Preface

The emergence of this volume, *New Estimates of Gross National Product, Canada, 1870 to 1926: The Derivation of the Estimates*, marks the culmination of a project begun some fifteen years ago, on my initiative, as a collaborative undertaking of seven of us in academia. The importance of having series of national income data for the understanding of many economic matters had been long recognized. The official estimates of national income in Canada, developed, in the main, by a highly competent group at the Dominion Bureau of Statistics from 1945 onward, covered the period beginning in 1926. Estimates for years before 1926 were limited in scope: before the wartime years of 1939-45 Sydney Smith of the Dominion Bureau of Statistics had prepared national income estimates for 1919 and subsequent years; John Deutsch, subsequent to his work on national income with the Royal Commission on Dominion-Provincial Relations (reported in 1939), had prepared national income estimates for Canada for the years 1911 to 1920 (Canadian Journal of Economics and Political Science, 1940, p.538); O.J. Firestone had prepared estimates for the years beginning each decade from 1870 to 1920, preceding the decennial population census year, and a single series of annual constant dollar estimates from 1870 onward (plus 1867) (O.J. Firestone, *Canada's Economic Development 1867-1953*, Bowes and Bowes, London, 1958); a number of private estimates cited by Firestone had also appeared. These estimates had all served useful purposes but they had their limitations. There remained scope for a new set of annual national income estimates for Canada, for the years 1870 to 1926 based on both more extensive and more intensive investigations than had been done hitherto. The need can be no better put than was done by John Dales in this excerpt from his comments on the estimates when they were first given at a Conference on Research in Income and Wealth of the National Bureau of Economic Research at Williamsburg, Virginia in 1984.

The new estimates constitute the second attempt to provide a comprehensive set of historical National Accounts for Canada; the first such estimates were prepared by O.J. Firestone some 30 years ago and published in his 1958 volume, *Canada's Economic Development, 1867-1953*. Since the two sets of numbers are bound to be compared I hope Urquhart will prepare a short account of the major differences between them and possible explanations for the differences. (McInnis provides a good commentary on the agricultural figures, perhaps the main source of these major differences.) The point would only be to satisfy our gross curiosity; the estimates differ in concept, construction, and especially in the amount of raw data that underlies them, and it would be pointless to attempt to reconcile them in any detailed way.

Here I comment on the estimates from the point of view of their probable effect on research in Canadian economic history. In retrospect I find it rather surprising that
Firestone’s estimates have stimulated so little research. Two reasons may be suggested. First, the Firestone figures were simply too skeletal, consisting essentially of estimates at census dates, with only a few annual series for large aggregates that represented interpolations made on a more or less mechanical basis between census years. Second, the worksheets of the people involved in the Firestone project were apparently never brought together in a safe repository, and over time they became lost. The result was that the scholarly community was faced with numbers that could be used to calculate decadal growth rates for a few major aggregates, but not for much else. More important, there was not much chance of fleshing out the skeleton by building on the raw data and attempting to improve the estimates, which is why improved estimates necessitated a whole new start.

If the Firestone estimates had a low research multiplier, I feel sure that the Urquhart estimates will greatly enrich the study of Canadian economic history. The main reason is their richness in detail. The GNP totals, for example, are built up from estimates for twenty sectors: agriculture, manufacturing, and six lesser commodity sectors; construction; transportation; residential rents; three government sectors; public education; three minor service sectors, and two large ones — trade, and personal and business services. Of these only the last two, constituting about 15 percent of the total, have had to be interpolated on a mechanical basis between census years; enough ancillary data have been found to develop annual series that can be used as interpolators for the other sectors. Moreover, the sectors are themselves constructed from subsectors: some 28 separate commodity series for agriculture, and 17 separate series for manufacturing. There is more than enough here to enrich scores of doctoral dissertations, and it is hard to think of any research in the field that will not benefit from this new material. Constant use, in turn, will act as a continuous testing of the data, and, when, anomalies appear, will lead to attempts to improve individual series. Our new numbers can confidently be expected to increase our research metabolism....

The product of our new project is then the new annual estimates of gross national product and related items for 1870 to 1926 contained herein along with a description of how the new estimates were obtained: the estimates themselves have been previously published. The various components of the estimates of gross domestic product, with particular reference to industrial subdivisions, are attributable to those engaged in the project as follows. Those for whom a University designation is not given individually are members of staff at Queen’s University.

Alan Green was responsible for the income estimates in the transportation, communications, and electric light and power sector. This included estimates for the steam railways, the electric railways, the telegraph, the telephone, and the electric utilities, and the description of the derivation of his estimates given in Chapter 6.

Duncan McDougall prepared estimates of wage and salary payments and of outlays on goods and services of federal and provincial governments, in great detail for 1910 and in somewhat lesser detail for 1900, 1890, 1880, and 1870. I was responsible for estimates for provinces for 1920 and also for the interpolation of the yearly data between census years and between 1920 and 1926 when the official estimates begin. Duncan McDougall was also responsible for the preparation of the major part of the fisheries estimates; I did some work in reconciling the estimates at a point of junction of two series where the nature of the underlying data changed. I did the writeups on the preparation of both of these estimates.

Marvin McInnis and I developed the methodology of estimation of income for the agricultural sector in preparing an estimate for 1910. Marvin McInnis then wrote up the estimates
for that year. I did the detailed direction of the preparation of the estimates for the full period, with some further consultation with Marvin McInnis, and I must bear the responsibility for their quality. I also did the detailed writeup on the preparation of the agricultural estimates.

Thomas Rymes, of Carleton University, prepared the income estimates for the finance, insurance, and real estate sector, and the description of the derivation of his estimates, all of which appears in Chapter 7. Prior work of Rymes was also of much use in preparation of the data on manufacturing.

Alasdair Sinclair, of Dalhousie University, prepared the balance of payments estimates and the description of their derivation given in Chapter 11.

Marion Steele, of the University of Guelph, prepared the estimates of residential rent, the estimates of capital formation through residential construction, and the descriptions of the derivation of her estimates which appear in Chapter 8.

I am responsible for the preparation of the remainder of the estimates and all of the remaining writeup as well as the coordination and direction of the whole project.

The fact that the work leading to the completion of this has been done by several authors and spread over many years, on a part-time basis on my part, has meant some difference in form among the chapters. It has remained our objective that each chapter and the work as a whole should avoid ambiguity and be readily comprehensible. The final arrangement of pages to fit a form for providing camera-ready copy for reproduction has been shaped by the need to keep the material in proper sequence.

We were assisted in our work at various times by many research assistants, among whom were David Arrowsmith, Merrit Cluff, Ann Green, Richard Huff, Marshall Lee, Gina Mathew, Rupendra Nath, Stephen Poloz, Leighton Reid, Rodney Schmidt, Joanne Stewart, Patrick Wilson, and Dennis Wrixon, and those to whom credit is given separately by T.K. Rymes and Marion Steele in their chapters. I wish also to thank Kim Roper for her heroic and splendidly accurate work in putting the material, all computer based, in a form for transfer directly to camera-ready copy for duplication. In addition, I wish especially to note the contribution of David Jones to the preparation of the estimates on manufactures: David Jones, who had been a senior member of the National Income Unit of Statistics Canada, spent one winter working especially on the data on manufactures and made a most valuable contribution to the manufactures estimates and some other figures.

The project is indebted to the University of Chicago Press for permission to reproduce parts of my paper "New Estimates of Gross National Product, Canada, 1870-1926: Some Implications for Canadian Development" contained in Stanley L. Engerman and Robert E. Gallman, Long-Term Factors in American Economic Growth published for the National Bureau of Economic Research by the University of Chicago Press, 1986. The material so reproduced in this volume comprises: Tables 1.1 to 1.13; pages 2 to 9; pages 47 to 51; pages 236 to 242. In some cases, there are slight modifications of the originally published material.

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