

United States

Archetype **Frontier superpowers**

GDP / person **\$90k**

Population **342M**

10-yr trend **2.5%**

Gradual **19.5%** · **#1**

Fast **39.2%** · **#1**

WHERE THE UNITED STATES STARTS

The United States is one of two frontier superpowers, the countries that own the models, the compute and the capital. The scores are blunt about why. Compute and energy access, geopolitical positioning and AI diffusion capacity all score 5 out of 5; language inclusion is 4.9 and cyber resilience 4.8. The country holds roughly 80% of the world's tracked frontier training compute, the leading labs and the deepest capital markets. It tops the index under every scenario. The constraint is physical and largely self-imposed. Physical build speed scores 3.8, held down by interconnection queues, slow permitting and a grid that expands slowly. At about \$90,027 per person, this is a high-income economy. Ten-year trend growth of 2.5% a year is what a mature frontier delivers before AI changes the arithmetic.

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. The United States would grow 3% a year and rank 72nd of 157. That low rank is not weakness. In a modest world, growth comes from catching up to the frontier, and the United States is the frontier, with little room to converge. At 3% growth the economy doubles in a little over 23 years. Under **Gradual** takeoff, growth would climb through a two-decade ramp and reach 19.5% a year once AGI matures around 2045, ranking first in the world. At that rate the economy doubles in under four years. Under **Fast** takeoff, growth would reach 39.2% a year from the early 2030s, again first in the world, a doubling every two years or so. In both AGI scenarios the frontier's own compute, capital and labs drive the result. Regulation and politics could slow or redirect any path. How Americans and their institutions 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. 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 breaks above trend in the early 2030s. Here the United States is the bellwether itself. Double-digit growth 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. America's own tells arrive earlier: gigawatt data-center campuses reaching financial close, interconnection queues clearing faster, behind-the-meter generation coming online, and the capital spending of the frontier labs.

IF GROWTH GOES EXPLOSIVE

For the United States, explosive is the world standard, not a stretch. It sets the frontier, so at 19.5% or 39.2% growth a year it runs faster than everyone else. At the gradual rate the economy doubles every four years; at the fast rate, every two. A child born now could reach adulthood in a country many times richer. The mix would tilt toward compute, power and the services built on them. The United States is an aging country that draws migrants, so there is no wave of emigration to reverse. Instead, rising labor demand and wages would pull in skilled workers from abroad. The honest downside is the grid. If power demand grows exponentially while transmission expands slowly, the frontier's potential gets stranded, and the build migrates to countries with cheaper, faster power. The hedge is to build generation and transmission ahead of demand. Even then, the pace-setter shifts to the state. FERC interconnection rules, NRC nuclear licensing, transmission siting across state lines and NEPA litigation would decide how fast the build happens.

WHAT THE UNITED STATES CAN DO NOW

Three levers follow from the scores, and two pay off whether or not AGI arrives. The first is physical build speed, at 3.8 and the heaviest-weighted. Grid, permitting and transmission matter under every scenario, so fixing them is a no-regret move: statutory shot-clocks on approvals, one-stop permitting, limits on litigation delay, and transmission built ahead of demand. The second no-regret lever is climate and environmental resilience, at 3. Water and cooling defense protects the economy in any world, and both are inputs a data-center build would need. The third lever is different. Catch-up headroom scores 1.2, because the United States is already the frontier, with little room to converge. There is no gap to close; the task is to protect the openness to talent, trade and capital that keeps the frontier moving. The United States can adapt a model from its only peer: China's "East Data, West Computing" plan routes data centers to western regions with cheap power. A cautious government can act on the two no-regret levers today and lose nothing if the skeptics are right. To see how moving these scores changes each path, open the atlas's [policy editor](#).

The three levers — and which pay off regardless

Catch-up headroom

score 1.2 / 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

Climate & water resilience

score 3 / 5 · weight 8 under skeptic → 7 under fast takeoff

Counts under the Modest scenario too (8→7). Closing this gap pays off whether or not AGI arrives.

No-regret

Physical build speed

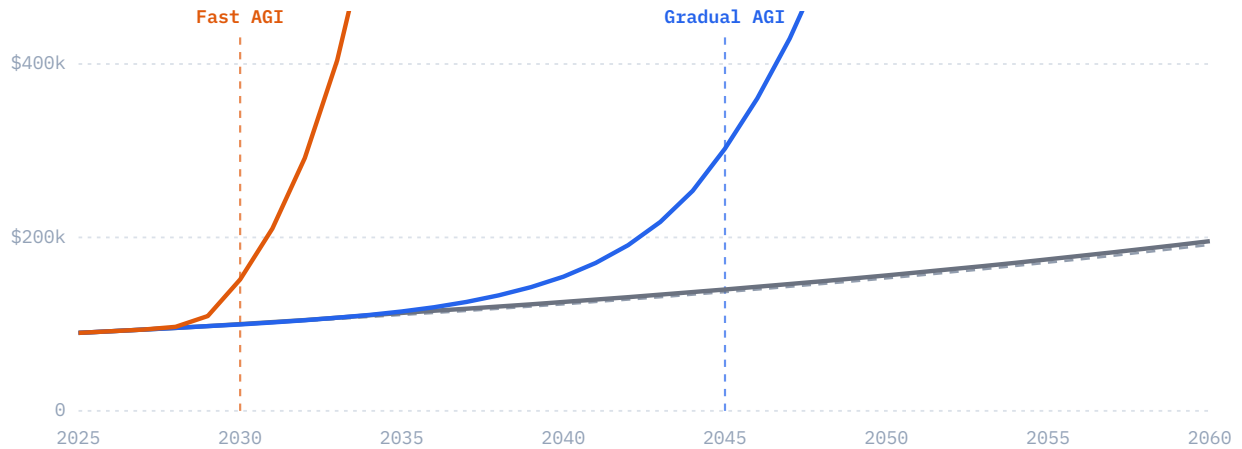
score 3.8 / 5 · weight 8 under skeptic → 17 under fast takeoff

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

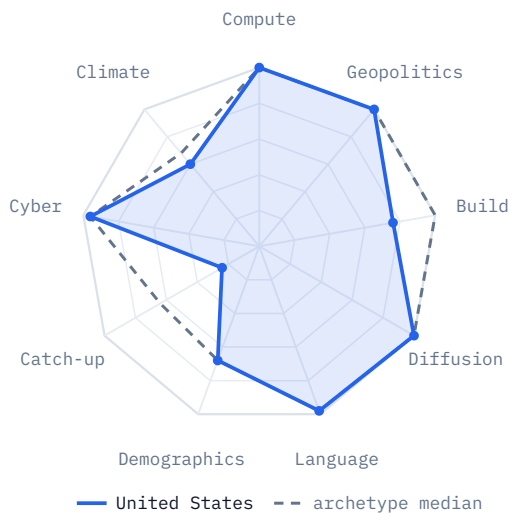
The no-regret levers pay off in every scenario, so a cautious government can act on them today. The AGI bet becomes decisive only if takeoff is real.

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: United States. 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%	72 / 157	78.4	23.4 yrs
Gradual	19.5%	1 / 157	80	3.9 yrs
Fast	39.2%	1 / 157	86.2	2.1 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

United States: 3% growth a year · #72 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

United States: 19.5% growth a year · #1 of 157

Fast Erdil & Besiroglu, fast takeoff

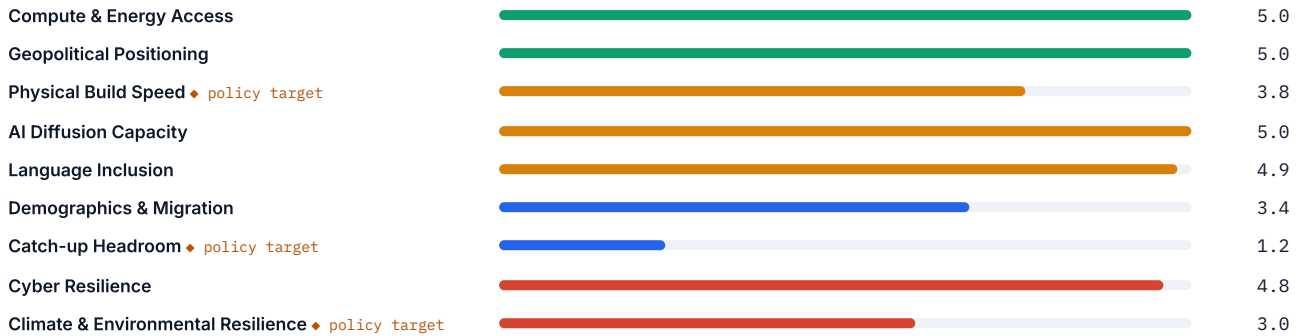
Fast takeoff — today's infrastructure decides

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

United States: 39.2% growth a year · #1 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: Frontier superpowers

Own the models, the compute and the capital: the two countries running the frontier.

Wins: Early, and they set the rules everyone else plays under.

Watch: US: permitting and grid; China: chip access and demographics.

China **18.4%** · #2

The regional picture — The frontier, and its neighbor.

The United States enters the AGI era holding roughly 80% of the world's tracked frontier training compute, the leading labs, and the deepest capital markets to fund what comes next; it tops the index under every lens. Its constraint is physical and largely self-imposed: interconnection queues, permitting and transmission decide how much of the frontier's potential actually gets built on American soil. The next twenty years look like a race between exponential demand for power and a grid that expands arithmetically — gigawatt campuses, behind-the-meter generation and, late in the window, new nuclear are the deciding front. Canada shares the market, the alliance and the language; it absorbs AI quickly and holds the energy, land and minerals the build-out needs, but has little frontier capacity of its own, which keeps its ceiling a notch below its neighbor's. Given AGI on any timeline, this region writes the rules everyone else plays under.

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