



Growing agricultural investment opportunities in Chile

Executive Summary

Chile is a leading producer and exporter of a wide range of high-value crops, with its Southern Hemisphere location enabling harvest when few regions of the world provide fresh supplies. Chile's key features supporting its competitive advantage in agriculture include:

- **Deep competitive agricultural industry position**—Chile has key competitive advantages in crop production and export, including its Southern Hemisphere location, infrastructure, human capital and production scale.
- **Global market access**—Chile has free trade agreements with over 90% of the world's economy, and exports are a strategic priority for the government. Chile's overall economy is export-oriented, providing strong benefits to the agricultural sector. Chile plays a leading global role exporting products to China, the U.S., EU, and Latin America.
- **Favorable legal and political institutions**—Chile's democracy is ranked favorably by international institutions and has adapted to

meet the needs of a population that erupted into protests in fall 2019, with drafting of a new constitution underway as of spring 2021.

- **Natural resources**—Chile's land, water, range of latitudes, and geographic isolation from pests and diseases help increase crop prices and keep input costs lower.
- **Macroeconomic climate and currency**—Chile has among the strongest credit ratings and most stable currencies in Latin America.

In this review, we outline Chile's macro environment and explore the country's competitive positions in key crop markets where we believe Chile's role in supplying global consumers will likely continue to grow, including cherries, apples, avocados, citrus and tree nuts. Chile's competitive advantages in agricultural production include natural resources, logistics, infrastructure and government policy.

Trade and logistics infrastructure, supported by Chile's wide range of export sectors, facilitates the cost-effective, reliable, and timely movement of goods

from producing regions to key ports and onward to global customers, with major producing regions within 150 miles of the coast. Transportation advantages over other Southern Hemisphere producers into North America and South America combine with significant tariff advantages from free trade agreements in these markets, as well as major markets in Asia and Europe. Growing bargaining power of Chilean exporters engaged in supply contracts with foreign buyers reflects product quality and reliability. Development of supporting industries, including machinery and crop chemicals, has encouraged price-competitive inputs and product innovation.

Chile's agricultural subsidies are limited, just 2.7% of farm cash receipts in 2019 compared to the OECD average of 17.8%.¹ Chile's policies generally create minimal market distortion and are mainly aimed at improving the productivity and competitiveness of small-scale farmers, with more than 50% of budgetary allocations to the ag sector spent on general services, mainly directed towards infrastructure, R&D and inspection services.² This leads larger farmers to compete based on market conditions and incentivizes innovation to adapt with new technologies and varieties to maintain competitiveness. While direct subsidies are low, developing commercial agriculture is a strategic priority for the government given the sector's important contribution to GDP and rural employment. Chile features a well-educated agricultural workforce and a more developed university system compared to most of Latin America. The government also supports the creation of public-private partnerships to vertically integrate farmers to markets. A strong emphasis is placed on water access and use, specifically irrigation. Over 20% of the public budget allocated to the agricultural sector is invested in irrigation infrastructure.

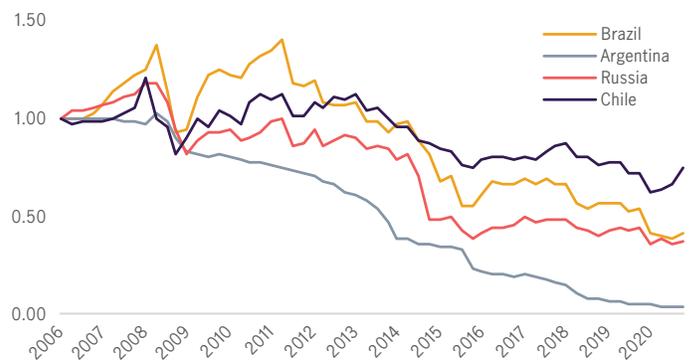
Macroeconomic Overview

Chile has a small population (19 million),³ ranked 65th globally, yet with a large land area (743,000 km,² slightly larger than Texas) relative to its population. Chile's annual GDP of USD\$245 billion in 2020 was comparable to New Zealand.⁴ Over the past 25 years, the country's GDP and GDP per capita have grown faster than neighboring countries, and it is regarded as one of the easiest places to 'do business' according to the Heritage Foundation.⁵ Chile was designated a 'high income' country by the United Nations in 2013, and 2019 GDP per capita was USD\$14,896.⁶ Since 2008, Chilean GDP (in current USD) has grown at an annualized 4.4%, slightly lower than Uruguay (6.3%) and compares favorably to Brazil (1.9%). Chile's GDP per capita has been growing at a similar pace, of 3.6% over the period.⁷

Extensive copper reserves and the mining sector are a key component of Chile's economy, accounting for 20% of GDP and 50% of exports by value.⁸ Leading imports include petroleum and vehicles, and in recent years, Chile has run a trade balance near parity. With free trade agreements with countries representing nearly 90% of global GDP, Chile has excellent commercial access around the world. Despite recent volatility due to social and political change and COVID-19, the Chilean Peso remains one of the most stable currencies in Latin America, with lower depreciation and volatility. Chile's currency is reflective of a commodity-producing, export-oriented country, but relative to other developing countries, it shows more moderate changes in value.

With its small population, domestic demand is limited, and Chile's agricultural sector is export-oriented. Over two-thirds of Chilean fruit production is exported, and agricultural products are the second largest export category after copper. The Chilean government has focused on liberalizing trade as an economic growth driver. Chile has free trade agreements with 65 countries representing 90% of the world's GDP and its average tariff into these countries is 1.8%.⁹ Free trade agreements cover all the major fruit and tree nut destination markets except for Russia. These agreements enable Chile to compete in distant markets where it lacks transportation advantages. With most crop production exported, most revenues for Chilean agricultural production are generated in USD.

CHART 1: USD PER CURRENCY OF MAJOR EMERGING MARKET AGRICULTURE EXPORTERS (INDEX 2006=1)



Source: Macrobond, March 31, 2021

Investment Risks

Investment in Chilean agriculture faces multiple risks related to Chile's business environment, and specific to the agricultural sector. Country risks include economic growth and currency, the pending new constitution, social reforms, and regulatory and tax. Within the agricultural sector, Chilean producers face risks common to producers globally, including crop yield, prices, water, and labor availability and cost. Major risks to investing in

permanent cropland in Chile include enactment of laws that could modify the availability and cost of labor, and future macroeconomic trends centered around the price of copper. If global demand for copper declines, prices could deteriorate, leading to pressure on the Chilean economy.

Current Political, Social and Economic Environment

Chile has a favorable legal and political climate for investment, ranking 25 out of 179 countries on the Transparency International Corruption Perceptions 2020 Index¹⁰ and 19 out of 178 countries on the Economic Freedom Index from the Heritage Foundation.¹¹ Chile ranks fifth among the principal agricultural production countries in the World Economic Forum’s Global Competitiveness Report, behind the U.S., Canada, Australia and China, and 33rd globally.¹²

In late 2019, Chile experienced extensive social unrest with demands for increased public services, larger pensions, and lower-cost education.¹³ Chile has among the highest income and education inequality in the OECD,¹⁴ and a public referendum in October 2020 was overwhelmingly passed, with 80% of voters choosing to write a new constitution to replace the 1980 Constitution written under Augusto Pinochet. A constitutional convention comprised of citizens is scheduled to be elected in 2021, and the completed constitution will face a referendum scheduled for 2022. The Constitutional Assembly is expected to create fundamental reforms in areas like public services while helping retain elements that have enabled Chile to maintain the highest credit rating of any country in Latin America.¹⁵

CHART 2: CHILE REAL GDP, % CHANGE ANNUALIZED



Source: Macrobond, March 31, 2021

Chile in the COVID-19 Crisis

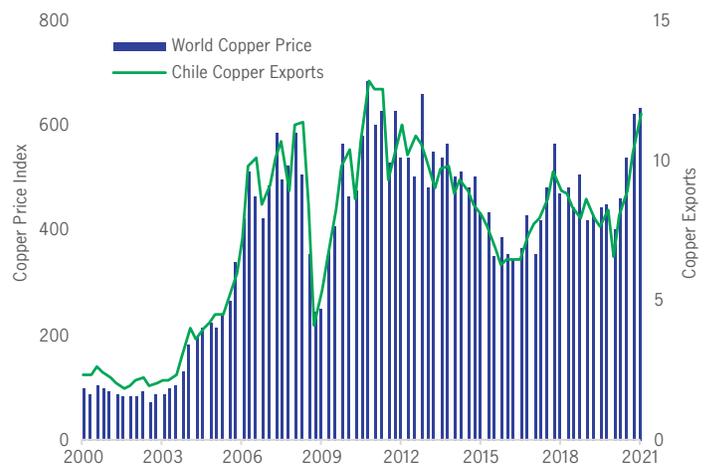
Chile enacted swift and strict controls to mitigate the spread of COVID-19, which led to a sharp contraction in the economy in Q2 and Q3 2020, before stabilizing in Q4 and likely beginning to grow in Q1 2021. In early 2021, an extensive vaccine program should also support the pace of the economic recovery. Another major driver for Chile’s economic rebound was China’s recovery

TABLE 1: CHILE FARMLAND MARKET

	Farmland	20y-CAGR	Key Crops
North (III, IV)	40k HA	3.2%	Table grapes, citrus, olives, avocados
Central (V – VII)	264k HA	2.6%	Tree nuts, table grapes, cherries, stone fruit, apples
South (VIII – XVI)	41k HA	9.1%	Blueberries, tree nuts, apples, cherries

Source: ODEPA, March 31, 2021

CHART 3: COPPER PRICE S&P INDEX AND QUARTERLY CHILE COPPER EXPORTS (BILLIONS USD)



Source: Macrobond, November 18, 2020

from the virus. China was the only major global economy to register positive economic growth in 2020. The rebound in China and other global economies led to rising global copper prices and increased copper exports from Chile during the second half of 2020. At the end of Q1 2021, the price of copper was 78% higher than at the end of Q1 2020, and Chilean copper exports were 46% higher in Q1 2021 than in Q1 2020.

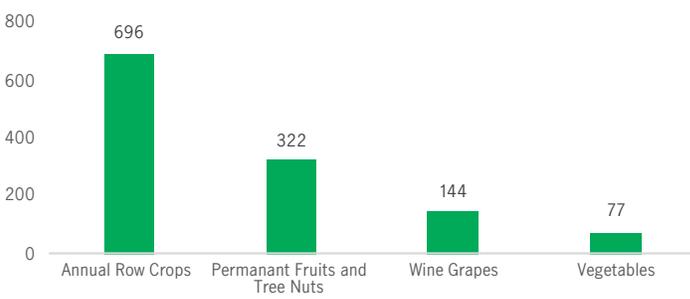


Chile Agriculture Overview

Chile’s geography and climate offer distinct advantages for agricultural production, as it is one of the world’s few regions with a Mediterranean climate ideal for high-value fruit and tree nut production. Chile’s length enables long production windows counter-seasonal to the Northern Hemisphere, allowing producers to receive crop price premiums in the early and late seasons when supply is low and prices are high. Bordered by the Pacific Ocean, Andes Mountains, Atacama Desert and Antarctica, the location makes it difficult for pests to enter the country. While water is scarcer in some of the northern climates, it is more abundant in the southern portions of the country, fed by runoff from the Andes and significant levels of rain. Chile is the largest Southern Hemisphere exporter of fruit and walnuts¹⁶ and competes with Argentina, Australia, New Zealand, Peru and South Africa in fruit and tree nut export markets. Of the country’s 76 million hectares, 2.1 million are cultivated, with 1.3 million hectares used for annual and permanent crops, and the balance for forage or fallow.¹⁷

Fruit and tree nut area totaled 321,590 hectares in 2018,¹⁸ up from 249,544 hectares in 2008, a 3.5% CAGR. Five crops comprise 55% of fruit and tree nut area: grapes (15%), walnuts (12%), apples (11%), cherries (9%), and avocados (9%). Vegetables,

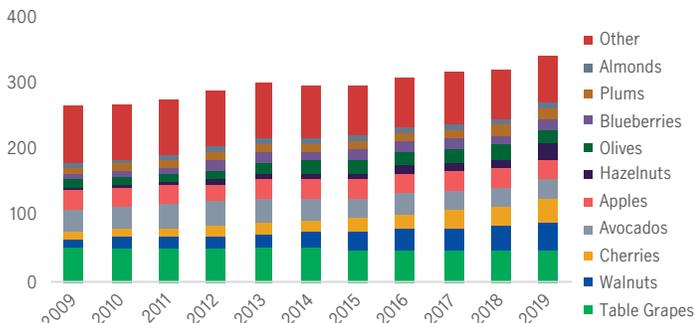
CHART 4: 2018 CHILE CULTIVATED LAND USE (000 HECTARES)



Source: ODEPA, March 28, 2021

led by sweet corn, lettuce and tomatoes, totaled 69,845 hectares. Compared to Chile’s 388,350 hectares of fruits, tree nuts and vegetables, California has 1.7 million irrigated hectares of these crops.¹⁹ Over the past ten years, the fastest growing crops were hazelnuts, walnuts, cherries, blueberries, mandarins and avocados, while other crops remained flat to gradually declining (apples, table grapes). Table grapes were one of Chile’s first major permanent crops oriented to export markets; however, the market has matured, and Chile now faces increased competition from Peru. Permanent cropland represents about 20% of total agricultural land and has an estimated market value of about USD\$13 billion across 350,000 hectares.²⁰

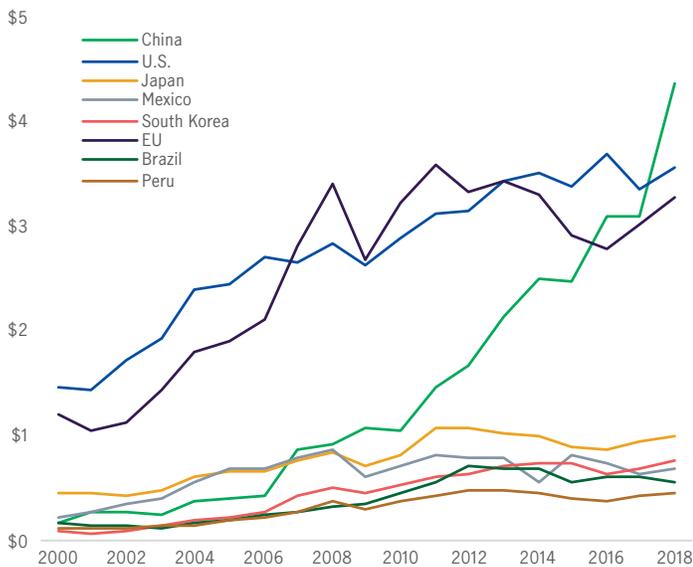
CHART 5: PRODUCTIVE AREA OF SELECTED PERMANENT CROPS IN CHILE (000 HECTARES)



Source: ODEPA, January 26, 2021

Agriculture comprises 3% of Chilean GDP, and 24% of exports, making it the country's second largest source of exports after copper.²¹ Including food and beverage processing, agriculture accounts for 8% of the economy. Chile is the largest Southern Hemisphere fruit exporter, and fruits comprise 38% of farm production, followed by livestock at 21%.²² Production agriculture, excluding other portions of the value chain, employed 774,000 in 2019, 9% of Chilean employment.²³ Including agribusiness, the employment total is closer to 20%, and agribusiness accounts for 57% of Chile's manufacturing output.²⁴

CHART 6: TOP CHILE AGRICULTURAL EXPORT DESTINATIONS (USD BILLIONS)



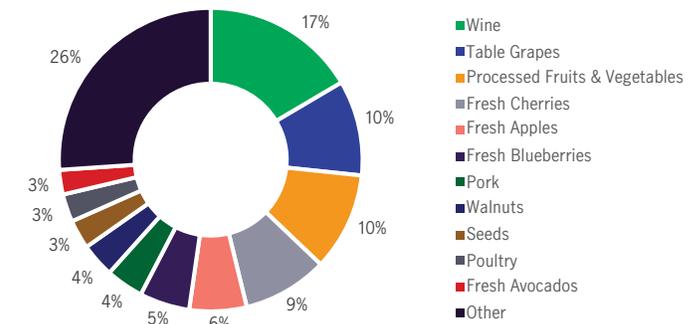
Source: ODEPA, March 24, 2021

TABLE 2: CHILE'S GLOBAL RANKING IN MAJOR PERMANENT CROPS

	Production 2019	Production Average 2014-2019 (MT)	Exports 2019	Export Average 2014-2019 (MT)	Average Exported
Apples	8	1,314,167	4	752,133	57%
Grapes	8	981,531	1	748,817	76%
Cherries	8	117,315	1	97,417	83%
Walnuts	5	81,856	2	79,167	97%
Almonds	6	7,233	5	6,183	85%

Source: USDA PSD Online, March 26, 2021

CHART 7: 2018 CHILEAN AGRICULTURAL EXPORTS (\$1,000 USD FOB)



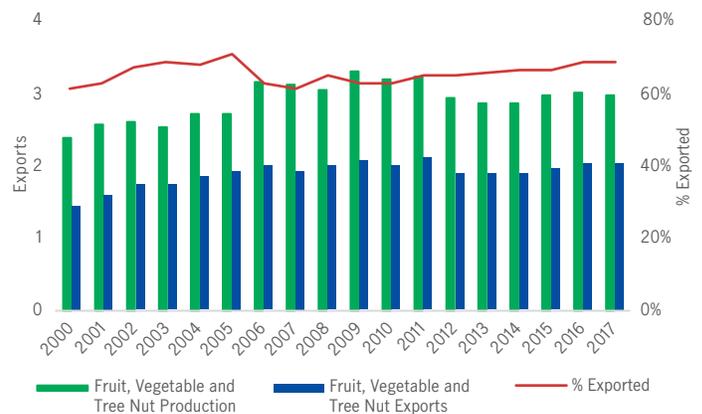
Source: ODEPA, Panorama de la Agricultura Chilena 2019, as of March 31, 2021

In 2018, Chilean agricultural exports totaled USD\$18 billion (24% of Chile's total exports)²⁵. Fresh fruit and tree nut exports are the largest category, followed by wine, and processed fruits. By comparison, 2017 agriculture exports from California were USD\$23 billion.²⁶ Chile's agricultural export value grew at a 7.4% CAGR from 2000 to 2018, with exports to China driving the growth. After growing at a 19.4% CAGR from 2000 to 2018, China surpassed the U.S. and became the top export destination for Chile's agricultural products.

Chile is the world's largest exporter of table grapes and cherries, and is a top 5 exporter of apples, walnuts and almonds.

From 2000 to 2017, Chilean fruit and tree nut export volumes grew at a 2.0% CAGR. Most of the growth occurred from 2000 to 2009, with relatively stable levels thereafter.

CHART 8: CHILE FRUIT, VEGETABLE AND TREE NUT EXPORTS (MILLION MT) AND % EXPORTED



Source: USDA PSD, March 26, 2021



Key Chilean Crops

In Chile's diverse permanent crop sector, several key crops have the scale, competitive position and growth opportunity that make them especially suitable for long-term institutional investors. The largest permanent crop in Chile, the grape sector, both for wine grapes and table grapes, is in a period of transition. Collectively, wine grapes and table grapes account for 42% of Chile's permanent crop area. One of Chile's first major export fruits, grapes were aggressively developed in the 1980s and 1990s. Grapes remain a staple crop in Chile; however, at this

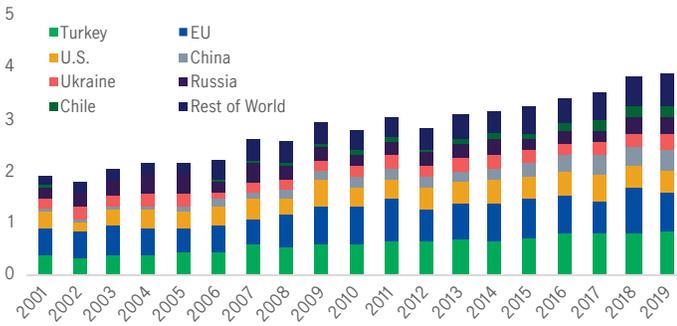
time, the grape industry has matured and is confronting slowing global demand growth. Chile also faces increased competition in export markets, especially from Peru. These pressures have led to squeezed margins and encouraged shifting to other crops that offer higher profits and greater growth potential. The redevelopment of vineyard land and water resources to crops with more rapidly growing demand and where Chile sustains greater competitive advantages is a major growth opportunity, as many of Chile's grapes are grown in some of the most favourable climates in Chile.



Cherries

Global cherry production grew from 1.9 million MT in 2001 to 3.9 million MT in 2019, a 4.1% CAGR. The top producing regions are the EU, the U.S., Turkey and China.

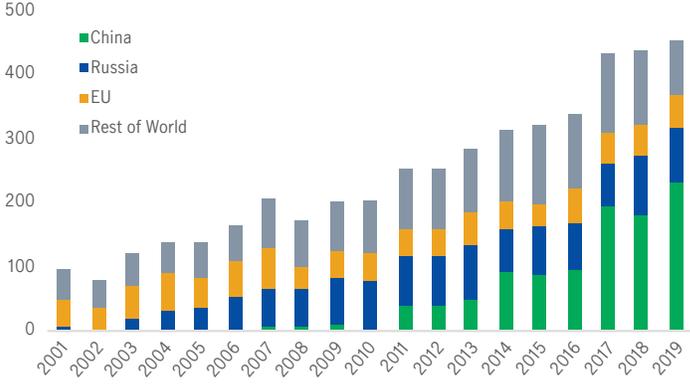
CHART 9: GLOBAL CHERRY PRODUCTION (MILLION MT)



Source: USDA PSD Online, March 23, 2021

Global cherry trade has grown at a 9.8% CAGR from 2001 to 2019, faster than production or consumption. In the last five years, China has become the dominant fresh cherry importer, with a 50% share in 2019, although this growth rate may be tempered in the future as China expands its own cherry growing.

CHART 10: GLOBAL FRESH CHERRY IMPORTS (000 MT)

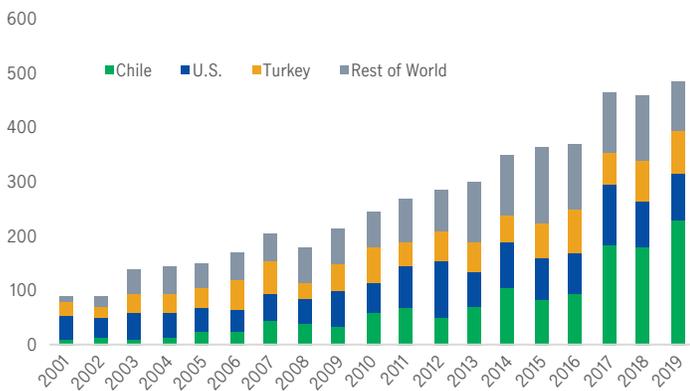


Source: USDA PSD Online, March 23, 2021

Chile is the largest cherry exporter and its primary competitors in the global fresh cherry market are the U.S. and Turkey. Chile's production, however, has minimal overlap with that from Turkey and the U.S., and cherries are a perishable crop, with a two-month shelf life, with the result that Chile has a 90% share of Southern Hemisphere cherry exports. In the last decade, Chile's share of the export market has more than doubled. Unlike

with many other fresh fruits grown in Chile, Peru is not a significant cherry producer or exporter and does not compete with Chile.

CHART 11: GLOBAL FRESH CHERRY EXPORTS (000 MT)



Source: USDA PSD Online, March 23, 2021

Chile Cherry Market

Total cherry tree area has grown rapidly, expanding at a 12.4% CAGR 2000-2019. The most rapid future expansion is likely to take place in the Southern region, where lower land prices, abundant water resources and late season varietal production encourage development. Late season cherries are ideal for shipment for Chinese New Year, a major cherry consumption occasion, when Chile has virtually no competitors in the global cherry export market.

Increased profitability of cherry production has attracted new companies; however, top players continue to lead the

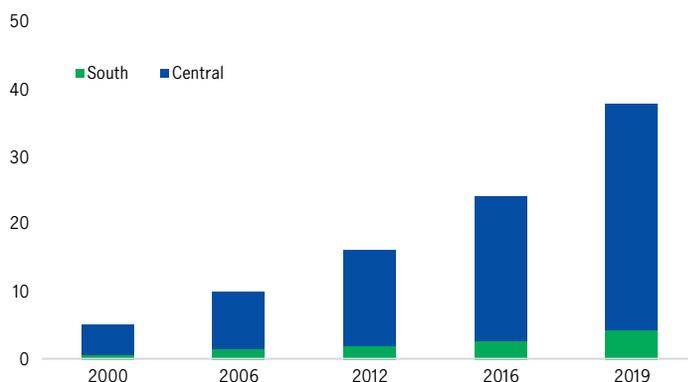
TABLE 3: CHILE CHERRY CROPLAND BY REGION

	Farmland (Ha)	20y-CAGR	Commentary
Central (V—VII)	33,811	11.5%	<ul style="list-style-type: none"> Largest production region is Maule where most competitive producers are based Relatively tapered growth expected in O'Higgins due to competition for acreage and water constraints
South (VIII—XVI)	4,299	9.4%	<ul style="list-style-type: none"> Rapidly growing market with producers looking for expansion opportunities Areas support late variety production with price premiums

Source: ODEPA, November 18, 2020

market. To manage risks in the cherry sector, competitive Chilean producers are investing in protective roofing and other infrastructure on cherry properties. China consistently offers the

CHART 12: CHILE CHERRY AREA (000 HECTARES)

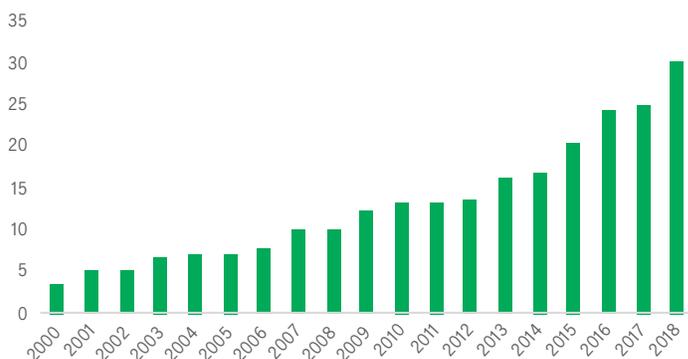


Source: ODEPA, November 18, 2020

highest prices for Chilean cherries, which has made China the dominant export destination. If markets shift, many other markets would be willing cherry buyers, albeit at potentially slightly lower prices.

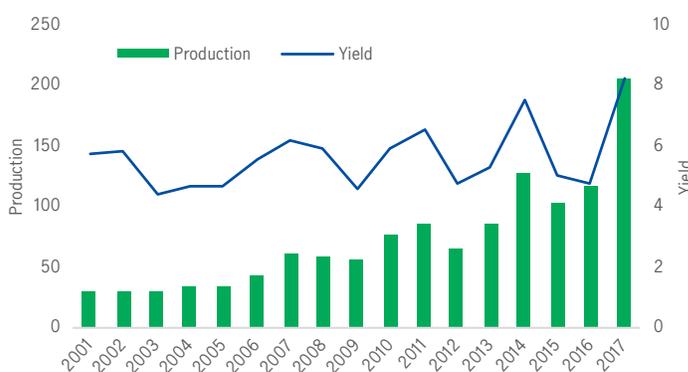
The expansion in cherry production in recent years has been driven primarily by the additional planted hectares, rather than rising yields.

CHART 13: CHILE CHERRY AREA (000 HECTARES)



Source: ODEPA, as of March 23, 2021

CHART 14: CHILE CHERRY PRODUCTION (000 MT) AND YIELD (MT/HECTARE)



Source: ODEPA, USDA PSD, as of March 23, 2021

Chile maintains a dominant position in global cherry exports, with a 47% share in the 2019 marketing year. Turkey and the U.S. trail, showing lower shares and slower growth the last 10 years. Chile's cherry exports are highly concentrated to China and

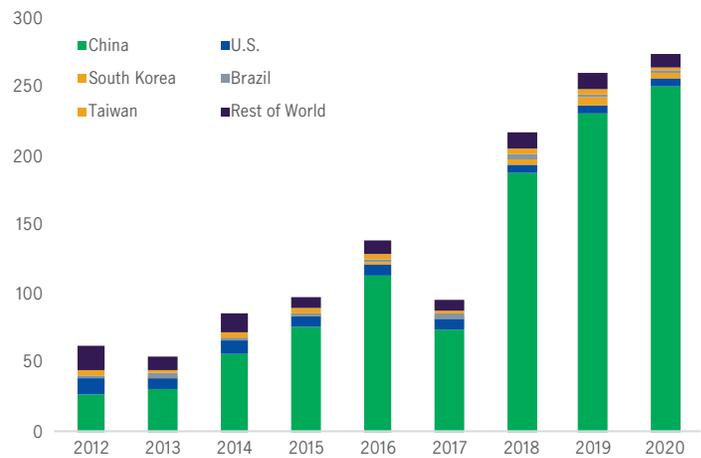
TABLE 4: CHILE CHERRY MARKET RISKS

Description	Potential Mitigation Strategy
Exposure to Chinese market	<ul style="list-style-type: none"> Diversify into other profitable markets including South Korea and India Collaborate with industry associations and producers to encourage low trade barriers
Weather shocks in Chile's southern growing region	<ul style="list-style-type: none"> Invest in roofing and other farm infrastructure to protect crop from frost and rain Identify and grow varieties more resistant to weather shocks
Major ramp-up of Chilean production in coming years	<ul style="list-style-type: none"> Focus on producing high-quality, highly in-demand varieties to ensure premium prices Build brand in key markets and develop long-term relationships with retail buyers

Hong Kong, together accounting for 91% of Chilean 2020 cherry exports.²⁷ Chile's growth in total fresh cherry exports results almost exclusively from higher exports to greater China, as growth into other markets has been more modest.

Cherries are among the most profitable crops in Chile, with gross profit margins on the farm estimated at about 50%-60%, with higher margins for early and late season varietal production. The perishability of the crop has market implications, as fresh cherries cannot be stored more than two months and the Chinese

CHART 15: CHILE SWEET CHERRY EXPORTS (000 MT)



Source: ITC Trade Map, March 28, 2021

harvest occurs six months before the Chilean harvest. Production in China may increase, but the window will be the same, leaving a gap for Chile to supply.

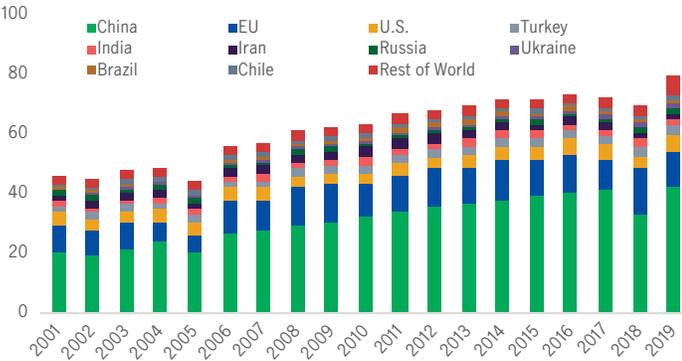
Chilean producers' key competitive advantages include relatively low labor costs and higher crop prices as a Southern Hemisphere country. Producers with developed brands benefit from sustained pricing power among retailers, with grocers paying higher, more stable prices and sometimes providing grower financing for branded cherries. Key growth areas include high-end brands with retailers (particularly in China) and increasing early and late season varieties when supplies are more limited, resulting in price premiums. Cherry producers are also growing market share outside China, including India, Vietnam and Thailand.



Apples

Global fresh apple production increased from 48 million MT in 2001 to 79 million MT in 2019 (CAGR 2.8%). China is the largest driver behind expanded global apple production. China’s fresh apple production more than doubled from 20 million MT in 2001 to 42 million MT in 2019 (CAGR 4.2%). In 2019, China accounted for 53% of global apple production. The EU, the U.S., Turkey and Iran are other major producers of fresh apples. Chile’s apple production has remained largely stable in recent years, and in 2019, Chile produced 1.1 million MT, 1.4% of global production.

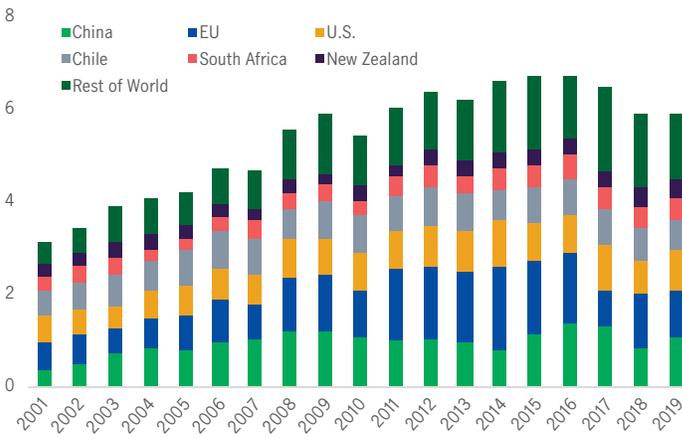
CHART 16: GLOBAL FRESH APPLE PRODUCTION (MILLION MT)



Source: USDA PSD Online, March 23, 2021

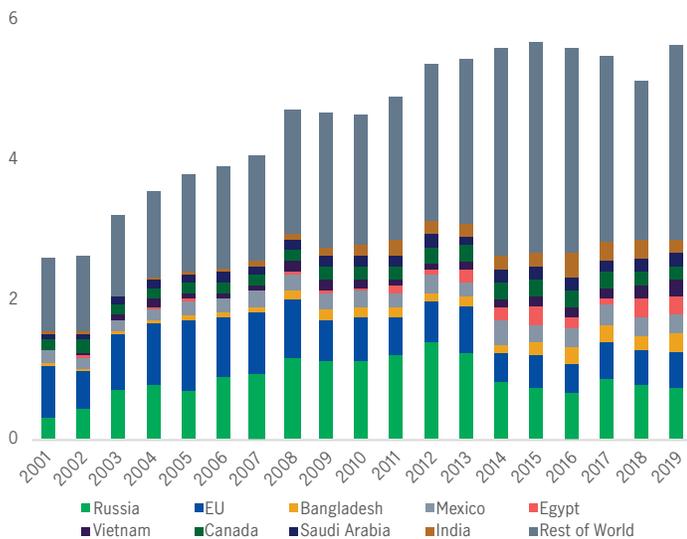
Global apple exports have grown from 3.1 million MT in 2001 to 5.9 million MT in 2019 (CAGR 3.6%). The EU and China are the two largest exporters of fresh apples. Chile is the world’s fourth largest fresh apple exporter (and the largest in the Southern Hemisphere), behind the EU, China and the U.S. In 2019, Chile exported 650,000 MT of fresh apples, 59% of its apple production and 11% of global exports.

CHART 17: GLOBAL FRESH APPLE EXPORTS (MILLION MT)



Source: USDA PSD Online, March 23, 2021

CHART 18: GLOBAL FRESH APPLE IMPORTS (MILLION MT)

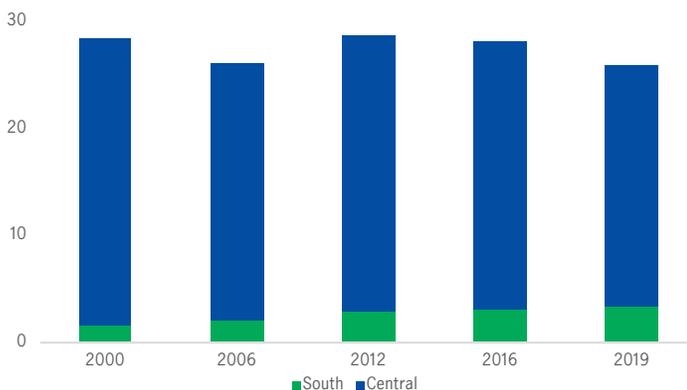


Source: USDA PSD Online, March 23, 2021

Global apple imports increased from 2.9 million MT in 2001 to 5.9 million MT in 2019 (CAGR 4.0%). The Middle East (15%), Russia (14%), Southeast Asia (12%) and North America are the largest importing regions. Russia was the world’s leading importer until 2014, when the Middle East became the world’s largest fresh apple destination. The Middle East collectively imported over 891,000 MT in 2019, up from less than 180,000 MT in 2001 (CAGR 10%). In the Middle East, Iraq, Egypt, Saudi Arabia and the UAE are the top importers. In North America, imports have moved lower as apples are able to last longer with increased use of controlled atmosphere storage.

Chile Apple Market

CHART 19: CHILE APPLE AREA (000 HECTARES)



Source: ODEPA, November 18, 2020

Despite lower average apple prices in recent years, Chilean apple producers have generated attractive returns by developing new blocks of patented apple varieties in the country’s South. Overall apple area has remained mostly flat, driven by lower profitability of traditional varieties and increased competitiveness of other permanent crops.

TABLE 5: CHILE APPLE PRODUCTION BY REGION

	Farmland	20y-CAGR	Commentary
Central (V—VII)	22,239	(0.9%)	Production mainly concentrated in Maule, but increased competitiveness of other crops limits apple growth Leading apple producers based in Maule
South (VIII—XVI)	3,424	4.3%	Favorable climatic conditions, ample water supplies and attractive land pricing drive apple expansion in areas near Araucania

Source: ODEPA, November 18, 2020

Chile’s apple market is relatively mature, and the top ten players account for over half the market volume. The top three producers are Dole, Unifruit and Frusan, and these companies have maintained their market share over the past five years. Chile ranks fourth in apple exports after China, the EU and the U.S. However, Chile has lost market share in commodity apples in recent years to New Zealand and South Africa, where production is growing more rapidly. Key headwinds and risks for Chilean apple producers include lower pricing for traditional varieties and increased manual labor costs.

TABLE 6: CHILE APPLE MARKET RISKS

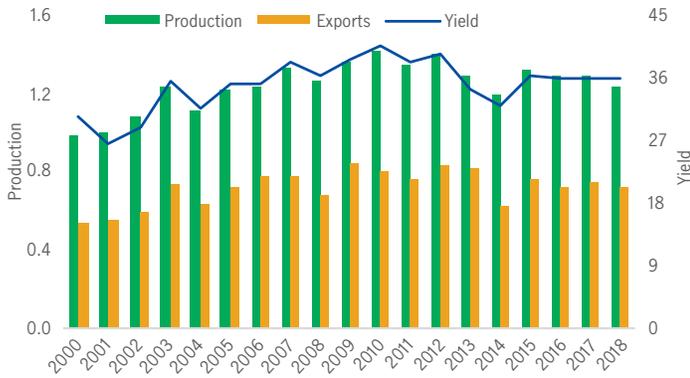
Description	Potential mitigation strategy
Depressed profitability of traditional varieties	<ul style="list-style-type: none"> Focus on patented, higher-value varieties like Ambrosia Develop an organic portion of apple portfolio Diversify offering across high-income destination markets like the EU and U.S.
Manual labor-intensive crop	<ul style="list-style-type: none"> Actively manage seasonal labor pool Explore labor-saving technologies

Apple profitability varies widely by varietal, and commodity apples face margins that can be only half that of their patented counterparts. Leading producers of patented varieties can receive prices 30-50% higher than commodity apples.

Chile’s key differentiation areas for apples include lower labor and input costs relative to the U.S., and a well-diversified customer base across North America, the EU and Asia. As the global apple market continues to transition to newer, higher-priced varieties, trends in Chile are similar. The combination of newer varieties, such as Ambrosia and Sunrise Magic, reasonable land and water costs, and a variety of growing regions enable Chile to serve as the largest apple exporter in the Southern Hemisphere.

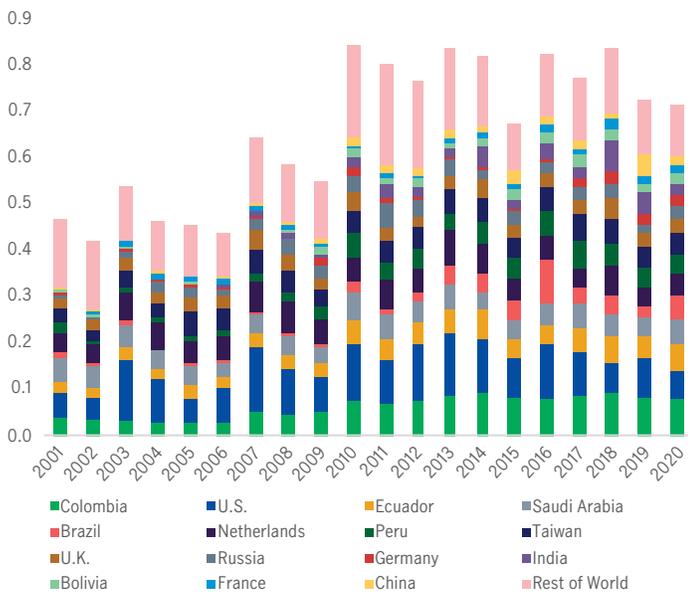
Apple planted area in Chile reached its peak in 1997 at nearly 40,000 ha, up from 23,000 ha in the early 1990s. Though apple planted area has stabilized in the last decade, yields increased from 31 MT/ha in 2000 to 36 MT/ha in 2018.

CHART 20: CHILE APPLE PRODUCTION (MILLION MT) AND YIELD (MT/HECTARE)



Source: USDA PSD Online, ODEPA, March 23, 2021

CHART 21: CHILE APPLE EXPORTS (MILLION MT)



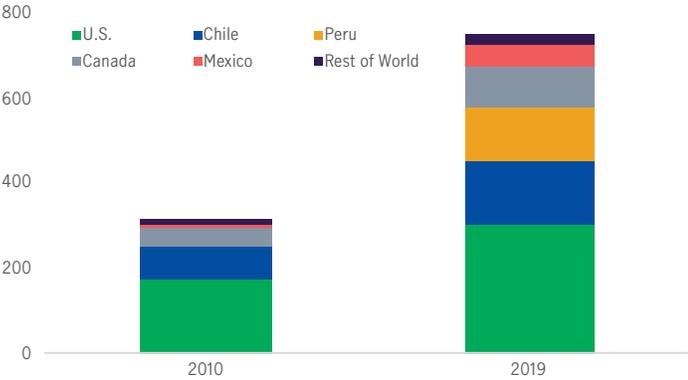
Source: ITC Trade Map, March 28, 2021

About 58% of fresh apples produced in Chile are exported. The largest market for Chilean apples is Latin America, comprising 285,000 MT and 40% of all Chilean apple exports in 2018. The EU is another major export market for Chilean apples, importing nearly 124,000 MT and accounting for 17% of Chilean apple exports.



Blueberries

CHART 22: GLOBAL BLUEBERRY PRODUCTION (000 MT)

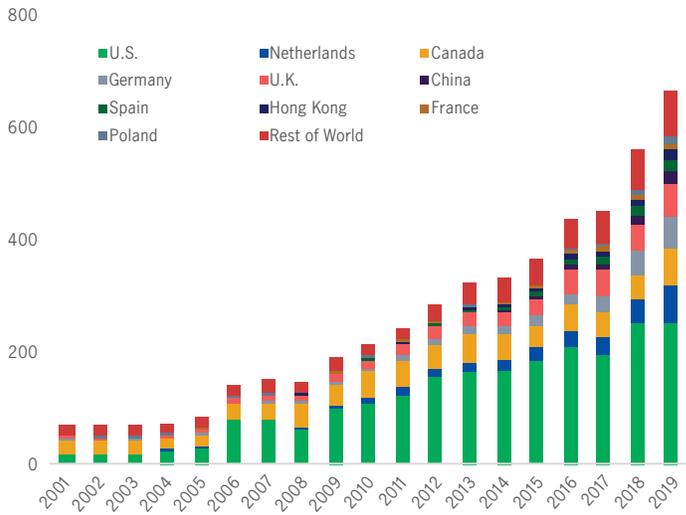


Source: International Blueberry Organization, January 11, 2021

Chile’s blueberry production has expanded rapidly over the past two decades in response to increasing year-round demand for blueberries in the U.S., Europe and Asia. The Southern portion of Chile is especially well-poised to continue to expand, as Northern Chile faces increasing competition from Peru’s growing blueberry sector.

Many of the leading blueberry producers in Northern Chile have lost market share as they have sought new, more profitable opportunities in Peru, where blueberry harvest occurs at a similar

CHART 23: GLOBAL BLUEBERRY IMPORTS (000 MT)



Source: ITC Trade Map, January 9, 2021

time of year. Continued increases in labor costs and land prices will likely support this trend in the near term. The three largest blueberry producers (Hortifruit, Agroberries and Giddings Berries) represent 25% of Chile’s production. Organic is a key market for blueberries, providing demand for new blueberry development.

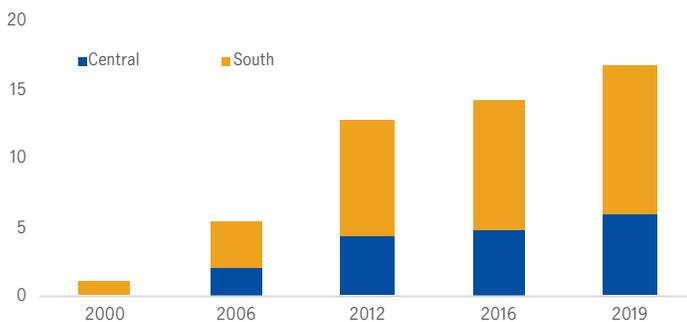
TABLE 7: CHILE BLUEBERRY

	Farmland	20y-CAGR	Commentary
Central (V—VII)	5,943	20.4%	<ul style="list-style-type: none"> Strong historical acreage growth, but limited room for expansion given water scarcity issues and competition from other crops Wide dispersion of farm sizes with most between 10-50 HA
South (VIII—XVI)	10,708	13.7%	<ul style="list-style-type: none"> Largest market segment with continued growth expected through greenfield development Larger-scale farms concentrated in Southern regions

Source: ODEPA, November 18, 2020

Chile’s blueberry margins have eroded over time as Peru’s increasing production puts price pressure on Chile’s blueberry prices, especially in the Northern and Central regions. Growers of newer varieties such as Legacy and Duke are most competitive in quality and yield. Labor expenses represent about 77% of total production costs, with most labor resources required for hand-harvesting, and for pruning and thinning.

CHART 24: GROWTH IN CHILE'S BLUEBERRY AREA (000 HECTARES)



Source: ODEPA, November 18, 2020

TABLE 8: CHILE BLUEBERRY RISKS

Description	Potential Mitigation Strategy
Loss of competitiveness to Peru and Mexico	<ul style="list-style-type: none"> Differentiating quality by growing high-value varieties and organics Produce in areas that harvest outside of competitors’ marketing windows Grow presence in newer markets like the EU and Asia
Relatively fragmented production market with varying quality	<ul style="list-style-type: none"> Increase share of captive production to better control quality and traceability Develop compensation and financing incentives to attract high-quality growers

Chile’s blueberry production is most competitive in areas where harvest timing overlaps minimally with Peru’s blueberry harvest. Leading blueberry producers have a footprint across several growing regions to reduce weather and water risk. The Southern region has the strongest potential for future growth on higher profit potential. Producers are aligning with consumer markets by developing a reputation for quality and an ability to adapt to consumer preferences, such as increasing organic demand. Leading producers also have established brands. As a Southern Hemisphere producer, Chile continues to be a leading blueberry exporter, with increasing consumption in the U.S., Europe and Asia.

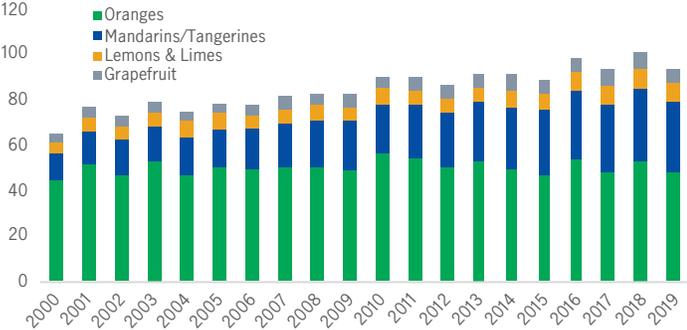


Citrus

Chile’s citrus area has grown at a 9.6% CAGR from 2000 to 2019. Citrus represents an attractive growth opportunity in Chile given its lower water requirements and growing global consumption. Given the overlap in growing areas, Chile’s leading producers of citrus are the same as those for avocados. The top three producers comprise 35% of the overall market.

While Chile is a minor citrus exporter, it plays a major role among Southern Hemisphere producers and is a major supplier to the U.S., during the Northern Hemisphere citrus off-season, and the opening of Asian markets provides further avenues for growth.

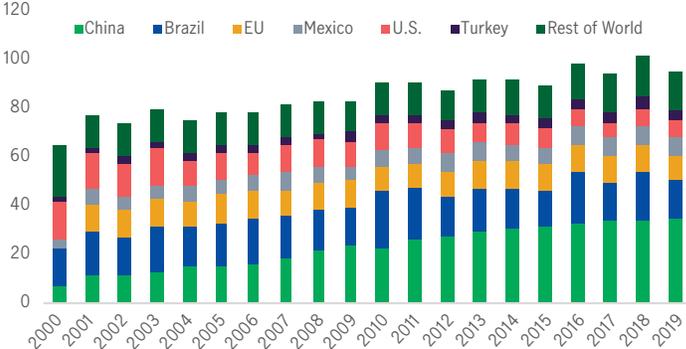
CHART 25: GLOBAL CITRUS PRODUCTION BY TYPE (MILLION MT)



Source: USDA FAS, March 23, 2021

Based on recent prices and costs, citrus is among the highest-margin crops in Chile, most notably for easy peelers in

CHART 26: GLOBAL CITRUS (ORANGE, LEMON, LIME, MANDARIN, GRAPEFRUIT) PRODUCTION (MILLION MT)

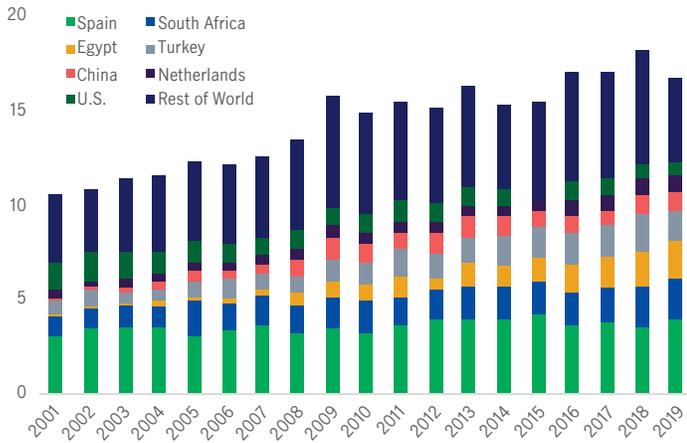


Source: USDA PSD, March 23, 2021

the Northern region. Export prices across all citrus varieties are usually higher than domestic. Yields vary by citrus variety, with easy peelers in the range of 30,000-40,000 kg per hectare. Most direct cost expense is labor, for harvesting, pruning and thinning.

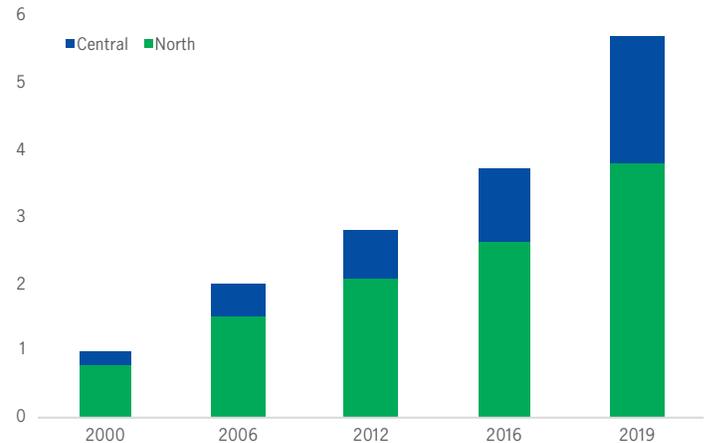
Chile’s top citrus producers are clustered in the Coquimbo region where growing conditions are favorable for early-season mandarin varieties, which are in strong demand in export markets. Given the water available in key citrus regions, having multiple water sources and efficient irrigation systems are important for managing water risk and cost. The potential opening of the Chinese market for Chile could offer growth opportunities to supply Chinese consumers during months when China’s citrus production is low.

CHART 27: GLOBAL CITRUS EXPORTS (MILLION MT)



Source: ITC Trade Map, March 23, 2021

CHART 28: CHILE CITRUS AREA (000 HECTARES)



Source: USDA FAS, March 23, 2021

TABLE 9: CHILE CITRUS CROPLAND BY REGION

	Farmland	20y-CAGR	Commentary
North (III, IV)	3,784	8.8%	<ul style="list-style-type: none"> Mandarin production concentrated in Coquimbo Citrus relatively water-efficient
Central (V—VII)	1,910	11.8%	<ul style="list-style-type: none"> Mandarins, lemons and oranges Most productive areas located away from coast

Source: ODEPA, November 18, 2020

TABLE 10: CHILE CITRUS RISKS

	Potential Mitigation Strategy
Production concentrated in highly drought-prone regions	<ul style="list-style-type: none"> Develop farms with multiple sources of water and efficient irrigation technology Grow water-efficient varieties
Concentrated export market in the U.S.	<ul style="list-style-type: none"> Diversify into new markets such as Asia, which recently opened its borders to Chilean citrus Develop sweeter, seedless varieties favored in Asian markets such as Tango and Orri

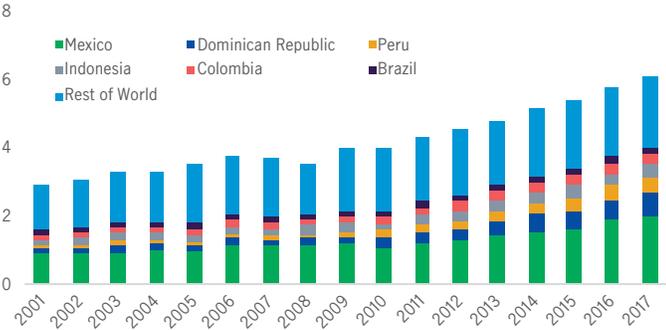


Avocados

Chile’s avocado production has steadily increased; however, planted area in recent years has been curtailed by the crop’s intensive water needs in drought-prone regions. Chile’s avocado yields are among the highest globally.

Chile’s avocado sector is relatively saturated, with the leading three producers (Propal, Agricorn and Santa Cruz) comprising 56% of the total market. With strong global demand growth, producers such as Mexico and Peru are likely to erode Chile’s share of the global export market. Mexico dominates the global avocado market, accounting for half of the total.

CHART 29: GLOBAL AVOCADO PRODUCTION (MILLION MT)

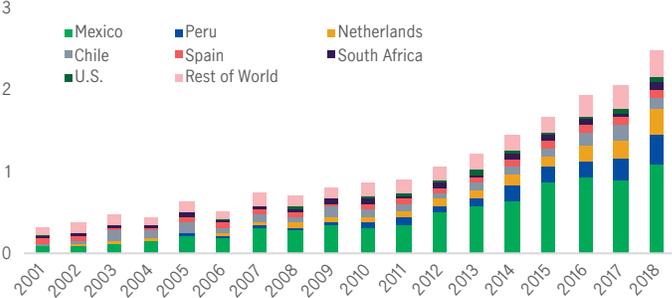


Source: USDA FAS, March 22, 2021

Avocados yield an attractive margin supported by growing domestic and export market prices. Labor accounts for the largest share of farming costs, about 35%, including harvest, chemical application and irrigation maintenance.

Chile’s top avocado growers are in the Valparaiso region where the climate is most favorable for avocado production and closer to the port. Most Chilean avocados are exported to the EU, where demand is growing. Key factors for profitability include multiple water sources and efficient irrigation technology. Chile features counter-seasonal production to serve growing avocado markets such as Asia, especially China and Korea.

CHART 30: GLOBAL AVOCADO EXPORTS (MILLION MT)



Source: ITC Trade Map, March 22, 2021

TABLE 11: CHILE AVOCADO PRODUCTION BY REGION

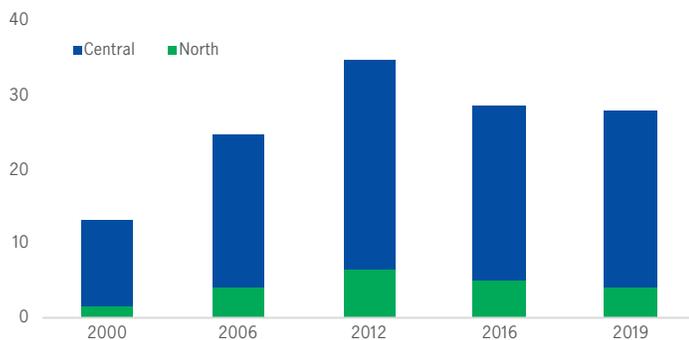
	Farmland	20y-CAGR	Commentary
North (III, IV)	4,135	6.1%	<ul style="list-style-type: none"> Production focused in Coquimbo but water issues and increasing attractiveness of citrus will likely limit expansion
Central (V—VII)	23,628	3.8%	<ul style="list-style-type: none"> Largest segment of market is in Valparaiso where most commercial producers are based RM production catered to domestic market Relatively average farm sizes (38% of farms 100+ HA)

Source: ODEPA, November 18, 2020

TABLE 12: CHILE AVOCADO SECTOR KEY RISKS

Description	Potential Mitigation Strategy
Water-intensive crop limits expansion opportunities and creates reputational risk	<ul style="list-style-type: none"> Develop farms with multiple sources of water and efficient irrigation technology Showcase sustainability water use
Increased competitive pressure from other producers like Mexico	<ul style="list-style-type: none"> Focus on production of higher-quality varieties Grow presence in non-U.S. markets like EU and Asia

CHART 31: CHILE AVOCADO AREA (000 HECTARES)



Source: ODEPA, November 18, 2020

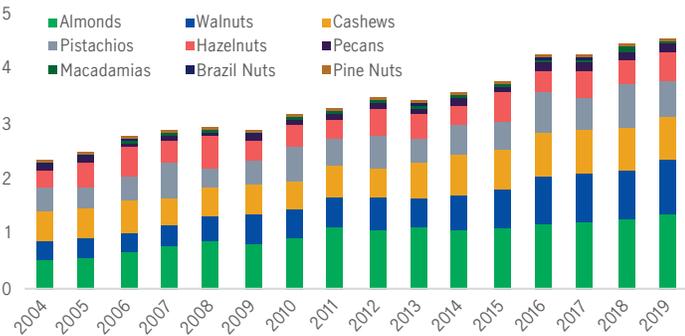


Tree Nuts

Chilean tree nut area has grown rapidly, increasing at a 10.4% CAGR 2000 to 2019. Walnuts are the leading tree nut in the Central and Northern regions, while hazelnuts dominate growth in the Central and South regions. Walnuts are the leading tree nut in Chile by area, production volume and exports.²⁸

Chilean tree nut production is relatively small and fragmented; however, the sector has strong growth drivers, as consumption of tree nuts increases globally and Chile is able to leverage strengths similar to its more traditional agricultural exports. The top three Chilean tree nut producers account for 20% of the market by volume, a lower share compared to other Chilean crop sectors.

CHART 32: GLOBAL TREE NUT PRODUCTION BY TYPE (MILLION MT)

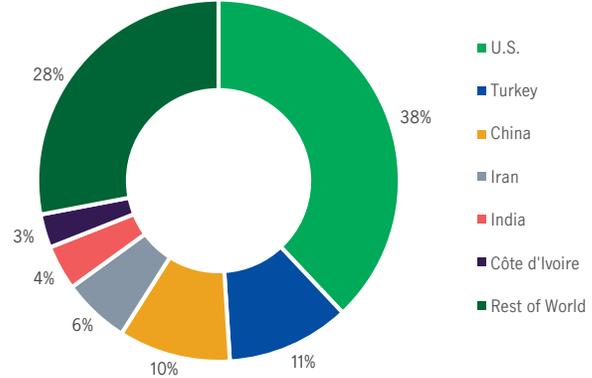


Source: International Nut and Dried Fruit Council, March 31, 2021

The U.S. is the global leader in tree nut exports, accounting for half of all tree nuts exported globally.²⁹

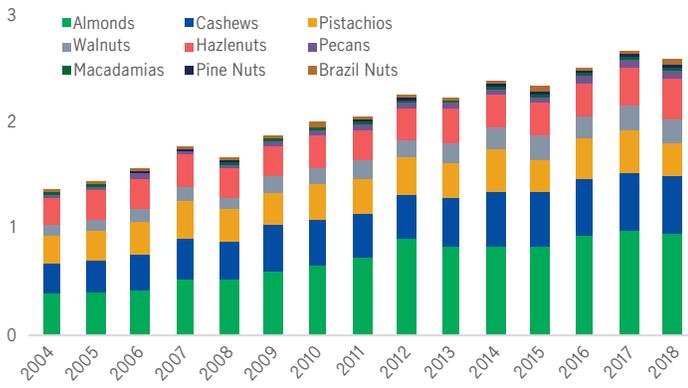
Compared to fruits, tree nut production typically has lower capex needs and lower production costs (mainly due to mechanical harvesting). Capex expenditures per hectare are generally lower than most tree fruits and are led by irrigation and orchard infrastructure. Chile's tree nut sector is poised for growth as Chile's natural resources support expansion, and consumption growth enables Chile to export tree nuts to many of the markets where the country's producers sell other permanent crops.

CHART 33: GLOBAL TREE NUT PRODUCTION BY COUNTRY 2019/2020 MARKETING YEAR



Source: International Nut and Dried Fruit Council, March 31, 2021

CHART 34: GLOBAL TREE NUT TRADE (MILLION MT)



Source: International Nut and Dried Fruit Council, March 31, 2021

CHART 35: CHILE TREE NUT AREA: WALNUTS, HAZELNUTS AND ALMONDS (000 HECTARES)



Source: ODEPA, November 18, 2020

TABLE 13: CHILE TREE NUT AREA BY REGION

	Farmland	20y-CAGR	Commentary
North (III, IV)	2,501	9.2%	<ul style="list-style-type: none"> Walnuts account for most of Northern acreage in Coquimbo
Central (V—VII)	49,666	8.8%	<ul style="list-style-type: none"> Walnuts are most competitive in Región Metropolitana, followed by O'Higgins and Maule. Most almond acreage limited to Región Metropolitana.
South (VIII—XVI)	16,502	34.4%	<ul style="list-style-type: none"> Rapid growth of hazelnut acreage due to favorable growing conditions. Pockets of walnut growth limited to Biobio and Nuble.

Source: ODEPA, November 18, 2020

TABLE 14: CHILE TREE NUT SECTOR RISKS

Description	Potential Mitigation Strategy
Relatively fragmented production market with varying quality	<ul style="list-style-type: none"> Increase share of captive production to better control quality and traceability Develop compensation and financing incentives to attract high-quality growers
Long storability periods create direct competition with U.S.	<ul style="list-style-type: none"> Develop competitive marketing programs that time sales during high-pricing periods Focus on production of high-quality tree nut varieties that are favored by buyers



Sustainability and Responsible Investing Environment in Chile

Both Chile's government and the agricultural sector have taken steps towards enhancing the environmental and social contribution of agriculture, aligning with broader global and national goals around sustainability.³⁰ Key areas include soil health, organic production, water, climate change and diversity.

To meet increased demand for sustainably produced products, Chilean agriculture has adopted increased soil conservation practices and increasingly certified cropland as organic. Chile's Ministry of Agriculture administers a soil conservation and restoration financial incentive program, SIRDS-S. Farmers submit proposals and compete against other growers for funding for activities that enhance soil health and improve farm sustainability, with an average of 151,000 hectares funded each year from 2011 to 2018.³¹ In Chile, organic agriculture totals 113,000 hectares as of 2019 (up from 80,000 in 2014), including more than 14,000 hectares of permanent fruits and tree nuts, with organic exports reaching USD\$274 million, up from USD\$217 million in 2015.³²

Fruits, nuts and vegetables tend to have organic comprising a greater share of global production compared to annual row crops such as grains and oilseeds.

Within the tree fruit sector, the leading trade association, ASOEX, has established the Guide of Good Practices for the Sustainability of the Chilean Fruit Industry including aspects of food safety, respect for the environment, corporate social responsibility, and economic sustainability.³³ More than 90% of the tree fruit orchards use localized irrigation (such as drip and micro sprinklers), rather than taking prior flood irrigation approaches.³⁴ ASOEX has also coordinated the training of more than 264,000 workers since 2000 in areas of food safety, pesticide use and good farming practices. Finally, ASOEX invests in local rural communities, notably through school and home construction following earthquakes in 2010 and 2015.³⁵

With the Andes mountains receiving moisture from the Pacific Ocean, Chile has among the largest freshwater resources in the

world (922 cubic kilometers annually), ranking 14th globally and fifth in Latin America.³⁶ In Chile, water is a basic right protected by federal laws. The 1981 Water Code, augmented and updated in 2005, established water basins with tradeable water rights.³⁷ To meet the needs of providing water to the full spectrum of the country, including agriculture, Chile is evolving, from water code reforms and increased funding for water infrastructure to incentives for adoption of water efficiency technology.³⁸

Chile's approach to climate change includes a national commitment to reducing the intensity of its carbon dioxide emissions (30% reduction by 2030 from 2010 levels), increased use of renewable energy, and reforesting 100,000 hectares of land.³⁹ Joining global climate change mitigation efforts, Chile is a signatory to the Paris climate agreements. In 2016, with the latest available data, the agriculture sector accounted for 10.6% of the country's greenhouse gas emissions, at 11,802 kt of carbon dioxide equivalent, with methane from the livestock sector

comprising 56% of all greenhouse gas emissions.⁴⁰ As Chile faces and adapts to climate change, the country's span across latitudes and healthy water availability should provide resiliency, with the potential for the gradual movement of crop types southward.

Chile includes nine indigenous groups, who represent nearly 12% of the country's population and the country has incorporated minimum levels of participation in the 2021 Constitutional Assembly for indigenous populations. Recognizing rights of indigenous communities is an important part of agriculture investment in Chile. Chile's agriculture sector includes 49,000 indigenous-owned farms covering 1.2 million hectares.⁴¹ The new Chilean Constitution is expected to add recognition of indigenous rights, which will likely contribute to the overall stability and growth of the country, and fall 2019 demonstrations in the South of Chile highlight the pressing need for reform as a benefit to all citizens of Chile.⁴²



Looking Forward

Chile plays a leading role in the export of high-value fruit, nut and vegetable crops globally. As global incomes rise, consumers are seeking higher-quality foods and enhanced nutrition.⁴³ While the country faced internal political changes and the COVID-19 pandemic in 2020, the agriculture sector remained one of the world's top suppliers of high-value crops. Chile's political climate in 2021 will be guided by the process of writing the new constitution, which could lead to substantial policy shifts in terms of government services and water rights legislation. As the country seeks more equitable access to economic and social

opportunities for all Chileans, the overall open market economy aspects of free trade and openness to investment are expected to continue. The drivers that underpin Chile's competitive advantage in producing and exporting high-value crops will further enable development in growing markets as global demand grows, and Chile is poised to supply sustainably produced foods.

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