

North Macedonia

Archetype **Stalled middle**

GDP / person **\$10k**

Population **1.82M**

10-yr trend **2.3%**

Gradual **5.3%** · **#122**

Fast **6.4%** · **#101**

WHERE NORTH MACEDONIA STARTS

North Macedonia is a stalled middle: middling income, middling scores, slow growth. It is neither frontier nor fragile. Its strengths are institutional and digital, not physical. Geopolitical positioning scores 3.5, AI diffusion capacity 3.3 and cyber resilience 3.3 — the marks of an EU accession candidate wired into Western supply chains. The economy runs on manufacturing, which is 82% of exports, led by automotive components made in the country's Technological Industrial Development Zones. The binding constraints sit elsewhere. Compute and energy access scores just 1.1, with almost no data-center capacity and an aging coal fleet at Bitola. Demographics and migration scores 1.3, dragged down by decades of emigration. Physical build speed is 1.6. At about \$10,500 GDP per person and ten-year trend growth of 2.3% a year, the country drifts while faster groups pull away.

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. North Macedonia would gain almost nothing on trend: 2.4% growth a year, 99th of 157. Diffusion and stable institutions would carry it, but the drift continues. Under **Gradual** takeoff, growth would build over two decades and reach 5.3% a year once AGI matures around 2045. Yet its rank would slip to 122nd, because faster economies accelerate more than it can. At 5.3%, the economy doubles in about thirteen years. Under **Fast** takeoff, growth would reach 6.4% a year from the early 2030s, a doubling in roughly eleven years, and its rank would recover to 101st. Even then the gains arrive imported and late, limited by the compute and power it does not hold. Regulation and politics could slow or redirect any of these paths. How Macedonians 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, 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. North Macedonia's own signals would arrive earlier than the growth data: the order books of the automotive plants in the TIRZ zones, fresh foreign investment commitments, any data-center or grid-upgrade deal, and the pace of EU accession chapters.

IF GROWTH GOES EXPLOSIVE

For North Macedonia, explosive is the wrong word. At 5.3% to 6.4% growth a year, its rates are modest by world standards. The frontier would compound at up to 39% and the European median at 10% to 16%, so the country would fall behind both even in a fast world. But 6.4% would still beat its own history. The economy would double in about eleven years, so a worker in her thirties today would see it double once more before she retires. Manufacturing would automate and climb toward higher-value work. Rising wages at home could ease the pressure to emigrate that has hollowed out the workforce for a generation. The honest downside runs through that same channel. If the frontier races ahead and Macedonian wages do not, its most skilled young people would leave faster, not slower, deepening the demographic hole. The hedge is to make staying pay: skills, open deployment and returns that reward talent at home. Even then, the pace-setter shifts to the state, testing whether ministries, courts and the energy regulator can permit, adjudicate and connect fast enough.

WHAT NORTH MACEDONIA CAN DO NOW

Three levers follow from the scores, and two of them pay off whether or not AGI arrives. The first is physical build speed, low at 1.6. Statutory time limits on permits, one-stop approvals and pre-zoned land would speed every project, AI or not — a no-regret move that also readies the ground for any future data center. The second is demographics, at 1.3 the deepest constraint. Raising labor-force participation among women and older workers, and investing in skills so people work alongside AI, strengthens the economy under every scenario. That is no-regret too. Lithuania offers a model here: its startup visa and talent-attraction regime turned a small country into a fintech hub, an approach Macedonia could adapt to keep and draw skilled workers. The third lever is the bet. Compute and energy access, at 1.1, barely moves growth if AI stays ordinary, but under a fast takeoff it carries the most weight of any factor. Closing it means packaging power, land and fast permits to attract investment, and replacing the aging Bitola fleet with firm, clean generation. A \$19bn economy cannot fund this alone, so it needs partners. A cautious government can act on the two no-regret levers today and lose nothing. Open the atlas's [policy editor](#) to see how moving these scores reshapes each path.

The three levers — and which pay off regardless

Demographics & migration

score 1.3 / 5 · weight 12 under skeptic → 6 under fast takeoff

Counts under the Modest scenario too (12→6). 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

Physical build speed

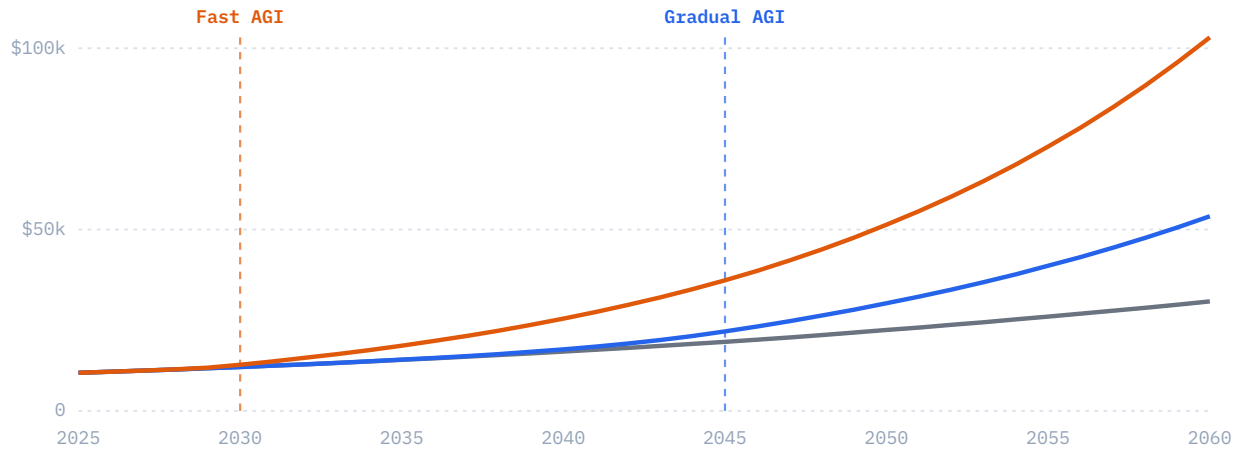
score 1.6 / 5 · weight 8 under skeptic → 17 under fast takeoff

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

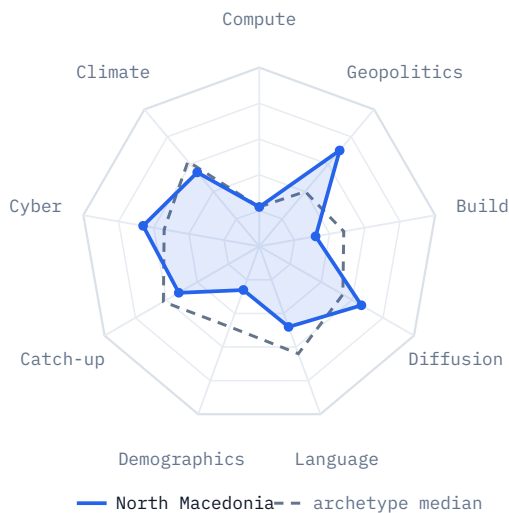
The no-regret levers pay off in every scenario, so a cautious government can act on them today. The AGI bets become decisive only if takeoff is real.

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: North Macedonia. 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	2.4%	99 / 157	50.8	—
Gradual	5.3%	122 / 157	47.7	13.4 yrs
Fast	6.4%	101 / 157	44.6	11.2 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

North Macedonia: 2.4% growth a year · #99 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

North Macedonia: 5.3% growth a year · #122 of 157

Fast Erdil & Besiroglu, fast takeoff

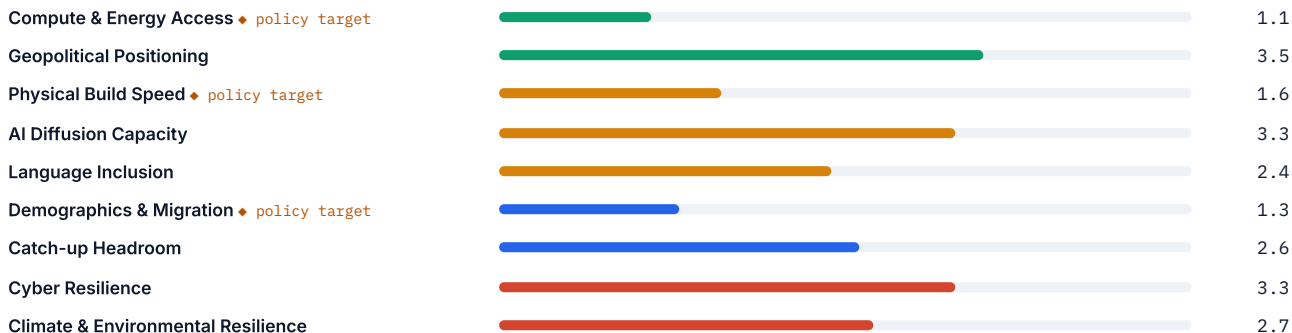
Fast takeoff — today's infrastructure decides

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

North Macedonia: 6.4% growth a year · #101 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 — Rich, capable — and dependent on someone else's frontier.

Europe has the world's densest cluster of high-trust absorbers: strong institutions, high measured adoption, deep skills. What it does not have is a frontier. The entire continent hosts about 8% of tracked training compute — a tenth of the American share — and none of the leading labs. That makes Europe's position derivative in a way its wealth conceals: its access to frontier capability rests on continued alliance inclusion under the US AI umbrella (most of the continent sat in Tier 1 of the 2025 diffusion framework) and on open-weight models remaining available not far behind the frontier. Neither is guaranteed across twenty years, and the hedge — building sovereign European capability — collides with the region's domestic constraints: high energy prices, slow permitting, and workforces aging from Lisbon to Warsaw. The UK and Ireland lead on absorption; Central Europe is building real manufacturing capacity; the Balkans and Moldova trail on institutions; Ukraine remains a war economy. Given AGI, Europe's internal spread is already wide — and the gap between absorbing AI and owning any part of it is the region's defining exposure.

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