

# Malaysia

Archetype **Fast-build capital hubs**

GDP / person **\$13k**

Population **36M**

10-yr trend **4%**

Gradual **15.7%** · #8

Fast **23.6%** · #19

## WHERE MALAYSIA STARTS

Malaysia enters the AGI era as a fast-build capital hub, a place that turns capital into physical AI capacity at speed. It stands out among these hubs for the compute it already hosts. Its Compute and Energy Access score of 3.1 beats the archetype's typical 2, because the Johor corridor has become one of the world's fastest-growing data-center clusters, overflow capacity for Singapore next door. AI Diffusion Capacity is 4.5 and Demographics and Migration 4.8, both near the top. Penang's semiconductor assembly and testing plants give it a real place in the chip supply chain. The binding constraint is Geopolitical Positioning, scored 2: Malaysia sits between the American and Chinese technology spheres and leans on both. Catch-up Headroom is 2.7. Ten-year trend growth is 4% a year, at about \$13,125 per person — upper-middle-income.

## THE THREE PATHS

These are simulations, not forecasts. The Modest path is the baseline, and the two AGI scenarios fork from it. Under the **Modest** scenario, AI stays a normal technology. Malaysia would gain a modest lift: 4.4% growth a year, 37th of 157. The Johor build-out would keep serving Singapore's overflow demand. Under **Gradual** takeoff, growth would climb for two decades and reach 15.7% a year once AGI matures around 2045. That would place Malaysia 8th in the world, ahead of every G7 economy. The long runway lets its builders turn power, land and hosted computing into a regional AI industry. An economy growing at 15.7% doubles in under five years. Under **Fast** takeoff, growth would reach 23.6% a year from the early 2030s, a doubling every three years or so. Yet Malaysia's rank would slip eleven places to 19th, because a fast world rewards the frontier compute and chip access Malaysia does not fully control. Regulation and politics could slow or redirect any of these paths. How Malaysians and their leaders respond to transformative AI is a variable the model holds constant.

## HOW YOU WOULD KNOW WHICH WORLD YOU ARE IN

The three scenarios look almost identical until about 2030. So watch leading indicators, not GDP, and check them live rather than trust any snapshot. 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](https://metr.org). Second, whether frontier-lab revenue and capital spending keep compounding; Epoch AI tracks both at [epoch.ai](https://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. Malaysia's own signals would arrive earlier: fresh hyperscaler commitments in Johor, the order books of Penang's chip-testing plants, and financial close on new grid and generation projects.

## IF GROWTH GOES EXPLOSIVE

Explosive is relative. At 15.7% growth a year, Malaysia would still trail the frontier, because the United States would be compounding faster still. But it would run well ahead of its own history and its region's median. The economy would double roughly every five years, so a child starting school now would finish it in a country several times richer. Data centers and chip services could become a fiscal pillar alongside oil, gas and palm exports. Malaysia both imports migrant labor and loses skilled workers to Singapore; rising wages at home would ease that brain drain. There is an honest way this leaves Malaysia worse off. Its compute edge rests partly on chips and models it buys rather than owns. A rule-taker inside another power's chip regime can be cut off or repriced by decisions made elsewhere, and Malaysia's neutrality holds only while the US-China rivalry stays commercial. The hedge is to own more capability and spread its partners. Even then, the pace-setter would shift to the state, testing how fast the Energy Commission, the grid operator and Johor's planners can permit, connect and adjudicate.

## WHAT MALAYSIA CAN DO NOW

Three levers follow from Malaysia's weakest high-weight scores. Start with the one that pays off whether or not AGI arrives. Catch-up Headroom, at 2.7, is about the basics: stronger institutions, secure property rights, openness to trade and investment, and the schools and finance to absorb new technology. These raise growth in the skeptic's world too, so closing this gap is a no-regret move a cautious government can make today at no loss. The second lever is Geopolitical Positioning, scored 2. Malaysia needs to keep access to advanced chips and to capital markets while avoiding sanctions exposure — a hedge that matters more the faster AI moves. The third lever is the bet. Compute and Energy Access, at 3.1, is already Malaysia's edge, but it carries far more weight under a fast takeoff than under a modest one. Pressing the advantage means fast-tracking grid connection and new generation, and packaging power and land to anchor the next wave of data centers. Malaysia can adapt a working model from its archetype: the United Arab Emirates used a trusted-partner deal between G42 and Microsoft to secure access to advanced American chips. Protecting its diffusion strength, already 4.5, costs little and helps everywhere. Open the atlas's [policy editor](#) to see how moving these scores reshapes Malaysia's path under each scenario.

## The three levers — and which pay off regardless

### Catch-up headroom

score 2.7 / 5 · weight 16 under skeptic → 6 under fast takeoff

Counts under the Modest scenario too (16→6). Closing this gap pays off whether or not AGI arrives.

No-regret

### Compute & energy access

score 3.1 / 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

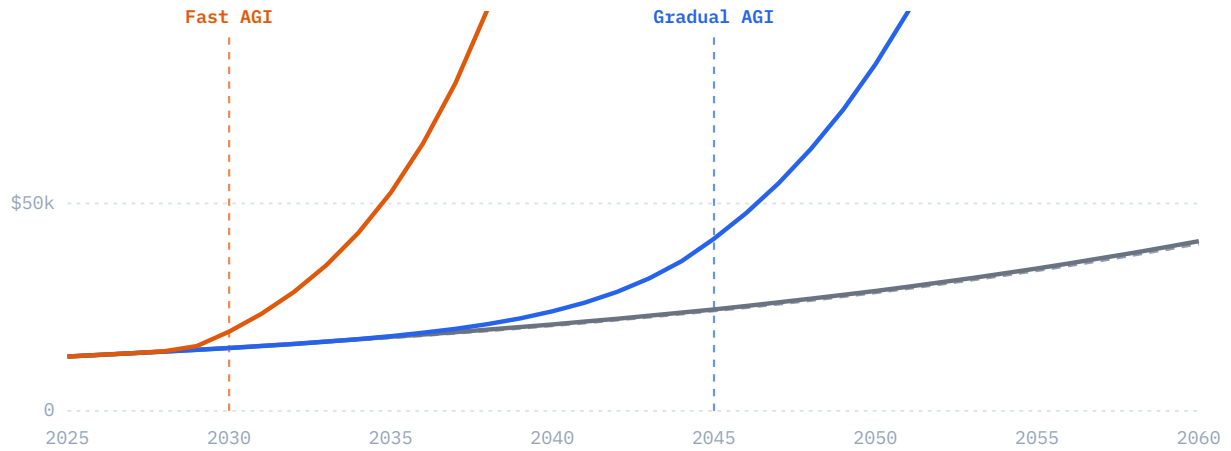
score 2 / 5 · weight 8 under skeptic → 12 under fast takeoff

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

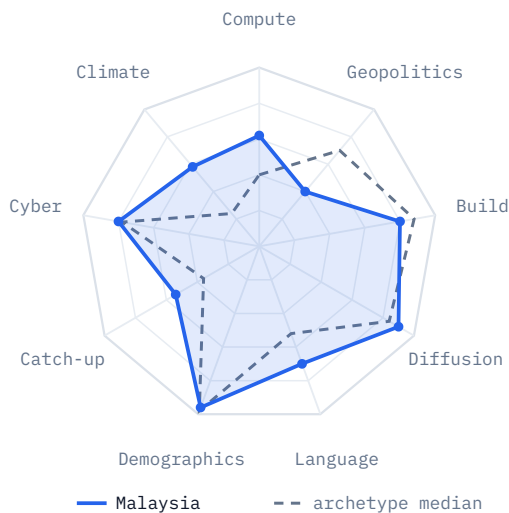
The no-regret levers pay off in every scenario, so a cautious government can act on them today. The AGI bets become decisive only if takeoff is real.

## 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: Malaysia. 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   | 4.4%        | 37 / 157   | 73.1  | 16.1 yrs |
| Gradual  | 15.7%       | 8 / 157    | 71.1  | 4.8 yrs  |
| Fast     | 23.6%       | 19 / 157   | 69.2  | 3.3 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

Malaysia: 4.4% growth a year · #37 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

Malaysia: 15.7% growth a year · #8 of 157

#### Fast Erdil & Besiroglu, fast takeoff

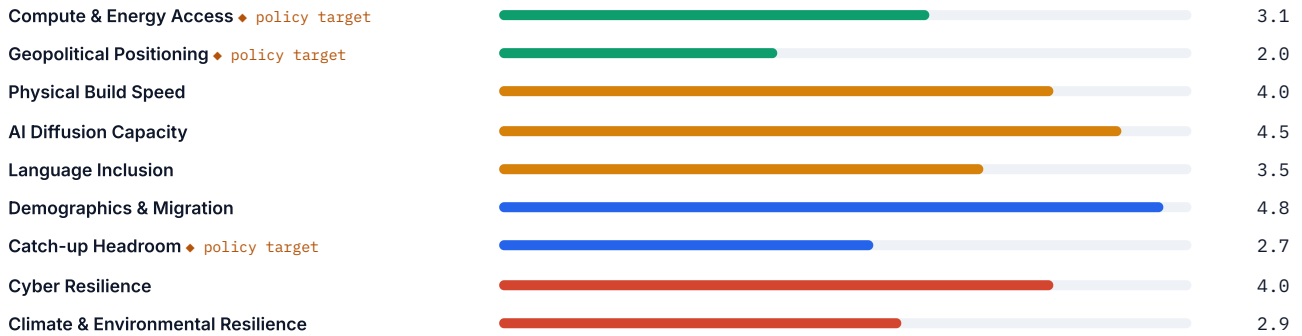
##### Fast takeoff — today's infrastructure decides

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

Malaysia: 23.6% growth a year · #19 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](https://agigrowth.org/#editor)) simulates how raising any score changes growth under each scenario.

## Archetype: Fast-build capital hubs

**Capital converts into physical AI capacity: power, data centers, new cities — built at speed.**

Wins: The build-out — late in the gradual world, immediately in the fast one.

Watch: Heat and water; imported talent; bought compute is revocable in a way owned capability is not.

United Arab Emirates **14.7%** · #15

Turkey **13.1%** · #26

Morocco **13%** · #28

Saudi Arabia **12.5%** · #33

Bahrain **11.2%** · #40

Qatar **11.1%** · #41

Romania **10.4%** · #50

Oman **8.7%** · #75

## The regional picture — The build-out's second front.

This is the AI build-out's second front. Malaysia's Johor corridor has become one of the world's fastest-growing data-center clusters — overflow capacity for Singapore and inference for hire for everyone — and Singapore itself pairs the region's strongest institutions with a deliberate role as neutral ground between the American and Chinese technology spheres. That neutrality is the region's defining bet: most members buy Chinese infrastructure and use American or Chinese models as price and access dictate, and their room to keep doing both depends on the rivalry staying commercial rather than exclusionary. Vietnam, Indonesia and the Philippines pair young workforces with real construction momentum, and Thailand builds at scale while aging faster than it grows; these are also the countries whose export-manufacturing ladder a fast takeoff most directly threatens, because factory automation competes head-on with their cost advantage. Myanmar is cut off by conflict and sanctions; Timor-Leste is barely connected. Over twenty years the spread here could rival Europe's — Singapore near the top of the world table, Myanmar near the bottom.

## 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](https://metr.org/time-horizons) · frontier-lab revenue at [epoch.ai/ai-companies](https://epoch.ai/ai-companies) · AI-chip spending at [epoch.ai/ai-chip-sales](https://epoch.ai/ai-chip-sales).

**Explore further:** full methodology [agigrowth.org/#methodology](https://agigrowth.org/#methodology) · map & rankings [agigrowth.org/#explore](https://agigrowth.org/#explore) · country profiles [agigrowth.org/#countries](https://agigrowth.org/#countries) · policy editor [agigrowth.org/#editor](https://agigrowth.org/#editor)