From coffee to catheters

Costa Rica's four-decade bet on skills, one anchor investor and a private export agency, 1982-2024

Country decision study | MacroLens Research | Independent desk research - not peer reviewed - not investment advice

Abstract

Costa Rica entered the 1980s effectively bankrupt: a debt moratorium, a currency down eighty-five percent in eighteen months, and an export basket of coffee and bananas. Its answer was institutional: a private, non-profit investment agency created in 1982, a 1990 free-zone law, and schools funded from a defence budget that no longer existed after 1949. In 1996 that agency landed Intel's three-hundred-million-dollar semiconductor assembly plant against Brazil, Mexico and Thailand, without firm-specific concessions. Chips briefly became the top export; when Intel moved assembly to Asia in 2014, the country converted the skills base into a dense medical-device manufacturing cluster that took forty-two percent of goods exports in 2023, a year before goods exports hit a record $19.9 billion in 2024. Yet poverty has sat near twenty percent since 1994. This case study examines the machinery that worked, the enclave it created, and what Sri Lanka could conditionally borrow for itself.

Why this case for Sri Lanka

Sri Lanka opened its first export processing zone at Katunayake in 1978 - years before Costa Rica had any free-zone law at all. Four decades later it is Costa Rica, not Sri Lanka, that exported $7.6 billion of medical devices in 2023 and drew a record $4.3 billion of foreign investment in 2024. Geography and treaties alone do not explain the gap. The conspicuous institutional difference is an investment-promotion machine - CINDE, a private, non-profit agency - repeatedly rated the world's best, plus a labour force financed by a peace dividend Sri Lanka never had the chance to take. Sri Lanka's recurring debates - how to reform its investment agency, whether to grant ad hoc tax holidays, how to move exports beyond apparel and tea - are precisely the questions Costa Rica answered, imperfectly, on the record.

The starting point: bankruptcy and a strange inheritance

In September 1981 Costa Rica declared a moratorium on its commercial-bank debt, and in the first half of 1982 became the first country in half a century to suspend external interest payments entirely. The colón slid 660 percent against the dollar in eighteen months; inflation topped 90 percent in 1982. The import-substitution model - protected industry serving a five-country Central American market - had generated less than half the exports the country needed to pay for its own capital goods. Emergency money arrived with conditions: a US assistance programme of $467 million over 1982-85 tied to IMF arrangements, devaluation and trade liberalisation. Inflation fell to about 12 percent by 1984, but the episode settled one question in Costa Rican politics: the economy had to export something other than coffee and bananas to survive.

The country held one unusual asset. After a 1948 civil war, the 1949 constitution abolished the army, and the savings went to health and education. A recent synthetic-control study estimates the dividend precisely: per-capita growth ran 1.46 percent in a counterfactual armed Costa Rica against 2.28 percent in the real one between 1950 and 2010. By 1980 the country was literate, stable and middle-income by regional standards - but its export institutions were built for commodities. The gap between a skilled population and a primitive trade apparatus is the space this case study occupies.

The decisions: build the agency before the zones

The first decision was organisational, and it was odd: in 1982, in the middle of the crisis, Costa Rica's private sector created CINDE - a private, non-profit, explicitly non-political investment and export promotion agency - with start-up support from USAID. The government declared it of public interest in 1984, but kept it private. That structure turned out to be the point: over forty years CINDE has worked across ten presidential administrations of different parties without being purged, politicised or captured, a continuity no Latin American state agency easily matches. The UN's International Trade Centre rated it the world's best investment promotion agency five years running, from 2017 to 2021, with a 2021 score of 95.27, the highest of 85 agencies reviewed.

The second decision was legal: a 1990 free-zone regime giving export manufacturers duty-free inputs and income-tax exemptions, inside the ordinary law rather than as one-off deals. The third was targeting. In the mid-1990s CINDE, with the trade ministry COMEX and export promoter PROCOMER, studied global industries systematically and chose electronics assembly as a target, then studied Intel's site-selection criteria specifically - workforce English, engineering throughput, political stability, power reliability, customs speed. When Intel decided in 1996 to place a $300 million assembly-and-test plant, it chose Costa Rica over Brazil, Chile, Indonesia, Mexico, the Philippines and Thailand. The World Bank's retrospective emphasises what was absent: no firm-specific concessions, no side deals, no large grants. Costa Rica sold what it had, then fixed what Intel flagged.

The machinery: one agency, three functions, forty years

Costa Rica's trade machinery is a triad, and the boundaries matter. COMEX, the trade ministry, negotiates agreements - seventeen free-trade agreements with 52 partners covered 95 percent of goods exports in 2024 - and owns policy. PROCOMER runs export promotion and the single window. CINDE hunts and services investors: research, site visits, aftercare, and - unusually - telling the government which regulations to fix, a feedback loop the World Bank documents in detail. Executives rotate between CINDE and COMEX; presidents and ministers join investor roadshows; established investors testify for the country. Intel's vice-president advised CINDE to "attract other big fish," following Ireland's example, and introduced the agency to his peers. Intel itself became the reference account: Abbott and Procter & Gamble validated their decisions against Intel's experience before investing.

The Intel project showed the machine at full speed. Construction began April 1997; the plant ramped to a point where, by 2003, Costa Rica was assembling and testing products representing 22 to 25 percent of Intel's total corporate sales volume. Cumulative investment reached $770 million by 2005, with 2,900 direct employees and about 2,000 indirect jobs. The deeper work was quieter: CINDE and the universities built technician and engineering programmes to the investors' specifications, and the agency's aftercare teams tracked each account's frustrations back into regulatory reform. The education system - funded over decades at one of the region's highest shares of GDP, with a constitutional mandate to reach 8 percent of GDP from 2018 - was the subsidy Intel actually received: a workforce, financed by the state, priced into no individual deal.

Measured outcomes I: the export basket turned over

The turnover was fast and is well documented. Free-zone exports overtook both bananas and coffee in 1996-97; by 1998 modular circuits were the top export category. In 1999 Intel alone exported about $2.4 billion - 36 percent of Costa Rica's total exports - pushing them to a then-record $6.6 billion. The country's export composition moved from commodity agriculture to medium- and high-technology manufacturing within half a decade.

The longer series shows the second transformation. Medical devices were 5 percent of exports in 2000; by 2023 the precision-and-medical-equipment sector was 42 percent of a record $18.2 billion in goods exports, with medical devices alone at $7.6 billion - ahead of bananas ($1.2 billion), pineapple ($1.1 billion) and coffee ($346 million). Industry counts put the cluster at over 90 companies and about 55,000 direct jobs, roughly 2.2 percent of global device exports. In 2024 goods exports set another record at $19.9 billion, services exports grew 8.9 percent, foreign direct investment hit a record $4.3 billion, and the trade sector employed about 695,000 people directly. Exports of goods and services reached 40.5 percent of GDP, with more than 2,500 products going to over 150 destinations. On 25 May 2021 Costa Rica became the OECD's 38th member, completing a six-year accession process built on exactly these institutions.

Measured outcomes II: the stress test was Intel leaving

The most informative event in the whole record is not Intel's arrival but its departure. In April 2014, Intel moved its assembly-and-test operations to Asia - the volume business, the very bet Costa Rica had made in 1996. The headline failure became a demonstration of the machinery's real product. Intel kept and expanded its engineering, design and shared-services centres, then 1,200 people; an International Labour Organization study of the episode found the repositioning raised the operation's domestic value added, wages and local knowledge linkages. The skills and supplier base built for chips did not leave; they were redeployed into medical devices and business services, which is why the cluster data on page five shows devices, not electronics, at 42 percent of exports in 2023. In December 2020 Intel itself returned, announcing $350 million to restart assembly and test operations from 2021 - citing the existing infrastructure, talent and free-zone regime it had never fully left.

A small economy cannot prevent an anchor investor from restructuring; it can only decide what remains when one does. Costa Rica's answer - retain the high-value functions, redeploy the workforce, keep the relationship - took twenty years to prepare and one press release to test. The exports record after 2014 ($18.2 billion in 2023 against $6.6 billion at Intel's 1999 peak, with no single firm near 36 percent of the total) is the test's result: the basket survived the loss of its biggest single item.

Transfer limits: what Costa Rica does not prove

Start with the counterfactual Costa Rica cannot escape: the model has not moved poverty. The poverty rate has sat near 20 percent, with extreme poverty near 6 percent, since 1994 - through the Intel decade, the devices boom and the services surge. Inequality worsened over the same period: the Gini coefficient rose from 0.461 in the 1990s to 0.524 in 2021 before easing to 0.504 in 2022. The export engine and the domestic economy run on separate tracks: critics label the free zones an enclave - one advocacy accounting puts duty-free-zone firms at 63 percent of exports but about 2.5 percent of employment, with tax exemptions muting the fiscal feedback that was supposed to fund inclusion. That figure is contested and era-specific, but the unemployment rate around 12 percent in 2022 and a persistent dual labour market are official numbers, not advocacy.

Second, the famous education advantage has a soft floor. Public education spending is constitutionally mandated at 8 percent of GDP - actual spending reached 7.9 percent in 2017, higher than every OECD country that year - yet PISA results are low and 51 percent of 25-34-year-olds lack upper-secondary education, against 6 percent across the OECD. The system produces the few thousand engineers the clusters need each year while failing a much larger cohort - the definition of a dual economy's engine room. Third, context is not portable. Costa Rica had no army to demobilise, sat next to the United States' market, and built CINDE inside a unique private-public civic culture; the World Bank notes even its own replication advice has limits. Finally, concentration risks remain: the United States takes nearly half of device exports, and a fiscal structure dependent on a narrow formal base produced a genuine fiscal crisis in 2018. The machinery survived every test except the distributional one.

Conditional lessons for Sri Lanka

These are design observations, not prescriptions.

1. A promotion agency can be private, professional and durable. CINDE's power is that it is not a ministry: staffed by career professionals, unpoliticised across ten administrations, rated the world's best five years running. Sri Lanka's debate about its investment agency is usually about powers and portfolios; Costa Rica suggests ownership and insulation matter more.

2. Target, then accommodate - do not concede. Intel came without firm-specific deals because CINDE knew Intel's checklist better than Intel's rivals did and the state fixed general conditions: customs, power, training. Ad hoc holidays buy headlines; checklists buy plants.

3. Sell the workforce, not the waiver. Costa Rica's effective subsidy was decades of publicly funded education - 7.9 percent of GDP by 2017, among the world's highest shares; Sri Lanka's comparable asset, high literacy and an English-capable technical cohort, needs the same conversion into investor-grade skills before it can anchor a pitch.

4. Design for the anchor's exit on the day it arrives. The devices cluster existed because chip-era skills were redeployable; Sri Lanka's apparel-heavy base asks the same question about its own anchors.

5. Watch the enclave line. Costa Rica kept poverty at 20 percent through its boom; an export strategy that does not wire the zones to the domestic economy risks reproducing that result.

Sri Lanka started earlier - Katunayake, 1978, before San José had a single zone. The case draws attention to institutional capacity alongside timing and location: an agency built to outlast governments, a workforce priced into every deal, and a plan for the day the anchor leaves.

Sources

Crisis, foundations and institutions:
https://hdl.handle.net/11362/33592
https://www.gao.gov/assets/nsiad-86-157.pdf
https://www.oecd.org/en/publications/oecd-economic-surveys-costa-rica-2018_eco_surveys-cri-2018-en/full-report/component-4.html
https://www.tandfonline.com/doi/full/10.1080/00220388.2024.2445533
https://www.oecd.org/content/dam/oecd/en/publications/reports/2017/08/education-in-costa-rica_g1g7af13/9789264277335-en.pdf
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.584.4553
CINDE and the Intel decision:
https://www.cinde.org/en/about
https://www.prnewswire.com/news-releases/cinde-announces-costa-rica-rated-as-the-worlds-top-investment-promotion-agency-by-itc--united-nations-301508328.html
https://5082883.fs1.hubspotusercontent-na1.net/hubfs/5082883/Resources/CINDE%20-%20Impact%20Report%202021%20EN.pdf
https://documents1.worldbank.org/curated/en/540381468032652317/pdf/374020CR0Impact0of0Intel01PUBLIC1.pdf
https://documents1.worldbank.org/curated/en/949541468770676701/pdf/multi0page.pdf
Intel exit, repositioning and return:
https://www.prnewswire.com/news-releases/intel-transforms-its-operations-in-costa-rica-254412901.html
https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@americas/@ro-lima/documents/publication/wcms_584208.pdf
https://www.cinde.org/en/essential-news/intel-to-start-assembly-and-test-operations-in-costa-rica
Trade outcomes:
https://procomer.com/exportaciones-de-bienes-en-costa-rica-crecen-un-155-en-el-2023/
https://www.comex.go.cr/media/11418/informe-de-labores-2024-2025.pdf
https://coyolfz.com/costa-rica-continues-to-grow-as-an-exporter-of-medical-devices/
https://www.oecd.org/en/about/news/press-releases/2021/05/oecd-welcomes-costa-rica-as-its-38th-member.html
Limits and the distribution question:
https://bti-project.org/fileadmin/api/content/en/downloads/reports/country_report_2024_CRI.pdf
https://www2024.socialwatch.org/node/10768
Sri Lankan anchor:
https://investsrilanka.com/home/existing-investor/zones-location/katunayaka-epz/