
Ian Stewart in his Own Words

Ian Stewart

Preface by Fred Gorbet

WHEN ANDREW AND I SET OUT TO MARK Ian's 80th birthday, and extraordinary professional career, with this festschrift, I volunteered to draft a brief biography of Ian – focusing on the years we worked together, which encompassed most of the time from 1968 through 1982. This turned out to be much more difficult than anticipated. Ian was a fantastic mentor to me. He hired me directly out of graduate school to join him at the Bank of Canada in 1968. Through long evenings working on the econometric model RDX2, he taught me more about economics and particularly the nature of the economic adjustment process than I had ever learned in university. As time went on and Ian's focus shifted from research to the practical application of public policy, he never ceased to challenge me with his keen appreciation of the role of analysis in effective policy design and implementation and his enduring sense of fairness and compassion. Yet, when it came to write about this career, I realized that time had erased many memories and notwithstanding our long

association, there were many gaps in the story as I knew it.

I turned to Ian and asked for a brief synopsis of his professional life – one that would bullet-point highlights, achievements, challenges, colleagues, etc. I felt that with this raw material I could fashion a tapestry that would illuminate the character and achievements of one of Canada’s best economic researchers and policy advisers.

The result was “pure Ian”. No bullet points from him. But rather a well-woven, stream-of-consciousness review of his professional life – beginning at the beginning and transitioning through the many different passages that marked an illustrious career. I have concluded that to alter his text in any fundamental way would detract from the story that Andrew, I and Ian wish to tell. I have added some footnotes, where I believe my memory is accurate and my recollection of events would assist the reader. But what follows is – essentially – Ian Stewart in his own words.

Overview

THIS IS AN ATTEMPT, IN RESPONSE TO Fred Gorbet’s request, to provide a somewhat cursory record of my career. I began by attempting to report major family milestones but in the end have decided that any balanced treatment of family and other aspects of my personal life would demand a document at least twice as long. At least half of the important and supportive structures in my life, therefore, do not appear here! I do from time to time, however, make reference to my sporting life because it seems related to the career story.

I should say at the outset that I tend to think of my life as a series of interludes in which accident and fortune – almost exclusively good fortune – provide new directions: not as dramatic as right-angles, but more or less abrupt shifts that, taken together, define a career. I cannot claim that I set out in life with a well-structured set of goals and what I am about to reveal, it will be clear, does not represent a steadfast and well-ordered march! I have inserted headings to distinguish transitions into new interludes to assist a little in making the story coherent.

The Early Years: From Toronto Island to Queen's University

I begin the story on Toronto Island. It may be that my youth had relatively more importance than I frequently detect in others who reflect upon their beginnings. Indeed it will be a feature of this essay that I reflect upon each of the 'segments' in my life with very substantial pleasure. I frequently detect in others memories of less happy intervals but I record no such periods in my life. In any case my father's appointment in 1933 to the post of superintendent of the water filtration plant on the Island carried with it a city-owned house which was my home uninterrupted until 1949 (when I departed for Queen's), my summer residence until 1953 (and my father's home until 1955 when it was destroyed as part of the clearance of housing from much of the Island.¹). The essential features of the larger islands² – Hanlan's Point, Centre, and Ward's – were that they were substantially parklands, without motor cars; with a winter population that numbered in the hundreds and a summer population of seasonal renters numbering well into the thousands (until the Second World War when emergency conversion of Island housing to year-round occupancy carried the winter population also into the thousands). Toronto Island was an extensive playground without traffic or other conventional urban threats, surrounded by beaches and with facilities to cater to extensive recreational activities. Interwoven with lagoons the Island was also a water-sport mecca in the summer and a skating and holiday paradise in the winter. Indeed, it was its resort character that led the Island to be populated, prior to the motor car, by the Toronto aristocracy. After they departed for Muskoka their gracious homes were converted to apartments to accommodate summer visitors.

I attended a two-room school on the Island for grades one to eight. My mother who had been a school teacher in her early years, was very concerned that my limited Island education would dim my chances of going to the University of Toronto Schools (UTS). She therefore secured the grade eight syl-

1 Well before that time the Island filtration plant had been replaced by the Victoria Park plant featured in its construction by Ondaatje's *The Heart of the Lion*.

2 The Toronto Islands are a group of islands: The largest of these is Center Island, which is often referred to as Toronto Island, in the singular.

labus and through the winter and spring of 1943-4 I benefitted from her very effective tutoring. At the end of grade eight I had the good fortune to pass the entry exam to UTS, and commuted from the Island to high-school by ferry and ice-breaking tug. I'll return to UTS but a little more about life on the Island. Baseball (softball and hardball) were my earlier interests. For eighteen cents one could attend Toronto Maple Leaf double-headers on Saturday afternoons by walking along the Toronto waterfront, stopping along the way to watch corvettes being built during the war, and return home richer for having accepted a five-dollar war savings certificate for returning a baseball – in very limited production during the war – fouled into the stands. But most athletically inclined youth on the Island were ultimately attracted to the Island Canoe Club and my summer evenings and weekends from 1944 through 1952 were dedicated to canoe racing. I paddled in Ottawa in 1947 at the opening of the Mooney's Bay regatta course and in a later year at Mooney's Bay in a trial for the 1952 Olympics – though I was never of that calibre! In 1947 and 1948 the Island Canoe Club won the national championships. This has perhaps little to do with my subsequent adventures other than to note that hours, days and weeks of my youth were athletically engaged, diverted neither to bookishness (or in modern terms geekishness) or the perils of urban youth culture, and I entered my twenties in superb physical condition never to be achieved again!

High School

It is worth spending a little more time on UTS. I meet many (indeed to some degree my own children) for whom high school was a boring or burdensome or downright unpleasant passage in their lives. UTS had been created as a model high school, and apart from its role in teacher training, established a tradition of first-class teaching supported by a very active athletic tradition. It suited me superbly. Through obviously clouded historical lenses, my memories of UTS are almost undiluted with reservations. Its athletic programs accorded with my disposition (hockey, football – even a little boxing), and though somewhat disadvantaged by my 'rural' Island school, I ascended academically through all of the five years to a high standing. Though very close to the top of my fifth form class academically, I took great pleasure in being elected as class athletic representative. In my interlude terms this was, for me,

a very good passage through what was generally acknowledged to be an outstanding high school.

Queen's University

Though it was common for UTS students to proceed to the University of Toronto (of which UTS was a creature) the family Stewart, including my parents, swore allegiance to Queen's and to Queen's I proceeded in the fall of 1949. Veterans were departing the campus when I arrived and though the number may not be precise Queen's comprised about 1720 students in the fall of 1949, including all faculties and the graduate school – in today's terms the size of an urban high school. At that time there were women's but no male residences, but students clustered in rooming houses close to the campus and one's acquaintances were wide and beyond one's own year. Among extra-curricular activities student government occupied some time (as did a variety of intra-mural sports to continue an athletic theme!) but I will return to this in another context. After a general first year which included an idiosyncratic economic geography course created and taught by Frank Knox, then head of the Economics Department I decided on honours economics and politics as the course to pursue. The choice arose from no strong predisposition but as a half-way house between a civilizing social science and the possibility that it might lead to employment prospects. At that time the faculty in economics comprised Frank Knox, Clifford Curtis and Mac Urquhart. David Slater arrived in the fall of 1952. William Mackintosh, the principal of Queen's at the time, taught an equally idiosyncratic economic history course and supplemental reading course to fourth year students. Alex Corry, Ted Hodgetts and John Meisel comprised the politics faculty.

It must be said that at that time John Maynard Keynes had not fully arrived at Queen's. Curtis and Urquhart covered micro while Knox led a fourth year seminar in macro territory. Samuelson's first edition was available but not prescribed. With the arrival of David Slater³ and the introduction of a senior trade course framed around Kindleberger's international economics textbook

3 David Slater served as Secretary/Treasurer of the Centre for the Study of Living Standards from 1995 to 2005. A festschrift in his honour was presented to him in 2001 (see Grady and Sharpe, 2001).

instruction took a contemporary turn. But a word about Bill Mackintosh. I will describe later an oral history task that I undertook with Bob Bryce to canvas his years in government. In the process, which involved our reading cabinet documents and other materials from the 1937-1968 era, I came to recognize the very large but, I think, largely unsung role played by Bill Mackintosh through the war and post-war period. He stood in for Clifford Clark as deputy-minister of Finance when Clark was ill. He had a large role in preparing the Federal/Provincial conference of 1945-6 and in fact prepared or had a hand in preparing the 'Green' books for which the conference became famous. His particular contribution was to prepare a 'shelf' of public works under the presumption that the post-war world would subside into the depressed conditions of the 1930s. In the event, of course, the 'shelf' was not needed. Mackintosh then became C.D. Howe's first deputy in the Department of Reconstruction and Development. His reading and seminar course at Queen's dealt largely with Canadian development and particularly the financing of the railroads but my principal memory was that it was taught from a tattered set of yellowed notes through a haze of cigarette smoke ingested in chain fashion through a lengthy cigarette holder. He unfortunately did not deal with his war and post-war experiences in which, I came later to realize, he had played such a large part.

Just a parenthetic word about the 'Green Books' conference of 1945-6. It was planned under the assumption of a return to 1930s conditions. Further, federal officials including then Bank of Canada officials such as Sandy Skelton (the son of O.D. Skelton) and John Deutsch saw an opportunity to convert the wartime tax-rental agreements into a centralizing consolidation of taxing authority within the federation. They were thought to have the political support of Premier Hepburn in Ontario and Premier Godbout in Quebec. Wary of such an effort, however, Mackenzie King appointed Louis St. Laurent to oversee preparations and this centralizing ambition with its required constitutional amendments had been somewhat blunted by the time the conference was convened. Further George Drew in Ontario and Maurice Duplessis in Quebec had replaced Hepburn and Godbout and presented a formidable opposition to any such proposals. If one thinks today's rhetoric frequently out of bounds one ought to read the then speeches of Drew and Duplessis.

Back to Queen's. Honours economics in 1953 and 1954 each involved four students. Seminars were necessarily quite intimate. I remember particularly David Slater and his seminar in international economics where members of both years joined. I graduated with the medal in economics and a University Fellowship which encouraged me to return to Queen's for an M.A. in the fall of 1953.

My M.A. year comprised essentially working through J.R Hicks' *Value and Capital* (including its appendix) with Mac Urquhart and writing a thesis on Canada's Declining Agricultural Labour Force. Employment on farms had comprised 35 per cent of the Canadian labour force at the height of the depression in 1935, a number that had decreased to less than 10 per cent by 1954 and has essentially continued to fall to less than 2 per cent today. The story was one of both the push of a profound technological revolution in farming together with the pull of urban employment in a fully employed economy for an increasingly skilled post-war generation. The thesis sought to tell that story. At Queen's Gideon Rosenbluth and Clarence Barber had joined the economics faculty in 1954 and Clarence Barber, along with Knox and Urquhart sat on the M.A. board.

Around Christmas time of 1953 I was awarded a Rhodes scholarship, and in the fall of 1954 I sailed for Britain on the Empress of Scotland.

Oxford Interlude, and back to Queen's

At Oxford, after some time, I enrolled in the Bachelor of Philosophy program in economics. I sat in on two seminars under the direction of J.R. Hicks, one in macro cum business cycle theory and the other in the history of economic thought. I also attended an international trade seminar at Nuffield College led by Roy Harrod. The attractions of the wider world, frequent trips to London, the theatre, several extensive trips to the continent (one of which involved touring Switzerland and Austria with the Oxford Ice Hockey team, with which Lester Pearson, Clarence Campbell and many other illustrious Canadians had played over the years), the need to return to Canada for a period in the fall of 1955 with the sudden serious illness of my mother, and a certain lack of application meant that after two years I did not complete the B. Phil. Program. Penniless, I sailed for Canada in early August 1956 on the

newly commissioned Empress of Britain. This short summary does not do Oxford and the benefits of that experience sufficiently proud but is perhaps enough for the purposes of this account.

Early in September of 1956 I married – this is an appallingly cursory way of introducing a turn of good fortune in my life which has shaped an interlude now approaching sixty years! I also took up employment at Queen's. My principal task was Director of Banking Courses for the Canadian Bankers Association. In addition I taught the introductory economics course in the Engineering faculty and, with David Slater and Mac Urquhart, introductory economics for the Queen's extension department. The latter involved rather hair-raising weekend trips to Peterborough and Belleville through the winter months.

The period to the fall of 1959 might be regarded as a consolidating segment, immersion in marriage, the beginnings of a family, the beginnings of an affair with golf, and a time to reflect on what next. By mid-1959 it was evident that a professional career in economics increasingly demanded a Ph.D. and after considering a range of possibilities I chose Cornell University in Ithaca, New York, in part because it offered the largest inducement, in part because as an older graduate student with a family it seemed a manageable transition from Queen's.

Living in the United States: Cornell and Dartmouth

Cornell University

In terms of my notion of discrete segments Cornell and Ithaca, N.Y. turned out to be singularly happy choices. Though not particularly relevant for the purposes of this story it is perhaps important to record that physical amenity again was an important contributor to a sense of well-being. Ithaca is situated at the end of Lake Cayuga, the most easterly of the Finger Lakes. The country in that area is riven with deep gorges. The Cornell campus itself is surrounded by two of them. The gorges and their associated swimming holes were made accessible with extensive parks surrounding them by WPA workers in the 1930s. They were prime examples of the creation of social capital when labour was available and cheap. One begins to hear calls for the recreation of the

WPA to confront the deep and prolonged US experience with unemployment today. Ithaca itself is a small and accessible town with a communitarian atmosphere reflecting Cornell and Ithaca College as its principal employers. We were further situated for our time there on a dead-end street surrounded by neighbours who became close friends. Aspiring graduate students in economics were also of similar dispositions and the group shared a supportive social environment.

The Department was chaired by Alfred Kahn, who was of course later to become well-known for his encouragement of competition in the airline industry. Morris Copeland, an institutionalist with nonetheless a strong interest in theory and who had developed the flow-of-funds accounts, taught both national accounting and an idiosyncratic course in Robinson and Chamberlain and monopolistic competition. But it was Ta Chung Liu who arrived as a Professor at Cornell from the IMF, where he had conducted econometric research, who approached me in the early days of my arrival to urge me to become his student and to pursue an econometric focus. There were as yet no focused econometric text books so along with the standard graduate requirements, I took matrix algebra and probability theory in the mathematics department and blackboards full of theory from Ta Chung. I did well enough to become a Phi Beta Kappa and to pass the general comprehensive exams in the fall of 1961. It is to be noted that the Canada Council, Cornell and the Fels Foundation provided graduate fellowships which sustained us.

Since major aspects of my professional career march with the advancing steps in the IT revolution it is important to record that my first multiple regression was performed on a rented Frieden (it may have been a Marchand) using the Doolittle method – a short-hand recipe published by the US Department of Agriculture for computing sums of squares and cross-products. Though Cornell had acquired a mainframe in the early 1960s it was not yet generally available.

While engaged in professional accreditation (and coaching a little youth hockey at the newly constructed Cornell arena) and with *only a* dissertation to write it was time to move on. At the AEA meetings at Christmas 1961 I accepted interviews, among others with Dartmouth College, and in the deep

winter of 1962 drove to Hanover, New Hampshire, was interviewed, and accepted an Assistant Professorship at Dartmouth to begin in the fall of 1962.

Dartmouth College

If Ithaca was essentially a college town, Hanover, NH, was the epitome of both a college town and a New England community. What one thinks of as Cape Cod cottages surround a campus in which a central grass square is in turn surrounded by classic 19th century college buildings. A small-town main street and a classic New England Inn complete the essential picture. In some sense Hanover and Norwich, Vermont (its neighbour across the Connecticut river) offered an ambience not unlike Toronto Island – far from the complexities of urban agglomerations. It was in many respects the ideal ambience for raising a young family. Nor was the teaching load particularly burdensome. The students were serious and bright and over the four years of our stay at Dartmouth I taught principles, macro, and linear programming and learned a good deal in the process.

When not teaching (and again not coaching and refereeing youth hockey!) I continued work begun at Cornell to assemble a quarterly model of the Canadian economy. At that time the Dominion Bureau (DBS, now Statistics Canada) provided almost any amount of data freely upon request. Though major developments were about to happen at Dartmouth with the creation of the Basic language and the establishment of remote computing to a central main frame, the time was not yet. Rather an IBM 1620 in the basement of the Tuck Business School offered the best local facility. Hours of work on the 026 card punch machine prepared stacks of punched cards assembled to test various hypotheses for equations within the model and the decks were entered into the 1620's card reader. Such was the pace of the 1620 that one closed the computer room door, left a message notifying that the machine was in operation and indicating that one would be back in some hours (not minutes). Fortunately the demand at Dartmouth at that time for computer power was light and the inconvenience to others minimal. Slowly but surely the structure of the model emerged and by that time the remote dumb terminal to the Dartmouth system was installed in the economics department. With limitations of available scale I set out on that system to invert by parts the matrix structure of the model to

follow Henri Theil in addressing optimal policy. In retrospect, I doubt the accuracy of that whole operation would now bear scrutiny, but it took weeks to complete.

Thanks to a Ford Foundation dissertation fellowship I was freed up in the spring and summer of 1965 to do the final writing on '*A Quarterly Model of the Canadian Economy*'. In the fall of 1965 I travelled to Cornell for the final Ph.D. defense and was involved in a car accident the next day, while returning to Dartmouth, as euphoria interfered with road management.

The next development in this saga took place at the meetings of the AEA in Boston in Christmas week of 1965. Dartmouth is a kind of Shangri La with winter and summer amenity, easy living and a crowd of like-minded people. It was very common in those days for Canadians to seek their graduate degrees in the United States, remain in the United States for research and/or teaching and later to confront the decision on whether or when to return to Canada. It was evident to us that the lure of Dartmouth amenity had trapped many of our friends. Tenure was probably in prospect but we had decided that it was time to consider alternatives. At the AEA meetings I was on the qui vive for alternatives, particularly Canadian alternatives. By chance I met George Post who had succeeded me at Queen's and in the mid-1960s had moved to the Bank of Canada. I met with George and George Freeman, then head of the Research Department at the Bank. They described their efforts to put together a team to launch econometric research at the Bank and their need for a resident employee who, while part of the team, would anchor its activities at the Bank. Several visits to the Bank via the Washingtonian, a train which passed through White River Junction, Vermont on its way across Vermont to Montreal and on to Ottawa consummated a deal and a decision to take leave of absence from Dartmouth for at least a year.

Returning Home: The Bank of Canada

This decision launched another segment of my career – a passage that at the time and in retrospect was critically important in terms of professional development, as well as intensely enjoyable and convivial. The constitution of the team involving John Helliwell, Harold Shapiro, Lawrence Officer (later to be replaced by Gordon Sparks) and I seemed by a magic chemistry to create an

astonishingly collaborative effort. Though only I was permanently resident at the Bank, in the early years the commitment by the others to visits within the academic year and the entire devotion of summers was sufficient to maintain continuous communication and brain storming. As important, was the buttressing of the team by the gradual accumulation of research capacity within the Research Department and the availability of summer research assistants from graduate economics programs. Fred Gorbet, about whom much more as this story proceeds, Don Stevenson and Tom Maxwell, among others, were examples of the former while Michael Spence and Robert Evans were outstanding representatives of the latter. It is astonishing in retrospect to consider the incredible array of accomplishment which the RDX teams represented as they pursued their later professional careers.

As resident coordinator my tasks involved the organization of computing resources, the computer operation and simulation of the model as it developed and the organization of resources within the Bank to provide programming and computer support. It further involved providing assurance to the Governors of the Bank that there was little threat to the influence and integrity of the Bank in the publication of RDX research results. The origin of the RDX formulation was to provide assurance that the work was the product of the Research Department, a division of the Bank and not of the Bank as a whole, was experimental and not to be taken seriously, and the suffixes one and two were to indicate that the work was ongoing and not complete. The gradual evolution from the Control Data main frame at the University of Montreal, to the conversion of an IBM card sort machine to act as a dumb terminal communicating with a Univac 1108 at the University of Utah at Salt Lake City (on 400 baud telephone lines) to the start-up of a Univac 1108 at Computel in Ottawa and the government's own IBM 360 in the basement of the Confederation Building mirrored the progress of the IT revolution. Though the work of establishing RDX1 and RDX2 and examining their characteristics by simu-

lation used astonishingly long nights and weekends,⁴ recreation was not neglected. Shared cottages along the Ottawa River provided frequent gatherings of the Posts, Helliwells and other members of the enterprise. Crewing for John Helliwell in International 14's while not exactly recreational was at least diverting.

The bibliography lists the principal products of the RDX1 and RDX2 series. By 1972, though John Helliwell sustained a relationship with the Bank and Fred Gorbet played an increasing role as a principal, the original crew had dispersed to pursue further ambitions. It was time for fresh resources with up-to-date training in model design and statistical estimation techniques to further the research at the Bank. A chance late-night meeting with Doug Hartle on the streets of Ottawa began a conversation which was to provoke yet another change in direction and the arrival of a new 'segment'.

From Econometric Research to Policy Advisor

Treasury Board Secretariat

Doug Hartle had been research director of the Carter taxation commission. He had become considerably disillusioned by its reception in the country and by the Liberal government. A Commission which received accolades abroad but was never formally printed in hard-covers by the government turned out to be too rational to be easily digested and accepted by tax professionals. (It did launch a process of tax reform within the government that culminated in 1972 but it was a pale reflection of the Carter principles).

But Hartle was a rational idealist, and in the early 1970s, he accepted an appointment as Assistant Deputy Minister in the Treasury Board Secretariat under Al Johnson. His mandate was to establish a Planning Branch, which

4 It was during those long nights and weekends – when I was fond of commenting that we were on a voyage to demonstrate empirically that there was some combination of alcohol, nicotine and caffeine that was a perfect substitute for protein – that Ian taught me about economics and the application of theory and econometric methods to real economic circumstances. We never did discover the protein-substitute, but we did find a combination of hard work, companionship and accomplishment that was professionally fulfilling (Fred Gorbet).

might apply more planning rationality to the annual allocation of resources among Departments and the preparation of Main Estimates. Hartle recruited Mark Daniels, Russ Robinson and me to be his Directors. Later Rod Dobell joined the Branch and later still, after Hartle's departure, assumed the leadership. It must be said that from the outset relations were uneasy between the Program and Planning Branches and indeed between Al Johnston and Doug Hartle. My Assistant Directors on arrival were Barry Carin and Rick Bower. Both were interested in the field of energy policy (and particularly in nuclear policy) and persuaded me to pay close attention to a process being led by the Department of Energy, Mines and Resources and its Deputy, Jack Austin, to prepare an energy policy for Canada. Over the late summer and fall of 1972, EMR convened government-wide gatherings at the Emergency Measures Facilities at the Arnprior airport to seek to forge some community-wide support. (My recollections are not perfect here but the meetings were, I believe, bi-weekly and included, again in retrospect, remarkably high-level representation – frequently Deputy-level – from across all interested departments). About the same time, Atomic Energy Canada Limited (AECL) had run into difficulties with an underpriced sale of heavy water for a Candu reactor being constructed in Argentina. (For the first time questions began to be raised about the high cost of Canadian nuclear developments). In both of these developments, as a relatively junior 'critic', I became heavily involved and my interest in energy matters deepened.

The Energy Policy for Canada, Phase I, as it turned out, encountered heavy weather in Cabinet. Led by Simon Reisman and the Finance Department the economic reasoning underlying the analysis was thought to be deficient⁵ and EMR was asked to conduct further and more sophisticated analysis before proceeding to Phase II. I had written briefing notes for Gordon Osbaldeston

5 I recall well the economic analysis in Phase I. It consisted of a chapter in which the demands for oil, coal, gas, uranium and electricity were added (with minimal allowance for double-counting of fuels used to produce electricity) to derive the total demand for energy. The paper then went on to explain that the "one great historical constant" was the energy/GDP ratio, and proceeded to forecast GDP on that basis. When criticized by Ian, Jack Austin's reply was "Well, Ian it clearly says it's Phase I. Why don't you come to EMR and help us get Phase II right?" (Fred Gorbet)

(who had succeeded Al Johnston as Treasury Board Secretary – Johnston having gone to Health and Welfare as Marc Lalonde's Deputy and to head up a task force which ultimately produced the Orange Paper). Osbaldeston asked whether I would accept being seconded to EMR to assist in the required analysis and so in the summer of 1973 I arrived at EMR. (It is perhaps relevant to note that this appointment gave birth to the notion of the Temporary Assignment Program, TAP, situated in the Treasury Board Secretariat, and I was effectively its first candidate!).

In late August 1973 Osbaldeston had been asked by the Prime Minister to convene a group of officials to consider what prices might be frozen as part of an anti-inflation initiative. At that time the price of Canadian crude oil reflected the price of exports posted in Chicago by Imperial Oil. Imperial had just given notice of a pending several cent increase (7 cents, as I recall) and this seemed to the group to be an appropriate price increase to zap. Two weeks later the National Energy Board (whose legislation demanded that they approve both exports and their price as being fair, reasonable and in the national interest) approached the Minister, Donald Macdonald, to say that they could not licence exports at the frozen Canadian price. After some deliberation the export tax was born and it became the first step in the tortuous energy struggles of the 1970s. Two months later OPEC quadrupled the price of crude. What had begun as an assignment to do an intensive piece of economic analysis to support a broad structure of energy policy in Canada was almost instantly transformed into participation in a prolonged period of federal/provincial/industrial struggle, First Minister's conferences and ongoing Departmental, inter-departmental and Cabinet deliberation on the evolution of federal policy.

It was said that EMR had written three memoranda to cabinet in the 1960s and something over thirty over the next two years and I was the pen behind many of them, with the notable assistance of the intelligence and knowledge of Bill Hopper, the ADM Energy who was later to become the President of Petro-Canada. It would be helpful to presume that all who read this will have been aware of the issues which dominated the debates of the 1970s. It would occupy too much of this cursory rendition of my career to deal adequately with the imbalances which the oil-price revolution invoked for Canada, particularly

between the importing East and the producing West, the rents accruing to the producing industries, and the U.S. reaction to the imposition of export taxes. It is fair to say, I believe, that had a way been easily found to share producing-province wealth with the need to support import exposure in the East, adopting a world-price oil policy would have been the preferred policy (preferred at least by most economists!) and the inflation consequences accepted in a troubled inflation era. But such a solution remained intractable in the context of the Canadian federation.

Aside from my direct involvement in the continuing meetings and negotiations on the larger issues, two principal contributions marked this period. One was the recruiting of Fred Gorbet to essentially take on the task for which I had been originally detailed. The other was to offer support for the creation within EMR of the Office of Energy Conservation under David Brooks. Petro-Canada was born in this period, a development with which I was less directly involved but strongly supported. Tommy Shoyama replaced Jack Austin for a period as Deputy before returning to Finance as Deputy Minister in 1975.

The Privy Council Office

In the summer of 1975 I was recruited by Michael Pitfield to join the Privy Council Office as Secretary of the Cabinet Committee on Economic Policy. The next three years were to be an intensive period of policy issues and developments. Once again, as at the Bank, I had the great good fortune to be associated with a group of colleagues whose capacities and good humour made the intensive swirl of events of this period both tolerable and indeed enjoyable. Ghiselin Fortin and Derek Whyte were my assistants on arrival. With their departure the team grew to include Fred Gorbet whom I lured from EMR, Alan Nymark who had been in Washington as the assistant to our Executive Director at the IMF, Bernie Drabble, and Ray Protti from the Bank of Canada. The distinguished careers they all subsequently enjoyed testifies to their considerable capacities. With Fred Gorbet's arrival I became a Senior Economic Advisor as I had been at EMR and Fred took over the Secretary post to the Economic Policy Committee.

While energy policy issues continued in the forefront, the accelerating pace of price increases and the appearance of escalating wage demands forced attention to inflation. Through the fall of 1975 the Cabinet debated the possibility of wage and price controls before deciding to announce their imposition in early October. There ensued an intensive period of institution-building as the Anti-Inflation Board was formed, and extensive consultations on the precise nature of the policies to be followed. In all of this it should be noted that relations between the Privy Council Office (and to some degree Ministers including the Prime Minister) and the Department of Finance had endured some 'system' strain through the 1970s. The imposition of controls over the substantial opposition of Finance officials demanded some management. Fortunately I enjoyed the personal friendship of the Deputy, Tommy Shoyama, and we decided to institute a weekly meeting to deal with emerging issues. These meetings took on the form of martinis late on Friday afternoons in his office and this practice continued through my time at the PCO.

Among the issues we dealt with was the need to transform, by federal/provincial agreement, the mechanisms by which the federal government supported the health and education expenditures of the provinces. Fifty/fifty cost-sharing under the rates of expenditure increase being experienced by the provinces was putting increasing strain on the Federal fiscal situation. Negotiations began with the provinces to move to a scheme called Established Program Financing. In return for giving up federal tax room to the provinces, they would accept the transformation of the federal contribution to a block grant. The grant would be indexed to inflation, with contributions to particular provinces equalized so as not to disadvantage the equalization receiving provinces. The entire deal was consummated at a Federal/Provincial First Ministers Conference in late 1977. It can be said that without the exquisite diplomatic and negotiation skills of Tommy Shoyama, buttressed by his easy relationship with the provinces, it is difficult to believe that such a fundamental change in federal/provincial fiscal relationships could have been achieved. My role was to be of what assistance I could through briefing the Prime Minister, and assuring that other actors in the PCO and the government at large were on side.

In the late summer of 1978 the Prime Minister returned from a meeting with Helmut Schmidt the German Chancellor. Apparently persuaded by Schmidt that government restraint was necessary in the stagflation atmosphere of the late 1970s the PM without consulting his cabinet (or his Minister of Finance!) announced \$2 billion of program cutbacks, \$500 million of which would be returned to each of the Social and Economic committees to support new initiatives. An interdepartmental task force on tax-transfer integration, led by Finance, had recently cast up interesting candidates for such treatment including the possibility of replacing the children's allowance with a refundable child tax-credit. With little disagreement it was agreed that the \$500 million dedicated to social policy would finance such an innovation under Monique Begin, the Health and Welfare Minister. It turned out to be extraordinarily difficult for economic development ministers to reach agreement on the disposition of their \$500 million. In an attempt to break the impasse the PM appointed Robert Andras as the chair of a newly constituted Board of Economic Development Ministers (BEDM) who promptly headed off to Montebello to confer. In the end, the funds were largely dedicated to reinvestment in the forestry and pulp and paper industries.⁶

The success of BEDM gave birth to the formation of Ministries of State in the economic, social and foreign affairs areas. Much thought went into this reform of government policy-making. Equipped with public servant staffs the Ministries of State were intended to consider planning documents from the departments under their purview (including, of course, the elimination of unproductive programs), congeal these documents into a consensus of cuts

6 The introduction of the refundable child-tax credit was of signal importance to the future development of public policy, and my recollection is that Ian played a much more forceful role in articulating the rationale and arguing for it than the text above suggests. By making tax credits refundable, we moved the Personal Income Tax (PIT) system, which is based on voluntary filing, to a system with greater than 97 per cent participation. Because virtually all Canadians file a return, the PIT has become an effective and efficient tool in income distribution policies in Canada. The introduction of the GST in 1991 could not have been accomplished without the refundable GST tax credits that reduced the inherent regressivity of the sales tax. And those credits could not have been introduced and administered effectively without the path-breaking work in the late 1970s that led to the introduction of the refundable child-tax credit. (Fred Gorbet)

and new initiatives and forward the requisite need for additional funding to Cabinet meetings in September – Priorities and Planning in early September and full Cabinet in late September. This hyper-rational design for rational and coordinated government policy-making had a critical flaw. There was never sufficient money to fund Ministry requests or seed the Ministries with funds under their control which might reinforce the process. Having played a modest role in its evolution I think it remains underappreciated as a serious attempt to imbue the public policy system with rationality and, in fact, to decentralize the process, contrary to the allegation of the greater centralization of decision-making in the Trudeau years. Unfortunately, slow economic growth in the 1970s, the escalating debt burdens of the government, and the tendency of the system to produce claims over resources far in excess of the fiscal capacity to deliver forced degeneration in the system. As the system became increasingly ineffective, it left a vacuum that was increasingly filled by the Department of Finance.

One last development during this period deserves comment. There was a series of formal and informal meetings of a range of federal officials through the middle and late 1970s, seeking both to generate better understanding of the forces underlying stagflation, and to consider the various prescriptions being offered around the world for its treatment and cure. The preponderance of prescriptions were to move governments to the right, to fiscal prudence generally, to constraints upon if not reductions in the insurance programs of the welfare state, and to the unwinding of government interventions in the economy thought by some to be the source of a collapse in innovation and productivity growth. It was in this context that I took some time to begin to write what I thought of as a middle road through this intellectual territory. I was joined early on by Fred Gorbet, whose skilful pen shared in the production of what we called *The Way Ahead*. Various drafts were read by Prime Minister Trudeau who offered continuous encouragement. *The Way Ahead* was published in October 1976 as a government publication and, much like a Cabinet document, has no place in one's list of publications. It could be said, however,

that for its time it attempted to identify ‘new directions for intelligent government’ the theme to which this festschrift is dedicated.⁷

In a genuine biography there would be much more to record and reflect upon in the PCO years but if I am to finish this shorter essay, I must move on. I have left out of account the issues surrounding the competing applications to build pipelines to carry natural gas from the Arctic and Prudhoe Bay and the negotiations with the United States led by Alan MacEachen. I was closely associated with all of that but since none of it came to fruition it can be safely neglected. In mid-1978 the Prime Minister offered me the opportunity to choose my next assignment. Since the energy crisis still persisted, though apparently diminishing (the Iranian revolution of January 1979 was still in the future), and since issues such as the pipelines and the negotiations with the provinces continued, and since the Energy Policy for Canada, Phase II had never emerged I elected to return to Energy Mines and Resources as Deputy Minister.

Back to Energy Mines and Resources

I was responsible for no great innovations upon my return. Ed Clark had taken over Fred Gorbet’s direction of energy research; the Office of Energy Conservation continued to flourish, and I hoped to turn my attention to the review of the extensive resources in the earth sciences within my purview. I led a delegation of EMR, Finance and External officials to a series of meetings with our counterparts in Washington seeking to diminish frictions arising from the export tax and the Canadian management of oil and gas exports. Indeed, friction with the Americans and the provinces were in the process of diminishing as the Federal/Provincial agreement on the Canadian oil price was within one jump of carrying the Canadian price to world levels and hence to the elimination of the export tax (and the end of the sagas of the 1970s!).

But in 1979, after the Iranian revolution, OPEC quadrupled the price of oil again. The fat, it might be said, was returned to the fire! I was representing Alistair Gillespie, my EMR Minister, at a meeting of the International Energy Agency in Paris (where Fred Gorbet was about to become the Director of Pol-

7 *The Way Ahead* is reproduced as an Appendix to this volume.

icy) when the Conservatives under Joe Clark won the Canadian election and I returned home to the deep briefing of Ray Hnatyshyn as my new Minister. Joe Clark devoted the summer to getting his Cabinet up to speed, culminating in a retreat to Jasper where energy issues (particularly Petro-Canada) were much on the agenda. That was followed by a G-7 summit in Tokyo, the ‘energy summit’, where a collective response to the crisis provoked by the quadrupling of the price of oil was the dominating issue. I was in and out of the meeting room rehearsing the Prime Minister, John Crosby and Flora MacDonald on the Canadian import and export numbers as the debate pushed towards a summit commitment to constrain the level of imports and oil consumption. As oil supply eased in the early 1980s commitments to the numbers agreed in Tokyo also eased.

Back in Ottawa I briefed the new Cabinet on the history of the 1970s and the emerging issues. With Prime Minister Clark’s agreement I visited the western provinces meeting officials and seeking a way out of the differences of view between the producing provinces and the federal government. With Minister Hnatyshyn we met with Alberta ministers and officials without much evidence of the narrowing of differences. Indeed in a way the tensions between Prime Minister Clark’s government and the government of Alberta seemed even more intractable and coloured by underlying political differences. (These differences were to play some part in the shaping of a federal budget that later became fatal for the Clark government). By late fall, perhaps as the stress resulting from ill-defined negotiations began to affect my health, I found it necessary to seek leave from the Prime Minister to take some time to knit up the ravelled sleeve. While reclining on a beach in the Bahamas I was astonished to hear over beach radio that the Conservative government of Joe Clark had been defeated on a Budget vote. I returned to Canada and EMR to find the country preparing for another election.

The Department of Finance

In February of 1980 I moved to Finance from EMR to serve as Deputy under A.J. MacEachen as Minister. Bill Hood had succeeded Tom Shoyama as Deputy Minister of Finance only to be dismissed within a few months by the incoming Conservative government. I, in turn, replaced Grant Reuber, his

successor, as the administration changed again. As with my time at EMR I will not attempt to list my new-found colleagues. They were too numerous and one risks serious omissions in a hurried assembly of a biography. As in all my professional life, however, I again found myself associated with people who were as much friends as professional associates and from whom much of my career satisfaction emerges.

The story of my time at Finance can largely be told in the context of three Budgets. It is of course the case that issues large and small are more or less the constant diet of the Department of Finance but the three major initiatives that mark my time there were associated with Budgets. For the government at large the central preoccupation was Prime Minister Trudeau's determination to repatriate the Constitution with its associated Charter of Rights. The Liberal government had committed in the election campaign to continue the control of crude oil prices and there remained a very substantial gulf between domestic and world prices. The prospect of any negotiated sharing of the rents from ascending to world prices had, unfortunately, long since vanished. One last informal attempt to seek compromise took place at 24 Sussex, where Premier Lougheed and Prime Minister Trudeau deliberated on the banks of the Ottawa River and agreed to disagree. Under the leadership of Ed Clark at EMR, therefore, a working group with very substantial interdepartmental oversight and collaboration set to work to essentially derive a federal share through the design of taxes that did not do violence to the division of federal/provincial taxing authorities.

The product of that intensive working program was published along with the fall Budget of 1980 as the National Energy Program (NEP). Beside the storm created by the NEP, the Budget received little attention and indeed contained little that was controversial. A dissection of the NEP itself can await another occasion! With this 'concluding' salvo in the 'energy' wars, however, it is difficult not to reflect upon the entire episode. Had some means been found to share unanticipated oil and gas rents (federally/provincially and/or inter/provincially) and had the country ascended immediately to international oil prices the country would have assumed a more rational and efficient pricing policy, there would have been no struggle with the United States over export taxes, and there would almost certainly have been no NEP. There might have

remained, undoubtedly, some contention with the oil and gas industries on the dimension of those rents but the country would have been much better off.

It is fair to say that through my time at Finance the growing deficits and debt had become an increasing preoccupation. When Priority and Planning Ministers convened at Ingonish, on Cape Breton Island, in early September 1981 the cumulative wish list of Ministers for new expenditures exceeded \$10 billion. Among these claims were the recognition of a critical need to invest in the expansion of the CPR/CNR system west of the Prairies to relieve critical bottlenecks in the transport of grain to the west coast. For many, the historic Crow Rate Agreement which compelled the railroads to transport grain at heavily subsidized rates was thought responsible. At the end of a lengthy day of debate and discussion, a deal was struck in which the Minister of Finance would agree to some \$2 billion of additional expenditure but would endeavour to raise that amount through the tax system – especially by a reduction in tax expenditures. In return, it was at that meeting that Jean Luc Pepin, then Minister of Transport, agreed to tackle the increasingly onerous Crow Rate agreement – a commitment which, by his efforts and those of his Deputy, Arthur Kroeger, had, by the end of the decade of the 1980s, resulted in its absolute, by stages, abolition.

The central focus on tax expenditures and leakages in the tax system generally had arisen primarily as rising interest rates and continuing high inflation through 1981 had begun to spawn schemes for tax avoidance. Of particular concern was the growth of Income Averaging Annuity Contracts (IAACs) to distribute current earnings into the future and the use of “wrap-around IAACs”, in which money was borrowed, and the interest expensed, to finance such contracts. Under the direction of the Tax Division of Finance a search was launched to seek a menu of tax expenditure and avoidance schemes whose curtailment might contribute to the 1981 budget.

In retrospect, several errors contributed to the hostility with which the 1981 budget was received (a hostility in some important respects that was not without justification). Perhaps most important was the pace at which economic activity was declining under the influence of the Volker-inspired Federal Reserve System dramatic rise in interest rates. The decline was severely underestimated by the Department and the structure of the budget was there-

fore cyclically inappropriate. (I have often wondered in retrospect whether it would have been possible at the eleventh hour to abort; but I confess that the possibility never occurred to me at the time, even though the process of economic decline was ever more visible). Secondly, private sector accommodation to high interest rates and the avoidance of taxation on inflation-enhanced earnings had become more deeply embedded among actors in the economy than we had judged. Thirdly, the selection of tax expenditure candidates for the budget had been too hurriedly addressed and designed through the rushed preparations of the autumn of 1981. (Never casually attack the personal insurance industry with their thousands of agents to be summoned to the barricades!). Critically, devices designed by Deputies who succeeded me to design continuing tax reforms for application, not immediately, but with delay; to shelter under consensus forecasts, and to pay central attention to the management of public relations, greatly diminished budget alarms.

The Budget was not well received. Some retreat in the design of various elements became necessary at some substantial political cost to Mr. MacEachen and the Government. As the recession deepened, and the automatic stabilizers swung into action, the planned deficit in fiscal 1983-4 swelled from \$5 billion to close to \$20 billion. And at least for the moment inflation continued apace. There was considerable pressure from Her Majesties' advisors in the PCO to rush a Keynesian assault on the deepening recession but attention in Finance focussed on seeking relief from severely contractionary monetary policy and extraordinarily high interest rates through addressing inflation. In late June of 1982 the third Budget had two main purposes. The first was to explicitly reject additional expenditure increases on the grounds that automatic stabilizers were doing their job and the Government had recently launched a program to offer investment support to industries of particularly distressed communities. The second, and greater purpose of that Budget was to introduce the '6 and 5' program – a program run out of Finance (and with significant political participation from politicians like Keith Davey) – intended to limit wage increases over two years in the public sector nationally and to exhort the private sector to follow the same guidelines. In part, it must be said, because the steam was coming out of wage increases by mid-1982 the '6 and 5' program was well received and seemed to command general support.

At the fall-1982 meetings of the World Bank and IMF in Toronto, the crisis for the economic world had become the debt distress of the Latin American countries. Paul Volker met with A.J MacEachen and me to see whether Prime Minister Trudeau, as a friend of the Mexican president, might be persuaded to intervene in support of the Mexican finance minister. The economic context was late recession from which the world was about to rapidly recover. At those meetings A.J. MacEachen informed me that in a discussion with the PM he had proposed to leave the Finance portfolio later that year. I decided to hang on for the briefing of Marc Lalonde who moved from EMR to succeed him. It became clear in discussions with Lalonde, that were otherwise productive, that he intended to revisit some of the elements of the 1981 budget. Less clear, but probably his preference, was the possibility of bringing Mickey Cohen, his Deputy at EMR to Finance. I decided to move on in November 1982 with the possibility of becoming a Commissioner with the Macdonald Commission which was about to be announced and which Prime Minister Trudeau had urged me to consider.⁸ In the end for a variety of reasons, the possibility of such an appointment being seen as merely a political reward amongst them, I conferred with Donald Macdonald and decided to decline. I also declined Mr. Trudeau's offer of appointment as the Canadian Executive Director at the World Bank. A need to step off the bus, and a feeling that Stewart family life had too long adjusted to the needs and demands of its patron were among my thoughts at the time.

(There is) Life after Finance

The Ministry of State for Economic and Regional Development and Central Mortgage and Housing Corporation

One of the constant preoccupations of senior officials in the Department of Finance is "Is there life after Finance"? The pace and intensity of the Depart-

8 I accepted to return from Paris to join Ian at Finance in January of 1982, though my return was delayed until July. I worked with Ian closely through the fall of 1982 and would want to record that his advice to the Prime Minister was instrumental in the decision to establish the Macdonald Commission. I recall working through several drafts of the Terms of Reference with Ian during that period. (Fred Gorbet)

ment sometimes make it difficult to envisage any other reality. I can report that there is indeed, “life after...”.

In early 1983 I ‘retreated’ to my old role as ‘Senior Economic Advisor’ at MSERD, first to Bill Teschke and later to Arthur Kroeger. For two years I offered advice on issues appearing before MSERD and, in particular, tried to address regional issues which had become the responsibility of Federal Economic Development Officers (FEDC’s) and who met frequently at headquarters to talk policy. I pushed no dramatic insights into development policy and sponsored no dramatic research initiatives but became more deeply schooled in the structure of the Canadian economy and its problems.

At the same time I was asked to Chair the Board of CMHC. During my time as Chair, CMHC was largely engaged in picking up the pieces that flowed from the 1981-3 recession, and that had particularly affected an array of inventive programs that Bill Teron had begun through his earlier reign as President. Further, encroaching expenditure restraint within the federal government had begun to affect CMHC and the Corporation’s support for provincial housing programs. As the provinces in turn devolved social housing responsibility to their municipalities the Corporation’s historic role at the pinnacle of social and native housing in Canada was in the process of eroding. Nonetheless it was another occasion for education and reflection among a diverse Board and a staff with long experience, expertise and deep social commitment. In 1985 I stepped down at the request of the Government.

Skelton Clark and Queen’s once again

In 1985 I was offered the Skelton-Clark chair at Queen’s. It was a one year appointment but mid-way I resigned from the federal public service and accepted the appointment for an additional year. It was an opportunity to teach again in the Masters of Public Administration program and to do some writing, noted in the list of publications appended. The facilities at Queen’s, the opportunity to attend seminars in the economics and politics departments and, indeed, the ambience of fairly continuous discussion of policy and public affairs suited me well. Two other pieces noted in the Appendix in my years beyond my time at Queen’s were begun there – the contribution to Joe Pechman’s volume on the Role of Economists in Government (Stewart, 1989) and the contribution to the

Economic Council's conference in 1988 (Stewart, 1988). Between 1987 and 1990 my life was involved with an array of small consulting adventures and additional writing.

Statistics Canada

In 1990 Statistics Canada offered me a post of Research Fellow and I spent the year 1990-1991 trying to design a current statistics compendium which might serve as a *vade mecum* which could increase the broad knowledge of the sweep of economic affairs available to general audiences. The Canada Year Book had always seemed to me more of a coffee-table tome than a ready reference volume. Unfortunately, I never did come to a design which adequately served my purpose (and protected the sensitivities of the Bureau). I did however volunteer my services to do some writing which supported Statistic Canada's appeals against the threat of severe budget cuts (all the while campaigning to restore the former practice of offering the Agency's publications as a free good!). I also came to serve, for more than a decade, as the first chair of the National Accounts Advisory Committee. This was accompanied by a short stint as Chair of a committee supporting the research efforts of Statistics Canada, and ultimately a decade or so on the National Statistics Advisory Committee. To revert to the IT revolution for a moment, the Bank of Canada in the late 1960s financed a group of Washington, DC consultants to assist the Bureau (as it then was) to plan the transition to computerized data systems. Bill Hood and I acted as intermediaries from the Bank in consultations with Walter Duffet and Simon Goldberg to support this process. It was further a group including Mike McCracken from the Economic Council, Bob Horwood from the National Energy Board and I from the Bank who chivvied the Bureau to move to support the provision of machine-readable data, the precursor of the creation of Cansim. Since it does not appear elsewhere this is perhaps the place to note that Mike McCracken created Massager, which supported the early regression analysis underlying the RDX models, and Bob Horwood left the National Energy Board to found Computel, which made Univac 1108 power available in Ottawa.

Consultancies and Board Volunteering

Through the 1990s I agreed to serve on a number of Boards (none of them carrying the emoluments of private sector boards but all of them involving people committed to public purposes or professional associations). In 1993 I agreed to chair the Board of the Public Interest Advocacy Centre, an organization which had succeeded the regulated industry group associated with the Consumer's Association of Canada. The activities of this quasi-legal enterprise were increasingly directed to representing the consumer interest before the hearings of the CRTC as, again, the IT revolution began to dominate its proceedings. In 1995 I accepted the chair of a newly created enterprise called the Centre for The Study of Living Standards whose Executive Director, Andrew Sharpe, revealed himself to be an enormously inventive, tireless and infinitely cheerful generator of sustaining research. The chairing of a largely academic Board of professional economists continues to this day, the duties far from onerous and the company of Executive Director and Board alike a continuing pleasure.

In 1998 I joined the Board of VSO (Voluntary Service Overseas) Canada. It had begun in the early 1990s as an organization associated with (but not a branch of) VSO(UK). It flourished in Canada, recruiting volunteers from across the country to dedicate years abroad in the developing countries of the world. I left the Board in 2004. The next year it amalgamated with CUSO to become VSO CUSO Canada.

Over the period 1995 to 2000 I joined with Marc Lalonde, Andre Saumier, and Peter Barnes to offer consulting services to Vietnam on government organization and policies to support economic development. Twice yearly we gathered with Vietnamese officials. Though my memory is clouded my files indicate an extensive series of papers I prepared on various topics of interest to our Vietnamese hosts.

Finally in 2005 I joined the Board of SRDC (Social Research and Demonstration Corporation), an organization whose staff specialize in controlled experiments of potential social policy initiatives.

It is also worth noting that in the late 1980s I undertook, under a program entitled 'Ottawa Decides' an oral history project with Bob Bryce – the messenger who brought Keynes to North America and a long-time senior Canadian public servant. An assistant (a Ph.D. student) combed the archives for docu-

ments on assigned topics covering the period from Bryce's arrival in Ottawa until his service as Clerk under PM Diefenbaker. We each received identical books of documents to review and when Bryce felt ready to proceed we would meet, talk and record. The records and transcripts of them were then deposited with the National Archives. In the process I learned an enormous amount about contemporary Canadian economic history and policy-making.

I also participated, for a couple of years, in an interdepartmental seminar, focussed on Governing in an Information Society, managed and chaired by Stephen Rosell. It resulted in a several volumes which reported on the deliberations of a group of senior public servants and their guest speakers (see Rosell *et al.*, 1992, Rosell, 1995, and Rosell, 1999).

Afterlife

Enough!! Cottaging, boats and boathouses (including the restoration of cedar/canvas canoes), golf, the internet, following the blogs (including deep contentions in economic theory and policy) etc. etc fill my life.

Bibliography

- Rosell, Steven *et al.* (1992) *Governing in an Information Society* (Montreal: Institute for Research on Public Policy).
- Rosell, Steven (1995) *Changing Maps, Governing in a World of Rapid Change* (Ottawa: Carleton University Press).
- Rosell, Steven (1999) *Renewing Governance* (Oxford: Oxford University Press).
- Grady, Patrick, and Andrew Sharpe (eds.) (2001) *The State of Economics in Canada - Festschrift in Honour of David Slater* (Kingston: John Deutsch Institute for the Study of Economic Policy).
- Stewart, Ian (1986a) "Consensus, flexibility and equity," *Canadian Public Policy*, Vol. 12, No. 3.
- Stewart, Ian (1986b) "Tax reform and the federation," in Peter Leslie (ed.) *Canada: The State of the Federation 1986* (Kingston: Institute of Intergovernmental Relations, Queen's University).
- Stewart, Ian (1986c) "The collective interest: higher taxes or lower expenditures?" in Martin Prachowny (ed.) *Policy Forum on the February 1986 Federal Budget* (Kingston: John Deutsch Institute for the Study of Economic Policy, Queen's University).
- Stewart, Ian (1988) "Consensus and economic performance," in Ministry of Supply and Services, *Perspective 2000*, proceedings of a conference sponsored by the Economic Council of Canada (Ottawa: Ministry of Supply and Services).

-
- Stewart, Ian (1989) "Canada," in Pechman, Joseph (ed.) *The Role of the Economist in Government, An International Perspective* (Hemel Hempstead: Harvester Wheatsheaf).
- Stewart, Ian (1990) "Global transformation and economic policy," in Thomas Axworthy, and Pierre Elliot Trudeau (eds.) *Towards a Just Society, the Trudeau Years* (Toronto: Viking).
- Stewart, Ian (1991) "How much government is good government," in G. Doern, and Bryne B. Purchase (eds.) *Canada at Risk? Canadian Public Policy in the 1990s* (Toronto: C. D. Howe Institute).
- Stewart, Ian (1992) "Canada and the international economy," in *Britain and Canada in the 1990s, proceedings of a UK/Canada colloquium* (Aldershot, UK: Dartmouth Publishing).
- Stewart, Ian, J. Helliwell, L. Officer, and H. Shapiro (1969a) "The structure of RDX1," *Bank of Canada Staff Research Studies*, No. 3.
- Stewart, Ian, J. Helliwell, L. Officer, and H. Shapiro (1969b) "The dynamics of RDX1," *Bank of Canada Staff Research Studies*, No. 5.
- Stewart, Ian, J. Helliwell, L. Officer, and H. Shapiro (1969c) "Econometric analysis of policy choices for an open economy," *The Review of Economics and Statistics*, Vol. 51, No. 4, pp. 383-398.
- Stewart, Ian, J. Helliwell, H. Shapiro, G. Sparks, F. Gorbet, and D. Stephenson (1971) "The structure of RDX2," *Bank of Canada Staff Research Studies*, No. 7.
- Stewart, Ian, J. Helliwell, F. Gorbet, and D. Stephenson (1973) "Some features and uses of the Canadian quarterly model RDX2," pp. 24-47 in A. A. Powell, and R.A. Williams (eds.) *Econometric Studies of Macro and Monetary Relations* (Amsterdam: North-Holland).
- Stewart, Ian, J. Helliwell, F. Gorbet, and G. Sparks (1973) "Comprehensive linkage of large models: Canada and the United States," pp. 395-426 in R. J. Ball (ed.) *International Linkage of National Economic Models* (Amsterdam: North-Holland).
- Stewart, Ian, Charles L. Schultze, Rudolph G. Penner, and Roger B. Porter (1990) "Contribution to a policy user's panel," in Ernst Berndt, and Jack E. Triplett (eds.) *Fifty Years of Economic Measurement, Studies in Income and Wealth*, Vol. 54, National Bureau of Economic Research (Chicago: University of Chicago Press).