

Global Situation and Economic Outlook in 2024

~The World at a Turning Point~

January 17th, 2024

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01

The World at a Turning Point

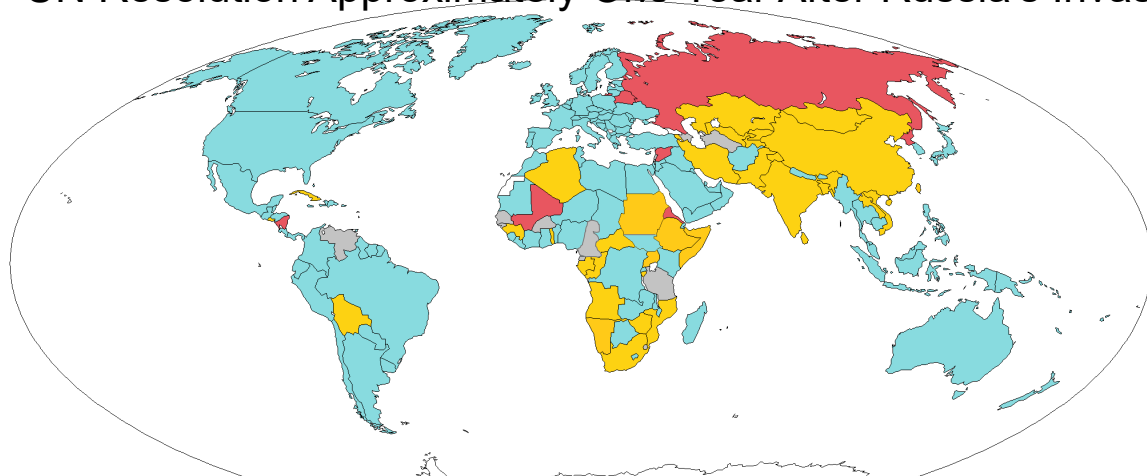


Shift in Global Opinion Related to Warfare

- Global criticism against Russia's military invasion remains strong, although the Western “unity” may not be as strong as it seems, raising concerns about the sustainability of the support for Ukraine. Seems like there is a gap between political and military leadership in Ukraine.
- The Israel-Hamas war, after a 7-day ceasefire, faces potential escalation in the near term due to Israel's assertive measures.
- Criticism is voiced against Western countries that condemn Russia's war while tolerating Israel's military actions in Gaza, calling it a double standard.

February 2023

UN Resolution Approximately One Year After Russia's Invasion

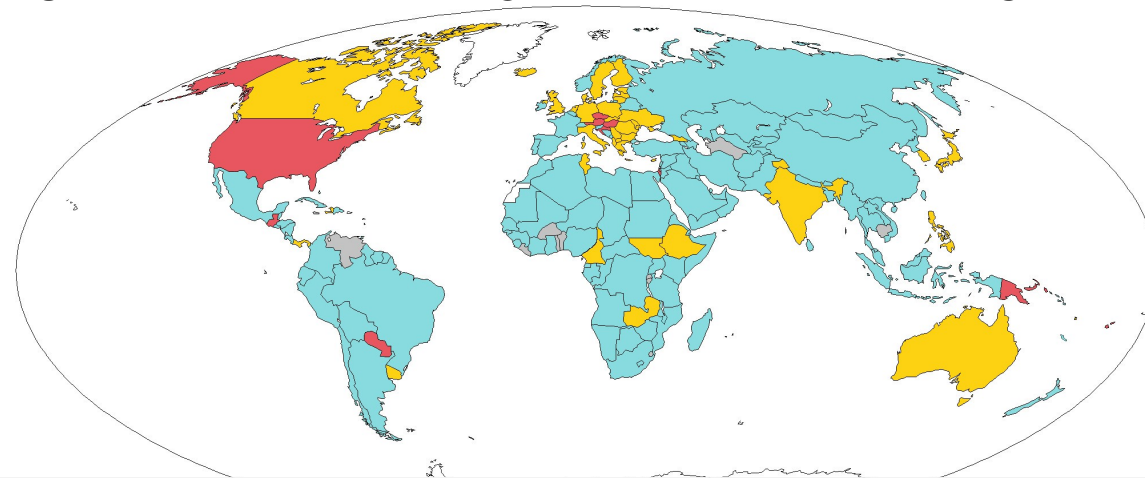


February 23, 2023: Emergency Special Session of the United Nations General Assembly Resolution calling for the complete withdrawal of Russian forces and the investigation and prosecution of serious crimes under international law.

For: 141 countries **Against:** 7 countries
Abstention: 32 countries **No Vote:** 13 countries

October 2023

UN Resolution After the Outbreak of Israel-Hamas Conflict



October 27, 2023: Emergency Special Session of the United Nations General Assembly Resolution calling for a humanitarian ceasefire leading to the cessation of hostilities in the Gaza Strip of the Palestinian Autonomous Region.

For: 121 countries **Against:** 14 countries
Abstention: 45 countries **No Vote:** 14 countries

Spread of Partnerships Counteracting the "West"

- China and Russia solidify their partnership, expanding influence into the Middle East, Central Asia, Africa, and South America.
- Through the expansion of BRICS and SCO, the axis of opposition to the West gradually becomes prominent.
- In August 2023, BRICS announced the addition of six new member countries; numerous nations attended the BRICS Summit.

BRICS and Shanghai Cooperation Organization (SCO) Member Countries

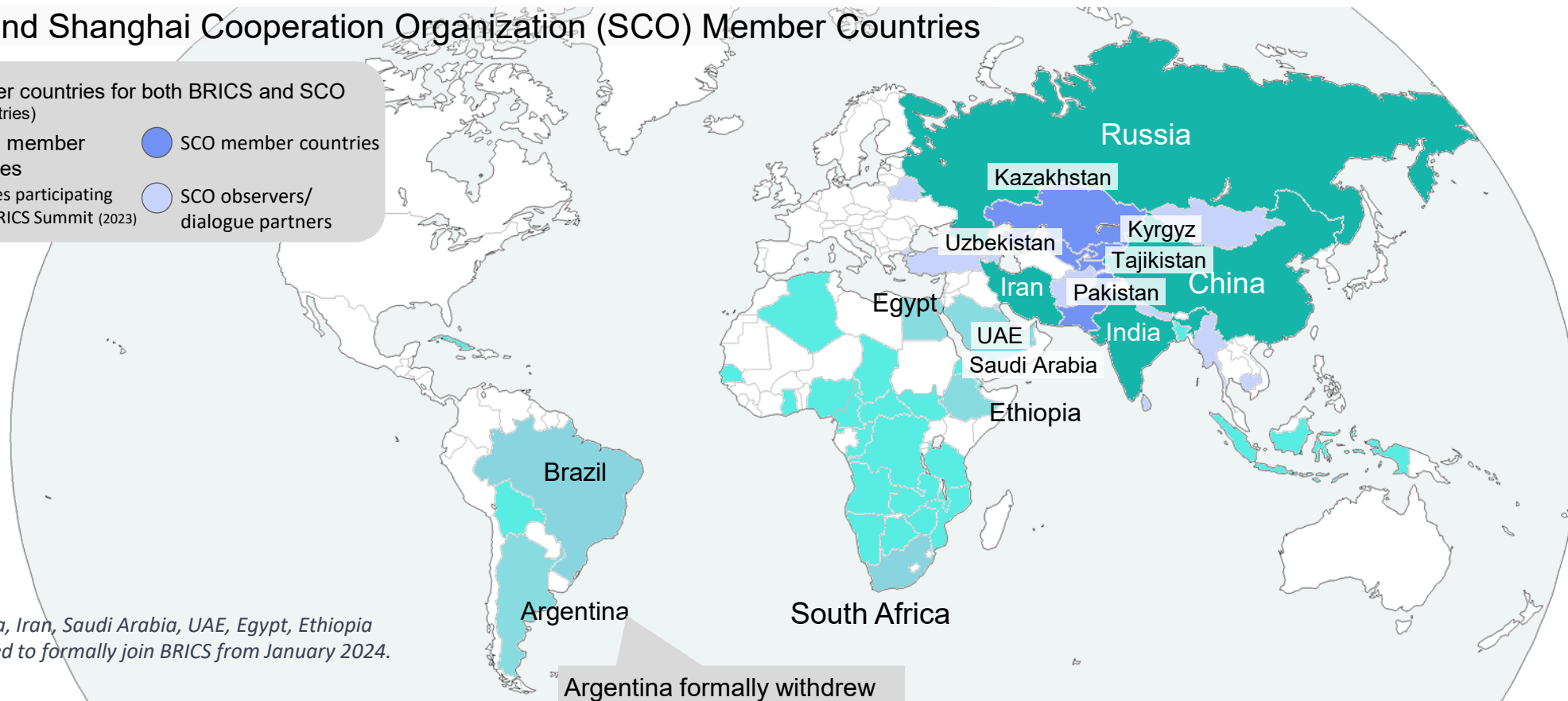
Member countries for both BRICS and SCO (4 countries)

BRICS member countries

SCO member countries

Countries participating in the BRICS Summit (2023)

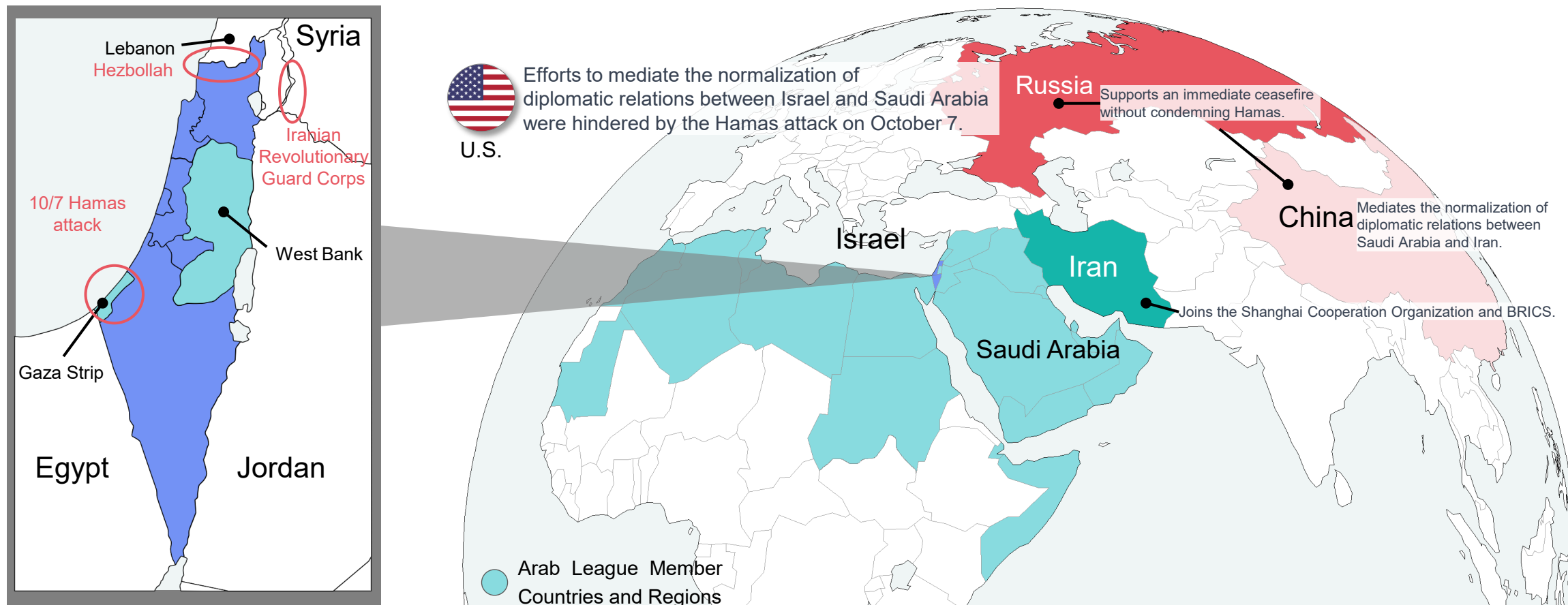
SCO observers/ dialogue partners



(Source: Compiled by SCGR using CraftMap)

Reversal of Easing Tensions in the Middle East: A New Equilibrium?

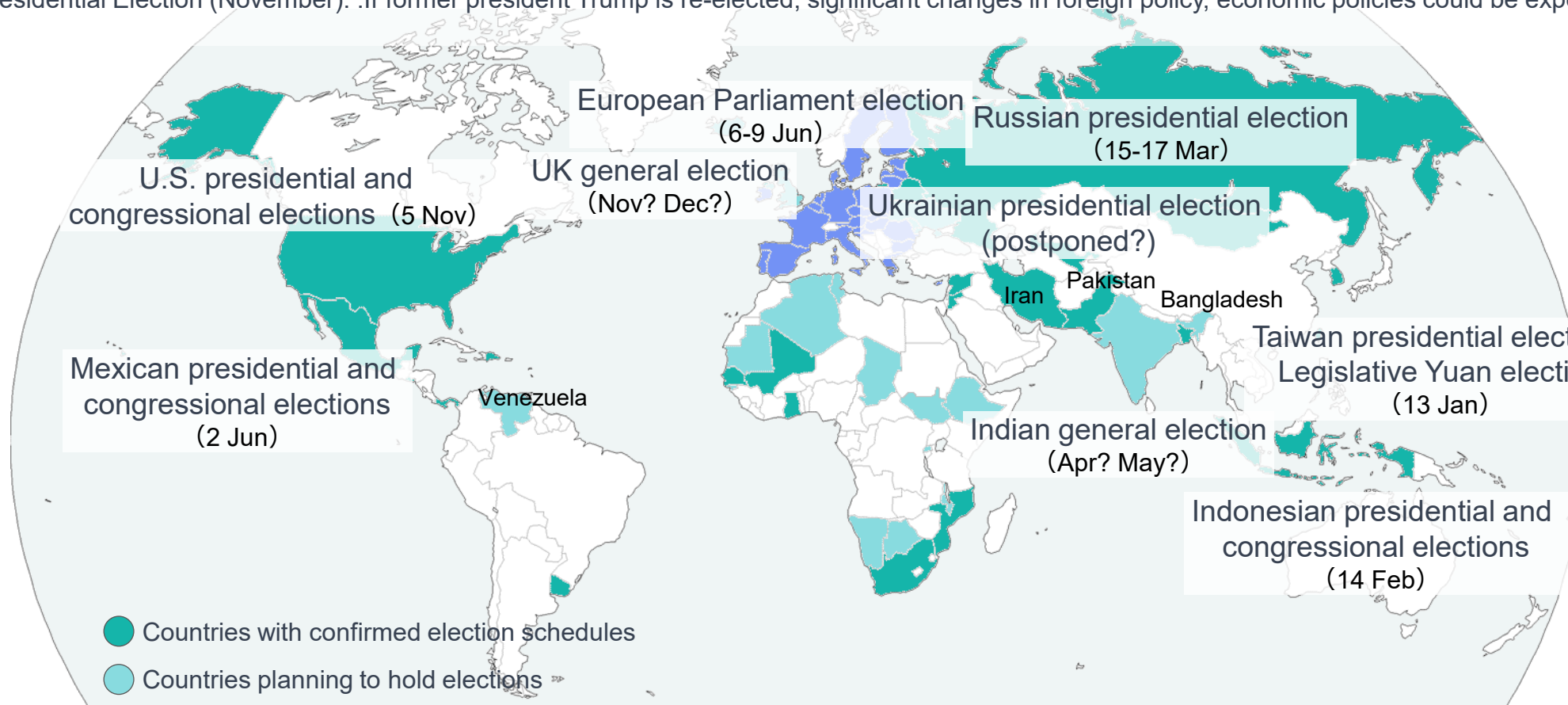
- Reduced U.S. involvement accelerates the pursuit of autonomous security among Middle Eastern and Gulf countries (Saudi-Iran reconciliation, normalization of relations between Arab countries and Israel).
- The Hamas attack in October 2023 highlights that there is no regional stabilization in the Middle East without the Palestinian issue being solved.
- The new power balance (albeit a partial one) among the Arab countries, Palestine, Israel, and Iran could have a significant global impact.



(Source: Compiled by SCGR using CraftMap)

Key Elections in 2024 Shaping a "Turning Point"

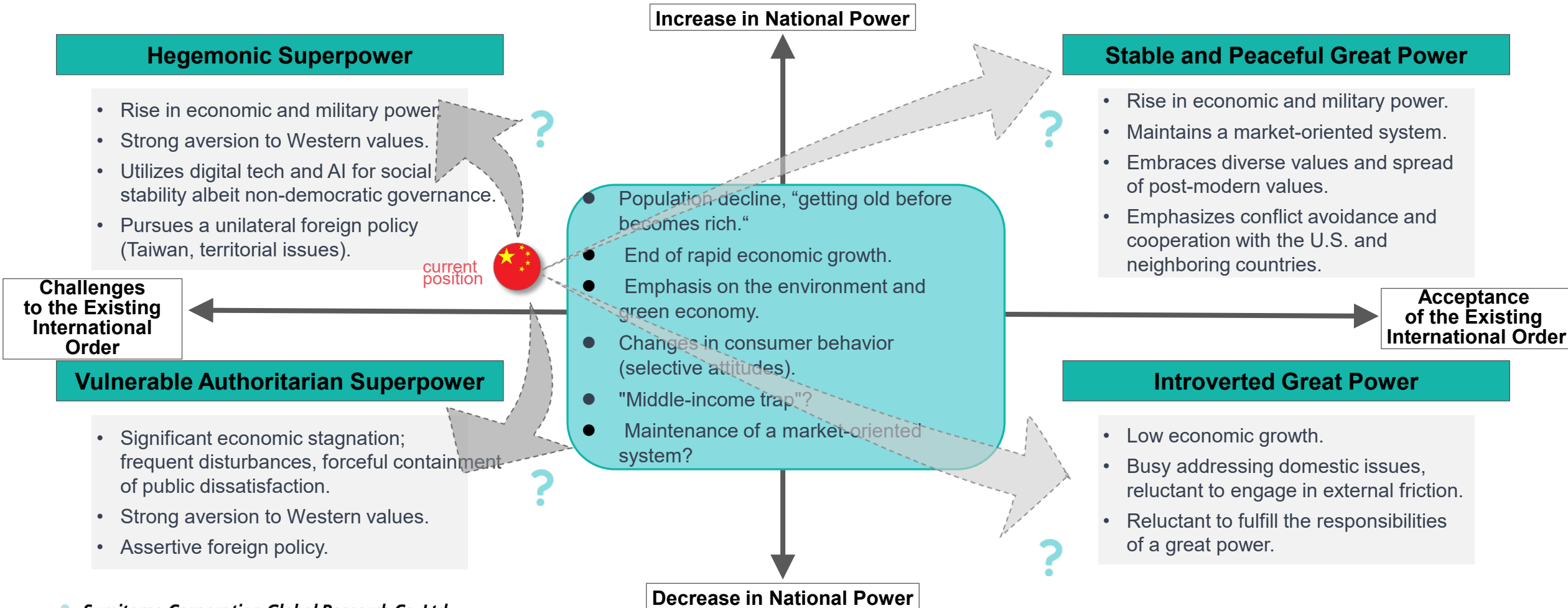
- Taiwan Presidential Election (January): Favorable to the ruling party due to the failure of the opposition coalition. Will China make any move before and after the election?
- Russian Presidential Election (March): Will Putin stay in office until 2036?
- European Parliament Election (June): As seen in the recent Dutch election, if the right wing were to rise, there could be a shift in sustainability-related policies.
- U.S. Presidential Election (November): .If former president Trump is re-elected, significant changes in foreign policy, economic policies could be expected.



(Source: Compiled by SCGR using CraftMap)

China at a Crossroads: Where is it Heading?

- Facing peak out of population and economic growth and unstable economy (real estate slump, decrease in investment). Meanwhile awareness of the environment issues and green initiatives are growing.
- Although there is a growing trend China moves toward the second quadrant (hegemonic superpower), it is seeking to improve relations with some countries.

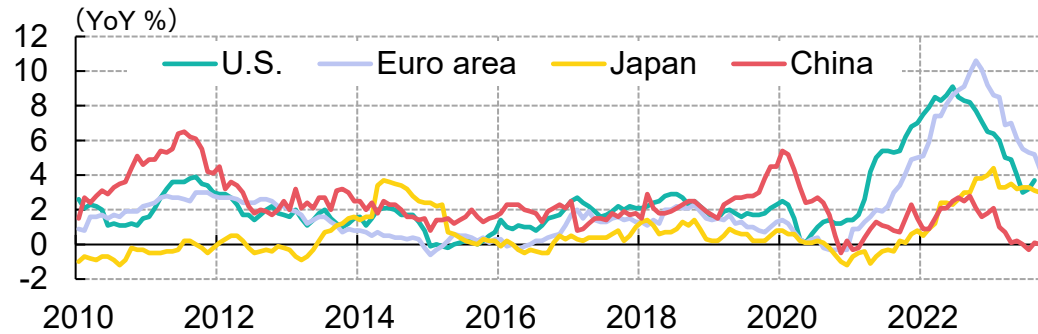


Macro-Economic Changes:

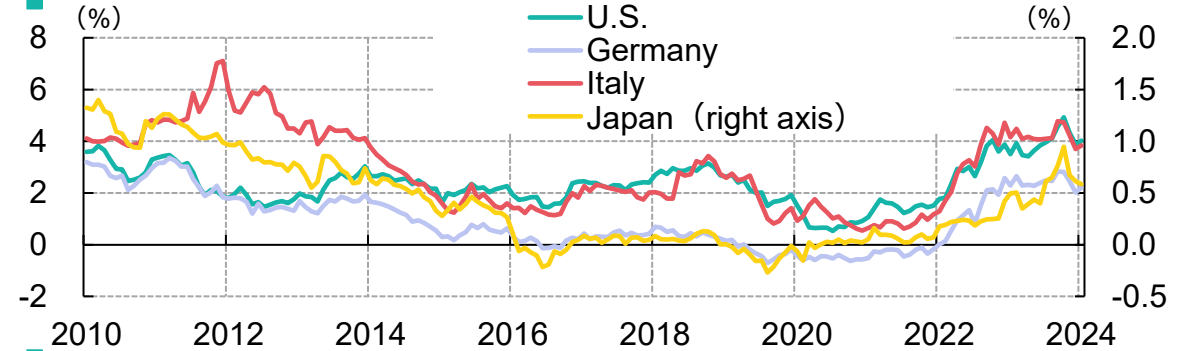
Inflation, Interest Rates, Exchange Rates are Shifting Towards a New Phase

- Inflation in the West is showing signs of stabilization, possibly bottoming out. Is China settling into a dis-inflationary trend?
- When will interest rates be reduced, later than initially expected? Or Continuation of plateau ?
- Due to expansive fiscal policies in Japan, long-term interest rates has been rising. A possibility of significant fluctuations in FX rates by policy shift of the BoJ.

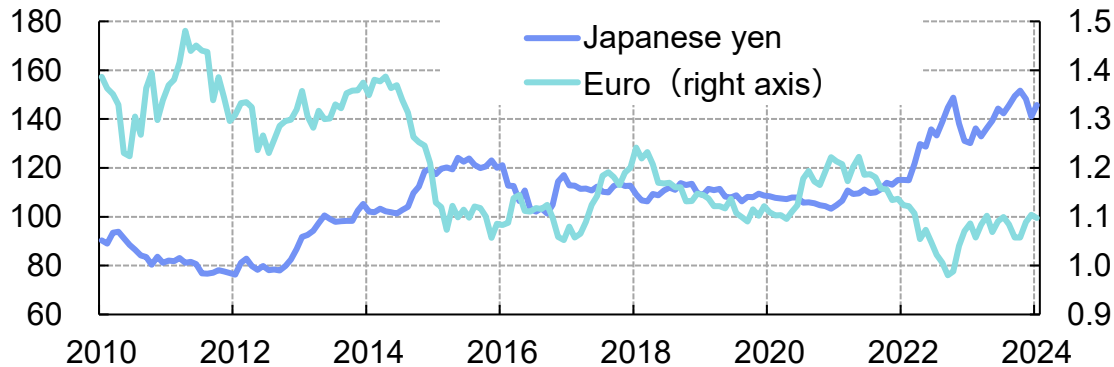
Inflation :



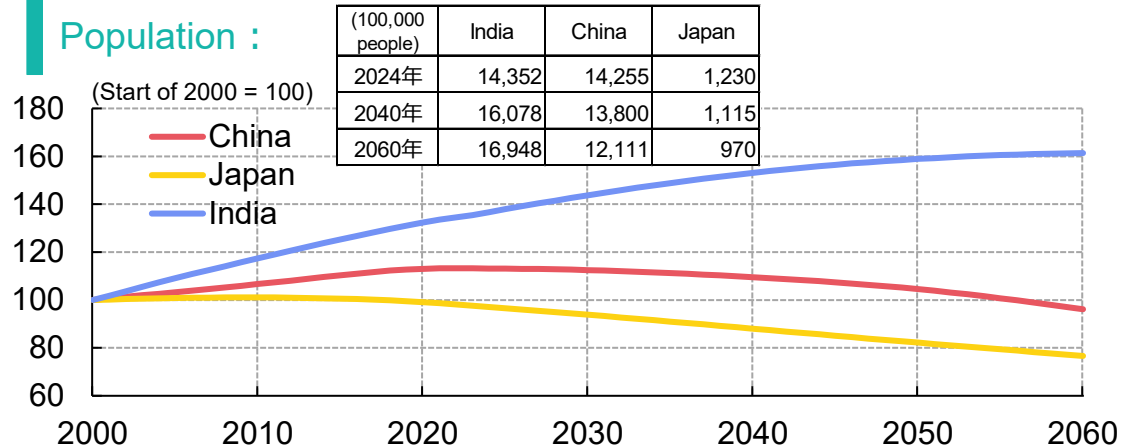
Long-term interest rates :



Foreign exchange :



Population :



Decarbonization in Political and Economic Turbulence

- Movements toward decarbonization are adjusting the speed based on the macroeconomic environment and political developments.
- On the other hand, investments are accelerating with the support of rules and policies. Discussions about biodiversity are gradually intensifying, following decarbonization.

Changes in the Surrounding Environment

Upcoming elections in 2024

- EU: European Parliament election (June 2024)
- U.S.: Presidential election (November 2024)

Changes in Economic Conditions

- High energy prices
 - High interest rates
 - China's economic slowdown
- Increased burden on industry and consumers

Emerging Geopolitical Risks

- Supply chain risks

Slowing Factors of the Decarbonization

Movement conscious of existing infrastructure

- UK: Postponement of the ban on the sale of internal combustion engine vehicles
- EU: Leaving the way of the use of synthetic fuels
- Global: Reassessing the necessity of fossil fuel use and the uncertainty of low-carbon fuels

Reconsideration in the Financial Sector

- Stagnation of ESG funds
- Anti-ESG movements
- Moves by major insurers to withdraw from NZIA*

* Net Zero Insurance Alliance

Changes in Expectations for Technology and the Implementation

- Hydrogen: Concerns about the uncertainty of future demand
- Wind: Reconsideration due to rising interest rates and costs

Unexpected Changes

Dilution of investment due to industrial policy competition

- Regulation (EU) vs. preferential policies (U.S. IRA)
- Shifting investments U.S.
- Responses in EU

Steady Progress Toward Decarbonization

Implementation of various technologies

- Solar power generation: Accelerating implementation globally
- EVs: Expanding sales in Europe, the U.S., and China
- Heat pumps: Increasing production projects in Europe
- Nuclear power: Movement of utilization

Formation and Practice of Rules

- ICAO: Net-zero by 2050 (2022) SAF
- IMO: Net-zero by 2050 (2023) NH3
- Steel, hydrogen: Discussions on green definitions

Initiatives Following Decarbonization

- Active discussions, especially in “E” and “S”
- Spreading concept of Nature-Positive
- Final TNFD recommendations (2023)
- Commencement of sustainability disclosure

02


Political and Economic Situation in Each Country/Region



United States

- Amid escalating partisan conflicts and internal strife within the Republican Party, the country enters another election season in 2024. Trump's reelection could lead to significant policy changes.
- Despite wage increases due to labor shortages, stable prices are elusive, and interest rates remain high. "Bidenomics" is unpopular among voters.
- Confronted with simultaneous crises worldwide, allied and partner nations are worried about the U.S.'s inward turn.
- Japan is a crucial partner to implement the Indo-Pacific strategy. Well-thought-out policies against China are expected to continue.





Politics

- Escalation of partisan conflicts and the emergence of a deadlock.
- Internal strife within the Republican-controlled House between ultra-conservatives and moderates.
- Diminished expectations for legislative achievements in a divided Congress, with potential implications for foreign military assistance.
- Risks of a “Divided Government” with the inauguration of the 2025 administration.

Economy

- Dissatisfaction among voters with economic policy "Bidenomics."
- While a substantial hike in policy interest rates is practically halted, inflation rates remain high due to labor shortages.



Europe

- The right wing's gain in the seats in the June elections could transpire a major impact on the direction and speed of policy making process
- Rifts surfaced in support of Ukraine, stance over the Middle East, etc., leading to delays in action
- Even with close political relations with the U.S., the economic front, such as a rift over industrial policy remains an issue . Economy continues to experience low growth, and the gap in energy prices between the U.S. and Europe might cause potential competitiveness issues.
- Complex relationship with China would persist, given the divergent agendas amongst European countries, making concerted efforts hard to achieve

U.S. ← Unity in support of Ukraine and in the Middle East conflict
 ← Rift over critical minerals agreement and IRA

China ← EU's Global Gateway to counteract One Belt One Road
 ← Calls for a level playing field and EU firms' market access in China

Russia Ukraine ← Russia's fixed assets for Ukraine's reconstruction?
 ← Strengthening of NATO's Eastern flank, Baltic Sea defense



Politics

- Can the EU be a global rule-maker?
 Climate change, IT/AI, semiconductors, competition rules, etc
- Whilst the EU aiming at being a geopolitical leader, the more it seeks, the further away from unity it gets.
 Israeli-Palestinian issue, military aids to Ukraine, Immigration policy, fiscal discipline, EU accession negotiations, EU reforms
- Will the change of government in the U.K. improve relations with the EU?

Economy

- Easing inflation and timing of interest rate cuts
 Eurozone's north-south divides
- North-South gap in fiscal discipline reform
- Whilst losing Russian energy, CBAM and information disclosure are gradually being implemented in earnest.
 → Impact on competitiveness

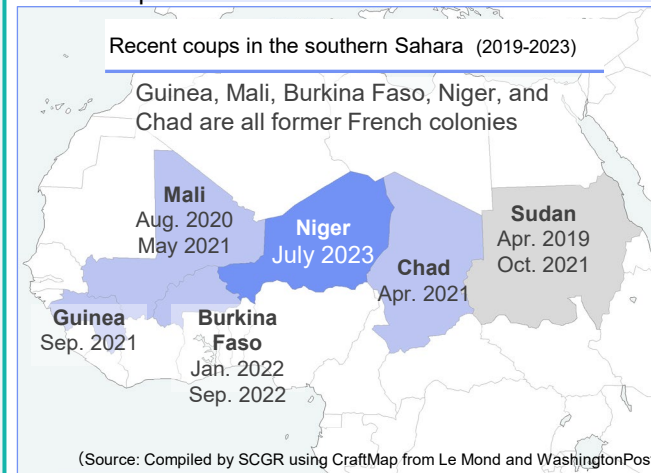
Difficulties in establishing common views due to historical background
 Inability of the UK to exert political influence →

Israel Hamas

Governance deficiencies stemming from Europe's colonial rule in the past
 Concern over Wagner's influence →

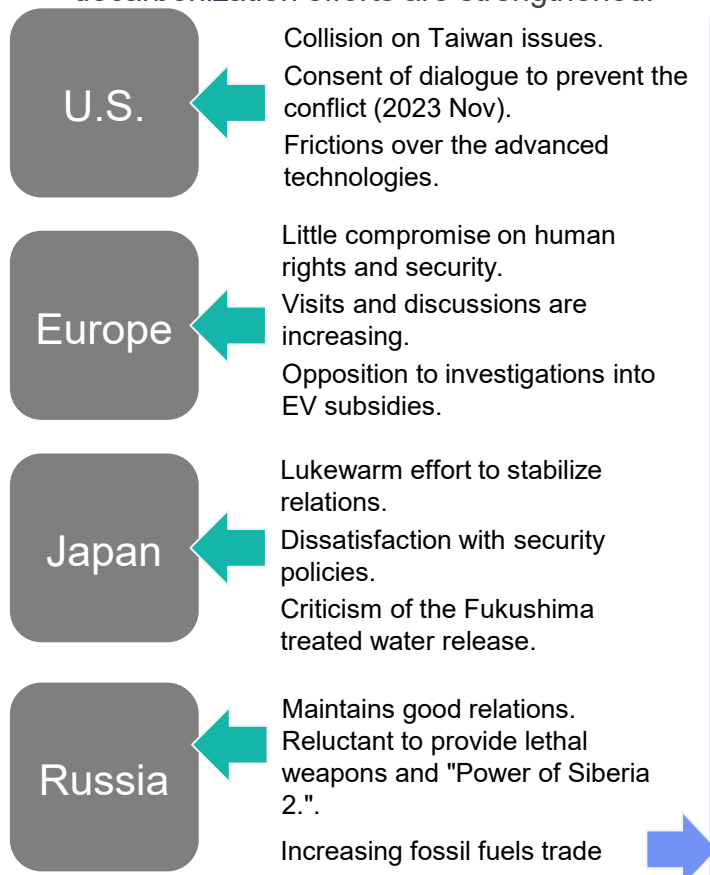
Africa

← A series of coups in West Africa in recent years has posed security and immigration issues to Europe.



China

- What brought China's "smile diplomacy" since the autumn of 2023 ? (Foreign policy shift? For foreign investment? For making other countries depend on Chinese economy?) Or to attract Taiwan?
- Increased uncertainty in policy-making decisions: mysterious downfall of high-ranking officials. Multiple presumptions about Xi's power within the PLA.
- Emphasis on security (public order) remains a priority. Economic downturn, real estate slump and local government debt pose the serious challenges . Meanwhile, decarbonization efforts are strengthened.



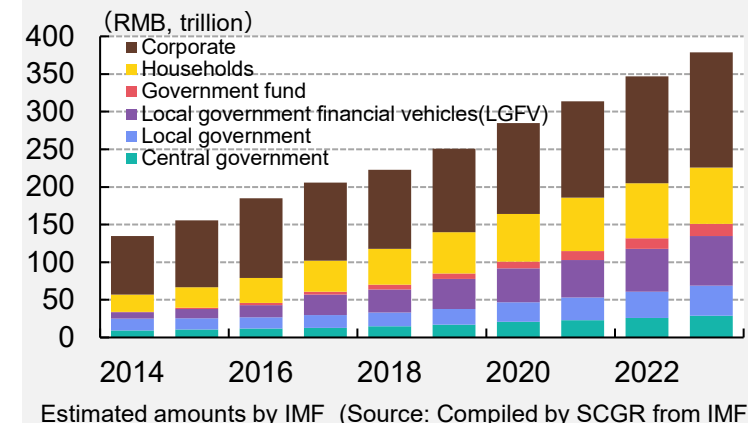
Politics

- Strengthening social surveillance: Anti-Espionage Law.
- Disappearance of foreign minister and defense minister → raises concerns about internal governance of the CPP.
- The pressure on Taiwan for unification and the possibility of Taiwan blockade may increase. (depends on the result of the presidential election.)

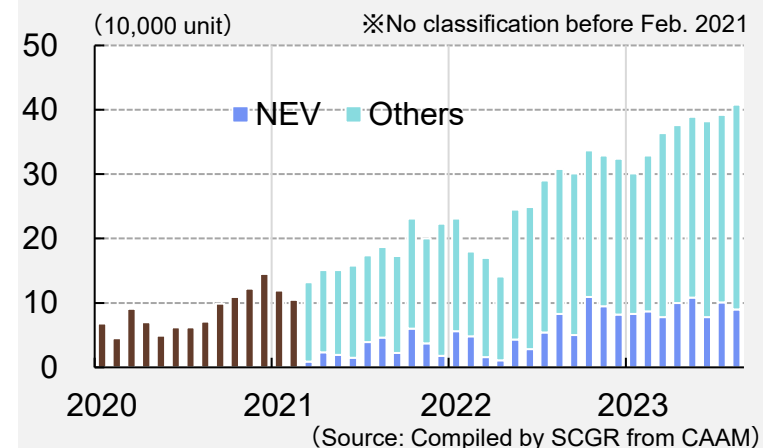
Economy

- Economic downturn, real estate and local government debt issues. Following the issuance of 1 trillion yuan in government bonds, the next policy move requires close attention.
- Increasing commitment to decarbonization: expanding renewable energy capacity, suppressing petroleum refining, electrifying transportation, and recycling resources.
- Challenging the world's top position in science and technology (EV exports, general-purpose semiconductor production, nuclear fusion, solid-state batteries, and autonomous driving).
- Despite appeals for openness to foreign investment and invitation of foreign investment , the influence of the Anti-Espionage Law reduces foreign companies' investment interest, while strengthening dependence on China in mineral resources etc.

Balance of non-financial sector debt



China Automobile Export



Russia

- If reelected in March 2024, Putin's term extends until 2030. Under the current constitution, potential extension to 2036.
- Conscious of the time advantage in the Ukraine war. Expecting Western support stagnation, Trump's return, and Zelensky's weakening power.
- Deepening trade relations with emerging nations via the Eurasian Economic Union (EEU). Expanding FTAs while adopting a strict stance towards unfriendly countries.



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Japan

- GX policies making progress, but policies such as fiscal expansion for price stability, deflation countermeasures, and financial tightening contradict one another. Significant decline in cabinet approval ratings (23% as of Dec 2023).
- Can a positive cycle be achieved by reversing real wage decline? Will the monetary policy change?
- Enhancing relations with Indo-Pacific countries through tailored GX support and infrastructure development assistance in a realistic manner. Aiming to strengthen deterrence through strengthening alliance with the U.S.

U.S.

←

Further strengthening alliance relationships.

Deepening cooperation for the securement of strategic materials and technology.

China

←

At the summit meeting, leaders agreed to maintain dialogue channels.

No prospect for resolving pending issues such as economic security, detained Japanese citizens, and the ban on Japanese seafood exports.

Indo-Pacific

←

Aiming for FOIP realization and working towards the achievement of GX along the country-specific roadmap at AZEC, building a layered cooperative relationship with ASEAN, etc.

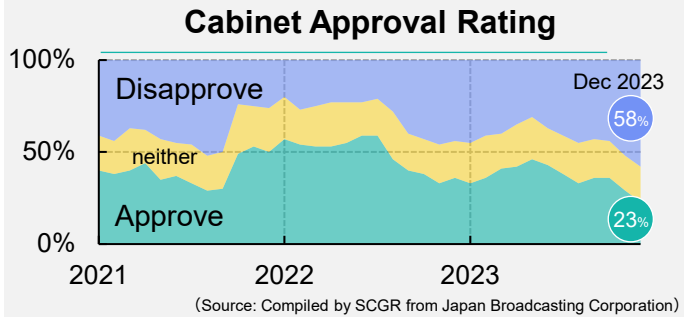


Politics

- Implementing policy responses such as tax cuts and supplementary budgets. No recovery in approval ratings. Losing the opportunity for a rebound due to ministerial resignations amid scandals.
- Signs of change in the framework of the LDP coalition

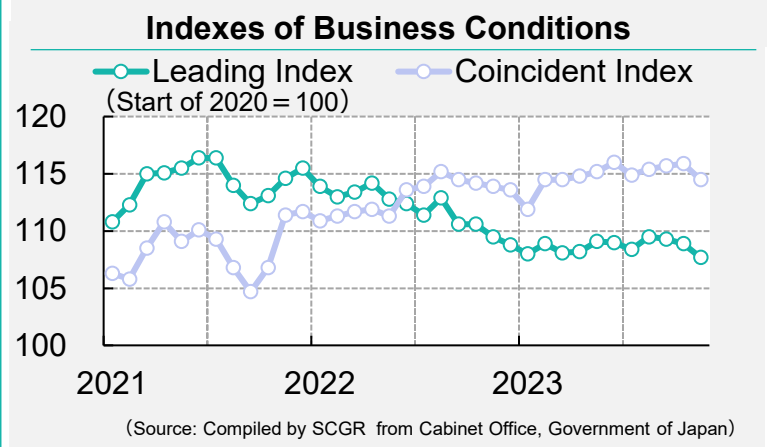
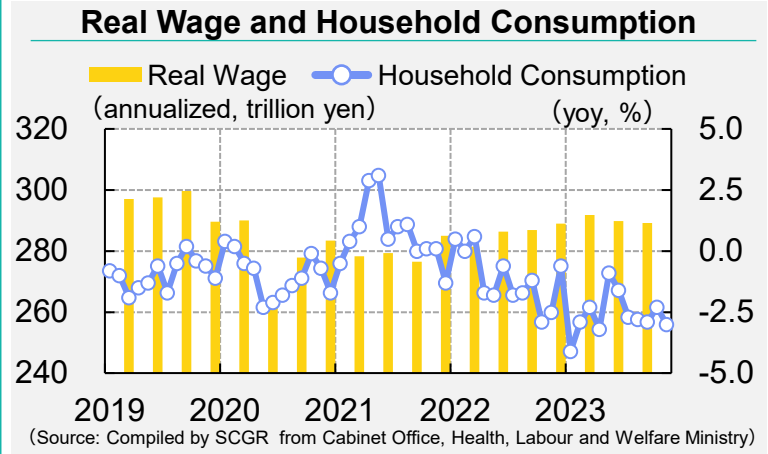
Economy

- The economic recovery from the COVID-19 pandemic is reaching a standstill, with the impact of inflation affecting personal consumption and capital investment.
- Focus on the spring labor negotiations in 2024 amid continued real wage declines.
- Moderate real economic growth, with the effects of a weak yen limited to certain industries.
- In line with the rising trend in prices, financial policy is also changing. Pay attention to the shift away from negative interest rates and its impact.
- Changing financial policies in line with GX and economic security. Accelerating industrial policies and mechanism creation.



(Source: Compiled by SCGR from Japan Broadcasting Corporation)

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(Source: Compiled by SCGR from Cabinet Office, Government of Japan)

Asia and Oceania

- The economy is robust, driving global growth. However, exports declined due to the slowdown in the world economy (particularly in China), leading to a slowdown in momentum.
- Taking advantage of the trend of investment and supply chain diversification to reduce dependence on China, Asia and Oceania countries pursue industrial enhancement and EX through EV production, semiconductor manufacturing and critical minerals strategy.
- On the political front, Myanmar's domestic politics and Indonesia's presidential election in February 2024 require close monitoring.
- Japan is leveraging its unique ties with ASEAN, which neither the U.S. nor China can substitute, to develop EX (e.g., AZEC), supply chain and security assistance.

U.S.

Collaboration on supply chain enhancement (reducing dependence on China), IPEF, semiconductor production, and infrastructure development.

China

The close economic ties remain unchanged. Differences in distance among countries. The Philippines actively countervailing China in the South China Sea dispute.



Economy

In emerging Asian economies, inflation is stable (2.6% in 2023) and high-level growth continues (5.2% in 2023) compared with other regions, though momentum slowing due to stagnant exports (4.8% in 2024) *All figures are IMF forecasts.

Utilizing the trend of reducing dependence on China, benefiting from both G7 and China in practical terms.

Agreement on supply chain strengthening for critical minerals (Indonesia, Malaysia, India, Australia) and semiconductors (Thailand, Malaysia, Vietnam, Philippines, India) through IPEF. EV production network establishment is pushed throughout ASEAN.

Politics

New governments in Thailand, Cambodia, and NZ. Indonesia's February elections and the impact of relocation of the capital need attention.

Myanmar postponed elections. Democratic and ethnic minority armed groups intensifying resistance.

Many countries perceive Japan as a more reliable partner than the U.S. and China.

Support for decarbonization in AZEC and other initiatives, along with assistance in security-related capacity building

Japan

ASEAN demands Israel to halt attacks against Gaza.

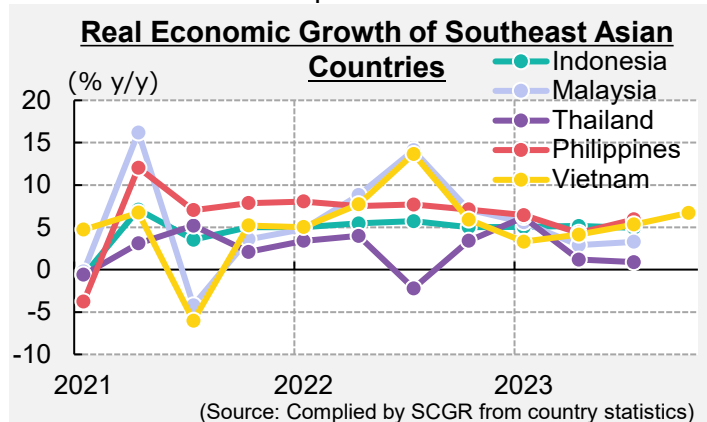
Indonesia, Malaysia, and Brunei express support for Palestine.

India, while expressing support for Israel, maintains a balanced approach.

Middle East

Many countries in ASEAN and South Asia maintain relations. Myanmar is strengthening ties.

Russia



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Africa

- High levels of sovereign debt and the instability after the successive coups pose a risk.
- Continues to attract attention as a significant supplier of critical minerals, and also as a new market.
- Struggles with infrastructure deficiencies, hindering value-added production in Africa, and persistent investment needs (relying on overseas funds) are a concern.



Politics

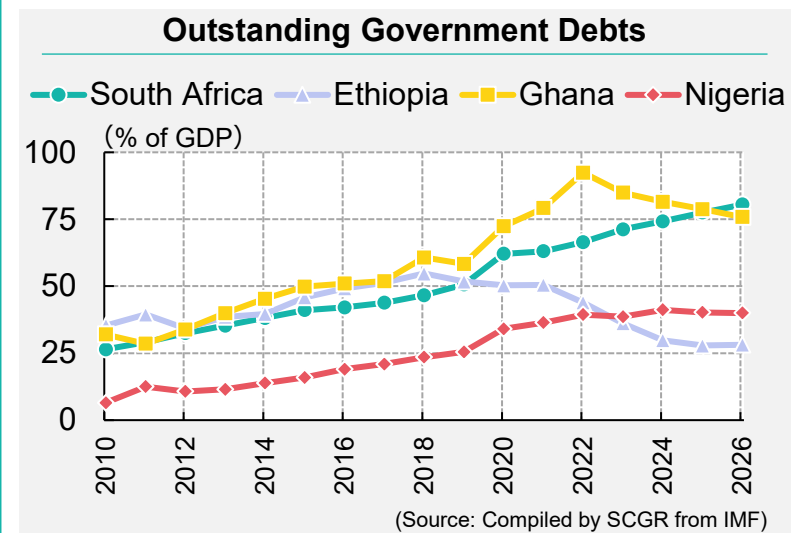
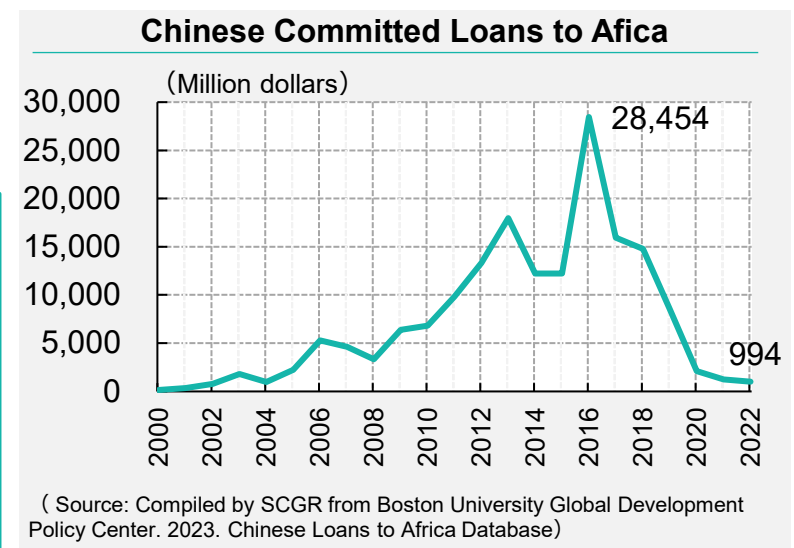
- Struggling with the gap between non-border diversity and the political-economic management required as a nation.
- Fractures caused by imposing values from former colonial powers lead to successive coups.

Economy

- Reduced investment and financing from China for Sub-Saharan Africa pose a threat to the continent's economic growth.

If China's real GDP growth rate drops by 1 percentage point, Sub-Saharan Africa's overall GDP growth rate is expected to decrease by about 0.25 percentage points, with resource-exporting countries facing a risk of over 0.5 percentage points reduction (IMF).

- Economic dependence on primary products, with the possibility of growing disparities within the region depending on demand.
- Financial tightening poses a high hurdle for securing funds to address infrastructure shortages.



Central and South America

- In Mexico and Brazil, inflation is under control due to early financial tightening. A shift towards monetary easing is expected.
- The new administration in Argentina may affect its relations vis-à-vis its neighbors and the Mercosur.
- The near-shoring/friend-shoring of supply chains and low water level of the Panama Canal may affect global trade.

U.S. Europe ← Generally a mixed relationship with the U.S.
Mexico benefits from U.S. efforts to build resilient supply chains.

The EU-Mercosur FTA negotiations remain opaque.

China ← Participating in the Belt and Road Initiative.
Expanding cooperation in space development.

The new Argentine government withdrew from the planned BRICS entry.

Israel Hamas ← Argentina clearly supports Israel and condemns Hamas. Most other countries in Latin America support the UN resolution calling for a "humanitarian ceasefire."

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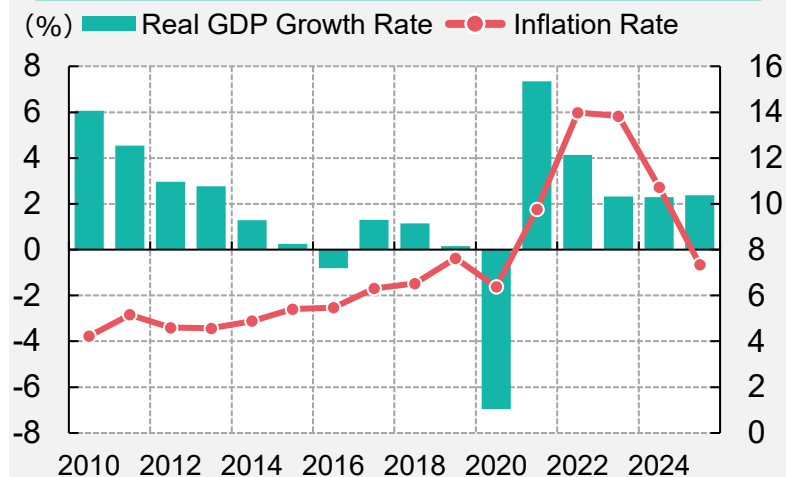
Politics

- Brazil's negotiating skills are put to the test as it assumes the role of G20 chair in 2024.
- The direction of Argentina's new government is unclear, facing a challenging path toward economic stabilization.
- Depending on how the Venezuelan presidential election is carried out, the relations vis-à-vis U.S. might once again strain further.
- Second national referendum in Chile on constitutional reform resulted in maintaining the status quo.

Economy

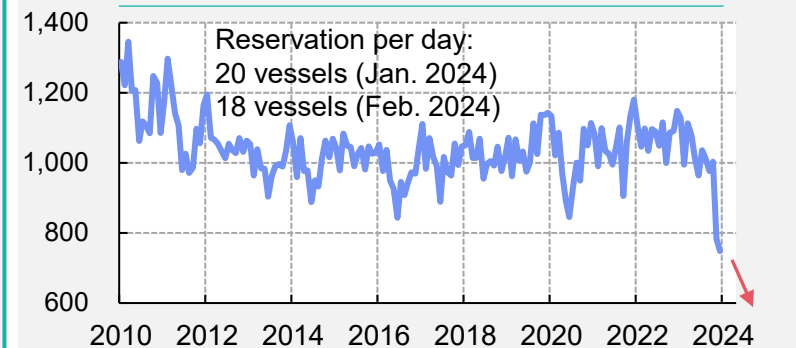
- Left-leaning government in Colombia strengthens economic cooperation with Venezuela.
- Severe drought in the Panama Canal, with the risk of logistics stagnation between the U.S. East Coast, Asia, and South America due to passage restrictions.
- The trend of greening, emphasized by countries like Brazil, should be closely watched.

GDP Growth and Consumer Prices in Latin America and the Caribbean



(Source: Compiled by SCGR from IMF)

Panama Canal Traffic Statistics



(Source: Compiled by SCGR from Panama Canal Authority statistics)

Focus Country: India

- A member of SCO, BRICS, QUAD, IPEF, and FOIP, holding the key to the future world order.
- With the world's largest and expanding population, economy is growing steadily. FDI is also consistently increasing. Decarbonization is an important agenda.
- Demonstrating leadership in the Global South, India's international presence is growing as it strengthens ties with the U.S. and the Middle East, while its unique self-centered approach is outstanding.
- Reform progress is expected to continue under the Modi administration.

U.S. Collaboration in areas such as semiconductors, essential minerals, technology and weapon production.

China Confrontation in regional influence, border issues and the digital field.
Interactions in SCO and BRICS exist, but tension persists.

Middle East Strengthening relations with Israel and the UAE.
Balancing support for Israel and good relations with Muslim countries.

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2024 Lower House Elections (April-May) toward Modi's 3rd Term

- Victory of ruling coalition and reappointment of PM Modi expected due to Modi's popularity despite the formation of an opposition coalition.
- The Modi government will have been in power for 15 years. Reforms that have been stagnant in recent years expected to proceed. Continue to promote manufacturing, decarbonization and EV. Decarbonization initiatives seen as representing the interests of the Global South.
- Concerns about its uniquely outstanding self-centered approach, Hindu nationalism, and a retreat from liberal democracy.

Economic Development

- World's largest population (1.43 billion). Population bonus period expected to continue until around 2050 (expectations as the "next China"). Despite domestic industry protection, FDI continues to increase (including new sectors like mobile phones and semiconductors). Improving human capital and creating employment remains major challenges.

Demonstrating leadership in G20 summit and other fora.

Prioritizing domestic interests in ban on rice exports.

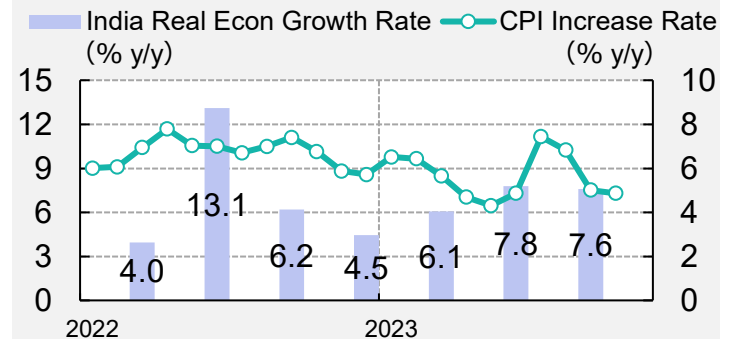
Maintaining good relations.

Oil imports continue, while weapon imports are declining.

Global South

Russia

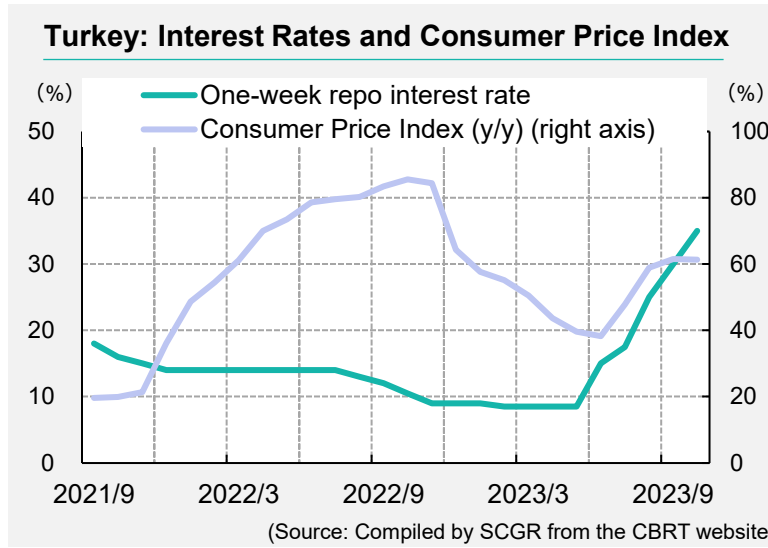
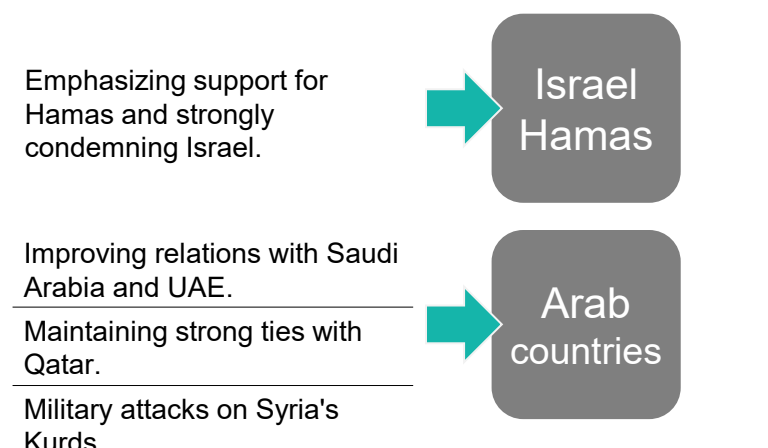
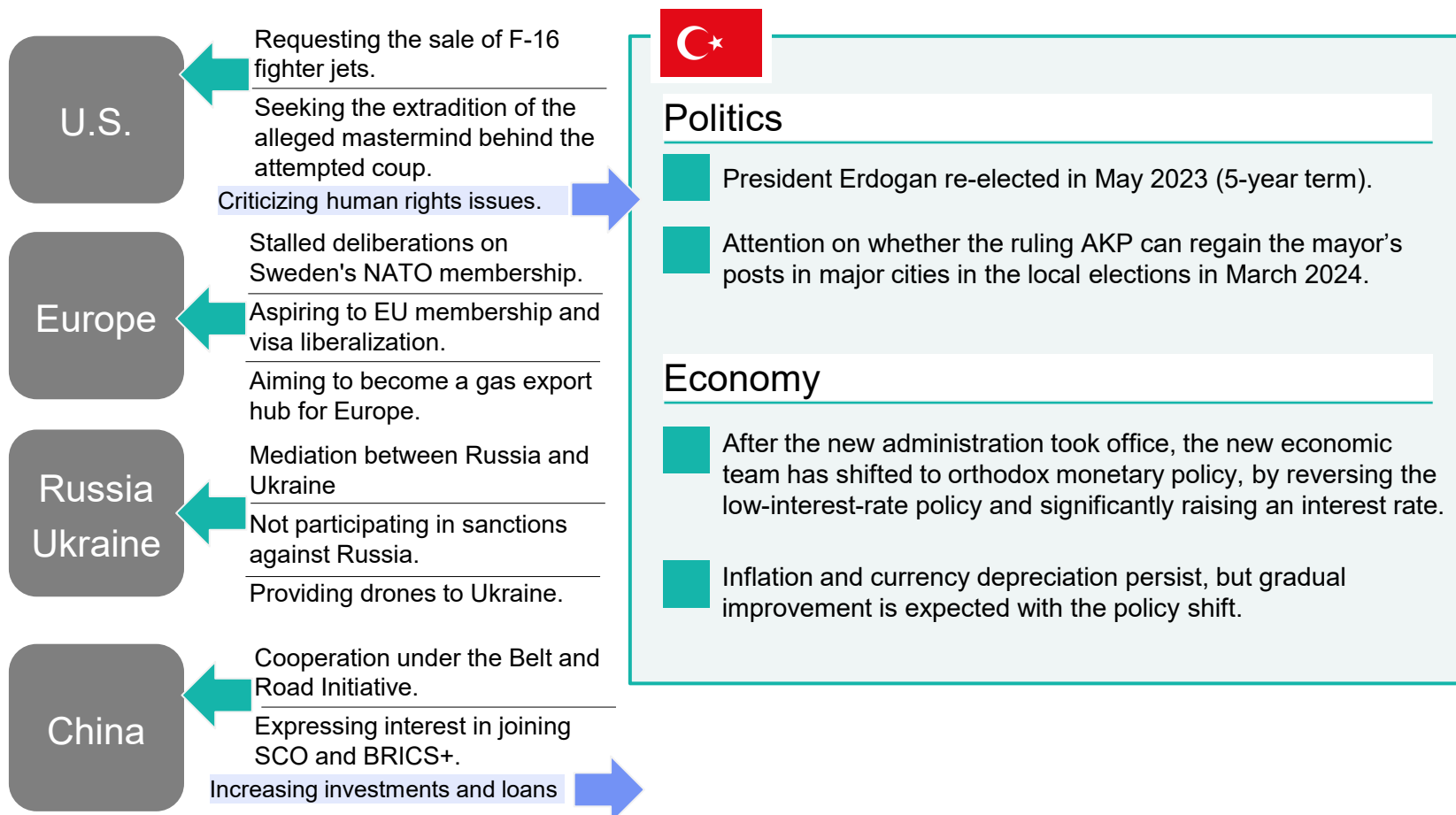
India: Econ Growth and Inflation



(Source: Compiled by SCGR from the Central Statistics Office of India)

Focus Country: Turkey

- Geographically and in terms of the President's diplomatic ambitions, Turkey has an increasing presence as a key player in the world's changes.
- After the President's re-election, Turkey's monetary policy is shifting toward normalization. However, inflation and currency depreciation continue.
- Deliberations in the Turkish parliament regarding ratification of the Sweden's NATO membership are stalled (conditional on U.S. approval of F-16 sales to Turkey).



03

Macroeconomic Trends



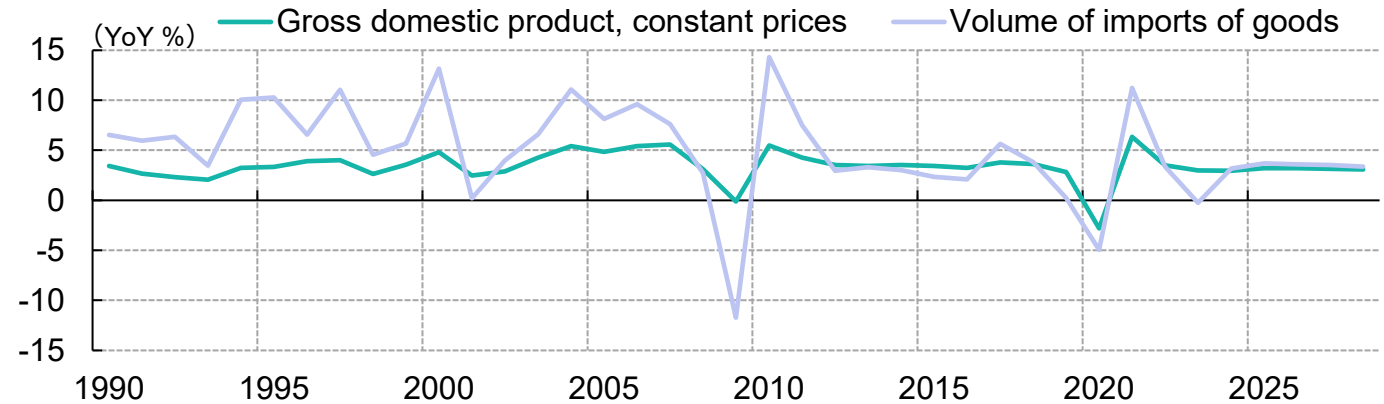
Trends in Low Growth and Increasing Emphasis on Local Production and Consumption

- Low growth becomes the baseline.
- While the confusion in the global supply chain is subsiding, is the emphasis shifting to local production and consumption, leading to the slowdown in trade and investment—a phenomenon dubbed "Globalization 2.0"?

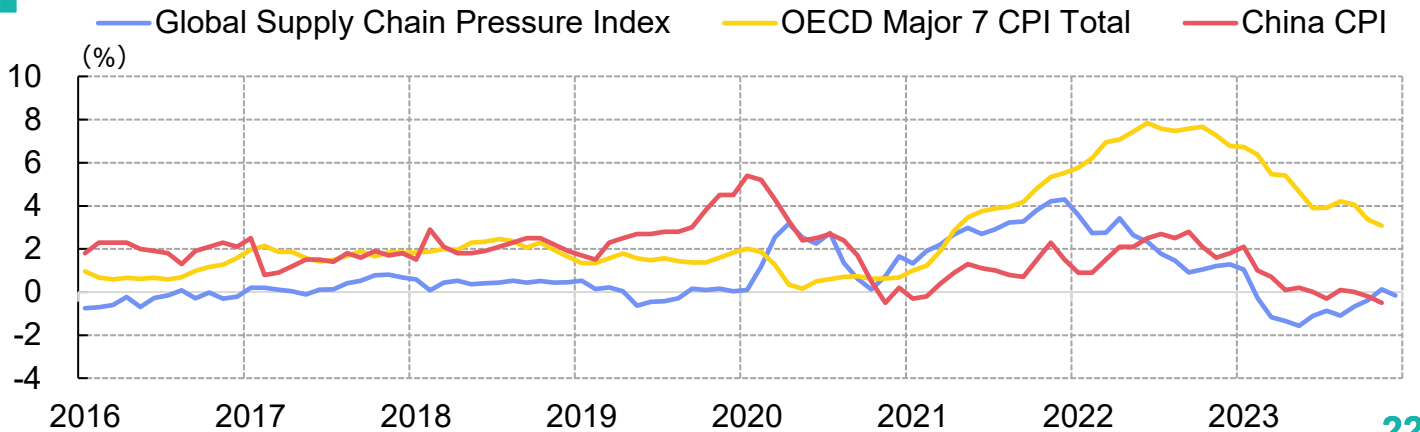
IMF World Economic Outlook (October 2023)

| | | (YoY %) | | | | | |
|---------------------|--------------|---------|------|------|------|------|-----|
| ※()2012-19 average | | 2022 | 2023 | 2024 | 2025 | 2026 | |
| World | | (3.4) | 3.5 | 3.0 | 2.9 | 3.2 | 3.2 |
| Advanced economies | | (1.9) | 2.6 | 1.5 | 1.4 | 1.8 | 1.9 |
| Emerging market | | (4.6) | 4.1 | 4.0 | 4.0 | 4.1 | 4.1 |
| Europe (EU) | | (1.6) | 3.6 | 0.7 | 1.5 | 2.1 | 2.0 |
| Euro area | | (1.3) | 3.3 | 0.7 | 1.2 | 1.8 | 1.7 |
| ASEAN-5 | | (4.9) | 5.5 | 4.2 | 4.5 | 4.5 | 4.6 |
| Asia | Japan | 1.0 | 2.0 | 1.0 | 0.7 | 0.5 | |
| | China | 3.0 | 5.0 | 4.2 | 4.1 | 4.1 | |
| | South Korea | 2.6 | 1.4 | 2.2 | 2.3 | 2.2 | |
| | Taiwan | 2.4 | 0.8 | 3.0 | 2.8 | 2.6 | |
| | Australia | 3.7 | 1.8 | 1.2 | 2.0 | 2.2 | |
| | Thailand | 2.6 | 2.7 | 3.2 | 3.1 | 3.0 | |
| | Indonesia | 5.3 | 5.0 | 5.0 | 5.0 | 5.0 | |
| | Malaysia | 8.7 | 4.0 | 4.3 | 4.4 | 4.4 | |
| | Vietnam | 8.0 | 4.7 | 5.8 | 6.9 | 6.8 | |
| | India | 7.2 | 6.3 | 6.3 | 6.3 | 6.3 | |
| Europe | Germany | 1.8 | -0.5 | 0.9 | 2.0 | 1.9 | |
| | Russia | -2.1 | 2.2 | 1.1 | 1.0 | 1.0 | |
| | U.K. | 4.1 | 0.5 | 0.6 | 2.0 | 2.1 | |
| Americas | U.S. | 2.1 | 2.1 | 1.5 | 1.8 | 2.1 | |
| | Mexico | 3.9 | 3.2 | 2.1 | 1.5 | 1.8 | |
| | Brazil | 2.9 | 3.1 | 1.5 | 1.9 | 1.9 | |
| Middle East | Saudi Arabia | 8.7 | 0.8 | 4.0 | 4.2 | 3.3 | |
| | UAE | 7.9 | 3.4 | 4.0 | 4.2 | 4.3 | |
| Africa | Nigeria | 3.3 | 2.9 | 3.1 | 3.1 | 3.1 | |
| | South Africa | 1.9 | 0.9 | 1.8 | 1.6 | 1.4 | |

World Production and Trade



Supply Chains and Prices

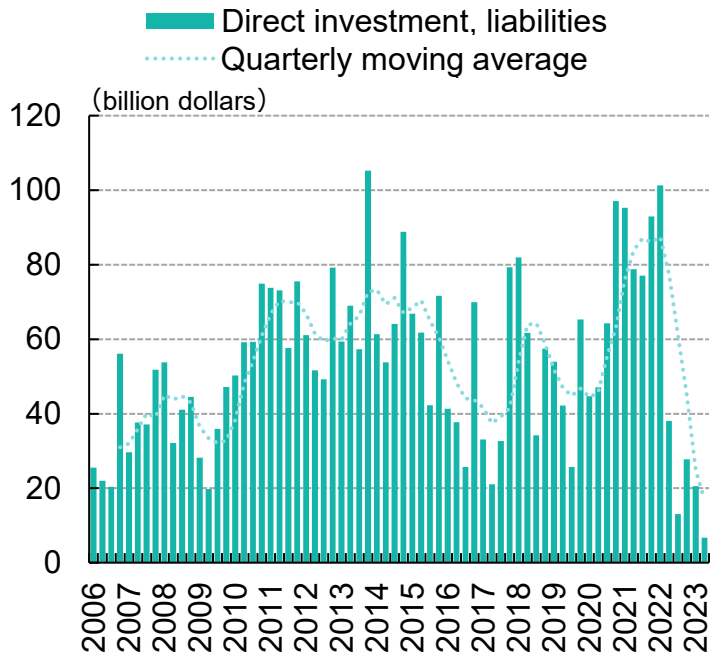


Significant Changes in Key Countries

- China: Direct investment within the country has sharply decreased in the wake of the reconsideration of supply chains, contributing to the stagnation of private fixed asset investment.
- Germany: Pulled down by high energy costs and the rise of Chinese-made electric vehicles, Germany's economy is witnessing a slowdown in manufacturing.
- United States: With Mexico replacing China as the largest trading partner, there is a possibility of further changes in the supply chain from the perspective of economic security.

Sharp Decline in Direct Investment in China

China's Inward Direct Investment

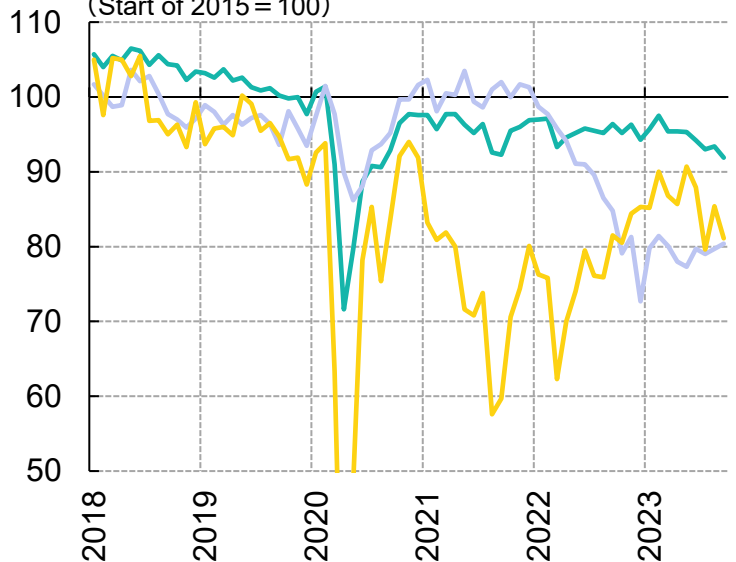


(Source: Compiled by SCGR from IMF)

Sumitomo Corporation Global Research Co. Ltd.

Sluggishness in German Manufacturing

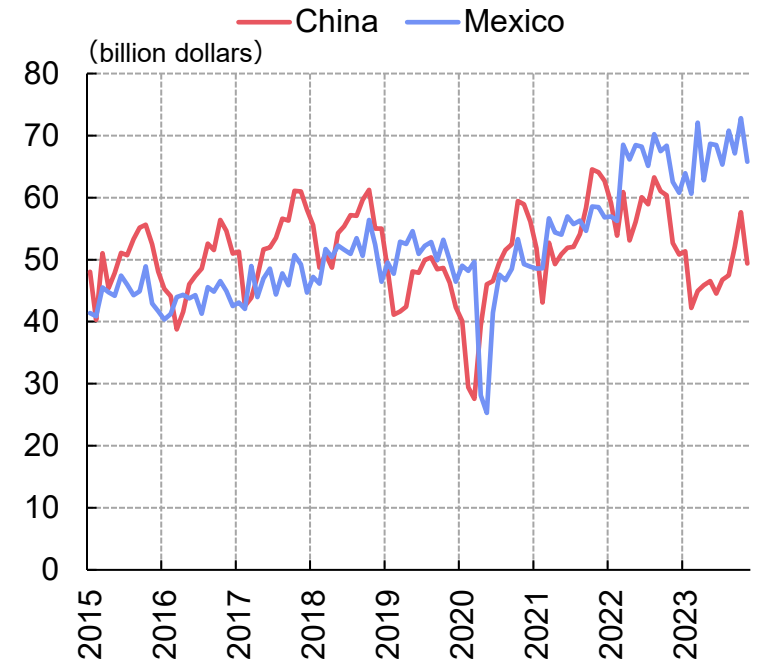
Mining and quarrying; manufacturing; electricity, gas, steam and air conditioning supply
 Manufacture of chemicals and chemical products
 Manufacture of motor vehicles, trailers and semi-trailers (Start of 2015 = 100)



(Source: Compiled by SCGR from Eurostat)

Mexico Surpasses China as the United States' Largest Trading Partner

Trade in Goods with China & Mexico

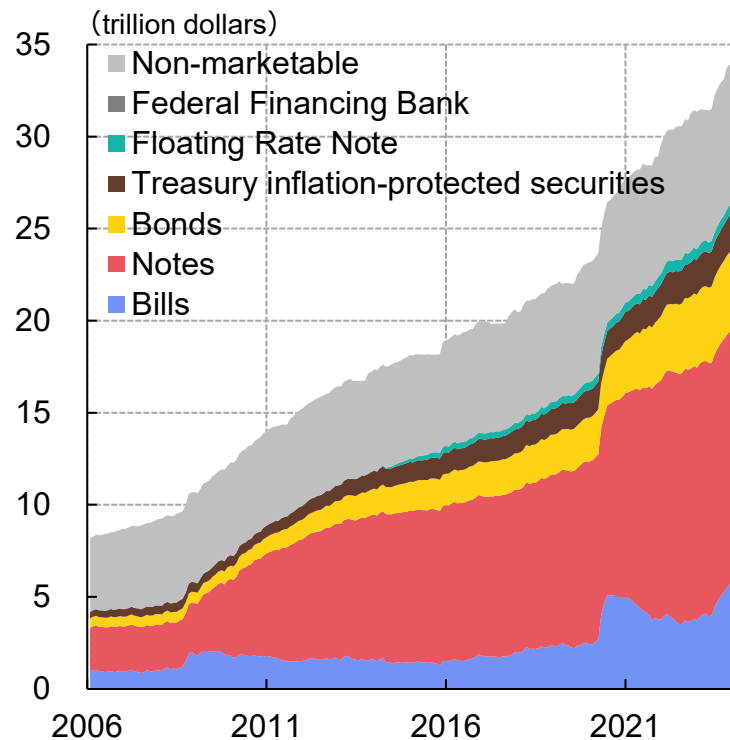


(Source: Compiled by SCGR from The U.S. Census Bureau)

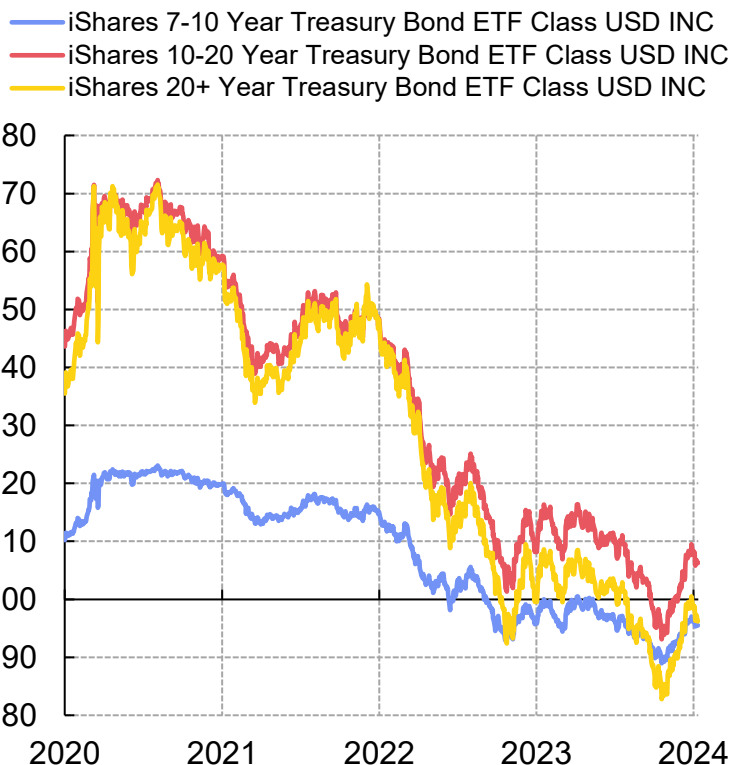
Turbulent Bond Market, 'Magnificent Seven' Stocks Hype

- Concerns arise in the bond market due to the Federal Reserve's balance sheet reduction and increased redemptions, impacting supply and demand.
- Bonds look undervalued, but interest rates may remain elevated as inflation risk persists due to factors like labor supply shortages etc.
- Investors prefer artificial intelligence (AI)-related names to EV-related ones, and large-cap stocks to small-mid ones. 'Magnificent Seven' – the seven tech firms such as Nvidia, Apple, and Microsoft stand out.

Expanding Government Debt (United States)

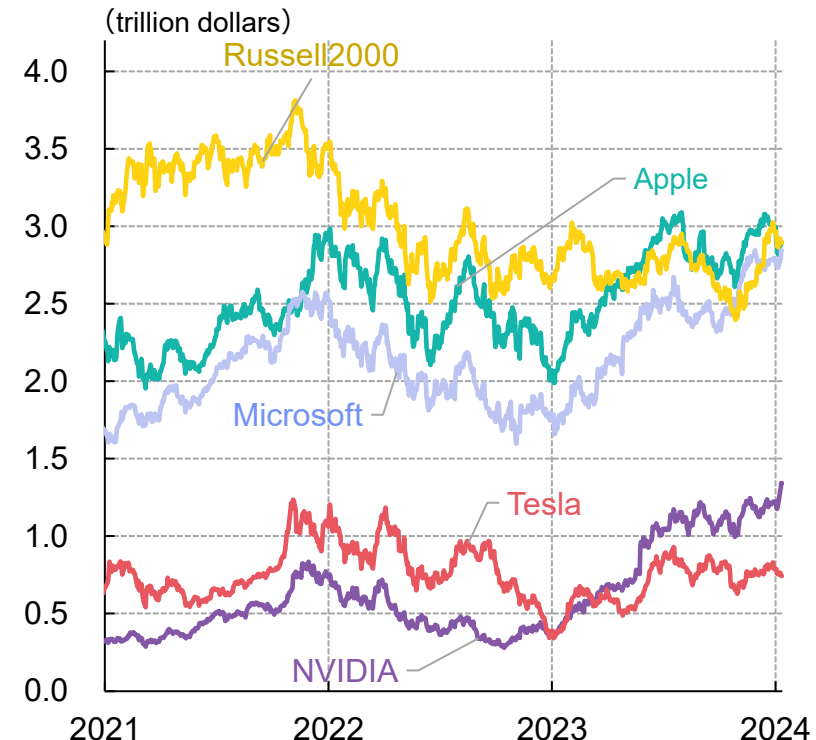


Rising Interest Rates = Falling Bond Prices



AI Boom

U.S. Equity Market Capitalization

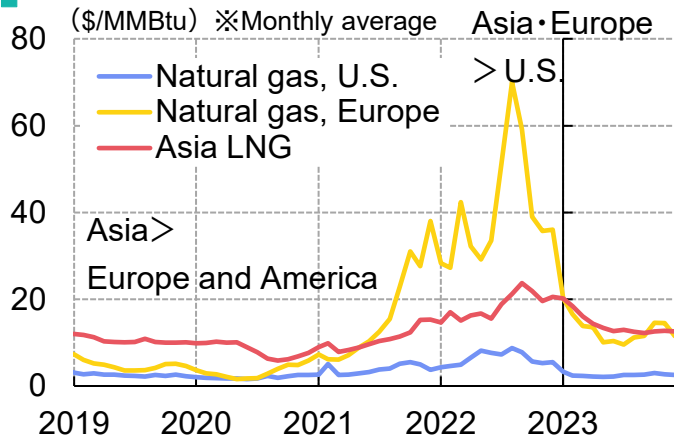


(Source: Compiled by SCGR from FRB and Bloomberg) 24

Structural Changes in Commodity Markets

- The loss of cheap gas from Russia boosted Europe’s LNG demand and energy costs – strong headwind for Europe, especially compared to the US
- The gold market remains buoyant despite rising interest rates and strong dollar; emerging countries buy more gold as a reserve currency.
- Copper price unmoved, but China is reshaping global flows of the metal; China still imports copper but more as an ore than refined metal – what would the rapid expansion of copper smelting capacity result in, especially at the time of low domestic demand?

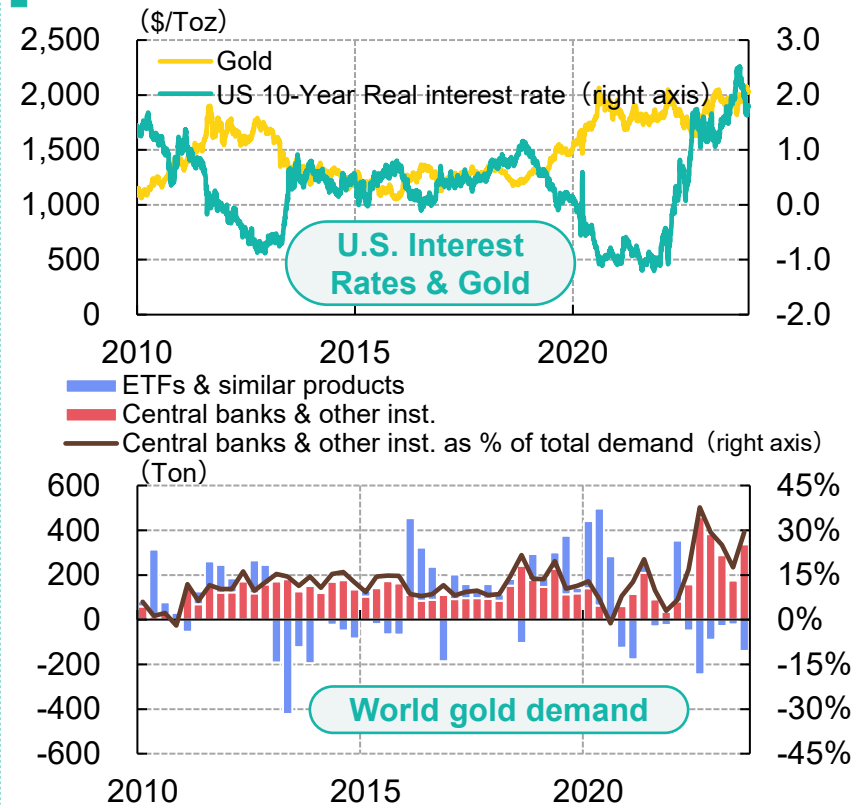
Natural Gas : divergence



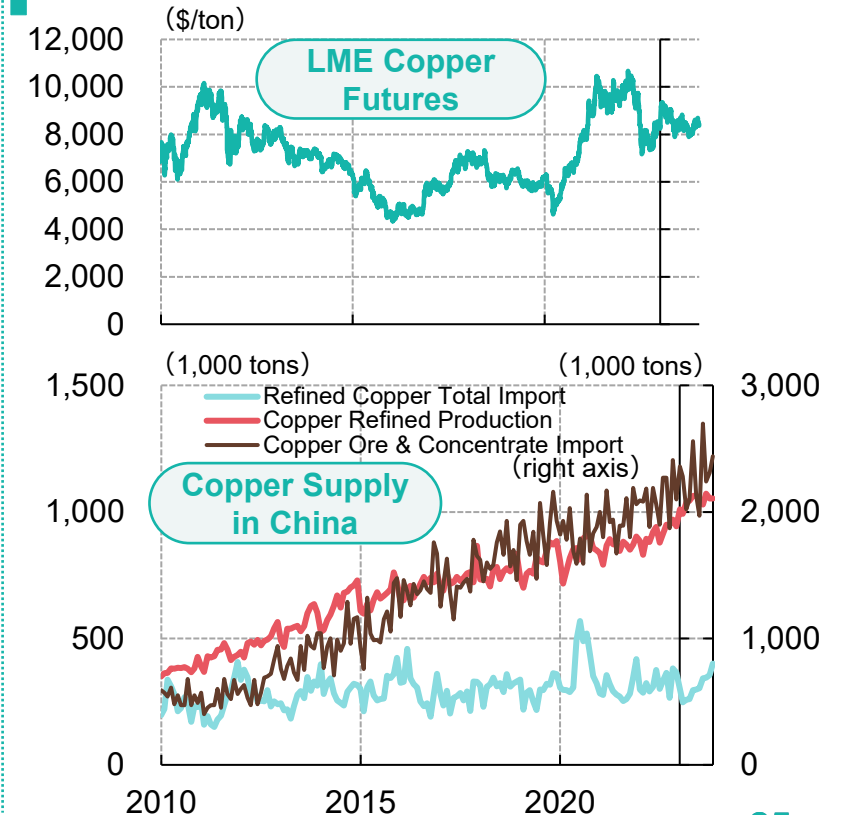
- ✓ Policies and geopolitics increasingly impact on prices, not just macroeconomics and fundamentals.
- ✓ Many countries aim to process crude oil/ raw materials rather than simply importing/exporting them; reshaping global trade flows, value chain
- ✓ Cost differentials also affect industrial competitiveness.

◆ Sumitomo Corporation Global Research Co. Ltd.

Gold : all-time high, with central bank demand



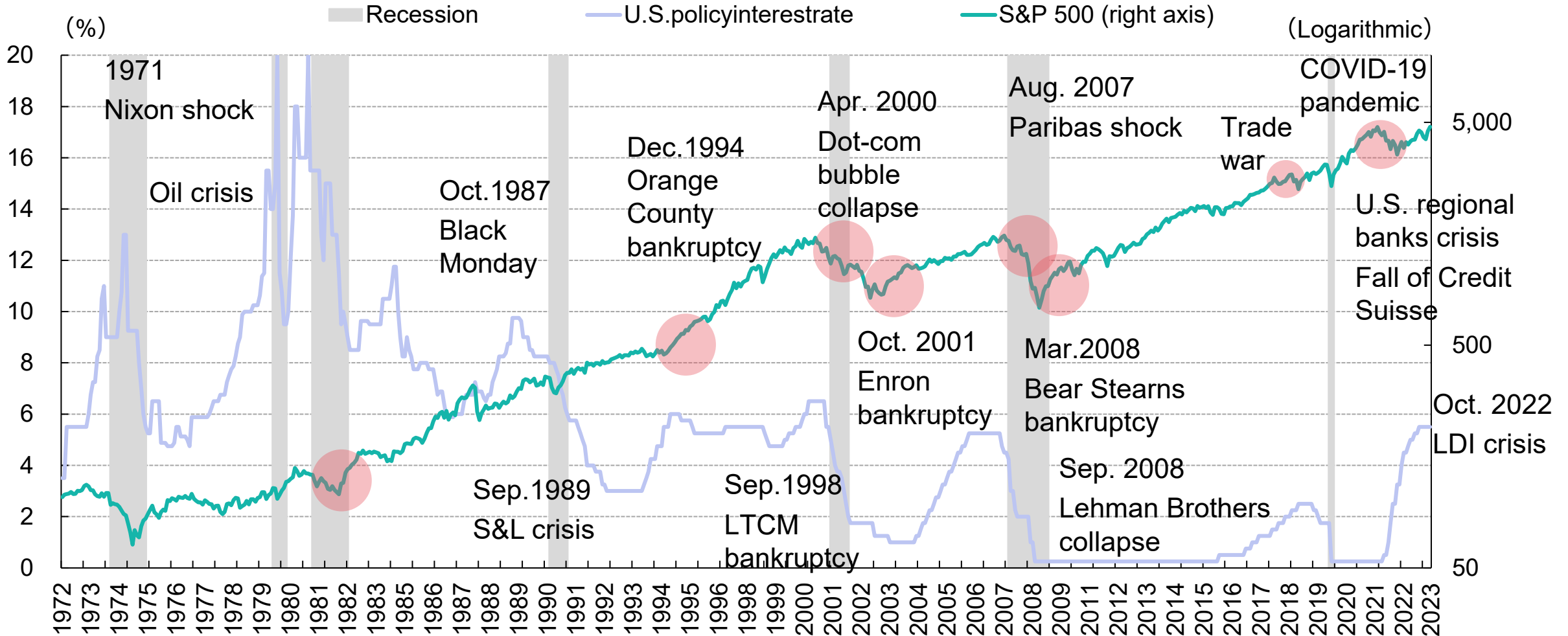
Metals : moving up the value chain



(Source: Compiled by SCGR from Bloomberg, World Gold Council) 25

Potential for Smoldering Shock Events

- Historically, the bottoming of stock prices often occurs in the late stages of a recession, known as the "stock market boom in a recession."
- After a significant financial tightening, during the initial interest rate reduction, is there a possibility of another "shock event"?

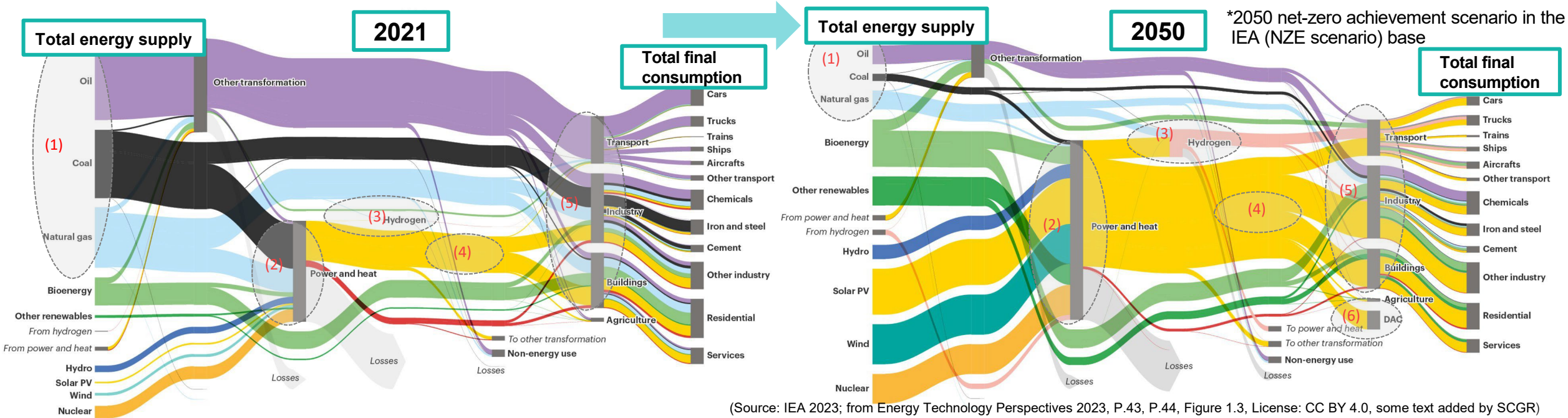


04

Global issues with business impact

Energy balance will change drastically

- A fundamental energy transition is essential to achieve carbon neutrality by 2050. Many business opportunities exist in the changes



(Source: IEA 2023; from Energy Technology Perspectives 2023, P.43, P.44, Figure 1.3, License: CC BY 4.0, some text added by SCGR)

| | Year 2021 | Year 2050 |
|--|----------------|------------------|
| (1) Decrease of fossil energy in total energy supply | | |
| Fossil energy (share) | 469EJ (79%) | 88EJ (16%) |
| (2) Increase of renewable energy (solar and wind) in power generation | | |
| Solar power generation (share) | 1,023 TWh (4%) | 31,237 TWh (41%) |
| Wind power generation (share) | 1,865 TWh (7%) | 23,442 TWh (31%) |
| (3) Expansion of hydrogen use | | |
| Low-emission Hydrogen Production | 1 million tons | 420 million tons |

| | Year 2021 | Year 2050 |
|---|-----------|----------------------|
| (4) (5) Electrification in total final consumption | | |
| Electrification rate of total final consumption | 20% | 53% |
| Electrification rate in the transportation sector | 1% | 51% |
| Electrification rate in the industrial sector | 22% | 49% |
| Electrification rate in the buildings sector | 34% | 70% |
| (6) Use of negative emission technology | | |
| CO2 removal by DAC | - | 621 million tons-CO2 |

Carbon Neutrality Order and Characteristics of Transformation by Demand Sector

- Transformation progresses from low-cost measures to high-cost ones (①→⑤).
- Crucial aspects of transformation vary by demand sector.
- In carbon offset, with storage is more valuable than without storage, carbon removal is more valuable than emission reduction, and long-lived storage is more valuable than short-lived storage. It will become mainstream (Oxford Principles).

| Measure Demand sector | ① Energy conservation | ② Clean power supply, electrification | ③ Fossil fuel + CO2 capture | ④ Tertiary energy utilization + CCU | ⑤ Expand use of negative emission technology |
|--------------------------|--|--|--|--|---|
| Transport Sector | general | <p>[Short distance, low power] EV (cars, trucks), electrification (railroads) *NZE: 51% electrification rate /2050</p> | <p>✓ Stop sales of internal combustion vehicles/2035 ✓ Stop selling internal combustion trucks/2045</p> | <p>[Long distance, high power] SAF & Hydrogen (Aviation) Ammonia (Ship) e-Fuel</p> <p>✓ Aircraft: SAF approx. 70%/2050 ✓ Ships: Low carbon fuels (ammonia, hydrogen, bioenergy)85%/2050</p> | |
| Industrial Sector | general | <p>[Manufacturing process] Electric furnace conversion (steelmaking), Electrification (many industries) *NZE: 49% electrification rate /2050</p> <p>✓ Steelmaking: Scrap ratio 48%/2050</p> | <p>[CCS] Power generation, steelmaking, chemicals, cement, paper</p> <p>✓ Cement : near zero clinker 93%/2050</p> | <p>[High heat and reduction process] Hydrogen and e-methane (chemical, ceramic, steelmaking)</p> <p>✓ Steelmaking: Near zero steel (DRI + electric furnace, hydrogen reduction ironmaking, CCS laying) 95%/2050</p> | <p>BECCS/DACS, *Carbon Credits</p> <p>✓ CO2 removal : 1.7billion tons/2050 ✓ CO2 capture : 6billion tons/2050</p> |
| Building Sector | <p>[Lighting/Heating] Geothermal, air conditioning, heat pumps</p> <p>✓ Heating : HP 55%/2050</p> | <p>[Lighting/Heating] Home (all-electric) *NZE: 70% electrification rate /2050</p> <p>✓ Building: Zero carbon compliance (electrification and renewable energy) 80%/2050</p> | | <p>[Lighting/Heating] Hydrogen and e-methane (city gas)</p> | <p>✓ Major milestone in IEA NZE Scenario</p> |

- **Transport sector** : "Electrification" will be the main method for short distances and low output. For long distances and high output, "tertiary energy utilization" will expand.
- **Industrial sector** : For manufacturing processes that are difficult to electrify (e.g., high heat, reduction, etc.), "tertiary energy conversion, fossil fuel + CO2 capture (CCS)" will expand.
- **Building sector**: In addition to further promotion of "energy conservation, cleaner power sources, and electrification," conversion of city gas (in the residential sector) to hydrogen and e-methane.

EU Carbon Border Adjustment Mechanism (CBAM) Driving Global Industrial and Trade Transformation

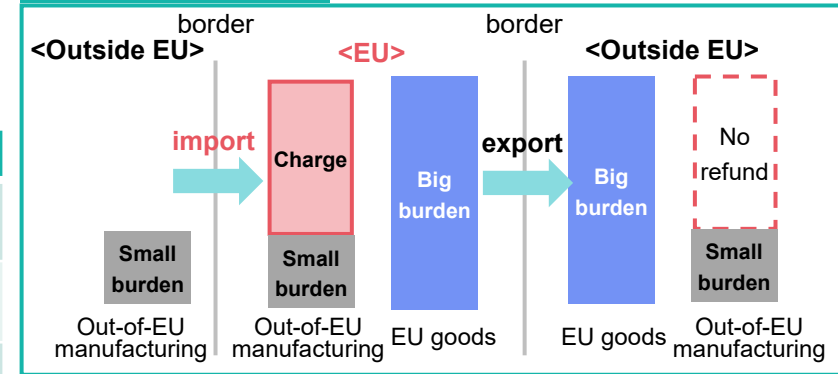
- Transitional period started from October 2023, with reporting obligations.
- Further acceleration of global industrial and trade transformation with potential expansion of CBAM target products, along with a reduction in free allocation ratio in EU-ETS.

Schedule

- ✓ October 1, 2023, to December 31, 2025: Transitional period, importers required to report quarterly
- ✓ From January 1, 2026: Full implementation, CBAM certificates purchase and surrender obligations

| Design elements | Overview |
|---------------------------|--|
| Target goods | Iron and steel (including downstream products such as screws, bolts and nuts), aluminum, cement, electricity, fertilizer, hydrogen |
| Scope of target emissions | Direct emissions (Iron and steel, aluminum, hydrogen) / Direct and indirect emissions (cement, electricity, fertilizer) |
| Price to be applied | In principle, EU-ETS price |

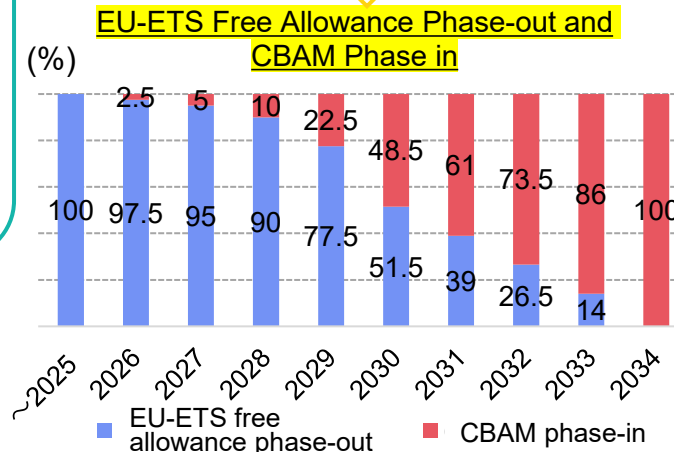
CBAM concept



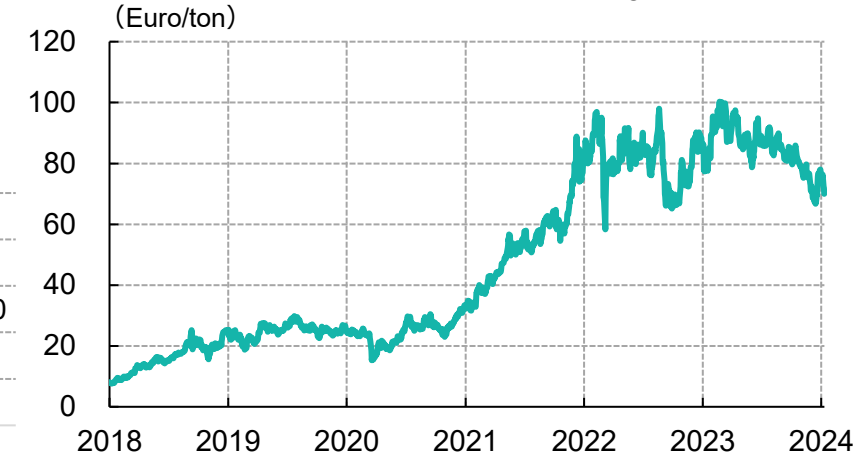
<Cautious Mechanism Design>

- ✓ Introduction of CBAM is gradual, reducing free allocation in EU-ETS.
- ✓ No export refunds.
- ✓ Limited scope of indirect emissions application.
- ✓ Setting transitional period.

Gradual Transition to CBAM, Gradual Reduction of EU-ETS Free Allowance



EU-ETS allowance price change

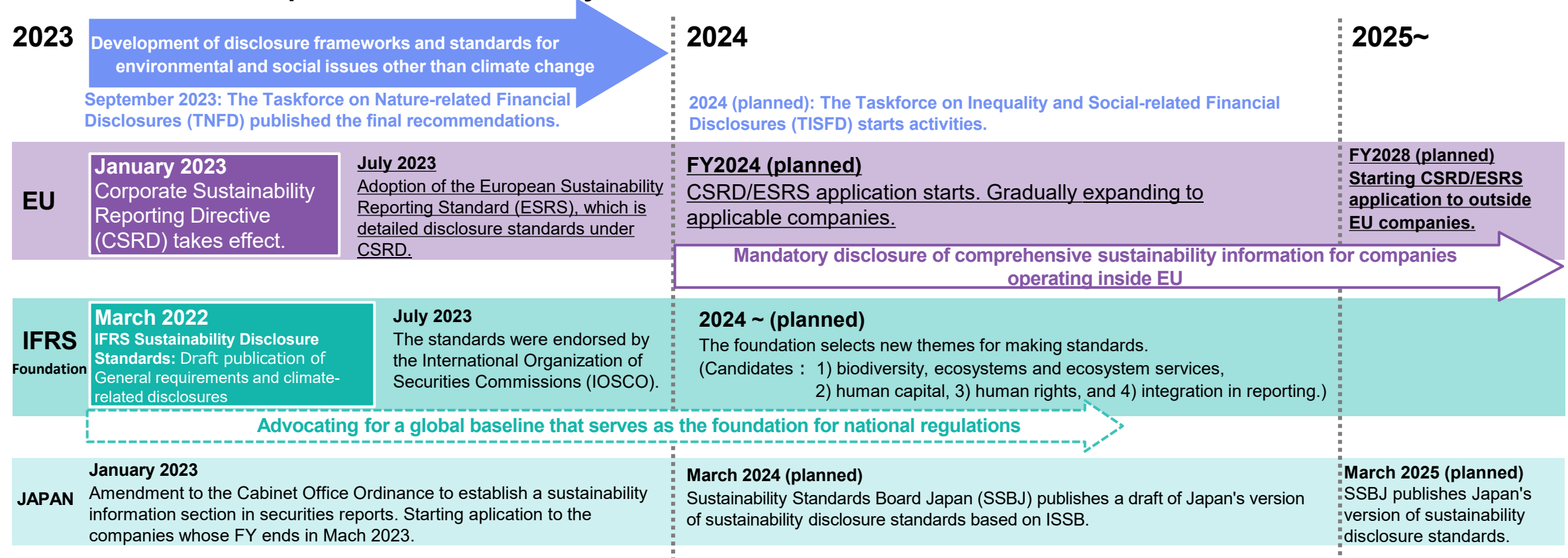


*Data until January 10, 2024
(Source: Compiled by SCGR from Bloomberg)

Rapid Standardization of Sustainability Information Disclosure

- From 2023 to 2024, EU, U.S., and the International Sustainability Standards Board (ISSB: within the International Financial Reporting Standards (IFRS) Foundation) are consecutively developing sustainability information disclosure standards, gradually establishing global rules. Too much details in every rule and the competition among rules bring about concerns in the business community.
- Following climate change, focus on biodiversity, human rights, and human capital has been increasing.

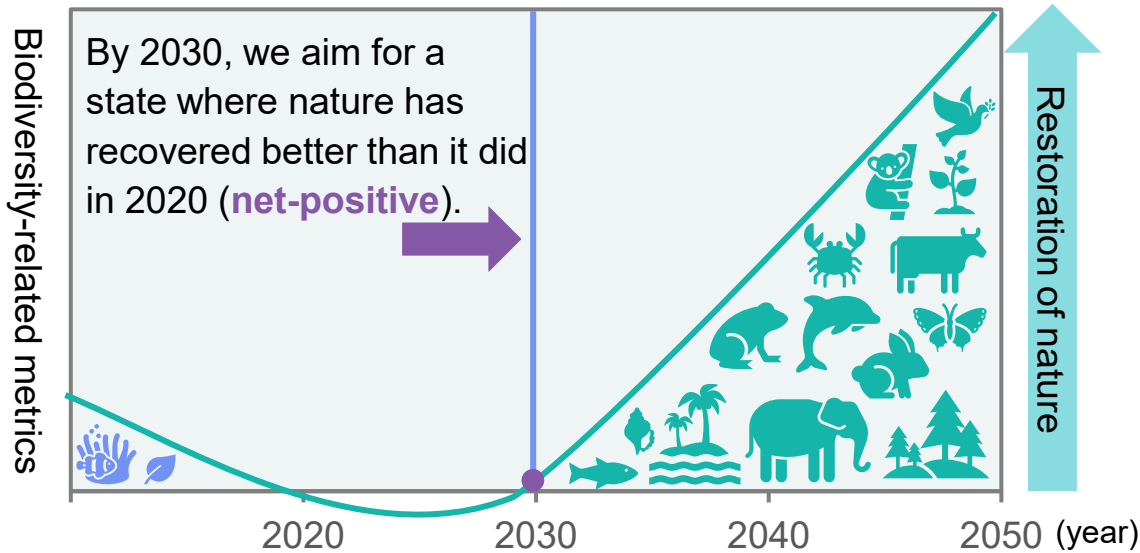
Trends in the Development of Sustainability Information Disclosure Standards



Shift of Thinking toward “Nature-Positive”

- Escalation of ecosystem destruction → Growing momentum to stop and reverse biodiversity loss (“Nature-Positive”) → The “Kunming-Montreal Biodiversity Framework” (adopted in December 2022) and Japan’s “National Biodiversity Strategy 2023-2030” (approved by the Cabinet in March 2023)
- In September 2023, the Taskforce on Nature-related Financial Disclosures (TNFD) publishes the final recommendations.
- Key to business solutions lies in “Circularity.”

Concept of “Nature-Positive”



To put nature on a recovery track, stop and reverse the loss of biodiversity (=recover nature).

Companies’ aggressive responses to “Nature-Positive”

(1) To analyze/understand their impacts and dependencies on nature

- Analysis of business according to the TNFD framework.

(2) To avoid and reduce activities that harm nature

- Review of management/business strategies, products, and production methods.

(3) To contribute to the restoration of nature

(Creating true corporate value and social value beyond disclosure)

- Shift to new business model and collaboration with other companies.

(Source: Compiled by SCGR)