Local Responses to Global Restructuring in the Chilean Fruit Complex

Warwick E. Murray

Over the recent past, a growing number of academics have directed their efforts towards the description and analysis of the globalisation of agriculture (Friedland, 1994; Goodman and Watts, 1997; LeHeron, 1993; McMicheal, 1995; Whatmore, 1995). Within this endeavour, much attention has been focused upon the globalisation of the fresh fruit and vegetable system (FFV), which is one of the most intensively globalised agricultural sub-sectors. The recent acceleration and broadening of transnational trade and investment within the FFV complex, especially since the 1980s, has been quite remarkable. This has drawn an increasing array of Southern countries into the system.

Latin American countries have played an increasing role within the global FFV complex, and the apple complex in particular, over the last twenty five years. In Chile, the neoliberal restructuring of the economy in the early 1970s helped unleash a major boom in fruit exports. At the macroeconomic scale, this boom has brought significant benefits. At regional and local levels of resolution exposure to global forces has precipitated rapid change, some of which can be considered 'positive'. However, the boom has had the effect of exacerbating social and economic differentiation in many participating regions and localities. Most notably, the small farm sector has suffered a decline in its relative welfare, becoming subject to mounting debt, landlessness and proletarianisation.

Adopting a ‘global/local’ perspective, the objective of this paper is to throw light upon the local impacts of the insertion of Latin American countries into the global FFV complex. In order to achieve this, evidence is drawn from a case study of the impact of a global apple commodity chain in Chile. Analysis is concentrated on the implications of such change for small-scale growers. In order to lay the necessary context for this discussion, the paper begins by briefly considering the globalisation of the fruit complex. Some general implications of this process are considered for participating Latin American countries, regions and localities. Following this, the Chilean fruit export boom is described and analysed, with particular attention being paid to the apple export sector. Then, attention is turned to the case study of region VII and the major apple-growing locality within the region – the comuna of Curicó. Here the issues of the evolution of the export company sector, local productive transitions and grower differentiation are focused upon. Subsequent to this, the situation facing small-scale growers is placed within the general context of the democratic transition in Chile. Finally, a discussion of the implications of the Chilean case study for other Latin American countries, and for agricultural commodity chain analysis in Southern countries in general, is offered.
The Globalisation of Agriculture in a ‘New’ Political Economy Framework

Over recent years the nature of farming and production of food has shifted from the traditional model of family-based production for local and national markets to what Whatmore (1995) has termed an ‘agro-food complex’. Whilst in the past questions of agricultural resource allocation were largely solved at the level of local productive spaces, today they are increasingly addressed at the global scale. This change has been driven by the rise of agribusiness and its search for profits. Such concerns through a combination of direct (ownership based) and indirect (contract based) vertical integration have become increasingly internationalised in their scope. Thus, different parts of the agro-food complex have become embedded in different locations across the globe.

There have been various attempts to analyse the globalisation process within the framework of a ‘new’ political economy of agriculture. Marsden (1997, p. 173) argues that the objectives of such research should focus upon; ‘the people and the foods in the networks of supply and how these share or allocate power and responsibility, relocate risk and penalties, and begin to construct international markets and uneven forms of regional development’. One of the major approaches to analysis has been the commodity chain/regulation perspective, which involves the description and analysis of the various parts in the chain from consumers to producers, and of the state and non-state ‘regulating agents’ in between (Friedland, 1981; LeHeron and Roche, 1995, 1996; McMichael, 1996). Based on this type of analysis, Whatmore (1995) presents a ‘composite’ model of the contemporary agro-food complex. The system is conceptualised as comprising four reflexively related parts: the agri-technologies industry (A), the farming industry (B), the food industry (C) and the food consumer (D). In between these groups exist various regulatory bodies. Between A and B various extension agencies are conceptualised (retail, advisory and credit); these activities are performed by a mixture of commercial and state bodies. Between B and C, primarily state bodies regulate quality and marketing and perform other interventionary activities. Finally, between C and D, primarily state bodies perform the regulatory tasks such as monitoring of food quality/safety and promotion of dietary health and nutrition. In theory, the interactive and mutually determining relations existing between the various parts of Whatmore’s complex gives determining power to none of the components. This, of course, may not be the case in reality.

INDAP – Instituto Nacional de Desarrollo agropecuario (Institute for the Development of Agriculture)
INIA – Instituto Nacional de Investigaciones Agropecuarias (Institute for Agricultural Research)
CCC – credit, consignment price contract
FFV – fresh fruit and vegetable system
NTFX – non-traditional fruit export sector
TNC – transnational distribution company
The globalisation of the fresh fruit complex

Since W. W. II the global FFV complex has developed into a truly global network linking virtually all regions on earth. In the global economic core a number of changes have stimulated increases in the year-round demand for fresh food items including; higher incomes, raised health awareness, greater leisure time and travel, and the cultural influence of immigrant populations. In supplier countries, especially in the economic South, a number of factors have enabled the satisfaction of this demand including; the widespread shift to neoliberal economic policy, and the increasing receipt of agricultural technology transfer. Underpinning the process however is the search for profits among transnational distribution companies (TNCs) which have become increasingly mobile in their search for low cost/resource rich production sites (Murray, 1998a). This combination of factors has forged a Fordist-like system (although this is clearly changing as niche fruit becomes more popular) comprising a mass-market in the global economic core and served by a global system capable of relatively reliable year-round provision. This has given rise to an increasingly voluminous and complex geographical pattern of ‘North-South’ interaction through investment and trade.

Friedland’s organisational model

Friedland (1994) employs the commodity chain approach in order to analyse the structure of the global fruit industry. Although his model lacks theorisation of the role of regulation existing between different parts of the chain, its general conclusions are illuminating for the Latin American case. On an abstract level, the system can be seen as comprising the three major elements of production, distribution and marketing. The system can be conceptualised in the shape of a dumbbell, with ‘production and marketing being the two large weights on each end connected by the narrow channel of distribution’ (Friedland 1994, p. 179). This metaphor implies at least three important characteristics in the system. First, production and marketing are much larger than distribution in terms of the number of people employed (Friedland, 1994). Distribution is energy and capital intensive. In contrast, marketing and production are relatively labour intensive. Second, the dumbbell metaphor reflects what Friedland terms the ‘articulation’ between the segments noting that; ‘(M)ost distributors are involved in some degree with production, but impinge on marketing only to a limited degree. A few producers have integrated downstream into some aspects of distribution but not so far forward as to impinge on marketing. Marketers are specialised in their area...’ (Friedland, 1994, p. 215). Third, in contrast to the relatively competitive production and marketing elements, the distribution sector appears to be significantly concentrated with only a handful of firms having ‘established a global presence’ (Friedland, 1994, p. 214). Although smaller firms are offered scope in the exploitation of ‘niche’ fruit markets, significant barriers to entry (enormous capital costs and the establishment of distributional systems, for example) exist. On balance, this bilateral oligopoly confers a great deal of power upon the distribution sector.
Global Power Relations, Restructuring and Uneven Development

Following the debt crisis of the early 1980s, many Latin American countries turned to the promotion of non-traditional agricultural exports as a solution to their economic malaise. This formed part of a wider shift to an outward-oriented neoliberal model of development (Barham et al. 1992). For such countries the globalisation of agriculture offered a ‘window’ of export opportunity. A leading example of restructuring in response to neoliberal adjustment is the growth of the non-traditional fruit export sector (NTFX). Although the shift to NTFXs helped cushion the recession of the 1980s, it has led to a range of worrying problems at all levels of analysis.

Friedland’s model is useful for the Latin American case as it emphasises the great power of TNCs. In countries where regulation of such companies is minimal (as in neoliberal Latin America), asymmetries in power – especially between TNCs and small farmers – manifest themselves clearly in socio-economic and spatial terms. What are some of the major implications of the globalisation of fruit for Latin American countries which have become ‘enmeshed’ in the complex? How can involvement afford a deterministic role for global capital and deepen unequal and unsustainable development?

– The globalisation of fruit has been characterised by the location of the ‘extractive’ part of the complex in Latin American countries. Most of the corporations dominating in machinery and chemical technology, biotechnology, marketing, distribution, processing and retailing are located in advanced economies and catch the majority of the value added.
– The displacement of food production by production for export has led to increased food insecurity and food import dependency in many Latin American countries. (Kay, 1995)
– Latin American countries have become involved in a global trading system characterised by high levels of protectionism in advanced economies which often weighs unfairly (and inefficiently) against them.
– The growth in NTFX has led to a re-allocation of resources towards a sector which, due to falling income elasticity of demand (counterseasonal fresh fruit and vegetables are rapidly losing their ‘luxury’ status given the proliferation in supply), may suffer long run secular decline in price relative to manufactured goods. The terms of trade implications of this are worrying given that Latin American countries are net importers of manufactured goods. (Murray, 1999)

Of particular relevance to this paper are the regional and local impacts of insertion into global markets. In discussions of the globalisation of agriculture it is argued that local agency, through its response to structural imperatives from above, can ‘bite back’ at the core and effect a re-constitution of the system from the ‘bottom up’ (see LeHeron 1993, chapter 2). Whilst the proposition of ‘structuration’ between agency and structure (Giddens, 1984) must be accepted in theory and has, undoubtedly, been observed in particular places at particular times (in the global economic core), in the context of Latin American fruit export sectors, the powerful influence of global capital often thwarts the capability of local agency to respond in such a way. Two points are worth noting at this stage: 1) By encouraging the insertion of fruit sectors into global markets, Latin American governments have placed localities at the mercy of volatile and unpredictable global forces which are largely beyond their control. Often
in NTFX localities monocultures are encouraged by export companies. This exacerbates economic and environmental vulnerability in regions and localities. 2) The power of relatively unregulated TNCs in local markets comprised of politically non-organised and unsupported farmers is heavily biased (civil organisation is often discouraged in the neoliberal context). Thus global structural economic change, which undoubtedly effects TNC policy, has an important conditioning impact on individuals at the local and regional levels. This is of particular relevance to small-scale farmers.

The Chilean Fruit Boom

The Chilean fruit boom is often considered one of the most notable ‘success’ stories of the neoliberal transition in Latin America. Neoliberalism was adopted in Chile following the military coup of 1973, which was some years before other countries in the region. Intending to reverse the inward-looking structuralist-based policies of the previous two decades, Pinochet’s regime (1973-1990) implemented a range of profound free-market reforms. The centrepin of restructuring was an export-stimulating policy including devaluation, incentives to foreign investment and certain tax concessions, all of which proved extremely effective. Given the numerous comparative advantages Chile possessed in the cultivation and export of fruits, such as counterseasonality, low labour costs, and extraordinary climatic features, the sector boomed in conjunction with favourable external conditions. Between 1974 and 1996, the value (nominal) and volume of fruit exports rose from under US$30 million to US$1,366 million (see figure 1) and from 50,000 metric tonnes to 1,442,582 metric tonnes respectively. The boom helped diversify the Chilean economy away from its formerly dangerous reliance on mineral exports (principally copper) and made an important contribution to the generally high levels of economic growth recorded during most of the 1980s and 1990s. In former and new fruit growing regions and localities export growth led to profound social and eco-

Figure 1: Chilean fruit and apple exports (nominal value in US$) 1977-1996

Source: Asociación de Exportadores (various years).
nomic change as the shift to outward orientation offered new prospects and risks for thousands of farmers and those in linked labour markets, industries and services.

**The apple sector**

Apples were the first fruit species to be exported from Chile – beginning in the late 1960s (Universidad Católica 1993). The proportional importance of apple exports has declined over the last decade (see figure 1), although they remain of great importance (approximately 17 per cent of the volume of fruit exports and 1.2 per cent of all exports in 1996). Between 1977 and 1996, the volume of apple exports from Chile rose dramatically – from 70,000 to approximately 500,000 tonnes. In terms of nominal export values, between the same years, apple exports increased by an approximate factor of 12 (from US$22 million to US$270 million). Three downturns have characterised the generally rising trajectory; first, during the debt-induced recession of the early 1980s; second, between 1988 and 1990 value fell sharply as the effects of a US embargo on Chilean fruit were felt; third, the effects of 1993 EU quotas led to a sharp decline from US$250 million in 1992 to US$130 million in 1993. Nominal values recovered strongly through 1994-96 due to export company rationalisation, a relatively ‘protection-free’ European market and some diversification into wider markets (especially the US and Latin America). Over the decades shown, two varieties – Richard Delicious and Granny Smith (two global ‘standards’), – have accounted for 80-90 per cent of apple exports. Despite some progress in diversification there is need to shift into more ‘exotic’ varieties in order to sustain economic growth in the sector.

Increased competition in the global market along with the rapid appreciation of the Chilean peso has led to a sustained decline in real prices since 1980. The real price in 1994, in terms of Chilean pesos, stood at 60 per cent of its 1980 value. Thus real export values have oscillated notably. By 1986 the total value of apple exports in real Chilean pesos had doubled from its 1980 level. In the late 1980s, however, declining volumes and prices and the appreciation of the peso caused significant decline. After recovery in the early 1990s, the effects of European protectionism were catastrophic. In 1993, the total real value of exports fell to over half the level of the year before and has yet to fully recover. (Murray, 1998b)

**The nature and role of export companies**

The links existing between distributors and apple exporting producers (around 6,000) are crucial in the international marketing of Chilean apples in three main ways. First, *marketing*: companies provide the facilities necessary for preparation, packing and cold storage and obtain economies of scale in transportation and price bargaining. Second, *technology adoption, adaptation and transfer*: in the post-coup years private export companies were almost fully responsible for research and development in the sector. Third, *provision of credit for growers*: export companies act effectively as banks. In this system securing the supply of apples is made through contractual agreements which involve credit provision.
The most typical form of procurement is referred to as the CCC (credit, consignation price contract). Under this agreement credit is offered to the grower under strict conditions. Inputs, usually supplied by the firm, must be applied according to a strict timetable monitored by a company agronomer. Fruit must be delivered to a pre-determined packing house by the grower on a specified date and conform to strict quality standards. Following refrigeration and shipment, fruit is paid for through consignation (destination port) prices. Overall, the net return to growers equals the price received at the destination port minus the advanced credit plus interest (8-12 per cent), the cost of inputs plus a mark-up, the agronomers' charges and a commission (approximately 12 per cent) of total gross return. Where growers become indebted to firms they must remain exclusive suppliers to the company, paying interest on the debt until it is cancelled. This extremely demanding agreement has earned the title contrato de leones (lions' contract) among the Chilean legal profession. (Mur­ray, 1997a)

The first companies to become involved in the systematic exportation of Chilean apples were domestic in origin. The forerunner in this context was David del Curto (DDC). This company initiated the CCC system of supply procurement. This was mimicked by virtually all the Chilean export companies entering the market in the 1970s. A notable exception to the prevailing organ­isational structure at the time was Copefrut of Curicó, which was organised as a collective of mainly large-scale growers. Foreign capital entered the market in 1982, led by Unifrutti (Arab), Standard Trading (US) and UTC (Arab). Throughout the eighties the market was characterised by increasing levels of foreign involvement which followed the CCC system. Thus throughout the ‘boom’ years of the eighties there was an explosion in levels of credit available to growers. Many small growers were incorporated into the system as a consequence of this. Overall, the number of private companies taking part in the sector has risen from 32 in 1977 to approximately 60 at the present time. This general increase in the number of firms does not necessarily imply greater levels of competition. The proportion of exports (volume) accounted for by the ‘big five’ firms stood at approximately 60 per cent in 1996/97 having fallen only slightly from those levels in the mid-1980s. The proportional importance of the 6-10 ranked group has increased marginally. Thus, the importance of the ‘big ten’ hovers at around 80 per cent of the total market. In contrast, there has been an increase in the number of small-scale ‘footloose’ firms as the market has tightened – although these account for only a small proportion of total exports. The rise of such firms is likely to increase in the future in the effort among companies to extract extra value out of the increasingly variety-differ­entiated network. Foreign ownership within the sector is relatively high accounting for approximately 60 per cent of exports. Although foreign firms are far outnumbered by national firms in absolute terms, TNCs are generally large scale. Of the top five apple exporters in the 1994/95 season the top three – Dole Chile, Unifrutti, and UTC – were foreign owned. These three alone accounted for over 40 per cent of the value of Chilean apple exports. (Murray, 1997b)
Export company restructuring in the 1990s

The decline in the real value of Chilean apple exports has led to a deep restructuring in export company organisation which, in general, has discriminated against smaller scale farmers. Three changes are worth noting:

- Market pressures have encouraged the formation of ‘footloose’ export companies which act as straightforward intermediaries, buying and selling the produce. Such companies have thus been able to reduce their risks, exploit niche markets more easily and exit with ease. Given that ‘footloose’ companies require financially self-reliant growers, small farmers are generally excluded from participating.

- Since the evolution of stricter contract relations with many export companies, a number of larger growers have formed direct export associations. Given the capital costs of setting up this type of operation, many small-scale growers have been precluded.

- Some companies have become involved in purchasing land and setting up their own production. This land often used to belong to displaced, usually small-scale, growers.

Although the CCC model persists in the majority of cases, this system has evolved considerably. Analysis of twenty CCCs from the year 1986 and twenty more from 1993 shows a significant tightening of contractual conditions – involving higher interest payments, commissions, stricter quality requirements and the mortgaging of property and/or the orchards to the firm. Furthermore, a number of additional clauses have been added to the contracts. Three are worth note:

- In the ‘referee’ clause the company pre-selects a lawyer who will arbitrate in the event of a dispute between the firm and the farmer. In many cases, the firm will seriously prejudice the outcome of legal proceedings by selecting the official company lawyer.

- In the ‘area of jurisdiction’ clause the company pre-selects the location where such disputes will be settled. Companies working in the peripheral areas of the country will often select Santiago (centrally located) as this greatly reduces the chance of complaints ever being heard.

- As a direct reaction to the embargoes of the late 1980s and early 1990s, contracts for 1993 included an ‘external catastrophe’ clause. Thus, in the case of sudden embargoes due to war, hijack or any other factor, the growers are handed back ownership of their fruit and may collect it from wherever it is at that time. By clearing the firm of responsibility at a crisis point, the firm is able to side-step any claims for compensation.

The evolution of CCCs has increased small growers’ financial and technological dependency on firms and has forcefully redistributed export risks towards the sector. Farmers operating under this system are inserted into a global system where his/her profitability and economic survival is determined by conditions largely beyond his/her control.
The role of the state

State intervention played an important role in creating the conditions which precipitated the Chilean apple boom. Along with President Frei's (senior; 1964-1970) fruit plan enacted under CORFO (‘Organisation for the encouragement of production’) and early agrarian reform, Gomez (1996) identifies the role of the Banco Del Estado (State Bank), formed in 1953, as a ‘key’ in modernisation of the fruit sector through credit support offered to the sector. Further to this, exchange programmes encouraged by the state, for example between the University of Chile and Davis University of California, resulted in the transfer and adaptation of fruit producing technology. Following the coup however, specific sectoral polices were largely disposed of. The two post-coup policies of most relevance to the fruit sector were the agrarian counter-reform and the liberalisation of conditions for foreign investment (see Gwynne and Kay, 1997). These policies helped precipitate the boom, but laid the seeds for the differentiation observed in the fruit sector today. Following the recession of the early 1980s, there was a slight shift in agricultural policy which saw the encouragement of certain sectors (especially for export) and the establishment of various state institutions offering limited assistance in, for example, credit (INDAP, ‘Institute for the development of agriculture’) and technology transfer (INIA, ‘Institute for agricultural research’). Under the post-dictatorial governments, such support mechanisms have increased marginally. In general however, state activity is focused at the commercialisation/marketing end of the chain. The major policy of the democratic governments towards small growers has been to encourage reconversión to export, especially fruit, production (largely through INDAP). Overall then, management of the market and the distribution of the gains of economic growth have been left largely in the hands of private capital.

Chilean apples in a global commodity chain

On the basis of the above it is possible to construct a global commodity chain for the Chilean apple sector (see figure 2). The chain is divided into four broad functions; consumption, retailing, distribution, and production. In between these functions, and placed before the production sector, are various agents which regulate the flow of apples along the chain. At the top of the figure, the direction of the arrows linking the four functions indicates the direction of dominant market signals (A). In the main chain in the centre of the diagram, the direction of the arrows represents the flow of apples (B). At the bottom, the various mechanisms which link the functions are shown (C). Although signals flow from the ‘top’ (consumers) to the ‘bottom’ (producers) of the chain, real power rests in the hands of the relatively concentrated distribution sector.
Figure 2: Global commodity chain for Chilean apple exports, mid-late 1990s
Regional and Local Impacts - Region VII and the Comuna of Curicó

This section presents a case study of a small-farm group in the locality of Curicó in Chile’s seventh region – Región del Maule (see Map). Maule, which was the first to become involved in exports, is the most important apple exporting re-

Source: A. & K. Burkhill
region in the country. A notable specialisation in apple production for export within a relatively diversified fruit export and agricultural economy has developed. The sources of the specialisation in apple exports can be explained by a range of comparative advantages which the region possesses in this activity including harvests which correspond with maximum prices in receiving markets (March), the fertile soils of the Central valley, relative proximity to Chile's major port (Valparaíso), relatively developed irrigation infrastructure, an experienced labour force, and a history of fruit production. The regional apple boom has transformed the region from an inward-oriented to a strongly outward-oriented region; 45-50 per cent of all Chilean apple exports (no less than 3-4 per cent of world exports) come from this region alone. The comuna of Curicó, located in northeast Maule, has become the most important fruit exporting locality within the region. In this locality, between 1981 and 1990 the area dedicated to fruit production in general rose from 4,037 to 6,588 hectares (CIREN-CORFO, various years). By 1990, over half of the land dedicated to production of fruit within the comuna was accounted for by the apple. This represents 34.5 per cent of the region's apple growing lands, and approximately 16 per cent of all land utilised for apple production in Chile.

**Productive and marketing capital in Region VII**

As elsewhere in the country, much of the capital necessary for the expansion of Region VII's fruit export sector was provided by the large fruit export companies. The local co-operative of large growers, Copefrut, and DDC (both located in Curicó) played pivotal roles in the sector followed by a large number of TNCs. According to an INDAP estimate, the installation cost of one hectare of apple orchard and maintenance until the first year of production (year three) is approximately US$9,000 (at 1995 prices). This figure comprises the cost of purchasing bush stock, preparing land for plantation and the annual application of fungicides and pesticides. The cost of water rights and irrigation infrastructure is relatively insignificant. By 1994, US$97,947,000 had been invested in establishing of apple orchards in the Maule region. The production/maintenance costs of a hectare of productive apple orchard is approximately US$2,000 per annum. This represents an annual maintenance cost of approximately US$21,766,000 which is mostly funded by large firms. Despite the fundamental early and continuing role of large firms, the sector is evolving into a more differentiated and flexible regional marketing structure characterised by a notable increase in 'footloose' companies. This new structure is setting the model for other regions, such as the Norte Chico (grape-growing region, see Map), where large-firm hegemonies remain.

**Focus on Small-scale Growers in Regional and Local Fruit Export Systems**

Due to relatively thorough land reform in the region there is a significant population of small-scale growers (parcleros). Small-scale fruit farmers have not participated to the same extent as their larger counterparts in the regional fruit economy. Riffo Rosas (1993) estimates that only 30 per cent of the total pro-
duction of farmers in the 0-4.99 hectare group is oriented to external markets. In contrast, the 5-19.99 hectare and 20+ hectare groups export over 50 per cent of production. Nevertheless, the large absolute number of small-scale growers in the region means that the group plays a fundamental role.

**Small-scale growers in the comuna of Curicó**

In 1995, a survey of 20 small-scale apple growers in five villages (Cordillerilla, Chequenlemu, Los Niches, Santa Rosa, and Vista Hermosa) in the comuna of Curicó was undertaken. On the basis of the results of this work the role of small farmers within the system can be conceptualised into three roughly chronological time periods:

1) **Inward orientation** – Completion of land reform and counter-reform creating an increased small-grower population with subsistence base and limited production of apples oriented to local and national markets (1974-79).

2) **Expanding outward orientation** – Incorporation of small growers into expanding export economy (1979-1988).

3) **Highly competitive outward orientation** – ‘Squeezing’ of small growers within increasingly competitive market: the ‘survival of the fittest’ (1988-?).

**Inward orientation:** Very few parceleros created in the counter-reform were initially involved in the production of fruit. Such activity was reserved for the larger-scale farmers, who could afford the relatively high capital entry and maintenance costs. At this time, then, the small-scale sector was dedicated largely to the production of traditional crops, with a subsistence base. Beginning in 1976 some small-growers began to plant apples and, occasionally, other fruits on their small plots (parcelas). Among the Curicó sample, two growers planted apples in 1976. At that time, growers did not have the opportunity of obtaining credit from export companies, therefore the necessary capital had to be generated from elsewhere, which was often through the sale of parts of parcelas. Initially, new fruit production was oriented towards local, regional and national markets. In the case of the two leaders in the sample, this was made possible through personal contacts in Copefrut. In 1978, two further growers in the sample planted apples on their parcelas, which were financed by gains in other areas.

**Expanding outward orientation:** In 1979, DDC entered the local market for fruits and apples. The establishment of the CCC system allowed small growers to participate. Once the example was set among the group, apple production began a ‘neighbourhood’ diffusion. The timing of adoption was as follows: 1979 – five growers; 1980 – seven growers; 1981 – two growers; and 1984 – two growers. DDC financed thirteen of these sixteen installations. During the first half of the 1980s and up to 1988, a local ‘boom’ took place. According to one farmer, small-growers ‘worked as quickly as possible to enter the export market, as it promised so many things that we had had never enjoyed before’. Thus, during the early half of the 1980s, given expansion in the global FFV complex and positive price trends, many growers experienced substantial profits.
Highly competitive outward orientation: Through the economic mechanisms of prices and contracts, external market problems beginning in 1988 were transmitted to the locality. A significant proportion of farmers became indebted to export companies. However, unlike fruit growers in the northern part of the country (Murray, 1997a), complete fruit monocultures had not evolved. Thus, to a certain extent growers were shielded from negative trends. For some, this relative diversity helped keep debt to levels which could be re-negotiated or cleared. Those who were able to clear debts were afforded the privileged position of working with 'footloose' intermediaries. Others were not so fortunate and export companies began to 'squeeze' the vulnerable 'locked-in' growers. According to anecdotal evidence many local growers lost their land in the late 1980s. The methodological bias built into the field research (i.e. of 'selecting those that have had already been selected') means that the experiences of these early losers is under-represented. However, the 1995 'snapshot' of those surviving the initial 'squeeze', provides a clear indication of the increasingly precarious position of many small growers operating within this locality.

Of the twenty growers surveyed in 1995, nine were indebted. In all cases this debt was held with the export companies. The average level of debt was US$3,550. Although this is much lower than levels observed elsewhere in the country, it is worth re-iterating that those who encountered the most serious debt problems had already been squeezed out of the market. The timing of the initiation of debt among those in the sample clearly illustrates the local impact of national and global trends. Table 1 shows a significant clustering of debt initiation around 1988 and 1989.

<table>
<thead>
<tr>
<th>Study village</th>
<th>First year of debt for individuals</th>
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<tr>
<td>Cordillerilla</td>
<td>1988, 1989, 1993</td>
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<td>Chequenlemu</td>
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<td>Los Niches</td>
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<td>Santa Rosa</td>
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<td>Vista Hermosa</td>
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Source: Fieldwork.

Of the twenty growers interviewed, six had been involved in the sale of parts of their parcelas. Five cited debts with export companies as the reason for these sales. At the time of the survey, all of those who had sold land marketed their produce with the export companies. Those without debt operated with 'footloose' companies and have been actively purchasing land from their unsuccessful neighbours. This trend is compounding the process of land re-concentration which began as soon as the counter-reform was completed. The success of the latter group of growers appears to be partially dependant on aggressive entrepreneurial behaviour which has become a requisite for survival. Two individual case studies, one of a grower who has sold land and one who has purchased land, will illustrate this point.

Victor Tapia sold four hectares of a 9.5 hectare parcela to a neighbour in February of 1990. He did this in order to pay off a debt with the export company DDC which stood at US$50,000. He received US$60,000 (significantly un-
dervalued) for the plot of land. In 1992, he used the US$10,000 left over in order to plant 1.5 hectares of Red King Oregon apple stock purchased from the company. Despite clearing his debt and thus freeing himself of contractual obligations, he decided to continue with DDC. In this context he claimed, ‘All the companies are the same, and I was assured by the representative of the firm that they could get me good prices for my new variety’. In 1993 he accrued a US$2,000 debt with DDC which climbed to US$3,000 in 1994. On reflection, he wished that he had shifted to a ‘footloose’ intermediary as his ‘neighbours selling to the independents always have positive returns’. However, he remained hopeful that his new plantation, which would start yielding in 1995, would bring him sufficient returns to escape his renewed debt. This time, he claimed, he would not resume his contract with the firm.

Despite being located on the parcela next to Victor Tapia’s, Francisco Martínez’s story is somewhat different. He planted apples in 1980 on a parcela of 7.4 hectares, and marketed them with DDC from 1983. In 1986, he enjoyed a ‘fantastic’ year and received over US$35,000 in profit. He made a decision to plough back as much as possible to build-up his ‘business’. In 1987, with the profits and some savings, he bought a small parcela of 3.5 hectares (with 2.5 hectares of Richard Delicious stock) for US$45,000 from a grower who was indebted to DDC. He immediately switched the marketing of his produce to a ‘footloose’ intermediary. All of his friends who had done the same had received ‘positive returns every year, never spectacular, never bad’. Furthermore, he knew the man in charge of the ‘footloose’ company, and he had a reputation for being ‘honest’. Sr. Martínez claimed that he has never been in debt since this decision. In every subsequent year the returns have been sufficient to finance the following year’s production. He was considering obtaining bank credit, if possible, in order to buy more land. Asked to explain his success relative to his immediate neighbours he replied, ‘hard work, not throwing away money and being very careful is the only way to survive. Sometimes, that means worrying about affairs in your own house, not your friend’s’.

Marketing arrangements and grower differentiation

Among the small-scale grower sector in the comuna of Curicó, two distinct groups are emerging. The first markets its produce through ‘footloose’ intermediaries. The second is tied (through the debt clause) to large scale export firms. These groups are increasingly differentiated in terms of their ability to survive within the increasingly competitive local economy.

In the case of the former group, survival through the rest of the 1990s and beyond appears possible. This assumes that the market for local produce remains sufficiently buoyant to induce the continued presence of ‘footloose’ intermediaries. In the event of problems however, such intermediaries would be the first to exit. Ironically then, in this situation, the more successful of the two grower groups would suffer the most damaging consequences. The relative success of those growers involved in the ‘footloose’ marketing system, however, does not imply that the development of this sector is a positive trend for small growers per se. The essential determinant of success is not involvement with the ‘footloose’ sector in itself. Rather, it is the ability among growers to escape contractual obligations with companies and attain economic independ-
The ‘footloose’ intermediary sector merely provides a window of opportunity for the most business-like, aggressive and/or lucky growers.

In the case of the group remaining tied to the CCC marketing system, the prospects for continued survival appear bleak. An increasing ‘squeeze’ on this group seems inevitable given the current economic environment. This may evolve into the situation of severe ‘debt-spiralling’ observed elsewhere in the country. If the more fortunate growers, and others, continue to purchase land in the locality, it is possible that the small farm sector could be squeezed out completely, precipitating the range of social, economic and geographical problems which have surfaced in other Chilean regions (Murray, 1999).

Wider Local and Regional Impacts of the Apple Boom

The Chilean apple export boom has precipitated and exacerbated socio-economic and spatial inequalities and led to a range of problems at local, regional, and national levels of resolution. Apart from the impacts within small farmer groups, four further impacts warrant discussion.

- **Differentiation between different sized fruit farmers.** Relatively speaking, larger scale farmers have prospered within the competitive environment of the early 1990s. Such farmers include two types, those who managed to hold onto relatively large farms after the agrarian reforms and remained on the farm, and the urban-based, so-called ‘suitcase’ farmers. Both these types have been favoured by at least four characteristics which they enjoy vis-à-vis their smaller scale counterparts. They have more bargaining power with export companies leading to more favourable contract terms, access to credit and capital from sources other than export companies, greater access to and management of information, and greater scope for diversification into different product types (including non-fruit production) (Murray, 1997a, Gwynne 1998).

- **Spatial inequalities.** The apple export boom has been highly spatially concentrated. Within the Region VII for example, some provinces have not participated. Even within the booming locality of the province of Curicó, various comunas, due to a mixture of climatic, locational, institutional and historic factors, have failed to develop exports. In contrast, urban settlements in export regions have captured significant economic multipliers (Gwynne and Ortiz, 1997). In those areas where fruit exports have not developed, farmers continue to practice the cultivation of ‘traditional’ crops. Given recent widespread problems in Chile’s traditional agricultural sector, this implies a worsening in the relative prosperity of these areas which may increase as MERCOSUR and, perhaps, NAFTA free-trade agreements come into force (Kay, 1997).

- **Labour market impacts.** One of the major impacts of the apple export boom has been the creation of high seasonal demand for labour. There is a clear gender division of labour with males working in the fields and females in packing houses. Although some argue that this demand is a positive development for rural areas, which helps prevent rural to urban migration and supplements incomes, seasonal employment causes a number of tensions including economic insecurity and problems associated with immigrant workers (see Ortiz, 1992). For women, many of whom are in engaged in paid labour for the first time, the benefits are not clearly defined. Wages are extremely low and many
have to work an exhausting double day (household duties and packing) during the season (Barrientos, 1997; Bee and Vogel, 1997).

- Environmental impacts. The environmental impact of the Chilean fruit 'boom' in certain localities has been discussed elsewhere in the literature (Gwynne and Meneses, 1994; Murray, 1998a). Studies have highlighted the increasing problems of water scarcity, soil salinity and soil exhaustion associated with highly intensive agriculture. Detrimental impacts are concentrated in northern semi-arid areas. Water scarcity, though not currently of relevance in central regions such as Maule, may eventually become a problem. There is some evidence of tension in water supply which is causing the price of water rights to rise. Smaller farmers feel the impact of these price rises most.

The legacy of neoliberal dictatorship in Chile: Don't tip the apple cart!

The Chilean state can be heavily criticised for their continued reluctance to regulate and/or correct the regressive impacts of local exposure to powerful global economic forces in the fruit sector. The adherence of the successive democratic governments of Alywin (1990-1994) and Frei (junior) (1994-) to neoliberalism represents a continuity of the extreme policy initiated under the Pinochet dictatorship. There have been some marginal alterations to policy as vote-hungry democratic governments have sought to alleviate the more glaring inequalities (Kay, 1997). However, despite the much-touted shift towards 'neoliberalism with a human face', policy remains firmly entrenched within the free-market paradigm. Ironically, increasing failure is being observed in one sector – apples – to which growers are being encouraged to 'reconvert'. As the locality case study suggests, *post-reconversión* support mechanisms are sorely required. However, efforts to engender sustainability, promote equality, and empower marginalised rural groups are prejudiced by both international pressure to not radically alter the approach, and by the 'hangover' of dictatorship which involves, among other things, the presence of Pinochet-designated life senators and Pinochet himself in government.11

Perhaps the most glaring regulatory failure under democratic neoliberalism is the unwillingness of the state to devise methods which induce the export companies to act in a socially, environmentally, and economically long-term manner. The policy of 'not tipping the apple cart' in the scramble for foreign investment has afforded such companies enormous power in determining the welfare of hundreds of thousands of individuals and the sector as a whole. Because of this and other areas where companies are not acting in the interest of sustainable economic development in, for example, quality control, research and development and marketing, it is clear that a fundamental paradigmatic shift is required. Given the highly entrenched nature of Chilean politics and international pressure, it is likely to be a long time before a truly new paradigm is recognised, let alone put into place.

**Conclusion**

In general, models of the globalisation of agriculture and global commodity chains do not presuppose the deterministic role of global capital, the inability of local agency to re-constitute the system, or the evolution of dependency at
the local level. The regulatory state or civil society (or perhaps both) can, in
theory, reduce or maybe even ‘optimise’ the impact of global economic change.
Such propositions should not be surprising given that such models have been
developed largely in and for countries of the global economic core where con­
ditions conducive to local and national resistance to such forces exist. In the
contemporary reality of the Chilean apple sector, however, it does not work
like that and global capital is playing a deterministic role. This power is partly
afforded through the state’s adherence to neoliberalism.

Similar conclusions have been drawn from studies of other Chilean fruit
export sectors (Murray 1998a; Gwynne, 1998), other Latin American states
(Barham et al., 1992; Carter et al.; 1996), and other Southern countries (for
example in the South Pacific Islands, [Murray, 1998c; Overton, Murray and Ali,
1999]). Ultimately, there is increasing evidence that the neoliberal consensus
washing over Latin America (and the economic South as a whole) promotes
local economic dependency, threatens sustainability, and precipitates social
differentiation and marginalisation in rural areas. In order to temper the ill­
effects of globalising agriculture and to create the conditions conducive to ‘bit­
ing back’ at the core in such areas, it is absolutely imperative that alternatives
to neoliberalism are now explored.

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Warwick E. Murray is currently Lecturer in Geography at the University of the
South Pacific, Republic of the Fiji Islands. His main research interests lie in the
social and economic impacts of the globalisation of natural resource complexes
and rural development in Latin America and the Pacific Islands. He has pub­
lished on the Chilean fruit sector in the *Bulletin of Latin American Research*
and the *European Journal of Development Studies*, and has contributed a chap­
ter to *Latin America Transformed: Globalisation and Modernity*, edited by
R.N. Gwynne and C. Kay, entitled, ‘Natural Resources, the Global Economy,
and Sustainability’ (London: Edward Arnold).

Notes

1. The term ‘Southern’ countries is used throughout this paper to refer to what are alternatively
labelled as less developed countries, developing countries, or ‘Third World’ countries.
2. Government in Chile is administered at the national, regional, provincial and communal level.
The comuna represents the smallest administrative unit.
3. A full discussion of the various approaches to this question is beyond the scope of this paper.
For this reason many important evolving perspectives are omitted. For an entrance point to
the literature see Goodman and Watts (1997). Among the most notable approaches is regu­
alation analysis which has been employed by a number of authors in this area (LeHeron, 1993;
Llambi, 1991; Roche and LeHeron, 1995), and the more recent ‘food network’ perspective
(Marsden, 1997)
4. A better term for this might be ‘mesh-work’, as the process simultanously ‘distances’ many
places which have not become integrated into the system.
5. A ‘Bi-lateral’ oligopoly refers to a market characterised by few purchasers and few sellers.
Economic theory predicts that this organisational structure will lead to low prices for product
suppliers and high prices for consumers.
6. Barham et al. (1992) define NTAX as those exports which fall into at least one of the three
following categories: 1) an export product that has not been produced within a given country
before (e.g. snow peas in Guatemala); 2) a product that was traditionally produced for domes-
tic consumption that is now marketed internationally (e.g. flowers in Costa Rica, apples in Chile); 3) a 'traditional' export sent to a new market (e.g. Caribbean bananas to Russia).

7. Gidden's attempt to resolve the problem of structure and agency should 'provide clues as how not to approach human geography' (Cloke, Philo and Sadler 1991, p. 13). That is to say research should not conceptualise either structure (as in structural Marxism) nor human agency (as in early humanism and some forms of post-modernism) as fully determined or deterministic. Thus, in structuration theory, localities are the contexts within which individuals become knowledgeable actors. This knowledgeability refers to the ability to infer from the 'processes of society both the prevailing rules and the most advantageous strategies and tactics' (Johnston, 1997, p. 240).

8. Chile has experienced three major periods of land reform. First, during Frei Sr.'s presidency relatively modest reform was undertaken principally to break-up the largest farm holdings (latifundios). Second, reform was accelerated and collectivisation initiated during Allende's term. Third, between 1973 and 1977 under Pinochet a reversal of collectivisation took place. Some land was restored to former patrones, whilst the remainder was carved into small and medium-sized, parcelas and sold off to individuals. The policy under Pinochet is often referred to as the 'counter reform'.

9. Democracy was restored in 1990. Two successive Christian Democrats representing the Concertación coalition, Patricio Alywin (1990-1994) and Eduardo Frei (junior) (1994), have since held power.

10. Here defined as growers owning less than ten hectares of land.

11. These arrangements were put into law as part of the 1980 constitution written whilst the military were in power.

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