

Policies for sustainable productive development and economic growth

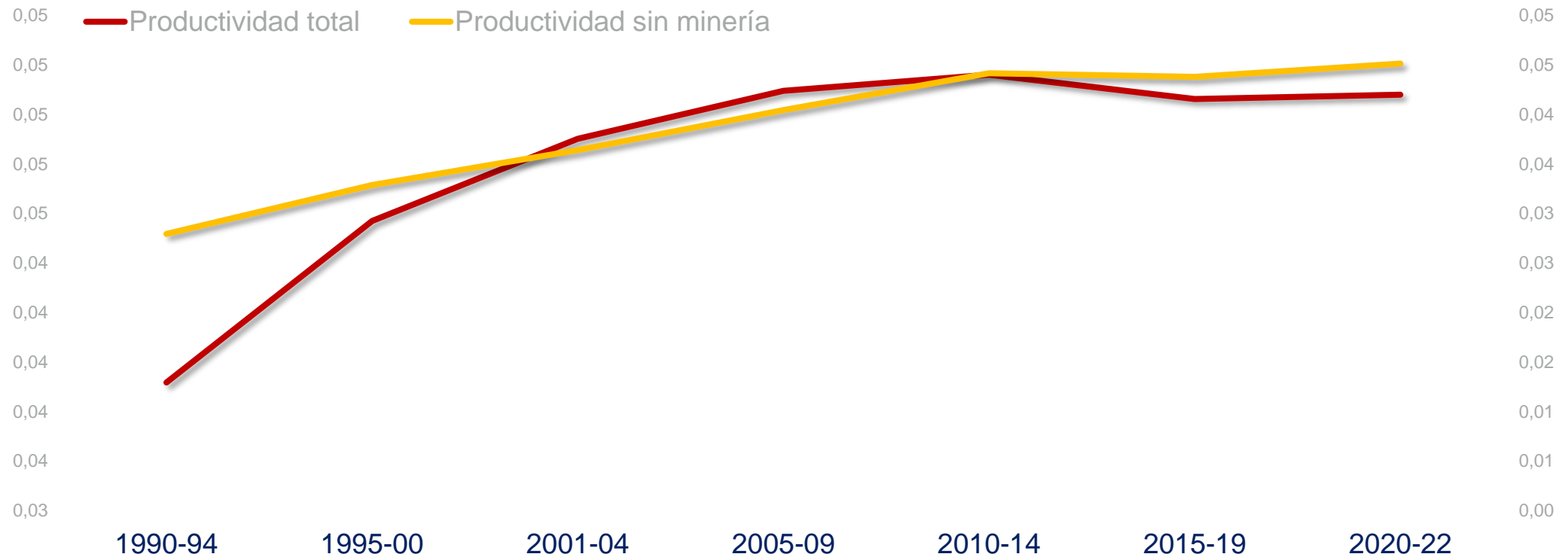
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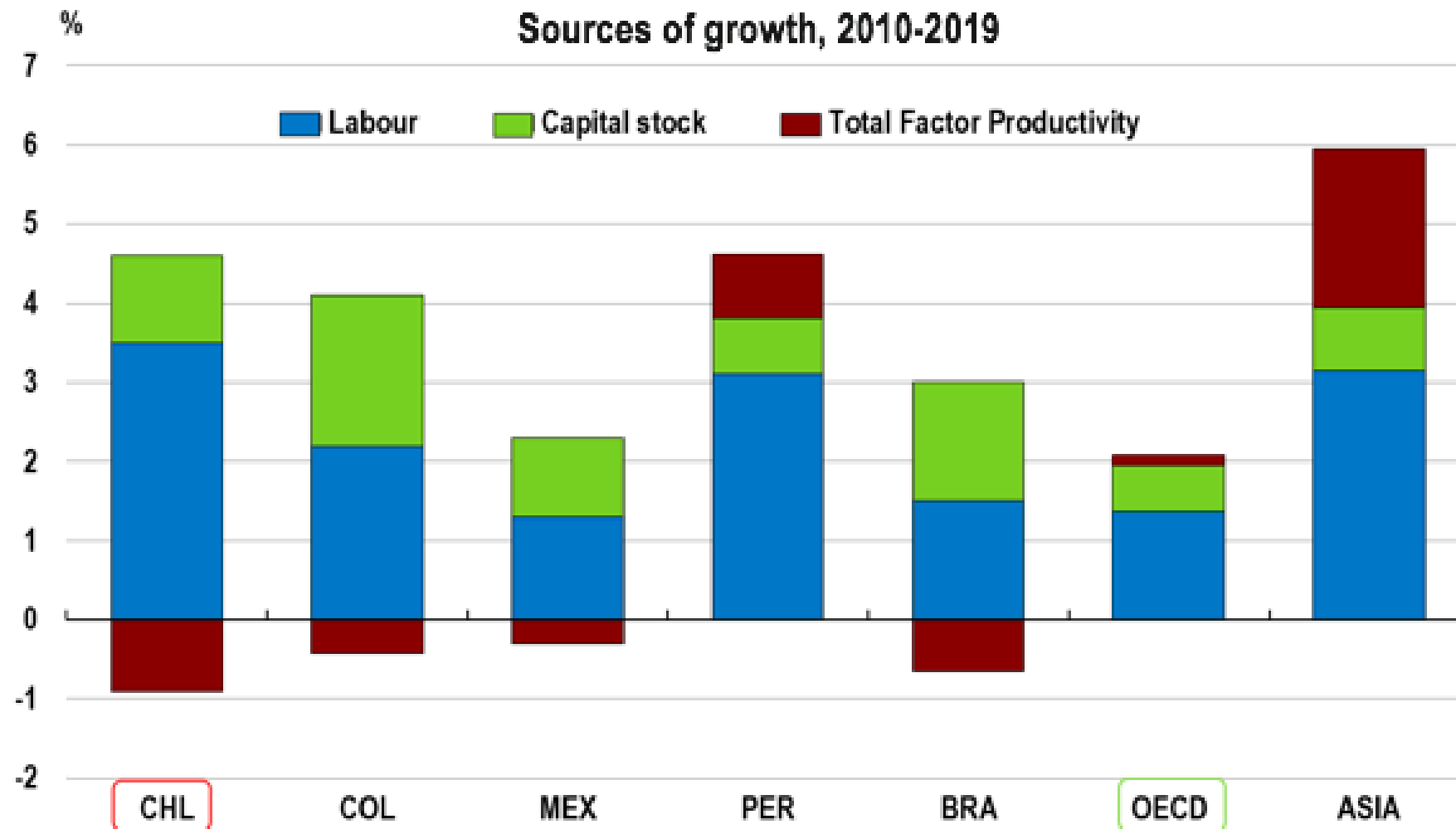
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Declining productivity growth in Chile

El estancamiento de la productividad en Chile





Source: OECD Economic Survey of Chile 2022. Conference Board; Feenstra, Robert C., Robert Inklaar and Marcel P. Timmer (2015), "The Next Generation of the Penn World Table" American Economic Review,

(not only) Our challenges



Policies for sustainable productive development and growth, three examples:

1. New budget program “Sustainable Productive Development”
2. Strategic industries
3. Sectoral permits structural reform



New budget program: Sustainable Productive Development

- Increase in science, technology and innovation spending focused on environmental challenges (simultaneously increase economic and environmental outcomes).
- Enabling investments for the development of new or growing industries associated to the energy transition (GH2, lithium).
 - Emphasis on development upstream and downstream linkages, and opportunities for innovation and technological development (eg new hydrogen applications to decarbonise mining).

Green hydrogen strategy as a State policy

2025

National Green Hydrogen Strategy



Leading investment of green hydrogen in Latin America



Electrolysis capacity under construction and operation



Production in at least two hydrogen districts



Leading global exporter of green hydrogen and its derivatives



The cheapest green hydrogen on the planet



Leading global producer of green hydrogen by electrolysis

2030

2050

GH2 and derivatives industry in Chile (BUSD)



■ Domestic applications
■ Exports

We added new emphases on

- Opportunities for innovation.
- Upstream and downstream linkages.
- Systemic and strategic approach to infrastructure.

**** Strong public-private collaboration key for success.**

More than 40 projects under development

GH2 Valley

- Pre-fid
- Development
- Operation

1 AES "Green Ammonia"
NH3 for export
 AES + international partner
 800MW RE

2 HyEx
NH3 for local use and export
 Engie, Enaex
 850 MW (RE)

7 ACH – MRP Project
NH3 for export
 Maisntream, Aker Clean Hydrogen
 3,000 MW (hybrid)

3 Paracelsus
Power-to-Mobility
 Humboldt H2V, Mejillones Port
 Pilot: 550 H2 ton/year

9 Quintero Bay H2 Hub
Power-to-X
 GNL Quintero, Enagas, Acciona
 10 MW (RE)

10 Hypro Aconcagua
Power-to-Gas
 Linde
 20 MW RE

15 HNH Energy
NH3 for export
 Austria Energy, Okowind, CIP
 1,800 MW (wind)

11 H2 for Forklifts in retail
Power-to-mobility
 Engie, Walmart
 1 MW (RE)

19 Haru Oni
Highly Innovative Fuels (HIF)
 AME, Enel, ENAP, Porsche y Siemens Energy
 Pilot: 131 m³ e-gasoline/year

20 Magellanic Winds
NH3 for export
 RWE
 550 MW (Ez)

16 H2 Magallanes
NH3 for export
 Total EREN
 10,000MW(wind)

21 Gente Grande
NH3 for export
 TEG, Haura Energy
 > 1,000 MW(wind)



6 Hydra
R+D project to design a H2 powertrain
 Engie, CSIRO, Mining3, Corfo
 Pilot: 1 mining truck

5 Pauna Greener Future
NH3 for export
 Statkraft
 671 MW (PV)

4 H2 Solar Project
Power-to-Mobility
 Air Liquide, Atamostec, CEA Liten
 Pilot: 1-3 FC buses

8 AMER project
E-Methanol
 Air Liquide
 80 MW RE

13 Green Steel project
H2 for DRI
 CAP Acero, Paul Wurth
Las Tortolas project
Power-to-mobility
 Anglo American
 186 kW

14 HDF Project
Power to Power
 Hydrogene de France
 36 MW (wind)

17 Faro del Sur
Hydrogen
 ENEL Green Power
 240 MW (wind)

18 Llaquedona
NH3 for export
 Sociedad de Inversiones Albatros, Alfanar, ENAP
 1,159 MW (wind)

Note: Project's location only referential. Developers highlighted in turquoise.
Source: Ministry of Energy.

Some of the key milestones achieved and in progress

H2 Facility CORFO

~1000 MUSD

Agreements with IDB, WB, KfW and BEI to allow leverage for the private sector

Ventana al Futuro

Fast-track for GH2 projects

The Ministry of National Assets authorized the first concession to produce GH2 (many others are coming this year)

Magallanes Green Hydrogen Regional Transformation

Private-public platform

To identify and validate initiatives required for the development of the local industry in a sustainable and inclusive way

Environmental Impact Assessment System

Hydrogen regulation roadmap

Publish documents aimed at developing criteria applicable to GH2 projects

Law Reform

Regulatory institution

A comprehensive reform incorporating hydrogen production within the legal typologies for admission to the SEIA will be presented by the end of 2023



**NATIONAL
LITHIUM
STRATEGY**

For Oils and for people

Objectives of our strategy

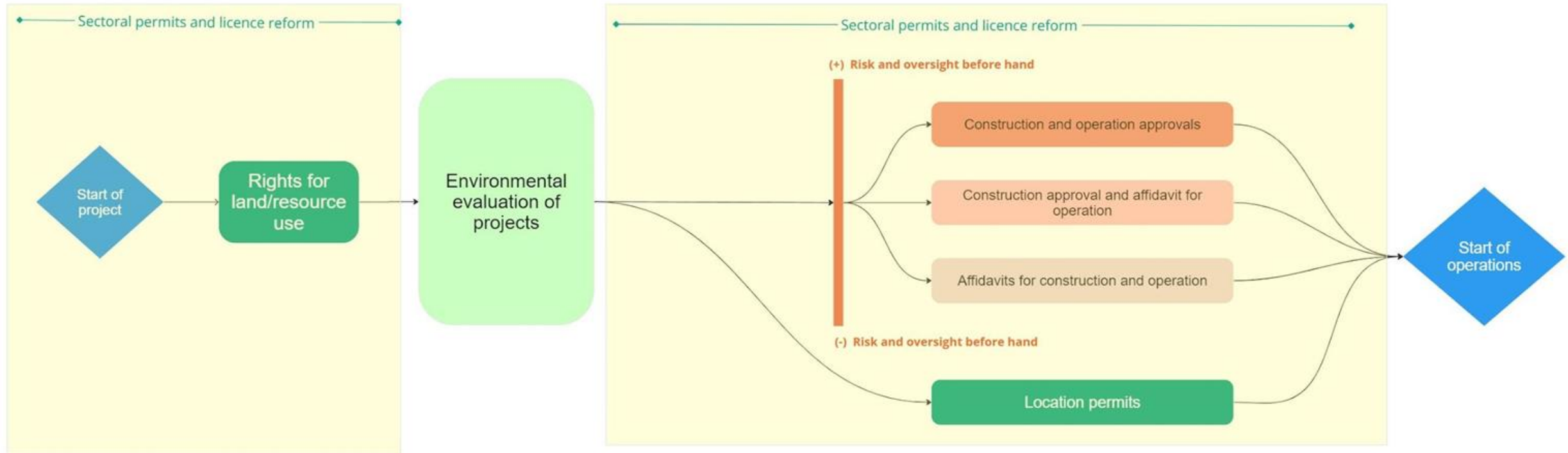
1. Maximise fiscal revenue

2. Protect the environment and communities

3. Promote economic development

- Reinvest revenues in R&D, including public research centre and private projects.
- New lithium extraction projects.
- New industrial projects along the lithium value chain (eg BYD cathode materials projects).

Sectoral permits structural reform



- **Governance for sectorial permits and licenses**, following OECD standards
- Lower risks projects will no longer require some permits: **different tracks according to risk level**.
- Set a **timeframe for all procedures** (60% of all permits do not have it).
- Digitalize and integrate all permits and licenses in a **digital one-stop shop**, following the once-only principle
- We will introduce **incentives to speed up the process**

Ministry of Economy, Development & Tourism

