

Pakistan

Archetype **Conditional demographic giants**

GDP / person **\$2k**

Population **255M**

10-yr trend **3.7%**

Gradual **7.2%** · #96

Fast **8.1%** · #85

WHERE PAKISTAN STARTS

Pakistan enters the AGI era as a conditional demographic giant: scale and youth are the asset, but only if power, capital and connectivity arrive in time. Its 255 million people and catch-up headroom of 4.2 out of 5 mark the potential — few economies have more room to close the gap with the frontier. The complements are thin. Compute and energy access scores just 1.2, the mark of chronic power shortfalls, circular debt in the electricity sector and almost no data-center capacity. Physical build speed is 2.9 and its demographics-and-migration score is 2.3, both below its archetype's norm. Geopolitical positioning, at 3.5, is a relative strength: Pakistan hedges between China's CPEC investments and Western ties. At about \$1,596 per person, this is a lower-middle-income economy. Ten-year trend growth of 3.7% a year has not kept pace with its population.

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. Pakistan would sit almost on its own trend: 3.8% growth a year, 47th of 157. Its steady climb would rest on domestic demand and its young workforce, not on AI. Under **Gradual** takeoff, growth would build over two decades and reach 7.2% a year once AGI matures around 2045. Yet its rank would fall to 96th, because a gradual world rewards the compute, skills and build speed Pakistan lacks, and faster-moving economies pull ahead. An economy growing at 7.2% doubles in ten years. Under **Fast** takeoff, growth would reach 8.1% a year from the early 2030s, a doubling roughly every nine years, and the rank would recover to 85th. Both AGI paths beat Pakistan's own history, but neither keeps pace with a world racing ahead. Politics could slow or redirect any of these paths. How Pakistanis 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. In all three, the late 2020s add only fractions of a point to growth. 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. Pakistan's own signals would arrive earlier than the growth data: the order books of its IT and freelance-services exporters, any hyperscaler commitment on Pakistani soil, and financial close on CPEC power and grid projects.

IF GROWTH GOES EXPLOSIVE

Explosive is relative, and for Pakistan the honest word is modest. At 7.2% to 8.1% growth a year, the economy would run ahead of its own past, doubling every nine or ten years. But the frontier would compound far faster — near 20% in a gradual world, close to 40% in a fast one — and even South Asia's median would outpace it. This is catch-up by Pakistan's own history and relative decline against the leaders. At that pace, a child born today would reach adulthood in an economy several times larger, and rising wages at home could ease the pressure on young Pakistanis to emigrate for work. There is a way this leaves Pakistan worse off. Its compute is rented, not owned: with a 1.2 score, it would depend on chips and cloud capacity priced and rationed abroad, a rule-taker inside another power's chip regime. Skilled workers could leave faster than they are trained. The hedge is to own capacity and keep talent at home. Even then, the pace-setter would shift to the state, testing whether NEPRA, the power distributors and provincial permitting offices can clear projects and connect new load fast enough.

WHAT PAKISTAN 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 2.4. Digital skills, deployment-friendly rules and digitized government services carry real weight even in the skeptic's world, so building them is a no-regret move Pakistan can start today. The second is physical build speed, at 2.9. Statutory time limits on permits, pre-zoned industrial land and transmission built ahead of demand strengthen the economy under every scenario. The third lever is the bet. Compute and energy access, at 1.2, barely moves growth if AI stays ordinary, but under a fast takeoff it becomes Pakistan's single largest lever, carrying the highest weight of any factor. Closing it means fixing the power sector, fast-tracking generation and grid, and packaging power and land to attract data-center investment. Pakistan can adapt a working model from its largest neighbor: India's IndiaAI Mission pools subsidized GPU capacity for startups and researchers, turning scarce compute into shared national infrastructure. 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 shifting these scores changes Pakistan's path under each scenario.

The three levers — and which pay off regardless

AI diffusion capacity

score 2.4 / 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 1.2 / 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

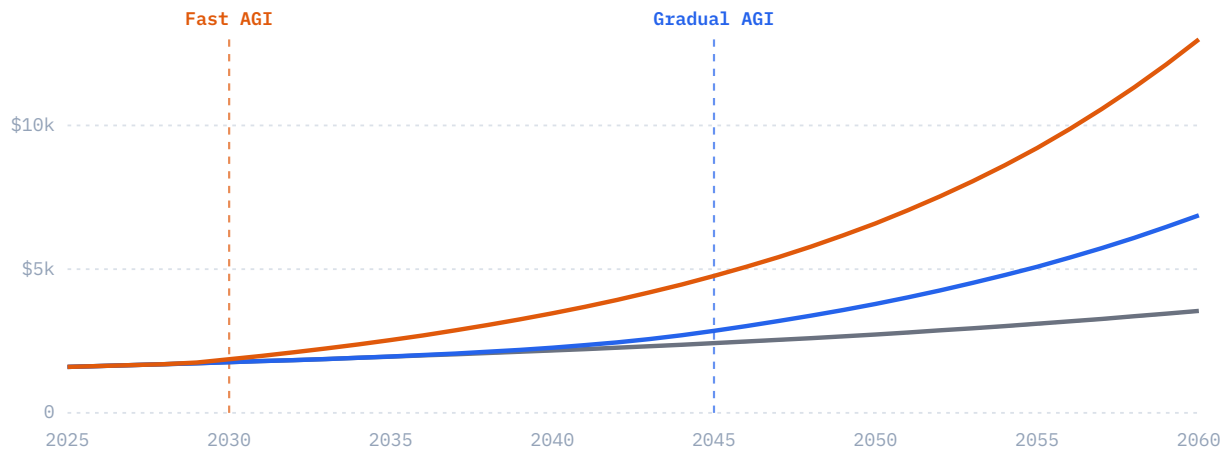
score 2.9 / 5 · weight 8 under skeptic → 17 under fast takeoff

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

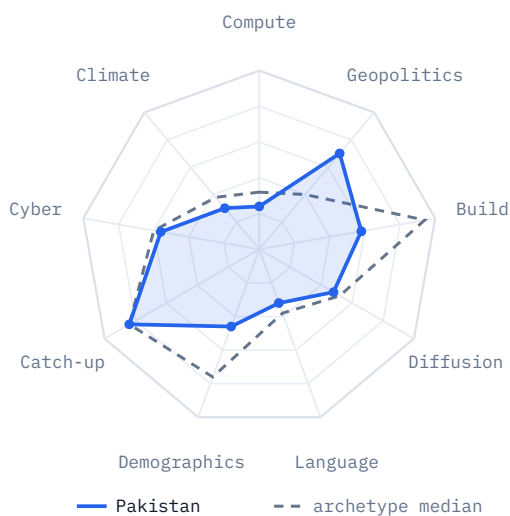
The no-regret levers pay off in every scenario, so a cautious government can act on them today. The AGI bets become decisive only if takeoff is real.

GDP per person to 2060, by scenario



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: Pakistan. 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	3.8%	47 / 157	52.3	18.6 yrs
Gradual	7.2%	96 / 157	50	10 yrs
Fast	8.1%	85 / 157	46.6	8.9 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

Pakistan: 3.8% growth a year · #47 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

Pakistan: 7.2% growth a year · #96 of 157

Fast Erdil & Besiroglu, fast takeoff

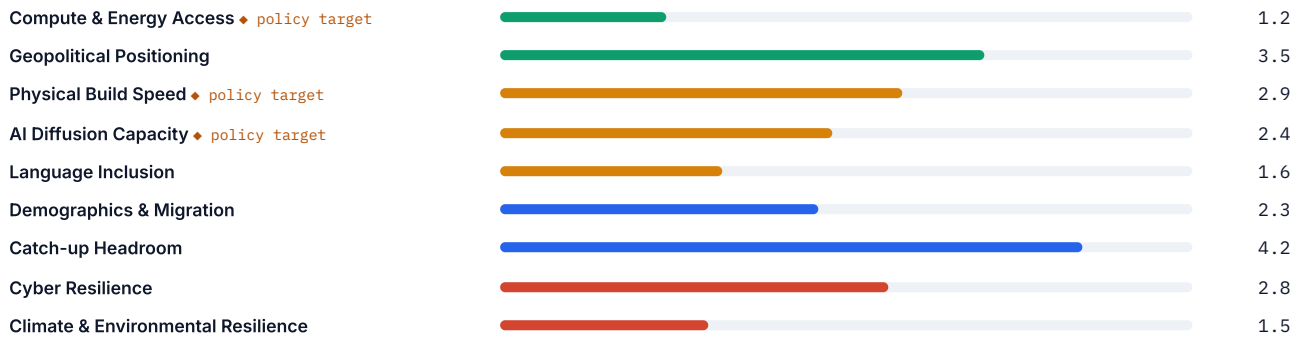
Fast takeoff — today's infrastructure decides

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

Pakistan: 8.1% growth a year · #85 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: Conditional demographic giants

Scale and youth are the asset — if power, connectivity and capital arrive in time. Every member is already climbing, or has its demographic dividend still ahead.

Wins: Mid-to-late, and only conditionally.

Watch: The dividend is the very labor AI substitutes for; the export ladder can be kicked away.

India **14.7%** · #16

Vietnam **13.3%** · #23

Philippines **13%** · #29

Indonesia **12.4%** · #35

Uzbekistan **11%** · #44

Kenya **10.3%** · #51

Bangladesh **10.3%** · #52

Egypt **10.2%** · #53

Tanzania **9.4%** · #62

Ethiopia **8.6%** · #76

The regional picture — One giant, five satellites.

India enters the era with the world's second-largest online workforce, English at scale, real if modest frontier compute, and a services-export sector that is both its proof of absorption and its exposure: the remote cognitive work AGI automates first is what India sells. Under the gradual lens its absolute gains are among the world's largest; under fast takeoff the question is whether a decade is long enough to climb from back office to builder. Geopolitically India hedges — Quad membership and deep US technology ties without alliance obligations — which has so far bought access without dependence. Bangladesh faces the era's hardest version of the ladder problem: its garment-led growth model assumes rich countries keep importing labor-intensive goods, an assumption automation erodes year by year. Pakistan has the youth without the complements; Sri Lanka and Nepal absorb at the margin; the Maldives imports everything. To an unusual degree, the region's fortunes over twenty years are one country's fortunes.

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