1 Introduction

1.1 Background

Economists are generally wary of cooperation between firms. More than two centuries ago, the ever observant Adam Smith (1776) wrote that:

> "people of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices"

Indeed, the study of collusive and anti-competitive behaviour dominates the economic and public policy literature dealing with cooperative behaviour. This is an important and pathological vein of cooperative behaviour – and all nations have laws to deal with it. It is not the subject of this report.

Instead, we look at cooperation as a tool for increased business efficiency. There are around about 350,000 private businesses in Australia.[1] Each of them is really an experimental configuration of resources: people, knowledge, machinery and routines bundled in a particular way. Some experiments – some configurations – work better than others. Those firms flourish. Others work badly. Those firms die. Successful configurations rely principally on two things:

- **having the right information**. Before the first bolt is tightened, die set, or computer booted, a firm acquires information on *how* to produce and for *whom*;
- **the scale of the firm must fit the technology**. You cannot, for example, be a competitive small steel producer.

By cooperating firms can learn about better configurations more quickly than simply learning by doing – they tap into the best results of the vast numbers of experiments being conducted around them. Cooperating firms can also strengthen their technological capabilities, or achieve together economies of scale unavailable at the firm level.

The increasing use of linkages and networks by firms may in some ways represent a more fundamental shift in the way modern firms are organising their business activities. The traditional concept of the firm as a stand-alone entity incorporating the ownership of a set bundle of resources, is giving way to firms which maintain core activities but increasingly look outwards to access information, capabilities and resources. This is blurring the set boundaries of the firm. Accordingly, business cooperation may be a vehicle for what could well be a fundamental decline in the 'optimal' size of the firm.

This report assesses the current role and significance of business cooperation in Australian industry. Business cooperation is used in this report to encompass particular types of business linkages and networks – special ones which are beyond normal market transactions. The study is timely in view of the increasing recognition being given to business linkages and networks by key players such as governments, business organisations and industry associations.

1 In 1991-92 there were 340,000 private non-agricultural businesses (ABS, *Small Business in Australia*, 1993, Cat. No. 1321.0).

1.2 The policy setting

Firms will not automatically form cooperative business arrangements even when they would be ultimately beneficial. The federal government has recognised this, most notably for firm networks. For example, the Business Networks Program, run by the Department of Industry, Science and Technology (DIST), aims to encourage SMEs to participate in formal networks to enhance their competitiveness and capabilities. In this program a network is classified as a grouping of at least three companies cooperating in purchasing, production, distribution or marketing of goods or services.

DIST and other federal departments also run other programs aimed at forming and maintaining cooperative business arrangements. These programs have at heart the idea that firms exchange information and capabilities as well as goods and services – so that cooperation can enhance firm competitiveness. Examples include the Partnerships for Development Program and the Best Practice Demonstration Program.

1.3 Key objectives of the study

Despite the increasing awareness of business linkages and networks in Australia, and government involvement in some areas, there is still little known about the full extent of business cooperation across Australian industry and the factors driving it.

Other studies have provided partial accounts of particular areas of cooperation. However, despite a suspicion as to the increasing importance of inter-firm cooperation, and some recognition of the changing role of the traditional firm, there is a lack of detailed empirical work which could inform policy making in this area.

This study is essentially a 'stocktake' of business cooperation in Australia and an assessment of its impact on firms. How are firms using cooperation as a business strategy? What is the extent of business cooperation and what is its impact on firm performance? Governments need an up-to-date assessment of current cooperative arrangements to develop appropriate policies and programs for business infrastructure.

The major aims of the study can be summarised as follows:

- to document and describe the nature and extent of business cooperation in Australia;
- to discover which firms engage in various forms of cooperation;
- to measure the benefits of cooperation;
- to assess the effect of cooperative arrangements on firm performance;
- to establish relationships between types of cooperation, different firm characteristics and firm performance;
- to discover the key problems and impediments associated with business cooperation;
- to discuss the role of governments and other bodies such as industry associations; and
- to assist with the future formulation of industry policies and the delivery of industry programs related to business cooperation.

1.4 Methodology

The major data source for the study was a mail-out survey of 5000 firms, of which 1300 responded. These firms operate in five industries; namely, Clothing and footwear, Engineering, Information Technology & Telecommunications (IT&T), Processed foods and beverages (Food), and Scientific and medical equipment (Sci/med). The industries are a balance of 'old' and 'new', and grouped together can be considered to be broadly representative of Australian industry. Background information on these industries is provided in Appendix B.

The survey sought information on the nature and extent of cooperative arrangements, areas in which firms cooperate, benefits and costs of inter-firm cooperation, the importance of inter-firm linkages to firm performance, and the role of governments and industry associations. The survey form is reproduced in Appendix A.

The BIE was responsible for the survey questions and design. The Australian Bureau of Statistics assisted by mailing out survey forms, processing the raw data and providing general statistical advice. We developed the survey questions from an extensive set of hypotheses, which we pre-tested on a pilot group of firms.

As far as possible, the survey contained questions to allow the objective measurements of the strength of cooperative arrangements and their importance in business performance. We checked the accuracy of the survey responses by conducting a follow-up telephone survey of 100 respondents to the original survey. Finally, we undertook a non-respondent survey of 100 firms to check how representative the survey responses were of the whole firm population.

In addition to the surveys, the study team conducted face-to-face interviews with approximately 40 firms across the selected industries. These interviews explored more thoroughly some of the key issues covered in the surveys.

The firms interviewed were involved in at least one major cooperative business arrangement with one or more firms, and ranged in size from very small (under 10 employees) to large firms with several hundred employees. Firms from each of the mainland states were selected for interview. Several firms were also involved in government-assisted business networks.

The other major data source for the study was information obtained from National Industry Extension Service (NIES) state officers and other state government officials about government assistance in each state. An important element of this was statistical information relating to the number of government-assisted networks and their structure. Appendix F provides a taxonomy of these networks, including data on the number of firms, the relationships between firms, the type of products and the focus of the networks.

Additionally, we canvassed the views of industry bodies and associations. The BIE sought their opinions on their own role and that of government in business cooperation, as well as their feel for the importance of business cooperation to firms. Finally, academics from several research areas provided input to the more theoretical aspects of the topic. Further details of the methodology are contained in Appendix A.

1.5 Outline of report

The report is divided into four parts. Part A consists of Chapters 2–5 and looks at the basic facts about business cooperation in Australia and provides answers to gaps in current knowledge. Who cooperates? How? Why? Chapter 2 provides a brief overview of what we mean by business cooperation and how pervasive it is in Australian industry. Chapter 3 provides a theoretical discussion of the reasons why firms might want to form cooperative arrangements. The hypotheses developed in this chapter are tested in Chapter 4 where we pose the question of whether some types of firms are more likely to cooperate. We examine the relationship between firm characteristics such as size, age and ownership and the tendency to participate in business cooperation. Chapter 5 completes Part A by considering the various forms of cooperation (for example, customer and supplier relationships) and their relative frequency.

Part B of the report consists of Chapters 6–9 and examines the positive impacts of business cooperation. In Chapter 6 we provide a brief overview of the benefits which firms obtain from their cooperative arrangements. In the next two chapters we examine how different types of firms (Chapter 7) and cooperative arrangements (Chapter 8) are associated with different types and degrees of benefit. In Chapter 9, we analyse the impact of firms' most important, or 'key', cooperative business arrangement on their performance and competitiveness.

Following the discussion of positive business cooperation effects in Part B, the focus of Part C switches to some of the 'downside' aspects of business cooperation. In Chapter 10 we examine the problems faced by firms within their cooperative arrangements, while in Chapter 11 we look at the reasons why business cooperation sometimes fails. A significant number of firms do not engage in business cooperation at all. We discuss their impediments to cooperation in Chapter 12.

The final part of the report, Part D, looks at the role of government (and other external agencies such as industry associations) in supporting business cooperation. Chapter 13 examines current forms of assistance and discusses the views of both cooperating and non-cooperating firms on their preferred forms of external assistance. In Chapter 14 we assess the implications of the report's findings for policy makers and put forward a number of recommendations. Finally, in Appendices A through G we provide a range of information supplementary to the material discussed in the main body of the report.