

# 1. Introduction and Summary

## 1.1 Purpose of the Report

Cooperatives and other forms of farmer controlled businesses (FCBs) are major players in a number of New Zealand's agricultural sectors, and together account for a significant share of New Zealand's economic activity. The New Zealand Ministry of Agriculture and Forestry (MAF) has commissioned the New Zealand Institute for the Study of Competition and Regulation (ISCR) to examine the role and significance of cooperatives in New Zealand agriculture. The inquiry is intended to inform consideration by MAF of public policy issues that either currently, or might, confront New Zealand's important agricultural sector.

## 1.2 Agricultural Sub-Sectors Considered

The main agricultural sub-sectors for this analysis are taken to be dairy, beef and lamb, wool, fishing, horticulture and forestry. Other agricultural sub-sectors considered include rural supplies and fertiliser production/importation. Attention focuses on the major organisations in each sub-sector that are clearly cooperative in character, not least because of difficulties in identifying cooperative organisations in New Zealand.

## 1.3 Cooperative Definition

A functional definition of cooperatives is developed and adopted in this report. In particular, we define a cooperative as follows:

*A cooperative is an organisation in which those who transact with (i.e. "patronise") the organisation also own and formally control the organisation, and derive significant benefits from those transactions over and above any financial returns they derive from their investment in the organisation.*

In this context the owners may be suppliers of the organisation, such as dairy farmers supplying milk to a cooperative dairy processing company, or customers of the organisation, such as farmers purchasing fertiliser from a cooperative agri-chemicals company. This definition is sufficiently broad as to encompass agricultural bargaining, processing, marketing, supply and lobbying (i.e. industry representation) cooperatives. It includes both traditional cooperative organisations, and the many variations that have evolved from this model, such as the so-called new generation cooperatives (NGCs) and other hybrid organisational forms, which place greater emphasis on investment returns, and share more similarities with IOFs, than do traditional cooperatives.

The definition distinguishes cooperatives from IOFs, which in principle can be regarded as capital supplier cooperatives, in terms of the degree to which the organisation's owners derive their returns via patronage rather than investment. It also distinguishes cooperatives from FCBs, in which farmers own and control the business, but derive their returns via their investment in the business rather than from their patronage, even where their patronage of the business might be significant. Hence, agricultural cooperatives represent a subset of FCBs.

Legal definitions of cooperatives in New Zealand and elsewhere are also discussed, but it is emphasised that cooperative activity arises in a variety of legal organisational forms. Well-known cooperative principles are also discussed, as they contribute to an understanding of why traditional cooperatives have arisen.

## **1.4 Analytical Framework**

An analytical framework is developed for assessing relevant public policy questions. In particular, a comparative institutional approach is adopted, identifying differences between cooperatives and other types of organisation – notably, the investor-owned firm (IOF). The economics of why certain types of organisation arise as responses to particular economic challenges is briefly traversed, drawing on new institutional economics and one of its major limbs, transaction cost economics.

In short, various types of institutions – ranging from spot markets through organisational hierarchies – are assumed to each offer their own advantages in different contexts, affecting economic performance. Cooperatives are a type of institution, being a distinct organisational form lying somewhere between a spot market and vertically-integrated firm. Left to their own devices, institutions will evolve in response to changing market imperatives, representing a balancing of the relative costs and benefits of that organisational form vis-à-vis others.

Thus cooperatives might be seen as a natural solution to particular market circumstances – such as when numerous, small farmers compete to supply large, concentrated agricultural processors or distributors (e.g. supermarket chains) having some market power. For cooperatives to dominate IOFs in certain sectors requires that they better resolve such problems after also taking into account the relative costs of cooperative and investor ownership. One organisational form may succeed at the expense of another where its structure offers competitive advantages. Of course, certain organisational forms may also come to dominate others due to obstacles to organisational change – whether natural or artificial – and so the desirability of certain organisational forms coming to dominate others must be assessed with this in mind.

## 1.5 Public Policy Questions

### 1.5.1 Two Main Heads

The public policy questions we consider fall under two heads:

- 1) Are there natural reasons why farmers opt for cooperative ownership of certain activities, and does any such inclination give rise to desirable or undesirable consequences that deserve to be encouraged or restrained?; and
- 2) Are there artificial reasons for cooperatives being under- or over-represented in New Zealand's agricultural sub-sectors, and does this give rise to desirable or undesirable consequences that can be efficiently addressed by policy?

In each case the relevant policy questions must take into account other features of industry structure, such as the existence of competing cooperatives and/or IOFs (locally and internationally), and more generally the global competitive environment in which New Zealand's agricultural producers operate.

The policy conclusions drawn under each of these two heads may be markedly different, depending on the circumstances. If farmers are naturally inclined to opt for cooperative ownership, and such ownership is desirable, then the policy prescription could be either neutral (do nothing) or encouraging. If such ownership is undesirable, the questions then become whether alternative organisational forms are superior, are there means by which to influence farmers' choice of organisational form, and do the benefits of interventions to influence this choice outweigh the costs?

If there are artificial reasons for the extent of cooperative activity in New Zealand agriculture then different questions arise. Artificial reasons include institutional advantages or disadvantages over IOFs such as preferential taxation (whether or not preference is tied to restrictions on cooperative type or activities), subsidies, or access to markets. Some such reasons may be simpler for policymakers to address than any natural farmer inclination to organise cooperatively, since policy distortions that have been created can also be removed. Once again, however, regard should be had to any similar such distortions as they affect alternative organisational forms, and the costs and benefits of policy interventions need weighing.

## **1.5.2 Particular Policy Question Dimensions**

The particular policy question dimensions to be considered relate to whether the adoption of cooperative organisation in New Zealand agriculture, as opposed to IOFs, affects the economic efficiency of that market, in particular:

- 1) the productive efficiency and financial performance of agricultural organisations;
- 2) the business risk, and risk of failure, of agricultural organisations;
- 3) the nature and extent of local and international competition among agricultural organisations;
- 4) the extent of investment and innovation in agricultural organisations;
- 5) the extent of product differentiation and value-added in agricultural organisations;
- 6) the quality of governance in agricultural organisations;
- 7) access to capital by agricultural organisations; and
- 8) the adaptability of organisational forms to changing circumstances.

## **1.6 Structure of the Report**

The report is structured as follows, with policy implications discussed at the conclusion of each section:

- 1) Section 2 develops our definition of a cooperative, considering also cooperative principles, and legal and functional definitions. Common features of traditional cooperatives are discussed, as are the criticisms commonly directed at traditional cooperatives because of these features. A cooperative typology is presented, illustrating the many dimensions along which cooperatives can differ while remaining cooperative to some degree. One particular alternative to the traditional cooperative – the NGC – is presented, noting where its particular features address some of the criticisms levelled at traditional cooperatives. Finally, the various types of agricultural cooperatives relevant to New Zealand are described.

- 2) Section 3 sets out the analytical framework for assessing how and why cooperatives might come to dominate, or simply coexist with, other organisational forms (in particular, IOFs) in agriculture. In particular, a model is presented showing how certain types of organisation can come to better balance the costs of market contracting and ownership than do others. The common arguments for cooperative formation are presented, as is a model of cooperative evolution. Contemporary factors either encouraging or discouraging the adoption of cooperatives in New Zealand agriculture are also discussed.
- 3) Section 4 surveys the theoretical and empirical literature addressing the particular policy question dimensions set out above. Attention is focused on the literature considering the relative performance of cooperatives vis-à-vis IOFs, but also on the cooperative-specific literature where relevant.
- 4) Section 5 examines the role and significance of New Zealand's agricultural cooperatives in quantitative terms, providing estimates of the market share of cooperatives in a sample of significant agricultural sub-sectors. These market share estimates are compared with those for the same agricultural sub-sectors in selected countries, to provide international perspective on whether cooperatives play a greater or lesser role in New Zealand than they do elsewhere. Comparisons are also made with the extent of cooperative activity in a sample of other, non-agricultural sectors in New Zealand.
- 5) Section 7 discusses areas of further research.
- 6) Section 8 concludes.

## **1.7 Main Findings**

Our main findings from this high-level and broad survey of general cooperative issues, and the role and significance of agricultural cooperatives in New Zealand, are:

- 1) The institutional environment for cooperative formation in New Zealand is fairly neutral relative to that in other jurisdictions. Cooperative legislation is flexible, less tied to cooperative principles than corresponding legislation overseas, and free of policy preferences favouring cooperatives over IOFs and other organisational forms.
- 2) Cooperatives in New Zealand have demonstrated considerable adaptability in response to market and other pressures. Mergers and acquisitions, failures, and conversions to the IOF form have all arisen, indicating what can be termed "adaptive efficiency."

Moreover, many variations within the cooperative model have been adopted, alleviating a number of the criticisms often levelled at more traditional cooperative forms, such as constraints on their ability to raise capital, and therefore to grow and integrate further along the supply chain. The use of joint ventures and strategic alliances between cooperatives and IOFs are examples of some of the strategies also used by cooperatives to compensate for any constraints arising under the cooperative model.

- 3) Neither cooperatives nor IOFs are uniformly superior organisational forms in all industries. Certainly the research available on cooperatives does not find them to be uniformly inferior to IOFs, despite common findings that they confront certain constraints not shared with certain types of IOF (i.e. those with listed shares), such as constraints in raising capital. While cooperative governance is sometimes predicted to be inferior to that of listed IOFs, evidence exists that cooperatives enjoy certain governance advantages relative to IOFs that allow them to adopt alternative methods of resolving governance issues common to all organisations in which there is a separation of ownership and control.
- 4) Cooperatives tend to arise more naturally where multiple, small and competing producers of a product face market power due to industry concentration further downstream in their supply chain, particularly where product perishability exacerbates their exposure to such market power. Additionally, what is required for cooperative development is a strong homogeneity of interest among cooperative owner-patrons, such as that facilitated by product homogeneity (as is the case for milk), and cultural homogeneity and stability (as is often the case in rural communities). Such features also foster the relatively stable ownership of cooperatives, which in turn facilitates long-term financial and relational investments.
- 5) These features often arise in agricultural sectors, particularly those based around family-owned and operated farms, where there are economies of scale in downstream processing, marketing, transportation and/or distribution. However, they do not uniformly arise in agriculture. Certain sectors, such as forestry and fishing, exhibit counter-veiling market power on the part of producers. Others, such as wool and many horticultural sectors, involve considerable product heterogeneity which can create conflicts of interests among suppliers that raise the costs of cooperative ownership.
- 6) Moreover, even where the features facilitating cooperative development are present, this does not preclude the coexistence of cooperatives and other (such as IOF) organisational forms. In fact, some models of cooperative evolution predict that cooperatives will arise as a competitive discipline on IOFs, wresting some of their market share, particularly where those IOFs are otherwise able to exercise market

power over the cooperative's owner-suppliers. Research suggests that this coexistence can be beneficial, although not uniformly so.

- 7) Based on our high-level survey of the role and significance of cooperatives in key New Zealand agricultural sectors, cooperatives are dominant in some sectors where evidence suggests they are also dominant overseas. The dairy sector is a notable example. In some sectors cooperatives are more dominant than in overseas jurisdictions, such as in meat processing and fertiliser production. In the former case this may be a reflection of policy preferences in the 1980s. But it may also simply reflect the additional drivers for cooperative formation faced by New Zealand farmers who are primarily oriented towards exporting to distant markets, and their added reliance on shipping, marketing and distribution services relative to their overseas counterparts.
- 8) In yet other sectors New Zealand has less cooperative involvement than in some other jurisdictions, such as in the apple, fishing and forestry sectors. In the case of apples this may be partly a consequence of repeated deregulation, and possibly represents a transitional arrangement. In fishing this is more likely due to the property rights solution offered by the Quota Management System (QMS) to the "commons" problem that often plagues fisheries. In the forestry sector it possibly reflects the considerable heterogeneity arising among growers and processors, and between different classes of growers, and different classes of processor. In all such cases cooperatives are represented in activities at the margin of each sector, such as in property right protection and enhancement in fishing, quality marking in the apple sector, and forestry research.
- 9) Finally, there is no obvious association evident between performance and cooperative presence in New Zealand's main agricultural sectors. While this question, and many besides, would benefit from further research, we are unable to conclude on this analysis that the extent of cooperative involvement in New Zealand agriculture is either beneficial or harmful. Absent a clearly superior alternative, this suggests that the maintenance of a neutral policy setting is reasonable.