



Morris Altman

Lessons from a Successfully Export-Oriented, Resource-Rich Economy

Quantitative Adventures
into Canada's Past

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Lessons from a Successfully Export-Oriented, Resource-Rich Economy

“Morris Altman’s text breathes new life into Canadian economic history by taking us back to big questions about the sources of successful development of small open economies. Altman demonstrates that plurality of economic theory is a richer approach to understanding the complexity of economic development, and variations in outcomes for economies and individuals in them, than a singular neoclassical economics focus that dominates most texts. Altman reminds us of the importance of investing time and energy into developing quality data suitable for answering the questions we have, rather than fitting our questions to whatever data we believe we have. Econometric methods are complementary inputs to quality data, rather than substitutes for salvaging the utility of flawed data. For students, theory, data and institutions combine, in this impressive book, to develop a provocative narrative that will allow them to recognize multidisciplinary linkages across courses in their studies.”

—Herb Emery, *Professor of Economics and Vaughn Chair in Regional Economics, Department of Economics, University of New Brunswick, Canada*

“This worthy volume brings together much of Professor Altman’s groundbreaking research into Canadian economic history. The diversity of topics reflects the controversies and complexity of the Canadian economy itself. The result is a well-written treatment of successful economic development in the face of unique challenges.”

—Kris Inwood, *Professor of History and Economics, University of Guelph, Canada*

“There has been an absence in recent years of a comprehensive synthesis and overview of recent work in Canadian cliometrics providing a thematic narrative of Canadian economic history and this is a welcome addition that in the fullness of time shall go on to become a standard reference.”

—Livio di Matteo, *Professor of Economics, Department of Economics, Lakehead University, and Adjunct Professor of History, Department of History, Lakehead University, Canada*

“Throughout his career, Morris Altman has addressed important questions in Canadian economic history with theory and data, a true cliometrician. The theory

he favors has a greater social dimension than that used by many cliometricians; the data is carefully collected, often constructed, to meet the assumptions of the theory. The result, as this book demonstrates, is a cohesive, personal view of how the Canadian economy developed. This compilation of Altman's work covers two and a half centuries, from the late-seventeenth to the mid-twentieth. It tackles both macro- and micro-economic questions and demonstrates that Canada is indeed one of the world's success stories."

—Louis B. Cain, *Professor Emeritus, Economics, Quinlan School of Business,
Loyola University of Chicago and
Adjunct Professor Northwestern University, USA*

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To my mentor and friend, the late Professor Harold (H.R.C.) Wright

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Introduction: Quantitative Economics in a Canadian Context

1 INTRODUCTION: WHAT'S THE POINT?

This book is a product of my thinking and writing about some challenging questions in Canadian economic history which have implications for our understanding of important issues related to economic development, institutions, gender and power. This book is also a narrative about the implications of the careful and considered construction of data sets for a richer understanding of the past, especially when informed by an open-minded, more pluralistic, application of economic theory to the data and the challenging questions before us. I focus on issues, debates, controversies related to economic growth and development, the role of institutions and policy in the growth and development process, gender pay inequality, and the evolution of real wages in Canada. I pay special attention to the economic evolution of Early Canada (pre-Conquest), the economic development of Quebec in the later nineteenth century, the role of high wage in spurring economic growth, the gendered sectoral distribution of employment in the late nineteenth-early twentieth century and its impact on the gender pay gap, and the importance of staples to Canada's growth and development process, particularly in the 1870–1920 period.¹

Underpinning the argument presented in this book and the hypotheses tested here is the construction new data sets designed to help address the questions and issues raised. This takes us back to late seventeenth century during which time a relative abundance of data is available to

piece together estimates for real gross national product and gross and net income per farm holding (held by the ‘tenant’ under the seigneurial system of land tenure.) Such data construction and re-construction forms the underbelly for the interpretive narrative presented in all of the chapters in this book.

Because the significance of all things empirical, this book sits somewhat in the tradition of the New Economic History which has been more formally named as Cliometrics.² For many practitioners, Cliometrics refers to the rigorous application of economic theory and econometrics to address and reassess fundamental questions in economic history. For many, theory and econometrics dominates a robust understanding of the past and of the data one inputs into one’s econometric models. Moreover, there has been an undue reliance on ‘neoclassical’ theory as opposed to being more open to alternative theoretical perspectives to inform the analysis at hand. Amongst the early pioneers of the Cliometric ‘revolution’ are: Alfred H. Conrad, John R. Meyer, William Parker, Ken Fogel, Douglass North, Robert Gallman, Angus Maddison, and in Canada, M.A.C. Urquhart, K. A. H. Buckley, O.J. Firestone, Gordon Bertram, and Ed Safarian. As an historical footnote, I should add that Buckley and Safarian did much of their pioneering research at my old home base at the University of Saskatchewan. And, Marvin McNinnis who also made significant contribution in this area, received his early training at this same university. I was fortunate enough to be mentored by Robert Gallman when he happened to come across my research on Early Canada and by Angus Maddison during my reworking of Canada real GDP estimates for the post-Confederation, pre-Great Depression period. I was also fortunate enough to discuss aspects of my research with M.A.C. Urquhart and Marvin McNinnis, although we did not always see eye-to-eye on the questions at hand.

Where my research is situated in the domain of economic history was very much influenced by my primary PhD supervisor at McGill University the late Harold (H.R.C.) Wright, who emphasized the importance of the quality of the historical data one uses, its representativeness, the significance of being open to different and alternative economic models (methodological pluralism), and the importance of asking challenging questions that will help enrich our understanding of the past and the present through the lenses of the past, even if such questions might be upsetting to the power that be in the academic community. Wright, himself, was an economic historian, but one who had a very

nuanced understanding of the history of his area of study as well as the source data that he used to construct his historical analytical narrative (see, for example, Wright 1955, 1961). I was also influenced by what was, in the 1970s and early 1980s, a very pluralistic economics department, where multiple theoretical perspectives were taught and debated and where economic history, history of economic thought, institutional economics, as well as different perspectives on economic theory, and even econometrics, held pride of place.

This book is very much an analytical one, informed by theory, based on constructing and reconstructing pertinent data sets. It is not a neoclassical-rooted econometric revision of Canadian economic history. My view is that economic historians are unique scholars; they are not econometricians who use historical data (without necessarily understanding these data) to test particular hypotheses. This would be especially the case where the focus of the statistical analysis is on tests of statistical significance as opposed to size effect, variance, the representativeness of the sample and, of course, the model that informs the statistical analysis.³ An economic historian should be someone with a nuanced and deep understanding of the past and who is also well versed in economic theory and in the practice of historical data construction. Without properly constructed data sets, with assumptions clearly specified, any econometric analysis of the data, poorly constructed, is of little scientific value. In this sense, the chapters in this book are very in line with the contributions of Gallman, Maddison, Buckley, and Urquhart. Their approach remains a valid and necessary approach to economic history. But the additional value added of my book, which builds upon the pillars of data construction and reconstruction, is the economic analysis and reinterpretation of important questions in Canada's past which also has some relevance to our understanding of contemporary economic questions and issues, such as economic development, the importance of institutions to economic outcomes, and the role of gender equity in the labour market.

2 SOME CONTEXT

Before immersing ourselves more fully into some of the important details and debates regarding Canada's economic past, we need to orient ourselves by racing ahead and looking at the end of our story. Where does the Canadian economy stand today? I argue that Canada's past economic performance was largely a success. But has Canada's economic success

faltered; has Canada's past experience acted as a break on its future efforts at economic development and growth? There are, needless to say, many conflicting interpretations as to the general direction of Canada's past as well as her future course of economic development. This book adds to this debate, focusing on the pre-1930 period and, hopefully, serves to clarify some pertinent issues and to re-orient some of the discussion.

Examples of clearly contrasting views on the Canadian economic development are expressed by Tom Naylor and Michael Bliss. Naylor (1972, 1975), in a highly influential and controversial work, argued that the particularities of Canada's economic evolution has meant that Canada entered the present century encumbered by a colonial and structurally flawed economy and, as a result, its economic performance to that date had been weak and our future prospects appeared dismal. Michael Bliss (1970, 1987), on the other hand, believed that Canada's development, while marked by many ups and downs, was on the whole a success story, one where the Canadian entrepreneur has been a vital force in the development process. The story told in this book is clearly supportive of Bliss' worldview, at least with regards to the relative success of Canada's early development performance.

It is useful to place this historical narrative in terms of where Canada is currently situated in terms of constant dollar or real total output per person. This measure provides us with some sense of the *potential* level of material wellbeing available, on average, in a country. This extends the narrative presented in Chapter 2, where revised historical real output estimates are presented and demonstrate the overall success of the Canadian economy post-Confederation up to the Great Depression period. Given the various debates on Canadian economic development, it would be useful to know if Canada has fallen from grace given the successes it achieved in the decades immediately following Confederation in 1867.

I also draw upon the United Nations' Human Development Report (2018) to position Canada globally in the context of a wider array of estimates. These estimates (the Human Development Index or HDI) incorporate total output as well as life expectancy and educational attainment. To get ahead of ourselves, both sets of estimates support the view that overall Canada has done rather well for itself, so that by the first part of the twenty-first century it ranks as one of the top countries in the world from various methodologically perspectives. There is, however, some evidence that Canada's position is heading in the wrong direction—albeit it is certainly not crashing downwards.

But as history clearly demonstrates, no path of economic and social development, once taken, is irreversible. Much depends on government policy. For this very reason, countries such as Canada, blessed with endowments of market valued natural resources, can achieve very high level of wellbeing, conditional on government policy and the institutional parameters within which decision are made. There is no such a thing as a staple trap (Sachs and warner 2001; see also Boyce and Herbert Emery). Being well endowed with staples does not mean that one is doomed to economic failure. Staples is a resource that can provide significant advantages to a country if well harvested. And institutional design, the quality of government, as well as the preferences of decision-makers are critical to determining the success or failure of a staple-related economy, just as these variables critically determine the future of economies not well endowed with staples.

In Table 1, data are presented on real or constant dollar output (in terms of Gross National Income) per capita in the of purchasing power parity (PPP) international dollars for the top ranked economies and their ranking. Also, presented is the HDI index for the top-ranked countries and their ranking. But in Table 1 countries that are top-ranked for HDI with these countries' rankings for real output per person is offered. Hence, top-ranking per capita GNI economies that fall below the top-28 HDI economies are not included. Amongst these are the oil and gas reliant economies: Qatar, Brunei Darussalam, Kuwait, and Saudi Arabia. We use data for 1990, 2000, 2010, and 2018. We also add relatively low ranked Argentina, a serious and successful 'staple' economy in the late nineteenth century (see Chapter 2). And we add rapidly growing China and India into the mix as a point of comparison especially given the fact that these two countries, combined, comprise almost 40% of the world's population of 7.6 billion. I've bolded those countries where staples are of some importance such as in Norway, Canada, New Zealand, and the United Arab Emirates.

Canada has dropped in its HDI ranking from 1 to 14 from 1990 to 2018. However, its HDI index in 2018 of 0.93 is almost identical to that of countries ranked 6th to 11th with 0.94. Switzerland and Norway are ranked 1 and 2 respectively with a rounded number HDI of 0.96. Therefore there is not much of a difference between Norway and Canada. So, at least in terms of the HDI, this more inclusive measure of wellbeing, Canada has continued to do pretty well, even though Canada's ranking has fallen. Inclusive of Canada and Norway, other staple related

Table 1 Human Development Index, Real Gross Nation Income (GNI) per capita (2017 PPP 2017 Dollars), and Rankings

	1990	2000	2010	2018	1990	2000	2010	2018	2018	2018
	HDI	Rank	HDI	Rank	HDI	Rank	GNI/Pop	Rank	GNI/Pop	Rank
Switzerland	0.84	5	0.9	4	0.94	1	0.96	1	58,955	7
Norway	0.85	4	0.92	1	0.94	2	0.96	1	40,544	13
Ireland	0.77	23	0.87	14	0.9	18	0.95	2	24,384	36
Hong Kong, China (SAR)	0.78	19	0.83	25	0.9	16	0.95	3	27,931	30
Germany	0.81	11	0.88	9	0.93	4	0.95	4	42,616	19
Iceland	0.81	12	0.87	13	0.9	19	0.95	5	37,573	28
Singapore	0.72	42	0.82	27	0.91	12	0.94	6	55,809	9
Denmark	0.81	13	0.87	11	0.92	6	0.94	7	47,958	15
Netherlands	0.84	6	0.88	6	0.92	5	0.94	8	48,502	13
Sweden	0.82	8	0.9	3	0.91	10	0.94	9	51,778	15
Finland	0.79	17	0.86	15	0.92	8	0.94	10	52,431	14
Australia	0.87	1	0.9	2	0.93	3	0.94	11	49,800	16
United States	0.87	2	0.89	5	0.92	7	0.93	12	46,463	20
Belgium	0.81	10	0.88	7	0.91	11	0.93	13	43,580	24
Canada	0.85	3	0.87	12	0.9	17	0.93	14	55,421	10
United Kingdom	0.78	20	0.87	10	0.91	9	0.93	15	62,667	10
New Zealand	0.83	7	0.88	8	0.91	13	0.93	16	51,619	18
									48,292	23
									44,190	23
									42,183	27
									45,686	26
									40,559	31
									34,780	34
									30,182	33
									26,183	33
									35,737	21
									30,822	27
									30,456	28
									38,271	26
									48,024	24
									62,667	10
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									26,183	33
									35,737	21
									30,822	27
									30,456	28
									38,271	26
									48,024	

	1990	2000	2010	2018	1990	2000	2010	2018	2018								
Liechtenstein	.	-	0.86	16	0.9	14	0.92	17	62,153	5	94,254	2	86,670	3	130,748	1	0.00004
Austria	0.8	14	0.85	21	0.9	15	0.92	18	37,994	15	46,309	16	52,564	12	55,533	15	8.9
Japan	0.82	9	0.86	19	0.89	24	0.92	19	32,323	24	36,045	31	38,455	29	42,564	29	127.2
Israel	0.8	15	0.86	17	0.9	21	0.92	20	23,668	38	29,644	37	34,306	36	39,568	33	8.4
Luxembourg	0.8	16	0.86	18	0.9	20	0.91	21	70,538	3	93,991	3	79,133	4	72,476	4	0.6
Korea	0.73	37	0.82	26	0.89	23	0.91	22	12,655	63	22,825	42	34,480	35	42,002	30	51.2
(Republic)																	
Spain	0.76	26	0.83	24	0.87	27	0.91	23	27,327	31	34,583	32	36,844	32	40,419	32	46.7
Slovenia	0.77	22	0.83	23	0.89	22	0.91	24	22,042	40	26,249	40	33,058	39	37,423	36	2.1
France	0.79	18	0.85	20	0.88	25	0.9	25	33,981	22	40,512	23	43,282	25	46,537	25	65
Czechia	0.74	31	0.8	31	0.87	28	0.9	26	23,867	37	24,568	41	31,046	40	37,294	37	10.7
United Arab Emirates	0.72	40	0.78	40	0.82	43	0.89	27	102,433	1	104,640	1	54,911	11	67,195	6	9.6
Italy	0.78	21	0.84	22	0.88	26	0.89	28	36,282	20	43,098	18	42,782	26	42,657	28	60.6
Argentina	0.72	43	0.78	41	0.83	40	0.84	47	13,597	59	18,179	46	22,727	52	21,918	61	44.4
China	0.5	103	0.59	113	0.7	102	0.76	83	1469	169	3417	134	8847	110	15,187	78	1427.6
India	0.43	114	0.5	127	0.58	135	0.64	131	1787	159	2548	151	4182	139	6427	128	1352.6

Source Human development report, data center. Available at: <http://hdr.undp.org/cn/data>

economies such as Australia, New Zealand also are highly ranked in terms of the HDI. In terms of real output per capita, Canada's ranking improved from 27 to 22 from 1990 to 2018. This places Canada ahead of Australia and the United Kingdom, its former colonial 'master. The United States remains well ahead of Canada, as it was in the early twentieth century (Chapter 2). But America's very high real per capita output has not driven its HDI above Canada's because of its relatively poor showing in education and life expectancy. This relates to the two countries different social infrastructure which falls in Canada's favour.

Argentina is introduced since it was once one of the formidable staple economies in the late nineteenth and early twentieth centuries, ranking amongst the top of the world in terms of real per capita output (Chapter 2). However, it's fortunes had fallen dramatically by the end of the twentieth century (it's fall began well before). Its performance is now relatively weak both in terms of the HDI and real per capita output, although it has been experiencing a turn-around in recent years. As mentioned above, being resource rich, in and of itself, is no golden nugget, and is no guarantee for sustained economic growth and development. Argentina experienced a series of dictatorships and corrupt regimes and this element of political economy no doubt negatively impacted Argentina's ability to positively exploit its staple endowment. And then we have India and China, certainly not staple type economies (but where exports of non-staples are important). Here the improvements in the real per capita output and the HDI have been dramatic, especially in China. Neither country suddenly discovered huge reserves of staples to facilitate rapid growth and economic development. Rather, in China, Deng Xiaoping led China's break with 'Maoist' extreme statist policies toward state direct market-oriented policy in 1978 and then again, more forcefully, in 1992. In the early 1990s, democratic India began to break with its statist (not very market sensitive) economic regime. Regime change, with no staples, to help things along, appears to have played a fundamentally important role in driving these two vast economies forward. To reiterate a point, staples aren't everything. It should be noted that both countries remain relatively poor even as they have experienced unprecedented economic growth. China's real per capita output was 32% of Canada's in 2018 and India's was 13% of Canada's at this time.

Canada's context can be visualized when looking at Fig. 1. Here I correlate the countries HDI's with their real per capita out (per capita GNI) for 2018 as presented in Table 1. We can now see from this diagram

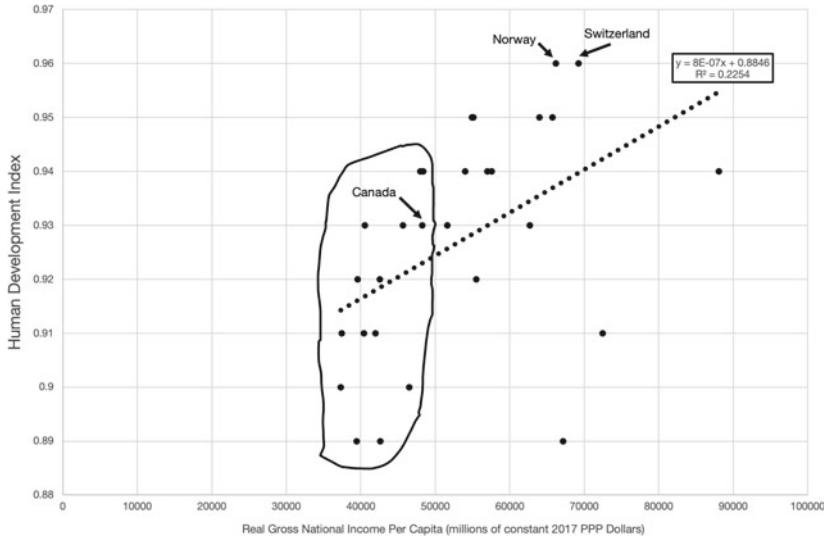


Fig. 1 The Human development Index and Real Gross Nation Income 2018

how Canada has performed, relatively speaking, in terms of both the HDI and real per capita output, at least amongst the top-27 ranked HDI countries.⁴ For the 27 countries included here, it bears repeating that Canada did quite well. Perhaps, of even greater interest, is that when one highlights (circled in black) countries with a similar level of real per capita output, Canada has achieved amongst the highest level on the HDI amongst these countries. A particular level of per capita output does not guarantee a high HDI. Overall, there is a strong positive relationship (correlation) of 0.26 between real per capita output and the level of a country's HDI. Realizing the highest possible level of the HDI was not possible without a relatively high level of real per capita output.

Source Table 1

So, Canada, even now well into the twenty-first century, continues to perform strongly in the world economy, affirming Bliss' more optimistic perspective on the Canada's economy and confirming what I've found to be the case from a more New Economic History perspective presented in this book. But this narrative is not about proving that Canada's economy did wonderfully well, it is about determining how well it actually did

historically and trying to resolve some of the important questions raised with regards to Canada's overall economic performance.

3 ABOUT THIS BOOK

In Chapter 2, "Growth Theory and Economic History: A Staple Perspective," the staple theory is introduced. It is a subset of the export-led growth hypothesis, designed to explain the growth and economic development of resource rich economies. It is a misunderstood theory seen to be at odds with the stylized facts of economic growth and development as well as with mainstream neoclassical wisdom. This chapter presents a brief and critical historiography of the staple theory and its critiques from which a simple model of staple growth and development is developed. It should be noted that staple theory underscores how critically important it is for internal factors to be appropriately developed and fostered if staple exports are to be a driving force in the growth process. Data, focusing in the 1870–1930 period, are presented here which suggest that the staple theory remains an important holistic analytical tool to help explain issues of economic development and growth. Moreover, the data show that Canada, very much of a staple economy, thrived particularly at a time when exports boomed.

In Chapter 3, "Economic Growth and Development in Early Canada," original estimates of real gross domestic product, per capita GDP, and growth rates for early Canada or New France are presented for the 1695–1739. This is made possible by the fairly comprehensive and accurate censuses that are available to the researcher, particularly from 1680 to 1739 period. These estimates challenge the view that early Canada's economy was stagnant and relatively impoverished and instead present this colony as relatively well off compared to the British American colonies. Exports played an important role here. But fundamentally important was the ability of Early Canada to positively respond to the challenge of an increasing population and expanding export markets. Ultimately, it is this flexibility that underlies the relatively robust nature of early Canada's economy.

Chapter 4 relates to Chapter 3. Newly developed data sets reveal that the seigneurial system of land tenure modified the distribution of income in early Canada or New France. This changed the structure of demand, and thus the pattern of investment, probably reducing total output of the colony from what it otherwise might have been. This contravenes