

IMD

WORLD  
ECONOMIC  
FORUM

# Small Markets, Global Winners: Pathways to Competitive Industries Beyond Trade Distortions

WHITE PAPER  
OCTOBER 2026



# Contents

|                                                    |    |
|----------------------------------------------------|----|
| Foreword                                           | 3  |
| Executive summary                                  | 4  |
| Introduction                                       | 5  |
| 1 Indonesia: Electric vehicles value chain         | 7  |
| 2 Peru: High-value agro-exports                    | 10 |
| 3 Costa Rica: Precision manufacturing and services | 13 |
| 4 Chile: Aquaculture                               | 16 |
| 5 Viet Nam: Electronics and IT services            | 19 |
| Conclusion                                         | 22 |
| Contributors                                       | 24 |
| Endnotes                                           | 26 |

## Disclaimer

This document is published by the World Economic Forum as a contribution to a project, insight area or interaction. The findings, interpretations and conclusions expressed herein are a result of a collaborative process facilitated and endorsed by the World Economic Forum but whose results do not necessarily represent the views of the World Economic Forum, nor the entirety of its Members, Partners or other stakeholders.

Generative AI tools were used to support aspects of drafting and/or analysis. All outputs were independently reviewed, verified and approved by the authors.

© 2026 World Economic Forum. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, including photocopying and recording, or by any information storage and retrieval system.

# Foreword



**Stefan Michel**  
Dean of Faculty and Research,  
IMD Business School



**Sean Doherty**  
Head, International Trade  
and Investment; Member  
of the Executive Committee,  
World Economic Forum

The odds can appear to be stacked against smaller economies. In 2025, less than 40% of the world's foreign direct investment (FDI) has gone to the more than 170 economies outside the G20.<sup>1</sup> Yet the five case studies in this paper tell a more hopeful story: small and medium-sized economies are home to firms and industries that compete and win on the world stage. The question is not whether this can be done, but how.

For most economies, the familiar playbook offers few answers. The current revival of industrial policy is dominated by debates suited to large markets and deep public purses: tariffs, subsidies and flagship programmes. Most nations have neither the domestic scale nor the fiscal room to compete on those terms. What they need are ways to build competitive firms without relying on protection or lavish spending – by focusing not on what businesses need to be “protected from” but on what they need to become competitive in the first place and acting on those needs over many years.

The five case studies illustrate what this can look like in practice. Together, they show how competitiveness can be built step by step, as firms discover what works, and governments engage seriously with the constraints they face. This paper is itself a product of that kind of engagement: a partnership between a leading business school and a global convener, drawing on the testimony of those who lived these stories.

These questions are increasingly relevant to the wider debate on how trade, investment and

industrial policy are evolving in a more fragmented global economy. They also reflect themes at the heart of the World Economic Forum's work on trade, geopolitics and industrial policy: how economies can strengthen competitiveness while remaining connected to global markets, and how businesses and governments can navigate the changing conditions shaping investment and global production. The case studies in this paper bring a valuable perspective to that discussion by focusing on the practical foundations of competitiveness rather than on the scale of government support.

The same perspective is relevant to the Forum's work on STAR FDI,<sup>2</sup> which looks at how foreign investment can create lasting economic value. For smaller economies, the challenge is not simply to attract more investment but to create the conditions in which investment can strengthen capabilities, deepen local value chains and contribute to internationally competitive industries. The experiences examined here offer practical insights into how those conditions can be built over time.

This paper is a product of the World Economic Forum's Global Future Council on International Trade and Investment, bringing together public- and private-sector perspectives on the challenges and opportunities facing smaller economies. We offer it not as a blueprint, but as a starting point for further dialogue and collaboration among the leaders whose sustained engagement, as these case studies show, is essential to building competitive industries. We hope the insights captured here can help inform and amplify that dialogue.

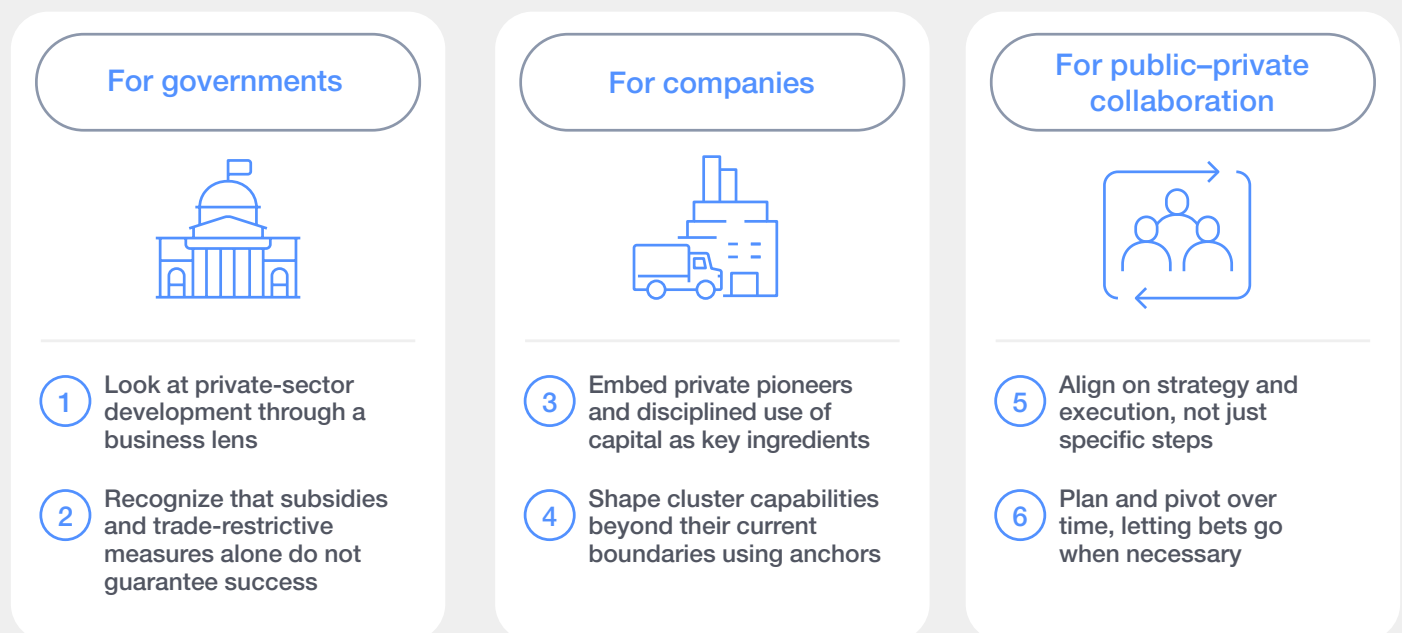
# Executive summary

Six principles guide emerging markets in the development of export industries.

This paper examines five illustrative case studies of successful industrial development in emerging markets. There is a consistent pattern across all five: competitiveness was built through deliberate, sequenced decisions by firms discovering what worked in their specific context, supported by public policy actions that addressed the binding constraints those firms could not overcome on their own.

Not every blueprint, strategy or tool in each case study can be adapted elsewhere. Even so, the success stories described here provide **inspiration** for policy-makers and private-sector decision-makers in emerging markets looking to build winning export industries. Business has agency throughout. While success is not assured, the paper's authors have identified six guiding principles for decision-makers (see Figure 1).

FIGURE 1 Six guiding principles for decision-makers to develop export industries in emerging markets



Source: World Economic Forum

**The focus is not on headline-grabbing, one-off industrial policy measures but on broader structural shifts.** Because tariffs, localization measures and corporate subsidies rarely address the underlying constraints facing ambitious private firms, none can substitute for sustained engagement and mutual understanding between public bodies and business. Rather, there needs to be further examination of the steps firms and

public bodies must take over many years if local advantage is to be converted into enduring success on international markets. This paper is designed to **kick-start a conversation** among public and private leaders, putting forward an alternative approach that better meets the lived realities facing the vast majority of nations, their governments and corporate executives.

# Introduction

## There is no one-size-fits-all approach to industrial strategy.

Industrial policy is back in vogue. Governments that traditionally eschewed the selective intervention that industrial policy entails have embraced it, joining many emerging-market counterparts that never gave up attempts to develop successful firms and sectors. Governments implement twice as many industrial policy measures today than they did in 2020.<sup>3</sup> Security and geopolitical considerations now feature prominently among the reasons given by governments for taking measures to favour particular corporates, along with the long-standing goals of promoting the energy transition and competitiveness.

The upshot is that, even if World Trade Organization (WTO) members agree to “policy space” that would relax current limits on import taxes and multilateral rules on subsidies, the vast majority of governments could not make effective use of it. What these governments really need are formulas for creating competitive firms and sectors that do not rely on raising import barriers or on big subsidy awards. Evidence from the case studies suggests that alternative approaches are available, but they involve the state developing a thorough understanding of private-sector circumstances and the means to engage meaningfully with firms.

With announced greenfield foreign direct investment (FDI) reaching nearly \$1.4 trillion in 2025, factories are on the move. Unfortunately, in every year since 2021, no more than a third of such FDI was received by economies outside the G20.<sup>4</sup> In fact, during 2024 and 2025, only 40% of the world's FDI inflows were in the 170-plus economies that are not part of the G20 club.<sup>5</sup> The odds are stacked against the smaller economies, but it would be a mistake to infer that only large markets matter. As the five case studies in this paper show, small and medium-sized economies house many internationally competitive firms and sectors. The key question is how to grow them.

By and large, the answer does not lie in the growing literature on industrial policy in behemoth economies. The essence of industrial policy is to alter market outcomes by changing the decisions of corporate executives. However, all too often firms are implicitly assumed to automatically respond to whatever incentives industrial policy instruments create.<sup>6</sup> Rarely do officials and those who advise them ask whether industrial policy actions were decisive in the development of internationally competitive firms over the medium to longer term. Nice to have is not the same as must have. This distinction is critical.

For many SMEs, commonplace musings on industrial policy are largely irrelevant. There are at least two cross-cutting factors that any serious private-sector development policy needs to take into account in these economies. First, most governments simply do not collect enough taxes to afford big-ticket industrial policy schemes. One example is the US Chips Act. A total of \$52.7 billion was appropriated by the US Congress for this industrial policy scheme.<sup>7</sup> The latest annual data from the World Bank reveals that 109 countries collected less than that amount in total from all sources of revenue.<sup>8</sup> These economies simply cannot afford to engage in the subsidy races witnessed from time to time among G20 economies. More generally, state revenues are scarce in most smaller economies. In these circumstances downplaying the opportunity cost of corporate subsidies is indefensible.

The other fundamental constraint facing small and medium-sized economies is that they simply do not import enough of most products to be able to deflect (via tariffs and other import restrictions) sufficient sales to local firms to incentivize their growth. There are many reasons why import substitution strategies can go wrong, but the point here is different: a necessary condition for those strategies to stand a chance of working is rarely met; namely, sizable domestic expenditure on foreign product lines. For example, of the 4,618 products that Kenya imported in 2025, only nine involved foreign purchases worth more than \$250 million.<sup>9</sup>

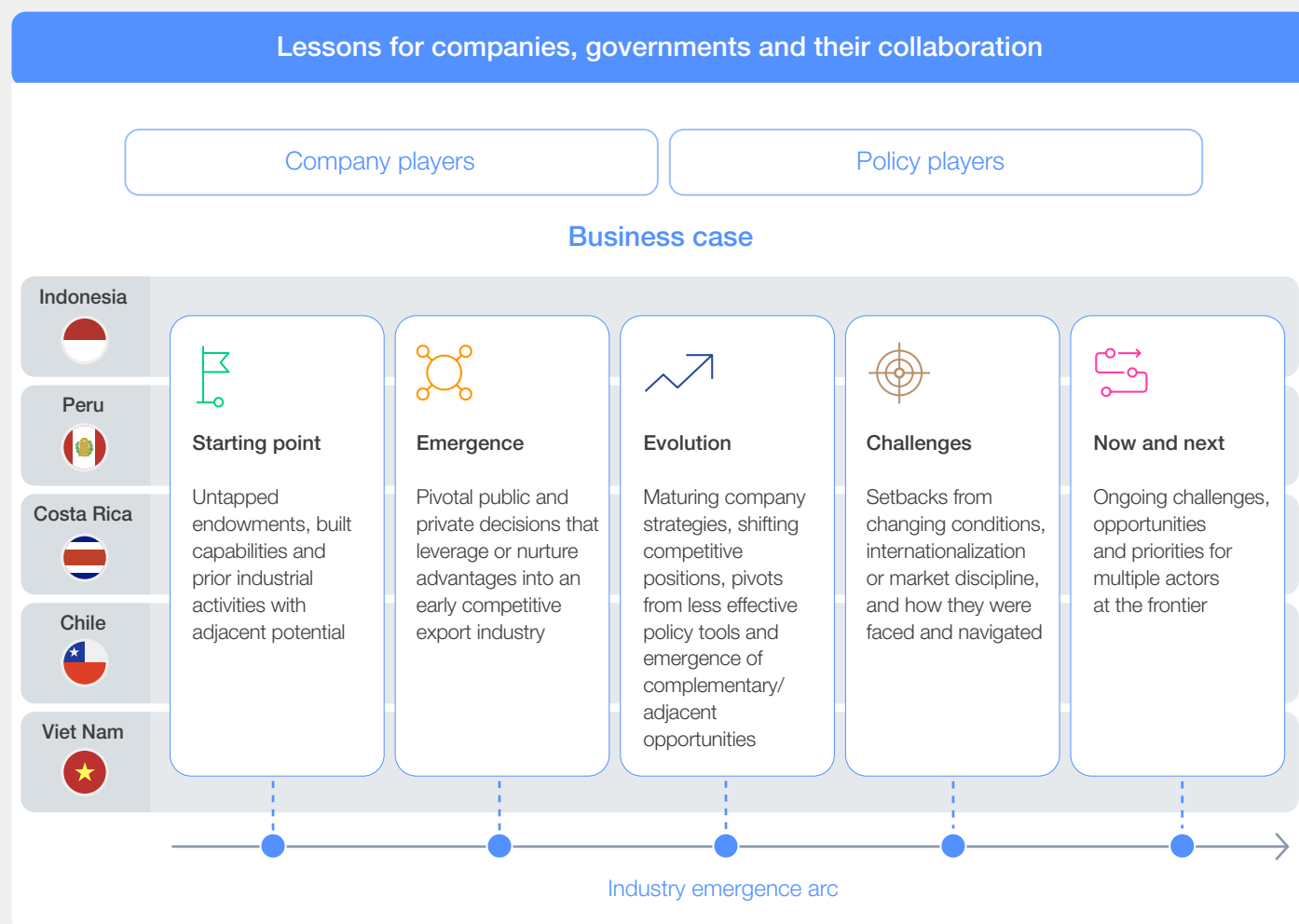
The argument advanced in this paper is not that trade and subsidy policy interventions did not play a role in the development of the five success stories outlined in the sections that follow; rather, the argument is that raising import barriers and offering large, firm-specific corporate subsidies were not central to the formula for success. This is just as well, for the preconditions for these trade-distorting policy interventions to work or to be financed are not present in the vast majority of nations.

This paper examines five such case studies, which revealed a consistent pattern. Competitiveness was built through deliberate, sequenced decisions by firms discovering what worked in their specific context, supported by public policy actions that addressed the binding constraints those firms could not overcome on their own. There are elements here of what economists Ricardo Hausmann and Dani Rodrik call “self-discovery” and what academics Tarun Khanna and Krishna Palepu describe as filling “institutional voids”.<sup>10,11</sup> But those perspectives

do not adequately convey the lengthy time dimension – that is, what it took to build successful internationally competitive private firms **over many**

**years**. The misplaced focus of much contemporary industrial policy narrative is on the various flagship programmes that exist.

FIGURE 2 Government–company collaboration in building industries



Source: World Economic Forum

In each case study, public and private players provided first-hand testimony, so that the accounts that follow reveal the **multi-actor** reality behind decades-long processes. These case studies show how public and private action and the interaction between them are the fabric of industrial development. In none of these case studies did success centre on raising import barriers and awarding large subsidies. Rather, it is specific actions by public- and private-sector actors working alongside structural policies that provide the basis for competitive advantage long before an industry emerges, as is the case with education provision in Costa Rica or large-scale irrigation in Peru.

Central to the account is whether there is a **business case** for an emergent commercial activity. The test is not whether a business

model is feasible but whether it is attractive to the businesses themselves or their investors. “Business case” means the demonstrated commercial and financial rationale for a specific product, service or business model tested in demanding market conditions. For the firm, having a strong case means proving commercial viability and sufficient profitability. For investors, it means having an adequate risk-adjusted return on the capital committed. The **constraints and incentives** faced by business decision-makers are central to accounts provided here, and so are the steps taken by some governments to **learn** about those private-sector constraints and incentives and to develop creative responses. Textbook understanding of firm constraints and incentives is insufficient. Engagement is vital.

1

# Indonesia: Electric vehicles value chain

Incentives created that align with openness fare better than export curbs upstream.





## Starting point

By 2020, Indonesia was approaching the electric vehicle value chain as the world's largest nickel producer, nickel being a mineral vital for most high-performance electric batteries. It was also the largest vehicle market in South-East Asia.<sup>12</sup> Raw commodities including nickel ore had long accounted for more than half of national exports, a dependence successive governments had sought to break by moving processing onshore.<sup>13</sup> A net oil importer since 2003, the country was also

spending heavily on fuel subsidies, while urban pollution in the megacity of Jakarta constituted a growing public health and policy issue.<sup>14</sup> Building an integrated electric vehicle (EV) supply chain showed promise as a method of tackling these issues, while creating a new wave of jobs. In fact, Indonesia had decades of internal-combustion assembly experience, largely under Japanese brands, but this did not necessarily carry over into EV and battery manufacturing know-how.<sup>15</sup>



## Emergence

On the EV adoption and manufacturing side, Presidential Regulation No. 55/2019 had named EV development a national priority. However, with the COVID-19 pandemic stalling progress, by 2021 only around 700 electric cars had been sold in a market of approximately 1 million.<sup>16</sup> The few models available catered to higher-end consumers and were priced far above the purchasing power of the mass market.<sup>17</sup> A government team brought in from 2022 to lead energy transition and mobility policy applied a private-sector perspective that made a difference. It treated the problem as a product-market-fit question, focusing on attracting the right vehicle models to drive adoption.

The first demand incentives cut value-added tax (VAT) from 11% to 1% and removed the luxury tax on locally assembled electric cars, with support of IDR 7 million (\$400) for electric motorcycles. To justify these extraordinary measures, the EV policy team made the fiscal case on fuel subsidy savings.<sup>18</sup> Demand support alone, however,

did not move EV companies such as Hyundai, BYD or Wuling to invest in local manufacturing capacity. Adoption was too low early on to justify the multiyear, multibillion-dollar capital expenditure (CapEx) commitments. The key to breaking the manufacturing investment impasse was an incentive structure that incorporated company strategy and decision-making logic.

For 2024 and 2025, qualifying manufacturers were offered the opportunity to import fully built-up EVs free of import duty and luxury tax. In exchange, they made a binding commitment to produce the same volume locally in 2026 and 2027, secured by a bank guarantee the state could call on if production fell short of the commitment.<sup>19</sup> In this way, companies had an incentive to enter the market and secure adoption via imports. The government, in turn, let each firm reveal its own confidence through the volume it chose to import and commit to build locally.



## Evolution

Companies responded to this incentive, which they had helped shape through negotiations. For instance, BYD used the window to build its brand and committed to investing in a plant in Subang, West Java, to manufacture ~150,000 vehicles a year.<sup>20</sup> The design secured multibillion-dollar commitments and tied them to local-content thresholds rising from 40% towards 60% and then 80%, paired with technology transfer and local training requirements. The rule thus functioned as a pathway to deepen capability and value added over time rather than a static barrier. Battery-electric car sales climbed to about 18% of total sales in 2025 as incentives began to wind down.<sup>21</sup>

Upstream, the logic pursued was capturing value from nickel resources rather than exporting it raw, a priority championed by President Joko Widodo.<sup>22</sup> In 2014, Indonesia had already attempted to introduce a raw nickel export ban to promote investment in local

smelting capacity. However, the ban alone failed to increase investment, led to a steep price spike and was relaxed after 2017 amid falling foreign revenue.<sup>23</sup>

From 2020, the government banned exports of unprocessed ore and required firms that wanted Indonesian nickel to process it locally.<sup>24</sup> This time, the ban was one element of a package that combined trade, industrial and investment policy. Industrial estates were sited next to mining concessions in Sulawesi and Halmahera to avoid transporting ore that contains less than 2% nickel, as investor-funded infrastructure and tax holidays were offered flexibly, first to reward smelter capacity and later to transition into battery-grade high-pressure acid leaching (HPAL) processing.<sup>25</sup> At the smelting stage the measure worked, drawing substantial investment into processing, much of it from Chinese companies that had previously shipped the ore to China.



## Challenges

The link from processed nickel to battery manufacturing proved harder. Cathode and anode know-how was absent, other inputs such as lithium and graphite were lacking and scale and capability were concentrated in other hubs, mainly China.<sup>26</sup> To anchor national participation and technology transfer, the government created the Indonesia Battery Corporation in 2021 from four state-owned firms and required foreign battery companies to partner with it.<sup>27</sup> A cell plant in Karawang – a joint

venture between Hyundai, LG Energy Solution and the corporation – opened in 2024. However, LG Energy Solution withdrew in 2025 from the larger “Grand Package” partnership while keeping the Karawang venture.<sup>28</sup> Meanwhile, the rise of nickel-free LFP (lithium iron phosphate) batteries raised a question over how much traction nickel resources can generate while established Indonesian battery operations started producing LFP cathodes.<sup>29</sup>



## Now and next

Today Indonesia sits in mid-transition. On the battery side, the early component ecosystem is largely in place, spanning anode, precursor and both nickel and LFP cathode production. Meanwhile, broad-based adoption of EV four- and two-wheelers, deployment of charging infrastructure

and broader and sustained EV manufacturing commitments remain questions for the unfolding industrial development story. So do the attractiveness of the country as a hub for battery manufacturing at scale, and effective technology and capability transfer over the coming years.

### Takeaways

**Incentives were designed in alignment with company decision logic. Timebound import benefits** tied to local production commitments secured by bank guarantees aligned firm incentives and contained fiscal outlay. Structuring **conditionality as a pathway** converted one-off incentives into capability building over time. Upstream, the export ban incentivized the first stage of processing investment, but the harder battery stage shows that **capability and input gaps** limit how much a resource endowment can be “downstreamed”.

2

# Peru: High-value agro-exports

In Peru, pioneering entrepreneurship supported by state-built infrastructure created a high-value-added primary industry.





## Starting point

Peru's booming agro-export industry developed during the 1990s along the country's arid but highly fertile coastal region, where irrigation has enabled intensive agriculture. Crucially, Peru's coast is endowed with exceptional climatic conditions, such as stable temperatures and

regular precipitation. The latter allows not just for counter-seasonal production but for year-round production of highly valuable horticultural products.<sup>30</sup> But rich water sources from the Andes reach the soils of the coast only in specific valleys and leave vast amounts of coastal land arid.



## Emergence

Water flows needed to be redirected through large-scale irrigation infrastructure, such as the Chavimochic and Olmos projects in the north, which expanded the amount of land available for large-scale farming.<sup>31</sup> The Agricultural Promotion Law of 2000 established a supportive labour and tax framework for the sector.<sup>32</sup> A growing number of free trade agreements were signed, including with the European Union, United States, China and Japan. The phytosanitary authority (SENASA)

was consistently oriented to opening markets and collaborating with the private sector in complying with demanding food standards in different destination markets.<sup>33</sup> This did not, by itself, mean that agro-export business models would thrive. It did, however, provide the fundamentals that made it feasible to invest.<sup>34</sup> Today's large agro-export champions, such as Danper, Camposol and Viru, were set up at the time to capture these opportunities, each with differentiated models.



## Evolution

Over time, large-scale horticultural firms leveraged scale to integrate vertically and gain control of logistics (cold chain, packing) and downstream market activities (e.g. distribution partnerships or overseas outposts). This reinforced the sector's emerging source of competitive advantage: taking fresh produce to the shelves of northern-hemisphere supermarkets in a year-round and counter-seasonal production window.<sup>35</sup> This allowed the move from cost competition to selling at better prices when other markets were out of season.

Seeking exposure to highly demanding international markets early on was key to the success of this industry. It led companies such as Danper to adapt to the supplier requirements of a handful of strict clients and to take measures to meet US Food and Drug Administration (FDA) and other international phytosanitary standards. Danper also adopted the latest quality control best practices as a pioneer in the country, effectively pulling the sector with

its market access and the example set by its quality excellence.<sup>36</sup> Platforms also used portfolio diversification as a winning strategy, offering one-stop shops for multiple high-value agri-food products combining fresh, frozen and processed formats across multiple crops and markets.<sup>37</sup>

It was in this maturing market that blueberries, the crown jewel of high-value fruits, boomed in Peru. Carlos Gereda,<sup>38</sup> founder of Inka's Berries, sourced open-access blueberry varieties from Chile in 2008–2009. Without subsidies or policy tools focused on private-sector pioneer-led variety development, he arranged a demonstration plot and nursery partnership with Universidad Agraria La Molina, finding that the Biloxi variety was a fit for Peru's conditions. He pitched the crop to agro-export platforms, which had the land, operations and market access needed to scale the crop. Camposol tested and embraced this opportunity, others soon followed and subsequent blueberry growth made Peru the world's number one exporter in less than 10 years.



## Challenges

Socioeconomic development challenges and limited access to growth financing have been persistent barriers for the sector. Danper, for instance, has responded by incorporating a long-running commitment to sustainability, generating financially attractive returns and social impact at the same time, creating jobs while contributing

to the communities it works with through health, education, gender equality, security and small farmer development programmes. This approach, in turn, has opened the door to both concessional funding and mobilization of commercial capital solutions to support the company's growth.<sup>39</sup>

International demand is intense, but niche openings for smaller companies that need to diversify revenue streams (e.g. renting out cold chain capacity in the down-season)<sup>40</sup> and for non-traditional value-chain players are also being created. For example, the global shipping major

Maersk opened a first-of-its-kind integrated cold chain, packing and logistics hub in Olmos. The hub caters to the farm-to-shelf quality imperative for medium-sized producers who cannot invest in their own integrated capacity.<sup>41</sup>



## Now and next

Today, the Peruvian agro-export – and especially the fresh fruit sector – has become a global reference point. Diversified and vertically integrated local platforms such as Danper, Camposol, Machu Picchu Foods or Viru, and foreign investors or international capital-backed ventures such as Chilean Hortifruit, are expanding their production and footprint. Expansion includes sophisticated logistics capabilities (e.g. frozen packing and cold chain) and entry into biogenetics and varietal development (e.g. the Camposol ORIGEN programme).<sup>42</sup>

In this consolidation phase, the role of industrial policy is not secondary, but it is targeted and collaborative in nature. This is reflected in Mesas Ejecutivas, an innovative public-private coordination mechanism championed by former Minister of Production Piero Ghezzi.<sup>43</sup> Going forward, Peru is looking to expand the irrigable land frontier. It also continuously supports market development efforts via free trade agreements (FTAs, recently signed with Indonesia, in negotiation with India) and export promotion (e.g. PromPeru). As genetics and biotechnology become a key source of competitive advantage, the country adds applied science and commercial technology support.

### Takeaways

Peru capitalized a natural endowment to enable winning business models through **targeted public fundamentals** (irrigation and enabling fiscal, trade and sanitary policies). **Vertically integrated and diversified platforms** built durable advantage by serving demanding overseas markets in counter-seasonal windows, pulling standards, suppliers and capital along with them. The blueberry boom shows a model of **pioneer-led product discovery**, where research and development (R&D) partnerships and corporate demand were fundamental.

3

# Costa Rica: Precision manufacturing and services

In Costa Rica, officials and multinational investors are collaborating to shape an advanced capabilities cluster.





## Starting point

In the 1980s and 1990s, and after the import-substitution model collapsed, Costa Rican industrial transformation priorities moved away from subsistence agriculture and low-value

manufacturing, known as *maquila*. These priorities met the momentum of global companies, especially from the United States, looking for offshore manufacturing locations.<sup>44</sup>



## Emergence

US multinational technology company Intel made the decision to locate a semiconductor assembly, testing and packaging plant in Costa Rica in 1996–1998. Intel chose this small Central American nation over Mexico, the front-runner alternative site.<sup>45</sup> In fact, Intel was not the first major anchor to locate in Costa Rica, nor was it the last: for instance, Baxter located a world-class medical-device operation and launched a flagship supplier development programme there in the 1980s.<sup>46</sup>

As documented in contemporary accounts,<sup>47</sup> what moved the needle for Intel was an all-of-government approach with extraordinary commitment from then President Figueres down, moving swiftly to coordinate reforms. This was combined with an investment promotion counterpart, the Costa Rican Coalition for Development Initiatives (CINDE), that understood the business case logic for Intel. Together, these delivered a credible commitment that Intel's operational requirements would be delivered as public goods (tailored technical training, energy, airport cargo, customs, permitting).

Notably, Intel was said to be swayed by the Costa Rican government's refusal to engage in extraordinary measures beyond the already competitive free trade zone (FTZ) regime, levelling the playing field with other investors. Intel was promised and received conditions that were attractive not just for itself but for any comparable company seeking to operate successfully in Costa Rica. Likewise, Intel's involvement with policy-makers to deliver competitive public goods that benefited its own business case, such as co-developing technical training programmes, paved the way for the precision manufacturing cluster to expand.<sup>48</sup>

From that foundation, the government's technical-training institutions the Technological Institute of Costa Rica (ITCR) and the National Learning Institute (INA), together with the wider academic community, deepened sector-specific capabilities in collaboration with arriving firms. Coordination happened through action-oriented working groups in which company decision-makers (general managers, site managers, heads of human resources [HR], regulation and import–export) sat directly with educators and regulators.<sup>49</sup> Moreover, at the beginning of the export-oriented transformation, Costa Rica already had internationally oriented management in the textile *maquila* industry, ready to transfer to localizing industries.<sup>50</sup>

Companies evaluating Costa Rica for site selection also found world-class industrial parks ready to host them, including Coyo Free Zone, ranked in *fDi Intelligence*'s Top 10 globally for six consecutive years (2020–2025). Parks are privately developed and operated and compete for tenants, delivering continually upgraded features (cleanrooms, energy and connectivity redundancy, certifications, on-site classrooms, logistics and transportation), with competition driving specialization by sector.<sup>51</sup> The result is a competition-based industrial strategy: privately operated parks compete for investment, much as Swiss cantons do, within a framework of selective sectoral targeting.<sup>52</sup> These industrial parks are enabled by a globally competitive FTZ regime continuously upgraded in response to firms' evolving requirements. Upgrades include a services-specific index that filters tax-haven applications and a 2020–2021 amendment incentivizing investment outside the metropolitan area.



## Evolution

Pivotal investments made by firms and enabled by a receptive and adaptive investment promotion and policy architecture led Costa Rica's precision manufacturing cluster to develop over time. Most of Costa Rica's FDI over the years has come from reinvestment.<sup>53</sup> In medical devices, a cluster with more than 70 companies today, firms added capabilities incrementally. They moved from lower-risk Class 1 and 2 devices (such as surgical instruments and catheters) to higher-risk Class 3 and 4 devices (implantable and life-sustaining technologies) as confidence in local capabilities

grew, and eventually located global R&D, services and decision-making hubs in Costa Rica, as was the case with Boston Scientific.<sup>54</sup> The accumulated advanced manufacturing capability also supported successful diversification into aerospace and other advanced-manufacturing niches in the 2010s and 2020s.<sup>55</sup>

Throughout these site-selection decisions and footprint evolutions, CINDE has been a constant enabling counterpart. It was designed from the outset to speak to companies as a business case

peer through its private-NGO governance with a private-sector and academic board insulated from electoral cycles.<sup>56</sup> CINDE's pitch has consistently emphasized a high-value niche rather than low cost, and it has built a dedicated aftercare function to promote not just location but continued reinvestment. Engagement happens at the working level, directly with general managers and operational leaders, rather than through industry-wide intermediaries. This enabling and business case orientation, shared by different governments over the years, has allowed Costa Rica to retain a place in companies' evolving global operating models. The conversation has shifted from cost to capability and, in a fragmenting global economy, to securing high-value operations within distributed footprints.<sup>57</sup>

In recent years, the cluster has evolved beyond manufacturing as global operating models have advanced. Services anchors located regional shared-services operations from the early 2000s onwards, and existing manufacturers transitioned as well. This is captured most clearly in Intel's 2014 decision to expand engineering, services and R&D rather than exit when its assembly-and-test line closed.<sup>58</sup> This was, again, enabled by the accompanying, flexible role of policy and investment enablement institutions, from CINDE's business case-oriented and reinvestment focus through adapting incentives and education frameworks to specialized industrial parks.



## Challenges

Challenges remain, especially for locally owned ventures. Costa Rica was a favourable location to launch a global medtech company because of the capabilities present, established credibility and relationships with global clients. For instance, Establishment Labs, a medical device manufacturing company, was founded in 2004, leveraging engineering talent and capabilities from the established cluster. It went all the way to listing on Nasdaq in 2018 and reaching more

than \$160 million in revenue by 2024.<sup>59</sup> However, access to growth capital was a constraint that had to be overcome by seeking access to US capital markets.<sup>60</sup> In fact, local champions remain a minority case: officials point out that fewer than 10% of local firms have integrated into multinational supply chains as direct competitors. Most local champions emerge as spin-outs of multinational alumni rather than ground-up ventures.<sup>61</sup>



## Now and next

Today, the mature advanced manufacturing and services ecosystem in Costa Rica looks at its next phase of evolution amid several generational challenges from the rise of artificial intelligence to

geopolitical fragmentation. It looks to fit the local advantages with the global operating model demands of multinationals and national niche champions.

### Takeaways

Costa Rica built an investment promotion engine with **business case logic, insulated from electoral cycles** and engaging directly with company decision-makers **over decades**. Level-playing-field incentives, a long-standing talent base, deepened through training co-developed with anchor firms, and competing private industrial parks supported operating model expansions. Accumulated **cluster capabilities** carried the economy into adjacent segments such as aerospace and towards high-value services, engineering and R&D.

4

# Chile: Aquaculture

In Chile, aquaculture has transitioned from a demonstrative venture to a globally competitive industry and from transferring in technology to leading the field.





## Starting point

Long before the salmon export boom of the 1980s–2000s, coastal communities in Chiloé and southern Chile already had traditional aquaculture experience in algae, mussels and other bivalves.<sup>62</sup> During the course of the 20th century, scientists, universities, predecessor institutions to the National Service for Fish and Aquaculture (SERNAPESCA by the Spanish acronym) and international cooperation agencies such as the US Peace Corps and the Japan International Cooperation

Agency (JICA) supported this local potential. Japanese cooperation was especially important in training specialized technicians for the sector and transferring know-how in early salmonid and trout-related aquaculture.<sup>63</sup> The first salmonid ranching efforts, however, failed to become a scalable business model, as firms could not guarantee control over the fish that came back after releasing them as juveniles.



## Emergence

In the late 1970s and early 1980s, Chile's free-market reform and policy push for competitive export sectors to diversify into tradable activities beyond copper were directed to poorer regions. Fundación Chile (FCh) was created as an autonomous non-profit platform for industrial development. It was funded through a \$50 million endowment that came out of the settlement between the Chilean state and the International Telephone and Telegraph Corporation (ITT), after the previous nationalization of ITT's Chilean assets.<sup>64</sup>

Fundación Chile (FCh) was conceived as a pioneering platform focused on bringing in technologies and know-how from abroad and nurturing local science-based business opportunities oriented towards leveraging competitive advantages to win in global markets, thus championing a demonstrative venture model. FCh identified opportunities rooted in Chilean national advantage, assembled scientific, technical and commercial talent and capabilities and validated the business case hands on. In its early years, FCh built more than 30 companies in horticulture, forestry and other sectors.<sup>65</sup> While FCh invested its own endowment funds in building

these ventures in the absence of a venture capital (VC) ecosystem at the time, it did not do so with the mentality that it was subsidizing an infant industry. Instead, it had a targeted focus on supporting “self-discovery” and demonstrating that business models were feasible. The aim was to then exit to private-sector owners or be accountable for the ventures' failure.<sup>66</sup>

Salmon emerged as a strong fit from the national advantage perspective, given the conditions in sheltered fjords in southern regions and a counter-seasonal production window for supplying northern hemisphere markets. FCh acquired Domsea Farms, an early US venture, and developed Salmenes Antártica as a vertically integrated operation covering hatcheries, grow-out, feed, fish health, processing and market access.<sup>67</sup> FCh's mandate was not to reinvent the wheel, so it channelled technology transfer from abroad and innovated for local conditions. The demonstrative venture model in this science-based sector required biologists and technical talent to work together with commercial profiles, all with a clear business development mandate.<sup>68</sup>



## Evolution

Salmenes Antártica was sold to the Japanese marine products company Nissui (formerly Nippon Suisan Kaisha) in 1988, providing validation of the salmon aquaculture business model in Chile. The sale unleashed a wave of investment, as local entrepreneurs and global sector leaders expanded production.<sup>69</sup> World demand quickly absorbed competitive Chilean salmon, eventually making salmon one of Chile's largest export categories after copper. In this period, international companies such as Marine Harvest (now Mowi) and Cermaq (under Japanese ownership) as well as local champions (such as Aquachile) grew into some of the world's

largest salmon companies. Local production conditions enabled the specialization in niche species such as coho or Pacific salmon, for which Chile supplies more than 90% of world demand.<sup>70</sup>

This rapid growth phase also gave way to the emergence of a cluster of specialized suppliers in feed, biohealth, processing, logistics and cold chain.<sup>71</sup> This entailed early local suppliers scaling, biotech ventures growing under the FCh model over time and global players locating to serve specialized niches in the value chain (e.g. animal feed, antibiotics).



## Challenges

During this rapid rise to global leadership, production expanded faster than regulation, scientific monitoring and collective discipline, brewing environmental and biosanitary hazards that were at the time not fully understood. There was growing awareness of the risks, and voluntary standards were considered, but producers did not yet face a clear market requirement to internalize those risks.

In 2007, the infectious salmon anaemia virus (ISA) broke out in Los Lagos and fundamentally upended the industry.<sup>72</sup> Banks made continued financing conditional on changed practices; global companies present in the market brought outside experience into the response. The sector,

together with regulators, moved towards stricter biosecurity, traceability, certification and oversight standards.<sup>73</sup> Regulation caught up late, but the crisis led to companies incorporating biosecurity and environmental risk directly into their business models.<sup>74</sup> According to representatives from industry associations such as Consejo del Salmon, after this crisis, Chile's salmon industry started to incorporate biosecurity risk as part of its business model. The sector grew at a steadier pace. This transition marked the passage from rapid growth towards integration and global consolidation, with the crisis leaving scars that later became a source of operating discipline and competitive resilience.<sup>75</sup>



## Now and next

Today, Chile has become an aquaculture technology reference point and partner for other aquaculture industries, including shrimp farming in Ecuador. Platforms such as AquaSur bring producers of shrimp, tilapia and other species to Chile to learn from its value chain and experience.<sup>76</sup>

Fundación Chile's own role has also evolved with the broader science-to-market innovation ecosystem. It moved from building and exiting companies directly when venture capital was absent towards supporting venture capital, open innovation and a more mature deep-tech ecosystem today.<sup>77</sup>

### Takeaways

Chile's highlight mechanism is the **demonstrative venture approach**: an autonomous, public-private institution, having identified an opportunity rooted in national advantage, imported and adapted frontier technology, and the subsequent success of the venture proved the business case and allowed the company to exit to private owners. **Biological and environmental** risk had to be anticipated and managed. The ISA crisis showed how banks, global players and regulators can force the internalization of that risk into business models. Industries built on imported know-how can mature into **technology references** for other sectors and countries.

5

# Viet Nam: Electronics and IT services

Viet Nam is building a home for advanced electronics multinationals to drive local value, with benefits for adjacent industries.





## Starting point

Viet Nam's success story in electronics and information technology (IT) took shape after the Doi Moi reforms of 1986 opened the market, under which the government sought to establish a manufacturing platform for global firms, opening the economy up by allowing wholly foreign-owned firms to invest, developing export-processing zones

and industrial parks, and simplifying licensing.<sup>78</sup> In parallel, the country liberalized trade rules, joined the free trade framework of the Association of Southeast Asian Nations (ASEAN), signed a bilateral agreement with the United States and prepared for WTO accession.<sup>79</sup>



## Emergence

Foreign investment shifted steadily towards exports. Between 2000 and 2005, more than 70% of approved foreign-invested manufacturing projects sold over half of their output abroad.<sup>80</sup> Electronics exports alone grew from less than \$30 million in 1995 to more than \$140 billion by 2025, at which point this sector accounted for over a third of the country's exports.<sup>81</sup>

The state assembled the enabling conditions (including trade access, industrial parks, fiscal incentives, competitive labour) and promoted province-level competition for anchor FDI investors. Incentives ran unusually deep and long, with preferential corporate income tax rates of 5–10%. These rates held for periods ranging from 15 years to more than 30 years against a 25% standard tax rate. The policy emphasis migrated over time from import-duty exemptions towards output subsidies and direct support for R&D and infrastructure investment, including in priority areas such as AI and semiconductors.<sup>82</sup>

Samsung arrived looking to broaden its existing offshore footprint, which was already established in China, opening its first major mobile-phone plant in Bac Ninh in 2008 with an investment of more than \$600 million. It added a second megacampus in Thai Nguyen in 2014 and a Ho Chi Minh City consumer-electronics operation in 2016. Following these investments the company went on to make Viet Nam its global mobile-handset hub.<sup>83</sup>

Samsung's relationship with national and provincial authorities was symbiotic: it supported and promoted industrial park development, benefitting from local labour markets and providing training. The state, in turn, benefitted from exposure, job creation and a showcase for its model, which attracted other major corporations such as Intel, Foxconn and LG.<sup>84</sup>



## Evolution

As electronics and IT capabilities matured in education, in industrial parks and within the realm of globally competitive companies, other niche parts of the IT ecosystem gained a competitive edge, particularly in software and IT services, and the government moved early to designate software an export industry. In 2000, Prime Minister Phan Van Khai launched a five-year plan centred on human capital and backed by tax relief, preferential credit, land and training support and software parks.<sup>85</sup>

Government demand also functioned as a market support instrument that complemented global

market demand as firms became competitive over time. E-government development and the National Digital Transformation Program, launched in 2020, turned central and local government bodies into early customers for domestic firms such as FPT Corporation and Viettel.<sup>86</sup> For example, FPT started diversifying its activities into global software categories and serving clients in Japan, the US and Europe. Today, it is a global IT-services group with revenue of roughly \$2.5 billion, operations across some 30 countries and an AI partnership with NVIDIA.<sup>87</sup>



## Challenges

Viet Nam's hardware boom turned the country into a major value-chain hub for foreign-owned global players, while few locally owned champions captured significant shares of value added.

Samsung, as well as Intel, LG and Foxconn, brought the technology and production systems fit for export leadership. They also brought much of their supplier base or plugged production systems into existing regional supply chains.<sup>88</sup>

Local value-added ownership became a major policy priority, but the reality of the industry structure and the business case for different value-chain activities limited this transition. Vietnamese ownership entered at the final assembly stage, and local firms lacked the capital and know-how to climb higher, while efforts to deepen linkages had limited reach. Samsung worked with the Ministry of Industry and Trade from 2014 onwards, and by 2018 had increased the number of its Vietnamese Tier 1 vendors from four to 29. Yet supplier firms stayed in packaging, simple

components and support roles, while design, R&D and high-value components remained within foreign-owned operations.<sup>89</sup>

Notably, this did not mean that value-added activities were not located in Viet Nam, just that they were not fully owned by local companies. Samsung's Hanoi R&D centre, its organic light-emitting diode (OLED)-related investment and its training activity show that Viet Nam did capture more sophisticated functions inside foreign-owned footprints. Meanwhile, the industry's \$140 billion-plus annual exports came to represent a major economic contribution to the country's development. In fact, in June 2026, Viet Nam overhauled its approach to attracting FDI through administrative simplification, reduced the number of competing provinces from 63 to 34, increased decentralization and reduced times to complete bureaucratic procedures. It also offers "green lane" fast-track procedures for companies localizing high-value activities.<sup>90</sup>



## Now and next

Viet Nam's champions were both the foreign-owned subsidiaries of global major corporations, localizing a growing share of value-added activities, and some local firms that clustered around them. Many local firms, however, did not capture a significant share of value added initially.<sup>91</sup> As the country looks to the next phase of industrial development, the

priority continues to be leveraging national-level determination, local capability and decentralized competition. The aim is to continue to be an attractive destination for FDI, for instance in EVs, while nurturing local innovation, entrepreneurship and industrial upgrading.

### Takeaways

**Durable and capability-oriented incentives, regional-level competition and reliable access to imports** can secure anchor investments that transform a country into an internationally recognized manufacturing hub within decades. **Value capture** should be interpreted pragmatically: spillovers delivered value through higher-value activities in foreign-owned subsidiaries localized in-country and through growth in **adjacent** niches, such as software and IT services. Sustained competitiveness required **numerous adjustments in the FDI toolkit**.

# Conclusion

The success stories detailed in this paper yield **six guiding principles** for the public and private sectors as they seek to build globally competitive export industries in emerging markets **over the medium to long term**.



## For governments

1

### Look at private-sector development through a business lens

Industrial policy will succeed only if the targeted companies respond in the desired manner. As executives have many options, the preferred response should not be assumed. Officials must understand the constraints, incentives and capabilities facing firms. Sustained engagement with the private sector is required for officials to learn and update their understanding. This is a marathon, not a sprint.

2

### Recognize that subsidies and trade-restrictive measures alone do not guarantee success

It is better to cater to the specific business case drivers of successful export champions than to flatter profits with corporate subsidies and raise import restrictions, including implementing local content rules. If a sector is too small or too uncompetitive, officials need to determine the root causes rather than taking short cuts. Take a highly sceptical view of proposals for subsidies and the effectiveness of expenditure-switching import policy measures. Will they really change the critical corporate decisions?



## For companies

3

### Embed private pioneers and disciplined use of capital as key ingredients

Firms and entrepreneurs are responsible for taking risks in applying new technologies and innovations, to develop new customer segments at home and abroad, to (re)formulate and test competitive business models and to invest in capabilities and scale. Capital allocation discipline, which is sharper when failure is possible, is central. Corporate decision-makers must have skin in the game.

4

### Shape cluster capabilities beyond their current boundaries using anchors

Companies should invest in needed public goods (such as specialized education, infrastructure and security) or provide them outright where the state is absent.

Internationally active firms should look for opportunities for local value-chain development by importing technology and know-how. This, in turn, will facilitate investments in adjacent activities and the emergence of new lines of business.



## For public-private collaboration

5

### Align on strategy and execution, not just specific steps

Successful industrial development collaboration builds upon direct and sustained policy-maker/ executive interaction. In addition, ensure sufficient transparency to avoid capture.

Collaboration allows both sides to draw up realistic yet ambitious plans and to identify next steps. Both sides commit investments and actions, applying the logic of conditionality to ensure resources are not misallocated in vain.

6

### Plan and pivot over time, letting bets go when necessary

For a range of reasons, planned business models don't always come to fruition. Events can undermine what was once a solid business case. Meanwhile, some events create hitherto unseen opportunities. Appreciating in advance that pivots may be needed puts a premium on having a thorough understanding of relevant private-sector dynamics, monitoring developments, sharing insights and maintaining the openness and the transparency that help retain trust. Setting appropriate expectations for relevant stakeholders is vital, including letting prior bets go when pivots are needed.

Not every formula for success in the five illustrative case studies described here can be applied elsewhere. Nevertheless, it is hoped that the success stories described will provide **inspiration** for policy-makers and private-sector decision-makers in emerging markets looking to build winning export industries, while taking country-specific institutional, market, environmental and geopolitical conditions into consideration. Success is not confined to a narrow range of commercial activities. That is the good news. However, industrial policy success

cannot be assured. The state may set strategy, but officials alone do not dictate its fate. Business has agency every step of the way, and smart policy design and engagement reflect that.

This paper is designed to **kick-start a conversation** among public and private leaders, putting forward an alternative approach that better meets the lived realities facing the vast majority of nations, their governments and corporate executives.



# Contributors

## World Economic Forum and IMD

### **Simon J. Evenett**

Professor of Geopolitics and Strategy, IMD Business School; Co-Chair, World Economic Forum Global Future Council on Trade and Investment Policy

## Frontera Venture Partners

### **Leandro J. Urbano**

Founding Partner, Frontera Venture Partners, Peru

## IMD

### **Fernando Martín**

Head of Analytics, Global Trade Alert, Switzerland

## Acknowledgements

The contributors thank Lauren Chung, Simone Wyss Fedele, Nivedita Sen and Weihuan Zhou for comments on an earlier version of this paper, and case study protagonists interviewed, as well as members of the Global Future Council on International Trade and Investment.

The engagement of experts in each of the five case studies documented here is greatly appreciated. Their insights and perspectives enriched the understanding of each case study. It should be made clear that the authors take full responsibility for the positions outlined in this paper, which should not be attributed to any of the experts listed below.

### **Adolfo Alvial**

Senior consultant on aquaculture; former industry executive, Chile

### **Hernán Araneda**

Chief Executive Officer, Fundación Chile

### **Rosario Bazán**

Founder and President, Danper, Peru

### **Eduardo Bitrán**

Vice-President, CORFO, Chile

### **Andrew Caine**

Senior Advisor, BCG

### **Esteban Carrillo**

Executive Director, Costa Rica Aerospace Cluster

### **Gabriela Castro**

Investment Policy Director, Ministry of Foreign Trade of Costa Rica (2014–2023)

### **Salvador Dada**

Operations Executive, Establishment Labs, Costa Rica

### **Carlos Gereda**

Founder, Inka's Berries, Peru

### **Piero Ghezzi**

Minister of Production of Peru (2014–2016)

### **Vanessa Gibson**

Director of Corporate Development and Investment Climate, CINDE, Costa Rica

### **Rachmat Kaimuddin**

Deputy Coordinating Minister, Basic Infrastructure of Indonesia

### **Christian Ketels**

Lead Private Sector Economist, World Bank

### **Gabriela Llobet**

Director General, CINDE, Costa Rica (2007–2014)

### **Rich McLellan**

Senior FDI Advisor and Chief Executive Officer, Vietnam International Financial Center

**Loreto Seguel**

Executive President, Consejo del Salmón, Chile

**Septian Hario Seto**

Deputy Coordinating Minister for Investment and Mining of Indonesia (2020–2024)

**Andrés Valenciano**

Chief Executive Officer, Democracia+

**Production****Michela Liberale Dorbolò**

Designer, World Economic Forum

**Simon Smith**

Editor, Astra Content

# Endnotes

1. United Nations Conference on Trade and Development (UNCTAD). (2026). *World investment report 2026*. [https://unctad.org/system/files/official-document/wir2026\\_annex-tables\\_en.pdf](https://unctad.org/system/files/official-document/wir2026_annex-tables_en.pdf)
2. World Economic Forum. (n.d.). *STAR FDI: Sustainable, trusted, agile and responsible foreign direct investment*. Retrieved August 30, 2026, from <https://initiatives.weforum.org/star-investment/home>
3. Evenett, S., Jakubik, A., Kim, J., Martin, F., et al. (2025). *Industrial policy since the Great Financial Crisis* (IMF Working Paper No. 2025/222). International Monetary Fund. <https://www.imf.org/-/media/files/publications/wp/2025/english/wpiea2025222-source-pdf.pdf>
4. UNCTAD. (2026, January 20). *Global investment trends monitor, no. 50*. <https://unctad.org/publication/global-investment-trends-monitor-no-50>
5. United Nations Conference on Trade and Development (UNCTAD). (2026). *World investment report 2026*. [https://unctad.org/system/files/official-document/wir2026\\_annex-tables\\_en.pdf](https://unctad.org/system/files/official-document/wir2026_annex-tables_en.pdf)
6. Fernandes, A. M., & Reed, T. (2026). *Industrial policy for development: Approaches in the 21st century*. World Bank. <https://www.worldbank.org/en/publication/industrial-policy-for-development>
7. Congressional Research Service. (2023, April 25). *Frequently asked questions: CHIPS Act of 2022 provisions and implementation*. <https://www.congress.gov/crs-product/R47523>
8. Latest available annual data; authors' calculation based on country-level observations. World Bank. (n.d.). *World Development Indicators*. <https://datatopics.worldbank.org/world-development-indicators/>
9. Official Kenyan import data as reported in Trade Data Monitor database [subscription required]. Trade Data Monitor. <https://tradedatamonitor.com/>
10. Hausmann, R., & Rodrik, D. (2003). Economic development as self-discovery. *Journal of Development Economics*, 72(2), 603–633. [https://doi.org/10.1016/S0304-3878\(03\)00124-X](https://doi.org/10.1016/S0304-3878(03)00124-X)
11. Khanna, T., & Palepu, K. G. (2010). *Winning in emerging markets: A road map for strategy and execution*. Harvard Business Press. <https://www.hbs.edu/faculty/Pages/item.aspx?num=37467>
12. Rivera Rivota, D., & Wardhana, A. R. (2026). Navigating the complexities of Indonesia's journey to develop a downstream nickel industry. In T. S. H. Moerenhout & J. C. Jobet (Eds.), *Downstream diversification of mineral-rich countries: Challenges and opportunities to add value in energy transition supply chains* (pp. 251–280). Springer. [https://doi.org/10.1007/978-3-032-06139-3\\_13](https://doi.org/10.1007/978-3-032-06139-3_13)
13. Seto, S. H. (2026, June 11). Team interview.
14. Syahputri, J., & Minjares, R. (2026, May 12). *Achievement unlocked: Indonesia's growing electric car fleet is cushioning the financial damage of the oil price shock*. International Council on Clean Transportation. <https://theicct.org/indonesias-growing-electric-car-fleet-is-cushioning-the-financial-damage-of-the-oil-price-shock-may26/>
15. Pasha, M., & Setiati, I. (2011). Trade liberalization and international production networks: Indonesia's automotive industry. In M. Mikic & M. Pasha (Eds.), *Fighting irrelevance: The role of regional trade agreements in international production networks in Asia* (pp. 131–152). United Nations Economic and Social Commission for Asia and the Pacific (ESCAP). [https://ideas.repec.org/h/unt/ecchap/tipub2597\\_chap6.html](https://ideas.repec.org/h/unt/ecchap/tipub2597_chap6.html)
16. Rajendra, R. (2026, January 20). *Melonjak tajam, intip tren penjualan mobil listrik RI 5 tahun terakhir* [Surging: A look at Indonesia's electric car sales trend over the past five years]. *Bisnis.com*. [https://otomotif.bisnis.com/read/20260120/275/1945478/melonjak-tajam-intip-tren-penjualan-mobil-listrik-ri-5-tahun-terakhir?utm\\_source=chatgpt.com](https://otomotif.bisnis.com/read/20260120/275/1945478/melonjak-tajam-intip-tren-penjualan-mobil-listrik-ri-5-tahun-terakhir?utm_source=chatgpt.com)
17. Mahalana, A. (2025). *Electric vehicle market in Indonesia* (Market spotlight). International Council on Clean Transportation. <https://theicct.org/publication/electric-vehicle-market-in-indonesia-dec25/>
18. Kaimuddin, R. (2026, May 6). Team interview.
19. Ibid.
20. Reuters. (2025, January 20). *China's BYD to complete \$1 billion Indonesia plant by year-end, executive says*. <https://www.reuters.com/business/autos-transportation/chinas-byd-complete-1-billion-indonesia-plant-by-end-2025-executive-says-2025-01-20/>
21. Kaimuddin, R. (2026, May 6). Team interview; PricewaterhouseCoopers. (2025, November 20). *Indonesia's EV market grew by 49%* [Press release]. <https://www.pwc.com/id/en/media-centre/press-release/2025/english/indonesia-ev-market-grew-by-49.html>
22. Gray, R., & Nguyen, D. M. N. (2025, September 30). *Indonesian industrialization: Downstreaming up the value chain*. Center for Strategic and International Studies. <https://www.csis.org/blogs/charting-geo-economics/indonesian-industrialization-downstreaming-value-chain>
23. Terauds, K. (2017). *Using trade policy to drive value addition: Lessons from Indonesia's ban on nickel exports* (Background document to the Commodities and Development Report 2017). United Nations Conference on Trade and Development. [https://unctad.org/system/files/non-official-document/suc2017d8\\_en.pdf](https://unctad.org/system/files/non-official-document/suc2017d8_en.pdf)

24. Gray, R., & Nguyen, D. M. N. (2025, September 30). *Indonesian industrialization: Downstreaming up the value chain*. Center for Strategic and International Studies. <https://www.csis.org/blogs/charting-geo-economics/indonesian-industrialization-downstreaming-value-chain>
25. Seto, S. H. (2026, June 11). Team interview.
26. Hausmann, R., & Urbano, L. J. (2023). *From nickel to EVs: Building the Indonesian electric vehicle supply chain*. Harvard Kennedy School Case Study.
27. Huber, I. (2022, February 4). *Indonesia's battery industrial strategy*. Center for Strategic and International Studies. <https://www.csis.org/analysis/indonesias-battery-industrial-strategy>
28. Reuters. (2025, April 21). *South Korea's LG Energy Solution pulls out from Indonesia EV battery investment*. <https://www.reuters.com/business/energy/south-koreas-lg-energy-solution-pulls-out-indonesia-ev-battery-investment-2025-04-21/>
29. Seto, S. H. (2026, June 11). Team interview.
30. Ghezzi, P. (2026, May 6). Team interview; and Olmo, G. D. (2025, December 4). *Cómo logró Perú convertir uno de los desiertos más áridos del mundo en un gran centro de producción de alimentos* [How Peru turned one of the world's most arid deserts into a major food-production hub]. BBC News Mundo. <https://www.bbc.com/mundo/articles/cq5qzlv2l01o>
31. Food and Agriculture Organization of the United Nations. (2006). *Changing deserts into agricultural lands*. GRID: The IPTRID Network Magazine, 24. <https://www.fao.org/4/a0409e/A0409E03.htm>
32. Government of Peru. (2000). Law No. 27360. <https://rnia.produce.gob.pe/wp-content/uploads/2019/09/3LEYN2-1.pdf>
33. Piñeiro, V., Girgias, Y., Martín, F., Gianatiempo, J. P., et al. (2025, April 7). *Peru's rapid rise as the world's leading blueberry exporter* [Blog post]. International Food Policy Research Institute. <https://www.ifpri.org/blog/perus-rapid-rise-as-the-worlds-leading-blueberry-exporter/>
34. Ghezzi, P. (2026, May 6). Team interview.
35. Montes Ninaquispe, J. C., Pantaleón Santa María, A. L., Ludeña Jugo, D. A., Castro Muñoz, et al. (2024). Peruvian agro-exports' competitiveness: An assessment of the export development of its main products. *Economies*, 12(6), Article 156. <https://doi.org/10.3390/economies12060156>
36. Bazan, R. (2026, June 3). Team interview.
37. Nicaretta, R. (2025, October 2). *Unlocking Peru's agricultural export potential* [Blog post]. Inter-American Development Bank. <https://www.iadb.org/en/blog/development-effectiveness/unlocking-perus-agricultural-export-potential>
38. Gereda, C. (2026, April 20). Team interview.
39. Bazan, R. (2026, June 3). Team interview.
40. Ghezzi, P. (2026, May 6). Team interview.
41. Maersk. (2025). *Be ready to unlock Peru's fruit export potential through Olmos* [Blog post] <https://www.maersk.com/cold-chain-peru-olmos-fruit-logistics>
42. Maxwell, M. (2026, February 4). *Camposol launches Origin global genetic breeding programme*. Fruitnet. <https://www.fruitnet.com/eurofruit/camposol-launches-origin-global-genetic-breeding-programme/270445.article>
43. Ghezzi, P. (2026, May 6). Team interview.
44. Valenciano, A. (2026, April 14). Team interview.
45. Spar, D. L. (1998). *Attracting high technology investment: Intel's Costa Rican plant* (FIAS Occasional Paper No. 11). World Bank Foreign Investment Advisory Service. <https://documents1.worldbank.org/curated/en/949541468770676701/pdf/multi0page.pdf>
46. Pharmaceutical Technology. (n.d.). *Baxter Healthcare Cartago facility*. Retrieved August 30, 2026, from <https://www.pharmaceutical-technology.com/projects/baxter-cartago/>
47. Spar, D. L. (1998). *Attracting high technology investment: Intel's Costa Rican plant* (FIAS Occasional Paper No. 11). World Bank Foreign Investment Advisory Service. <https://documents1.worldbank.org/curated/en/949541468770676701/pdf/multi0page.pdf>
48. Castro, G. (2026, April 14). Team interview.
49. Ibid.; Llobet, G. (2026, May 12). Team interview.
50. Llobet, G. (2026, May 12). Team interview.
51. Irwin-Hunt, A. (2025, October 9). *Global free zones of the year 2025 – The winners*. fDi intelligence. <https://www.fdiintelligence.com/content/daa6cb71-5873-48c5-80b3-be79e118d8c2>
52. Valenciano, A. (2026, April 14). Team interview.
53. Gibson, V. (2026, April 17). Team interview.
54. Bamber, P., & Gereffi, G. (2013). *Costa Rica in the medical devices global value chain: Opportunities for upgrading*. Duke University Center on Globalization, Governance & Competitiveness. [https://www.globalvaluechains.org/wp-content/uploads/2013-08-20\\_Ch2\\_Medical\\_Devices.pdf](https://www.globalvaluechains.org/wp-content/uploads/2013-08-20_Ch2_Medical_Devices.pdf)
55. Carrillo, E. (2026, May 6). Team interview.
56. Gibson, V. (2026, April 17). Team interview.

57. Ibid.
58. Monge-González, R. (2017). *Moving up the global value chain: The case of Intel Costa Rica* (ILO Americas Technical Reports No. 2017/8). International Labour Organization. <https://www.ilo.org/publications/moving-global-value-chain-case-intel-costa-rica-ilo-americas-20178>
59. Centre for Innovation and Business Development (CINDE). (2018, July 19). *Establishment Labs becomes the first Costa Rican MedTech company to trade on Nasdaq*. <https://www.cinde.org/en/essential-news/establishment-labs-becomes-the-first-costa-rican-medtech-company-to-trade-on-nasdaq>
60. Dada, S. (2026, May 7). Team interview.
61. Castro, G. (2026, April 14). Team interview.
62. Alvia, A. (2026, May 21). Team interview; Alvia, A. (2025). Chile: Atlantic salmon. In *Harnessing the waters, Volume II: A trillion dollar investment opportunity in sustainable aquaculture* (pp. 128–153). World Bank. <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099092925151531252>
63. Nagasawa, K. (1981). Salmon ranching in Chile: The Japanese project. *ICLARM Newsletter*, 4(4). <https://digitalarchive.worldfishcenter.org/items/9e7a9078-c680-458a-bfc4-27a8003c9bba>
64. Fundación Chile. (2017). *La Fundación Chile en el tiempo: Historia, trayectoria e impacto* [Fundación Chile over time: History, trajectory and impact]. [https://fch.cl/content/uploads/2026/05/fundacion\\_chile-en\\_el\\_tiempo.pdf](https://fch.cl/content/uploads/2026/05/fundacion_chile-en_el_tiempo.pdf)
65. Ibid.
66. Bitran, E. (2026, May 13). Team interview; Araneda, H., & Gutknecht, T. (2026, April 30). Team interview.
67. World Bank. (2005). *Chilean salmon exports* (Technology and Growth Series, PREMnote No. 103). <https://openknowledge.worldbank.org/entities/publication/da1eca68-c7d8-542b-b813-46c651247f90>
68. Alvia, A. (2026, May 21). Team interview; Bitran, E. (2026, May 13). Team interview.
69. Fundación Chile. (2017). *La Fundación Chile en el tiempo: Historia, trayectoria e impacto* [Fundación Chile over time: History, trajectory and impact]. [https://fch.cl/content/uploads/2026/05/fundacion\\_chile-en\\_el\\_tiempo.pdf](https://fch.cl/content/uploads/2026/05/fundacion_chile-en_el_tiempo.pdf)
70. Food and Agriculture Organization of the United Nations. (n.d.). *Fishery and aquaculture country profiles: The Republic of Chile*. Retrieved September 14, 2026, from <https://www.fao.org/fishery/countrysector/CL/en?status=published>
71. Araneda, H. & Gutknecht, T. (2026, April 30). Team interview; Seguel, L. (2026, May 27). Team interview.
72. Bustos, B. (2014). Territorialidad de la intervención estatal en contextos de crisis: El caso del virus ISA, la industria salmonera y la Región de Los Lagos, Chile [Territoriality of state intervention in crisis contexts: The case of the ISA virus, the salmon industry and the Los Lagos Region, Chile]. *Revista Geográfica del Sur*, 5(7). <https://revistas.udec.cl/index.php/geograficadelsur/article/view/19213>
73. Seguel, L. (2026, May 27). Team interview; Alvia, A. (2026, May 21). Team interview.
74. Ibid.
75. Seguel, L. (2026, May 27). Team interview.
76. AquaSur Tech (2026). *Aquasur Tech 2027 projects the future of sustainable aquaculture from the heart of Patagonia* [Blog post]. <https://www.aquasurtech.cl/en/aquasur-tech-2027-projects-the-future-of-sustainable-aquaculture-from-the-heart-of-patagonia/>
77. Fundación Chile. (2020). *ChileGlobal Ventures lanzará nuevo fondo por US\$ 30 millones, con aportes por hasta US\$ 1,5 millones por startup* [ChileGlobal Ventures will launch a new fund for US\$30 million with contributions of up to US\$1.5 million per start-up]. <https://chileglobalventures.cl/chileglobal-ventures-lanzara-nuevo-fondo-por-us-30-millones-con-aportes-por-hasta-us-15-millones-por-startup/>
78. Communist Party of Viet Nam Online Information Portal. (2017, February 24). Báo cáo chính trị của Ban Chấp hành Trung ương Đảng khóa V trình tại Đại hội đại biểu toàn quốc lần thứ VI của Đảng [Political report of the Central Committee of the Party, 5th term, presented at the 6th National Congress of the Party]. <https://tulieuvankien.dangcongsan.vn/ban-chap-hanh-trung-uong-dang/dai-hoi-dang/lan-thu-vi/bao-cao-chinh-tri-cua-ban-chap-hanh-trung-uong-dang-khoa-v-trinh-tai-dai-hoi-dai-bieu-toan-quoc-lan-thu-vi-cua-1491?utm>
79. Pham, H. S. T., Nguyen, A. N., & Johnston, A. (2022). Economic policies and technological development of Vietnam's electronics industry. *Journal of the Asia Pacific Economy*, 27(2), 248–269. <https://doi.org/10.1080/13547860.2020.1809055>
80. Athukorala, P.-C., & Tran, Q. T. (2012). Foreign direct investment in industrial transition: The experience of Vietnam. *Journal of the Asia Pacific Economy*, 17(3), 446–463. <https://doi.org/10.1080/13547860.2012.694699>
81. Athukorala, P.-C., & Tran, Q. T. (2012). Foreign direct investment in industrial transition: The experience of Vietnam. *Journal of the Asia Pacific Economy*, 17(3), 446–463. <https://doi.org/10.1080/13547860.2012.694699>; Vietnam+ (2025, November 27). *Electronics exports hit record high despite global trade headwinds* [Press release]. <https://en.vietnamplus.vn/electronics-exports-hit-record-high-despite-global-trade-headwinds-post333315.vnp>
82. Interview with Vietnamese government official. (2026, May 8); McClellan, R. (2026, June 4). Team interview.
83. Sheldon, P., & Kwon, S.-H. (2023). Samsung in Vietnam: FDI, business–government relations, industrial parks, and skills shortages. *The Economic and Labour Relations Review*, 34(1), 66–85. <https://doi.org/10.1017/elr.2022.3>
84. Ibid.

85. Gallagher, J. M., & Stoller, G. (2004). Software outsourcing in Vietnam: A case study of a locally operating pioneer. *The Electronic Journal of Information Systems in Developing Countries*, 17(1), 1–18. <https://doi.org/10.1002/j.1681-4835.2004.tb00110.x>
86. Interview with Vietnamese government official. (2026, May 8).
87. FPT Corporation. (2024, April 23). *FPT to shape the future of AI and cloud on a global scale in collaboration with NVIDIA* [Press release]. <https://fptsoftware.com/newsroom/news-and-press-releases/press-release/fpt-to-shape-the-future-of-ai-and-cloud-on-a-global-scale-in-collaboration-with-nvidia>
88. Nguyen, T. T. M. (2024, October). *Linkages between domestic and South Korean FDI enterprises in Vietnam's electronics industry*. <https://www.emerics.org:446/aif/issueFileDownload.es?brdctsNo=372817&brdctsFileNo=85648>
89. Sheldon, P., & Kwon, S.-H. (2023). Samsung in Vietnam: FDI, business–government relations, industrial parks, and skills shortages. *The Economic and Labour Relations Review*, 34(1), 66–85. <https://doi.org/10.1017/elr.2022.3>
90. McClellan, R. (2026, June 4). Team interview.
91. Caaney, A. (2026, May 28). Team interview.



---

COMMITTED TO  
IMPROVING THE STATE  
OF THE WORLD

---

The World Economic Forum is the trusted global platform for public-private cooperation, bringing together leaders from business, government, civil society, international organizations, academia and the next generation to turn foresight and dialogue into meaningful action on the world's most pressing challenges.

---

**World Economic Forum**  
91–93 route de la Capite  
CH-1223 Cologny/Geneva  
Switzerland

Tel.: +41 (0) 22 869 1212  
Fax: +41 (0) 22 786 2744  
[contact@weforum.org](mailto:contact@weforum.org)  
[www.weforum.org](http://www.weforum.org)