

BOX I.2:

Prospects for investment in large-scale projects

The outlook for investment in large-scale projects for this and the next few years has been rising, driven by the mining and energy sectors. This box reviews the available data sources on investment projects and discusses the implications for gross fixed capital formation (GFCF) projections, based on historical dynamics and the characteristics of current projects.

Investments surveys and connection with GFCF

A first source of information is the Capital Goods Corporation (CBC) survey. This survey considers projects with capital expenditures of more than US\$5 million, usually concentrated in sectors such as mining, energy and real estate¹/, and defined timelines spanning from the basic engineering stage to construction²/. Historically, investment surveyed represents between 20 and 25% of GFCF, and shows high correlation with the annual evolution of the latter (Figure I.23).

FIGURE I.23

Investment according to the CBC survey and GFCF (*) (billions of dollars, annual series)



(*) The investment amount from the CBC survey corresponds to the latest available report, which is published in the fourth quarter of the following year. For 2024 and 2025, the survey from the first quarter of 2025 is used. Sources: Central Bank of Chile and CBC.

The latest CBC survey, corresponding to the first quarter of this year, recorded an investment estimate of US\$63 billion for the five-year period 2024-2028. This is an increase of US\$10 billion with respect to the survey for the end of 2024. As a percentage, this increase —19%— significantly exceeds (by three standard deviations) the historical average of revisions between the fourth quarter of one year and the first quarter of the next, which was 2% between 2002 and 2024. As has been the case since 2023, the upward revisions were mainly explained by the mining and energy sectors (Figure I.24a).

¹/ For the real estate sector, investment amounts equal to or greater than US\$15 million are considered.

²/ In addition, the CBC registry generally includes projects with an environmental presentation in the System of Environmental Impact Assessment (SEIA), most of them with approval of the Environmental Qualification Resolution. If no environmental presentation is made, projects are registered if they come from information provided directly by the firms, the CBC contact network, or from a verifiable and reliable source.



Another source of information is the survey of projects undergoing the process of environmental qualification registered by the System of Environmental Impact Assessment (SEIA)³/. This source indicates that the total number of projects under evaluation amount to nearly US\$110 billion, of which around US\$75 billion were entered and admitted during the last year, a record high since 2012 (Figure I.24b). Around two thirds correspond to the energy sector, where a large proportion is related to green hydrogen (H2V) projects, whose weight in the CBC registry is more limited, but growing.

Projects' characteristics and historical dynamics

As for the projects' characteristics, those in the mining sector are focused on extending the useful life of existing deposits, desalination plants and site maintenance services. Thus, the higher investment would contribute to reduce costs and maintain the mining production capacity, so the latter would not be significantly expanded (Box I.1 in September 2024 IPOM).

FIGURE I.24

(a) CBC: Evolution of five-year amounts (1) (billions of dollars; number of projects, seasonally adjusted series)



(b) SEIA: Evolution of amounts submitted (2)



(1) X13-ARIMA is used for seasonal adjustment. Others includes forestry, manufacturing, public works, ports and technology sectors. (2) Yearly moving sum of projects submitted and admitted to the SEIA. For each quarter, the amounts admitted, qualified and awaiting qualification are considered. Others includes the agricultural, equipment, forestry, transportation infrastructure, hydraulic and port, fishing and environmental sanitation sectors.

Sources: Central Bank of Chile, CBC and Environmental Assessment Service (SEA).

In the energy sector, there is a growing momentum for energy storage and transmission projects, contrasting with somewhat lower prospects for upstream investment. This is so because of growing surpluses of renewable energy generation, which drive incentives to invest in storage, as well as in transmission and distribution networks. Meanwhile H2V projects focus on hydrogen production through water electrolysis with wind or solar energy and its conversion to ammonia for export using ports as logistics centers.

³/ Large-scale investment projects must have the approval of a series of environmental permits, in order to subsequently or simultaneously process the approval of other sectoral permits. For details on the investment cycle and how it relates to the flows entered into the SEIA, see <u>Claro et al. (2025</u>).



There are currently 13 H2V projects in the SEIA, which are valued at US\$42 billion. Of these, three projects account for 90% of the total volume. These mega-projects are of high complexity, with several stages and subject to various environmental and sectoral permits. A review of the international experience shows that the estimated duration for the development of H2V projects is usually more than five years from their announcement. This considers one to two years in the stages of pre-investment and formalities, and three to four years for construction. To date, the three megaprojects have been under review in the SEIA for between one and ten months.

Locally, experience with projects of this nature is limited. On average, other energy projects that obtained their Environmental Qualification Resolution during 2024 took 30 months to complete this process. To this must be added the time required to obtain sectoral permits, which lasts an average of 17 months for the most complex projects (Claro et al., 2025). In any case, there is a high degree of heterogeneity in these timelines, and it cannot be ruled out that the full processing may take longer⁴/.

In terms of the probability of completion, the projects that enter the CBC registry tend to reach terminal stages. In mining and energy, for example, the proportion of completed projects was around 90% of all those entered since 2015 (Figure I.25a). However, the proportion approving environmental processing is lower, with approval rates of 67% and 62% in the mining and energy sectors, respectively, between 2011 and 2020 (Figure I.25b). Finally, in sectoral processing, the approval rate between 2018 and 2022 for the most complex permits was around 60% (Claro et al., 2025).

FIGURE I.25

(a) CBC: Removal status of the projects, 2015-2025 (1) (percent of submitted projects)



(b) SEIA: Approval rate, 2011-2020 (2) (percent of billions of dollars)

(1) Projects are removed from the survey once completed, but they may also be withdrawn in advance. The estimate considers the stage the project was in the last time it appeared in the survey. The estimate includes data up to the first quarter of 2025.(2) Estimation based on the total flow of submitted, accepted, and qualified projects. The 'not approved' category includes rejected, withdrawn, expired projects, among others.

Sources: Central Bank of Chile, CBC and SEA.

⁴/ For example, according to information from the National Commission for Evaluation and Productivity, a mining project that includes hydraulic works can take around 70 months to process its environmental impact study and sectoral permits, while a port construction project can take around 50 months.



Implications for forecasting

The evidence presented suggests a high probability that the greater investment amounts in large projects foreseen in the CBC survey will materialize in GFCF. Thus, these projects, mainly mining and energy —which respond to a large extent to long-term structural factors— contribute to increase the GFCF projection in the central scenario of this IPoM, through an additional expansion of mining investment and a recovery of the non-mining component. Additionally, there is high potential for an increase in investment as a result of projects in the pipeline, mainly linked to the energy transition and H2V. However, given the high complexity of these projects and the time involved, the probability of materializing in the two-year projection horizon is lower, so they are not considered for the central scenario forecasts.