

Highlights and Policy Recommendations

Chile has made important progress in raising incomes and reducing poverty, and more recently in narrowing income inequality too. The key to this strong economic performance has been sound macroeconomic management, institutional and structural reforms, trade openness, and the prudent management of mineral resources (principally copper).

The agricultural sector, in conjunction with related downstream activities, has played a key role in Chile's economic success. Yet while the incomes of agricultural households have increased, small-scale farmers have seen little change in their farm incomes, with most of the gains coming from improved off-farm opportunities.

Agriculture as a whole has benefited from an open trading environment, characterised by a uniform MFN tariff of 6%, and an average effective tariff of about 2% resulting from a wide network of preferential trade agreements. Agriculture has received no more protection than other sectors, with the exception of commodities covered by the country's price band system (wheat, wheat flour and sugar). In recent years, protection has been low for these products too, as a result of high world prices and (ongoing) policy reforms.

Support provided to producers is low compared with other OECD countries, with an average %PSE (producer support as a share of gross farm receipts) of 5% in 2004-06 – a similar figure to the estimates for Australia and Brazil. Budgetary payments have dominated producer support in recent years, with relatively little use of market price support. Total support to the agricultural sector also imposes a milder burden on the economy than in most OECD countries, accounting for 0.4% of GDP between 2003 and 2005, compared with an OECD average of 1.2%.

Government expenditures on agriculture have nevertheless more than trebled in real terms over the past ten years. About half of that spending is on public goods, while the other half consists of measures which aim to make Chile's poorer farmers commercially competitive.

The spending on public goods includes essential investments that help raise agricultural competitiveness and protect the country's environment and natural resource base. But the fact that money is spent on public goods does not itself guarantee that policies are effective, and there is a need for a more systematic evaluation of policy performance.

Payments to improve small-scale farmers' commercial viability need to be based on a realistic assessment of who is potentially competitive within the sector, and to target that constituency. For future generations, that group is likely to be a minority of smallholders. For the majority, the main requirements are for non-agricultural policies that help them diversify their incomes and find better paid jobs outside the sector. In most cases the ultimate aim should be to transform the poorer family farm into a structure in which the farm operation may be retained, but family members (especially sons and daughters) develop the opportunities to obtain higher paid skilled employment. Recently introduced smallholder credit policies that focus on correcting underlying market failures represent a more productive use of resources than traditional credit subsidies.

Two-thirds of agriculture-dependent households are headed by salaried farm workers, and these households have similar incomes to the poorest farm households. While salaried farm workers may benefit from the increased employment opportunities offered by agricultural growth, the long-term priority is similarly to help them get better paid (skilled) work, within the agribusiness sector or elsewhere.

Agricultural policies therefore need to be framed within an economy-wide context, and consistent with other policies, such as regional initiatives and social safety nets. As agricultural spending by the Ministry of Agriculture is increasingly complemented by the outlays of other ministries and agencies, the need for close co-operation across branches of government becomes ever more essential.

1. Reforms and their impacts

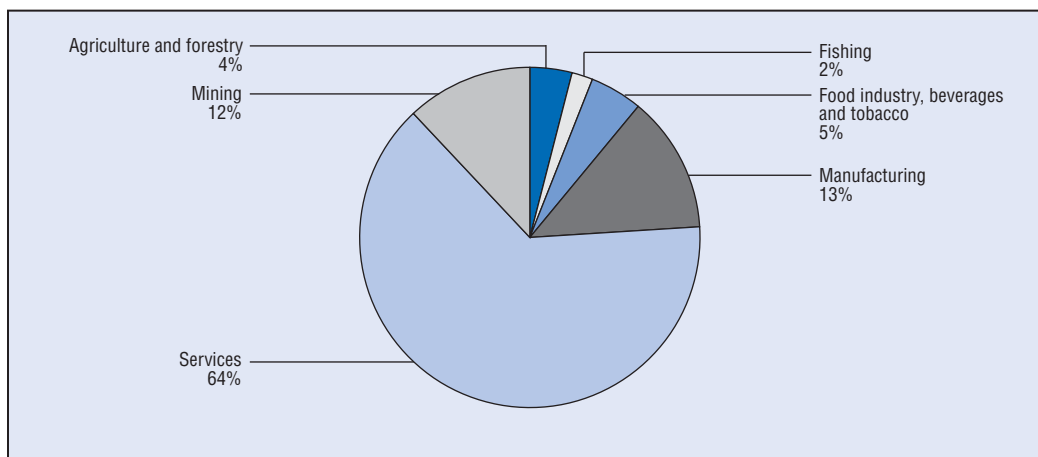
Over the past 20 years, the Chilean economy has grown more rapidly than any other country in Latin America. Real per capita incomes have more than doubled since the restoration of democracy in 1990, and the incidence of poverty has declined sharply. Using a poverty line that corresponds to twice the cost of a basic food basket, the incidence of recorded poverty fell by nearly two-thirds, from 38.6% of the population in 1990 to 13.7% in 2006. Over the same period extreme poverty, as measured by the cost of one basic food basket, has been almost eradicated, falling from 12.5% to 3.2%. Chile's income distribution is among the most unequal in the world, but here too there has been some recent improvement.¹ Despite this progress, per capita incomes in Chile are still less than half the OECD average, and at current growth rates it would take another 15 years for incomes in Chile to converge on that current OECD level.

The key to Chile's strong economic performance has been sound macroeconomic management, institutional and structural reforms, trade openness, and the prudent management of mineral resources (principally copper). These basic tenets of economic policy have been upheld by successive governments since the return to democracy in 1990. The economy has become progressively more open, with a ratio of exports plus imports to GDP of about 75% – higher than anywhere outside East Asia. For the past ten years, the ratio of FDI to GDP has averaged 6-8%, which is also higher than the OECD average and in any other Latin American country. In 2005, the stock of FDI reached 65% of GDP, compared with an OECD average of 27%. Inflation has converged on the OECD average, even in the face of global and regional volatility and large swings in the copper price and real exchange rate, although it is poised to exceed the target ceiling of 4% in 2007, mainly as a result of higher food prices.

The agricultural sector, in conjunction with related downstream activities, has played a key role in Chile's economic success, both benefiting from stability and reforms, and making an important contribution, via rapid export growth. The sector is strategically more important than its 4% share of GDP would suggest. Chile's agricultural and agro-industrial sector has been extremely successful in adding value to the production of primary commodities, and processed products such as wine and fruits account for a similar share of GDP to agriculture itself (Figure 1).

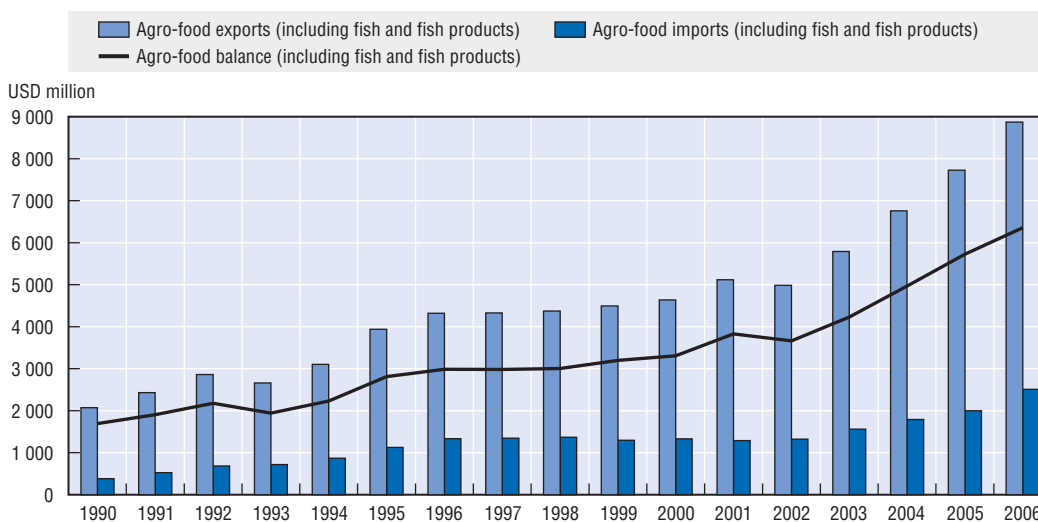
Much of the increase in value added has been in exportable commodities, with the consequence that agriculture and related products accounted for 29% of merchandise exports in 2002 and 2003, although this share has slipped back in recent years as a result of the boom in copper prices. Since the initiation of reforms, there has been a huge increase in the sector's export orientation. The share of primary agricultural trade (i.e. exports plus imports) in agricultural GDP averaged 30% during the period of military government, reached 60% between 1990 and 1998, and has averaged more than 80% since 1999. More widely, the growth of agricultural and agribusiness exports has accelerated in recent years, as new exports, such as pork, poultry and dairy products have added to earlier growth sectors such as wine and fresh fruit (Figure 2).

Figure 1. Shares of GDP by sector, 2002-05 average



Source: Central Bank of Chile, 2007.

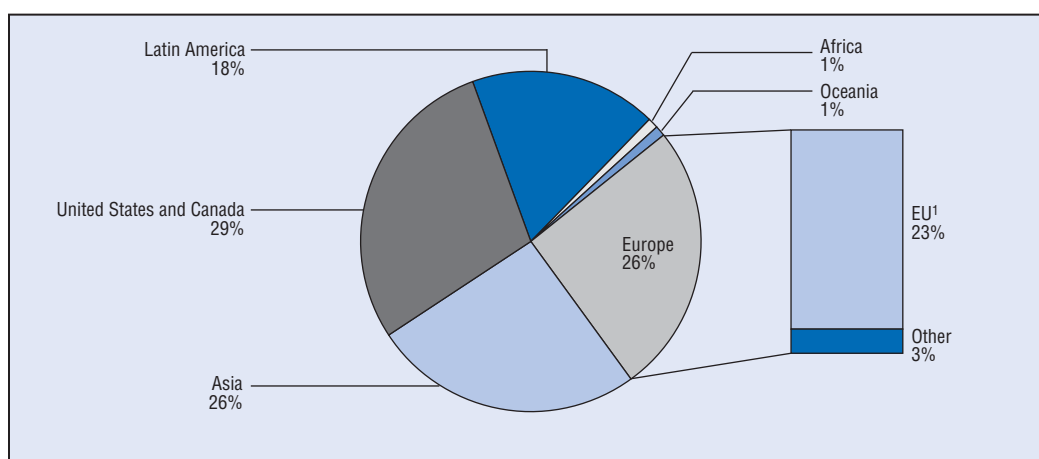
Figure 2. Evolution of Chile's agro-food trade, 1990-2006



Source: UN, UN Comtrade database, 2007.

Chile has succeeded in diversifying the destinations of its agro-food exports. In the four years to 2005, 30% of agro-food exports went to the United States and Canada, 25% to Europe and 26% to Asian countries (Figure 3). Latin American markets are relatively less important, with a combined share of 18%. The main reasons for Latin America's low share are twofold. First, Chile's exports are mostly high value products such as temperate fruits, or products with considerable value added, notably wine, for which the demand is stronger in high income countries. Second, Latin American countries are often competing exporters (e.g. Argentina for wine, Brazil for pork and poultry). There have been some new growth markets, such as Korea and Russia, while the United States market has become less important (but has nonetheless increased in absolute terms). In recent years, the growth in agro-food imports has been less dynamic. Chile imports a large share of its domestic consumption of cereals (principally wheat), oilseed products (both oil and meal), beef and sugar. More than three-quarters of these supplies come from other Latin American

Figure 3. Chile's agro-food exports by region of destination, 2003-06 average



1. EU15.

Source: UN, UN Comtrade database, 2007.

countries, with Argentina and Brazil collectively accounting for well over half. Argentina is the main supplier of wheat and beef, while Brazil supplies sugar and oilseed products.

While macroeconomic and structural reforms have helped underpin the growth in agricultural production and exports, agricultural policies have played an important facilitating role. The Agriculture and Livestock Service (SAG) has sought to guard the country's favourable sanitary and phyto-sanitary conditions; Fundación Chile has provided R&D and venture capital for niche exports such as blueberries; the Economic Development Agency (CORFO) has sponsored some successful producer associations (for example in wine); while PROCHILE has engaged in export promotion. Preferential trade agreements have also contained provisions that have improved access to new markets for agricultural products, such as pork in Japan and Korea.

Chile's agricultural growth is likely to continue, as the remaining impediments to growth are alleviated. Most of those impediments afflict the economy in general and are not unique to the agricultural sector. They include weak human capital (in particular, low educational attainment), which has implications for farm management and entrepreneurial skills; and a low R&D intensity and weak diffusion of knowledge, reflected in the low level and uneven provision of farm extension services.

Despite the growth in production and exports, agriculture's share of employment declined from 19% in 1990 to 12% in 2006, a share that remains about three times higher than the sector's share of GDP. The implied low productivity of labour employed in agriculture reflects the sector's duality, where a competitive export-oriented sector co-exists alongside an underdeveloped sector of semi-subsistence farmers.

It is important to recognise that, over the coming decades, agriculture's share of GDP will not rise to match the sector's share of employment – in all OECD countries the tendency has been precisely the opposite. The incomes of households working in agriculture are on average about a third lower than those in other sectors, and a shift of labour out of the sector will be needed to close that gap. More generally, in the long term, it is unlikely that the agricultural sector can itself provide the basis for the 2.5 fold increase in annual per capita incomes required to reach the current OECD average (in PPP terms) of

USD 28 000. As a small economy, Chile is relatively open, with a share of exports in GDP of 40%. If that ratio is to be maintained at higher income levels, as it probably needs to be, then per capita exports would have to rise to USD 11 000. These sorts of returns cannot be generated by the exploitation of natural resources and labour-intensive farming, and require much greater diversification of the economy.

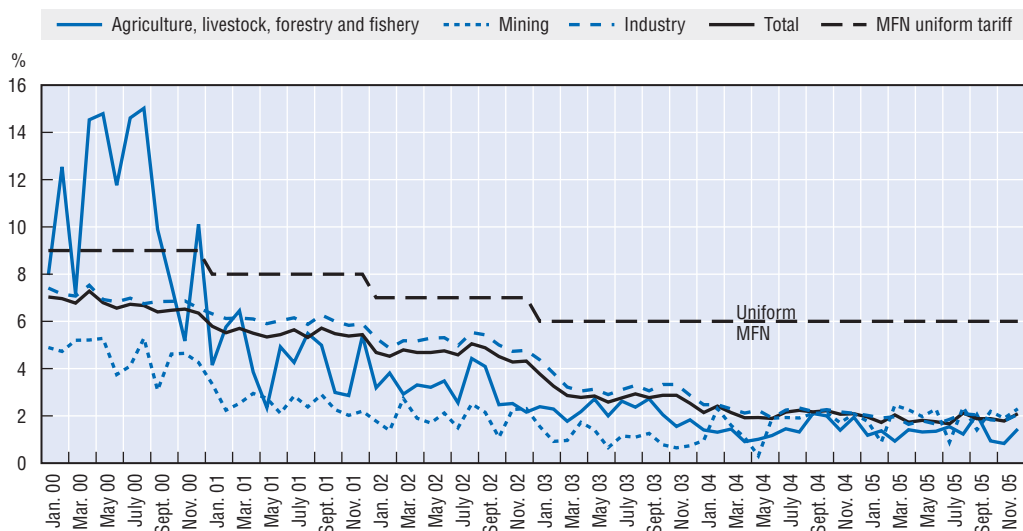
The easing of the remaining constraints to competitiveness should nevertheless enable a share of future growth to be enjoyed by some of the country's poorer agriculture-dependent households, either by drawing them into commercial structures directly or offering them employment opportunities on larger agribusiness operations. But agricultural growth has historically been concentrated among competitive sub-sectors, and over the past 15 years has done little to improve the farm-derived incomes of the majority of agricultural households. Rather, the gains in total incomes have come either from the farm household diversifying its sources of income or leaving the sector for more remunerative work.

2. Agricultural policy developments

Since 1990, Chile's agricultural policies have centred around three main objectives: first, the inherited goal of increasing competitiveness; second, achieving more balanced agricultural development by better integrating poorer less competitive farmers into commercial supply chains; and finally reconciling these objectives with goals related to conservation of the environment and the sustainable use of resources. While the specific articulation of objectives has changed from one government to the next, these broad areas have provided a common focus of policy concerns.

These objectives have been pursued in the context of a relatively open trade policy. Chile has a uniform MFN tariff of 6%, and the average effective tariff has been reduced to about 2% by the conclusion of a wide network of preferential trade agreements (Figure 4). With a few exceptions, notably wheat and sugar, for which a Price Band System (PBS) is

Figure 4. **Applied tariffs, adjusted for trade preferences, 2000-05**



Note: Calculations account for both *ad valorem* and specific duties.

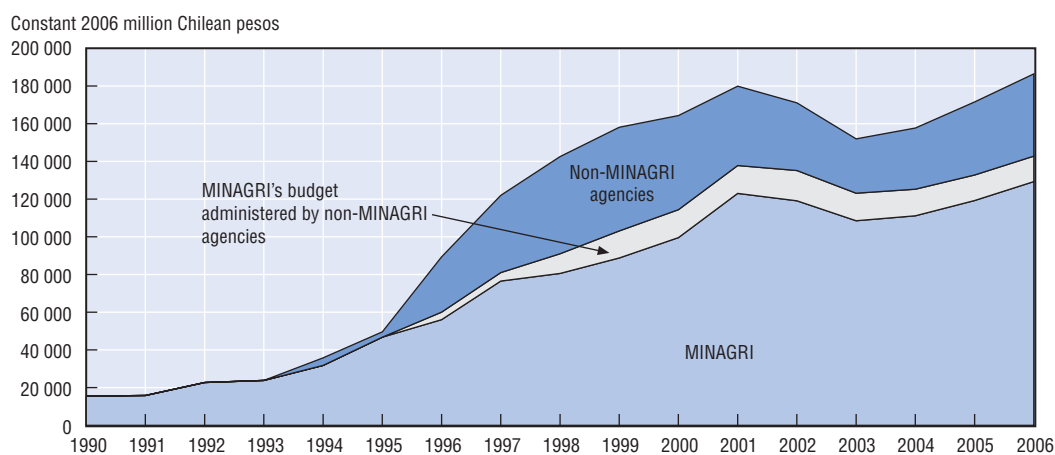
Source: Becerra, 2006.

operated, there has been little protection for agricultural products, although Chile's trade agreements have typically singled out agricultural sub-sectors for special treatment. Over the past four years, however, domestic prices of agricultural commodities have been on average no more than 2% above comparable prices in international trade.

The idea behind Chile's PBS was to provide producers of eligible crops – mostly smaller farmers in the south of the country – with some insurance against price risk. Under the PBS, floor and ceiling prices are established around an international reference price. When the reference price is below the lower threshold, a specific duty is applied in addition to the applied tariff. When the reference price is between the lower and the upper threshold, only the applied tariff is applied. Lastly, when the reference price is above the upper threshold, a deduction is made from the applied tariff. Between 1998 and 2000 world prices were sufficiently low that the duty levied on PBS products exceeded the bound tariff of 31.5%. Following a successful WTO appeal by Argentina, the PBS was modified for wheat, wheat flour and sugar, and discontinued for vegetable oils. Chile successfully renegotiated its bound tariff for sugar, which was raised to 98%. Strong world prices for wheat have meant that the actual duty paid has been less than the MFN rate of 6% in three of the past four years. The duty payable for sugar was over 40% from 1998 to 2004, but fell to 20% in 2005 and less than 1% in 2006. A second successful WTO challenge by Argentina means that the PBS for wheat and wheat flour will need to be further reformed.²

Although Chile has relatively low trade protection, its agricultural policies are by no means *laissez-faire*. Indeed, government expenditures on agriculture have more than trebled in real terms over the past ten years. Spending by the Ministry of Agriculture (MINAGRI) has increasingly been complemented by the outlays of other ministries and associated agencies (Figure 5).

Figure 5. **Real budgetary transfers on agricultural programmes, 1990-2006**



Source: DIPRES, 2007; MINAGRI, 2007.

The main categories of agricultural spending, according to official classifications, have been – in order of importance – irrigation; productivity improvement and skills development (including preferential credit); rural development; a soil recovery programme; R&D, training and extension; sanitary and phyto-sanitary standards; and marketing and promotion. About half of these expenditures are made at the sectoral level, while the other

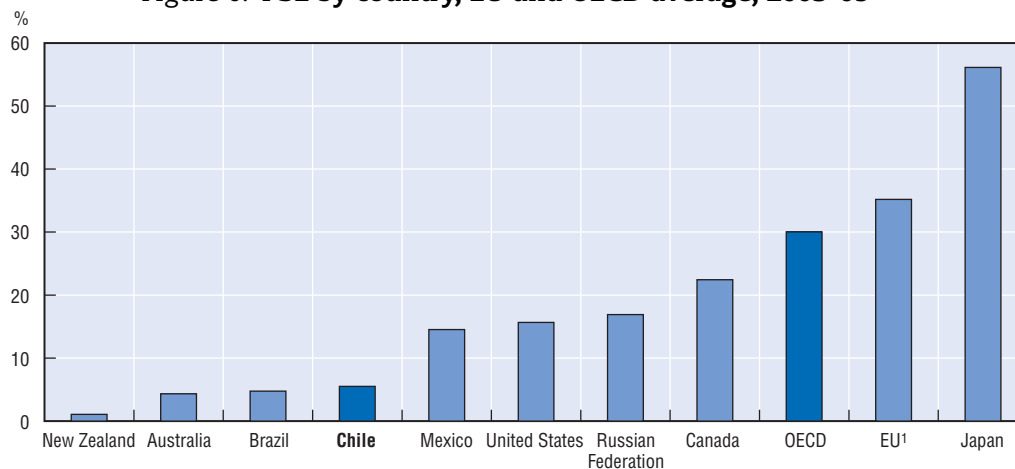
half comprises specific payments to farmers. A variety of agencies are responsible for these expenditures, with payments to small farmers, which account for about 30% of all outlays and half those of MINAGRI, made by a dedicated agency, the Institute of Agricultural Development (INDAP).

Programme areas cut across the three areas of policy objective: for example investments in infrastructure and irrigation, management skills and standards have a general impact on competitiveness. In each case, there is a specific element aimed at small farmers. Similarly, the Soil Recovery Programme seeks to improve resource utilisation but is also constructed to foster the competitiveness of small farmers in particular.

The division of responsibility across different government agencies makes for challenges in ensuring policy coherence. For example the Ministry of Public Works (MOP) and the Ministry of Agriculture (via the National Irrigation Commission, CNR, and INDAP) both spend money on irrigation. Within MINAGRI, the Soil Recovery Programme is jointly administered by SAG and INDAP, with the domain of intervention depending on whether the beneficiaries are large and medium scale farmers (in which case they fall under the responsibility of SAG), or smallholders (under INDAP). The issue of coherence has become more important as the scale of government spending has increased.

The use of public policies to address these three areas of policy objective is reflected in the OECD calculations of support to agriculture. In general, support provided to producers is low when compared with other OECD countries, with an average %PSE (producer support as a share of gross receipts) of 5% in 2003-05 that is comparable to the estimates for Australia and Brazil, and somewhat higher than for New Zealand (Figure 6).

Figure 6. PSE by country, EU and OECD average, 2003-05

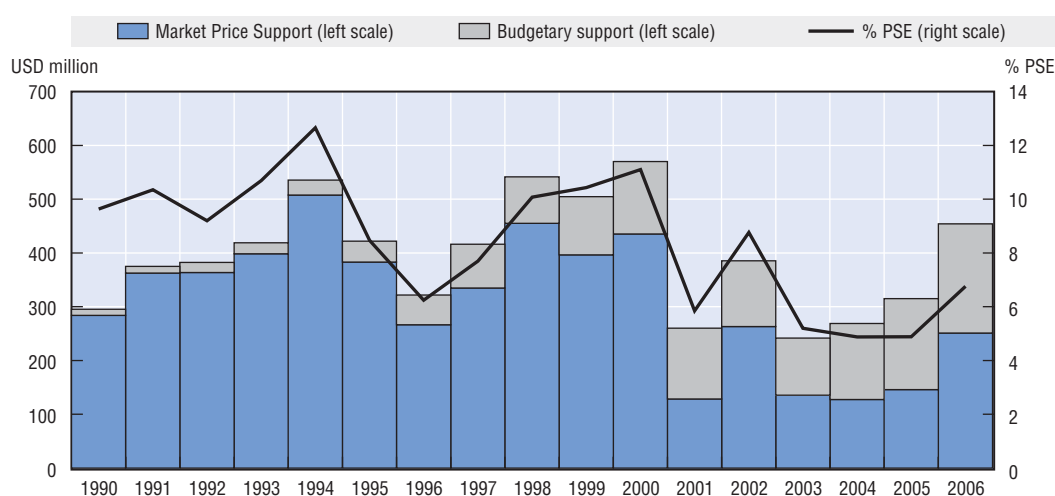


1. EU15 for 2003; EU25 for 2004-05.

Source: OECD, PSE/CSE database, 2007.

Market price support has fallen to very low levels, reflecting the limited use of tariffs and other trade restrictions.³ This has been counteracted by rising budgetary payments made specifically to farmers since the mid-1990s, with these payments dominating producer support in recent years. On balance, the PSE has trended downwards slightly since the restoration of democracy in 1990 (Figure 7).

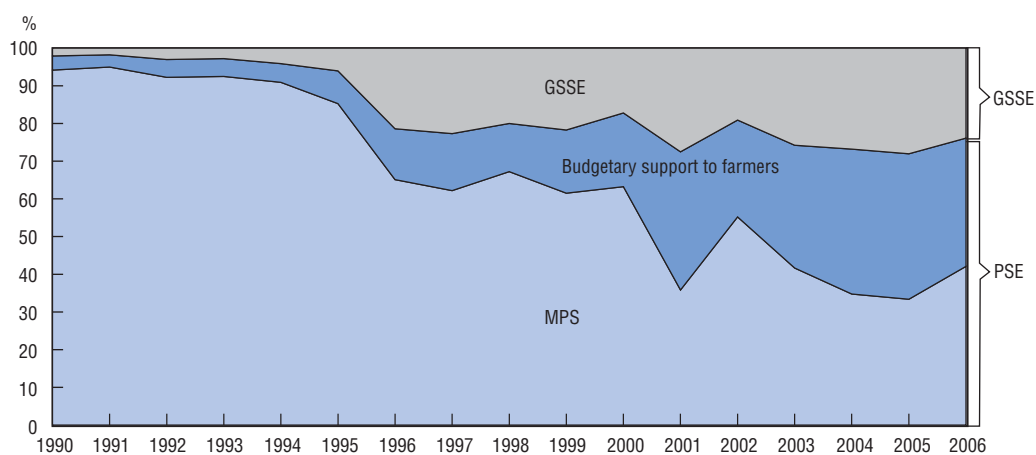
Figure 7. Level and decomposition of the PSE, 1990-2006



Source: OECD, PSE/CSE database, 2007.

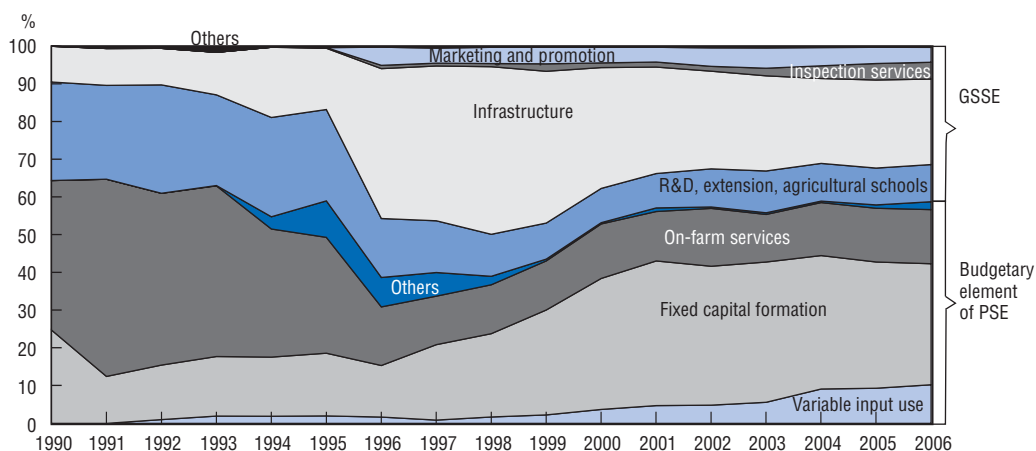
Agricultural policies that consist of payments to farmers are one component of total budgetary spending on the sector. Payments to the sector as a whole, but not specifically to farmers, included in the GSSE, have increased in parallel with those made to farmers (Figure 8). As a result, total support to agriculture, as measured by the TSE, now splits fairly evenly between the three components: market price support, payments to farmers, and the GSSE. The division between payments to farmers and to the sector as a whole has been roughly half and half for the past 15 years (Figure 9). Spending on infrastructure dominates the GSSE while fixed capital formation dominates the budgetary component of the PSE. In a number of cases in Chile, GSSE expenditures are the off farm equivalent of producer-oriented programmes (such as the provision of farm level infrastructure, irrigation and inspection services).

Figure 8. Decomposition of the TSE, 1990-2006



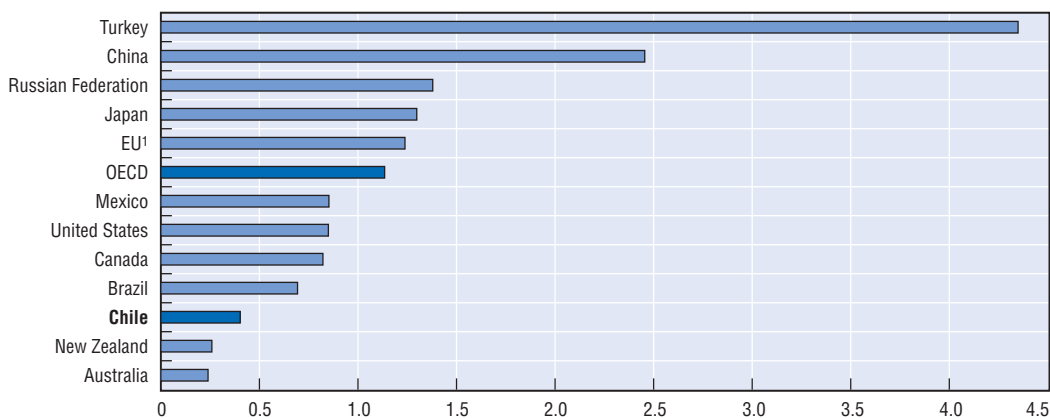
Source: OECD PSE/CSE database, 2007.

Although budgetary expenditures have risen rapidly, support to the agricultural sector imposes a much milder burden on the economy than in most OECD countries. The TSE

Figure 9. **Decomposition of budgetary allocations in PSE and GSSE, 1990-2006**

Source: OECD, PSE/CSE database, 2007.

accounted for 0.4% of GDP between 2003 and 2005, compared with an average share of 1.2% in OECD countries (Figure 10). The main reason for this difference is that market price support has declined to very low levels in Chile, whereas it still dominates producer support in most OECD countries. The share of the GSSE in total support was 26% over the same period, as compared with an average of 17% in OECD countries. Since the GSSE contains investments in areas that may be considered to be public goods, this suggests a more productive use of taxpayers' money than is the norm in OECD countries.

Figure 10. **Total Support Estimate in Chile and selected countries, 2003-05 average, as per cent of GDP**

1. EU15 for 2003; EU25 for 2004-05.

Source: OECD PSE/CSE database, 2007.

Spending on public goods has complemented the benefits of trade openness. These policies include spending on infrastructure by CNR and MOP; the specification and enforcement of standards by SAG; promotion by PROCHILE; and R&D by the National Institute for Agricultural Research (INIA), the Foundation for Agrarian Innovation (FIA) and through Fundación Chile. The reason for the success of these policies is that they have provided investments that the private sector alone could not have undertaken. In many

cases, public-private interactions (e.g. in the development of standards and inspection services, and the development of venture capital) have been a key ingredient of the success. In addition, the government has invested significantly in addressing a number of environmental concerns, including the loss of native forest and corresponding reduction in biodiversity, growing water demand for agriculture, and the erosion and desertification of national soils. SAG and INDAP jointly administer the Soil Recovery Programme, while another MINAGRI agency, the National Forestry Service (CONAF), implements reforestation and forest protection programmes.⁴

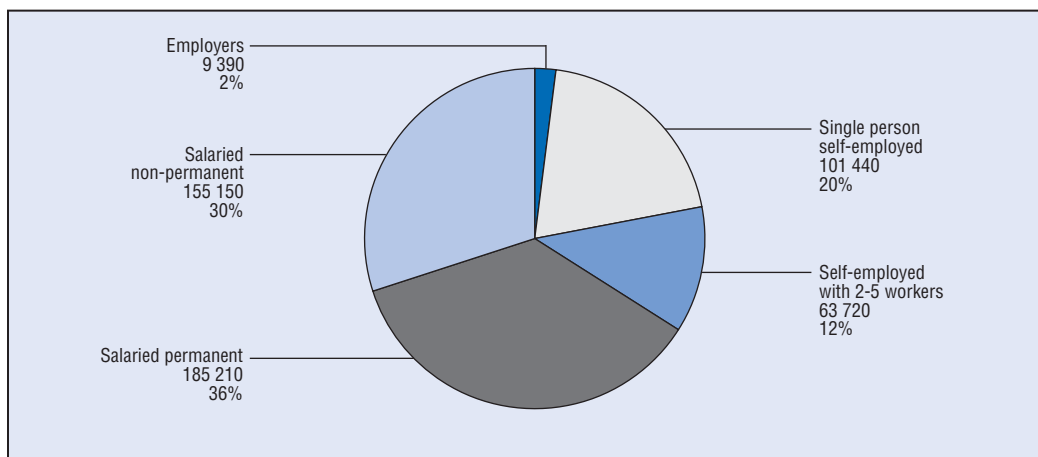
However, the fact that money is spent on public goods that the market would underprovide does not itself guarantee that policies are effective. Indeed, given the large number of programmes that Chile has in place, there is a need for a more thorough evaluation of performance. Some agricultural programmes are evaluated upon the request of the Treasury, but these evaluations focus more on gauging the implementation and reach of programmes than how effective they have been relative to their ultimate objectives. With agricultural policies increasingly being implemented by agencies other than MINAGRI, there is also a need for closer co-ordination.

The half of government spending on agriculture that is made directly to farmers is focused on smallholders. According to the 1997 Agricultural Census, there were 278 000 smallholders in Chile (corresponding to a definition that determines eligibility for support), of which 102 000 were subsistence farmers and 176 000 were market-orientated.⁵ These smallholders accounted for 84% of the farms in Chile, but only about 30% of the value of production. The remaining medium and large scale farms do not receive any direct support from the government. The strategic objective is to integrate smallholders systematically into commercial structures. Although operationally some programmes target market-orientated producers, there is no explicit targeting on the basis of potential competitiveness. Such a refocusing appears necessary, given that the reach of INDAP – the government agency with responsibility for smallholder development – is limited to 40% of the eligible smallholder constituency, and that INDAP is legally constrained in the size of operations that it can lend to, with an upper limit that rules out supporting some potentially competitive medium-sized operations.

3. Strategic options for more inclusive agricultural development

As a matter of strategic emphasis, it is important to note that two-thirds of agriculture dependent households are not farm households but salaried agricultural workers (Figure 11). Moreover, salaried-worker families have a higher incidence of poverty than the self-employed and, when headed by non-permanent workers (mainly seasonal), poverty rates are even higher. For the other one-third, comprising mostly self-employed farm households, it is equally important to recognise that while their total incomes have improved, most of those gains have come from higher off-farm incomes, with farm incomes themselves showing little change.

The corollary is that many of the policies needed to boost the incomes of agriculture-dependent households are those that help raise earning potential generally, and lie outside the realm of agricultural policies. It is important that agricultural policies are framed within an overall context of policies that are appropriate for the sector and the households that depend on it. A correspondence between development pathways for agriculture-dependent household and relevant policy instruments is described in Table 1. The

Figure 11. **Numbers of agriculture-dependent households, by category, 2003**

Source: MIDEPLAN, CASEN 2003; OECD calculations, 2007.

development pathways are described in the columns, and the policy instruments in the rows. The first column (improving competitiveness within agriculture) applies to farm households, but the others are valid for both farm households and salaried worker households. Note that the development pathways (columns) are not mutually exclusive: for example, one household member can enhance the farm's competitiveness while another provides off-farm income. Also, the instruments (rows) do not exhaust all possible policies, but focus on those with persuasive arguments.

For salaried workers, the key policy areas are likely to be investments in human capital (notably education), regional policies to help build a diversified economy with both skilled and unskilled job opportunities, and labour market reforms to raise employment opportunities and wage incomes. For farm households, only a minority have operations that are likely to be commercially successful in the long term, and it makes sense that agricultural policies should focus on this constituency. For the majority, income diversification and finding employment outside the sector are likely to be more important, and the priorities are similar to those for salaried agricultural workers. Agricultural policies may have a role, but they are not the foremost determinant of development opportunities. Among subsistence farmers and seasonal workers, coverage by social safety nets is important, and has mostly been achieved.

Agricultural policies designed to help farmers become more competitive need to be not just targeted on the potentially viable, but weighed against the alternative of providing support in ways that do not distort markets and household decisions. Given that, from an inter-generational perspective, the majority of farmers will improve their incomes by diversifying their income source or exiting the sector, the presumption should be in favour of non-farm measures that do not deter such initiatives.

There is nevertheless evidence of unexploited development opportunities for smallholders in hitherto less developed regions. In the southern regions, where most of the land cultivated by small farmers is located, there is evidence of unexploited agricultural potential. The main impediments to exploitation of those resources appear not to have been land quality or even land size, but other elements such as weak infrastructure and poor management skills. Case study research for Region VII suggests that more farmers in

Table 1. **Strategic framework for more inclusive agricultural development**

Policy instrument	Development pathway				
	Help farmers become more competitive within agriculture	Diversify income sources		Leave the sector for off farm work	Safety nets for those unable to adjust
		Within agriculture	Outside agriculture		
Investment in human capital	Minor effects of formal education for this generation; technical training more appropriate for productivity.	Can help farm family members and rural workers move into skilled jobs	Important for farm family members and rural workers	Important for managing inter-generation change	
Investment in infrastructure	Helps with market integration	Helps improve local job opportunities		Can ease migration decisions for offspring	
R&D and extension	INIA and private sector important; most gains have been from adoption and adaptive research.	Can expand agricultural employment (e.g. fruits and vegetables).			
Credit	Should focus on correcting market failures	Indirect impacts			
Labour market reforms		Important for raising employment opportunities and wage incomes			
Cash transfers (possibly conditional)				Conditional school attendance may complement investments in schools	The most important policy for those unable to adjust
Regional policies	Important for improving market integration	Expanded non-farm activity would raise farm wages	Important for building a diversified rural economy with wider job opportunities		
Develop producer associations	Mixed success so far, except for input co-operatives.	Indirect impacts			
Land policies	Need to encourage rental markets and facilitate land purchases by small farmers			Restrictions on land sales make it difficult for farmers (notably indigenous) to liquidate assets	

that region could be competitive if those constraints were eliminated by suitable investments, for example in infrastructure and research and extension.

Further provision of public goods could help ensure that a greater share of the benefits of agricultural growth extend to some smallholders. Such investments, because they impose few distortions to decisions at the margin, are unlikely to crowd out the development of other activities and potential income streams. In allocating such public goods, there is a need for some discrimination, for example at the regional level. On the other hand, the government cannot (and should not try to) judge at the individual level who will succeed and who will not. In practice, this should mean limited recourse to sector-specific household level expenditures, such as on on-farm infrastructure.

An important area where policies are implemented at the individual level is credit. In providing more targeted credit, the aim should be to correct market failures rather than allocate on the basis of farm size. This is not primarily a question of interest rate subsidies, but of providing marginal incentives for banks to engage with small borrowers, as is done through INDAP's Financial Coordination Subsidy (BAF) and Fund of Delegated Cash Management (FAD) programmes. Under these programmes, smallholders borrow at

commercial interest rates, but banks are compensated for the banks' transactions costs of dealing with smallholders. There is also evidence that other lenders (*e.g.* Banco Estado) may have a comparative advantage in making small loans, as they have the requisite infrastructure, with monitoring capabilities throughout the country. Loans at commercial interest rates, effected through commercial banks, have much higher repayment rates than those made by the state at subsidised rates.

For smaller farmers with the management skills and resource endowments needed to access global value chains, there may be organisational initiatives (both horizontally among farmers, and vertically along the value chain) that can help them make the transition to being competitive producers. Producer associations and co-operatives have a mixed record in Chile, partly due to the lack of an associative tradition, but there have been some successes when the pre-requisites have been in place such as the specification of a business model with strict accounting procedures, the provision of essential services to members and a clear policy environment.

There are few formal restrictions on the operations of land markets, but there is little renting of land, due to the high transactions costs that larger farmers incur when negotiating with smaller ones. This puts a brake on the consolidation of land into more productive units, thus impeding agricultural investment and making it more difficult for uncompetitive farmers to diversify out of the sector. In the case of indigenous farmers, there are strict restrictions on land sales and on rental and sharecropping arrangements. This policy is motivated by concerns that go beyond conventional economic criteria, but nevertheless limits the already low potential of indigenous farmers and the incentives for exploiting improved non-farm opportunities.

Finally, regional policies have an important role, as it is easier for agriculture to develop when other sectors are succeeding too, and the development of infrastructure is keeping pace. The design of regional policies may influence the targeting of agricultural policies, which calls for co-ordination across ministries and may imply some decentralisation of agricultural policy implementation.

In conclusion, Chile has made important progress in raising incomes and reducing poverty, and more recently in narrowing income inequality too. Those benefits have extended to agricultural and rural families, although improved farm incomes have not been the main driver. Chile has eschewed trade protection in its attempts to improve competitiveness and draw smallholders into commercial structures, and producer support is low in comparison with most OECD countries. Instead, the main emphasis has been on matching policy instruments to objectives and providing the investments (many of which are public goods) that farmers need.

As a further refinement, there is a case for a more explicit targeting of farm policies to potentially competitive farmers, with non-agricultural policies being used to help other farmers and agriculture-dependent households progressively diversify their incomes or exit the sector, and social welfare programmes providing safety nets for households that do not have the potential to adjust to structural changes in agricultural markets. In this way, agricultural policies could be more effectively integrated into Chile's broader strategy for balanced economic development.

Notes

1. The Gini coefficient fell from 0.58 in 2003 to 0.54 in 2006 (CASEN, 2003, 2006). A gini coefficient of 0 equates to perfect income equality (everyone has the same income), while a coefficient of 1 corresponds to complete inequality (one person has all the income).
2. Under proposals before Congress, the tariffs for wheat and wheat flour will be set at the MFN rate of 6% plus specific tariffs of USD 30 per tonne in the case of wheat and USD 47 per tonne in the case of wheat flour. Since this will raise protection beyond the level deemed to be necessary, Chile proposes to grant tariff-free access to wheat exporting countries with which it already has preferential trade agreements, subject to prices exceeding a threshold level. In addition tariffs levied on imports from those countries, as under existing provisions, are due to be phased out by 2015.
3. The 2006 market price support estimates for wheat and sugar are higher than can be explained by the applied tariffs, and appear to be due to delayed arbitrage between domestic and international markets.
4. Forestry policy in Chile is under the responsibility of MINAGRI. However, forestry policy is not covered by the OECD's classification and measurement of agricultural support.
5. Full results of the 2007 Agricultural Census are pending.

Acronyms and Abbreviations

AFC	Family Agriculture (Agricultura Familiar Campesina)
APEC	Asia-Pacific Economic Community
ASOEX	Chilean Exporters Association (Asociación de Exportadores de Chile)
AVE	Ad Valorem Equivalent
BAF	Financial Coordination Subsidy (Bono de Articulación Financiera)
BECH	Banco Estado – Chile
BSE	Bovine Spongiform Encephalopathy
CASEN	Chile's Socio-economic Survey (Encuesta de Caracterización Socioeconómica)
CGFTA	Chile's Free-Trade Agreement with Canada
CEGES	Managerial Training Centres (Centros de Gestión) – INDAP
CIREN	Natural Resources Information Centre (Centro de Información de Recursos Naturales)
CLP	Chilean Peso
CNR	National Irrigation Commission (Comisión Nacional de Riego)
COMSA	Agricultural Insurance Programme (Comité de Seguro Agrícola)
CONADI	National Service for Indigenous Development (Corporación Nacional de Desarrollo Indígena) – MIDEPLAN
CONAF	National Forest Service (Corporación Nacional Forestal)
CONAMA	Chile's National Commission for the Environment (Comisión Nacional del Medio Ambiente)
COOPEUMO	Cooperativa Campesina Intercomunal Peumo Ltda
CORA	Chile's Agricultural Reform Corporation (Corporación de la Reforma Agraria)
CORFO	Economic Development Agency (Corporación de Fomento de la Producción)
COTRISA	Wheat Marketing Enterprise (Comercializadora de Trigo) – Chile
CSE	Consumer Support Estimate
DIPRES	Budget Department (Dirección de Presupuesto), Chilean Ministry of Finance
DIRECON	Directorate for International Economic Relations – Chilean Ministry of Foreign Affairs (Dirección de Relaciones Económicas Internacionales)
DNA	Deoxyribonucleic acid
DOH	Department of Hydraulic Works – MOP
DSB	WTO's Dispute Settlement Body
ECA	Economic Complementation Agreement
ECLAC	Economic Commission for Latin America and the Caribbean – United Nations (Comisión Económica para América Latina y el Caribe – CEPAL)
EFTA	European Free Trade Association
EU	European Union

FAD	Fund of Delegated Cash Management (Fondo de Administración Delegada)
FAO	Food and Agriculture Organisation of the United Nations
FAOSTAT	FAO's Statistical Database
FAT	Technical Assistance Fund (Fondo de Asistencia Técnica)
FDI	Foreign Direct Investment
FIA	Foundation for Agrarian Innovation (Fundación de Innovación Agraria)
FMD	Foot and Mouth Disease
FOCAL	Quality Promotion Programme (Fomento de la Calidad)
FOSIS	Social and Solidarity Investment Fund (Fondo de Solidaridad e Inversión Social)
FTA	Free Trade Agreement
FUCOA	Foundation for Agricultural Communication, Training and Culture (Fundación de Comunicación, Capacitación y Cultura del Agro)
GAP	Good Agricultural Practices
GDP	Gross Domestic Product
GSSE	General Services Support Estimate
GSTP	Global System of Trade Preferences among Developing Countries
HRB	Basic Irrigation Hectares (Hectáreas de Riego Básico)
HS	Harmonised System
ICT	Information and Communication Technology
IER	Institute of Rural Education (Instituto de Educación Rural)
IFA	International Fertiliser Industry Association
INDAP	National Institute for Agricultural Development (Instituto Nacional de Desarrollo Agropecuario)
INE	Chile's National Statistical Office (Instituto Nacional de Estadísticas de Chile)
INFOR	Forestry Research Institute of Chile (Instituto de Investigación Forestal de Chile)
INIA	National Institute for Agricultural Research (Instituto Nacional de Investigaciones Agropecuarias)
INTERPAC	Export Promotion for Small-scale Agriculture (Internacionalización de la Agricultura Familiar Campesina)
ISI	Import Substitution Industrialisation
LBGMA	Chile's Law on the General Bases for the Environment (Ley de Bases Generales del Medio Ambiente)
MEI	OECD Main Economic Indicators
MERCOSUR	Southern Common Market
MFN	Most Favoured Nation
MIDEPLAN	Chilean Ministry of Planning and Cooperation
MINAGRI	Chilean Ministry of Agriculture
MOP	Chilean Ministry of Public Works
MPS	Market Price Support
MYPE	Micro and Small Enterprise (Micro y Pequeña Empresa)
NAC	Nominal Assistance Coefficient
NGO	Non-governmental Organisation
NPC	Nominal Protection Coefficient
NPK	Nitrogen, Phosphate and Potash
ODEPA	Office of Agricultural Policies and Studies (Oficina de Estudios y Políticas Agrarias)

OECD	Organisation for Economic Co-operation and Development
ORIGENES	Indigenous Development Programme (Programa Desarrollo Indígena)
PBS	Price Band System
PDI	Investment Development Programme (Programa de Desarrollo de Inversiones)
PDP	Suppliers Development Programme (Programa de Desarrollo de Proveedores)
PIR	Irrigation Pre-Investment Programme (Pre-Inversión en Riego)
PNPC	Producer Nominal Protection Coefficient
POVCAL	World Bank's software programme for calculating poverty measures for grouped data
PPP	Purchasing Power Parity
PROCHILE	DIRECON's Department, to promote Chilean exports
PRODECOP	Poor Communities Development Project (Proyecto de Desarrollo de Comunidades Pobres)
PRODEMU	Foundation for Women Promotion and Development (Programa de Formación y Capacitación para Mujeres Rurales)
PRODES	Organisational Development Fund (Fondo de Proyectos de Desarrollo Organizacional)
PRODESAL	Local Rural Communities Development Programme (Servicio de Desarrollo Local en Comunidades Rurales)
PROFO	Partnership Projects for Development (Proyectos Asociativos de Fomento)
PRORUBROS	Agribusiness Integration Programme (Programa de Redes)
PROSAFE	Product Safety Enforcement Forum of Europe
PSE	Producer Support Estimate
R&D	Research and Development
RIMISP	Latin American Centre for Rural Development (Centro Latinoamericano para el Desarrollo Rural)
SAG	Agriculture and Livestock Service (Servicio Agrícola Ganadero)
SAT	Technical Assistance Services (Servicios de Asesoría Técnica) – INDAP
SENCE	National Service for Training and Employment (Servicio Nacional de Capacitación y Empleo)
SERCOTEC	Technical Cooperation Service (Servicio de Cooperación Técnica) – CORFO
SIRDS	Soil Recovery Programme (Programa para la Recuperación de Suelos Degradados) – INDAP
SMEs	Small and Medium-Sized Enterprises
SPS	Sanitary and Phytosanitary
STE	State Trading Enterprise
SUBSE	Under-Secretariat of Agriculture - Chilean Ministry of Agriculture (Subsecretaría de Agricultura)
TFP	Total Factor Productivity
TSE	Total Support Estimate
UF	Chilean Unit of Account (Unidad de Fomento)
UHT	Ultra-high-temperature (milk) processing
UN	United Nations
URAA	Uruguay Round Agreement on Agriculture
USA	United States of America
USD	United States of America Dollar
WTO	World Trade Organization

Bibliography

- Agosin, M.R. and C. Bravo-Ortega (2006), *The Emergence of New Successful Export Activities in Latin America: The Case of Chile*, IERAL and Fundación Mediterranea, www.ieral.org.
- Anriquez, G. (2003), "The Viability of Rural Communities in Chile: A Migration Analysis at the Community Level, 1992-2002", paper presented at the International Conference *Roles of Agriculture Project*, Food and Agriculture Organisation of the United Nations, Rome, 20-22 October 2003.
- Anriquez, G., W. Foster and A. Valdés (2003), "Agricultural Growth Linkages and the Sector's Role as Buffer", paper presented at the International Conference *Roles of Agriculture Project*, Food and Agriculture Organisation of the United Nations, Rome, 20-22 October 2003.
- Apey, A.G. and A. Barril G. (eds.) (2006), *Pequeña Agricultura en Chile. Rasgos Socioproductivos, Institucionalidad y Clasificación Territorial para la Innovación*, INDAP, ODEPA, MUCECH and IICA, Santiago, Chile.
- Avila, A.F.D. and R.E. Evenson (2003), "Total Factor Productivity Growth in Agriculture: The Role of Technological Capital", article written as part of a postdoctoral research carried out at the Economic Growth Center, Yale University, New Haven, CT, US, www.earthinstitute.columbia.edu/cgsd/events/documents/evenson.pdf.
- Banco Estado (2007), *Programa Financiamiento Banco Estado, Segmento Microempresas y Pequeñas Empresas*, Santiago, Chile.
- Becerra G. (2006), "Arancel Efectivo de la Importaciones Chilenas: 2000-2005", *Studies in Economics and Statistics* No. 50, Central Bank of Chile, Santiago, Chile.
- Bellisario, A. (2007), "The Chilean Agrarian Transformation: Agrarian Reform and Capitalist 'Partial' Counter-Agrarian Reform, 1964-80", *Journal of Agrarian Change*, Vol. 7, No. 1, pp. 1-34.
- CNR (2006), *Política Nacional de Riego y Drenaje*, Ministry of Agriculture, Government of Chile.
- CNR (2007), *Resultados de la Aplicación de la Ley No. 18.450, Año 2006*, Ministry of Agriculture, Government of Chile.
- Coelli, T.J. and D.S.P. Rao (2003), "Total Factor Productivity Growth in Agriculture: A Malmquist Index Analysis of 93 Countries, 1980-2000", paper written for presentation as a plenary paper at the 2003 International Association of Agricultural Economics Conference, Durban, 16-22 August 2003, www.blackwell-synergy.com/doi/pdf/10.1111/j.0169-5150.2004.00018.x.
- CONADI (2007), *Balance de Gestión Integral 2006*, Ministry of Agriculture, Government of Chile.
- Cox, M. (2007), "Políticas Agrícolas en Chile", report prepared for the OECD Review of Agricultural Policies: Chile, Santiago, Chile.
- Cruz, M.E. (1999), *La Institucionalidad en el Sector Silvoagropecuario*, report prepared for the Ministry of Agriculture of Chile, Santiago, Chile.
- Díaz, M. et al. (2002), *El Marco Jurídico e Institucional del Mercado de Arrendamiento de Tierras en América Latina*, Regional Bureau for Latin America and the Caribbean, Food and Agriculture Organisation of the United Nations, Santiago, Chile.
- Díaz Osorio, J. (2007), "Family Farm Agriculture. Factors Limiting its Competitiveness and Policy Suggestions", report prepared for the OECD Review of Agricultural Policies: Chile, University of Talca, Chile.
- DIPRES (2007), *Informe de Ejecución Trimestral (Cuarto Trimestre) – Período 2006*, Budget Department, Chilean Ministry of Finance.
- DIRECON (2007), *Acuerdos de Libre Comercio*, www.direcon.cl/cuadro_resumen.html.

- Dirven, M. and S. Faiguenbaum (2004), "Dynamics of Santiago Wholesale Market of Lo Valledor and of its Forward and Backward Linkages", paper presented at the Workshop "Globalisation, Urbanisation and the Agrofood Systems in Developing Countries", 8-10 October 2003, Food and Agriculture Organisation of the United Nations, Rome.
- Echenique, J. (2005), "Proyecto de Estudio Regional Andino sobre Factores de Éxitos de Empresas Asociativas Rurales", consultancy report for INDAP, Santiago, Chile.
- ECLAC (CEPAL) (2002), *The Chilean Strategy of Trade Liberalization and Market Access*, Santiago, Chile.
- FAO (2006), *El Sistema de Fomento Agropecuario en Chile entre 1990 y 2004*, FAO Regional Bureau for Latin America and the Caribbean, Santiago, Chile.
- de Ferranti, D., et al. (2005), *Beyond the City: the Rural Contribution to Development in Latin America and the Caribbean*, World Bank, Washington, DC.
- Foster, W. and A. Valdés (2006), "Chilean Agriculture and Major Economic Reforms: Growth, Trade, Poverty and the Environment", *Région et Développement* No. 23-2006, pp. 187-214, www.regionetdeveloppement.u-3mrs.fr/pdf/R23/R23_Foster_Valdes.pdf.
- Foster, W. and G. Vargas (2000), *Concentration in Chilean Agriculture*, Department of Agricultural Economics, Chilean Catholic University, Santiago, Chile.
- Hurtado, H., E. Muchnik and A. Valdés (1990), "Trade, Exchange Rate and Agricultural Pricing Policies in Chile", Volumes I and II, *The Political Economy of Agricultural Policies*, World Bank Comparative Studies, World Bank, Washington, DC.
- IFA (2002), *Fertiliser Use by Crop*, Fifth Edition, Rome.
- INDAP (2004), *INDAP en Cifras, 2000-2004*, Ministry of Agriculture, Government of Chile.
- INDAP (2005), *Análisis de la Participación de los/las Clientes en los Instrumentos de INDAP, con Enfoque de Género*, Ministry of Agriculture, Government of Chile.
- INDAP (2007a), *INDAP - Balance de Gestión Integral, Año 2006*, Ministry of Agriculture, Government of Chile.
- INDAP (2007b), *INDAP – Cuenta Pública de Gestión 2006-07*, Ministry of Agriculture, Government of Chile.
- Jarvis, L.S. (1985), *Chilean Agriculture under Military Rule: From Reform to Reactivation 1973-1980*, Institute of International Studies, Berkeley.
- Larraín, F.B., J.D. Sachs and A. Warner (2000), "A Structural Analysis of Chile's Long Term Growth: History, Prospects and Policy Implications", paper prepared for the Government of Chile.
- López, R. and G. Anríquez, (2003), "Poverty and Agricultural Growth: Chile in the 1990s", paper presented at the International Conference *Roles of Agriculture Project*, Food and Agriculture Organisation of the United Nations, Rome, 20-22 October 2003.
- Melo, O. and J. Lopez de Lerida (2006), "Caracterización de la Agricultura Familiar en Chile", report prepared for the FAO-IADB project *Impacts of the Free Trade Agreement with the United States on Family Agriculture*, Department of Agricultural Economics, Catholic University, Santiago, Chile.
- MINAGRI (2007), *Informes de Gestión*, www.minagri.gob.cl/uapoyo/uproge/comp_agri.htm.
- Moreno, P.X.W. (2002), "A Policy Design for Solving Land Conflicts between Forestry Companies and Indigenous People in Chile", thesis presented in partial fulfilment of the requirements for the degree of Master in Applied Sciences in Natural Resource Management, Massey University, Turitea, Palmerston North, New Zealand.
- Muchnik, E. and O. Saavedra (2002), *Caracterización de los Rubros de Manzanas y Jugo Concentrado de Manzana en Chile en Base a Indicadores del Proyecto Eumercopol*, Area Agroindustria and Fundación Chile, Santiago, Chile.
- ODEPA (2000), "Clasificación de las Explotaciones Agrícolas del VI Censo Nacional Agropecuario Según Tipo de Productor y Localización Geográfica", *Documento de Trabajo* (Working Document) No. 5, Ministry of Agriculture, Government of Chile.
- ODEPA (2003), "Situación Actual y Desafíos del Sector Lácteo", presentation in Punta de Tralca (Chile), July, Ministry of Agriculture, Government of Chile.
- ODEPA (2007), *Estadísticas y Precios/Económicas*, www.odepa.gob.cl/odepaweb/jsp/estadisticas/economicas.jsp.

- ODEPA/INDAP (2002), "Agricultura Chilena: Rubros Según Tipo de Productor y Localización Geográfica", *Documento de Trabajo* (Working Document) No. 8, Ministry of Agriculture, Government of Chile.
- ODEPA/INDAP (2005), "Agricultura Chilena: Características Sociales de los Productores Según Tipología, Sexo y Localización Geográfica", *Documento de Trabajo* (Working Document) No. 9, Ministry of Agriculture, Government of Chile.
- ODEPA/UC/RIMISP (2002), *Los Supermercados en la Distribución Alimentaria y su Impacto Sobre el Sistema Agroalimentario Nacional. Informe Final*, Office of Agricultural Policies and Studies of the Ministry of Agriculture of the Government of Chile, Faculty of Veterinary and Animal Sciences of the University of Chile, and Latin American Centre for Rural Development (RIMISP), Santiago, Chile, www.rimisp.org/getdoc.php?docid=1797.
- OECD (2002), "Agricultural Policies in OECD Countries: A Positive Reform Agenda", OECD, Paris.
- OECD (2004), "Trade and Competitiveness in Argentina, Brazil and Chile. Not as Easy as A-B-C", OECD, Paris.
- OECD (2005a), *OECD Economic Surveys: Chile*, Vol. 2005/19, OECD, Paris.
- OECD (2005b), *OECD Environmental Performance Reviews: Chile*, OECD, Paris.
- OECD (2006), "Market Access and Private Standards: Case Study of Chilean Fruit Markets", OECD, Paris.
- OECD (2007a) "Facilitating Trade and Structural Adjustment: Experiences in Non-Member Economies: Chile Country Case Study", OECD, Paris.
- OECD (2007b), *OECD Economic Surveys: Chile*, OECD, Paris.
- OECD (2007c) "Effective Targeting of Agricultural Policies: Best Practices for Policy Design and Implementation", OECD, Paris.
- OECD (2007d), *Review of Chile's Innovation Policy*, OECD, Paris.
- Ramírez, E. (2002), *El Mercado de Arriendo de Tierras en Chile. Estudio de Caso*, RIMISP, Santiago, Chile.
- Santacoloma, P., R. Suárez and H. Riveros (2005), *Strengthening Agribusiness Linkages with Small-scale Farmers. Case Studies in Latin America and the Caribbean*, Food and Agriculture Organisation of the United Nations, Rome.
- Sotomayor, O. (2007), "Fortalezas y Debilidades de la Política Agrícola Chilena", report prepared for the *OECD Review of Agricultural Policies: Chile*, Santiago, Chile.
- Valdés, A. (1978), "Transition to Socialism: Observations on the Chilean Agrarian Reform", in Edwards E.O. (editor), *Employment in Developing Nations*, University of Columbia Press, New York.
- Valdés, A. and W. Foster (eds.) (2005), *Externalidades de la Agricultura Chilena*, Catholic University and Food and Agriculture Organisation of the United Nations, Santiago, Chile.
- Valdés, A. and W. Foster (2007), "Structural Characteristics of Agricultural Households and Policy Options in Chile. A Typology of Rural Households and Income Determinants from the 2003 CASEN", report prepared for the *OECD Review of Agricultural Policies: Chile*, Catholic University, Santiago, Chile.
- Valdés, A. and E. Jara (2006), "Distortions to Agricultural Incentives in Chile", paper prepared for the World Bank project *Distortion to Agricultural Incentives*, Washington, DC.
- Vergara, R. and R. Rivero (2006), "Productividad Sectorial en Chile: 1986-2001", *Cuadernos de Economía*, Vol. 43, No. 127 Santiago, Chile.
- WTO (2003), "Chile – Price Band System and Safeguard Measures Relating to Certain Agricultural Products", Report of the Appellate Body, 23 September 2002, AB-2002-2, WT/DS207/AB/R, Geneva.

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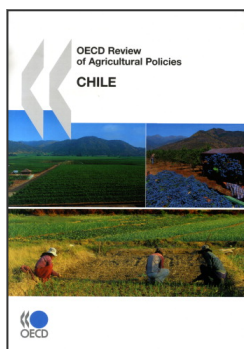
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