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Competitive Global Fruit Export Markets: Marketing Intermediaries and Impacts on Small-Scale Growers in Chile

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Abstract — This paper explores the implications of increased competition in global fruit markets for the Chilean small-grower sector. Stagnation in the growth trajectory of such exports has precipitated significant changes in the structure and strategy of the private fruit export company sector. It is proposed that this restructuring discriminates against small growers, whose position within the market has become increasingly vulnerable. To support this idea, evidence obtained from a field study of small-scale grape growers operating in the locality of El Palqui, Region IV is presented. It is argued that increased vulnerability is not simply a function of the inefficiency of diminutive scale *per se*. Rather, the nature of economic power relations, which tilt heavily in the favour of export companies, form an important explanatory factor in the increasing rate of failure among the fruit growing *parceleros*. It is argued that the implications of the failure among small growers who have already 'reconverted' is of particular importance. It is proposed that steps re-dress structural imbalances in the market could precipitate productive gains, increase the potential success of small growers attempting to 'reconvert' to fruit production and improve rural equity. If applied to the small scale fruit sector as a whole such moves could help sustain Chile's fruit export sector — an objective which can be seen as crucial to Chile's economic well-being. In this way the argument of free-market purists — that rural economic differentiation which has taken place to date is inevitable and desirable — is challenged. Copyright © 1997 Society for Latin American Studies

Key words — global fruit market, Chile, marketing intermediaries, small farmers, asymmetric power relations, debt

INTRODUCTION

At the macro-economic scale of analysis, growth in Chilean fruit exports over the last two decades represents the most dramatic and 'successful' consequence of the shift to a neo-liberal mode of regulation (Apey, 1995). Generally, however, the distributional impacts of growth in that sector have been, and continue to be, regressive in their nature. Undoubtedly, various groups within rural society have failed to benefit proportionately from growth in this dynamic sector. Examples include traditional farmers, non-land owners, temporary workers and small farmers (Cruz, 1987; Gomez and Echeñique, 1986; Barham *et al.*, 1992). Furthermore, many rural localities and, in some cases, whole regions have been unable to participate fully in the system. Thus, increased spatial differentiation, in social and economic terms, has been an important characteristic accompanying outward-orientation in the Chilean rural sector.

This paper focuses upon the implications of recent change in the Chilean fruit export

market for the small-scale grower sector (< 10 hectares).[1] First, the evolution and recent stagnation in the growth trajectory of that market is analysed. In particular, the negative impact of declining real fruit prices combined with a stagnation in volumes exported is highlighted. Secondly, it is argued that this change has led to a significant re-structuring in the nature and strategy of the private export company sector. It is proposed that this re-organisation discriminates forcefully against small-scale growers. Third, some evidence for the increasingly precarious position of the small-scale sector is presented from a case study of grape growers in the rural village of El Palqui in Chile's fourth region. This is followed by a brief discussion of reasons for their increased vulnerability. Ultimately, the paper casts doubt on the idea espoused by free-market purists, i.e. at the increasing rate of failure should be seen as an inevitable and desirable part of the re-allocation of rural resources towards greater efficiency. Furthermore, it is argued that these negative trends should be of particular concern as they are taking place among small farmers who have followed the increasingly common recommendations to 'reconvert'[2] to relatively buoyant areas within the agricultural sector.

CHILEAN FRUIT EXPORTS SINCE 1973

Rapid growth during the 1970s and 1980s

The sweeping trade and market reforms put into place following the 1973 coup allowed the Chilean fruit sector to advance towards the attainment of its full economic potential (Gwynne and Meneses, 1993). Tariffs on imported inputs were lowered, labour costs were cut through the dismantling of organised activity, inward foreign investment was encouraged, export procedures made more simple and large devaluations effected. The de-regulation and opening of the economy along these neo-liberal lines allowed the working in global space of the various and considerable comparative advantages which Chile possessed in this activity (Bosworth *et al.*, 1994). Furthermore, through these reforms various institutionally-induced competitive advantages were allowed to operate. Two factors are most notable in this respect: Firstly, state-led investment in the fruit sector, centred around Frei's fruit development plan of 1966, laid important ground for technological advances (Jarvis, 1992). Secondly, and most importantly, the various programmes of land reform beginning during Frei's presidency (1964–1970) and continuing through the Allende (1970–1973) and early Pinochet period (1973–1977) brought an end to the highly inefficient *latifundia–minifundia* land holding system and precipitated the development of a competitive market for land (Gwynne and Meneses, 1993; Kay, 1974). Given favourable demand trends in high income countries towards the consumption of fresh fruit, a considerable and growing 'window' existed for such exports (Friedland, 1994). The resultant increases were remarkable.

In the twenty years between 1974 and 1994 the nominal value of Chilean fruit exports increased from US$30 million to US$949 million. As Fig. 1 shows, between 1973 and 1982 relatively gradual increases in nominal export value were recorded. Between 1982 and 1983 the effects of the overvaluation of the peso made themselves apparent and nominal export values declined (Gwynne, 1990; Universidad Católica, 1992). Between 1983 and 1988, a series of peso devaluations and various tax incentives to fruit exporters helped to re-establish steady growth. This growth was interrupted by losses in the US market during the 'poison grape' episode of 1989 (Chilean American Chamber of Commerce, 1990). Subsequent to this, two of

FIG 1 *Evolution of Chilean Fruit Exports, Nominal Value in US Dollars, 1974–1994. (Agricultural exports excluding forestry exports)*
Source: Asociacion de Exportadores, various years.

the most rapid years of growth were experienced raising the total nominal value of Chilean fruit exports to US$997.4 million in 1991. Subsequent decline and only partial recovery, means that 1991 remains the peak year of nominal fruit export value.

As will be apparent from Fig. 1, fruit exports represent the overriding component in total agricultural exports. Furthermore the important role of agricultural exports in total exports (11 per cent in 1994) implies that by 1994 nearly 9 per cent of all export earnings were accounted for by fruit. For this reason the problem of sustaining growth in this area has become a central concern (Universidad Catolica, 1993). Within this evolving market, apples and, in particular, grapes have been of greatest proportional importance. Although concentration has declined, in 1994 these species accounted for over 70 per cent of such earnings (grapes 50 per cent, apples 20 per cent).

Recent stagnation in the market for Chilean fruit exports

The sustainable economic growth of the Chilean fruit export sector is being challenged on a number of fronts. Central to this has been the intense international competition now evident within the global fresh fruit sector. Arguably, growing exports from Southern Hemisphere countries such as South Africa, New Zealand and Argentina, who compete directly in the critical 'counter-seasonal'[3] market for fruit exports, have led to an increasing saturation of northern markets. Potential future advances in minor suppliers, such as India and Brazil, imply that these competitive pressures seem unlikely to decline. This has led to a sustained decline in the real price of most Chilean fruits (i.e. measured in terms of real peso returns),[4] a stagnation of the growth trajectory of export volumes and increases in protectionist measures within receiving markets — especially the USA and the EC. The recent and rapid appreciation of the real rate of peso/dollar exchange has further compounded competitive problems and diminished real export earnings (Hojman, 1995b).

The recent decline in real export prices for grapes and apples is shown in Fig. 2. These

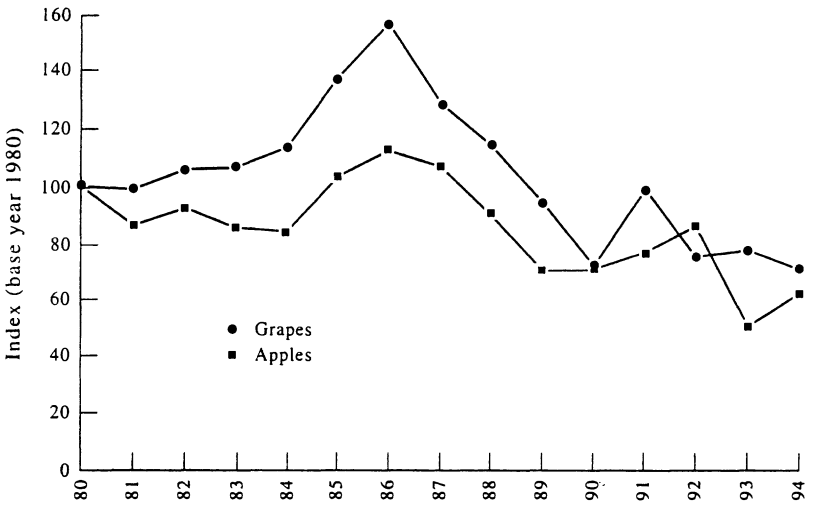

FIG 2 *Index of The Real Price of Grapes and Apples, 1980–1994 (Base Year 1980)*
Source: Calculated from Banco Central de Chile and Asociacion de Exportadores, various years.

trends are expressed in index form with 1980 as base year. Between 1980 and 1994, the net real price of grapes and apples fell by approximately 35 per cent and 40 per cent respectively. In both cases this decline began most notably after 1986. The sustained fall in real prices subsequent to that point and up to 1989 for apples and 1990 for grapes was due in part to the rapid appreciation of the peso during that period. The rapid decline in real prices for grapes between 1991 and 1992, and for apples between 1992 and 1993, was due largely to competitive pressures created by the entrance of South African fruit on global markets.

In terms of the evolution of volumes exported Fig. 3 shows a clear stagnation beyond 1991 for all fruits. The volume of grape exports peaked in 1990, and has since recovered at a

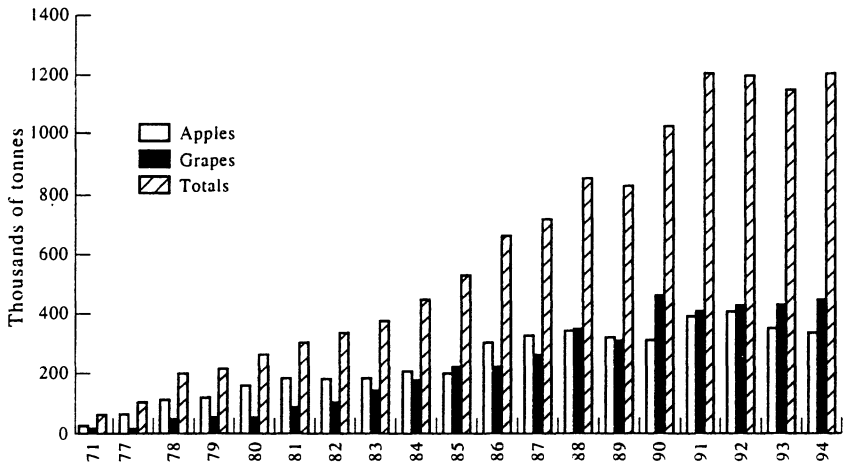

FIG 3 *Volume of Chilean Fruit Exports (Thousands of Tonnes) 1971–1994*
Source: Asociacion de Exportadores, various years.

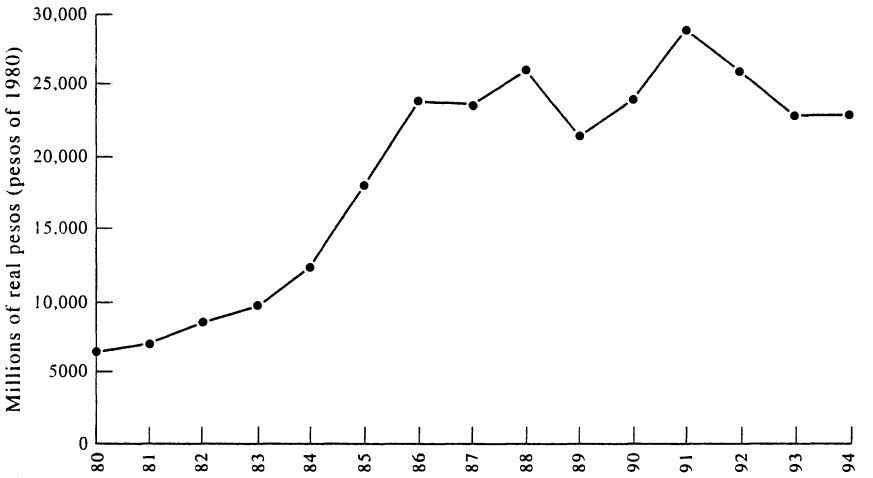

FIG 4 *Real Value of Chilean Fruit Exports (Pesos of 1980), 1980–1994*
Source: Calculated from Banco Central de Chile and Asociacion de Exportadores, various years.

relatively slow rate. The peak year of apple export volume was 1992. Since then apple export volumes have declined. Stagnation in Chilean fruit export volumes reflects, among other things, rising expectations amongst receiving groups: 'Today, supermarkets, retailers and consumers are more demanding than ever. Gone are the days when fresh fruit in the middle of winter was considered a luxury. The US consumer has grown accustomed to quality and will not buy second rate fresh fruit' (Channing, 1990). In this respect, Chile's traditional competitive strategy of low-cost provision is becoming increasingly ineffective. Many commentators argue that increases in the quality of fruit are critical to the maintainance of Chile's position on international markets (Jarvis, 1992; Universidad Católica, 1993).

Interaction of stagnating export volumes and falling real prices has led to a pronounced stagnation in total real export earnings.[5] In Fig. 4 we see that in 1994 the real value of fruit exports stood at its lowest point for eight years. As will be shown, this trend has borne important implications for export company strategy and, in turn, small scale fruit producers.

The role of export marketing companies

Multinational and national private export companies have played a central role in the development of the Chilean fruit sector. Furthermore, their nature and behaviour has been extremely influential with respect to the conduct and fate of growers within the system. It is possible to characterise their role as three-fold in nature: marketing, technology adoption/adaptation/transfer, and provision of finance for growers.

Marketing. Export companies are crucial for the marketing of Chilean fruit produce in two main ways. Firstly, they provide the facilities necessary for the preparation, packing and cold storage of the fruit. Secondly, they gather produce in quantities sufficient to justify investment in such facilities, obtain economies of scale in transportation and generate bargaining power in receiving countries. This is of particular relevance to small growers who face considerable barriers to the independent marketing of their produce.

Technology adoption, adaptation and transfer. Frei's 1966 Fruit Development Plan laid important ground for technological advances in the fruit market (Jarvis, 1992). However, in the post-coup years, particularly in the 1970s, the sector was left largely to its own devices. Thus the export companies played a critical role in the identification, adaptation and, ultimately, transfer of various fruit technologies. Examples include the adoption, adaptation and transfer of Californian Thompson Seedless variety by the leading Chilean export company David Del Curto, and the development of critical post-harvest quality and storage techniques by a range of companies (Jarvis, 1992).

Provision of finance for growers. Perhaps the most important role of the marketing companies has been the development of a system of finance for growers. David del Curto was instrumental in setting up this model of credit provision in which companies act, effectively, as banks. This system has been crucial in the development of the small-scale sector as many banks are unwilling to lend to such growers. In this system securing the supply of grapes for export is made through contractual agreements (Korovkin, 1992). The most frequent form of contract remains the one-year *consignación* agreement as described below.

Credit is offered to the grower at a real rate of interest, currently around 8–12 per cent. This advance is normally intended to cover all production costs plus a proportion of living costs. The grower is then expected to follow a strict timetable for the application of inputs throughout the season. In many cases these inputs can only be supplied by the company. An agronomist is sent by the firm to monitor this operation. Once harvested the produce will be delivered by the grower to a packing facility on the date that the firm demands. Fruit must conform to standards laid out in the contract or it will not be accepted. Once packed the fruit will be taken away for refrigeration and shipment. Payment for the grapes is made through the *consignación* price system. Thus net return will equal the total price received for the growers fruit minus total advanced credit plus interest, the cost of any inputs and/or machinery supplied by the firm (sometimes including labour) plus a mark-up, agronomists charges, and a commission (between 8–12 per cent of gross return). When a grower is indebted costs may also include a further rate of interest on the debt (usually 10 per cent). Debt may arise when the gross returns to the grower are insufficient to cover credit advances, costs and interest. Normally, a debt clause states that the farmer will have to supply all of his/her produce exclusively to the firm until full payment is made.

Response of export company sector to market stagnation: 'Footloose' firms, large scale growers associations and the evolution of contract system

Throughout the 1980s virtually all of the export companies already involved and entering the sector utilised the credit/contract/*consignación* (CCC) system. Thus throughout the 'boom' years of the mid-1980s there was an explosion in levels of credit available to growers. Many small growers were incorporated into the system during this period. In the 1990s, due to market constraints, the nature and structure of the sector and its fruit procurement mechanisms have changed considerably. These changes have increasingly discriminated against small-scale growers.

Firstly, market pressures have encouraged the formation of 'footloose' export companies. These companies do not get involved in the complex CCC system. Rather they act as straightforward intermediaries, simply buying and selling the produce. Increasingly these agents are offering guaranteed minimum prices. The 'footloose'

companies will usually hire the services and infrastructure of the larger export companies for post-harvest facilities. In this way such companies have reduced risk, can more easily exploit niche markets and exit with ease. Given that 'footloose' companies require self-reliant growers in terms of financial and technological capacity, small farmers are generally excluded from this system. A second change of late has been the rise of export associations between larger growers. According to one large grower in Chile's Norte Chico the minimum efficient scale of this type of enterprise is around 100,000 boxes per annum.[7] This requirement and associated investment have been two factors preventing the widespread formation of such groups among small growers.

The above changes are taking place largely at the fringe of the market. In the majority of cases the CCC organisational model persists. However, this system and in particular the nature of contract agreements has evolved considerably. Analysis of 20 *consignación* contracts, from 1986 and 1993, shows a significant 'tightening-up' of contractual agreements. This 'tightening-up' has involved higher interest payments, commissions and the introduction of various additional clauses. Firms have also encouraged the mortgaging of property and/or the vines/trees to the firm and incorporated this within the contractual agreements. Finally, quality requirements have risen between the two periods. Three of the additional clauses are worth brief mention. Firstly, in the 'referee' clause the company pre-selects a lawyer who will arbitrate in the event of a dispute between the two parties. In many cases the firm will seriously prejudice the outcome of legal proceedings by selecting the official company lawyer. Secondly, in the 'area of jurisdiction' clause the company indicates in what location any such disputes should be settled. Companies working in the peripheral areas of the country will often choose Santiago as this greatly reduces the chance of complaints ever being heard. Thirdly, as a direct reaction to the 'poison grape' episode, contracts of 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 incredibly exacting nature of this type of agreement has earned it the title 'lion contract' in Chilean legal circles.[8] This is a term reserved to refer to contracts designed to work almost exclusively to the advantage of the dominant party.

THE IMPACT OF MARKET STAGNATION ON SMALL SCALE GROWERS IN EL PALQUI

During the 1994/95 agricultural season, research was carried out on the small scale farm sector in the rural district of El Palqui located in Chile's fourth region.[9] This locality was selected for investigation as the process of land reform beginning in the 1960s was particularly thorough. Thus by the time of completion a significant proportion of its total land area had been utilised to create 144 small plots (*parcelas*) of an average size of 6.8 hectares. These *parcelas* were carved up from a former *asentamiento* into five reform projects: San Antonio, Santa Rosa, Los Litres, El Peñon and Puente Plomo. These projects were completed under the Pinochet 'counter-reform' in 1977 (Silva, 1993).

Based on secondary and primary sources it has been possible to discern three phases in the orientation and development of this small-grower sector over the last two decades.

(1) From 1977 to 1984, the sector remained almost exclusively dedicated to the production of tomatoes and green beans destined for regional and national markets.
(2) Between 1984 and 1990, virtually every small farmer converted to the production of grapes for export. This was facilitated by the entrance of multinational and national export companies offering credit under the contractual conditions as discussed above. There was a significant local 'boom' in local income due to the favourable conditions existent at this time.
(3) From 1990 to the present day the sector has been characterised by an increasing 'squeeze' on small growers. The main characteristics of this 'squeeze' have been rising levels of debt, the sale of land and a consequent re-concentration in the ownership of reformed land-holdings. These processes are investigated in greater detail below.

Small growers and debt in El Palqui

Of a total population of 97 small growers operating during the 1993/94 season 26 were investigated directly. The average size of the *parcelas* investigated was 5.5 hectares. In all but three of the 26 cases, small growers were indebted to export companies. Six of the 26 had already sold their *parcelas* in order to settle this. Among those that remained, the average level of debt was US$50,217 in 1993. In San Antonio average debt levels were highest (US$84,383), whilst in Santa Rosa levels were lower (US$31,528). In Los Litres, average debt per grower interviewed was US$49,600. In all reform project areas the first cases of such debt began in the mid-1980s, the modal years were variably distributed as shown in Table 1. These trends correspond roughly to the falling real prices during that period.

The effect of this debt has been to 'lock-in' producers with export companies. In 14 cases growers held contracts with debt clauses. In nine cases, the grower's properties were mortgaged to the firms. Of these two groups, those with mortgaged property would appear to be in the most precarious position.

The sale of parcelas due to indebtedness with export companies

High levels of indebtedness have led to the sale of significant amounts of land within the *parcelas*. Of the 26 small growers interviewed nine had been involved in the sale of land. Six of these had sold their entire *parcela*. The median year of these transfers was 1992, with six of the nine taking place in 1993. Investigation of the land-tenancy lists (*roles*) prepared by the Chilean Inland Revenue (Impuestos Internos) provides further evidence of the transfer of land holdings and a re-concentration in the tenancy structure in the village as a whole (i.e. the area accounted for by reform projects and non-reformed land). Thus between 1983

TABLE 1 *Small Grower Debt in Three Reform Projects, El Palqui 1993*

Parcelación	Average debt level (US$)	Year debt began (mode)
San Antonio	84,383	1987
Los Litres	49,600	1991
Santa Rosa	31,528	1988
Totals	50,217	1989

Source: Fieldwork.

TABLE 2 *Land-Holding Structure of El Palqui 1983 and 1994*

	% Distribution	
Land-holding size (ha)	1983	1994
< 10	17	10
10–20	5	8
> 20 – < 50	4	9
> 50	74	73

Note: Figures refer to total land-holdings accounted for by individuals.
Source: Calculated from the *roles* of Chilean Impuestos Internos.

and 1994, 57 of the original 144 *parcelas* were transferred. Approximately 50 per cent of these transfers (29) took place between 1990 and 1994. This implies that debt with export companies explains a significant proportion of these sales. This has had an important impact upon the landholding structure within El Palqui as a whole (i.e. reformed and non-reformed land). As is shown in Table 2, the amount of land accounted for by farmers who possess less than 10 hectares has declined from 17 per cent to 10 per cent. This land has been absorbed by the medium-scale (10–20 ha) and medium-large scale (> 20 – < 50 ha) land-holding sector.

It is clear then from the preceding analysis, that within the local export economy of El Palqui, nothing is less certain than the future of the small-scale grower. Given that the average market-value of the *parcelas* under investigation is approximately $150,000[10] and that the average debt level among the respondents was $50,217, it is almost inevitable that the process of sale of land due to debt and consequent land re-concentration will continue over the coming years. This bears important implications for both local development and local equity. As growers go out of business and fall back on low paid seasonal labour and other non-secure forms of employment (*Colectivo* taxi driving, informal selling of items etc.) economic multipliers at the geographical scale of the community will fall. There is some evidence for similar trends elsewhere in the country. Fieldwork undertaken by the author in the comuna of Curicó among apple based small scale growers identified a comparable process.[11]

POWER RELATIONS AND THE VULNERABILITY OF THE SMALL-SCALE GROWER

What explanations could be proposed to account for increasing failure among the small grower sector? All scales of grower have suffered declining real prices. Why has this hit the small-scale sector in such a profound way?

Some commentators argue that low productivity levels explain the poor rate of success (Universidad Católica, 1992, 1993, 1994). Given diminutive scale, this inefficiency is often characterised as 'inherent' to small scale production. It is true that in many cases small growers are not able to catch a number of important economies of scale. This will, in many cases, lead to relatively low rates of productivity. However, I would argue that low productivity is not determined by scale *per se*. Such a deterministic argument over-

simplifies and de-politicises the situation. Rather, in order to fully explain small grower inefficiency, at least in the case at hand, one must consider a far more complicated set of causal factors. In some cases, though not all, these have little to do with scale and more to do with the asymmetric distribution of economic power embodied within the existing market structure. There are at least four areas where the distribution of economic power between small growers and export companies is highly skewed.

Finance. For small-growers poor access to finance means that in most cases the export companies were the only available source of credit needed to set-up grape production. High costs in this respect (approximately US$14,000–35,000 per hectare at current prices[12]) meant that growers became immediately indebted with the companies with whom they were contracted to export. Given the low likelihood of obtaining funds elsewhere firms were able to charge high rates of interest on this debt. Furthermore, given the high running costs of grape production, growers were forced to obtain substantial amounts of credit each year. The majority of growers have been completely unable to break this dependence. Growth in debt has led to a situation where firms can exert effective 'monopsony'[13] control upon growers. Furthermore, through the contract, firms have been able to gain monopoly supply of inputs. In sum, due to financial constraints facing the growers, effective bi-lateral monopolies[14] have been created. Conventional economic theory would argue that in this situation the grower is likely to receive relatively low prices for products whilst paying high prices for inputs.

Information. Information constraints for small growers have resulted in an asymmetric distribution of information within the market. There is no doubt that the firms have access to and can manage critical information far more effectively than the small growers. Interviews showed that many of the growers were unaware of the price that their grapes were receiving at the final market destination. They were also unaware in many cases of the market price of the various inputs used. Imperfections such as this can lead to the principal-agent problem, where those endowed with the information use it (or hold it back) to their economic advantage (Mansfield, 1988). This situation has allowed some firms to manipulate balance sheets in their favour. It has also meant that farmers have not had a sound basis upon which to base investment decisions.

Organisation. The problem of organisational constraints for small growers flows, in many ways, from the problem of financial constraints. To organise collectively in order to buy and sell products in bulk or to perform a higher stage of the production chain (e.g. packing) is costly. It may involve, for example, the building of special facilities and may require legal measures. Thus in El Palqui we see a situation where growers face the companies individually. Clearly, in this case bargaining power will be low.

Education/training. A final factor which helps explain the low economic power of small growers *vis-à-vis* firms is that of constraints to education and training. It is widely acknowledged that the quality of education in rural Chile is generally low (Hojman, 1995a). Furthermore, many of the farmers I talked to told me that they had left school at an early age in order to work on the land. This would explain the low numerical and literacy skills exhibited by many of the respondents. This in turn would explain why a considerable number of those interviewed expressed that they simply could not understand contracts, balance sheets etc. and signed documents without a full knowledge of what was contained within them. Furthermore, the availability of training in farming methods is poor. A considerable amount of growers received land in the agrarian reform without any basic training in such matters. Some adapted but many did not and eventually sold or lost their land.

Asymmetric power relations: summary

This asymmetry in political and economic strength creates a situation whereby the large-scale export firms have been able to establish a contract system which works clearly in their favour. Given low bargaining power, the small growers have little choice in accepting the conditions contained within the contract documents. This diminutive bargaining power is compounded by the fact that, unlike their larger scale counterparts, small growers do not have the option of marketing their produce in alternative ways, i.e. through 'footloose' export intermediaries or grower associations. This has enabled the firms to alter the system to allow the passing on of a significant proportion of the costs of operation and protect profit margins during the current difficult phase. In this way small farmers are being significantly 'squeezed'. In this respect the problem is structural in nature, i.e. it is the conditions pertaining to the insertion of the small grower within the economic system which, for the most part, determine his/her economic experience.

CONCLUSION

In this article we have seen how stagnation in the international market for Chilean fruit has led to a significant re-organisation of the export company sector. It has been argued that these changes have discriminated particularly against the small-scale grower sector. Under present conditions the survival of that sector seems increasingly doubtful. Free-market purists may hold that the decline of this sector is indicative of a shift towards a more efficient allocation of resources. In this respect it is considered to be both an inevitable and desirable consequence of rural economic growth and change. However, the preceding analysis has shown that small grower inefficiency is not determined by diminutive scale *per se*. Rather, an imbalance in power relations, embodied and legalised within the market through the contract system, has prevented the small scale sector from realising its full economic potential. This structural problem has had, and could continue to have, regressive social impacts.

The implications of the above should be carefully considered. This paper has shown that '*reconversión*' by itself does not guarantee the survival of the small-scale grower sector. Clearly, in order to ensure the success of '*reconversión*' to fruit production among small-scale growers, the asymmetric relations of power existing between firms and farmers must be reduced. This implies a significant role for government in the correction of structural imbalances. Policy measures should include: a system for the monitoring of contracts and wider firm behaviour, technological and credit assistance for the small grower sector, the provision and distribution of better information, opportunities for training and incentives to organise. These measures and any resultant improvements in small grower performance would improve both efficiency and equity in the Chilean rural sector, thereby, helping to ease the pains of '*reconversión*'. Furthermore, this would contribute to both the political and economic sustainability of the critical fruit export sector.

NOTES

1. The primary, and much of the secondary, information reported in this paper was gathered during a year of research in Chile. This research period formed part of the preparation towards the writing of a Ph.D. thesis.

2. The term '*reconversión*' has been used of late to refer to the need to shift productive resources (land, capital and labour) away from those sectors which are no longer competitive by international standards to more 'buoyant' sub-sectors.
3. The term counter-seasonal is used to refer to the supply of produce to receiving markets during the winter/spring months when, in the absence of adequate storage technologies, domestic supply is not available. This is particularly relevant in the case of Southern Hemisphere fruit supplied to northern markets such as the USA and EC between the months of October and April. The market for Southern Hemisphere fruit around Christmas is of particular importance as prices tend to reach a peak during that period.
4. The real price index shown graphically in Fig. 2 was calculated by deflating nominal prices in US Dollars by the real Chilean Peso/US Dollar rate of exchange at 1980 prices. The real Peso prices were then indexed using 1980 as the base year.
5. Total real earnings due to fruit exports were calculated by deflating total nominal US Dollar returns by the real Chilean Peso/US Dollar rate of exchange at 1980 prices.
6. The characteristics of 'footloose' export companies were revealed to me during an interview with G. Valesquez, a 'footloose' exporter from Chile's seventh region. This interview took place during a field excursion to Curicó in February 1995.
7. The large scale farmer referred to was Jaime Prohens of Chanaral Bajo, Monte Patria located in Chile's fourth region. This interview took place in during a field excursion in March 1995.
8. Julio Polanco, a lawyer from Ovalle in Chile's fourth region was especially helpful in describing and explaining the complex CCC system. I would like to thank him for information and guidance given during various interviews between November 1994 and March 1995.
9. The fieldwork undertaken in the El Palqui district of the Norte Chico took place between the months of August 1994 and January 1995.
10. This estimate is based on information given by Raul Zepeda, a large scale farmer from the El Palqui area. His figure for the market value of one hectare of fully producing grape orchard in Chañaral Alto (near El Palqui) of land was US$35,000. This figure includes the cost of un-improved land (US$3500), rights to water (US$10,000), drip-feed irrigation (US$7500), preparation of land and installation of the vineyard ($14,000 together). Thus, the market value of land will vary according to quality of land, the existence or otherwise of irrigation technology and rights to water and the use of non-family labour in preparation. In the case of the small growers from El Palqui only one of the 26 utilised a 'drip' irrigation system. Also, in some cases the quality of the land was inferior to that found in Chañaral Alto. Based on this I estimate that the market value of one fully producing hectare of grape orchard in El Palqui has an average market value of US$27,000. Thus among the El Palqui sample the average value of a parcela is equal to approximately US$150,000.
11. This information was gathered during the Ph.D. research period between the months of October 1994 and April 1995.
12. The wide range in possible cost of setting up one hectare of grape orchard exists due to the variable state of the growers land before s/he decides to plant grapes. The lower figure refers to a hectare which has water rights and some kind of irrigation system. In other words the figure refers to the cost of preparing land, installing the vineyard and maintaining it until it begins to produce grapes (usually year three). The higher figure refers to a hectare with neither of these facilities where the farmer chooses to install 'drip' irrigation. Again, these estimates are based on information given by Raul Zepeda (see Note 10).
13. The term monopsony refers to a market within which only one buyer operates. Firms can effectively attain this position with individual growers through the operation of the debt clauses contained within the fruit marketing contracts.
14. The term bi-lateral monopoly refers to a market characterised by one buyer and one seller, i.e. a monopsony and a monopoly rolled into one. Again, firms can attain this position through a combination of the debt clause (creating an effective monopsony) and clauses referring to the exclusive supply of inputs to the farmer (creating an effective monopoly).

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