There is no doubt that more sustainable, resistant, and beneficial growth would benefit Chile and its inhabitants. However, this is a difficult and complex issue, with several interconnecting pieces and many different opinions about the best way to achieve this. At the same time, the experience of other countries shows that certain pieces must be in their place in order to achieve this objective. Chile has incorporated several pieces in this puzzle. However, some critical pieces are still needed in order to overcome this challenge. These notes seek to make recommendations about what some of those pieces can be and how to integrate them to complete the puzzle of Chile’s development. Building a more sustainable, resilient, and inclusive Chile is a task in which everyone – civil society, political leaders, entrepreneurs, academics, youths, among others- have something to contribute for the benefit of all. Through these notes, the World Bank seeks to open a conversation that helps to connect each one of these pieces and thus contribute to shared prosperity.
THE PIECES WE HAVE

Chile is a development success story. Chile has stood out in Latin America because of its reputation for macroeconomic sustainability and predictability. Supported by prudent macroeconomic policies, sound institutions, and its rule of law, Chile has enjoyed strong economic dynamism for several decades. During the 2000s, sustained demand for raw materials from China created a favorable external environment for Chile, which was the basis for high economic growth, averaging 6% annually during the 1990s and 4.5% from 2000 to 2013.

As a result, poverty, as measured by income, fell precipitously and the country now has one of the lowest poverty rates in Latin America. Similarly, per capita income has more than doubled and is among the highest in the region. Owing to higher labor income and transitions to more productive sectors, Chile was the first country in Latin America to reach high-income status. Substantial income growth has also brought about a significant expansion of the middle class, which now includes more than 60% of the population (Figure 1).

Quality of life has improved in the past two decades and the country is making efforts to address the risks of climate change and take advantage of the opportunities for green development of the economy. Life expectancy has increased by almost seven years in just one generation because of the vast improvements in the health, education, and social protection systems. Decentralization efforts point toward supporting regional development, including digital inclusion. Chile is addressing the risks of climate change and promoting the green transition of the economy. For example, the country has made a commitment to implement actions to achieve carbon neutrality by 2050, through its Nationally Determined Contribution (NDC), and is making progress in its efforts to decarbonize the most polluting economic activities, like power generation, mining, and transport. However, these pieces are not enough for resilient development.

Figure 1: Chile experienced a substantial reduction in income poverty, and an expansion of the middle class.

![Evolution of poverty, vulnerability and the middle class, 2006-2017](image)


1 The Chilean middle class, defined as the population that has a per capita daily income of between US$13 and US$70, expanded from 35% to 62% of the population between 2006 and 2017.

2 The public transport system in Santiago is moving toward electromobility. Ten percent (10%) of the buses are electric, and it is hoped that this figure will increase to 30% in the coming years.
THE PIECES THAT ARE STILL MISSING

No country can grow in the long term without significant productivity growth. In Chile, the weak or negative growth in total factor productivity (TFP) has been one of the driving factors for the slowdown. Productivity growth has shown a clear downward trend since the mid-1990s. From the macroeconomic perspective, what is noteworthy is the limited diversification of the exporter base and its concentration in the natural resources sectors, as well as the limited adoption of and low investment in new technologies. From the microeconomic perspective, the limited competition in the markets, the growing challenges in the regulatory framework, the participation of the female labor force, and the problems related to human capital, including the quality of education and inadequate capacities of the labor force, are key impediments to productivity growth. The low productivity growth, fostered by a lack of continuous progress in structural reforms and the end of the commodities boom, resulted in a slowdown in growth that averaged only 2% in the six years before the COVID-19 pandemic.

Progress in equity also remained stagnated, affecting not only productivity growth but also social cohesion. The unequal access to high-quality public services is a major obstacle to productivity growth. Limited access to health, education, and opportunities for women prevent the country from taking advantage of the main drivers of productivity growth. On the other hand, the major differences in access and quality of services and opportunities available to Chileans were catalysts for mistrust and discontent for many years, which left a large part of the society disconnected from development and explain some of the demands during the social unrest of 2019. Citizen satisfaction with the health and education system is low when compared with other countries (Figure 3). In addition, social mobility is similar to the countries in the region, but below that of the OECD: the proportion of persons born to parents with education levels that fall in the lower half of their generation and reached the top quartile, are less than 10% (Figure 4). This was followed by the pandemic, which disproportionately harmed the poor and vulnerable sectors.

Chilean institutions have not helped enough to improve the quality of public services in the areas of...
education, health, and social security. The quality of public schools still needs a lot of improvement in order to reach the standards of OECD countries. This results in unequal access to higher education and, therefore, fewer economic prospects for the future, which triggers deep frustrations among many students, in terms of expectations regarding income and quality of life. There are also ongoing differences in access to quality healthcare for users of public insurance, which is 77% of the population.

Figure 3: Citizen satisfaction with the education and health systems

Source: Gallup World Poll 2020. Dotted line represents the average for OECD countries.

Figure 4: Upward social mobility

Source: Own estimates based on GDIM data from the World Bank. Bars show the proportion of people reaching each education quartile among all people born to parents with education levels in the lower half of their generation.
In this context, COVID-19 hit Chile, deepening some pre-existing structural gaps. The less advantaged groups were disproportionately affected, due to less access to formal jobs, technology, education, health services, water and sanitation services. Despite the strong economic recovery in 2021, the labor market is still lagging behind. Up until September 2021, only half of the jobs lost have been recovered, affecting less qualified workers and women the most. In fact, the pandemic set back growth in female labor force participation in Chile by a decade, which was already below the OECD country average, and it has not recovered since.

However, because of the massive emergency social protection measures implemented by the government, poverty was even reduced in the short term, and the economy recovered in 2021. Prudent macro-fiscal management over the decades allowed the Government to use fiscal resources in an unprecedented way to protect the population from poverty. To cushion the impact of the crisis, the Government increased social protection significantly, at a direct cost of more than 11% of GDP. Poverty (US$5.5 per day) is expected to fall from 4.4% in 2020 to less than 1% in 2021. In addition, the sharp increase in non-labor income for vulnerable and lower and middle class families would reduce the Gini coefficient from 0.44 to 0.39. However, the massive fiscal aid is not sustainable over time and will have to be withdrawn now that the economy has strengthened, to return to a path of deficits and sustainable public debt, which poses a major challenge of how to do so without jeopardizing the welfare of the vulnerable population, while promoting employment generation.

Chile’s continued progress is highly vulnerable to climate change, so resilience is critical for sustained productivity growth. Climate change will continue to affect important sectors of the economy.

Adaptation to climate change will be essential in order to reduce the country’s dependence on commodity prices and to take advantage of increased demand for copper and lithium as a result of the use of clean energies. Natural resource-based industries, such as mining, agriculture, forestry, and aquaculture are key growth sectors, and have created increased environmental pressures resulting in deforestation and biodiversity loss. Due to the increase in the intensive use of water resources and climate change, the country is experiencing severe water stress, which, combined with other climate impacts, could be a catastrophe with significant effects on the country’s development, specifically in agriculture. Despite some progress, Chile’s energy matrix is still overly dependent on fossil fuels. The decarbonization of mining, manufacturing, and the lithium extraction industry represents a major challenge.

SOLVING THE DEVELOPMENT PUZZLE

Now is the time to transform Chile into a more sustainable and inclusive country, for the benefit of all its citizens. Chile is going through a historic political moment, which represents an excellent opportunity.
Chile is in front of an excellent opportunity to tackle the challenges to ensure a more equitable and sustainable future for Chile. The first pillar we highlight is the importance of improving equality of opportunity through investments in human talent, closing gaps in access to and quality of healthcare and education, and improving the provision of social services to vulnerable populations.

A second tool for achieving this shared goal is to increase regional equity, through support for fiscal decentralization, greater digital inclusion, sustainable urban development, and policies geared toward reducing territorial inequality. Finally, we address the critical need to support green and resilient growth by building a low-carbon future, increasing climate resilience in the agricultural sector, and addressing water scarcity.

The pieces of this puzzle can be used to illustrate policy alternatives and support the debate about these policies. These pieces are based on recent work done by the World Bank work in Chile and on our international experience. Each one brings its own pieces to the table, to build a more sustainable and inclusive future for the country.
Increase regional equity

- Tax decentralization: improve the efficiency of the State and regional equality
- Cities as places of opportunities for everyone
- Digital Inclusion for a more egalitarian Chile

Improve equal opportunity

- Towards a better redistribution of income and gender equality
- A social protection system that ensures greater wellbeing
- Towards an equitable and sustainable health care system
- Quality higher education and equitable access

Promote green and sustainable growth

- Opportunities for achieving resilient, low-carbon growth
- Water as an element of inclusion
- An agricultural sector that is more resilient to climate change
IMPROVING EQUAL OPPORTUNITY

In order to move towards a society where all citizens have the same opportunities, policies must be more inclusive. Inequality of opportunity and income makes it more difficult for vulnerable and lower middle class households to invest in quality health and education. As a result, the likelihood of intergenerational upward social mobility is limited and the country’s opportunity for growth is reduced. Progressive taxation and more targeted spending can help with the redistribution objective. The latter actions are important in order to make spending more efficient once the health emergency is over, thus allowing efforts to be more focused and to prioritize the reaching of vulnerable people who need more assistance. Likewise, increasing public spending on health and strengthening education should be at the center of the debate.

Women’s economic opportunities require more systematic attention, and support for their reincorporation into the labor market is urgent. Women make up 51% of the working-age population, but only 41% of the labor force. The gender pay gap is 20%. In addition, 20% of Chilean households have children under the age of six, and therefore have child care needs. Improved access to quality child care services would reduce pressures on women to interrupt their careers when they have children, while at the same time help with the early development of children’s cognitive skills by ensuring equal opportunities and access to basic services, such as education, health, and infrastructure. This would, in turn, contribute to a more egalitarian start for all Chilean children by giving them the same opportunities and rights from an early age. Ensuring the same opportunities for all Chilean citizens and supporting gender equality not only promotes social welfare, but also contributes to economic growth and development.

**Strengthening the supply, equity of access, and quality of the educational system will be essential in order to ensure equal opportunities and economic mobility.** There are significant gaps in higher education enrollment per socioeconomic level. In 2019, only 32% of young people between 18 and 24 years of age from the lowest income quintile were enrolled, compared to 58% from the highest quintile. This is due to the fact that access to universities in Chile is highly dependent on the preparation received in schools and, therefore, on the socioeconomic level of families. Access to higher education for high school graduates from private schools is more than 50% higher than that of graduates from municipal schools.

The blow caused by the pandemic, the reduced availability of fiscal resources, and the delays in the implementation of crucial aspects of the 2018 higher education reform have had major negative effects. There is therefore a pressing need to focus support on the most vulnerable students and to move towards a performance-based funding system for higher education institutions, which incentivizes

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3 Average for the first half of 2021. National Statistical Institute [Instituto Nacional de Estadísticas].
5 Minutes of the Observatory of Public Policies in Higher Education [Observatorio de Políticas Públicas en Educación Superior OPPES-USACH], Minutes 13, Universidad de Santiago de Chile, August 2019.
improvement and efficiency. In addition, the Government can establish criteria and quality standards for higher education agreed upon with the sector, recognizing the regional heterogeneity that characterizes Chile and the needs of the environment. This will help to encourage the linking of the supply of higher education programs with the development programs in each region and their productive sectors.

Improving the design and operation of the Social Protection System (SPS) is essential in order to move towards a quality system that responds in a timely manner. Despite the progress made, the growth of the SPS has been inorganic and does not take into account all the relevant factors for the allocation of benefits, focusing mostly on the socioeconomic aspects of the beneficiaries and not on changes in the structure of families, nor on the differentiated profiles of households. Making these adjustments could help to improve the perception of security and availability of support when individuals and households face risks or a decline in their welfare conditions, in addition to advancing to higher levels of social integration.

Chile has an organized Social Protection System and the necessary resources for its effective operation, but it still requires key management conditions. In addition to guiding services and benefits toward final results, the complementarity of services that are adapted according to the life cycle of each family must be strengthened. Furthermore, and in the context of Chile’s current decentralization process, a locally-led SPS implementation must be supported and the role of Regional Governments and municipalities must be strengthened. Ensuring the quality of the data and the continuous updating of the information will require the improvement of the Social Household Registry and a thorough review of the quality of the current SPS management instruments.

The health crisis highlighted the central place of health in social welfare and economic development. Chile has a health system that, in terms of efficiency and results, has positioned itself among the high performers in Latin America; but it needs reforms to conform to the principles of universality, equity, quality, and efficiency. The National Health Fund (FONASA), public insurance, covers 77% of the population, while the Private Health Insurance Institutions (ISAPRE), private insurance, provide coverage to 17%. However, 9 out of 10 FONASA users are in the four lowest income quintiles.

The country has the capacity to increase and improve the quality of public health spending. In particular, by identifying and monitoring the main sources of inefficiency in total health spending. This, along with the strengthening of coverage for prescription drugs on a national list and the resolute promotion of generic drugs, would make it possible to reduce out-of-pocket spending by households – which currently amounts to 32.8% of total health spending - and would protect their economic security (Figure 5). Currently,
catastrophic health spending affects almost 5% of the country’s households, with an average health expenditure of 41% of their income.

An effective health system focuses on people’s needs and strengthens their participation. The demographic and epidemiological transition observed in Chile requires transforming the model of care and the organization of health services. This can be complemented by the expansion of intersectoral policies (such as, for example, anti-smoking legislation, labeling law, strategies for obesity control, and taxes on foods “high in” alcohol and tobacco, among others) to address the social determinants of health, which will be key for the present and future of population health and the Chilean economy.
INCREASING REGIONAL EQUITY

There are deep development disparities between regions in Chile. The proportion of people living in poverty varies between 5.7% in Magallanes and 17.4% in La Araucanía (Figure 6). This same spread is also observed in multidimensional poverty, where indexes vary between 10.8% and 28.5%\(^7\). Promoting regional development requires improving the quality of public services provided in the regions, and increasing equitable access to education, health, and quality digital services across the country. It also requires making progress in the decentralization of the regions and municipalities, because a State that is closer to citizens can have more information and accountability, improve the allocation of resources, and thus help to reduce inequalities.

Digital access is an important tool for reducing regional inequalities and promoting economic growth. A 10% increase in mobile and fixed broadband in Latin America would result in GDP growth of 1.9% and 1.7%, respectively. Chile is the most advanced Latin American country in terms of digital development. However, there are still households that do not have high-speed internet, highlighting the digital divide in rural areas and city outskirts. In particular, it is imperative that fiber optic infrastructure be improved through infrastructure sharing between different operators, as is the case with data infrastructure sharing in the European Union. The expansion of mobile data towers can also foster the development of digital infrastructure and coverage. In addition, competition must be increased, by promoting the entry of new operators into the country or, for example, through spectrum auctions, in order to

\(^7\) Multidimensional poverty includes education, health, employment, social security, housing, and social cohesion. Casen Survey, 2017.
reduce tariffs and improve accessibility for the low-income population.

Decentralization can bring about an improvement in the quality of government services and in the promotion of social cohesion. However, it can only achieve this objective if it is well designed. For fiscal decentralization to be successful, it must have a clear roadmap, which provides for a gradual and orderly implementation, accompanied by full political consensus. Public spending can gradually approach the OECD average (Figure 7) and the autonomy and management of regions and municipalities can be strengthened. If this is accompanied by a strengthening of subnational tax collection, it can serve as an incentive for efficiency. It is also essential to train the administrative personnel of the regions in their new roles and competencies, since not doing so entails high risks. Finally, the transfer system has to select objective and transparent criteria for allocating funds that reduce the use of discretion, and focus on efficiency, as well as the reduction of development gaps.

In order to have more efficient and inclusive cities, it is essential to develop comprehensive urban regeneration policies, assigning a leading role to local governments and territorial organizations. This is more effective if coupled with intersectoral coordination tools, as was done with the Neighborhood Law of Catalonia, which regenerated neighborhoods and cities, incorporating objectives of accessibility, social cohesion, and local development and employment. On the other hand, the forms of access to housing and the actors involved in housing policies and programs must be diversified. For example, access to housing for the lower-income population can be expanded by implementing communal quotas for affordable housing in metropolitan cities, managing public land better, and designing balanced densification in well-located neighborhoods, or by providing incentives that promote the incorporation of affordable housing in real estate development projects. Finally, public transportation also plays an important role in promoting accessibility and connectivity between and within cities, making its design, infrastructure development and financing model a key element of efficient and equitable urban planning.

Figure 7: Expenditure is highly centralised in Chile

Addressing the challenges related to emissions reduction, green development of production and resource extraction is key to ensure a sustainable development.

A regulatory framework will have to be developed that encourages, on the one hand, investment in technologies that compensate for the power system’s variability, and, on the other hand, that has sufficient production capacity by generators, through optimal prices.

A clean matrix will facilitate the electrification of other sectors of the economy, such as transport and the industrial sector. Although Chile has made tremendous efforts towards introducing electromobility to the public transport sector, expanding this experience to the entire country will be a huge undertaking. In terms of the decarbonization of the industrial sector, including mining, the development of new energies, such as green hydrogen would be the new source of consumption for difficult electrification processes.

To reduce the impact of climate change and achieve carbon neutrality, water and soil use in the agricultural sector are areas that should be looked at more closely. The use of innovative technologies must be increased in order to improve information and efficiency in the use of water. Greenhouse Gas Emissions (GHG) in the agricultural industry can be combatted by adopting Climate Smart Agriculture (CSA), as has been done in Ireland. CSA helps to protect the agricultural sector against the risks of climate change and also maintain the country’s comparative advantages in agriculture.
Water requires planning and investment in prevention and mitigation, both from the public and the private sector. Chile could develop and adopt robust planning tools to improve prioritization for water security, as is the case with the Cutzumala Water System [Sistema Hídrico Cutzumala Mexico]. In addition, the existing systems need to be modernized, and there also needs to be the incorporation of new water sources, such as the reuse of urban waste water or artificial storage systems. Further, the agricultural sector will require inter-sectoral collaboration aimed at increasing public and private investment, with a strong focus on innovation and technological development, replicating, for example, the experience of the Federal Research Institute in Brasil. It is important to invest in renewable energy in order to reduce costs and GHG emissions, along with improved access to finance for CSA initiatives through public-private partnerships, innovative investment tools, and the packaging of financial instruments. The establishment of a fund to support the financing of green hydrogen projects will enhance Chile’s role as a world leader and continue the decarbonizing of other industrial sectors.

If the impacts of climate change are to be addressed among the most vulnerable populations, they will...
require greater support from targeted policies. The effects of climate change mainly affect small and medium farmers, rural communities, and people in highly polluted environments. In order to reduce farmers’ risk to any disaster, parametric insurance coverage must be increased, which has already been implemented in Mexico, Colombia, Brazil, and Uruguay. The isolated population needs to secure the supply of potable water through the design of instruments and the implementation of the new sanitation services policy. Energy poverty must also be combatted through initiatives and programs that provide clean, sustainable, and affordable heating, in order to reduce air pollution and the impacts on the health of the population. In countries such as Ireland, Germany, and Poland, many clean heating programs include energy efficiency measures. In the generation of inclusive policies, consideration must be given to a participatory, comprehensive and transparent model that is aligned with sustainable development and is low carbon.

A proper fight against climate change in public and private debate requires better coordination among actors and an updated institutional framework. In the case of water, the creation and strengthening of the Undersecretariat for Water Resources is required, which will bring together all the agencies related to this issue. Similarly, the establishment of a coordination unit for innovation within the Undersecretariat of Agriculture is recommended, in order to reduce the spread among the agencies of the Ministry of Agriculture and avoid duplication in the development of climate-smart agriculture.

**LINKING THE PIECES FOR DEVELOPMENT**

Chile’s historic moment is an opportunity to create an inclusive and sustainable country that meets the population’s expectations for its future. This implies risks that the new government will have to face, particularly with respect to how to reduce fiscal stimuli without jeopardizing the welfare of the vulnerable population. Creating a framework for greater equity, inclusiveness, and environmental sustainability, while preserving a sound macroeconomic environment and restoring long-term growth, will be critical.

How the pieces of Chile’s development puzzle fit together will depend on all actors in Chilean society. The policies mentioned in these notes can only be successfully implemented in an environment of stability and economic growth, which is necessary for the support of job creation, increased tax revenues, and a relentless pursuit of efficiency in both the private and public sectors. The improvement of public services is essential to create access to opportunities throughout Chile. Likewise, growth will not be possible in the medium and long term without a focus on productivity, climate change, and decarbonization. And so the pieces for development continue to be intertwined.