

Costa Rica

Archetype **Stalled middle**

GDP / person **\$20k**

Population **5M**

10-yr trend **3.5%**

Gradual **8.1%** · #83

Fast **8.6%** · #83

WHERE COSTA RICA STARTS

Costa Rica enters the AGI era as a stalled middle: middling income, middling scores, and steady but unspectacular growth. At about \$19,970 per person, it sits mid-table in Latin America, a region mostly outside the blocs that decide access to chips and capital. Its strengths are human. Language inclusion scores 4.3, its highest mark, built on strong schooling and widespread English. AI diffusion sits at 3.2, and its demographics score 3.6. Real assets sit behind these numbers: Intel's chip assembly-and-test plant, a large medical-device export industry, CINDE's investment promotion, OECD membership since 2021, and an electricity grid that runs on close to 100% renewable power. The binding constraints are physical. Compute and energy access scores 1.1, physical build speed 1.9. Ten-year trend growth is 3.5% a year.

THE THREE PATHS

These are simulations, not forecasts. The Modest path is the baseline; the two AGI scenarios fork from it. Under the **Modest** scenario, AI stays a normal technology. Costa Rica would gain a little on trend: 3.7% growth a year, 48th of 157. At that pace the economy doubles in about 19 years. Under **Gradual** takeoff, growth would climb over two decades and reach 8.1% a year once AGI matures around 2045. That matches the regional median, and the economy would double in under nine years. Yet its rank would fall to 83rd. Under **Fast** takeoff, growth would reach 8.6% a year from the early 2030s, a doubling in about eight years, and its rank would again sit at 83rd. The paradox is real: Costa Rica grows faster under both AGI scenarios, yet slips down the table, because faster-moving economies pull away. Regulation and politics could slow or redirect any path. How Costa Ricans and their government respond to transformative AI is a variable the model holds constant.

HOW YOU WOULD KNOW WHICH WORLD YOU ARE IN

The scenarios look almost the same until about 2030. So watch leading indicators, not GDP, and watch them live. Three global signals matter most. First, whether the METR task-horizon curve keeps doubling every four to five months through 2027–28; METR publishes it at metr.org. Second, whether frontier-lab revenue and capital spending keep compounding; Epoch AI tracks both at epoch.ai. Third, whether growth in the ten to twenty most-ready economies — the United States and China above all — breaks above trend in the early 2030s. Double-digit growth there within a couple of years of 2030 would signal a fast world. A point or two above

trend by the mid-2030s would signal a gradual one. A fade back to trend would signal a modest one. Costa Rica's own tells would arrive earlier than the growth data: an Intel expansion and its order books, medical-device export orders, hyperscaler announcements of a cloud region on the clean grid, and CINDE's free-zone investment pipeline.

IF GROWTH GOES EXPLOSIVE

Explosive is relative. At 8.1 to 8.6% growth a year, Costa Rica would run roughly with its region, but far behind the frontier, where the United States could be compounding at nearly 39% a year. This is catch-up by Costa Rica's own history, not a breakout. The economy would double about every eight years, so a child starting school now would finish it in a country twice as rich. Manufacturing, already 64% of exports, could deepen, and rising wages would draw more workers into formal jobs. There is an honest downside, and it fits the stalled-middle pattern. Costa Rica would host computing it rents rather than owns, and it sits outside the chip-supplying blocs, so strategic investment tends to arrive late and imported. That is the drift risk: gains come, but the gap to the frontier widens year by year. The hedge is to own capacity rather than rent it, and to lock in trusted-partner access early. Even then, the pace-setter would shift to the state, testing how fast SETENA's environmental permits, the ICE power utility and municipal approvals can move.

WHAT COSTA RICA CAN DO NOW

Three levers follow from the scores, and two of them pay off whether or not AGI arrives. The first is physical build speed, low at 1.9. Statutory time limits on permits, one-stop approvals and land pre-zoned for industry would speed every project, AI or not. That makes it a no-regret move. The second is geopolitical positioning, at 2. Deepening OECD and trusted-partner ties, keeping capital markets open and negotiating technology-access carve-outs would protect the economy under every scenario. It is the second no-regret lever. The third is the bet. Compute and energy access, at 1.1, barely moves growth if AI stays ordinary, but under fast takeoff it becomes Costa Rica's single biggest lever. The country's near-100% renewable grid is a genuine draw; the task is to package power, land and quick permits to attract hyperscale investment. Mexico did this in Querétaro, turning it into one of the hemisphere's fastest-growing data-center clusters. A cautious government can act on the two no-regret levers today and lose nothing. Open the atlas's [policy editor](#) to test how moving these scores reshapes each path.

The three levers — and which pay off regardless

Compute & energy access

score 1.1 / 5 · weight 8 under skeptic → 24 under fast takeoff

AGI bet

Weight climbs from 8 to 24 as takeoff nears. It barely moves growth if AI stays ordinary — the lever that needs a view on the takeoff.

Physical build speed

score 1.9 / 5 · weight 8 under skeptic → 17 under fast takeoff

AGI bet

Weight climbs from 8 to 17 as takeoff nears. It barely moves growth if AI stays ordinary — the lever that needs a view on the takeoff.

Trusted chip & tech access

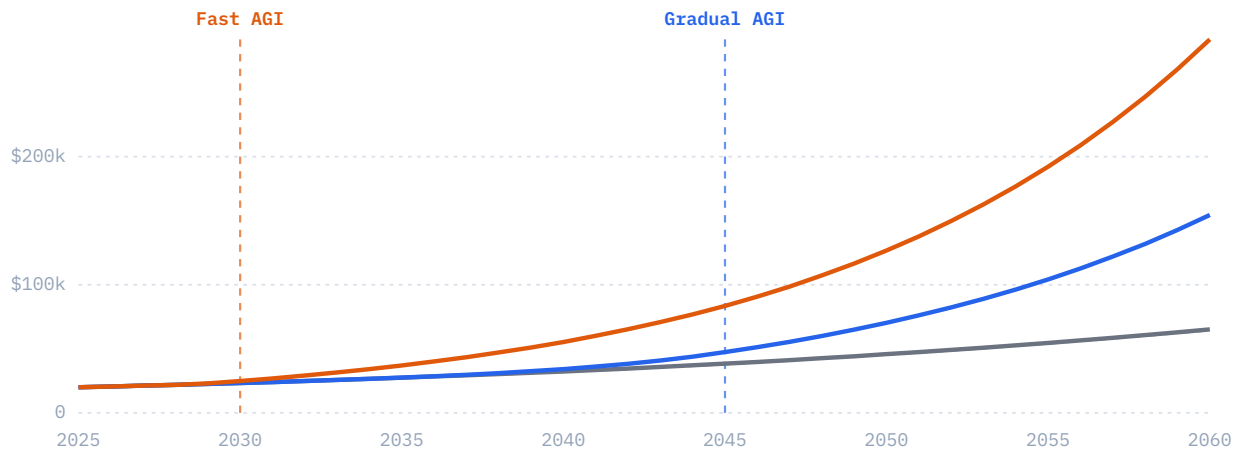
score 2 / 5 · weight 8 under skeptic → 12 under fast takeoff

AGI bet

Weight climbs from 8 to 12 as takeoff nears. It barely moves growth if AI stays ordinary — the lever that needs a view on the takeoff.

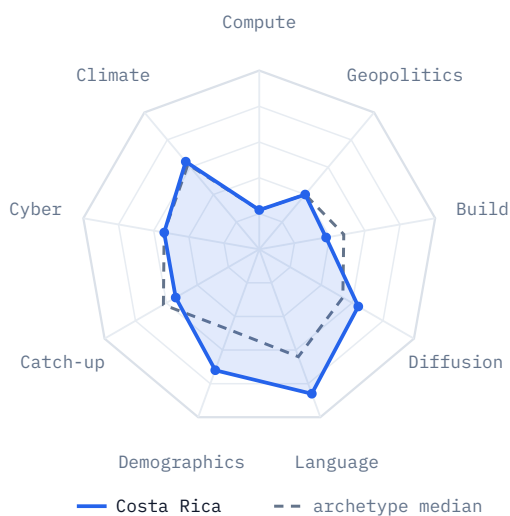
The no-regret levers pay off in every scenario, so a cautious government can act on them today. The AGI bets become decisive only if takeoff is real.

GDP per person to 2060, by scenario



Linear scale; solid lines are the three scenarios, dashed grey the no-AI baseline. Growth ramps from 2027 to each scenario's rate at its AGI year (Fast ~2030, Gradual ~2045), then holds. Timing and divergence are the point, not end levels; steep paths exit the top of the capped axis.

The nine factors



Solid: Costa Rica. Dashed: the median of its archetype. Scores are relative to the other 156 countries (3 ≈ global median, 5 = leading today).

Outcomes under each scenario

SCENARIO	GROWTH / YR	WORLD RANK	INDEX	DOUBLING
Modest	3.7%	48 / 157	56.6	19.1 yrs
Gradual	8.1%	83 / 157	52.8	8.9 yrs
Fast	8.6%	83 / 157	47.6	8.4 yrs

Post-AGI growth rate, rank among 157 countries, AGI Growth Index (0–100, scenario-weighted), and the implied economy doubling time. The Modest path is the baseline the AGI scenarios fork from.

THE THREE SCENARIOS

Modest the Acemoglu view

AI as a normal productivity tool

Intelligence was never the binding constraint on growth, so AI delivers real but ordinary gains. Each country gets a one-time boost of a couple of percent of GDP, phased in through 2035; growth then returns to trend. The mainstream-economics view.

≤0.66% TFP over a decade – a one-time gain

Costa Rica: 3.7% growth a year · #48 of 157

Gradual Erdil & Besiroglu, base case

Broad automation, on a long timeline

Broad automation of remote work arrives around 2045, with gains building slowly from the late 2020s. Growth then reaches up to ~20% a year for the best-positioned countries — ten times today's frontier trend. A slow arrival gives countries time to adapt, so the gains are wide but uneven.

up to ~20%/yr after 2045 – 10× the frontier trend

Costa Rica: 8.1% growth a year · #83 of 157

Fast Erdil & Besiroglu, fast takeoff

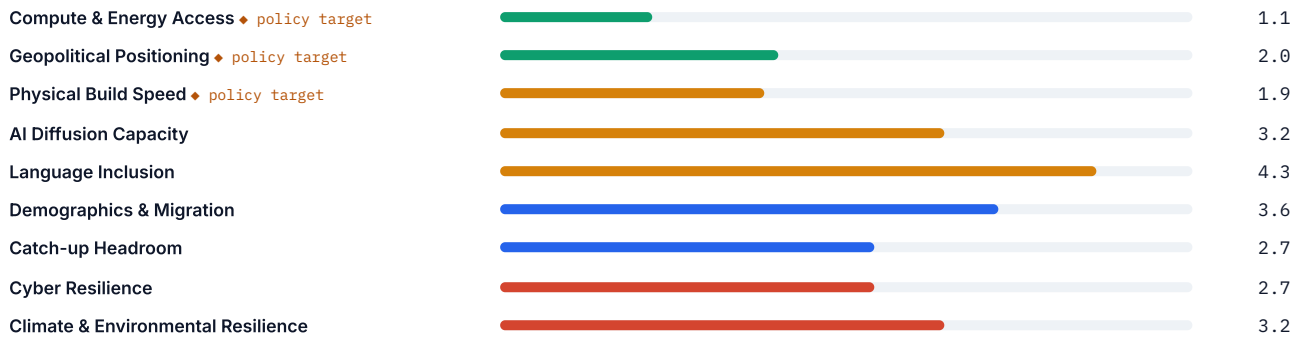
Fast takeoff — today's infrastructure decides

Transformation lands around 2030, before countries can adjust. Whoever already owns compute, capital and the ability to build wins; the gap between countries widens dramatically — and some are left growing slower than they would have without AGI.

up to ~40%/yr from 2030

Costa Rica: 8.6% growth a year · #83 of 157

Factor scores — and where policy bites



♦ marks this country's highest-leverage policy targets: the weakest factors carrying the most weight under the AGI scenarios. The atlas's interactive policy editor (agigrowth.org/#editor) simulates how raising any score changes growth under each scenario.

Archetype: Stalled middle

Neither frontier nor fragile: middling income, middling scores, slow growth — at every size, from micro-states to Brazil.

Wins: No clean window — gains arrive imported, and late.

Watch: Drift: the gap to every faster group compounds year by year.

Jordan 11.8% · #37

Brazil 11% · #43

Mexico 10.4% · #48

Ecuador 10% · #54

Thailand 10% · #55

Slovakia 9.6% · #59

Argentina 9.5% · #61

Lithuania 9.3% · #63

Cabo Verde 9.3% · #64

Croatia 9.1% · #67

The regional picture — Mid-table, and outside the blocs.

Latin America enters the era mid-table on almost every factor — and mostly outside the blocs that decide access. Chile leads on institutions and hosts real compute; Brazil and Mexico have hyperscaler regions and huge domestic markets but thin R&D; Uruguay and Costa Rica absorb well at small scale; Guyana is converting an oil windfall into the hemisphere's fastest construction boom. The region's twenty-year question is what happens to nearshoring: the manufacturing and services work that moved toward Mexico and Central America on labor costs is the work automation reprices first, and no country here has a plan B at scale. Distance from the US-China rivalry cuts both ways — few export controls apply, and few strategic investments arrive. Under the modest lens the region loses little; under fast takeoff it drifts: gains arrive, mostly imported, mostly late, and the gap to the frontier compounds year by year.

Method, in brief

Each country is scored 1–5 on nine factors from public data (World Bank, Epoch AI, ITU, IMF and national sources). A scenario-weighted average forms the AGI Growth Index (0–100), which maps to a post-AGI growth rate inside ceilings derived from Erdil & Besiroglu (2023): ~20% growth a year for the best-positioned country under Gradual takeoff (AGI ~2045), ~40% under Fast (AGI ~2030); growth ramps convexly from 2027. The scenario sets the growth rates on offer; the index only decides where each country sits within them. The Modest scenario is the skeptics' baseline — a small uplift on each country's own ten-year trend. These are simulations for structured thinking, not forecasts; no probabilities are attached to any scenario.

Watch the global signals live: the METR task-horizon curve at metr.org/time-horizons · frontier-lab revenue at epoch.ai/ai-companies · AI-chip spending at epoch.ai/ai-chip-sales.

Explore further: full methodology agigrowth.org/#methodology · map & rankings agigrowth.org/#explore · country profiles agigrowth.org/#countries · policy editor agigrowth.org/#editor