

Nicaragua

Archetype **High-risk/volatile**GDP / person **\$3k**Population **7.01M**10-yr trend **2.8%**Gradual **5.8%** · **#115**Fast **5.5%** · **#115**

WHERE NICARAGUA STARTS

Nicaragua enters the AGI era in the high-risk and volatile group — countries cut off from the AI supply chain, or whose states are too weak or unstable to turn AI into growth. The scores show why. Compute and energy access is 1 out of 5, the lowest band, with almost no data-center capacity. Cyber resilience is 1.2. Geopolitical positioning is 2, weighed down by US and EU sanctions on the Ortega government. Its strengths lie elsewhere. Demographics and migration score 4.4, a young population. Language inclusion is 3.9 and catch-up headroom 3.6. The economy runs on coffee, gold, beef and CAFTA-DR free-zone textiles, with geothermal and hydro power on the grid. At about \$3,173 per person, this is a lower-middle-income country. Ten-year trend growth is 2.8% 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. Nicaragua would gain a touch on trend: 2.9% growth a year, 81st of 157. At that pace the economy doubles in about 24 years. Under **Gradual** takeoff, growth would build for two decades and reach 5.8% a year once AGI matures around 2045. That would rank it 115th, with the economy doubling in roughly 12 years. The gains would arrive mostly imported, through cheaper software and services from abroad. Under **Fast** takeoff, growth would reach 5.5% a year from the early 2030s, a doubling in about 13 years. Notice that Fast sits slightly below Gradual and holds the same 115th rank. A fast world rewards the compute and frontier access Nicaragua does not have, so speed abroad does little for it. Politics could slow or redirect any of these paths. How Nicaraguans 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. 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. Nicaragua's own signals would arrive earlier than the growth data: the order books of the free-zone textile plants, any connectivity or hosting investment that survives the sanctions, and how fast digital public services reach citizens.

IF GROWTH GOES EXPLOSIVE

Explosive is the wrong word here. At 5.5 to 5.8% growth a year, Nicaragua's path is modest by world standards. The frontier would compound near 39% a year in a fast world, and the regional median near 9%. Nicaragua would fall behind both. Measured against its own 2.8% trend, though, this is real catch-up. The economy would double in about 12 years, so a child born today could reach secondary school in a country twice as rich. Higher wages at home would ease the pressure to emigrate, which matters for a country that sends many workers to Costa Rica and the United States. Here is the honest downside. Nicaragua rents whatever compute it uses and owns none of it. A sanctioned, isolated economy could be cut off or priced out by decisions made elsewhere, so the gains arrive late and thin. The hedge is to secure access through partners and spread it across schools, clinics and firms. Even modest growth would test the state: centralized ministries, weakened courts and sanctioned banks would have to permit, adjudicate and finance faster than they do now.

WHAT NICARAGUA CAN DO NOW

Three levers follow from the scores, and two pay off whether or not AGI arrives. The first no-regret lever is AI diffusion capacity, low at 1.9. Digital skills, permissive deployment rules and digital government carry weight even in the skeptic's world, so Nicaragua can act on them today at no loss. The second no-regret lever is physical build speed, at 1.7. Faster permitting, pre-zoned land and transmission built ahead of demand help under every scenario. The third lever is the bet: compute and energy access, the lowest score at 1. It barely moves growth if AI stays ordinary, but under fast takeoff it becomes Nicaragua's single biggest lever. Closing it means packaging geothermal and hydro power with land and permits, then finding partners willing to invest despite the sanctions. For the diffusion lever, Nicaragua could adapt Ukraine's Diia platform, a peer's digital-government app that moved public services onto phones. A cautious government can act on the two no-regret levers now and lose nothing if the skeptics are right. Open the atlas's [policy editor](#) to see how moving these scores would change Nicaragua's path under each scenario.

The three levers — and which pay off regardless

AI diffusion capacity

score 1.9 / 5 · weight 24 under skeptic → 13 under fast takeoff

Counts under the Modest scenario too (24→13). Closing this gap pays off whether or not AGI arrives.

No-regret

Compute & energy access

score 1 / 5 · weight 8 under skeptic → 24 under fast takeoff

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.

AGI bet

Physical build speed

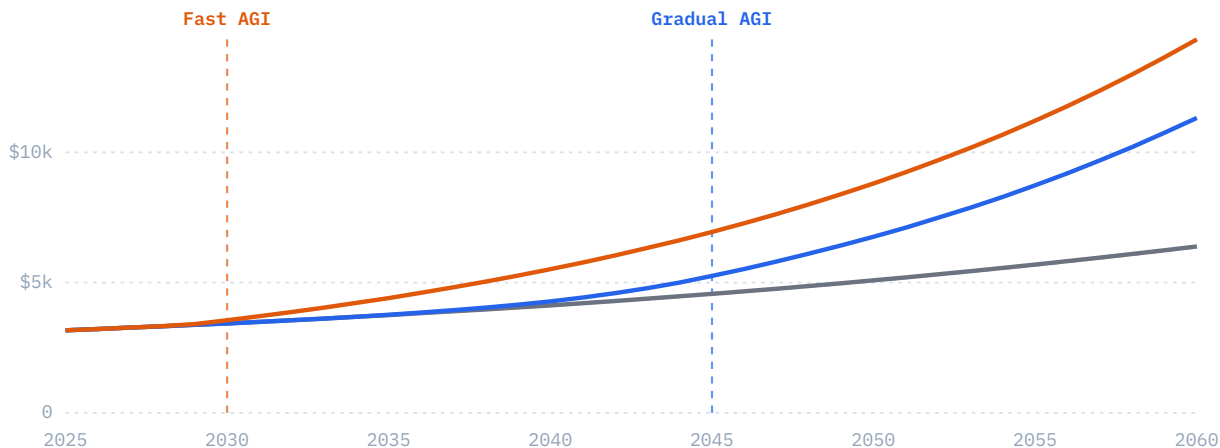
score 1.7 / 5 · weight 8 under skeptic → 17 under fast takeoff

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.

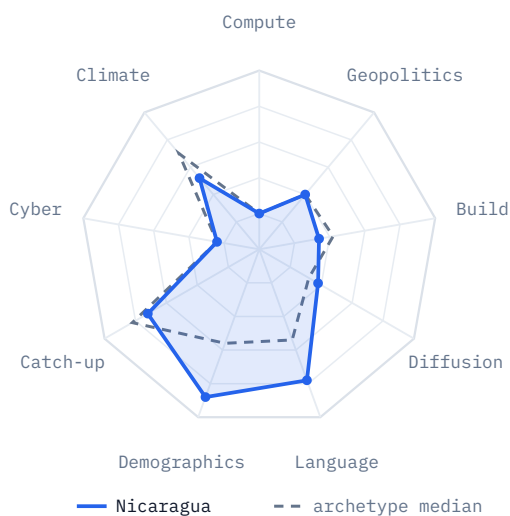
AGI bet

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



The nine factors



Solid: Nicaragua. 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	2.9%	81 / 157	50.5	24.2 yrs
Gradual	5.8%	115 / 157	47.9	12.3 yrs
Fast	5.5%	115 / 157	41.5	12.9 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

Nicaragua: 2.9% growth a year · #81 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

Nicaragua: 5.8% growth a year · #115 of 157

Fast Erdil & Besiroglu, fast takeoff

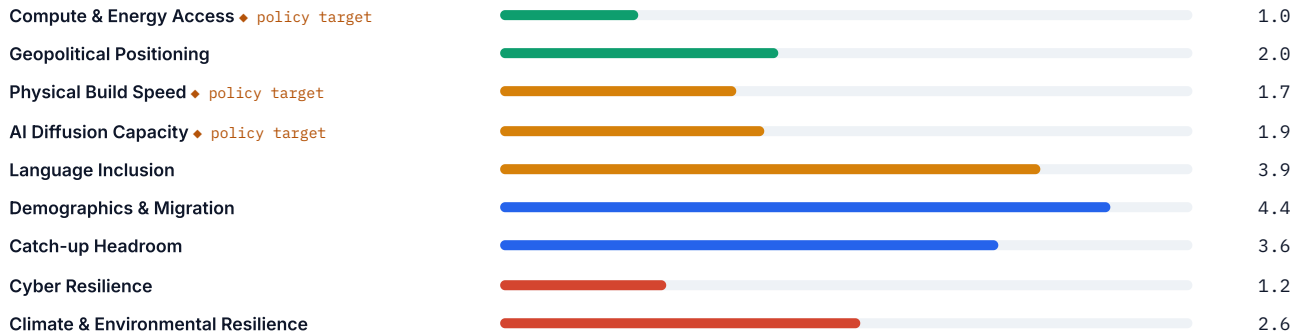
Fast takeoff — today's infrastructure decides

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

Nicaragua: 5.5% growth a year · #115 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: High-risk/volatile

Cut off from the AI supply chain, or state capacity too weak or unstable to convert AI into growth.

Wins: Left behind under every lens.

Watch: Sanctions, conflict, fragile institutions, compute-starved.

DR Congo 9.2% · #65

Russia 8.7% · #74

Papua New Guinea 5.8% · #117

Burundi 5.2% · #125

Mali 5.2% · #126

Republic of Congo 4.9% · #131

Ukraine 3.7% · #138

Madagascar 3.7% · #139

Myanmar 3.6% · #141

Liberia 3.4% · #142

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