Global Situation and Economic Outlook for 2025

 \sim A Shaken World Under New Structure \sim

January 16, 2025

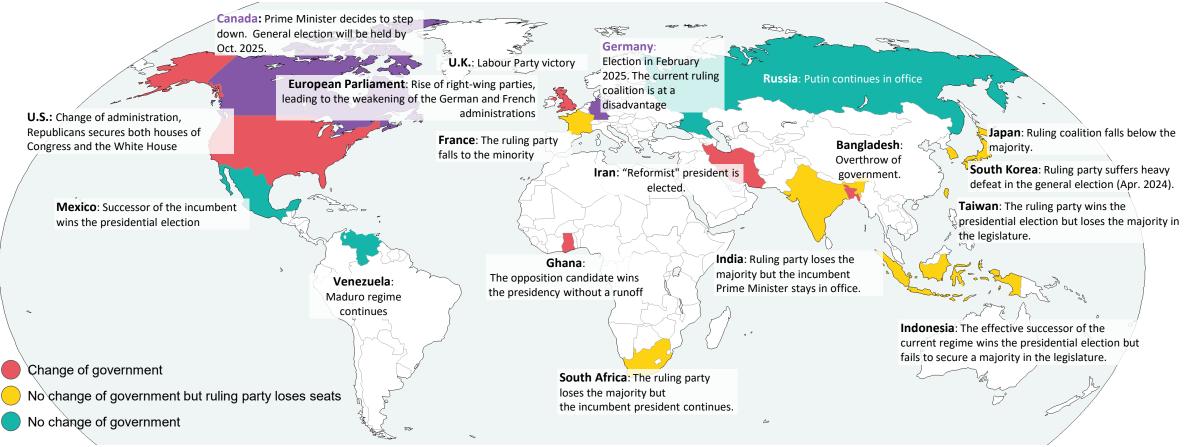




Notable Issues Under the New Regime

"Election year" led to "the new political global structure "

- A large number of national elections were held in 2024. Even in cases without regime change, the ruling parties lost seats frequently.
- Under the "the New Political Global structure", national interests and concerns are prioritized, the lack of global unifying force will lead to instability.



Where is the war in Ukraine heading?

- While the future Trump administration is keen on a truce for Ukraine, in the short term, the fighting for territorial control is intensifying. Solid peace deal is not easy, but Europe also seems to welcome a possible cease-fire between the two countries.
- Russian military alliance with China and Iran was joined by North Korea (China is concerned about North Korean troop dispatch). Russia increases presence in the grain market, etc.
- With slowing down of growth driven by the defense industry, rising inflation and labor shortages lead to harsh economic and living conditions in Russia, rising dissatisfaction with the results of the war among population

Military invasion in Ukraine

Trump's truce proposal: an immediate ceasefire on a current war-line?

- Russia's aggression will continue, risk of short-lived truce
- Risk of continued hybrid warfare, cyber-attacks, information operations, possible targeted assassinations. Could changes to the status quo by force be tolerated?

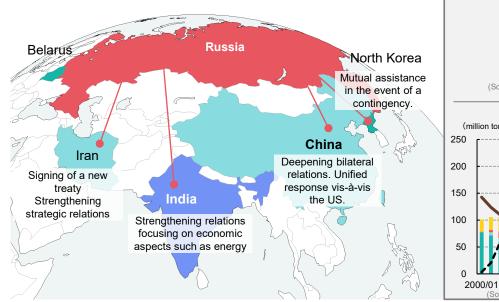


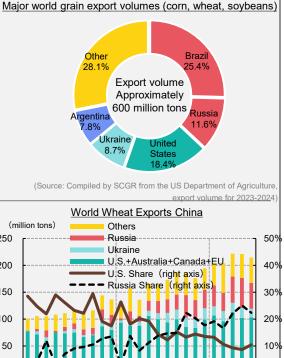
(Source: Compiled by SCGR from CraftMap)

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Russian diplomacy

- Strengthens military and arms supplies cooperation with North Korea and Iran.
- China and India become the biggest importers of Russian oil.
- Russia's proposed grain exchange for BRICS countries.
- Considering export restrictions on critical minerals to non-friendly nations.
- Discouraging other "non-friendly nations" against political intervention.





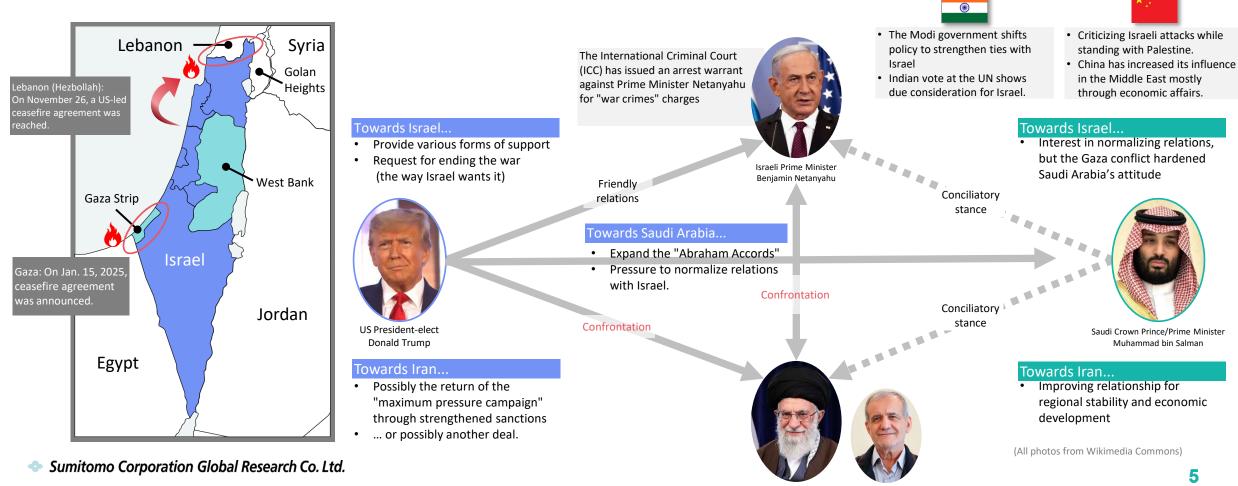
2010/11

(Source: Compiled by SCGR from the US Department of Agriculture

2020/21

Will the ceasefire be realized in the Middle East? What happens next?

- Israel and Lebanese Hezbollah has agreed to a ceasefire.
- Trump administration will be more "pro-Israel and anti-Iran" (Secretary of State Rubio, National Security Advisor Waltz, Secretary of Defense Hegseth, etc.)
- Trump administration aims to achieve a ceasefire and expand "Abraham Accords" (normalization of relations between Saudi Arabia and Israel)
- Unresolved Palestinian issue, isolation of Iran, and the fall of Assad regime in Syria could invite new risk to the region.

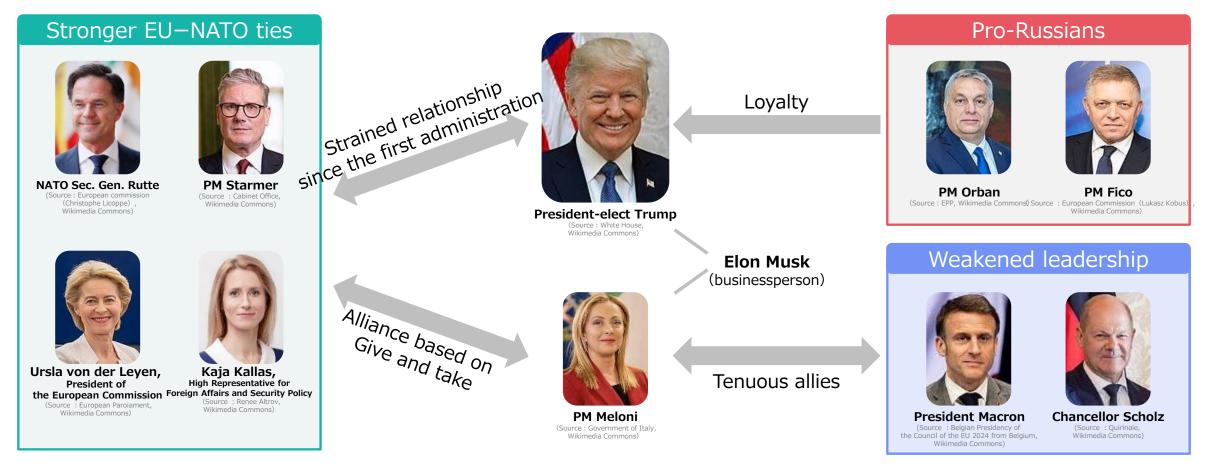


Iranian Supreme Leader Ali Khamenei

Notable Issues Under the New Regime

Weaker solidarity within the West (US-EU relations)

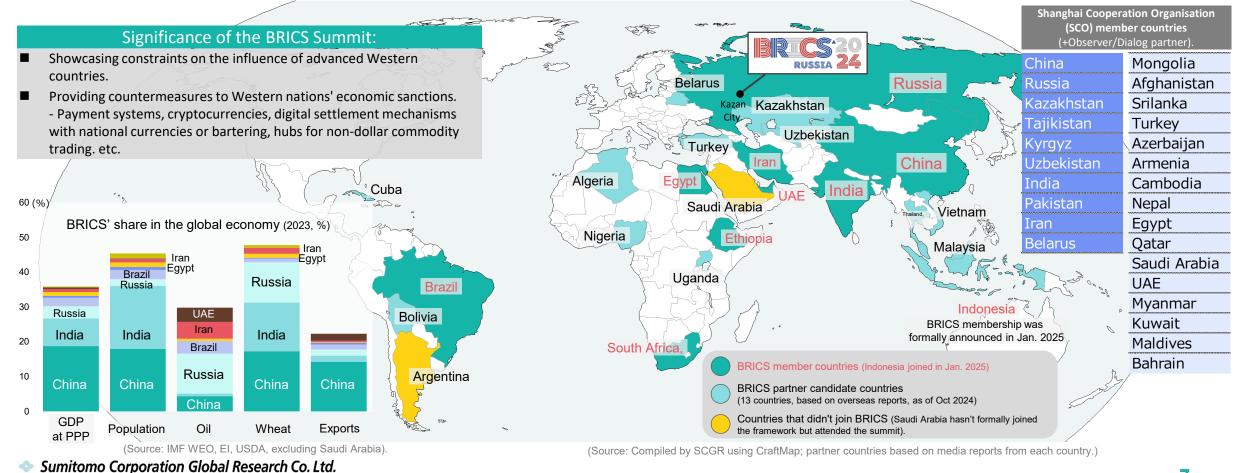
- Rift between the US and Europe due to tariffs, defence spending, and the reduction in support for Ukraine.
- Bolstering the EU-NATO ties, aka, European Pillar, under the leadership of NATO Sec Gen Rutte.
- A lack of united front, due to stronger relationship between pro-Russian Hungary/Slovakia and Trump, and weakened leadership in Germany and France.



Notable Issues Under the New Regime

Challenges to the Western-led order (BRICS, etc.)

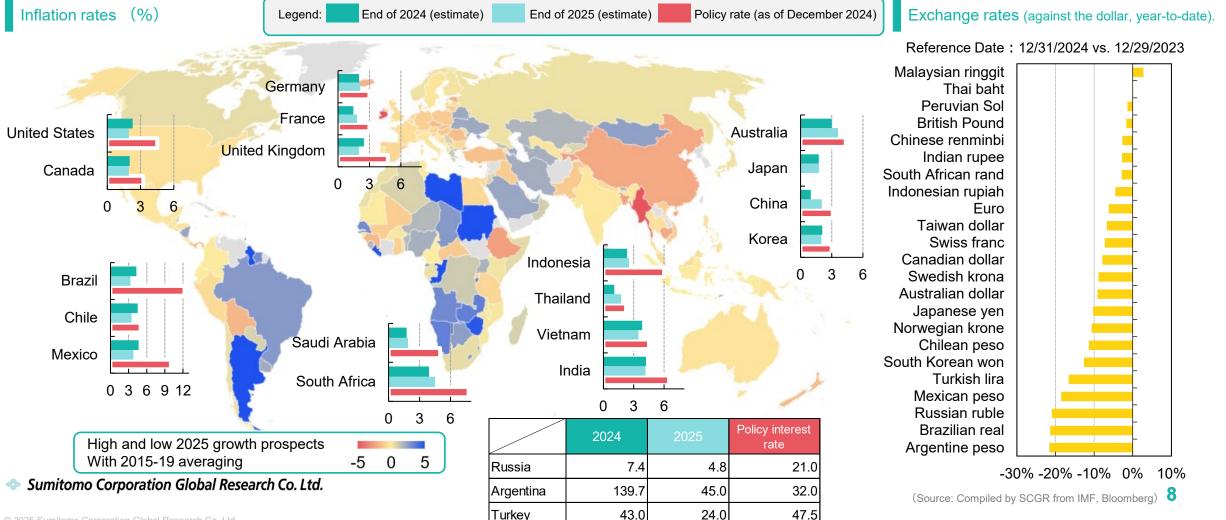
- Significant presence in population, resource, food production and trade.
- BRICS Summit 2024 was attended by 9 member countries and 27 other countries. Thailand, Malaysia, Indonesia have expressed their intention to join BRICS.
- Lacks identity and specific goals as a community, low possibility of concrete coordinated actions as an organization.
- Emerging as a proving ground for non-US dollar means, a particularly prominent issue under the new global structure.



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What's beyond the economic slowdown and decelerating inflation?

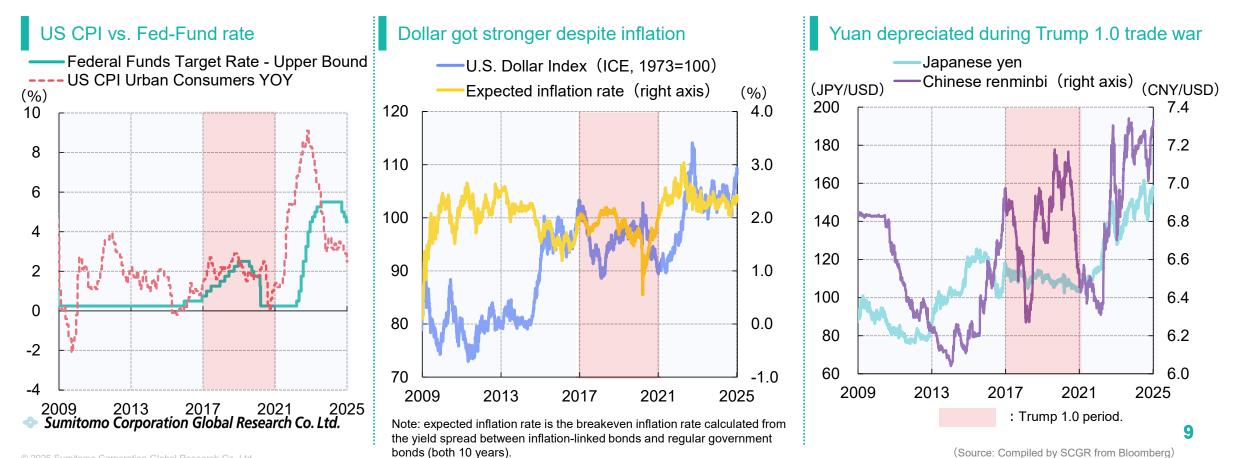
- The high inflation period end. As growth slows down, central banks shift monetary policy to cutting policy rates.
- Low growth expected in 2025. "New regime" policies may lead to volatility and uncertainty



Will Trump 2.0 bring renewed inflation and lower growth?

- Trump 1.0 saw moderate inflation despite inflationary policies due to modest rate hikes in the first half, and an economic downturn in the latter half.
- Under Biden, fiscal stimulus, supply constraints, and housing shortages

 along with delayed rate hikes (negative real interest rates) accelerated inflation, leading to large and rapid rate hikes and a strong dollar.
- In the 2nd Trump admin., large tax cuts, illegal immigration control, and tariffs also exert inflationary pressure. Conversely, higher costs could suppress demand.
- Current market seems to be against the principle that inflation tends to devalue currencies. Exchange rates including currency policy under the new regime are closely watched.



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Notable Issues Under the New Regime

Impact of anti-China America-first trade policies

- Trump emphasized the orientation towards decoupling from China (during the election period). Useful tools involve tariffs, export control, and investment regulations
- If the Trump tariffs are implemented, an additional 17% tariff burden on imports could raise domestic prices by 1.8%
- Additional tariffs on China, Mexico, and Canada could significantly impact Japanese businesses
- Broad-ranging tariffs, China-targeting restrictions, and countermeasures could cause significant disruptions to global trade and supply chains

Trump trade policy plans



Imposing a universal tariff of 10-20% on imports (25% for Canada and Mexico). Retaliation against countries imposing high tariffs on US exports.

60% tariffs on China

Imposing 60 % tariffs or more (starting with an additional 10%) against all Chinese products, plus revoking most-favored-nation treatment.

Retraction of most-favored- nation treatment for China		tment restri against Chin			Review of USMC/ e-negotiation in 20	
Total US Impor	ts from China er countries	17% 60% 10%	\$ 3 trilli \$ 0.4 tril \$ 2.6 tril	lion	\$ 3.6 trillion \$ 0.7 trillion \$ 2.9 trillion	
		Proposed Tariff rates	Actual US volume in	2023	Including additional tariff amount	-

in the US asset

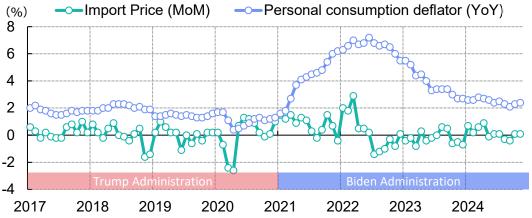
Countermeasures against Chinese L exports via third country



(Indo-Pacific Economic Framework)

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The previous tariff increase was adjusted by the decline in import prices



(Source: Compiled by SCGR from Bureau of Economic Analysis, United States Department of Labor)

A uniform 10% tariff, projected to reduce the US real GDP by 0.36% (2026) and raise US prices by 0.6% (2025)

A 60% tariff on China, expected to reduce the US real GDP by 0.14% (2026) and increase US prices by 0.4% (2025)

(Calculation by US Peterson Institute of International Economics, 2024

- Stronger countermeasures than during the first Trump administration
 - Sanctions on fortune 500 US companies

response

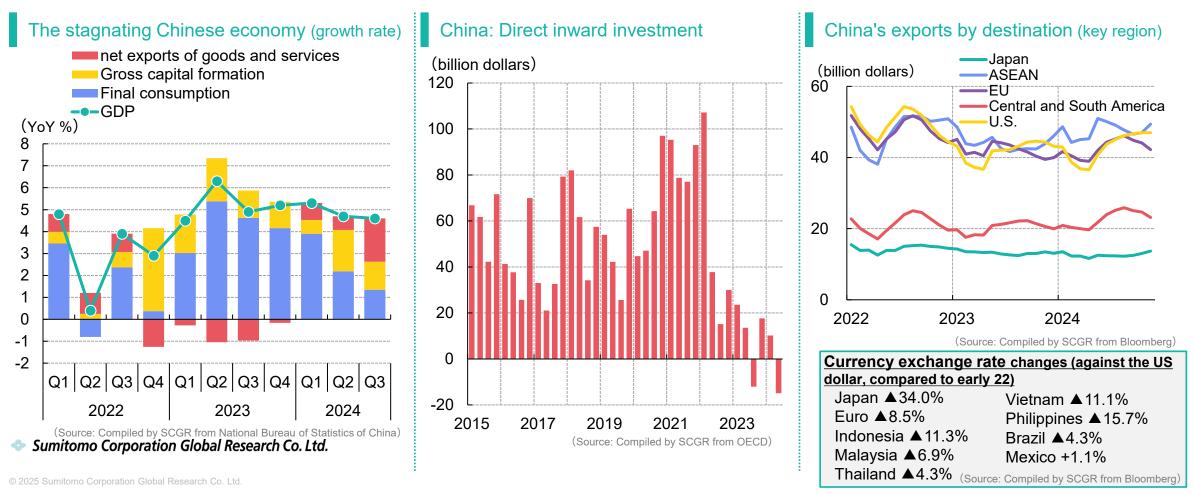
from China

- Enhance regulations on the export of critical minerals
 - Partial liquidation of held US treasuries

Notable Issues Under the New Regime

The negative impact of a stagnating Chinese economy

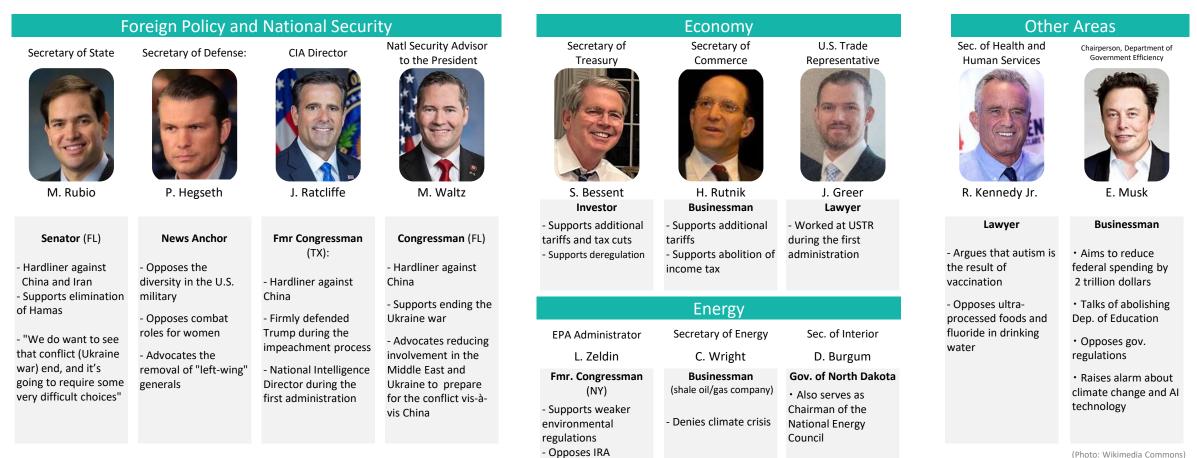
- The stagnation of the Chinese economy affects commodity markets.
 Expectations of domestic demand growth are weak with a declining population. The effects of economic policies also raise doubts.
- The flow of FDI to China is continually declining. Surplus funds concentrating in the US?
- Massive supply capacity supported by technological superiority and stagnated internal demand causing the export deflation of materials, leading to the industrial collapse of other nations Newly noteworthy issues under the new system





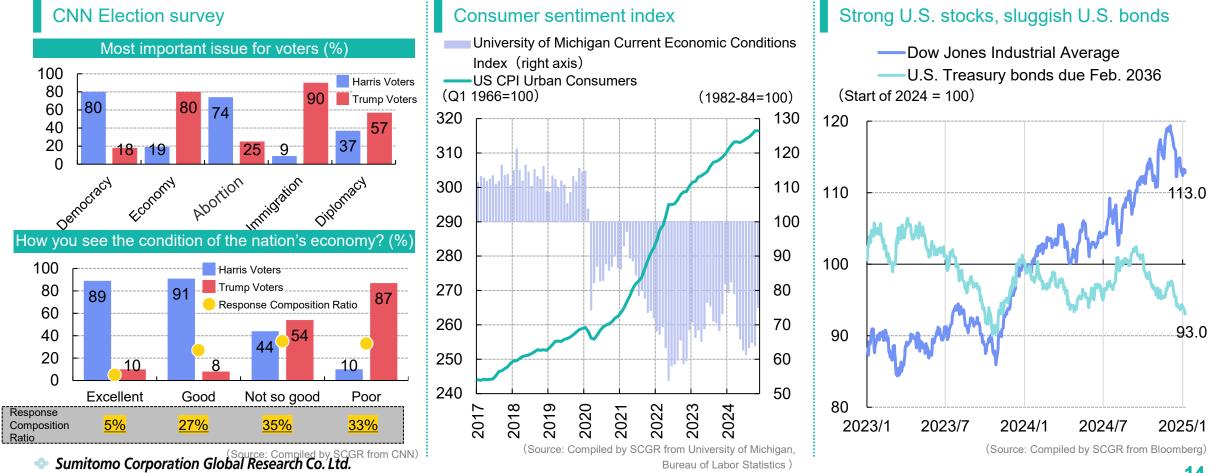
U.S. forging ahead with America-first policy

- The second Trump administration values "loyalty" to the President.
- Prominent China hawks, climate change skeptics, and pro-Israel / anti-Iran hardliners compose Trump administration.
- Compared to the Biden administration, less interest in maintaining the current global order and alliance networks.



U.S. economy with high inflation and low consumer sentiment

- Public sentiment on economy, the most important issue for many voters, was "Not so good" or "Poor" before the election.
- Consumer sentiment continues to slump due to sticky inflation. Higher tariffs may lead to higher prices and declining purchasing appetite.
- The stock market moves steadily higher; bond market cautiously watching fiscal policy.



Uncertainties in Europe

- Right leaning of the Von der Leyen Commission 2.0 reflecting the European Election in June '24 \rightarrow Changes in climate policies
- Underlying limits of unity and solidarity arising from disparities in economic performance, strategies vis-à-vis China/the US and foreign policy implementations amongst EU member states

Right-leaning politics and ESG

Rising of the right post European votes (June '24)

- \rightarrow Centre-right, VDL leaning towards the right \rightarrow Impact on climate policies, e.g. Green Deal
- Newly-registered vehicles by type: EU ■ Petrol ■ Diesel ■ BEV ■ PHEV ■ HEV Others 100% 80% 60% 40% 20% 0% 2022/1 2022/7 2023/1 2023/7 2024/1 2024/7 (Source: Compiled by SCGR from ACEA) VDL 2.0 with strong emphasis on the centre-right Commissioners relating Green Deal EPP(Centre right) 6 Renew(Centre) S&D(Centre-left)

(Source : European Commission, SCGR)

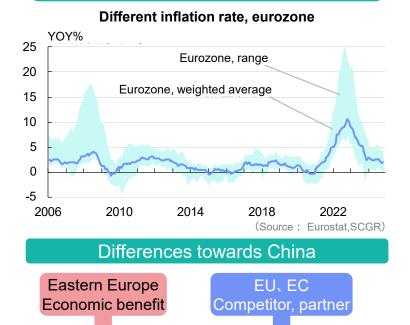
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Head winds for rate and econ policies

Needs and reality of economic revitalisation

 \rightarrow Investment funding sources

 \rightarrow Differences in the China strategies



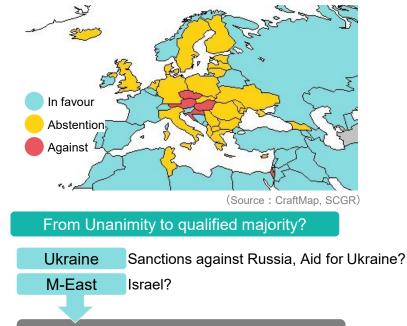
Mediocre China policy?

Limits of the EU foreign policy

Different histories and expectations

- \rightarrow Differences towards M-East, Ukraine
- \rightarrow Difficulty in unanimous decision-making

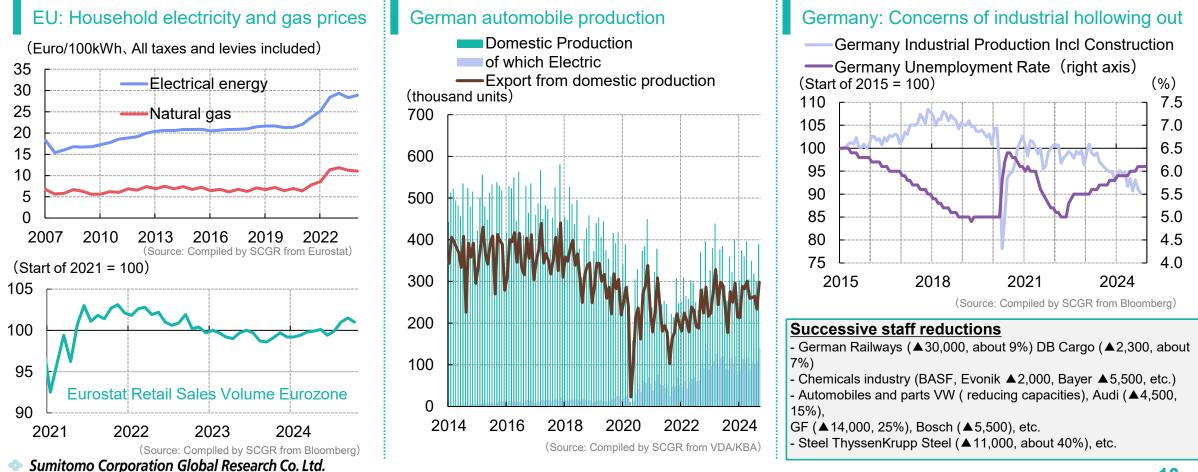
UN resolution calling for humanitarian ceasefire, Oct '23



Unrealistic EU Treaty Revision?

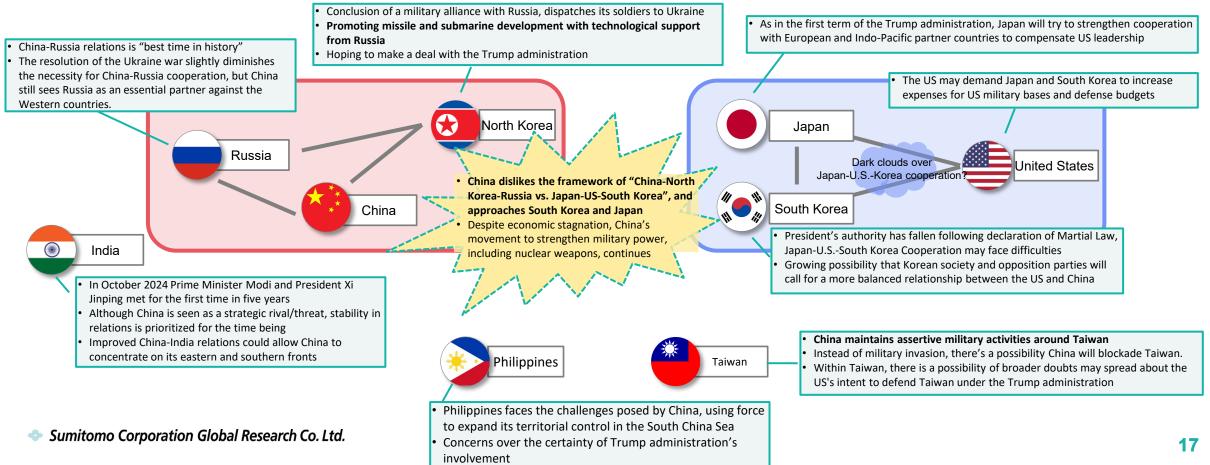
Gloomy European economy

- High energy costs, due in part to climate change measures, weighing on industries and households.
- German car industry in crisis, with VW factory highlighting the struggles faced by German industry.
- Production, exports, and consumption may further decrease, unemployment rates continue to rise, increasing social unrest and anxiety.



Increasing tensions in East Asia

- Concerns over North Korea's missile technology improvement through military cooperation with Russia. Incoming Trump administration may forgo denuclearization of North Korea.
- If Trump administration distances itself from its allies, cooperation between China, North Korea, and Russia may increase, and it could pose a threat to Japan. Meanwhile, Sino-Russian relations may change.
- If the US becomes passive in Taiwan's defense, China will step up its influence operations in Taiwan.
- Concerns over impact to economy and market trends due to deterioration of security environment and politics in various regions.



Asian and Oceanian region will face significant challenges

- The Trump administration's tariff policy, hardline approach toward China, and decline in regional engagement are major concerns, making Japan and Australia's roles even more important.
- ASEAN economy growing steadily, driven by investment shifts from China and the expansion of Chinese companies. Supply chains for semiconductors, EVs, etc. are undergoing changes.
- Amid the decline in U.S. engagement, India and Indonesia are emerging as increasingly influential players. The Indian economy is stable. Australian economy's recovery is still slow.



The third administration under Modi is struggling with coalition management but continues to proceed with reforms and active diplomacy.

ex-

• The economy remains stable (7% in 2024), with expectations of further investment growth driven by the US strategy toward China.

ASEAN

- Emerging Asian economies are experiencing low inflation (2.1% in 2024) and solid growth (5.3% in the same year). The ongoing cycle of interest rate cuts is expected to boost domestic demand, while which the Trump administration's dollar policy could lead to currency volatility.
- Investments shift from China in sectors such as semiconductors, electronics, and data centers are expanding, but the Trump administration's trade policy may impact these prospects.
- The active diplomacy of Indonesia's new Prabowo administration plays an important role in shaping relations between Southeast Asia and major powers such as the US, China, and Russia.
- Myanmar plans its first general election in 2025 since the coup, though military rule continues thereafter.
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- Expansion of investment from China (including EVs, IT, and natural resources) Concerns about the excessive export of Chinese products due to exclusion form U and European markets.
- China-Philippines conflicts intensifying, managed by strengthened cooperation among Japan, the US, Australia, and the Philippines, while the Trump administration's stance is unclear.

Relations with Japan

The Trump administration's declined engagement in Asia and US-China confrontation heighten expectations for Japan's role (decarbonization, securityrelated capability building).

even more crucial.



slow economic recovery (1.2% in 2024). • Due to the Trump administration's declined engagement, China strategy, and the importance of technology and natural resources, the cooperation between Japan, Australia, and ASEAN (such as AZEC) becomes

Australia

(Economic data are IMF forecasts. Photos are from Wikimedia Commons, government official sources.)

Relations with the United States

- Vietnam, Malaysia, Indonesia, Thailand, and India are major trade deficit countries, making them potential targets for sanctions under the Trump administration. Exports by Chinese companies in ASEAN to the U.S. could also be targeted. Decline in engagement with Southeast Asia (withdrawal from IPEF, etc.)
- Cooperation with India and Quad will continue, but AUKUS will be uncertain.

JS		(USD billions, 20 by trade partners	
	1	China	279
	2	Mexico	152
	3	Vietnam	105
	4	Germany	83
	5	Japan	72
	6	Ireland	66
0	7	Canada	64
	8	S. Korea	51
	9	Taiwan	48
	10	Italy	44
	11	India	43
	12	Thailand	41
	13	Malaysia	27
	14	Switzerland	25
	15	Indonesia	17
	(Source: US	Department of Commerce)	18

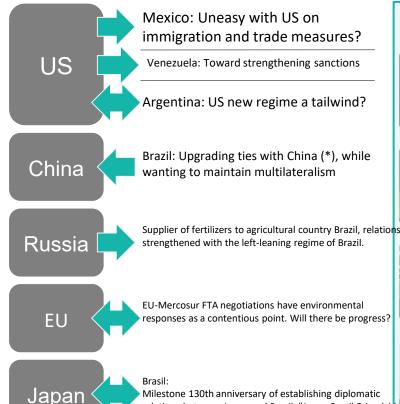
U.S. Trade Deficit



Latin America is expected to experience low growth

- There are abundant resources that are useful for economic growth and climate change, but they have not been the starting point for growth.
- Future low growth could also become a pressure for a change of government.

Foreign Relations:



Milestone 130th anniversary of establishing diplomatic relations between Japan and Brazil, "Japan Brazil Friendship and Exchange Year"

* "China-Brazil Destiny Community for a Fairer World and a More Sustainable Earth" (November 2024)

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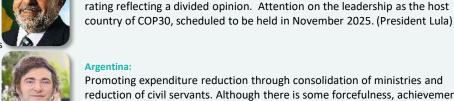
Domestic Politics and Social Situation:

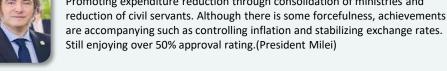


Mexico:

High approval rating (70%) for President Sheinbaum remains even after the honeymoon period, with negotiations on immigration and trade with the new US administration being key to the administration's stability.(President Sheinbaum)

Brazil: The current administration's approval rating is 36%, with a 32% disapproval



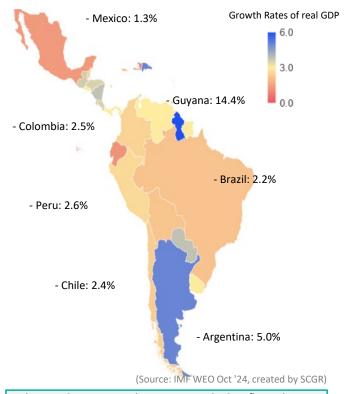




In the unified local elections in October '24, the opposition (center-right coalition) recovered support, and there are views that the presidential election in November '25 could unfold favorably for the right. (President Boric)

(Photo: Wikimedia Commons)

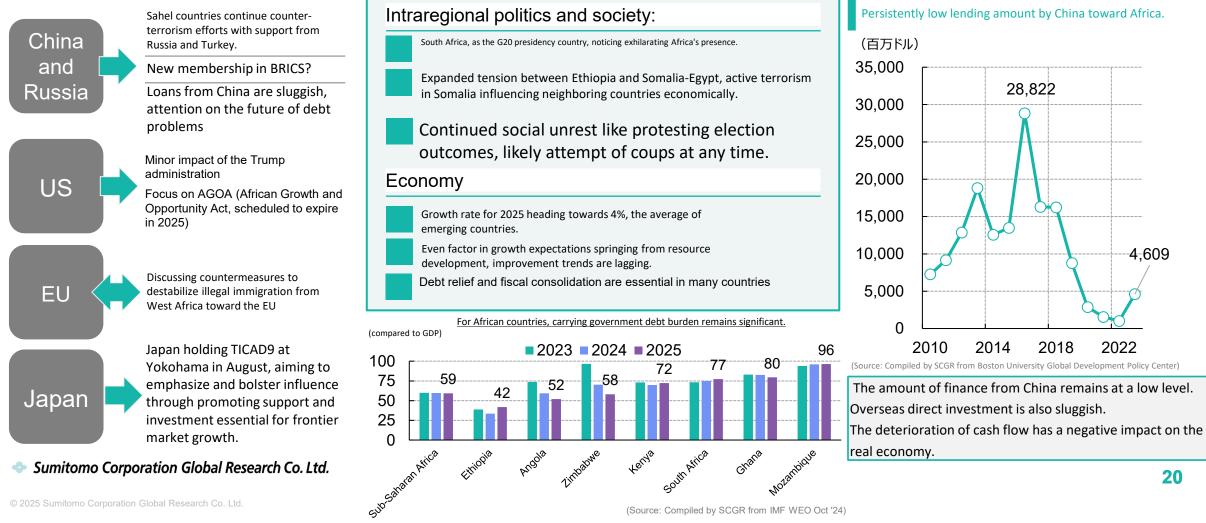
Economic growth forecasts for Latin America in 2025:



High growth is expected in Guyana, which is flourishing in oil production, and Argentina, where inflation appears to be under control. However, growth in other countries is expected to maintain low and stable growth with lacking the impetus for growth.

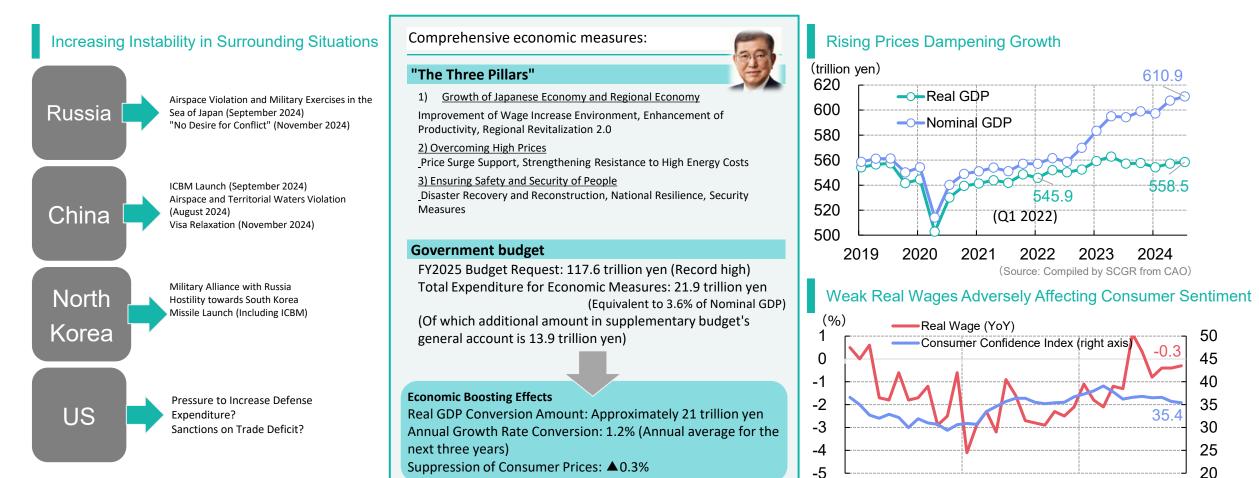
Sub-Saharan Africa aiming to increase presence

- Military regimes in the Sahel countries (southern edge of the Sahara Desert) considering coups as the "new normal." Potential for escalating security concerns and tensions in the "Horn of Africa" region.
- Dependently high inflation, protest demonstrations (against tax increases), political instability due to confusion surrounding elections are causes for concern.
- Overall trend of a slight decrease in debt, but the increasing interest payment burden and scarcity of foreign currency cause lower creditworthiness, some countries continuing to experience depreciation of their national currencies.



Both domestic and international environment unstable for Japan

- Markedly increasing uncertainties in the surrounding environment present considerable challenges. Expectation strengthens with enhanced alliance with the US, stress on defense cost uptick and trade deficit reduction by the possible Trump administration.
- Politically unstable as the ruling party is of a minority kind. With the upper house election (July) approaching, continuous tendencies making fiscal policies relatively easier to expand.
- Nominal GDP continues to reach a record high, but real GDP remains flat. The sluggishness in real wages delays the recovery of consumer sentiment.



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(Source: Compiled by SCGR from "Comprehensive Economic Measures for People's Safety and Sustainable Growth")

(Source: Compiled by SCGR from Ministry of Health, Labor and Welfare, and Economic and Social Research Institute (ESRI))

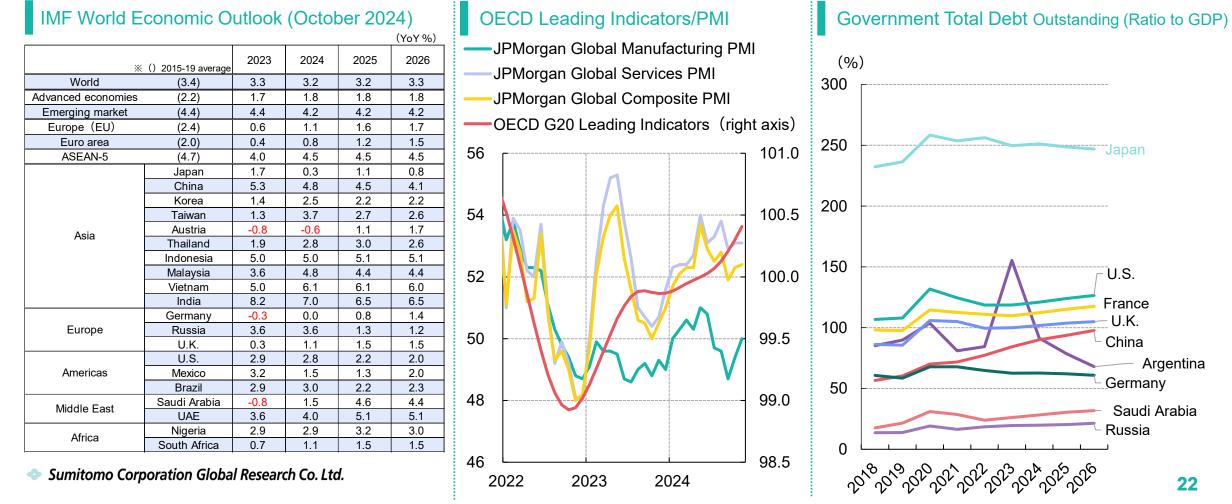
2024

2023

2022

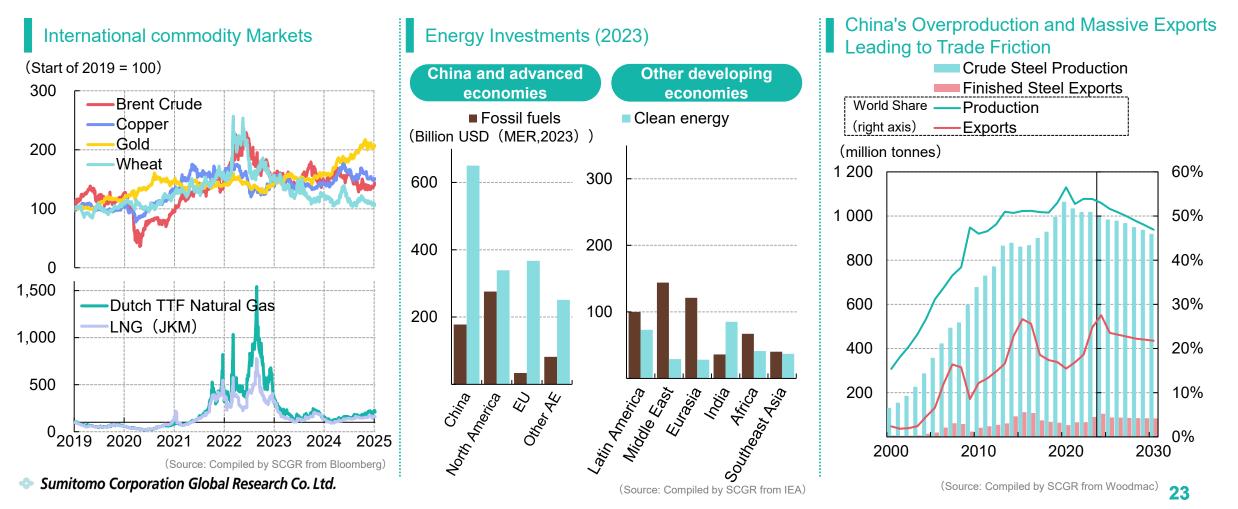
Macroeconomic growth is stable, but will global structural change bring volatility?

- World Economy in 2025 is expected to witness a stable but low growth of 3.2%. However, may be influenced by policy changes due to regime shifts
- Economic growth is driven by the service industry. Manufacturing sector demonstrates weaknesses due to inflation, high interest rates, decline in demand
- Debt is on the rise across both developed and developing nations. Increased cost of financing, declining fiscal effects due to inflation are hindrance to growth Political Economy and Market Trends in Each Region



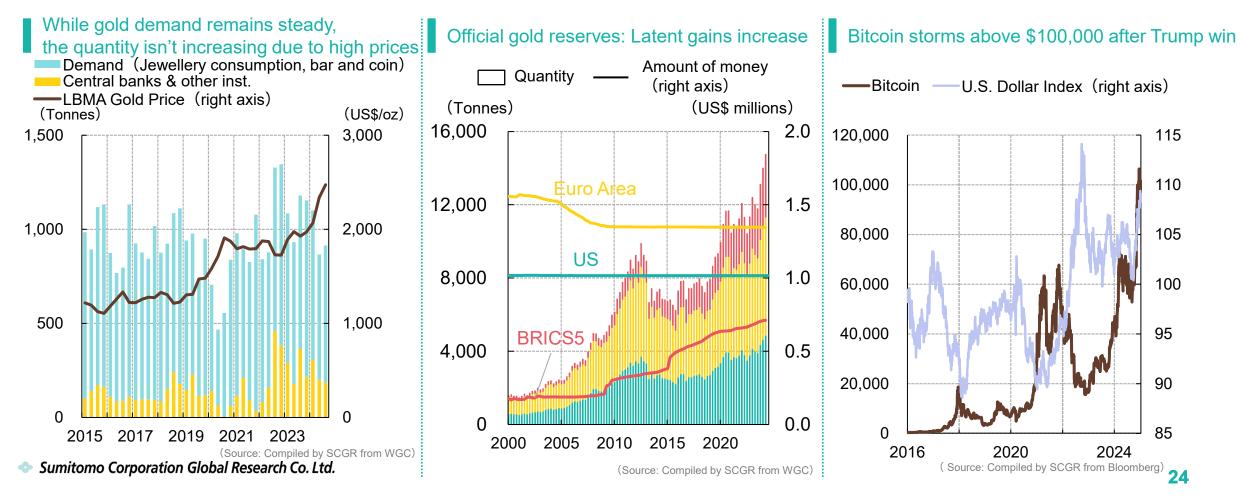
Relatively stable commodity prices

- Commodity Market are stabilizing following hectic years due to trade war, pandemics, wars, and energy crises
- China takes the lead in clean energy investments, whereas emerging countries lag behind in energy transition due to under-investment
- China's structural changes lead to weaker domestic demand, resulting in massive increase in export



Gold prices continue to set new highs, Trump fuels crypto markets

- Safe-haven gold demand and official gold buying interest remain strong, but less volume due to high price
- New type investors: China's Generation Z collecting "gold beans", American citizens buy gold mini bars at Costco etc.
- Long-term gold holdings have substantial latent gains. Some have the idea to cash in a small portion to allocate funds to other priorities
- President-elect Trump's pro-crypto stance boosted Bitcoin prices ; he might consider establishing 'Federal Bitcoin Strategic Reserve' ?





ESG and AI Related Developments

ESG and AI Related Developments: Climate Change

Change in the pace of climate change measures

- The Right expand in elections in Europe and the United States. Slowing growth and questioned economics of decarbonization affected the speed of action.
- Emerging and developing countries use decarbonization as a catalyst for industrial upgrades.

U.S.: Trump administration (expected policy direction)

Climate change is a "hoax" and "nonexistent"

- Possible withdrawal from the Paris Agreement, etc.
- Abolition of climate change-related disclosure regulations, and Uncertainty in pension management
- <u>Review or revocation of Biden's administration regulations</u>
- Expansion of fossil fuel production, restarting of LNG export permits, Repeal of EV promotion measures, reinforcement of domestic energy production (Republican manifesto)

Energy Secretary

- Export expansion
- IRA review (support reductions for EV, hydrogen, buildings, etc.).

Secretary of the Interior/ Chairman of the National Energy Council







EPA Administrator

Doug Burgum

Lee Zeldin

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Chris Wright

Global: Progress amid waning interest

- Global warming in 2024, exceeding 1.5 degrees for the first time
- COP29: Focus on finances, developed vs. developing countries confrontation
- NDCs deadline in Feb.2025, UK targets 81% reduction
- Coal-fired power: UK abolishes in 2024, Indonesia within 15 years

Europe and the U.S.: Social backlash and changes in strategic direction

- Environmental advocates retreat in elections
- · Facing demand shortage and weak competitiveness,
- EV: fading subsidies support (Germany), rising competition

Renewables and hydrogen: struggling due to costs in a world with interest rates

- Demand for decarbonized energy, Nuclear power: moves to use in data centers
- Strengthening industrial and trade policies, domestic industrial rehabilitation

Gas-fired power: Support for new installations, but based on future decarbonization

CCS: Policy support (EU Industrial Carbon Management Strategy) EV: Increase in tariffs

Reviewing corporate strategy

Oil/Gas/CCS: Reassessment and increased investment Renewables/Hydrogen: Investment reduction and postponement EV: Plan review and staff cuts

• EU rules revision

Japan: GX2.0, societal transformation

• GX2040 Vision:

Trade

friction

GX industrial structure, GX industrial location, GX market creation

China: Advances in decarbonization efforts

- Massive introduction of renewable energy, increased
 production and export of new energy vehicles
- Institutional design toward expanding emissions trading

Other emerging and developing countries: Seeking growth opportunities through decarbonization

- Moves for industrial upgrades through decarbonization Overseas investment by Chinese EV manufacturers (Thailand, Indonesia) Rise of domestic EV manufacturers (India, Vietnam)
- Investment attraction through decarbonization-related resources

Resource-rich countries: Attracting investment in gas, critical minerals, and CCS Saudi Arabia: Greenshoring

Decarbonization depends on external financial support?

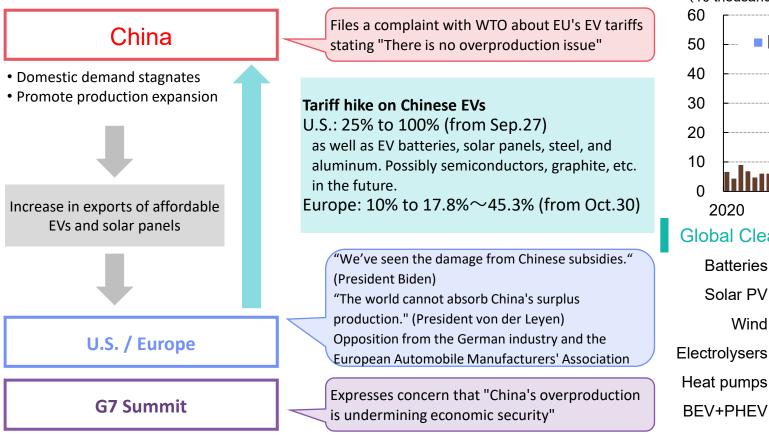
ESG and AI Related Developments: Climate Change

The Impact of China's overproduction on Europe and the United States

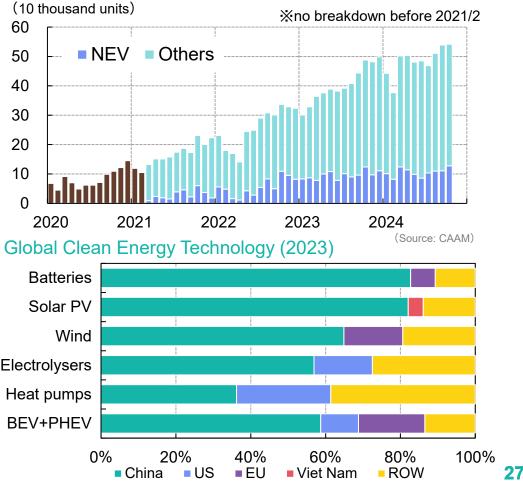
- China's competitive edge and overproduction in the green sector pose an economic security threat and a crisis for Western industries.
- Sharp brake on the trend of green investment promotion and transition for green products in Europe and the U.S.

(Source: SCGR compiled from media reports, etc.)

• Tariff hike on Chinese-made EVs is symbolic.



Expansion of China's automobile exports

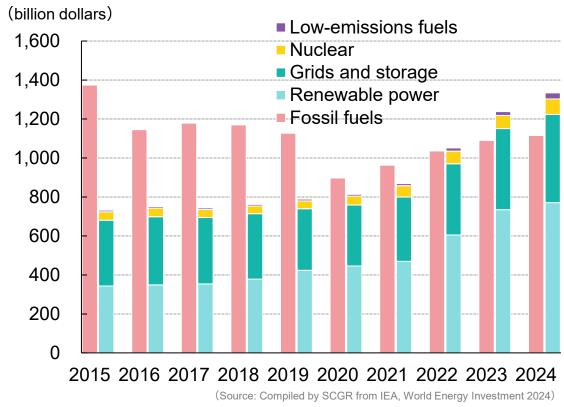


Notes: BEV+PHEV is share of sales (Source: Compiled by SCGR from IEA)

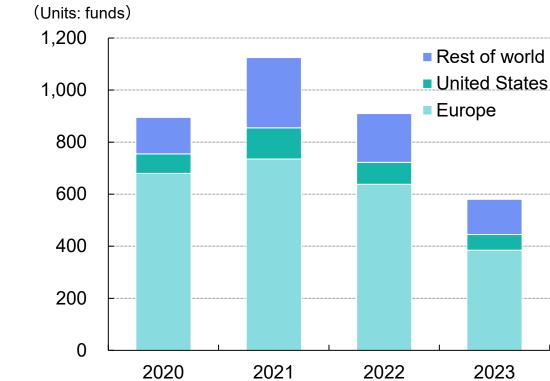
ESG and AI Related Developments: Climate Change

Re-evaluation of fossil fuels

- Investment in fossil fuels is on the recovery trend. Upstream investments in oil and gas sectors are expected to recover to 2017 levels by 2024, led by the Middle East and Asia.
- Concerns over relative investment returns and fund reliability, as well as security-prioritizing mindset, lead to a decline in sentiment for sustainable finance.
- Trump administration is expected to actively develop oil and gas. If supply increases cause lower prices, it will also impact the economics of renewable energy.



Global investment in energy



Sustainable fund launches

(Source: Compiled by SCGR from IEA, World Energy Investment 2024)

Movements and changes in European rules

- EU leads rule-making and creates competitive advantages, but the movement is complicated by environmental changes
- If the speed changes, the cost burden becomes heavier, leading to reconsideration in some cases

System	Overview	
Carbon Border Adjustment Mechanism (CBAM)	Measures to require payment at the border for the difference in carbon prices between domestic and foreign products . Transition period from Oct.2023, full implementation from Jan.2026 (Obligation to purchase and submit CBAM Certificates) Moving forward the review and simplification under the second von der Leyen administration?	
Disclosure rules (CSRD, European Sustainability Reporting Standards (ESRS))	Scheduled to apply to large companies from FY 2025, also to foreign companies from FY 2028. Review towards simplification under the second Von der Leyen administration	
Net-Zero Industry Act (NZIA)	For eight strategic net-zero technologies such as solar power, wind power, energy storage, fuel cells, to ensure at least 40% domestic production of domestic demand by 2030 (Effective from June 2024)	
Critical Raw Materials Act (CRMA)	Aiming for 10% domestic mining, 40% domestic processing, and 15% domestic recycling of strategic raw materials (lithium, cobalt, graphite, rare earth, etc.) by 2030 (Effective from June 2024)	
Ecodesign for Sustainable Products Regulation (ESPR)	Regulation to promote the sustainable design of products considering the entire lifecycle of the product. Almost all products (excluding food, feed, pharmaceuticals, automobiles, etc.) (Effective July 2024) * Sustainability requirements: carbon footprint, product durability, reusability, etc.	
Right to repair	To ensure consumers can use home appliances for a long time, manufacturers are obliged to provide repairs at a reasonable price to prevent disposability (effective July 2024).	

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(Source: Compiled by SCGR from Various materials)

ESG and Al Related Developments: Rules

Advancement and stagnation of nature positive and circular economy

- Progress in the field of biodiversity is noted in some areas, however, there is a gap between advanced and developing countries regarding mobilizing funds, which might impact the pace.
- EU aims for growth led by policy, with specific investments in battery recycling. On the other hand, the expansion of the right-wing and the decline of ESG investments lead to speed adjustments.

< EU Batteries Regulation >

< Nature Positive >

- [Globally] The Biodiversity COP16 (Oct.2024, Colombia) did not reach agreements on creating measurement indicators and mobilizing funds.
- [Europe] One-year extension for the application of the European Deforestation Regulation (due to lack of preparation, cautious views from related industries)
- [Disclosure] TNFD disclosure begins in FY 2024. Among the 320 Early Adopters, 81 are Japanese companies including Sumitomo Corporation. ISSB aims to create draft standards within 2025.

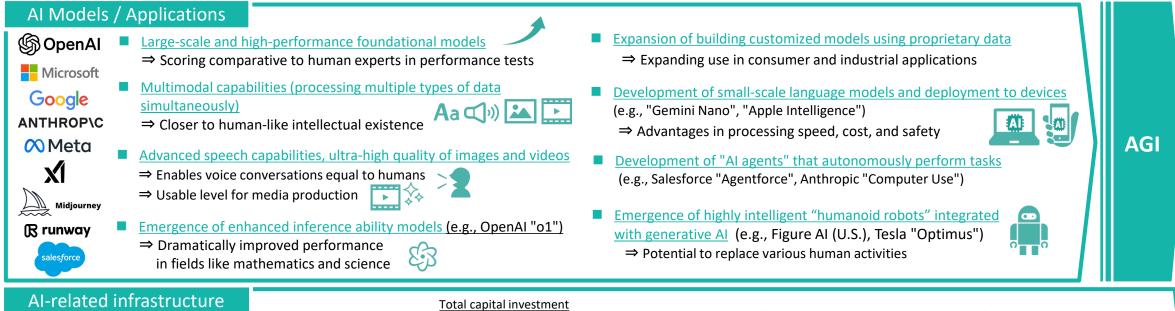
< Circular Economy >

- [Globally] International Plastics Treaty (Nov. 2024, South Korea) did not reach agreement on the introduction of production regulations and traceability reporting regulations.
- [Europe] EU Batteries Regulation (detailed on the right) and others (refer to the previous page)
- [Domestic] Basic Plan (Aug. 2024) sets indicators for the overall picture of circular society (e.g., share of renewable resources and recycled materials to 34% in fiscal 2030).

	regulations can be accesse * A data distribution system via	ates from the perspective of GHG emissions and recycling rates. Information related to ations can be accessed via the "Battery Passport(*)." ta distribution system via EUs information exchange system to secure traceability and provide information such as y composition and degradation to consumers, etc				
•	-	n market access based on carbon footprint will be introduced, and the ed materials will be introduced in 2031.				
	Company Names	Key Movements				
	Renault	Announced efforts towards recycling in collaboration with Veolia, a major recycler, and Solvay, a chemical manufacturer (Dec. 2023).				
	BASF	Signed an off-take agreement for black mass (battery material) with Stena Recycling (Sweden) (Jan. 2024).				
	Mercedes-Benz	Constructed lithium-ion battery recycling processing plant in Germany, and commenced operation (Oct. 2024).				
	Northvolt (SWE: automotive batteries)	Filed for Chapter 11 bankruptcy in the United States (Nov. 2024). An emerging battery manufacturer in the EU-, currently undergoing business restructuring.				

Generative AI development trends

- The speed of technological evolution is accelerating. Reaching the stage of practical application and widespread use in various fields. There are even predictions that AGI^(*) will emerge within the next few years.
- Development competition among major players is intensifying, with huge investments in AI-related infrastructure ongoing. Strong consciousness towards securing green power.



Microsoft	by Microsoft, Alphabet, Amazon, and Meta (Note: For 2024, the 12 months through September) (Billion dollars)
Google	Rapid expansion and 2000
amazon	establishment of AI data centers 1500
ORACLE	Competition for development
	and acquisition of computational 500 resources (e.g., GPUs) 0
	2018 2019 2020 2021 2022 2023 2024 (Source: Compiled from company disclosed data)
Sumitomo Co	rporation Global Research Co. Ltd. (*) Artificial General Intelligence (AGI). An AI system that

- Accelerating efforts to secure a massive amount of required electricity In addition to renewable energies, moves to utilize nuclear power as baseload (e.g., Nuclear plant restart (Microsoft), development of SMRs^(**) (Google, Amazon))
- Efforts to collect, organize, and utilize high-quality data, as well as specialized and proprietary data (e.g., partnerships with companies and institutions in media, automotive, manufacturing, and healthcare (OpenAI, Microsoft, Google), and the use of proprietary SNS platforms (Meta, xAI))
 - \Rightarrow A source of competitive advantage

(*) Artificial General Intelligence (AGI). An AI system that can autonomously perform various intellectual tasks at a human equivalent level (**) Small Modular Reactor (SMR). A next-generation nuclear reactor that miniaturizes and modularizes traditional reactors, enhancing safety and efficiency.