

## A disorderly transition with risks of delay\*



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*Since 2022, when we started to factor energy transition pathways into our long-term economic assumptions, three major themes have prompted adjustments to our central scenario.*

*First, climate change has been accelerating at a time when the implementation of climate policies is being delayed. Last year was the hottest on record and January 2024 marked the first 12-month period in history when temperatures exceeded an average 1.5°C of warming (above pre-industrial temperatures)<sup>1</sup>. Second, the Russia-Ukraine conflict and rising geopolitical tensions in the Middle East have made the trajectory of the transition more disorderly. Resurgent nationalism, concerns regarding competitiveness and security, and regional conflicts are pushing countries to increasingly focus on domestic issues. Third, the adoption of Artificial Intelligence (AI) is becoming a relevant theme with potential long-term impacts on the global economy.*

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\*This policy brief is based on “A disorderly transition with risks of delay”, included in *Capital Market Assumptions 2024*, April 2024, Amundi Asset Management. The views expressed are those of the authors and not necessarily Amundi Asset Management S.A.S.

<sup>1</sup> Based on global surface air temperature according to the latest [Climate Bulletin](#) of the Copernicus Climate Change Service.

Therefore, we have revised our central scenario to capture these changes. In particular:

1. **Ongoing climate policy delays have reduced the prospects of an orderly transition and increased transition risks around reaching a 1.5-2°C target. Accounting for a higher probability of delays, our central scenario is centred around lower overall transition risks and higher physical risks, as costs are transferred into the future.** The Network for Greening the Financial System (NGFS) framework remains the starting point for our scenario. Last year, to model increasing geopolitical fragmentation, our central scenario incorporated a disorderly 'Divergent Net Zero' path characterised by higher short-term costs due to divergent policies resulting in abrupt adjustments to phasing out the use of oil. To some extent, this disorderly path has been subsumed this year by orderly scenarios reflecting 1.5-2°C global temperature rises, which have consequently become more disorderly. Moreover, a more adverse 'Fragmented World' scenario, as well as a more benign 'Low Demand' one, were added to the NGFS framework. We think these are too extreme and very unlikely, so we have built a central scenario of a disorderly transition that combines the orderly scenarios ('Net Zero 2050' and 'Below 2°C') with the 'Delayed Transition' scenario<sup>2</sup> (see the infographic on the next page). Our assumptions also acknowledge some countries' decisions to smooth their commitments to net zero over a longer time horizon.
2. **For the first time, we considered current and future AI developments in our central scenario,** to account for both the small, positive productivity gains as well as the risks that AI adoption entails.
3. **Our central scenario also embeds greater granularity in Emerging Markets' (EM) transition pathways,** based on their current policies and commitments to the transition.

*'Our central scenario combines orderly and disorderly transition pathways to account for a world characterised by geopolitical fragmentation and lower commitments from some countries.'*

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<sup>2</sup>We have also included part of the 'Rocky Road' Shared Socioeconomic Pathways (SSPs3), defined in the IPCC Sixth Assessment Report on climate change in 2021.

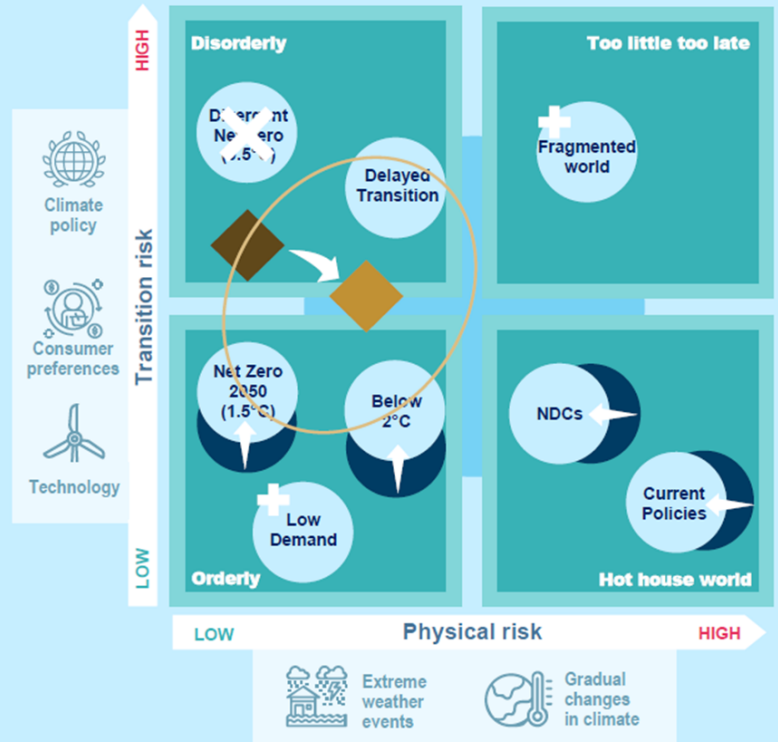
# A transition with higher risks

## AMUNDI INVESTMENT INSTITUTE CENTRAL SCENARIO 2024

High probability of limiting global warming below 2°C with increasing physical risks compared to our 2023 central scenario.

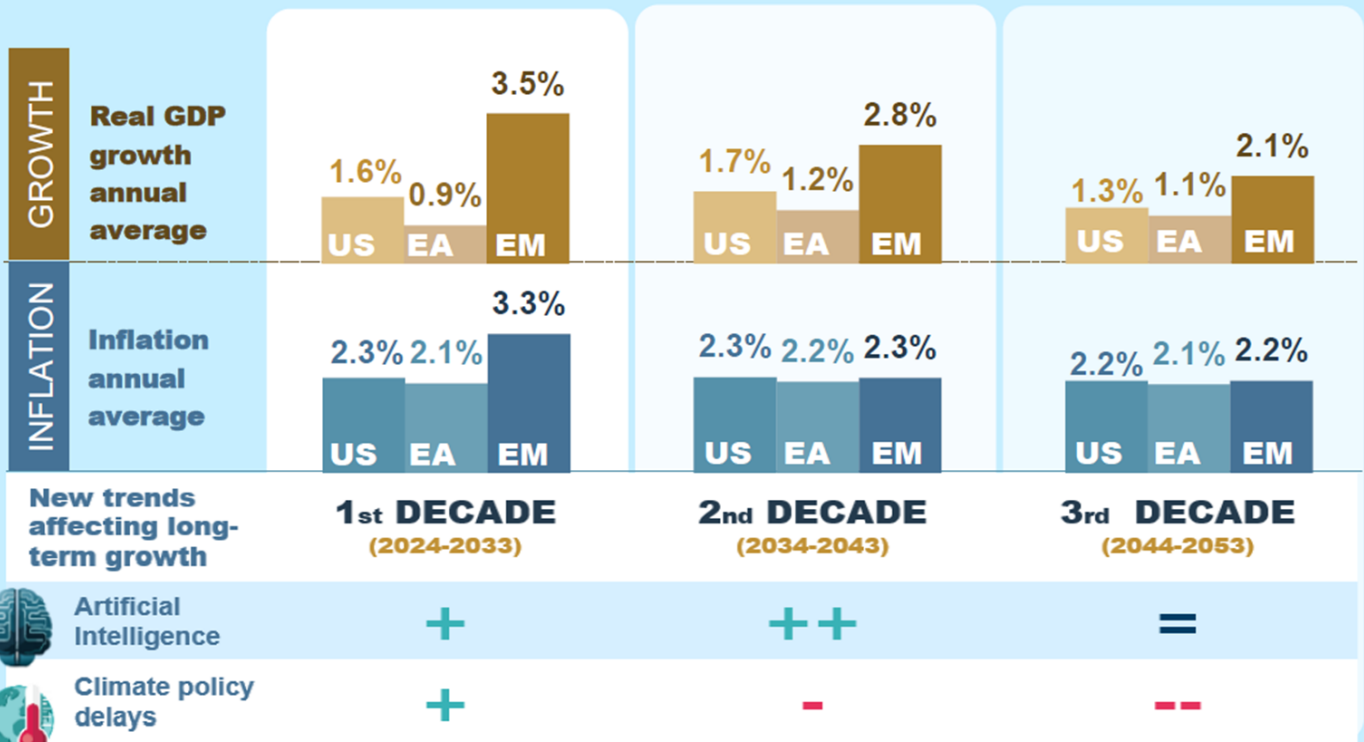
- Orderly** Net zero 2050 and below 2°C scenarios assume climate policies are introduced early and gradually become more stringent. Both physical and transition risks are relatively subdued.
- Disorderly** Delayed transition explores higher transition risks due to policies being delayed or divergent across countries and sectors.

## NGFS SCENARIO FRAMEWORK



◆ Amundi Central Scenario 2023 ◆ Amundi Central Scenario 2024

# Growth and inflation paths



Source: Amundi Investment Institute, NGFS. Data as of 31 December 2023. Qualitative assessment of each trend's impact on GDP growth in each decade. From ++ (most positive impact on the growth and inflation mix) to -- (most negative impact). NGFS is The Network of Central Banks and Supervisors for Greening the Financial System. US= United States, EA=Euro Area, EM= Emerging Markets.

Our central scenario has some important macro implications:

- **We continue to see higher inflation in the short to medium term, but much lower compared to last year, given transition delays are spreading costs over a longer time period.** The short-term inflation pattern is driven by geopolitical fragmentation and some delays in productivity gains due to slow investments into renewable energy (because of the high rates environment), particularly in EM where the needs are higher due to problematic energy transmission and grid stability. In addition, the green transition and the technological transformation are placing further strain on the commodities supply, driving prices up. Over the medium-to-long term, an increase in productivity (as outlined in the article on Artificial Intelligence) together with more general cost reductions will drag inflation down to more moderate levels, notably in many EM, at around the current lower bound of central bank targets.
- **On the growth front, we expect Developed Markets (DM) to see stronger growth compared to last year, in the first and second decades.** This is due to the positive effects of the productivity gains generated by adopting AI and fewer short-term costs involved in delayed climate policies. In the third decade, the diminishing effects of AI and higher physical risks should bring growth down.
- **The road to net zero looks more challenging for many EM, resulting in likely progressive GDP losses and significantly lower growth standards by 2050.** Important exceptions can be found among countries rich in critical minerals (such as Chile and Indonesia) that are better positioned to offset incoming strains from climate mitigation and adaptation. Overall, the challenge is greater where the sense of urgency is highest, as low-income and emerging countries are more exposed to droughts and storms than developed ones, and the impact on growth is more severe. In addition, the impact of fiscal 'loitering' limits the resources necessary for climate financing and the ability to react to natural disasters.
- **Beyond domestic resources, multilateral climate funds and (so far limited) contributions from the private sector are needed. Sustainable capital mobilization in Emerging Markets is crucial.** At the same time, emerging countries need to multiply their efforts by introducing a clear taxonomy (i.e., sovereign and quasi-sovereign entities, formal and informal sectors) and improving climate data in general. Finally, one of the most important topics at COP 29 in November should be more precise guidelines on the mobilisation of funds from developed to emerging economies. The New Collective Quantified Goal (NCQG) needs to be defined better in terms of ambition, structure and timeline, with more funds progressively moving to 'mitigation' goals from 'adaptation' and loss and damage funds.

## Emerging Market winners in the climate transition

### CHILE

The world's second largest extractor of Copper and Lithium



**Li**  
Lithium

**Cu**  
Copper

### INDONESIA

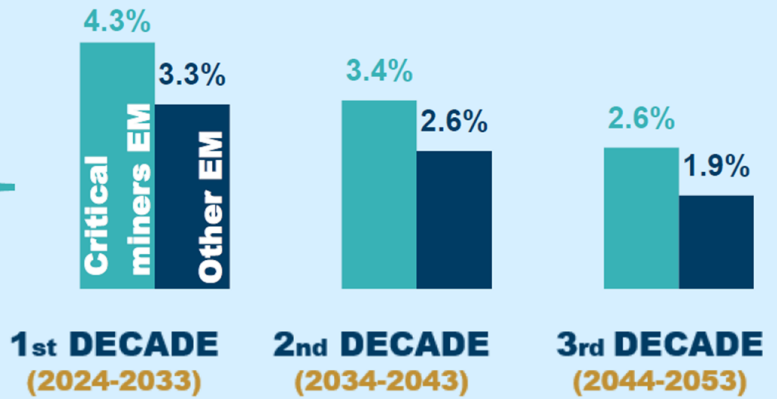
The world's largest extractor of Nickel and the second largest of Cobalt



**Ni**  
Nickel

**Co**  
Cobalt

### Average GDP growth by decade in our Central Scenario



Source: Amundi Investment Institute forecasts using NGFS. Data as of 31 December 2023. Critical miners EM shows the GDP-weighted average of Chile and Indonesia, Other EM refers to the GDP-weighted average of Brazil, China, Czech Republic, Hungary, India, Malaysia, Mexico, Poland, Russia, South Africa, South Korea, Taiwan, Turkey.

## About the authors

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