economics Association in 1973 (39). In the intervening period his talents and insights were brought to bear on particular industries or sectors.

In 1956 he studied the electrical manufacturing industry for the Royal Commission on Canada's Economic Prospects (2). The open nature of the Canadian economy and the role of foreign ownership and control in influencing competitiveness and development of this industry was a major theme. Separate sections or chapters were devoted to import competition, the tariff, the export market, and even exchange rate changes. Although Barber saw the ability of domestic industry to compete with foreign producers increasing as the Canadian market grew (2, p. 81), he noted the predominantly foreign-owned and controlled nature of the industry and concluded that, on balance, Canada had suffered no disadvantage as a result (2, pp. 83-4).

In a detailed special report on the tractors and combines industry in Canada, written for the Royal Commission on Farm Machinery of which he was also the Commissioner, Barber's findings spoke less appreciatively of multi-national corporations. After documenting that Canadians

paid higher prices for virtually identical tractors than did purchas
in Britain, he concluded that these differences reflected not so m
any transport or selling cost differential as the higher profits of
ternational companies which sell and set prices on a world-wide ba
(7, p. 91). Because international trade in farm tractors is domina
by a few large multinational firms the decisions of these firms may d
fer from those which might occur if Canada were served by independ
companies (7, p. 92). As a result, Canada has less independence (7,
93), and its farmers must pay higher prices for tractors, in order
provide the highest possible profit to the world-wide corporation (7,
95).

The study of the pricing of tractors and combines was conducted
conjunction with Barber's work as Commissioner of the Royal Commiss
on Farm Machinery. The final Report of this Commission was released
1971. Though its title might suggest a rather unglamorous undertaki
the Commission report not only examined the market structure and comp
itive behavior of the farm machinery industry, but also inquired i
the research and development conducted by the industry, and the state
the world market. It also contained a broad examination of the chang
pattern of Canadian agriculture, noting in particular the growth of
chanisation and those adjustments in farming organisation called for
changing techniques of production. The report was therefore a wi
ranging examination of an entire sector - agriculture - quite as much
a study of farm machinery. As always, the open nature of the Canad
economy and its domination by the United States was never far from
Commissioner's mind. A decade earlier he had studied the impact
United States farm policy upon Canadian agriculture, particularly in
lation to Canadian wheat exports and the effect on Canadian competiti
ness of the disposal of its surpluses abroad (11). In his concern c
trade and the competitive nature of Canadian industry, Barber was e
mindful of the vulnerable situation of the Canadian economy. No l
than in his examination of macro-economic policy, his approach was
so much to proceed from the general and theoretical to the particu
and the Canadian as to start from the Canadian uniqueness and, in m
instances, to stay there.

The Presidential Address of 1973 was entitled "A Sense of Prop
tion" and dealt with Canada's future need to respond to such problems
foreign ownership and control, the advent of new technology and the
mands to restructure the Canadian economy away from reliance upon na
ral resources and towards high-technology manufacturing. Barber was
content merely to add his voice to the chorus calling for an industr
strategy: he carefully discussed what might be implied by such a phr
and suggested a cautious approach. There are several reasons. First
the fact that Canada's manufacturing has accounted for only about
percent of the additional non-farm jobs created in Canada over the p
two decades. More important, however, is the recognition of Canad
"real challenge" (39, p. 482). Barber points out the importance of f
eign direct investment to Canadians, how this inevitably carries with
foreign control of Canadian industry; and, more significantly, the f
that direct investment is typically a combination of capital funds w
new techniques. Thus while Canadians might reduce the high degree
foreign ownership and control in the longer run, the ability to deve
an indigenous high technology and to penetrate large foreign mark

with distinctive Canadian products is no easy task. Consequently Canada must view its prospects with "a sense of proportion" and pursue an industrial strategy cautiously.

Both the very open nature of Canada's economy and the proximity of the United States are salutory reminders of our own circumstances. As Barber put it: "Living next door to a large, dynamic neighbour is a real challenge. But in responding to that challenge Canada may become much more alive and vital ..."

V

Barber maintained a continuing interest in the relation between population changes and economic structure. He first considered population growth and the demand for capital in connection with discussions of the stagnation thesis (22), and considered whether the absolute rate of growth or percentage rate of growth of population were the more important for economic analysis. The significance of population changes within a Keynesian growth context was duly brought out. While other economists concentrated upon the dynamic growth aspects of capital investment, Barber drew attention to the importance of population growth for capital requirements.

He returned to these questions only much later. Nonetheless this early article revealed his awareness that too rapid or too slow a rate of population growth can create long-run difficulties of economic adjustment (22, p. 136-7). His examination of historical demographic trends also begins with this early piece.

It was more than twenty years later that Barber again addressed this theme. In the meantime, his discussion of population and economics turned more specifically to Canadian patterns and related directly to economic policy. The emphasis was more on the structure, shift and adjustment of Canadian population than on population growth-rates. Thus in his 1955 article on Canadian tariff policy he discussed the impact which protective tariffs might have on population movements to the United States as well as the possibility that Canada's protective tariff might have induced Canada's population to be larger than it would otherwise have been (31, pp. 520-1). In these very illuminating passages Barber challenged the assumption commonly used in trade theory of fixed factor supplies, and anticipated the later arguments of Dales (1966) concerning tariff-induced immigration. His comments were directed specifically to the effect of the tariff on the development of the Canadian economy. He also drew a parallel with the Australian case, but suggested that the Canadian handicap of living next door to an industrial giant limited the comparison. Though Dales' work was written more than a decade later, there is no reference in it to Barber's paper.

In the same spirit, the *Report of the Royal Commission on Farm Machinery* devoted an entirely separate section of six chapters to a discussion of the mechanisation of agriculture and its demographic consequences. Barber was convinced that changes in the technology of farm machinery affected the whole rural economy in Canada, and that "more than any other single cause, it has been improvements in farm machinery that have led to the large outflow of labour and population from

agriculture since 1945" (8, p. 3). His observations respecting popu
tion shifts were also related to the economic policy discussions of
day. A frequent newspaper commentator, Barber claimed in 1972 that (
ada's high unemployment was due to deficient demand (*Globe and Ma*
May 9, 1972). Whereas most others explained the high level of unemp
ment either in terms of the over-generous reform of the 1971 Unemp
ment Insurance Act, or the unusually rapid growth of Canada's la
force, Barber provided a more detailed account of the labour f
growth which, when the movement out of agriculture into non-farm act
ty is taken into account, reveals that the growth of the non-farm la
force is less rapid than had been supposed. In his own words, '
heavy movement of labour off the farms that was so important in the e
ly post-War period has now largely abated ... and ... a continued :
of labour out of agriculture is now of much less significance ....
excuse for high unemployment Ottawa is currently trying to sell the p
lic, a too-rapid growth in the labour force, just does not wash".

Shortly after this, Barber returned to the theme of populat
trends and economic growth. In two monographs for the Economic Cou
of Canada, he examined the implications of a zero rate of growth of p
ulation in developed countries. The first study centred on the pot
tial effects of zero population growth on the demand for capital
concluded that a significant reduction in the level of net investme
mainly in residential construction, would result (58). A declining r
of growth or secular stagnation may well lead to a significant fall
the rate of return on capital and therefore undermine "the principal
tivating factor in our economy" (58, p. 67). But if slower growth a
caused a lower rate of saving, this need not happen. Consequently,
second monograph dealt with this issue (59). Specifically, slowing p
ulation growth is examined for its effects on the rate of household s
ing and empirical evidence is brought to bear to suggest that only th
families in the middle income range follow the conventional life-cy
pattern. Only very small reductions in saving rates are likely to
cur, he suggests, generally less than one percent of personal inc
(59, p. 89). Much of the evidence considered in these two studies
international in scope, since - typically - Canadian data were less
tailed. These contributions, in a certain sense, merely set the st
for Barber's more reflective consideration of the fundamental issu
The clearest and most sweeping view of the relation between populat
decline and secular economic stagnation is to be found in his hig
original interpretation of the origins of the Great Depression (44).

Barber advances the thesis that demographic variables such as
rate of growth of population are the most important causal determina
of the Great Depression. Having surveyed a number of alternative exp
nations of the Great Depression by various economists, he uses a form
the Harrod model to examine the natural rate of growth. Finding lit
decline in the rate of productivity growth throughout the entire per
from the beginning of the 1900s, he carefully documents the decline
population growth-rates beginning in the 1920s. The natural rate
growth is falling. The economic adjustment to this phenomenon
through capital spending, particularly on housing, since the capit
output ratio for housing is nearly eight times that of the economy-w
measure, excluding housing. Housing expenditures therefore "play
critical role in the explanation of the Great Depression" (44, p. 44

The analysis supports the "spending" as opposed to the "monetarist" hypothesis about the origins of the Great Depression, and to underscore his appreciation of the importance of population trends and economic growth, he ends his provocative article with a speculative quotation from Value and Capital: "the whole Industrial Revolution of the last two hundred years has been nothing else but a vast secular boom, largely induced by an unparalleled rise in population" (44, p. 455).

Barber's study of the origins of the Great Depression - the fruit of more than two decades of thought and reflection - is in many ways exemplary of his style as a political economist. In adopting the Harrod-type framework, he shows his preference for quantity-adjusting, Keynesian mechanisms over the more neo-classical, flex-price, long-run full-employment models. Although Barber certainly gave the neo-classical approach careful consideration (58, pp. 17-26), his allegiance is clearly to the Keynesian approach and its dynamic extension, the Harrod framework. As noted, he used it for his analysis of population and economic growth (58, 59, 44), he employed it in his investigations of monetary and fiscal policy in the 1950s and 1960s (32, 34, 5, 53, 54, 36), and he endorsed it as the "most relevant theory" in his Presidential Address (39, p. 476). But Barber was never satisfied just to debate theory. The justification of any theoretical construct lies in its usefulness to economists for practical policy, and his interest in population trends was similarly motivated. In the late 1970s, some two-thirds of the developed countries of the world had birth-rates at or near the replacement level, and the prospect of zero population growth was more than an assumption pushed to its limit simply to investigate the properties of a theoretical model. In this too Barber was as much animated by policy concerns as he had been more obviously in the investigations of the Canadian tariff, monetary, fiscal and exchange rate policy. Here also, the theme of an open and dependent Canadian economy comes into play; only this time it is the interdependence of the global economy that is the focal point, and the long-run growth and stagnation that is given emphasis rather than short-run income determination and stabilisation issues. This perspective is most clear in the address to the Royal Society of Canada on the implications of declining birth-rates in developed countries (45). The approach and method is the same: provocative analysis, an explicit model framework explained in an informal, literary fashion, attention to competing explanations, the sophisticated non-econometric use of data with discrimination and perspicuity, and careful presentation of the argument.

More fully than in any previous work, Barber's study of the origins of the Great Depression reveals his very considerable talents as an economic historian. His articles and monographs up to this time had been chiefly confined either to the investigation of brief episodes in the life of the economy as a whole, or to the problems peculiar to some particular industry or sector. His historiographic technique could only be glimpsed fitfully here and there in policy debate or in detailed study. Moreover, material so thoroughly "Canadian", so solidly "economic" and so patently "recent" could scarcely be recognised by most as historical scholarship. The article on the Great Depression makes clear for all to see what was always visible to the perceptive eye. It is hard to imagine that serious scholarship on the origins of the Great Depression, whether by economists or historians, will in future be able to ignore

either his basic thesis, or the cogent arguments and carefully
shalled evidence with which Barber supported it.

VI

According to one not altogether unbiased commentator, 1975 wa
date of great significance in the annals of Canadian central bank
for it was "the year in which the Bank of Canada finally jettisoned
English central banking tradition and embraced a monetarist philoso
(Courchene 1976. p. 111). Canadian economists have predictably eng
in a vigorous debate since that time, calling into question the theo
ical underpinnings of monetarism itself, its relevance to a macro-
nomic understanding of a dependent economy, and both the possibility
desirability of its implementation as policy in Canada. As might be
pected from his expert knowledge of the Canadian economy, his life
commitment to the Keynesian framework of analysis and his keen aware
of the social welfare costs of economic policy, Clarence Barber has
a prominent contributor to this debate. Much of his work in this
recent phase of his engagement with Canadian economic policy has
undertaken in collaboration with J. C. P. McCallum.

Although the general approach taken by Barber and McCallum clo
resembles that which informed Barber's work in the late 1950s and 19
the circumstances of the last seven years have been somewhat differ
Whereas in the earlier period the economy was suffering from a se
and prolonged recession accompanied by only negligible price increa
the present is characterised by a coincidence of high unemployment
double-digit inflation. Moreover the theory and practice of the mone
rist doctrine, which in essence is little more than a warmed-over
sion of what Mr. Coyne was saying in 1958, is now accorded a res
even among some academic economists which was wholly absent two dec
ago. For in 1960 Canadian economists were united in their contempt
monetarism, then regarded as obsolete, simplistic and inappropriate
an open economy. The government and its advisers were equally u
pressed and eventually forced the resignation of the Governor. Bar
though a leading figure in the attack on the Bank of Canada, was
voicing the considered opinion of all his professional colleagues.
in 1980 government and Bank were agreed on a policy of monetary
straint, many economists had climbed on the monetarist band-wagon,
Barber's pertinacious defence of Keynesianism carried a serious risk
appearing dated and irrelevant. Whether one deems that risk to
been worth taking must depend, of course, upon an empirical judgment
the respective circumstances of the two periods.

Barber and McCallum argue that Canada's dismal unemployment re
has been caused by deficient aggregate demand (10, ch. 2): a very ort
dox, Keynesian stance. Their view of recent Canadian inflation diff
from the textbooks, however, in ascribing much importance to "cost-p
supply shocks imposed upon a "long-term trend towards higher prices
resource goods" (10, p. 49). This analysis is especially important
cause it provides a long-term perspective to the contemporary de
over monetarism and inflation, stresses the pivotal role of basic
source commodities, and integrates into the analysis the interact

between long-term population trends and economic growth. This latter relation was recognised by Barber much earlier, as his commentary on growth and commodity prices revealed (*Globe and Mail*, Sept. 7, 1973).

While many other Canadian academics and policy analysts engaged in the debate over monetarism from either a purely theoretical or an *ad hoc* policy perspective, Barber's analysis was uncompromisingly Keynesian and to a large extent consistent with his previous view about the openness of the Canadian economy and the implications for monetary and fiscal policy of contiguity with the United States. Canada's openness and dependence on trade undoubtedly led him to pay more attention to the exchange rate than do other economists writing from their experience and knowledge of (approximately) closed economies - particularly Americans. If it is fair to define the monetarist spectrum as falling between the extremes of "money matters" to "only money matters" (Purvis 1980, p. 101), Barber's position at times comes perilously close to one in which "only the exchange rate matters" (10, ch. 4, esp. p. 68, 75 ff).

The argument is remarkably similar to that first articulated in the late 1950s. An unnecessarily tight monetary policy raises interest rates in Canada to higher levels than necessary, foreign capital inflows serve to push the Canadian dollar to levels which endanger our competitive position, and the target of lower inflation if achieved at all is only purchased at an unacceptably high social cost in terms of unemployment. Though the particulars differ between the late 1950s and the late 1970s, the "low interest rate" approach is recommended as appropriate in both circumstances. But since inflation is evidently a more serious issue in the 1970s, and supply shocks and cost-push elements are obviously at work, the prescription must take a different form. It ought to include the establishment of buffer stocks of grain, controls to reduce cost and price increases, measures to improve productivity, and policy initiatives which insulate the more vulnerable from inflation or which moderate its capricious and inequitable incidence (10, p. 132).

There is much to admire in this pragmatic and undoctrinaire approach, not least its refusal to be scared by theoretical bogeys into a retreat from fiscal policy (10, p. 106). Moreover it is hard to disagree with the claim that monetarism has been tried in Canada, and has failed (47, pp. 230-31). Barber's grasp of reality is so secure, and his understanding of the Canadian economy so rooted in the concrete, that it is probably safer to defer to his judgment than to depend either upon abstract, *a priori* reasoning, or the dubious precision of econometrics. Yet like every methodological position, this has its cost. Precisely because of his strong sense of the uniqueness of the Canadian experience, Barber has been led to a position which seems to ignore or underestimate the case for a global validity of the monetarist view. The world as a whole is a closed economy; and the United States sufficiently like one for it to be at least plausible to suppose that inflation in Canada is caused by monetary conditions in the *United States*. Whilst this would in no way upset Barber's view of the futility and irrelevance of monetarism in Canada, it would certainly throw doubt on that part of his own prescription which is intended to moderate inflation. In this as in so many other ways, the Dismal Science inverts the optimistic aphorism of John Stuart Mill. Whatever may be true in general, economists at any rate are more likely to be correct in what they deny than in what they affirm.

VII

Clarence Barber's undoubted strength as a political economist l in an awareness of the actual, concrete circumstances of the Canad economy which is probably as vivid as that of any contemporary. Bef concluding this Introduction it is necessary to face squarely the pos bility that this very strength might also be a source of weakness. questions in particular must be addressed. Has Barber's detailed und standing of the uniqueness of the Canadian experience sometimes blin him to the inappropriateness of regarding "Canada" as an interesting onomic entity, and beguiled him into support for mercantilist polici And has his praiseworthy concern for the usefulness and relevance of onomic analysis caused him to undervalue the importance of merely stract and theoretical investigations?

In his testimony before the Senate Committee on Growth, Unempl ment and Price Stability in 1971, Harry Johnson attacked with charact istic vigour those of his colleagues who "study countries as cas without any real demonstration that a country is an economic unit t is worth talking about" (Senate, 12:37). There can be no doubt t Canada is much less of an economic entity than most other sovere states of comparable size and wealth. As Barber himself recogni clearly, "... some United States competitor is normally closer to sector of the Canadian market than a Canadian manufacturer elsewhere Canada"; in some sectors, at any rate, "Canada is just one segment the North American market" (40, p. 825); and the distribution of North American population on either side of the 49th parallel is a fu tion of the United States and Canadian tariffs (31, pp. 519-21). prosperity and happiness of individual men and women might be bet served by an economic and political union in North America. And if the design and promulgation by Canada of separate trade, migration macro-economic policies must be either the protection of a domes elite at the expense of the rest of the population, or simply an ex cise in futility.

It is difficult to discover from his published writing just wh Barber really stands. His persistent advocacy since 1960 of a macro- onomic policy of easy money, a low exchange rate and a healthy bala of trade may look at first glance like "beggar-my-neighbour" remed for Canada's unemployment. His strong support for provincial fis policy (6) neglects the possibility that here too circumstances may ist in which one province's gain is another's loss. And his Presid tial Address takes for granted - or seems to - that foreign owners and control of Canadian industry is a bad thing. Yet a closer read of his policy analysis reveals that what he is really concerned with not so much to export unemployment by an aggressive, Mercantilistic dervaluation of the Canadian dollar, as to prevent perverse Canad monetary policy from making an unavoidable ill avoidably worse. Mo over, his celebrated paper on Canadian Tariff Policy, whilst acknowle ing the uses of a well-designed tariff structure in nation-buildi ends with a strong affirmation of the goal of restoring a "freer-trad convertible currency world" (31, p. 529). And his Presidential Addr leaves to the reader to judge "whether or not we need an industr strategy" (39, p. 428). This judicious refusal to concede too much any one point of view is based upon a mature understanding of two important truths sometimes neglected by other economists. The welfare effects of any policy measure can only be specified fully in the light of a much more detailed knowledge about the economy than may be captured by any theoretical model. And the appraisal of those effects, even when known, requires a coherent set of value judgments about which it is impossible, or at least unrealistic, to secure agreement. Barber's seeming support for a nationalistic or Mercantilist direction of policy has almost always been qualified by reference to special circumstances which preclude the attainment of the optimum. And his willingness to approve an "interventionist", discretionary monetary and fiscal policy, and even "some form of incomes policy" (47, p. 231) has proceeded from a Keynesian judgment of the ethical primacy of the short period, rather than from any inability to understand the desirable characteristics of full, long-run equilibrium - if such should ever be attained.

The other criticism which might conceivably be brought against Barber's work as a whole is logically related to the first, and might be summarised as "the irrelevance of 'relevance'". Too great a concern for the immediately applicable and useful may divert resources from more fundamental, speculative inquiries which have no "relevance" now but which might eventually revolutionise both theory and practice. Much of the material reprinted in the first three parts of this book arose from some particular circumstance or was intended to apply to some Canadian policy issue. Even the more detached papers in Part IV are ultimately rooted in Barber's life-long concern with the Great Depression of the 1930s. His bias towards relevance is clearly exhibited whenever he has occasion to contrast the neo-classical growth theory "pioneered by Solow" with "the original Harrod model" (39, p. 476), the formal identity of which to the neo-classical approach he fails to acknowledge.

It is most unlikely that Barber would deny any such bias if challenged. Though some of his early work was almost purely theoretical (18, 19, 21), and though five of the first six papers in this book have little applicability to the Canadian economy, his essays on Keynesian analysis were the result of a conviction that the new macro-economics might actually be useful in helping to ensure that the world would never again have to live through another Great Depression. Yet it is equally unlikely that Barber would deny, in principle at least, the value of "pure" and fundamental research. His own writing shows abundant evidence of a careful reading of the theoretical literature, especially in monetary theory, macro-economics and international trade. Some are called to the arrid ratiocination of pure theory; others to mediate that theory in the analysis of real social problems. Though Barber's gifts in the former would have sufficed for a distinguished career as a theorist, his comparative advantage, no less than his natural inclination, lay clearly with the latter. That he chose to follow his bent has permanently enriched Canadian political economy.

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