Preface

This book is an outgrowth of an earlier study, *The Dynamics of Industrial Competition* (Baldwin, 1995), that investigated the dynamics of change in the industrial sector – entry, exit, mergers, and the growth and decline of incumbents – using longitudinal databases that track individual firms (or, in certain cases, plants) through time. While the *Dynamics* book produced new evidence on the amount of industrial change that is occurring in firms, it only touched the surface. It provided counts of entrants and exits, evaluated their importance using market share, and tracked their progress in terms of their size and productivity characteristics.

Industrial economics has suffered from a paucity of data at the micro level. In contrast, a discipline like labour economics has both longitudinal panel data on individuals and rich micro-level databases describing the characteristics of individuals. Labour economics has made extensive use of these micro-level databases to improve the analytical content of longitudinal panels. In contrast, early work on industrial dynamics had little information on the characteristics of individual firms in their longitudinal databases other than size, age and industry membership.

To build richer data sets on industrial units that are in transition, we have developed a set of surveys that allow us to better understand the internal workings of the firm. In order to do so, we have to bridge the divide that exists between the disciplines of economics and management science. Traditionally, the field of economics rarely tries to go beyond a characterization of the firm as an aggregation of labour and capital. The management literature, however, has long wrestled with describing the firm in richer detail – as a bundle of internal competencies. In the work presented herein, we have built on this tradition and developed a set of surveys that provide us with snapshots of the strategies, competencies and activities that characterize different firm populations. We are greatly indebted to many individuals who have led the way with small-scale case studies, whose previous research on business strategies and activities was essential to us.

In our work, we have tackled the difficult task of developing surveys that could be used to collect data from samples of the business population that are large and representative enough to allow us to confidently draw inferences about entire populations of firms. This required that we extract the essence of

the issues tackled by previous researchers and incorporate them efficiently into our surveys.

The surveys that we developed had to adequately cover the essence of various issues, but not provide an inordinate burden on respondents – busy entrepreneurs who already had a full agenda. All surveys were voluntary and therefore, respondents had to feel that the information they were providing was useful. We also had to develop a survey process to ensure that the response rates were at the level that Statistics Canada generally deems necessary for accurate results. We had to make sure that the frame from which the survey was chosen and our sampling techniques provided for accurate estimates of the population. Fortunately for the project, we were able to draw on the expertise of staff at Statistics Canada who were used to producing professional statistical products from surveys.

Finally, in certain cases, we had to merge survey results with longitudinal databases so that we could analyse differences between firms based on their performance characteristics over time. We then examined whether a group of firms that were more successful, based on a performance metric of growth or profitability or degree of innovation, possessed a different set of competencies than those who were less successful.

This research compares a snapshot of a firm's competencies to its performance over a period prior to it being surveyed. This is useful in a world where firms choose a particular set of strategies and then let markets sort firms on the basis of having selected the 'correct' bundle of strategies. For example, one study herein compares the characteristics of firms in 1992 by their performance over the period 1985–89. By examining the characteristics of firms who succeed, we can isolate those strategic qualities that the market is rewarding.

We choose to look at the characteristics of firms at the end of the period over which we have measured their performance. Our work on the dynamics of firms has found that considerable change takes place within any population. For example, over a decade, some 40 per cent of market share is shifted from firms in decline to those who are growing (Baldwin, 1995; Baldwin, 1996a; and Baldwin and Sabourin, 2001a). At the beginning of any decade, there is virtually no difference between the labour productivity of firms who will gain market share over the decade and firms who will lose it. But by the end of the period, the relative productivity of the former has increased 30 per cent to 40 per cent above that of the declining group. Over any time period, the gainers either introduce new capital equipment or new organizational practices that are reflected in their productivity by the end of the period. It is therefore at the end of the period over which we measure performance that we look for significant differences between the populations of gainers and losers.

There are a host of other questions that still need to be answered and on which we have started work. While firms choose bundles of policies, they

also change some of these at the margin. It is of interest to know how marginal changes affect performance. But to address this issue requires that progress be made in generating new data using longitudinal panels. We need to track firm characteristics over time and trace out the effect of changes at the margin. New databases that are required for this have been set in motion and will form the base for further research.

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