

## Chapter 11

# Diversifying exports and improving competitiveness

### **Main recommendations**

*In order for incomes in Chile to catch up with the OECD average, there is a need for rapid export growth, which will in turn require progressive improvements in competitiveness and a diversification of the country's export base.*

*There are continued opportunities for leveraging Chile's natural resource endowments, most notably through the increased provision of associated services, such as engineering and business services. These services could also form the basis for new, unanticipated sources of opportunity.*

*Numerous regulatory barriers continue to inhibit trade in services. Participation by Chile in an OECD project to record such regulatory barriers and measure the restrictiveness of trade in services would be valuable in indicating reform priorities.*

*Chile also needs to overcome a range of supply side constraints, where it does not achieve OECD best practice. Important areas include education and human capital, innovation, internal competition and labour market regulation. Existing policy recommendations in these areas could in future be tailored to the needs of specific export clusters.*

Since Chile's return to democracy 20 years ago, the economy has grown more rapidly than any economy in Latin America. Per capita income has more than doubled and extreme poverty has been almost eradicated. Despite this progress, per capita income is still less than half the OECD average, and at the average rate prevailing in the decade preceding the global economic crisis, it would take around 30 years to catch up with the current average OECD per capita income.

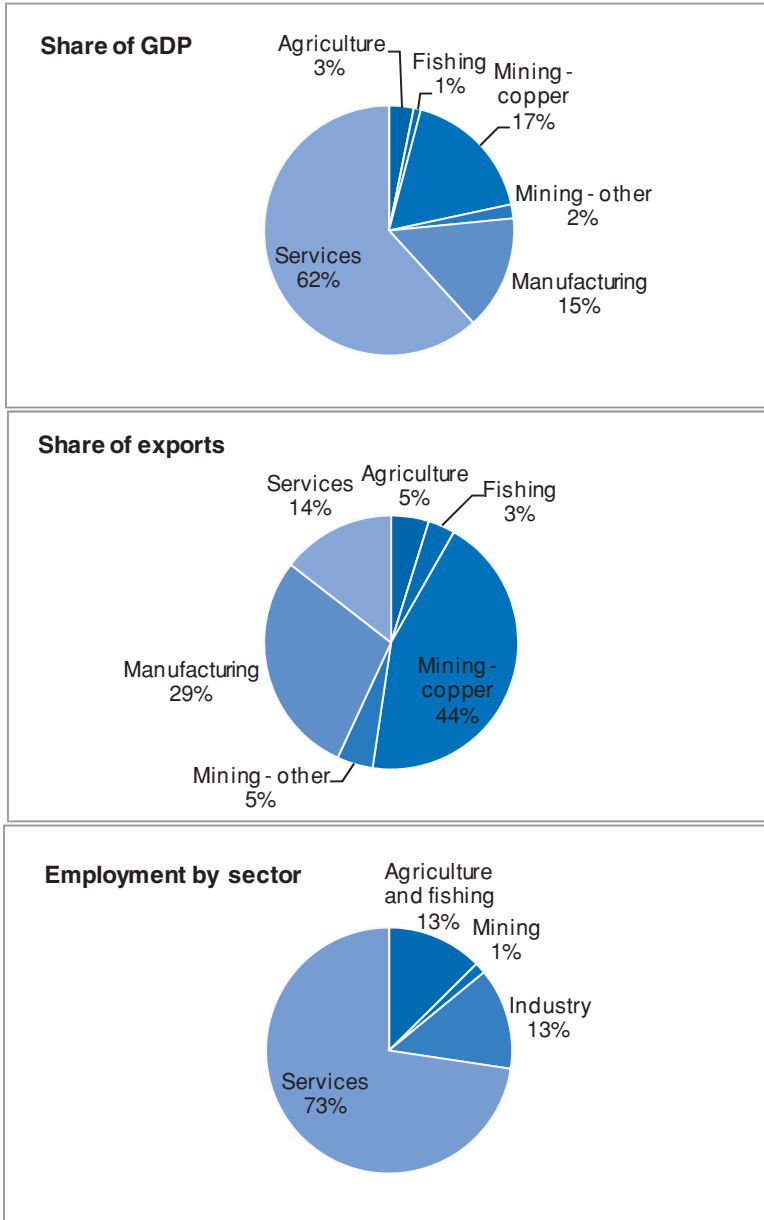
Underpinning this strong economic performance have been sound macroeconomic management, institutional and structural reforms, prudent management of natural resources (principally copper) and openness to trade. With trade liberalisation, the economy has become progressively more open, with a ratio of trade (exports plus imports) to gross domestic product (GDP) of about 80% – higher than the average for any region, except east Asia.

For progress to be maintained, exports will need to continue to grow rapidly. In recent decades, the country's export performance has been based on natural resources, with copper and agricultural products dominating export revenues. Copper revenues were buoyant in the years preceding the global economic crisis, and opportunities for adding value in the agricultural sector have been successfully exploited (notably in wine and salmon). Over the coming decades Chile will need to build on these successes, diversifying its export base and finding new areas of competitiveness. Chile has a service oriented economy and there is a particular need to increase the export orientation of this part of the economy.<sup>1</sup>

## The structure of Chile's economy and exports

Chile's mining sector, which is dominated by copper, accounted for around 19% of GDP over the period 2004 to 2008 (Banco Central de Chile) (Figure 11.1). Over the same period, the sector accounted for around 49% of total exports (goods and services). Agriculture and fisheries are also highly export oriented and account for just 4% of GDP, but around 8% of total exports. The country's manufacturing sector is relatively small, given Chile's level of development, with a share in GDP of just 15%. Manufactures account for 29% of exports, but around half this share comes from agro-food products. The share of services in GDP is almost two-thirds, but services accounted for just 14% of exports between 2004 and 2008. Many services are inherently less tradable than primary or manufactured products, but even so this share is lower than for other mineral rich countries such as Australia, New Zealand and Norway.

Figure 11.1. **Sectoral shares of GDP, exports and employment in Chile, average 2004-08**



Source: Banco Central de Chile.

The capital-intensive mining sector creates relatively few jobs, accounting for just 1% of employment. By contrast, agriculture accounts for 13% of employment, partly due to the existence of a low-productivity, semi-subsistence farming sector that is not integrated with markets, and partly because the agro-food sector creates a number of unskilled and low-skilled salaried jobs.<sup>2</sup> This is a similar share to that in Mexico, which has a comparable per capita income.

Industry and services account for 13% and 75% of employment, respectively (shares that are closer to the corresponding fractions of GDP). Both categories contain a wide range of skill levels. Employment growth in the service sector has included relatively high-skilled and well-paid jobs, for example in finance, where growth has been facilitated by increased education attainment of the young population. At the same time, however, population growth and the release of labour from agriculture have led to employment growth in sectors with modest average wages, for example commerce, tourism and construction (OECD, 2010a). A major priority is to raise labour productivity in both sectors, and with it potential real incomes.

Over the past decade, the composition of exports has changed little. Even by the standards of natural resource abundant OECD countries, Chile's exports of goods remain heavily concentrated in mining and natural resource-intensive products, with relatively little development of high value manufactures or service activities. Chile's specialisation pattern partly reflects its pattern of comparative advantage and a strategy of trade liberalisation and export-led growth over the past three decades. However, it also reflects a slowdown in innovation within the global technology frontier, as the number of newly discovered products added to the Chilean export basket over the past decade has been below that expected for a country of Chile's income per capita (OECD, 2010b).

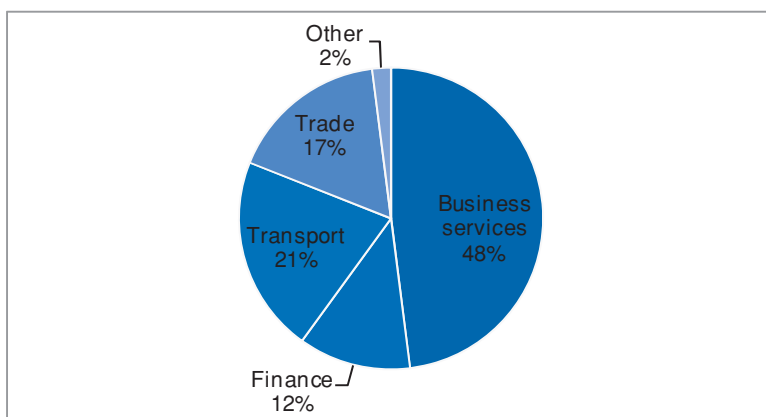
Partly owing to this pattern of export specialisation, the "sophistication" of the Chilean export basket is lower than in other emerging and OECD countries, including natural-resource exporters, in the sense that Chile exports the types of products associated with countries at lower income levels (OECD, 2010b). As Chile seeks to raise per capita incomes, this sophistication will need to increase.

One possibility is to develop new exports of manufactures. A high share of Chile's exports remain concentrated in primary products (mainly copper) and resource-based manufacturing. The share of non-resource-based manufacturing is low – at any level of technological sophistication – relative to the control group of other resource-abundant OECD countries (OECD, 2010b). The growth of processed agro-food exports has made an important contribution to Chile's overall economic performance. However, this sector, and manufacturing more generally, remain impeded by a number of constraints, which are discussed in the next section. Overcoming these constraints could have important spillover benefits in terms of fostering exports of other manufactures.

An even more important way of maintaining export growth is via services. Services are important to Chile's economy, but exports are relatively modest, even in areas that are inherently more tradable, such as tourism and financial services.

Services are an essential part of the mining sector, or "cluster". The services cost share of intermediate inputs in mining is 42% compared to an industry average (all goods-producing sectors) of 30% (calculated from OECD Input-Output Database; Chile mid-2000s). Figure 11.2 depicts the composition of intermediate services inputs in the mining sector. Clearly, business services account for the largest share.

Figure 11.2. **Shares of intermediate services used in mining in Chile, mid-2000s**



Source: OECD Input-Output Database.

Business services are an important source of competitiveness for exporting industries in general, and for natural resource extracting industries in particular. For instance, state-of-the-art engineering contributes to lower cost of exploration and extraction while reducing environmental damage, while a host of other business services contributes to better supply chain management, compliance with standards in export markets, as well as marketing and product differentiation. Financial services are also an important part of the cluster. Mining investments are bulky, while revenues are cyclical and volatile, and both features generate a demand for financial services to manage the flow of funds over time.

There are potential service opportunities in agribusiness and food processing, as consumers become more concerned about the environmental and health impacts of what they consume. Adoption and compliance with private and public standards alike, together with marketing, can underpin the shift from producing low-margin

commodities to higher-margin differentiated products. A recent example of this development has been in the pork and poultry sector, where Chile cannot compete with Brazil on price alone, but can secure niche markets in Asia with added value (for example, supply specific cuts of meat to restaurants and supermarkets). Both private and public sectors played an important role in the development of Chile's wine and salmon sectors. The government provided a stable macroeconomic environment, training, access to credit and research and development (R&D). Substantial inflows of foreign direct investment (FDI) provided access to international distribution networks, facilitated the adoption of most recent technologies and helped in the upgrade of infrastructure and public services (transport, logistics and communication). In the case of wine, a move into higher quality market segments was assisted by government R&D, the adoption of quality standards and by collaboration of producers and government agencies (such as the export promotion agency PROCHILE) in promotion and branding strategies (Brooks and Lucatelli, 2004; OECD, 2004).

## Elements of a strategy for export diversification

As Chile seeks to diversify its exports and thereby maintain the momentum of export growth, it needs to identify areas of opportunity and address the constraints that limit the realisation of those opportunities.

In general terms, a strategy for export diversification can focus on three elements. The first involves building on existing areas of comparative advantage, further leveraging export opportunities generated by mining and other natural resources. A second, related, approach is to identify specific sectoral clusters where there is evidence that Chile has an inherent comparative advantage which it could exploit further. A third approach is to foster the business environment more generally so that not only are existing exports promoted but new, perhaps unanticipated, exports may also spring up. In practice, Chile has combined all three elements, providing some direction but falling short of attempting to "pick winners".

At each of these strategic levels, there are constraints to competitiveness in international markets of varying degrees of importance. Below we discuss the specific constraints faced by the natural resource sector, by other clusters and by those that inhibit export development more generally. On the demand (trade policy) side, these include market access limitations. On the supply side, potential impediments include a lack of internal competition, perhaps arising from regulatory ("behind-the-border") limitations on trade. They also include a range of structural limitations in the areas of education and human capital, labour market regulations and innovation systems. Some specific priorities are discussed below.

### **Building on natural resource exports**

As noted earlier, Chile's mining sector uses services quite intensively. The competitiveness and sophistication of mineral-related services could be developed through further trade and product market liberalisation and investment in human capital. Endowed with a diversified services supplier base, the mining cluster could enhance and develop skills and technology on an international scale. Furthermore, the skills developed could be applicable to a wider range of business activities.

There are several examples of mineral exporting countries becoming exporters of mineral-related services, in areas such as exploration, engineering and construction. In the United Kingdom, for example, the highest service export intensity is found among oil and mining companies.<sup>3</sup> Australia, Brazil, Canada and Norway are among the ten largest exporters of engineering services in the world and all have a high share of minerals in GDP and exports.<sup>4</sup>

A typical pattern of internationalisation of mineral-related services is via the integration of local services suppliers into the global supply chains of major multinational minerals and related services companies operating in the home market. There have also been several examples where a local mineral company has expanded over time into international markets and has been followed by local services suppliers. In Norway, for example, the export share of sales from the petroleum related supply industry, of which the technical services are the most important, increased from 29% to 46% between 1995 and 2005.<sup>5</sup>

Likewise, the Brazilian oil industry has developed international state-of-the-art technology in deep-water drilling. Petrobras, the major oil company, is active in 27 countries, and internationalisation of related services has followed in its wake. Other examples are South Africa's mining companies, which have become major multinationals. One of the world's largest mining companies, BHP Billiton, was created through a merger between a South African and an Australian mining company. Australia is also an example of a natural resource rich country that has become a world leader in natural resource based industries and services.

Chile has been highly successful in developing its agribusiness sector. In a recent review of agricultural policies, OECD commended the way in which Chile has provided essential investments that help raise agricultural competitiveness and protect the country's environment and natural resource base. At the same time, the OECD review suggests the need for a more systematic evaluation of policy performance (OECD, 2008a). A number of constraints to competitiveness are identified, corresponding to those identified in the analysis of agriculture-based clusters (see below) and those considered to impede labour productivity more generally.

### **Identifying clusters for export development**

Following a series of studies by the Boston Consulting Group (BCG), Chile's National Innovation Council (CNIC) has identified eight clusters with high growth potential (relative to the degree of intervention required). Five of these are based on natural resources (mining, aquaculture, processed food, fruit growing, and pork and poultry) while three are service based (tourism, offshoring and financial services). For each cluster, interviews were conducted in order to produce an "agenda" for action. These agendas involve overcoming the constraints to value creation, and are summarised in Table 11.1 (OECD, 2009).

Common constraints appear in the areas of innovation and R&D, regulatory processes (including trade restrictions), education and human capital, and the attraction of FDI. In each of these areas, OECD has made general policy recommendations, which could be tailored to the needs of specific development clusters. A danger of selective intervention in clusters where Chile already has, for the most part, experienced relatively successful development is that the government may erroneously target areas where the private sector is itself capable of overcoming coordination issues (see Chapter 3). However, the CNIC proposals mitigate this risk by focusing on providing improved framework conditions.

The development of clusters could extend beyond those identified by CNIC, to the extent that there are other services that could build upon Chile's experience in the mining and agribusiness sectors, and help promote a gradual diversification of the country's export base. Injecting public support into "new" clusters" runs the risk of "lock-in" failures. These risks can be partly offset by establishing performance targets, reviewing support periodically (and withdrawing it if targets are not met), and planning for the eventual replacement of public support by the private sector.

An area where further development could enhance valued added is professional business services, in particular engineering. A more open market in professional services could shift the focus of regulation from engineers and engineering firms towards product and process standards, adopting international standards wherever feasible. This would introduce more competition in service sectors without compromising environmental, security and social standards. At present, Chile maintains a number of trade restrictions for professional services. For instance, it scores significantly above the OECD average on the product market regulation (PMR) index in professional services, which constitute a significant share of total business services.<sup>6</sup> In engineering, there are high barriers to entry through an onerous licensing system and procedures for recognition of engineering degrees from abroad, as well as restrictions on advertising; this results in less competition in the sector, to the detriment of downstream industries. Furthermore, it has been demonstrated that such behind-the-border restrictions on trade in



services not only impede foreign suppliers from entering the market, but also prevent local service suppliers from becoming competitive in export markets (OECD, 2008b). Chile may also consider expanding the recognition of engineering degrees from abroad, *e.g.* by joining the Washington Accord and/or the APEC Engineer Agreement.

Table 11.1. **Chile's National Innovation Council's cluster agendas**

<p><b>Mining.</b> To maintain a position of global leadership in mining and to promote links among members of the cluster:</p> <ul style="list-style-type: none"> <li>- Promote networking among the members of the cluster.</li> <li>- Develop a knowledge management system for the cluster.</li> <li>- Promote innovation in the sector, ensuring that R&amp;D incentives are competitive.</li> <li>- Evaluate specific incentives for mining exploration.</li> <li>- Assist in the development of suppliers to the mining industry and promote inward investment by such firms.</li> <li>- Assess the usefulness of creating test centres to assist in developing goods and services for mining.</li> </ul> <p><b>Aquaculture.</b> To be the worldwide leader in production of salmon and to diversify into other species and products:</p> <ul style="list-style-type: none"> <li>- Develop foods for different species to be farmed.</li> <li>- Identify and develop options of new non-salmon species.</li> <li>- Improve hygiene.</li> <li>- Improve and/or implement environmental control mechanisms.</li> <li>- Modernise the regulatory framework of the sector.</li> </ul> <p><b>Tourism.</b> In order to turn Chile into a well-known and prestigious destination with strength in niches such as eco-tourism, adventure, cruises, etc.:</p> <ul style="list-style-type: none"> <li>- Improve the positioning and international tourist promotion of Chile.</li> <li>- Increase the number of destinations and encourage the development of more tourism products.</li> <li>- Improve the quality of the education and level of qualifications of people who work in tourism.</li> <li>- Adapt the regulatory framework and marketing of the sector.</li> <li>- Improve linkages within the cluster.</li> </ul> <p><b>Processed foods.</b> In order to consolidate Chile's position as a producer of high added value foods:</p> <ul style="list-style-type: none"> <li>- Extend the systems for market intelligence and market development.</li> <li>- Promote the image of Chile as a food exporter.</li> <li>- Improve production capacity, enhancing co-ordination between producers of raw materials and food processors and transferring new technologies to small and medium-sized companies.</li> <li>- Focus and increase investment in R&amp;D.</li> <li>- Improve institutional linkages within the sector.</li> </ul>	<p><b>Offshoring.</b> In order to become the regional leader in high added value offshoring services:</p> <ul style="list-style-type: none"> <li>- Develop human capital in areas of interest for offshore services.</li> <li>- Provide education relevant to the needs of offshore services.</li> <li>- Attract FDI and embed foreign companies in Chile's economic fabric.</li> <li>- Improve linkages within the cluster.</li> <li>- Adapt the regulatory and legal framework to the needs of the cluster.</li> </ul> <p><b>Pork and poultry.</b> In order to maintain high rates of export growth:</p> <ul style="list-style-type: none"> <li>- Improve productive capacity (the SAG institute for agriculture and forestry should tackle the future needs of the sector in the areas of qualifications, certification and inspection of export plants).</li> <li>- Increase the interaction between the private sector and the research sector in order to stimulate applied R&amp;D.</li> <li>- Increase capacity for the diagnosis and monitoring of diseases.</li> <li>- Proactively manage the relations with the countries to which pork and chicken products are exported.</li> <li>- Compile information on the world market, related to health and food safety.</li> </ul> <p><b>Financial services.</b> In order to strengthen the Chilean financial sector, building from a domestic platform to become a possible regional centre:</p> <ul style="list-style-type: none"> <li>- Increase the proportion of the population having access to banking services, developing the use of instruments for payment and a universal system of credit rating.</li> <li>- Further expand the derivatives market.</li> <li>- Develop more progressive investment rules.</li> <li>- Reform the tax system.</li> <li>- Increase the qualifications of professionals in the sector and institute a national system of certification for finance professionals.</li> </ul> <p><b>Fruit growing.</b> In order to maintain Chile's worldwide leadership in primary fruit growing:</p> <ul style="list-style-type: none"> <li>- Further market development, promoting Chilean fruit exports and strengthening Chile's image as a food exporter.</li> <li>- Increase capacity, developing specific lines of credit for the sector and improving manpower productivity.</li> <li>- Adapt the labour legislation to the specificities of the agricultural sector.</li> <li>- Develop R&amp;D programmes for the sector.</li> <li>- Develop infrastructure.</li> </ul>
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Source: OECD (2009b), "Chile's National Innovation Council for Competitiveness: Interim Assessment and Outlook", April 2009, [www.bligoo.com/media/users/3/181209/files/18813/CHILE\\_COUNCIL\\_FINAL.pdf](http://www.bligoo.com/media/users/3/181209/files/18813/CHILE_COUNCIL_FINAL.pdf).

Further possibilities exist in the *retail* sector. Recent research has demonstrated that major international retailers could become an important marketing channel for local manufacturers and agribusinesses. There are several examples of local suppliers to multinational retailers becoming global suppliers to the same retailer over time (see *e.g.* Coe and Hess, 2005; Javorcik, Keller, and Tybout, 2006). In Chile, there is some evidence that this sector is marked by a lack of price competition relative to a comparator group of other resource-rich OECD countries (Schwellnus, 2010).

### **Developing new export opportunities**

A number of constraints to the further development of existing export sectors and new clusters have been identified.<sup>7</sup> While some are specific, there are commonalities that cut across several sectors and are of potential benefit to all new sources of export growth. These include the need to strengthen innovation and R&D, to further improve regulatory processes (including standards in agribusiness sectors), to improve education and the broader development of human capital, to reform labour laws and to attract FDI. In some of these areas – notably human capital (low levels of education), labour market flexibility and entrepreneurship and innovation – Chile performs poorly relative to other OECD countries. Redressing these weaknesses is part of the general prescription for improved productivity and achieving sustained income growth; it is also essential for the more specific task of improving (and finding new areas of) export competitiveness.

### **Overcoming constraints to improved competitiveness and export diversification**

#### *Trade policy*

Chile's trade policy is liberal and fundamentally non-discriminating across sectors. In 1990, the new government inherited a standard uniform MFN (most-favoured-nation) tariff of 15%, which was lowered to 11% in 1991 and then reduced progressively to 6% by 2003. As a complement to unilateral reforms, the government has brokered a series of trade agreements that, by offering better than MFN access, have further reduced the degree of protection. With the majority of trade now covered by regional agreements, applied tariffs average around 1%. Agricultural markets are important to Chile, and market access for agro-food products has been a major concern. Globally, tariffs on manufactures are relatively low, having been reduced by successive multilateral agreements, first at the GATT (General Agreement on Tariffs and Trade) and then at the World Trade Organization (WTO).

However, services are still not effectively covered by WTO provisions on market access and national treatment provisions. Thus, out of

620 possible commitments on market access in the General Agreement on Trade in Services (GATS), 532 are unbound as far as Chile is concerned.<sup>8</sup> At the same time, Chile has engaged in a large number of regional trade agreements (RTAs), most of which include services. These go far beyond Chile's commitments in the GATS, by adding new commitments in terms of sectors and modes and deepening the commitments already bound in the GATS. The most liberal RTA contains as many as 404 new commitments, while all RTAs to which Chile is a partner deepen the commitments that Chile has made in its GATS schedule.

Whereas service trade liberalisation through RTAs is useful in ensuring reciprocity and a level playing field, Chile could also further unilateral liberalisation, particularly in sectors where its market is more restricted than the OECD average, notably professional services. Furthermore, preferential market access and national treatment measures included in RTAs could be applied on an MFN basis and, in due course, committed to in the GATS.

The OECD Trade and Agriculture directorate is currently developing a regulatory database on a number of service sectors, and Chile has recently been included in this project. The database will be a valuable source of information in its own right and will form the basis for the calculation of trade restrictiveness indices in services. This project will help identify best practice in services trade policy. Further cooperation with Chile on this major undertaking will be highly valuable.

Another possible area for reform is Chile's intellectual property legislation. The OECD Trade Committee noted that Chile has a system of intellectual property rights that is well developed from a legal perspective. Significant amendments and modifications have been made in recent years to bring the system closer to the international norms. Nonetheless, a recent OECD study noted that there remains some scope for progress with respect to administration and enforcement of intellectual property rights (OECD, 2009a). One important concern is the rate of piracy in copyrighted goods and counterfeiting of trademarks. Experience suggests that linking international cooperation with domestic measures can enhance effectiveness in this area. A further area of concern is the intellectual property rights regime for pharmaceutical and agrochemical products, notably with respect to the use of test data and the approach to granting commercial authorisation for generic products. In addition, OECD considers that Chile would benefit from enhancement of its domestic capacity to produce and employ intellectual property, a shift that may require further development of human capital and improved economic incentives for the private sector (OECD, 2009a).

### *Education and human capital*

OECD has identified education policy and human capital formation as major bottlenecks for productivity growth in Chile. Weakness in this area is specifically identified by CNIC as an obstacle to the development of three non-resource based clusters: tourism, offshoring and financial services. It is also a clear impediment to the development of business services based on Chile's natural resources, which are highly skills based. For example, while school enrolment has increased significantly, Chile's population age 25 to 64 years still has only ten years of schooling on average, compared with an OECD average of 12 years. Programme for International Student Assessment (PISA) scores for 15-year-olds reveal that Chile's student performance ranks 33rd out of 35 member and accession countries. There is also a high degree of inequality in educational attainment, with wide differences in performance between the public, subsidised private and fully private sectors of the education system (OECD, 2010a) and unequal outcomes across socio-economic groups. Fundamentally, the availability of a skilled workforce influences firms' capacities to adopt new technologies and organisational or marketing innovations. Raising the qualification level of the Chilean workforce, including through improving and expanding vocational education and training (VET) and lifelong learning, may also foster mobility from low-productivity jobs to higher-productivity jobs (Schwellnus, 2010).

### *Labour market flexibility*

Chile's employment protection legislation is less rigid than in the median OECD country. However, inside-the-frontier innovation and the shift of resources into higher-productivity activities are held back by high severance pay, which can lock workers into low-productivity jobs in traditional activities. Even when higher-productivity and higher-wage opportunities emerge, workers may prefer to stay in a low-productivity occupation if they expect to receive severance pay in case of dismissal for economic reasons. Recent empirical evidence shows that restrictive employment protection legislation, including high severance pay, can reduce firms' speed of adjustment to shocks, thereby lowering aggregate productivity growth. Recognising the importance of labour productivity improvements for sustained income growth, OECD has made a wide range of recommendations for reforms of Chile's labour market and social policies (OECD, 2010a).

There are concerns about the impact of stringent labour regulations on the demand for labour in agriculture-related sectors, where wages are an important part of total costs – over 60% in the case of horticulture. In particular, there are concerns that the labour market could be harmed by regulations maladapted to the special case of rural and farm employment: seasonality, instability and fluctuating farm labour demand. Moreover, labour regulations affect the formal market and,

indirectly, the informal market. A more efficient labour code would help incorporate a larger share of workers into the formal market (Valdés and Foster, 2007).

### *Innovation*

Despite recent reforms, there remain a number of weaknesses in innovation policy. This is perceived to be a continuing problem for the development of natural resource clusters (mining, processed foods and fruit processing). R&D is mainly financed by the government and carried out in universities and public research institutes. With the caveat that data on the composition of R&D spending in Chile after 2004 are not available, only around 46% of R&D is financed by industry as compared to an OECD average of more than 60%.

The OECD notes that Chile's innovation on the global technology frontier ("on-the-frontier" innovation) as measured by patent registrations is low, which is to be expected for a country at Chile's income per capita level. However, on-the-frontier innovation will become increasingly important as Chile grows richer, and an appropriate innovation framework will help avoid the risk that low levels of innovation create a drag on future productivity growth. A more immediate concern is the slower pace at which new products have entered the Chilean export basket, with Chilean exports remaining much more concentrated than in other resource-rich OECD countries, such as Australia, Canada, New Zealand and Norway.

### *Internal competition and entrepreneurship*

In several sectors, Chile's competitiveness is undermined by a lack of internal competition, manifested in high mark-ups and high degrees of market concentration. In all industries except mining, price-cost margins are higher in Chile than in the comparator group of Australia, Canada and New Zealand (Schwellnus, 2010). Price-cost margins are even higher in the manufacturing sector, which is open to international trade, and in the retail sector, which has a reputation of being competitive (see, for instance, EIU, 2008). But the largest differences can be found in transport and telecommunications and in other services, which mainly includes business services.

Chile's relatively small size may naturally inhibit competition, but there is also evidence of weak competition policy, including a lack of monitoring of mergers and acquisitions. Strengthening the enforcement of competition law is particularly important to increase competitive pressures in the services sectors, which face no import competition (OECD, 2010b).

## Regulation

Regulatory barriers in Chile have impeded entrepreneurial activity and the reallocation of resources from low-productivity activities to innovative and productivity-enhancing activities. Areas of deficiency identified by the OECD include high start-up costs, inefficient bankruptcy procedures and strict regulations of retail and professional services (OECD, 2010b).

## Policy recommendations and priorities for future work

For the past 20 years, Chile has enjoyed strong economic performance thanks to sound macroeconomic management and a commitment to trade openness. As Chile is a small country, openness to trade has been essential for economic growth and development.

While formal trade barriers have for the most part been dismantled, there are numerous regulatory (behind-the border) barriers that continue to inhibit trade, particularly in services. Since the development of trade in services is the key to export diversification and sustained income growth, these barriers could become progressively more important as Chile seeks to diversify its export portfolio.

The OECD Trade and Agriculture directorate is currently developing a regulatory database for a number of services sectors, and Chile has recently been included in this project. The database will provide direct information on regulatory barriers and will also form the basis for the calculation of trade restrictiveness indices in services. This project will help in identifying best practice in services trade policymaking. Further cooperation with Chile on this major undertaking will be highly valuable.

In recent decades, Chile's export growth has leveraged on the country's endowment of natural resources, chiefly copper and productive agricultural land. There are continued opportunities for such leveraging, notably by developing associated services, although there are also likely to be diminishing returns within the primary sectors. The development of related skills and competencies (*e.g.* in engineering or financial services) may pay off in other sectors. Some of these have been proposed as development clusters (tourism, offshoring, financial services) but there may be others. Some of the risks of targeting such clusters can be contained by having government interventions focus on basic framework conditions, so that private sector initiatives are not crowded out.

OECD has produced a range of advice on how supply-side constraints to competitiveness can be overcome. These include policy recommendations in areas where Chile typically does not implement OECD best practices, notably education and human capital, innovation and regulation (such as labour laws). By following these



recommendations, Chile can help further its aims of diversifying exports and improving competitiveness. The OECD can also work with Chile to ensure that its existing policy recommendations are further refined to address specific sectoral concerns.

## Notes

1. Recent cross-country panel studies find that diversification has a positive effect on per capita income growth (Hesse, 2009; Ledermann and Maloney, 2009). Feenstra and Lee (2004) find that export product variety explains 13% of productivity gains in a sample of industrial and developing countries. Meanwhile, Herzer and Nowak-Lehmann (2006) show that past export diversification has boosted GDP growth in Chile. Hausmann *et al.* (2007) show that increased export sophistication has positive effects on subsequent GDP growth.
2. Note that the definition of agricultural employment extends to salaried agricultural workers, who may in some cases work in agro-food companies producing exports of manufactures. In general the definition of agriculture may not be the same for purposes of measuring GDP, exports and employment.
3. A recent study finds that mining firms that engage in exports have, on average, an exports of services over turnover ratio of 63%, whereas the average for all firms that export services is about 30% (Breinlich and Criscuolo, 2010).
4. See Cattaneo, Schmid and Engman (2010). The authors caution that data on engineering services are sparse and some possibly important traders, notably China are missing in the data. The data are from 2006.
5. See for instance Konkraft Report No. 4 (2008), a report submitted to Intsok, the Norwegian agency for internationalisation of the oil and gas sector (in Norwegian).
6. The PMR index numbers range between 0 and 6. The higher the score, the more restrictive the regulation.
7. These areas of weakness are also commonly identified through survey-based approaches, including the World Economic Forum's Global Competitiveness Index, and the World Bank's Ease of Doing Business Survey. In the Global Competitiveness Report of 2009–10, the most problematic areas for DOing business are identified as: labour restrictions (29% of responses), inefficient government bureaucracy (21%) and inadequately educated workforce (13%). In the World Bank's latest survey of Chile's investment climate, the country does well in some areas (paying taxes, protecting investors), but badly in others (*e.g.* getting credit and closing a business).

8. There are 155 sectors and four modes of supply in the GATS, which add up to 620 possible commitments.

## Further reading

- Breinlich, H. and C. Criscuolo (2010), "International Trade in Services: A Portrait of Exporters and Importers", *CEPR Discussion Paper*, No. 7837.
- Brooks, J. and S. Lucatelli (2004), "International Competitiveness of the A-B-C Agro-food Sector", in *OECD, Trade and Competitiveness in Argentina, Brazil and Chile: Not as Easy as A-B-C*, OECD Publishing, DOI: 10.1787/9789264108721-5-en.
- Cattaneo, O., L. Schmid and M. Engman (2010), "Engineering Services: How to Compete in the Most Global of Professions", in Cattaneo et al. (eds.), *International Trade in Services, New trends and Opportunities for Developing Countries*, Chapter 9, World Bank, Washington, DC.
- Coe, L. M. and Martin Hess (2005), "The Internationalization of Retailing: Implications for Supply Network Restructuring in East Asia and Eastern Europe", *Journal of Economic Geography*, Vol. 5, Issue 4, pp. 449-473.
- EIU (Economist Intelligence Unit) (2008), "Country Profile Chile", Economist Intelligence Unit.
- Javorcik, Keller and Tybout (2006), "Openness and Industrial Response in a Wal-Mart World: A Case Study of Mexican Soaps, Detergents and Surfactant Producers", World Bank Policy Research Paper No. 3999.
- Konkraft, (2008), "Internasjonalisering", Report No. 4, [www.konkraft.no](http://www.konkraft.no).
- OECD (2004), *Trade and Competitiveness in Argentina, Brazil and Chile: Not as Easy as A-B-C*, OECD Publishing, DOI: 10.1787/9789264108721-en.
- OECD (2008a), *OECD Review of Agricultural Policies: Chile 2008*, OECD Publishing, DOI: 10.1787/9789264042247-en.
- OECD (2008b), "Quantifying Regulatory Barriers to Services Trade", OECD Trade Policy Working Paper No. 85, TAD/TC/WP(2008)27(FINAL).
- OECD (2009a), *OECD Reviews of Labour Market and Social Policies: Chile 2009*, OECD Publishing, DOI: 10.1787/9789264060616-en.
- OECD (2009b), "Chile's National Innovation Council for Competitiveness: Interim Assessment and Outlook", April 2009, [www.bligoo.com/media/users/3/181209/files/18813/CHILE\\_COUNCIL\\_FINAL.pdf](http://www.bligoo.com/media/users/3/181209/files/18813/CHILE_COUNCIL_FINAL.pdf).



- OECD (2010a), “Enhancing Market Openness, IPR and Compliance through Regulatory Reform in Chile”, *OECD Trade Policy Working Paper*, forthcoming.
- OECD (2010b), *OECD Economic Surveys: Chile 2010*, OECD Publishing, DOI: 10.1787/eco\_surveys-chl-2010-en.
- Schwellnus, C. (2010), “Chile: Boosting Productivity Growth by Strengthening Competition, Entrepreneurship and Innovation”, *OECD Economics Department Working Papers*, No. 785, DOI: 10.1787/5kmd41cxsjwd-en.
- Valdés, A. and W. Foster (2007), “Structural Characteristics of Agricultural Households and Policy Options in Chile”, background paper prepared for OECD Review of Agricultural Policies, [www.oecd.org/dataoecd/57/57/40324368.pdf](http://www.oecd.org/dataoecd/57/57/40324368.pdf).
- WTO (World Trade Organization) (2009), “Trade Policy Review, Report by the Secretariat: Chile”, WT/TPR/G/220, September.



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