

FROM MINES TO MICROCHIPS: HOW EMERGING COUNTRIES CAN CAPITALISE ON THE DEMAND FOR AI

With the rise of artificial intelligence (AI), emerging countries with strategic resources—such as critical metals and semiconductor production capacities—are becoming key players. Countries that are well positioned within AI supply chains benefit from both an economic growth engine and an asset to leverage in their international relations. Industrialised countries in Asia, which account for over 85% of the global export of electronic chips, are best placed to capitalise on the increasing demand for AI. However, this advantage comes with greater exposure to the risk of a technology market correction. Countries that extract minerals that are vital to AI also have an advantage; forming partnerships that help attract foreign investment will be the key to positioning themselves more centrally in AI supply chains. Finally, whether they are producers of minerals or chips, these countries are all exposed to the risks associated with the high concentration of major AI players in a context of heightened geopolitical tensions.

Contrary to expectations, average growth in emerging economies did not slow down in 2025 compared to 2024, despite the scale of protectionist measures and geopolitical tensions. According to our latest estimates, it stood at 4.3%, the same as the previous year. This good performance was supported by generally accommodative external financial conditions, the easing of domestic monetary policies and continued disinflation, the resilience of global trade and the reorganisation of trade flows in response to US tariffs¹, and finally, the very strong increase in investment in technology, especially in artificial intelligence (AI).

In our baseline scenario for 2026, these supportive factors are expected to continue, even if they lessen². Growth in emerging economies is expected to slow only very moderately, reaching an average of 4.1% according to our forecast. This scenario assumes, among other factors, the sustained increase in the use of AI and the rapid growth of investment in AI infrastructure. These factors will continue to drive global demand for the electronic goods, energy and critical raw materials needed for this technology.

EMERGING COUNTRIES AND AI: A WIDE RANGE OF POSITIONS

Emerging countries have a wide range of positions with regard to AI, whether in terms of their ability to innovate, finance and adopt technologies, their sensitivity to the impact of AI on productivity and employment, or their position within supply chains. It is the latter aspect that particularly interests us here, as it will be the main channel for transmitting the effects of the AI sector's boom on emerging economies in 2026, as in 2025.

Currently, the impact of AI expansion on the growth of emerging economies (excluding China) is mainly driven by the knock-on effects of investment in physical AI infrastructure. Although AI is expected to be adopted at a faster rate than previous innovations, its impact on productivity will only become evident after a period of diffusion of the new technology, and provided that investments in physical and human capital facilitate its adoption (e.g. renewal of equipment, reorganisation of production processes, training, etc.).

Among emerging economies, the most developed countries in Asia, China, Central European countries and Turkey appear to be best positioned to deploy and use AI, according to the AI preparedness index of the IMF (see chart). The capacity of Latin American countries and, above all, sub-Saharan Africa (SSA) to deploy and use AI is much more limited (the average AIPI index for SSA is 0.33).

¹ See BNP Paribas, EcoWeek: [Global trade didn't just survive "Liberation Day"; it came out stronger](#). 16 February 2026.

² See BNP Paribas, EcoWeek: [Emerging economies in 2026: cautious optimism](#). 19 January 2026.

In general, emerging economies are less well positioned than advanced economies to benefit from the adoption and diffusion of AI (the average AIPI index for G7 countries is 0.72). However, they are generally better positioned within AI supply chains. These chains include activities related to the chip industry (design, manufacturing and assembly), equipment and other electronic materials, as well as AI infrastructure (such as supercomputers and data centres). These sectors are extremely capital-, energy-, water-, and mineral-intensive. They have also become highly strategic.

As a result, countries that are well positioned within AI supply chains—primarily producers of critical metals, electricity and advanced semiconductors—have both a growth engine and a geopolitical asset.

This advantage is likely to strengthen in the short term, provided that the boom in investment in data centres and other AI infrastructure continues. Currently, the investments planned for 2026 by the four leading companies in the sector in the United States (Amazon, Microsoft, Meta and Google) amount to USD 620 billion, which is four times the amount in 2023 and is up 60% on 2025. These investments will drive global demand for semiconductors, the market for which is expected to grow by +26% in 2026 (after +22% in 2025), according to forecasts from the World Semiconductor Trade Statistics organisation.

To assess countries' positioning within AI supply chains, we use export data for "AI-enabling goods" or "AI-related goods," as estimated by Oxford Economics and based on the WTO nomenclature.

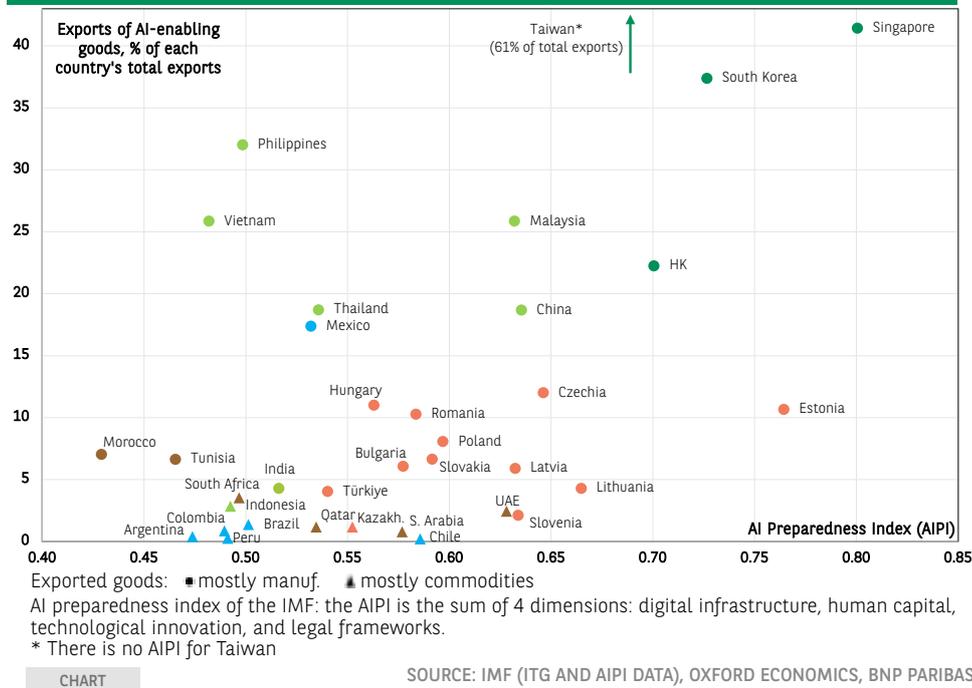
This results in a broad estimate of exports of AI-related goods, as it includes raw materials, chemicals, equipment, semiconductors, and other electrical and electronic equipment used in AI, but also 'likely to be used' in AI (and thus potentially in other applications as well). In 2025, total exports of "AI-related goods" are estimated at USD 3.3 trillion, or about 12% of global merchandise exports. Semiconductors and other electronic components account for about 70% of the total, equipment for 25%, and raw materials and chemicals for less than 5%. This last figure, which may come as a surprise, contrasts with the strategic nature of the critical materials needed for AI, but can be explained by the very small quantities that are ultimately used.

AI AT THE HEART OF CHINA'S DEVELOPMENT STRATEGY

AI is at the heart of Beijing's strategy to extend China's technological dominance on a global scale and strengthen its autonomy and national security. It has become an area of intense competition with the United States. On the domestic front, AI is also a central element of the authorities' economic strategy. Innovation, the development of AI, and its widespread deployment in the country are expected to stimulate productivity gains and support growth at a time when China is adjusting its main drivers and facing demographic challenges.



AI-RELATED OPPORTUNITIES: ASIAN COUNTRIES ARE THE BEST POSITIONED



The country is also well positioned to adopt AI, according to the IMF's AI preparedness index. The "AI+ initiative", unveiled last August, confirmed Beijing's objectives, and the 2026-2030 Five-Year Plan is expected to give AI a central role in the development of "new high-quality productive forces."

In the AI race against the United States, China has been catching up very quickly in recent years, thanks to accelerated innovation and massive investment. While the United States retains its clear lead in computing power and the design of the most powerful chips, and controls sales of these chips (Nvidia) to China, China, for its part, controls the supply of critical materials and is a leader in open source models and data collection and management. China has the strategy, infrastructure, energy, critical materials and capital to continue developing AI. Rivalry and the race for technological supremacy with the United States will be key drivers of the evolution (and decoupling) of production chains in the medium term.

INDUSTRIALISED ASIAN COUNTRIES ARE THE PRIMARY BENEFICIARIES

Industrialised Asian countries occupy a prominent place in the AI supply chain, given their specialised export base in semiconductors and other high-tech goods. Over 85% of global semiconductor exports³ and 65% of global exports of "AI-related" goods⁴ come from Asia.

Their specialisation has greatly benefited them in recent months. While global trade grew strongly in 2025 (total exports are estimated to have risen by +5% in volume), Asia benefited more (+14.8% in volume for the most advanced countries⁵, +8.5% for China, and +6.4% for other countries in the region).

³ BNP Paribas calculations for 2024-2025, ITC/COMTRADE data.

⁴ Estimate for 2025 based on Oxford Economics data.

⁵ South Korea, Taiwan, Hong Kong (99% of whose exports are re-exports of goods coming mainly from China and other Asian countries), Singapore (75% of whose exports are re-exports or exports of oil products).

Since April 2025, the tech sector has accounted for over 80% of the growth of exports from Asia excluding China (and nearly 60% of Chinese export growth)⁶.

China occupies a dominant position in AI globally. It is present across almost the entire value chain and supplies 21% of all AI-related goods exported worldwide.

Taiwan also has a critically strategic position at the heart of the semiconductor supply chain that is the most essential for the AI sector. This position is based on the high degree of openness and specialisation of its economy (61% of its exports are AI-related goods, the highest rate in the world) and its significant technological lead. Taiwan supplies 11% of AI-related goods and 15% of semiconductors exported worldwide, and manufactures almost all of the most powerful AI-specialised chips. Taiwan's total exports jumped by +35% in value in 2025 (including +79% to the United States). This leadership in semiconductors is also a strategic asset, which Taiwan emphasises in its negotiations with the United States and other trading partners.

After China, Taiwan, and the United States, the countries best positioned within AI supply chains include other advanced countries in Asia, then Vietnam and Malaysia, as well as Germany, the Netherlands and Mexico. These countries account for between 3% and 8% of global exports of AI-related goods in 2025, again according to the WTO nomenclature.

In the semiconductor sector, the value chain is characterised by significant fragmentation, which is reflected in the organisation of production in Asia. China is present at multiple stages of production. Taiwan, South Korea and Japan specialise in the manufacture of silicon wafers (on which integrated circuits are etched). These three countries, together with China, accounted for 80% of wafer production capacity in 2025.

⁶ The vast majority of electronic goods remain exempt from tariffs in the US.



Further down the supply chain, Malaysia, Vietnam and the Philippines specialise in the assembly, testing and packaging (OSAT) of chips to create electronic components. Although the contribution to GDP is more modest, the dynamism of the sector in 2025 significantly fuelled their economic growth.

PRODUCERS OF CRITICAL MATERIALS HOLD A STRATEGIC POSITION

Raw materials account for only 2% of global exports of AI-related goods (again, based on estimates from the WTO nomenclature). However, they are of strategic importance. The primary suppliers of these commodities are in the Middle East (particularly the United Arab Emirates), Asia (particularly Indonesia), and Latin America.

Global demand for raw materials essential to AI (for chips and data centres) will increase significantly in the coming years. All these materials are deemed “critical” due to their limited substitutability, their significance in the creation of global industrial value, and the geographical concentration of supplier countries.

Exploration, extraction, and processing of minerals are difficult, time-consuming and expensive endeavours, but the quantities required for their end use are small. Significant supply difficulties directly related to production problems or bottlenecks are therefore not the most pressing risk in the short term. On the other hand, the critical nature of these materials and the challenges posed by AI endow them with a strategic significance in international relations and trade negotiations. Critical metals have been subject to a growing number of export restrictions in recent years, and ongoing geopolitical tensions are increasing the vulnerability of AI supply chains to the risk of supply disruptions.

China, in particular, wields significant influence over its partners due to its largely dominant position in the production of critical materials. Advanced countries are taking steps to reduce this vulnerability⁷, but meeting domestic demand will take decades, while China has been implementing a development plan defined several years ago. The expansion of AI could therefore accentuate, at least in the short term, the world’s dependence on China, Sino-American rivalry, and geopolitical tensions.

In this context, the boom in the AI sector is creating economic opportunities for emerging countries with reserves of critical minerals. While the impact of their exports of these commodities on economic growth remains modest for the time being, these countries have a strategic advantage that could help them form partnerships, attract foreign investment, and develop new projects in the mining sector, even at the expense of the environment, and capitalising on the expansion of AI.

Central European countries do not possess obvious comparative advantages in AI supply chains. However, they benefit from a well-educated workforce and infrastructure that should facilitate the dissemination of AI and its integration into both society and the economy. In addition, Central European governments, like those in the Middle East, are engaged in ambitious plans that aim to use AI as a lever for economic development (read our next *EcoPerspectives-Emerging*).

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⁷ See BNP Paribas, EcoInsight: [European-Union-carbon-transition-energy-sovereignty-path-fraught-obstacles-2/20/2026,53231](#). February 2026.

