



Paraguay

Archetype **Stalled middle**GDP / person **\$7k**Population **7.01M**10-yr trend **2.7%**Gradual **7.5%** · **#89**Fast **9.2%** · **#79**

WHERE PARAGUAY STARTS

Paraguay enters the AGI era as a stalled middle economy: middling income, middling scores, slow growth, neither frontier nor fragile. Its strengths are human and linguistic. Demographics and migration score 4 out of 5, a young population still growing. Language inclusion is 3.9, helped by widespread Spanish and Guaraní. Physical build speed is a fair 3.1. The binding constraint sits in one number: Compute and Energy Access at 1.1. That looks odd for a country that co-owns Itaipú, one of the world's largest hydroelectric dams, and Yacyretá besides. Paraguay has power in abundance but sells much of it abroad and hosts almost no computing. At about \$7,000 per person, it is lower-middle-income. Ten-year trend growth of 2.7% a year reflects soy and beef more than machines.

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. Paraguay would gain a little on trend: 2.9% growth a year, 80th of 157. Farming and hydropower exports would carry the economy much as they do now. Under **Gradual** takeoff, growth would climb across two decades and reach 7.5% a year once AGI matures around 2045, ranking 89th. That is below the Latin American median, a sign of drift: gains arrive, but slowly, and faster economies pull away. An economy growing at 7.5% doubles in under ten years. Under **Fast** takeoff, growth would reach 9.2% a year from the early 2030s, a doubling every eight years, and Paraguay's rank would rise to 79th. A fast world rewards its cheap clean power and young workers more than a gradual one does. Politics could slow or redirect any of these paths. How Paraguayans 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 identical until about 2030. The late 2020s add only fractions of a point to growth. So watch leading indicators, not GDP, and check 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 point to a fast world. A point or two above trend by the mid-2030s would point to a gradual one. A fade back to trend would point to a modest one. Paraguay's own signals would come sooner: hyperscaler interest in its hydropower, the terms of the renegotiated Itaipú treaty with Brazil, and whether the Bitcoin miners drawn by cheap electricity give way to higher-value computing.

IF GROWTH GOES EXPLOSIVE

Explosive is relative. At 7.5 to 9.2% growth a year, Paraguay would run far ahead of its own history, yet it would trail the frontier, where the United States could compound at 19.5% in a gradual world and near 39% in a fast one. Even at its best, Paraguay would sit at the Latin American median, not above it. The economy would double every eight to ten years, so a child born now could reach adulthood in a country several times richer. Farming would shrink as a share of output while power, services and hosting grow. Wages would rise, easing the pressure that sends young Paraguayans to Argentina and Spain for work. There is a way this leaves Paraguay worse off. If it merely sells cheap electricity to data centers owned and controlled abroad, it captures the power bill and little else. The hedge is to host and own computing at home, not just export the electrons. Even then, the pace-setter would shift to the state, testing whether ANDE, the tax authority and the courts can permit, connect and adjudicate at speed.

WHAT PARAGUAY CAN DO NOW

Three levers follow from the scores, and two of them pay off whether or not AGI arrives. The first is AI diffusion capacity, at 2.6. Digital skills, permissive deployment rules and digitized government services carry weight even in the skeptic's world, so building them is a no-regret move a cautious government can start today. The second is geopolitical positioning, at 2. Staying inside trusted-partner frameworks and keeping open access to capital markets protects the economy under every scenario, and it too is largely no-regret. The third lever is the bet. Compute and energy access, at 1.1, barely moves growth if AI stays ordinary, but under fast takeoff it becomes Paraguay's single biggest lever. Here Paraguay holds a rare card: abundant clean hydropower most rivals lack. Closing the gap means packaging that power, land and fast permits to attract data-center investment, rather than exporting the electricity raw. Brazil, a fellow stalled-middle economy, is pairing its market with hyperscaler cloud regions and a national AI plan; Paraguay could match its power to the same demand. Open the atlas's [policy editor](#) to test how moving each score reshapes Paraguay's path.

The three levers — and which pay off regardless

AI diffusion capacity

score 2.6 / 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 1.1 / 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

Trusted chip & tech access

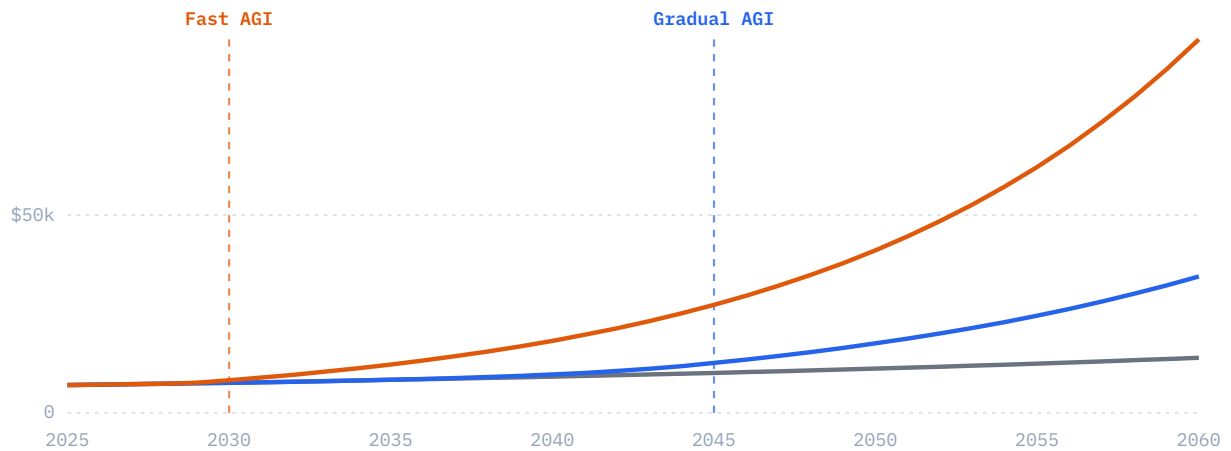
score 2 / 5 · weight 8 under skeptic → 12 under fast takeoff

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.

AGI bet

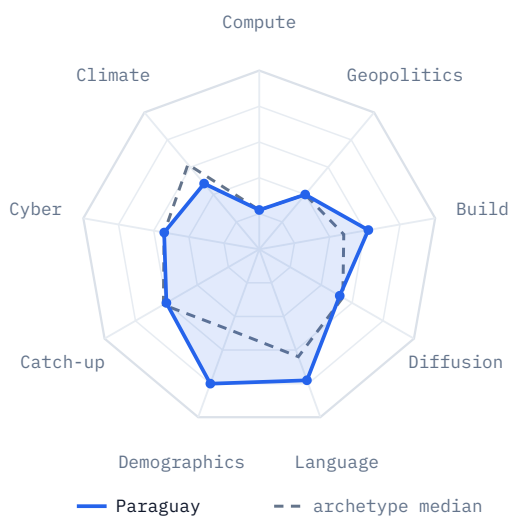
The no-regret levers pay off in every scenario, so a cautious government can act on them today. The AGI bets become decisive only if takeoff is real.

GDP per person to 2060, by scenario



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: Paraguay. 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%	80 / 157	55.8	24.2 yrs
Gradual	7.5%	89 / 157	52.8	9.6 yrs
Fast	9.2%	79 / 157	49.2	7.9 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

Paraguay: 2.9% growth a year · #80 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

Paraguay: 7.5% growth a year · #89 of 157

Fast Erdil & Besiroglu, fast takeoff

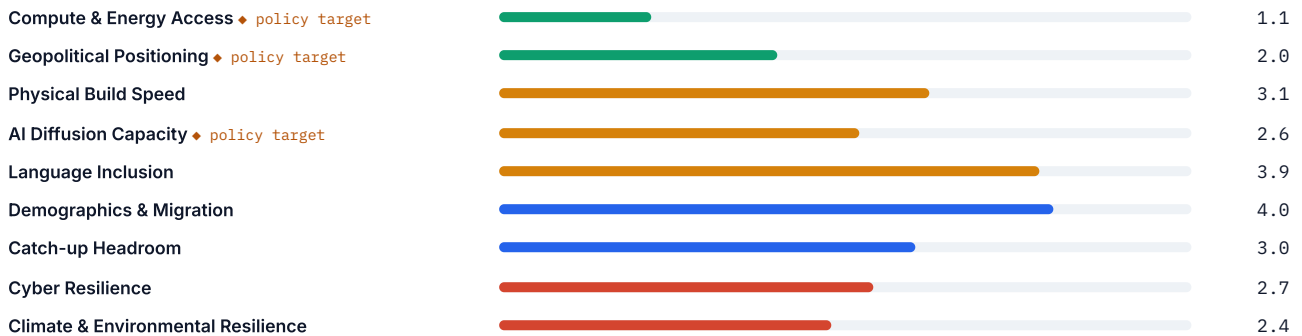
Fast takeoff — today's infrastructure decides

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

Paraguay: 9.2% growth a year · #79 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