

# Global Situation and Economic Outlook for 2023

Growing Division and Stagnation  
with No Savior  
Signs of Reversal?

December 12, 2022

01

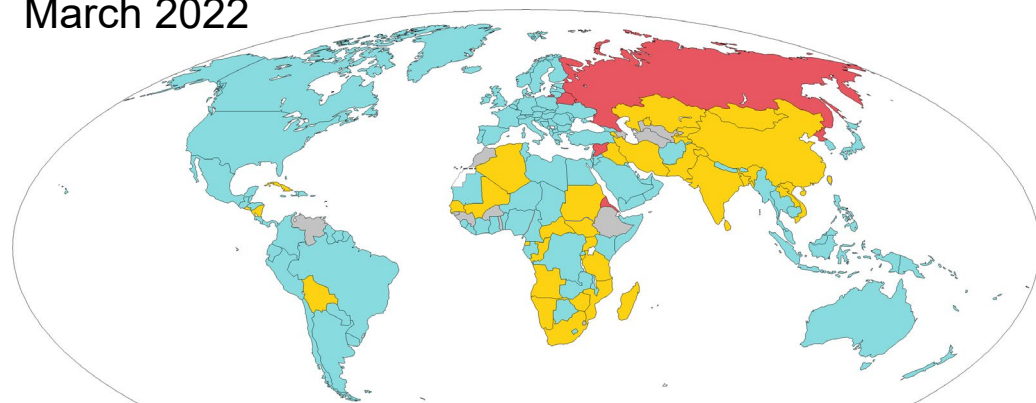
# Various Divisions



# Division 1: Differences in Perspectives Concerning Russia

- Since the February 2022 invasion of Ukraine, the voting behavior of nations in UN resolutions illuminate diverse national interests.
- Many nations condemn Russia's military and political actions, at the same time, many countries have abstained in the UN resolutions.
- There has been variation, but there is a wide range of countries that have not been overly critical of Russia.

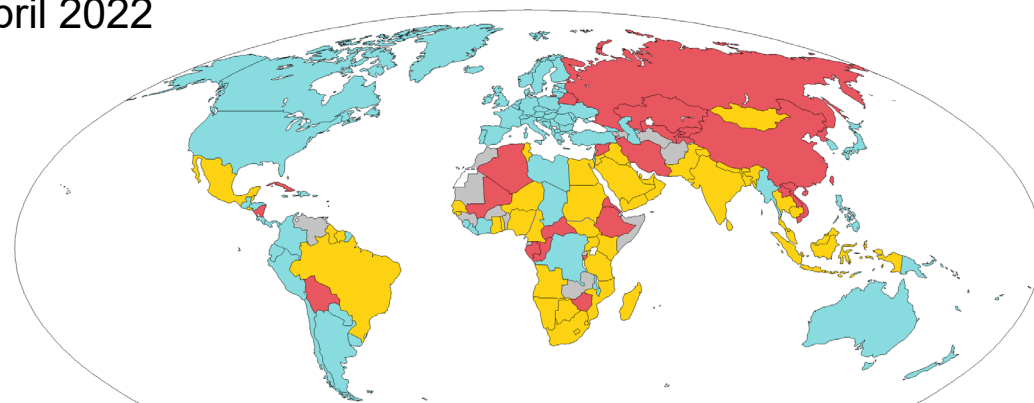
March 2022



Resolution condemning Russia's aggression against Ukraine

**For: 141 countries** **Against: 5 countries**  
**Abstained: 35 countries**  
No vote: 12 countries

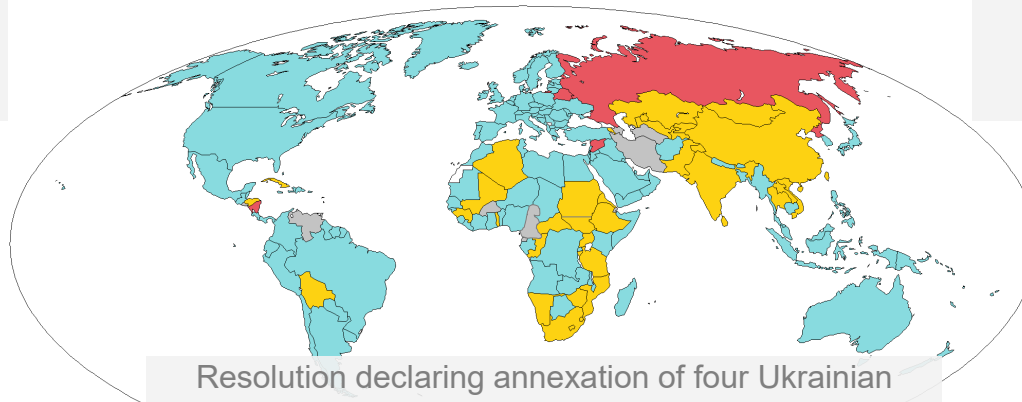
April 2022



Resolution to suspend Russia's membership on UN Human Rights Council

**For: 93 countries** **Against: 24 countries**  
**Abstained: 58 countries**  
No vote: 18 countries

October 2022

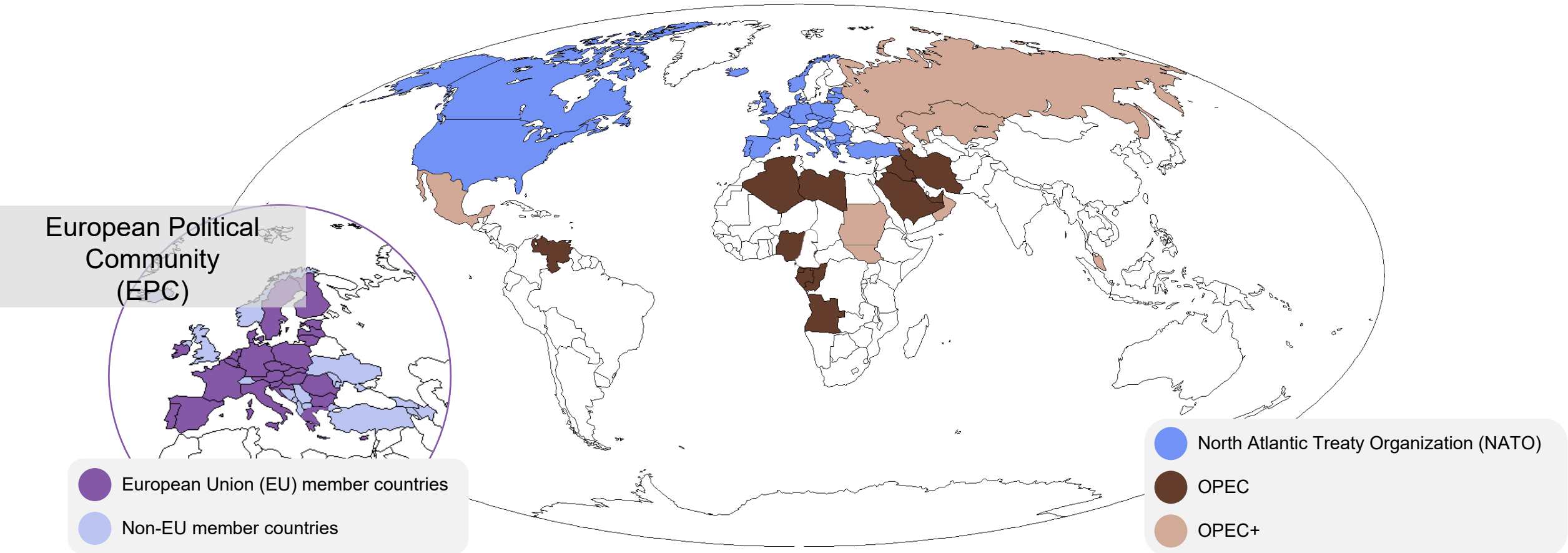


Resolution declaring annexation of four Ukrainian regions null and void

**For: 143 countries** **Against: 5 countries**  
**Abstained: 35 countries**  
No vote: 10 countries

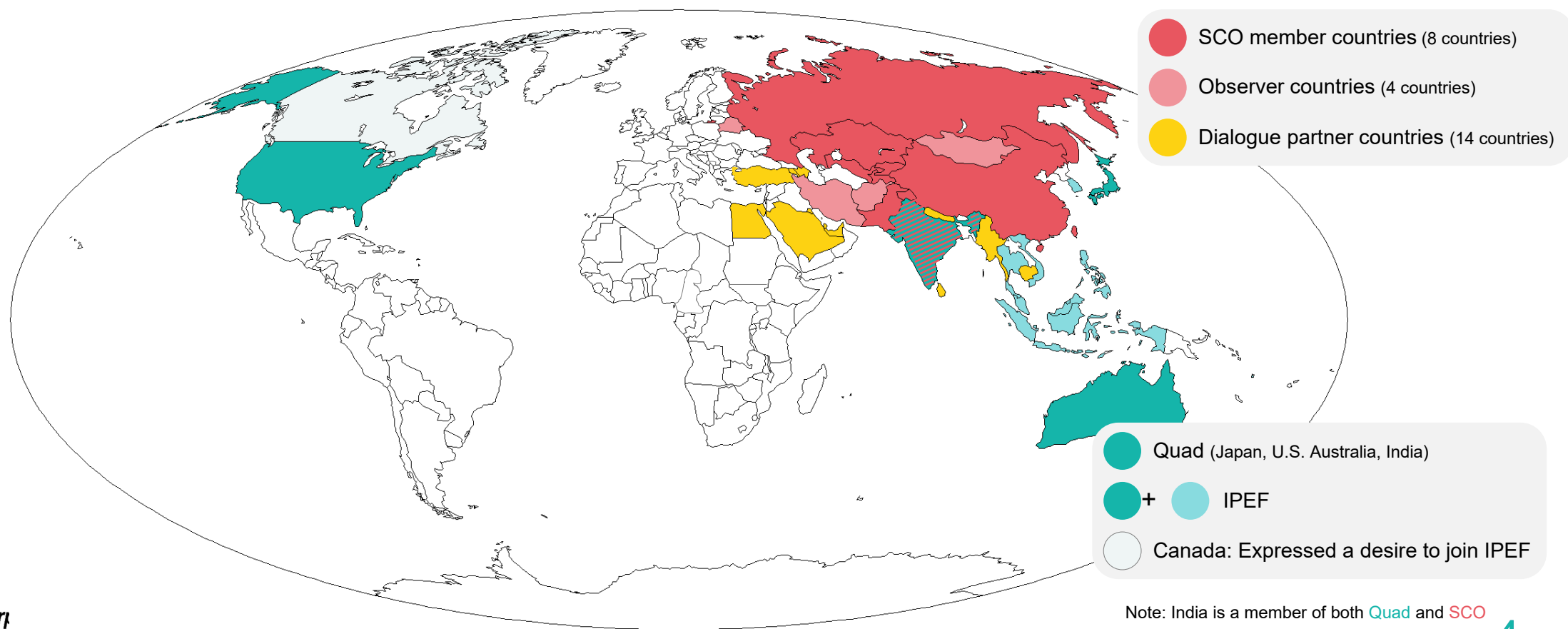
## Division 2: OPEC+ Distances Itself from Western Concepts

- U.S. influence in the Middle East has reduced, and OPEC+ countries are distancing themselves from the West more than in the past.
- In October 2022, OPEC+ countries ignored a strong request from President Biden and decided to cut production.
- Will the gap between the Middle Eastern nations and the West widen even further? As oil prices decline, can OPEC+ maintain its unity?



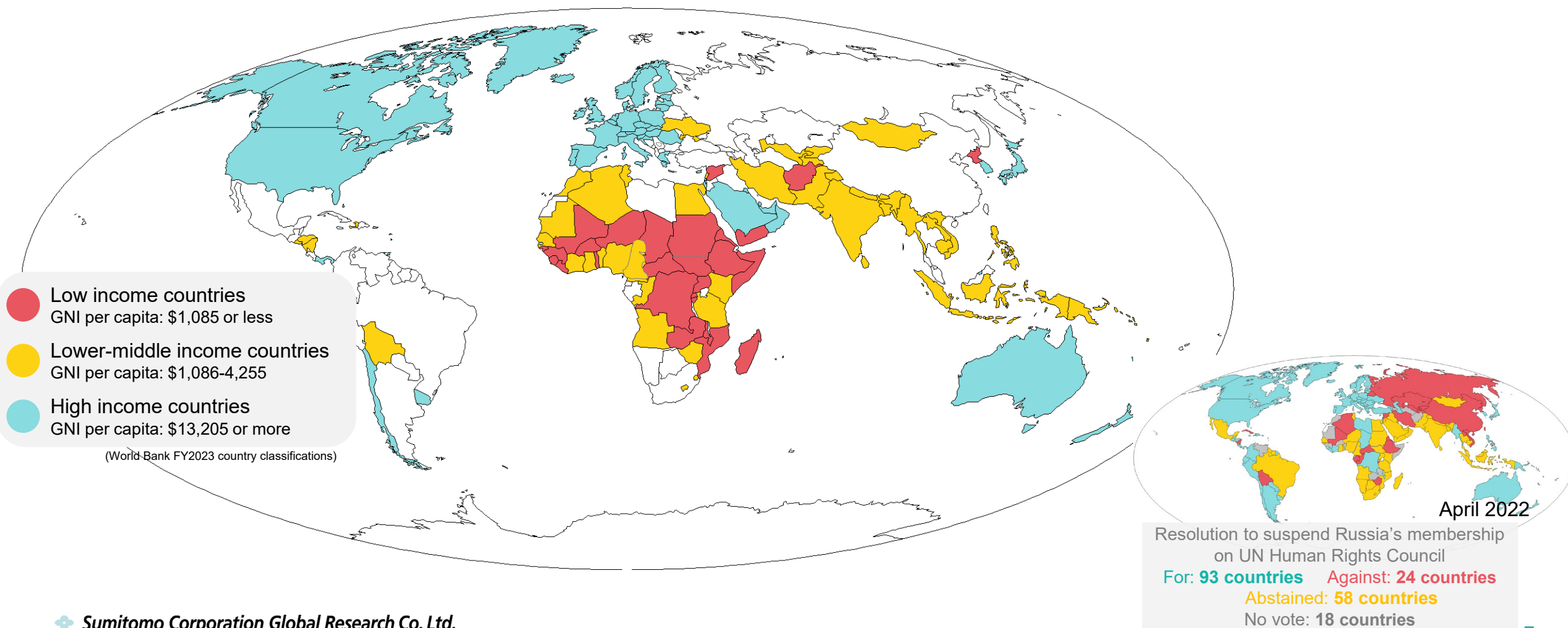
## Division 3: Regions Where China's Influence Is Increasing and Actions by the U.S. and Others with an Awareness of China

- Within the Shanghai Cooperation Organisation (SCO), some Central Asian countries are distancing themselves from Russia and moving closer to China.
- Quad and Indo-Pacific Economic Framework for Prosperity (IPEF) members are steadily implementing hardline policies vis-à-vis Beijing.
- India's balancing act in the face of Sino-U.S. tensions is noteworthy.



# Division 4: Rifts Created by Widening Income Differences

- Middle and low income countries, referred to as the “Global South,” have somewhat increased their influence.
- Their stances toward Russia have a certain degree of commonality.



02

# Global Economic Conditions



# As Adverse Factors Strengthen, the Global Economy Faces Increasing Risk of Slowdown

- Economies, which had been overheating somewhat at a result of policy support in response to COVID-19, are slowing and stagnating as a result of inflation and monetary tightening.
- In conjunction with division, energy, food, and other prices have soared, squeezing economic activity. Even as economies slow, structural aspects may make it difficult for prices to return to their original levels.
- According to IMF forecast, GDP growth will be 3.2% in 2022 and 2.7% in 2023, below the pre-COVID averages, and there are concerns of a further slowdown. The transition to recovery may be in the second half of 2023 or later.

## Changes in economic topics



## OECD Economic Outlook (Nov. 2022)

(YoY change, percentage)	2022	2023	2024
World	3.1	2.2	2.7
U.S.	1.8	0.5	1.0
Euro area	3.3	0.5	1.4
Japan	1.6	1.8	0.9

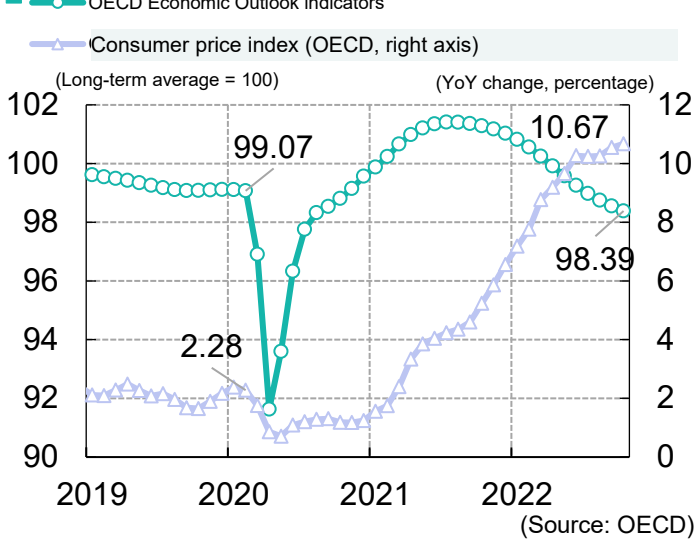
(Source;OECD)

## IMF World Economic Outlook (Oct. 2022)

(YoY change, percentage)						
Figures in parentheses are 2012 to 2019 average		2021	2022	2023	2024	2025
World (3.4)		6.0	3.2	2.7	3.2	3.4
Advanced economies (1.9)		5.2	2.4	1.1	1.6	1.9
Emerging markets (4.6)		6.6	3.7	3.7	4.3	4.3
Europe (EU) (1.6)		5.4	3.2	0.7	2.1	2.2
Euro area (1.3)		5.2	3.1	0.5	1.8	1.9
ASEAN-5 (5.2)		3.4	5.3	4.9	5.3	5.2
Asia	Japan	1.7	1.7	1.6	1.3	0.9
	China	8.1	3.2	4.4	4.5	4.6
	South Korea	4.1	2.6	2.0	2.7	2.6
	Taiwan	3.3	2.8	2.1	2.0	2.0
	Australia	4.9	3.8	1.9	1.8	2.0
	Thailand	1.5	2.8	3.7	3.6	3.3
	Indonesia	3.7	5.3	5.0	5.4	5.3
	Malaysia	3.1	5.4	4.4	4.9	4.4
	Vietnam	2.6	7.0	6.2	6.6	6.7
Europe	India	8.7	6.8	6.1	6.8	6.8
	Germany	2.6	1.5	-0.3	1.5	2.2
	Russia	4.7	-3.4	-2.3	1.5	1.0
	U.K.	7.4	3.6	0.3	0.6	2.3
	U.S.	5.7	1.6	1.0	1.2	1.8
	Mexico	4.8	2.1	1.2	1.8	2.1
	Brazil	4.6	2.8	1.0	1.9	2.0
	Saudi Arabia	3.2	7.6	3.7	2.9	2.9
	UAE	3.8	5.1	4.2	3.9	3.9
Africa	Nigeria	3.6	3.2	3.0	2.9	2.9
	South Africa	4.9	2.1	1.1	1.3	1.4

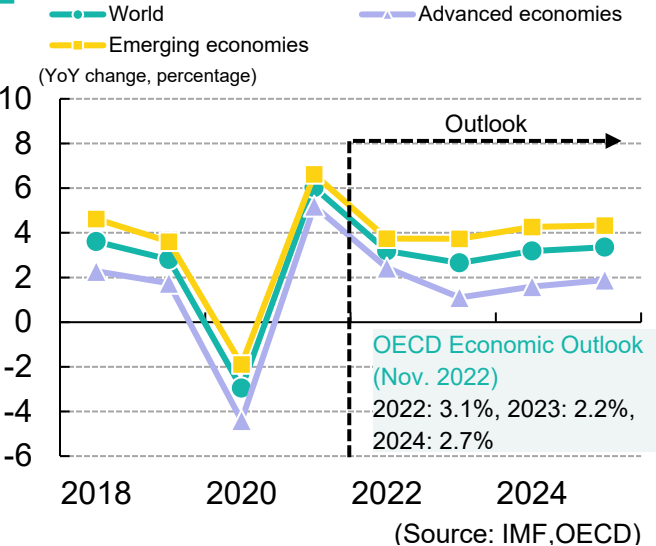
(Source: IMF)7

## Economic activity and CPI trends



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## Changes in real GDP growth rates



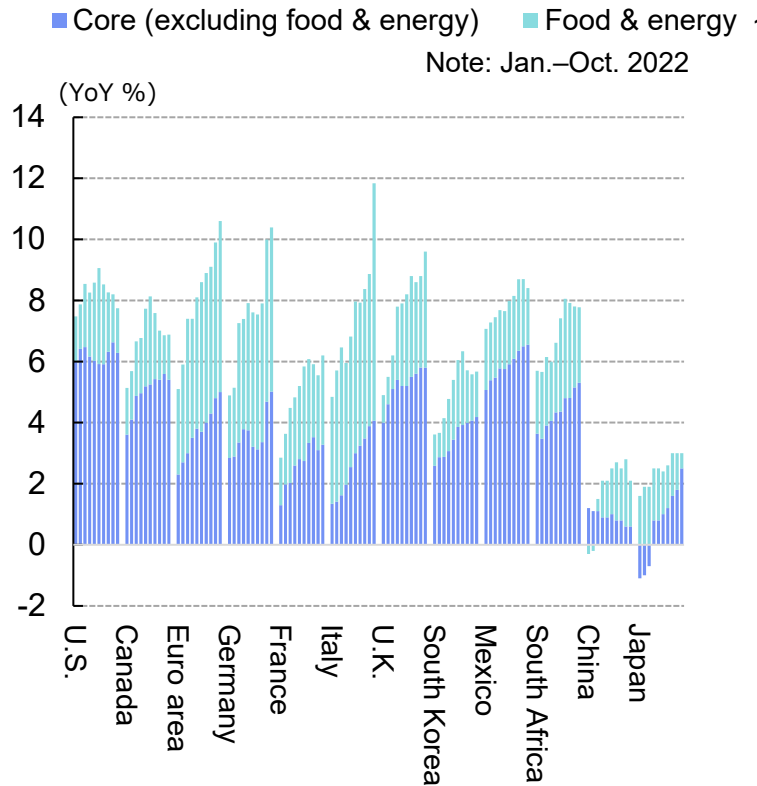


# Inflation reached at 40-Year High

- Will the inflation rate peak by early 2023 and then slow?
- Division has brought about an era of non-single prices with high volatility.

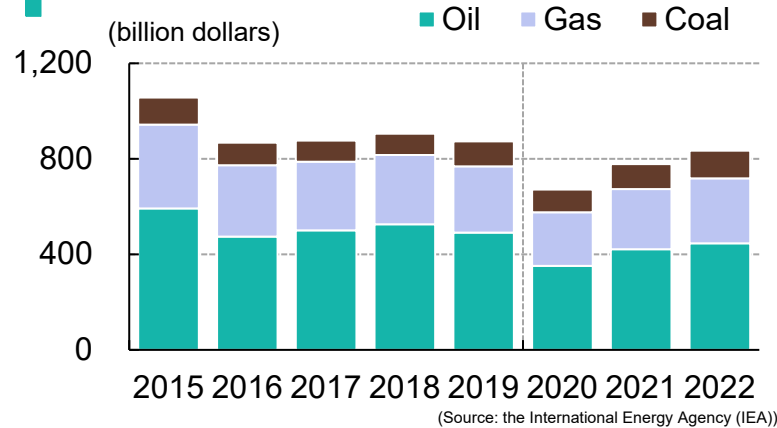
- Optimal efficiency cannot be achieved because of division. Upward revision of prices has come to mean sustainability.
- Fossil fuel prices are propped up by the Russia problem and a history of insufficient investment.

## Status of inflation by region and item

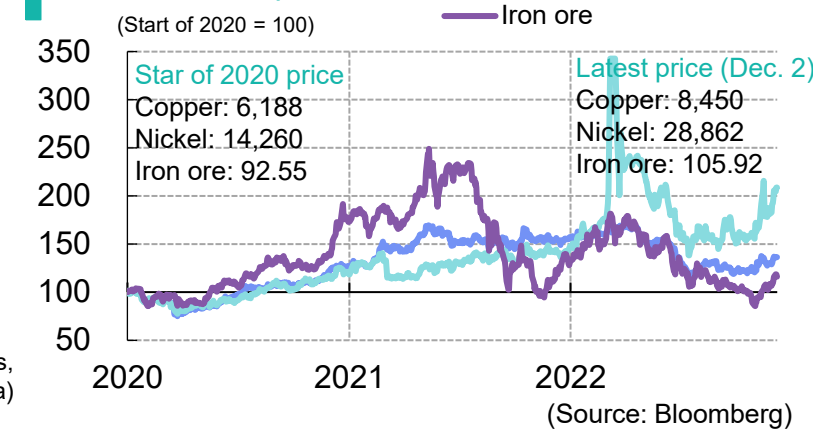


(Source: OECD, Ministry of Internal Affairs and Communications, National Bureau of Statistics of China)

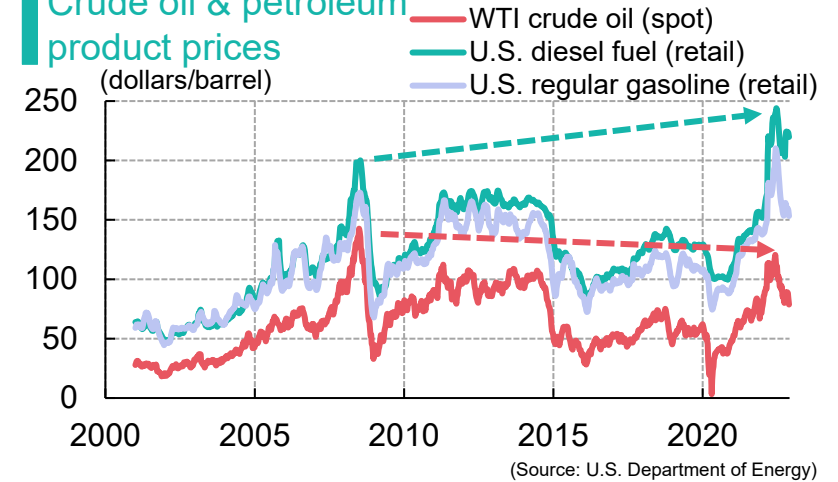
## Fossil fuel investment



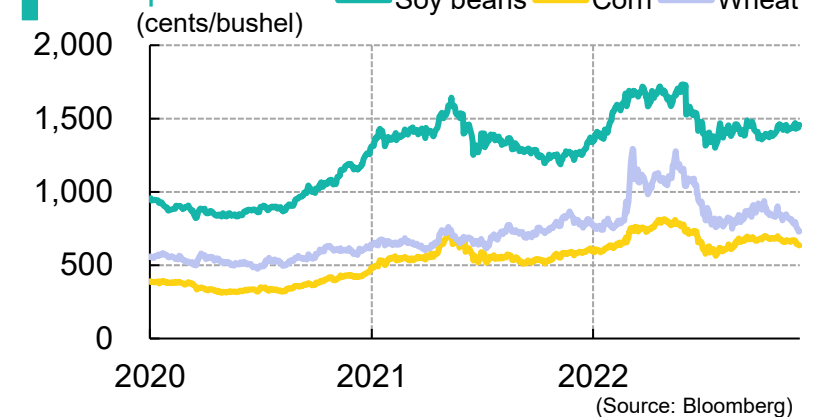
## Industrial metal prices



## Crude oil & petroleum product prices



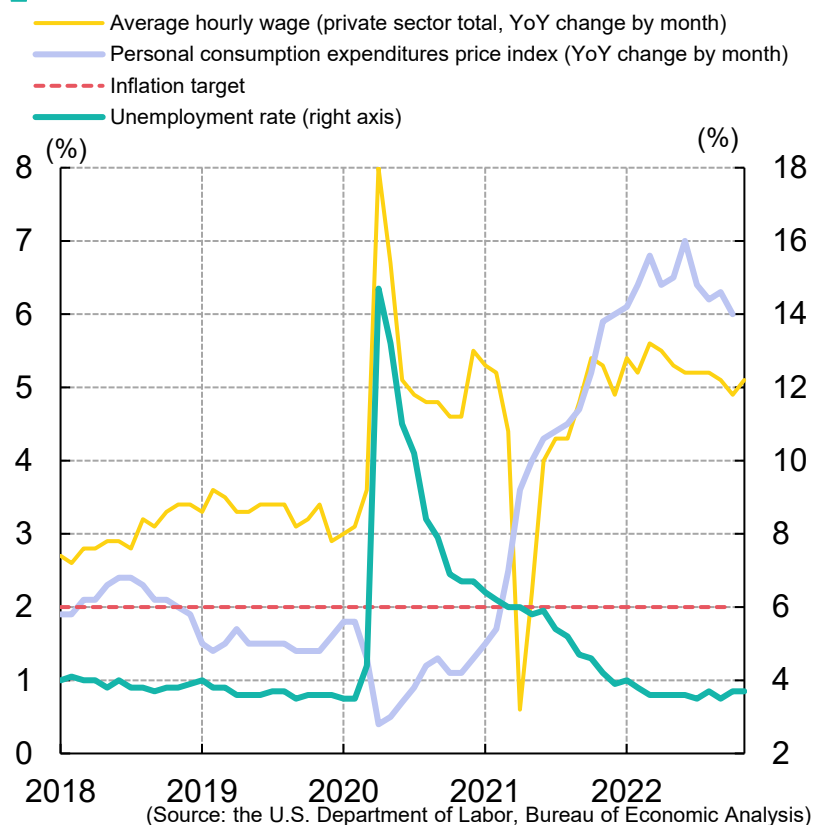
## Grain prices



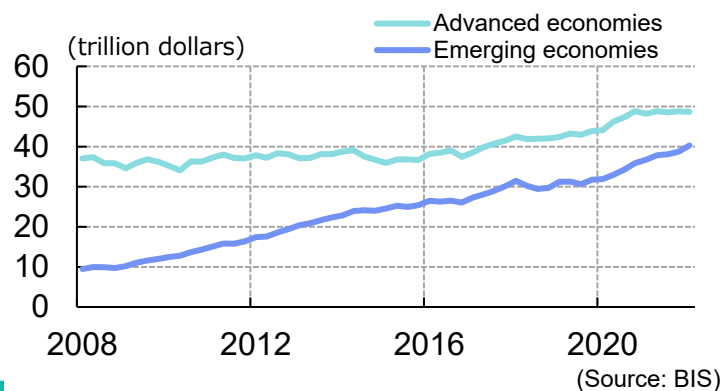
# Impacts of Inflation on Job, Public Finances, and Debt

- Increased pressure to raise wages has caused more furloughs and layoffs, pushing unemployment rates up.
- Higher USD interest rates, depreciating national currencies, and other factors are causing debt condition of developing economies to become more serious and increasing the risk of default.
- Fiscal Balance and Current Account are both deteriorating even in advanced economies, resulting in substantial contraction of the margin to provide support to developing economies.

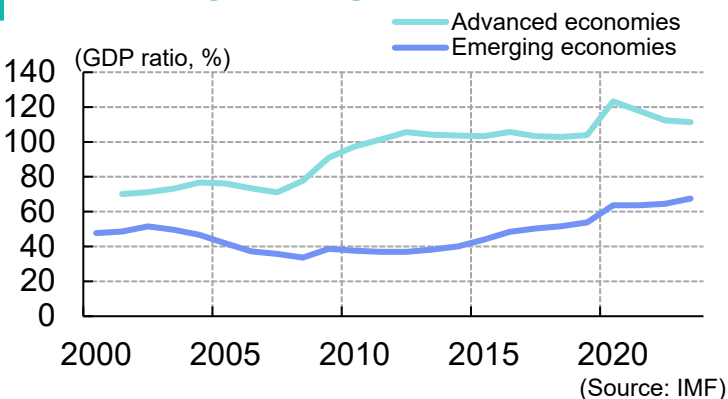
## U.S. employment



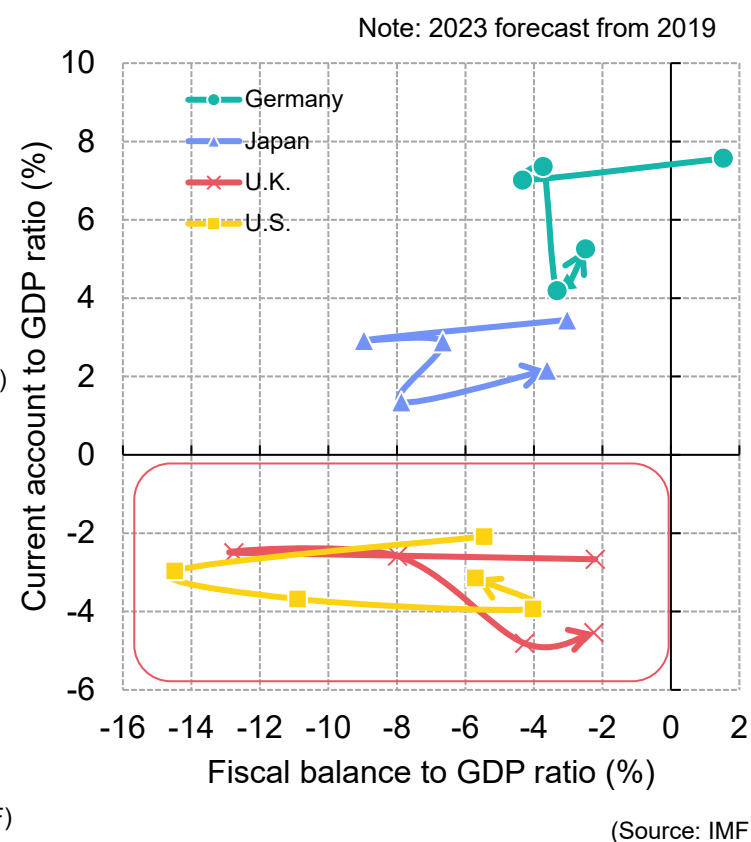
## Debt of Non-financial institutions



## Balance of General Government Debt



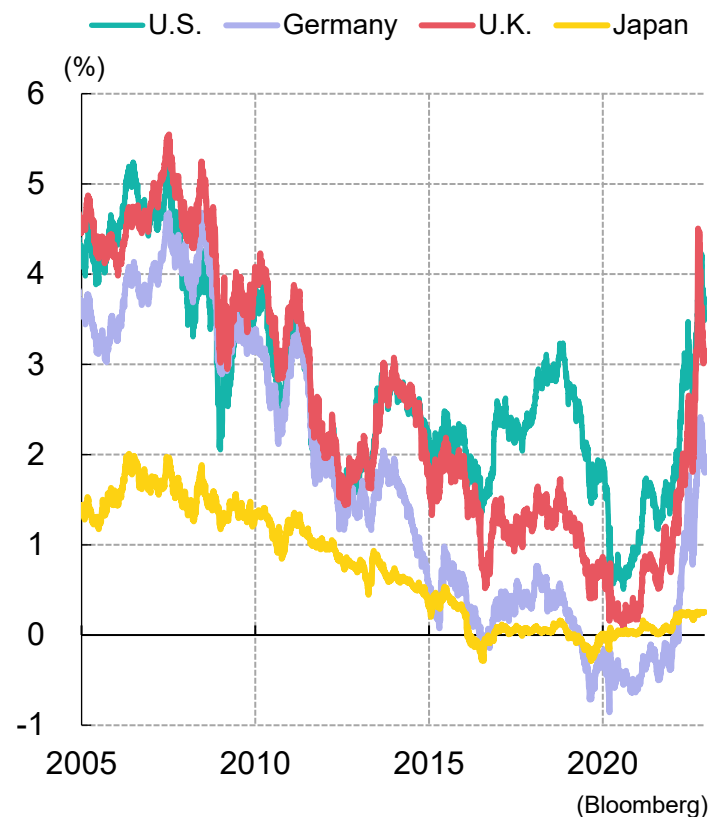
## Current Account and Fiscal Balance



# Additional Time Needed Before Volatility in Interest Rates and Currency Markets Decreases

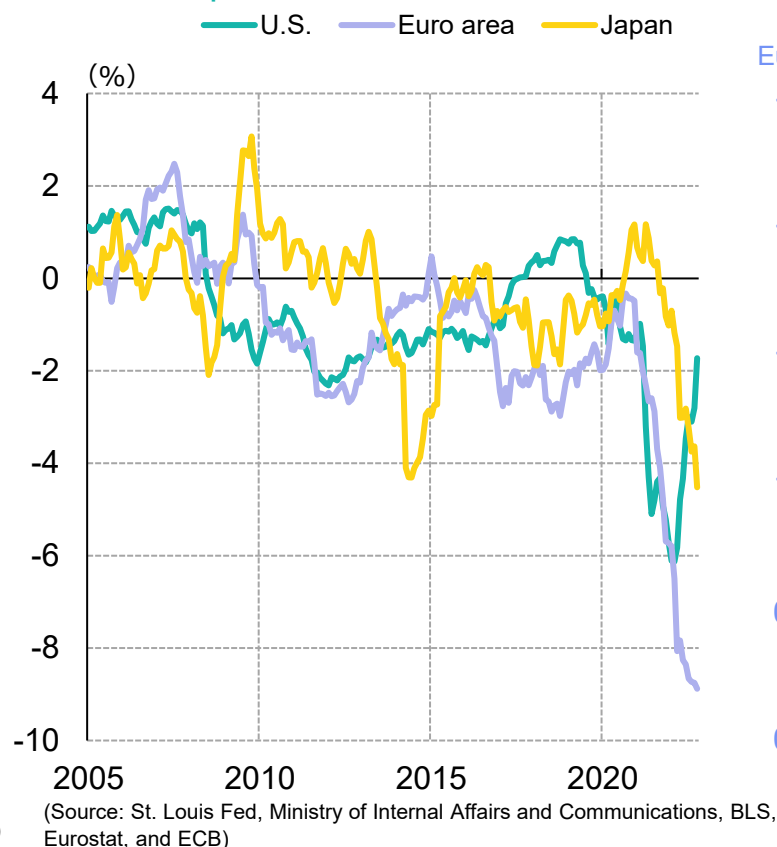
- If policy rates peak in the first half of 2023, increases of long-term interest rates will finally slow but not decline.
- Real interest rates in Europe, where inflation remains high, have fallen substantially, and there is room for the euro to decline even further. It may be some time before inflation subsides.
- FX rates anticipated interest rate hikes in the U.S., but the rate hikes are entering the final phase, and there are signs of change in the strength of the dollar.

## Long-term interest rates in advanced economies



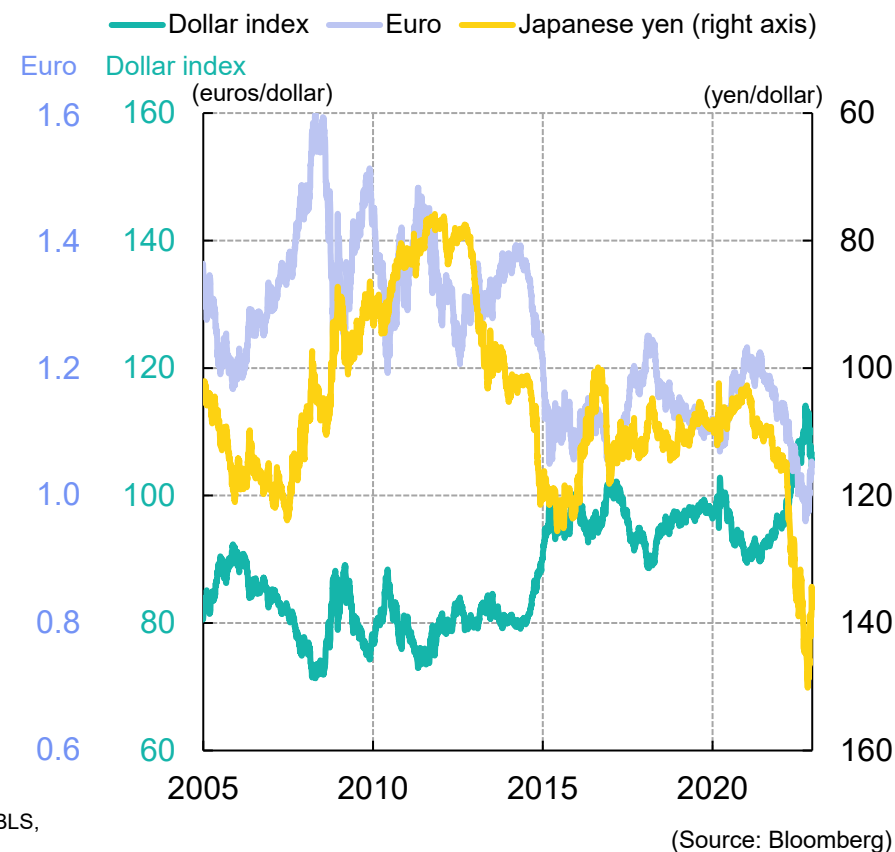
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## Real interest rates in Japan, U.S., and Europe



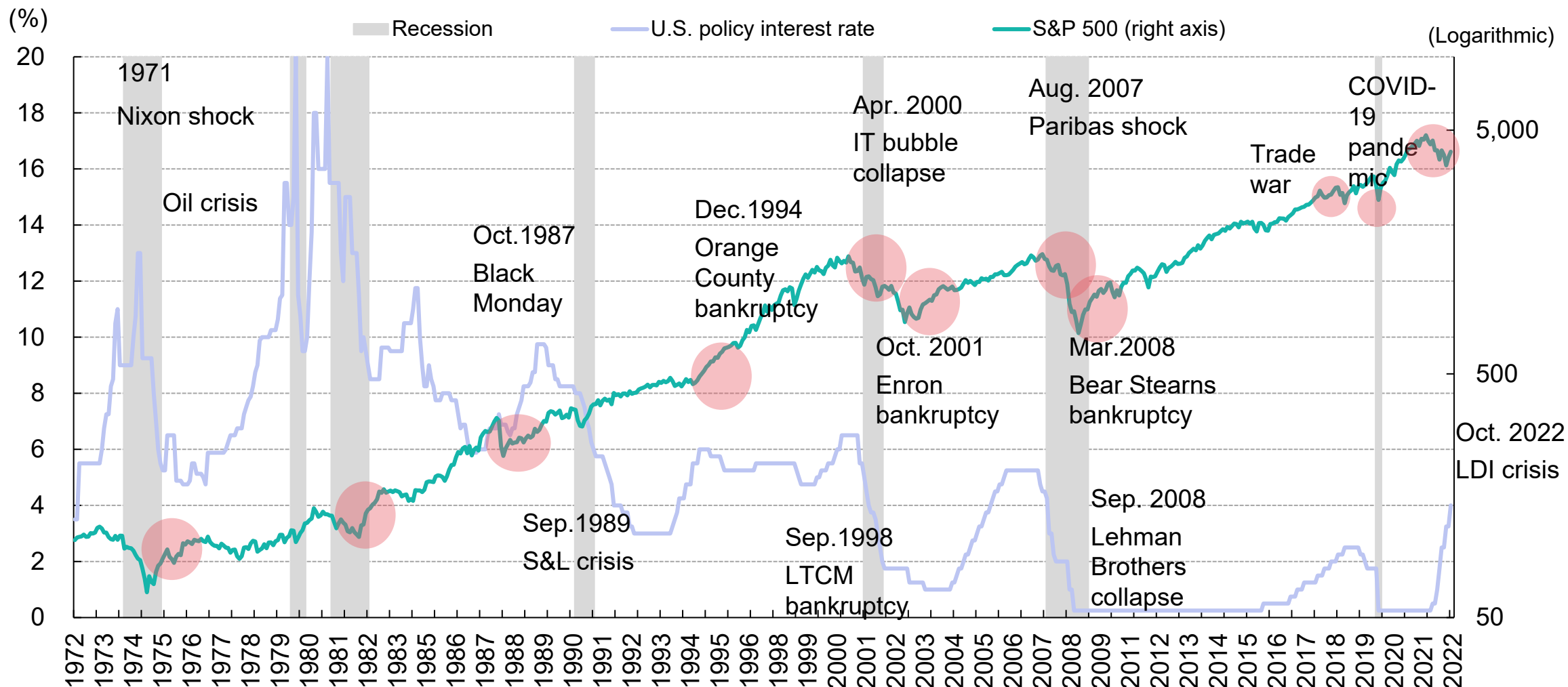
Notes: Consumer price indices (CPI) increase rate used when calculating real interest rates: For Japan, overall CPI excluding imputed rent of owned housing; for the euro area, Harmonized Index of Consumer Prices (HICP); for the U.S., CPI excluding imputed rent of owned housing. Nominal interest rates for the U.S., euro area, and Japan are 12-month government bond yields.

## Foreign exchange rates



# Macroeconomic Trends from Long-Term Perspective

- Stock prices often hit bottom after the end of a recession.
- Following extensive monetary tightening, will a “shock event” occur again? Can economies recover from recession in the short term?



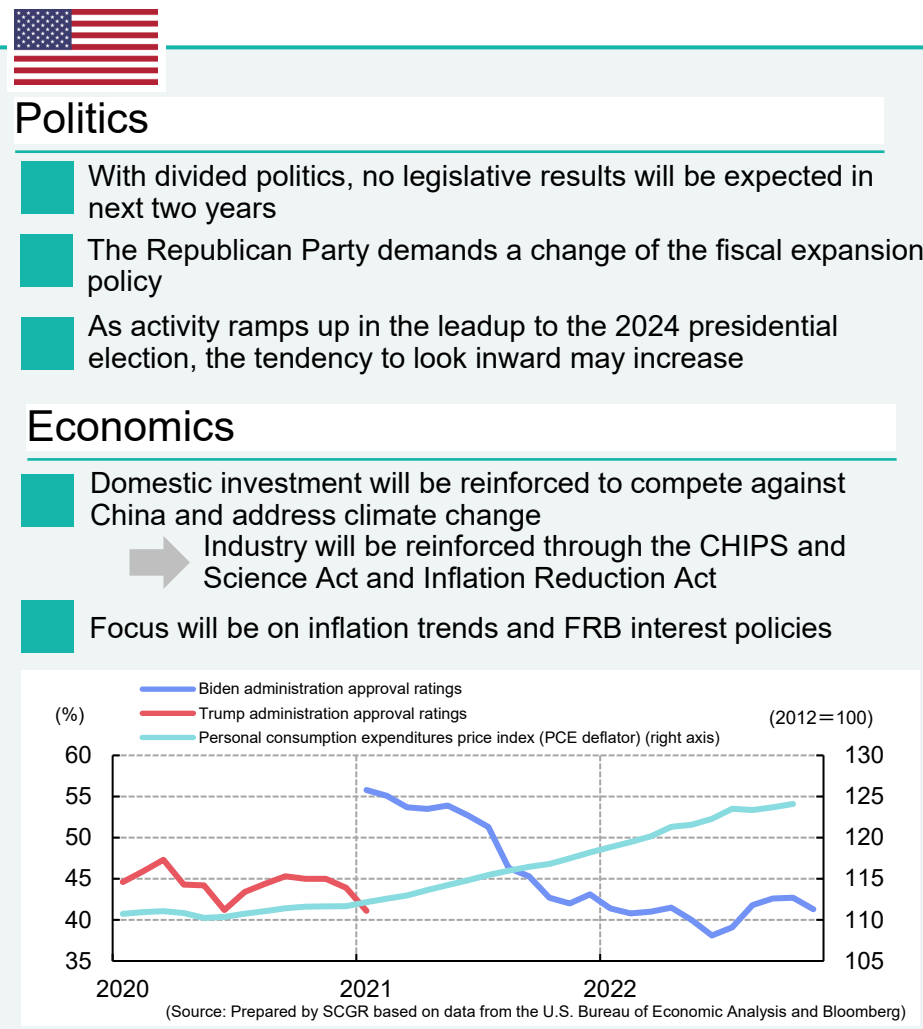
03

# Political and Economic Trends by Country and Region



# U.S.

- As a result of the mid-term elections, political power will be divided when Congress convenes in January 2023, with the Democratic Party in control of the Senate and the Republican Party in control of the House of Representatives.
- Conflict between the two parties will intensify over budget plans and energy policies, and in diplomacy, Trump supporters are expected to increase pressure for “America first” policies.
- Will the economic slowdown fall into recession in the second half of 2023 as a result of interest rate hikes? Will interest rate levels peak?

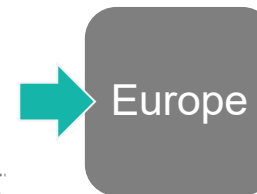


Sanctions against Russia and support for Ukraine will be steadily strengthened amidst the search for measures for a cease-fire (Conflict among the parties will be a destabilizing factor)



Postponed nuclear disarmament talks will be coordinated for early scheduling

In cooperation concerning sanctions against Russia and support for Ukraine, “the future” will be the focus



Industrial policy giving preference to U.S. industries will spark friction with Europe

Relationships with Iran, Saudi Arabia, and OPEC have become strained



Despite concerns regarding increased influence of Russia and China in Iran and other countries, countermeasures are difficult

# China

- Xi Jinping will serve a third term in office. Concentration of power in Xi is becoming more apparent, and leadership is tinged with personal connections to Xi.
- Economic policy has become rigid and lacks flexibility due to the concentration of power in Xi, and there are concerns about economic stagnation.

U.S.

There is a large rift over security and Taiwan

Agreement on avoiding collisions was made (November 2022)

Self-reliance in science and technology is increasing

Europe

There has been no progress on human rights and security

Efforts were made to approach and weaken cohesion with a focus on economies through summit diplomacy (German Chancellor in November 2022, EU president in December 2022)

Japan

Means to stabilize relations have been searching

Exercises, etc. are conducted in vigilance against Japan's increased defense capabilities and its relationship with Taiwan

Russia

Policy was shifted to take a somewhat more distance stance in response to the changed situation in Ukraine

Trade amounts including fossil fuels are increasing

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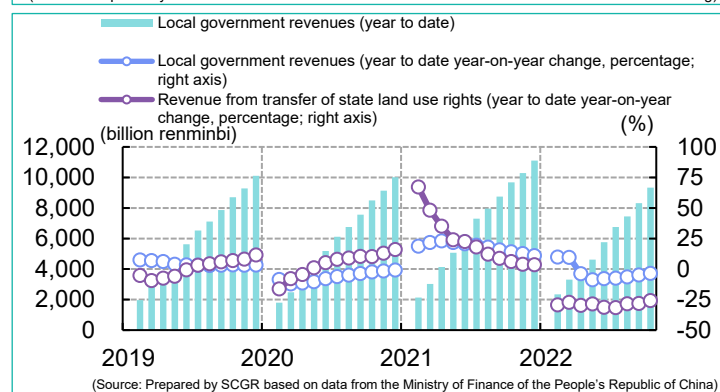
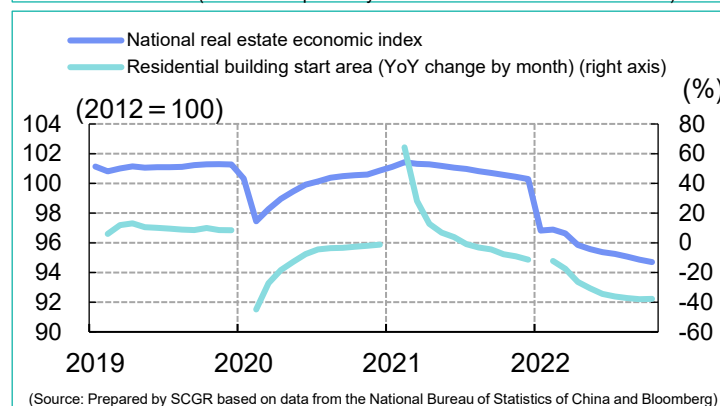
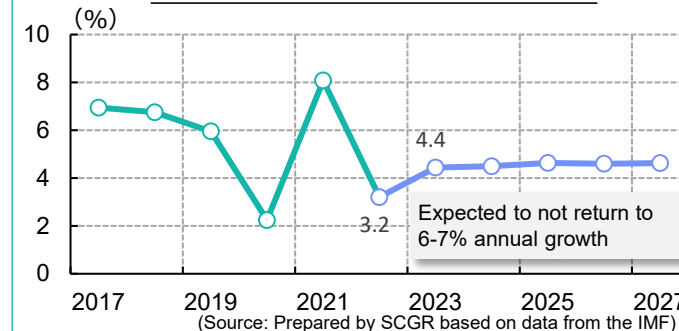
## Politics

- Authority of Chinese Communist Party and Xi Jinping has become stronger
- More emphasis is placed on national security than economic strength
- "High-quality development": Enhance science and technology capabilities and secure human resources
- Stable relations with neighbors are sought, but there is a possibility of return to aggressive diplomacy
- Taiwan: Pressure for unification is increasing (military, economic, diplomatic, and public opinion manipulation)  
Priority is on "peaceful unification," but the risk of an emergency situation is undeniable

## Economic & social conditions

- Xi Jinping's personal ideals and ideology are strongly reflected in economic policies
- In addition, the real estate slump and declining local revenues are factors in low economic growth (see figure on the right)  
In 2023, the **reliance on consumer spending** will be hampered by the zero-COVID policy (until spring or summer?)

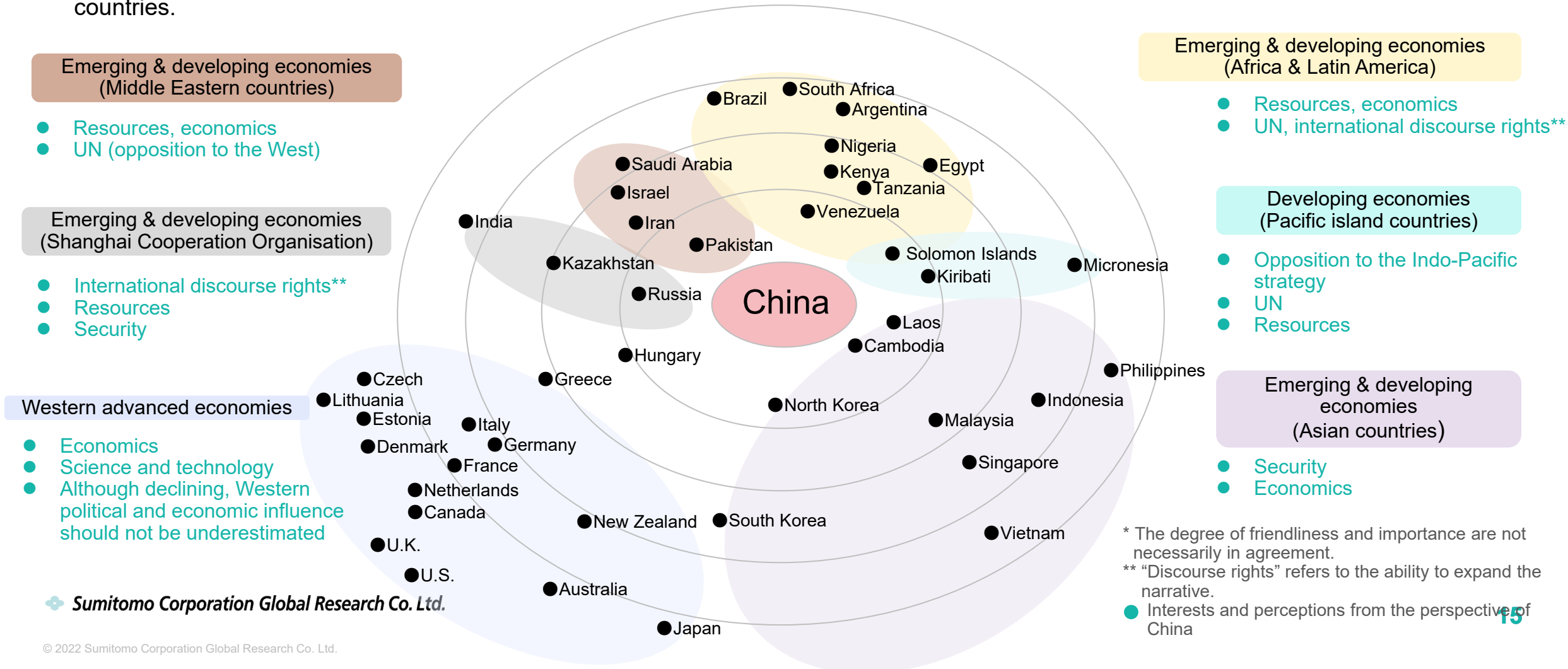
## IMF World Economic Outlook





# Reference: Distance from International Society from the Perspective of China (Degree of Friendliness)

- Emerging and developing economies are relatively close to China, but there are security issues for Asian countries, and the variation is greater than in other regions.
- There is also variation among Western advanced economies, which distance themselves from China, and China plans to approach friendlier countries.





# Asia & Oceania

- As competition among major powers intensifies, the political and economic presence of ASEAN, India (South Asia), and Australia in the world grows.
- Specific measures for energy transition by each country are noteworthy.
- Many countries have returned to the growth trajectory, while inflation is stable in some countries. The economic growth will slow down moderately in 2023 but keep a solid pace.

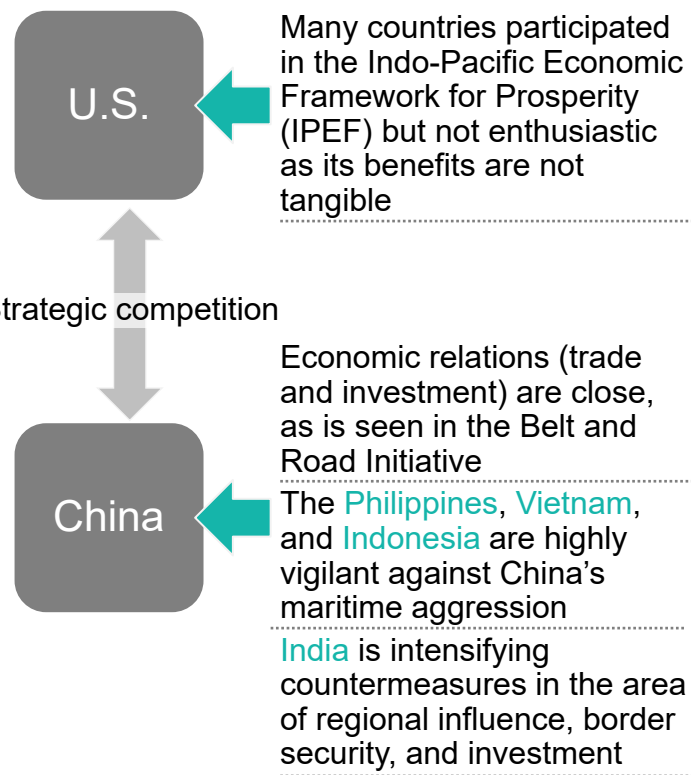


## New administrations and future political outlook

- Indonesia: Large-scale projects for energy transition are underway; political moves will become active toward the presidential election scheduled for February 2024
- Philippines: The new Marcos administration, inaugurated in June 2022, is off to a good start
- Malaysia: Prospects of policies and stability of the new Anwar administration, inaugurated in November 2022, are unclear
- Thailand: General elections are scheduled for May 2023; the watchpoint is how far opposition parties will gain seats
- Cambodia: The ruling party will maintain its majority of seats in general elections scheduled for July 2023
- Myanmar: General elections are expected in August 2023. Will the NLD boycott? Will the USDP achieve a major victory and form a coalition with ethnic minority parties? Will Commander-in-Chief Min Aung Hlaing be inaugurated president?
- India: The Modi administration's power base remains solid; Modi is highly likely to win a fourth term after general elections scheduled for May 2024
- Pakistan: General elections are scheduled for October 2023; the watchpoint is political moves by former PM and opposition leader Khan
- Bangladesh: The ruling party is likely to win general elections to be held by the beginning of 2024, while the opposition camp is becoming increasingly active
- Australia: The new Albanese administration, inaugurated in May 2022, is moving forward with climate change measures

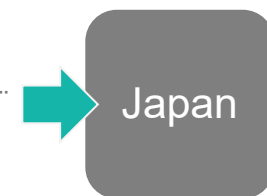
## Economic recovery

Many countries have returned to their pre-COVID growth trajectories (the IMF's projection of the growth rate for Asian emerging economies in 2023 is 4.9%). Vietnam and Malaysia achieved high growth rates, while prices remain relatively stable (the inflation rate in October 2022 was in the 4% range). Despite declines in external demand and other factors, steady growth will continue, although at a slower pace.



Japan is regarded as the most reliable partner

Pursuing deeper comprehensive relations centered on economy while striking a balance with China



Many ASEAN countries are calling for a peaceful solution to the Ukraine crisis but are restrained in condemning Russia and sanctions, while opposing the use of nuclear weapon

Myanmar is actively strengthening ties with Russia

India is maintaining good relations, expanding trade



# Europe

- Until now, Europe has been united in opposition to Russia, but as economic capacity diminishes, rifts gradually become apparent.
- The U.K., which left the EU, leads Europe militarily whilst it deals with its internal problems.
- Will Europe be able to escape from its energy crisis even as inflation continues, growth remains low, and instability becomes more serious?

U.S.

United in opposition to Russia

Distrust towards the Inflation Reduction Act prioritising U.S. companies

Can the policy towards China be maintained?

Setbacks for the JCPOA

Gas supplies from Qatar and other countries

Growing distance with Turkey in Sweden and Finland joining NATO

The European Parliament, northern Europe EU members, and the U.K. seek to strengthen relations with Taiwan

No yielding on human rights and other issues

Would some countries seek economic partnerships through diplomacy? (Different from northern Europe and the Baltics)



Shift towards cease-fire while respecting Ukraine's wishes?

What will be the duration and scope of support? What will be the sources of funds for reconstruction?

Can corruption and transparency be monitored to ensure that domestic companies are not prioritised in reconstruction?

Application for EU membership by Ukraine and Moldova

⇒ Will the European Political Community (essentially, an expanded version of the EU) contribute to European stability?

Will EU solidarity break down?

- Breakdown of France-German relations (energy, China, military forces)
- Isolation of Hungary (the issue of the "rule of law")
- Tension in France-Italy relations (migrant issues)
- Ongoing inflation and the limits of a common euro area monetary policy

Unstable government in the U.K. (general election by January 2025)

+ the Scottish independence movement and Northern Ireland Protocol problems

Severe economic conditions

The inflation rate continues to exceed 10% in many countries and economic growth is expected to be near zero; gas is secured this winter but problem will continue in 2023

Eastern European EU member states holds hardline stances

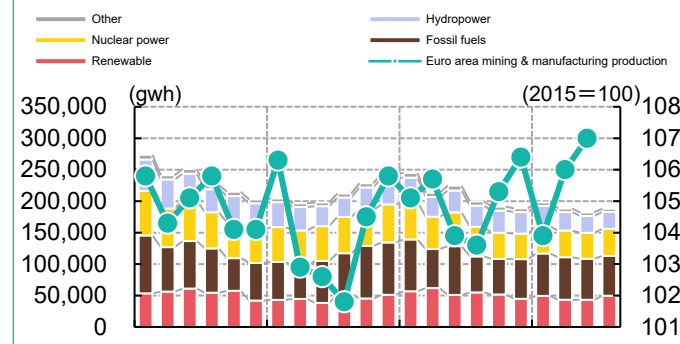
⇔ Germany & France wish to maintain dialogue

Lengthy time required to reach agreement within Europe in terms of energy

Expanded role for the U.K.: Stronger ties with NATO, strengthening of border defenses in eastern NATO members, Baltic Sea defense

Russia

**Changes in power supply composition and mining & manufacturing production in Europe**



(Source: Prepared by SCGR based on data from ENTSO-E and Eurostat)

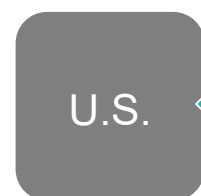
# Russia

- The Ukraine crisis, which has become protracted, will continue for the foreseeable future. Will the conflict escalate or will there be moves towards a cease-fire? Attention will be on the decisions of the presidents of both countries.
- If there are moves toward ending the conflict, reaching agreement on post-conflict compensation, reconstruction, and other matters will inevitably be difficult.
- To avoid international isolation, Russia is using energy, food, and other resources as weapons and approaching China, India, and Middle Eastern and African countries.



# Middle East

- Negotiations to revive the Iran nuclear deal (JCPOA) have become derailed; the Biden administration's relationship with Saudi Arabia is strained.
- Israel's most right-wing government has been formed, leading to the possibility of heightened tensions with Palestinians, Iran, and Arab countries.
- Concerned about a decline in U.S. commitment to the Middle East, Gulf countries are easing tensions within the region and strengthening ties with Russia and China.
- Oil-producing countries are using their ample funds to start decarbonization initiatives.



Negotiations to revive the JCPOA have derailed

The Biden administration's relationships with U.S. allies (Saudi Arabia, UAE, etc.) are strained

There are concerns that U.S. commitment to the Middle East is declining



Energy exports to Europe are increasing as substitutes for Russian oil and gas (gas pipeline schemes, LNG from Qatar to Germany, etc.)

Difficult relationship between Europe and Turkey (Syrian refugees, human rights issues, Sweden/Finland's accession to NATO)

## Middle East

### Causes for concern within the region

- Negotiations to revive the JCPOA have derailed
- Anti-government demonstrations in Iran are expanding
- Far-right parties join the coalition government in Israel
- Turkish air strikes in northern Syria and northern Iraq

### Concerns regarding intensification of confrontation

- Confrontation between the West/Israel and Iran
- Confrontations concerning natural gas interests in the eastern Mediterranean

### Turkey (Presidential and general elections scheduled for May 2023)

- Actively mediating between Russia and Ukraine
- High inflation and currency depreciation are proceeding under monetary easing policies

### Oil Economies and decarbonization efforts

- Gulf oil-producing countries are using their fiscal surpluses from high oil prices to work on a transition to decarbonization while remaining cautious about sudden change

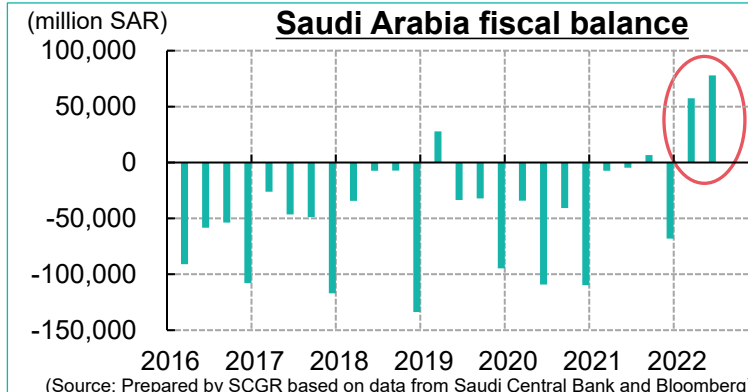
Stronger ties including cooperation with OPEC+

Hedging against the U.S. (enhancing presence by intervening civil wars in Syria/Libya, etc.)

Russia

Economic presence (oil, trade, etc.) is already substantial  
Many countries participate in the Asian Infrastructure Investment Bank (AIIB)

China



# Central & South America

- Rebuilding domestic economies exhausted by the COVID-19 pandemic is the top priority.
- Although strengthening of ties with China and Russia (BRICs) is expected, particularly by Brazil, the earlier anti-U.S. line is not present.
- Will the region be able to incorporate its abundant biomass and mineral resources, which are its strengths, into the decarbonization trend as a starting point for rebuilding economy?

**U.S.** → Partial easing of U.S. sanctions against Venezuela was announced (May 2022)  
Chevron resumed drilling operations in Venezuela (November 2022)

**Europe** → Signing of FTA by Mercosur with the EU is greatly delayed (Differences of opinion on agriculture and the environment)

**China** → Ties with China are again strengthened through the BRICs  
Argentina indicated it wants to join the BRICs (China has expressed support)

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## Central & South America

A number of left-wing governments have formed, but their foundations are weak

- Chile: Constitutional amendment proposal was rejected by large margin in referendum
- Brazil: Party of the former president hold a majority in the legislature, leading to confrontation; expressed intent to host COP30 to strengthen Amazon protection
- Peru: Legislature adopted resolution blocking foreign travel by president

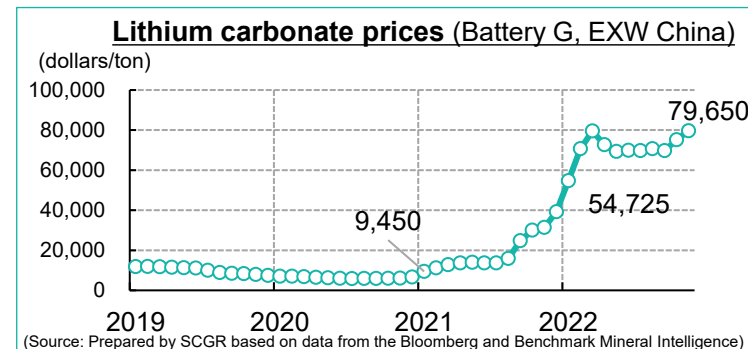


**Presidential elections in 2023**  
Guatemala (Apr.)  
Paraguay (Jun.)  
Argentina (Oct.)

## Examples of abundant resources

● **Sustainable aviation fuel (SAF) related**  
A Petrobras-affiliated company and palm oil production company have launched a project for practical use of SAF. By planting oil palms, the companies seek to replace 2% of their aviation fuel supplies.

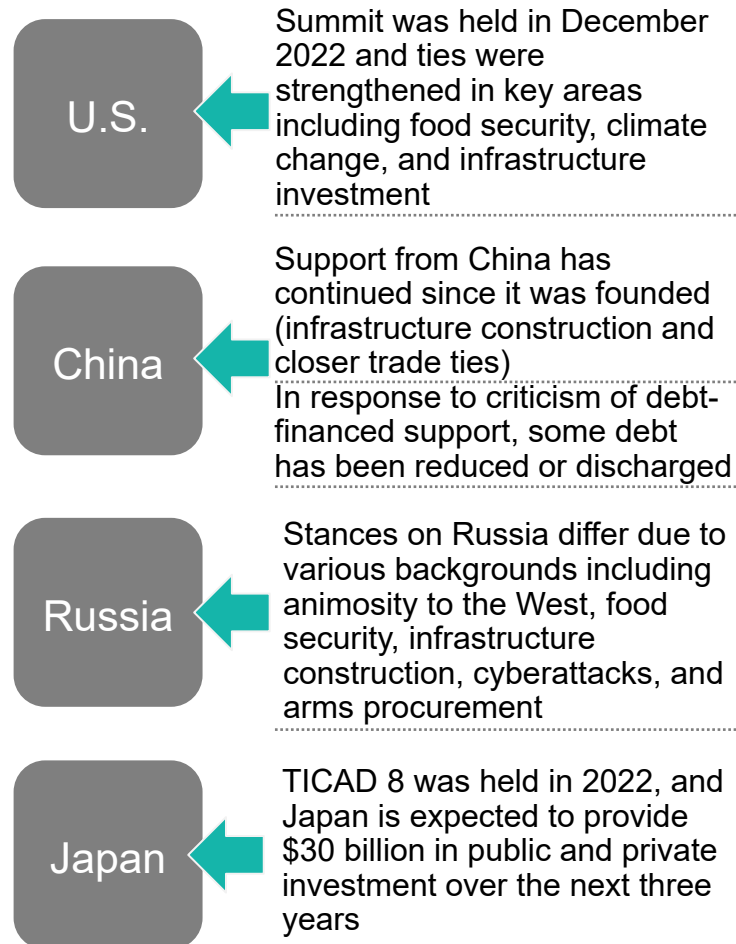
● **Lithium**  
58% of the world's proven lithium reserves were discovered in the "lithium triangle," a region that spans Bolivia, Chile, and Argentina.\* Investment from China was prominent, but with the outbreak of war between Russia and Ukraine, interest from Europe and the U.S. has again risen as a starting point for a battery material supply network. (\* United States Geological Survey, 2021)





# Africa

- Some regions have been enriched by rising resource prices, but society has been deeply hurt by higher prices and food shortages.
- The financial crisis is deepening in some regions, and this is a factor impeding the resumption of economic activity; international support is needed.



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## Africa

- Bad weather including repeated flooding and droughts and food shortages have put 146 million people at risk of starvation
- The global economic slowdown and high inflation have become strong headwinds for economies that have only just recovered; the risk of default is rising as debt burdens increase
- There is strong desire to digitalize in order to counter the lack of infrastructure

## South Africa

- Fiscal improvement was moved up to provide debt relief to state-owned companies
- Eskom's severe power supply capacity deficiency has not been resolved

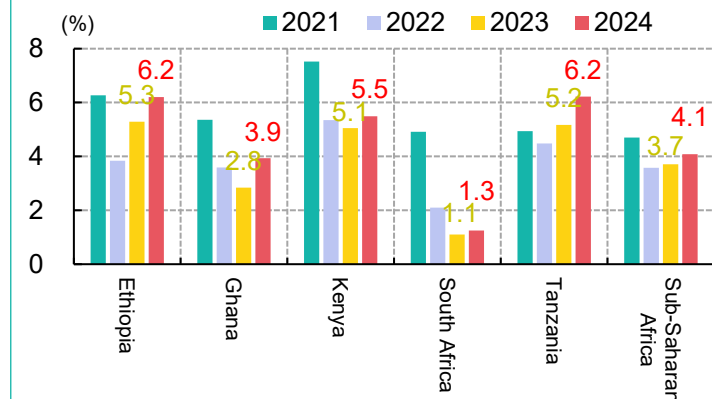
## Ethiopia

- The government and Tigray People's Liberation Front (TPLF) agreed to end the war
- Restructuring of IMF debt and financing from international markets are expected

## Ghana

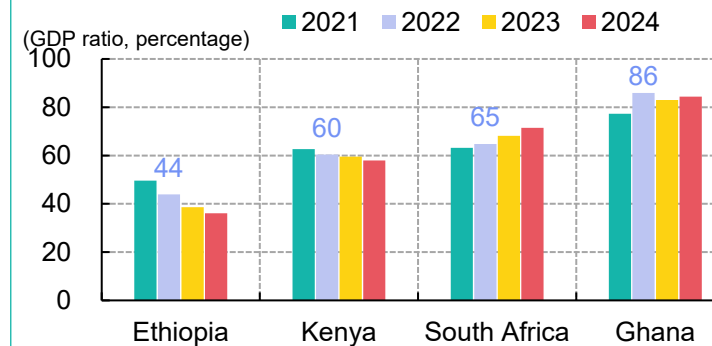
- Currency depreciation and inflation in excess of 40% have caused social disorder
- Rating was downgraded due to financial instability; bond haircut is likely to occur
- Negotiations on a new support program with the IMF have started

## Post-COVID economic growth changes and outlook



(Source: Prepared by SCGR based on data from the IMF)

## Status of net general government debt



(Source: Prepared by SCGR based on data from the IMF)

# Japan

- The cabinet approval ratings are trending downward, but support for the coalition government is stable.
- Will continued monetary easing, which leads to depreciation of the yen, be positive in the midst of global stagnation? Will monetary policies change with the change of executives of the Bank of Japan (in April)?
- Will growth resume as a result of economic policies and the recovery of inbound traffic? (The forecast is 0.9–1.6%.)



## Key political points

- Revision of three core defense documents  
Future focus will be on developing strike capabilities and securing defense budget financial sources
- Unified local elections in April under the cabinet approval ratings are low
- Can a diplomatic plan be formulated for the G7 Hiroshima Summit in May?

## Key economic points

- Consumer sentiment under the highest inflation rate in 40 years (3.7% in October)
- Disruption and changes in supply chains caused by division and economic security and higher business risks and costs
- Issues of stable energy supplies and higher costs and new business and investment for decarbonization
- Possibility of escaping from the vicious cycle of yen depreciation and growing trade deficit (from January to September 2022, the trade deficit was approx. ¥11 trillion)
- Effects of economic measures (supplementary budget of approx. ¥29 trillion) and inbound recovery

U.S.

Stronger alliance with the U.S.  
How will Japan respond to pressure to follow semiconductor restrictions, etc.?

Europe

Is coordination possible on creating rules in sustainability-related and other areas?

China

Agreement on stabilizing relations reached at summit  
Sentiment towards China remains cool  
Implementation of the Economic Security Promotion Act is progressing steadily  
Increase in defense budget is also progressing

Russia

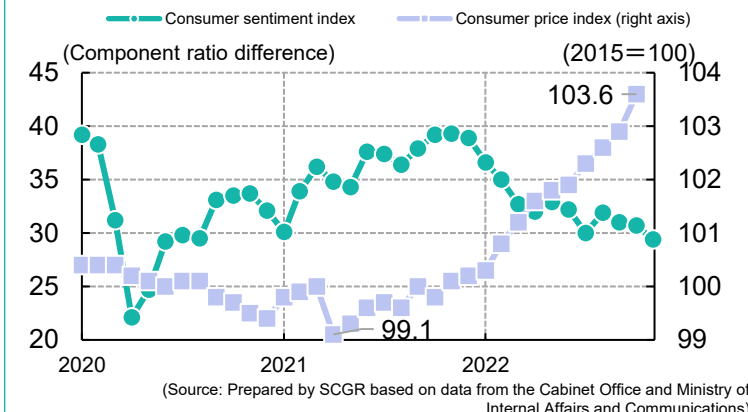
Support for Western economic sanctions  
Energy interests maintained

Asia

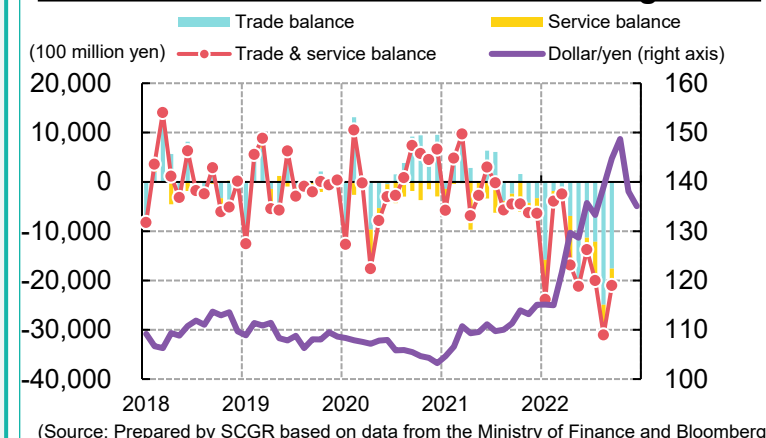
Use historically deep relationships to coordinate energy transitions

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## Price trends and consumer sentiment



## Trade and service balances and exchange rates



04

# Trends in Areas and Topics of Attention





# Action Towards Carbon Neutrality (CN)

- Rising awareness of energy security in conjunction with the divisions brings about the one of non-fossil fuels and renewable.
- While coal consumption has increased against the background of the shortages and soaring prices of gas, initiatives such as carbon pricing, carbon credit, and carbon border adjustments has been increasing.
- Large-scale energy transitions are planned in emerging Asia to achieve their targets, having a high profile.

## Abnormal weather → Shortages of renewable energy + Fuel shortages and Energy crises due to the divisions

Implementation of new energy and technology\* are accelerated from the perspective of energy security

\* Renewable energy (solar, wind, etc.) as well as nuclear, hydrogen/ammonia, CCUS, EVs, and more

<Japan> **GX Implementation Council**: ¥150 trillion in GX investment stimulus

<U.S.> **Inflation Reduction Act**: Accelerate introduction of clean energy

<EU> **REPowerEU**: End dependence on Russian energy (by 2027)  
Decision for all new vehicles to be zero emissions by 2035

<Asia> Accelerate concrete energy transition action in Indonesia and other countries; Japan, the U.S., and others have announced support  
(**Asia Zero Emission Community concept**, etc.)

At COP27, the focus was shifted from increasing ambition to adaptation and loss and damage

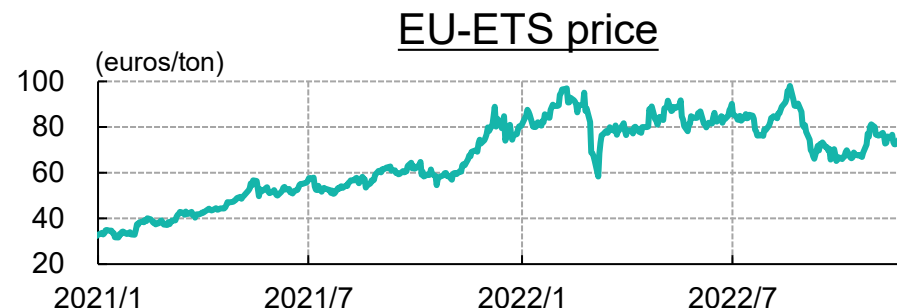
→ Agree on funding arrangements for loss and damage

→ Concrete action to be discussed in 2023

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## Action relating to carbon pricing

- With 68 carbon tax and emissions trading programs in operation around the world, 23% of global emissions are covered (World Bank, as of April 2022)
- Introduction of carbon pricing including carbon credits are considered in countries. International collaboration pursuant to Article 6 of the Paris Agreement is advancing
- EU Carbon Border Adjustment Mechanism (CBAM): Discussions are ongoing; if agreement can be reached in 2022, the transition period (reporting duty) will begin in 2023
- EU-ETS: Prices surged in 2021; discussions are ongoing on application to shipping in 2024
- GX League (Japan): Carbon credit market demonstration in operation on the Tokyo Stock Exchange since September



(Source: Prepared by SCGR based on data from Bloomberg)

Note: The carbon price assumptions in the IEA net zero scenario are \$250/ton in developed economies and \$200/ton in leading emerging economies by 2050.

# Preservation of Nature and Ecosystems

- With the intensification of disasters and climate change, calls for the preservation of nature and ecosystems are increasing.
- In an environment where business activities that can preserve nature and ecosystems are valued, implementation of business models based on the concept of a circular economy is becoming business opportunities.

## Post-2020 global biodiversity framework: 2030 targets (excerpt)

December 5–17, 2022 in Montreal

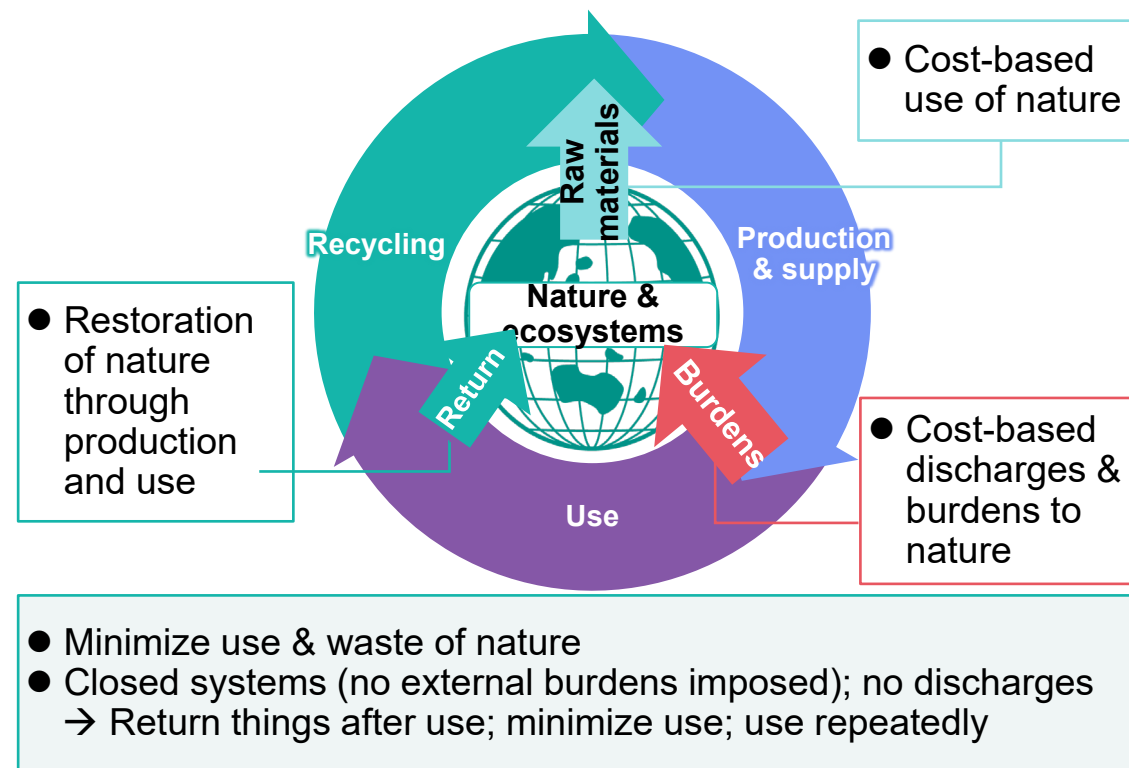
Discussions at the 15th Meeting of the Conference of the Parties (COP15) to the Convention on Biological Diversity

- Regenerate and restore 20% of degraded ecosystems
- Conserve 30% of land and sea areas, especially areas of particular importance
- Cut intrusion and inhabitation of invasive alien species by 50%
- Halve loss of nutrients in the environment, cut by two-thirds releases of pesticides into the environment, and eliminate discharge of plastic waste
- Contribute to mitigating and adapting to climate change through ecosystems, including mitigation of 10 GtCO<sub>2</sub>e per year
- Increase financial resources from all sources to \$200 billion per year and increase international financial flows to developing countries by \$10 billion per year

→ There are numerical targets relating to business, and it is expected this will have an influence on corporate target setting

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## Approaches to the environment through a circular economy



→ Activities and business premised on costs associated with nature

(Source: Prepared by SCGR based on Ministry of the Environment, "English Version of the Post-2020 Global Biodiversity Framework First Draft and Tentative Translation" and Government of the Netherlands, "A Circular Economy in the Netherlands by 2050")

# Sustainability-Related Information

- The need to disclose corporate sustainability-related information is increasing, including disclosure to investors who want to know about future corporate value.
- National governments, the IFRS Foundation, and others are establishing rules and standards, and company obligations will increase starting in 2023.
- While regulatory authorities strengthen countermeasures against greenwashing\* and ESG funds reinforce disclosures, skepticism about ESG funds is increasing. \* Actions that purport to be environmentally friendly

## Through 2021

## 2022

## 2023 and later

<b>EU</b> April 2021 Draft <b>Corporate Sustainability Reporting Directive (CSRD)</b> announced	April 2022 First set of <b>European Sustainability Reporting Standards (ESRS)</b> announced	FY2024 (planned): Start of application of CSRD/ESRS <b>Required Extensive disclosures by listed companies and large companies in the EU</b>
<b>IFRS Foundation</b> November 2021 <b>International Sustainability Standards Board (ISSB)</b> established	March 2022 Draft <b>IFRS Sustainability Disclosure Standards</b> announced (general requirements, climate-related disclosures)	2023 (planned): Approval of standards by the International Organization of Securities Commissions (IOSCO) <b>Call for a “global baseline”</b>
<b>U.S.</b> March–June 2021 Opinions on climate change disclosure rules sought	March 2022 <b>Proposed rules on climate-related disclosures</b> announced	FY2023 (planned): Start of application of climate-related disclosure rules <b>Starting with climate-related disclosures</b>
<b>Japan</b> September 2021 Discussions by the Working Group on Corporate Disclosure of the Financial System Council started	November 2022 Draft revised <b>Cabinet Office Order on Disclosure of Corporate Affairs</b> announced	FY2022 (planned): Start of application to securities reports <b>New sustainability information column to be created Items concerning human capital and diversity to be added</b>

# Food

- In addition to concerns about food supplies arising from population growth and climate change, disruptions of supply networks due to various divisions have made **food security** the top issue.
- The need and expectations for sustainable food supplies are increasing.

## Food security concerns

- Growing food demand v.s. limited resources (e.g. land, water, and biological resources)
- Effects of climate change induced severe weathers and environmental changes
- Negative impact of the current food system on the environment

+  
Supply network disruptions due to global-scale divisions resulting from COVID-19, Russia-Ukraine conflict, and other factors

>> Shortage of food, fertilizer, and energy, and resulting price hikes

➡ Increase in hungry population

## Global responses

- FAO, IMF, World Bank, WFP, and WTO: Joint statement on global food security (Jul. & Sept.)
- COP27: Food and agriculture set as one of the priority issues
- COP15: Kunming-Montreal Global Biodiversity Framework adopted, including reduction of pollutions from excess nutrients and pesticides, and halving of food waste by 2030

## Related innovations

**Development of novel food and production methods:** Alternative proteins, genomic technology, use of closed environments (e.g. land-based, recirculating aquaculture)

**Promotion of circularity:** Utilization of by-products (loss and waste reduction), local production for local consumption

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- Main destinations of Russian and Ukrainian grain exports (2018)



(Source: Prepared by SCGR based on data from the World Bank and CraftMAP)

- Hungry population: 591 million (2018) → 768 million (2021\*) (\* Estimate)

(Source: UN Food and Agriculture Organization)

- Investment in innovative food\* startups

	2019	2020	2021
Annual investment amount (billion dollars)	1.0	2.3	4.8
Growth rate (%)	93.8%	130.0%	108.7%
Number of deals	158	260	424

\* Included in the category are cultured meat, novel ingredients, and plant-based proteins.

(Source: Prepared by SCGR based on data from AgFunder)

# Web 3.0 (Web3) = Next-generation internet using blockchain technology

- Related markets started growing rapidly in the second half of 2020. In 2022, markets made a complete turnaround due to rising interest rates and other factors and various risks started to emerge.
- The potential is considerable; In 2023, speculative movement will weaken and the selection of projects will advance?

## Main Web 3.0 services

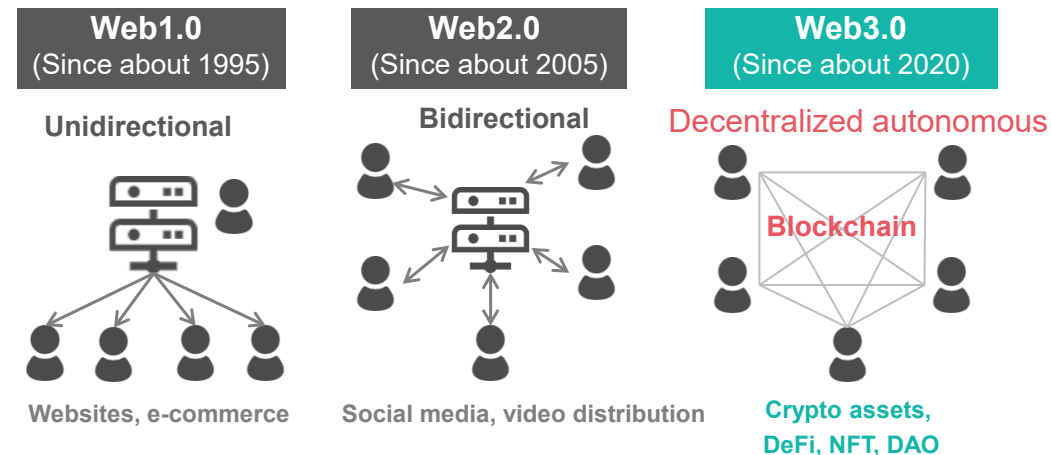
Decentralized autonomous services that use tokens (electronic vouchers) and smart contracts (programs that operate autonomously) recorded in blockchains

- **Crypto assets, stablecoins**
- **DeFi (decentralized finance)**
- **NFT (non-fungible tokens)**
- **DAO (decentralized autonomous organizations)**

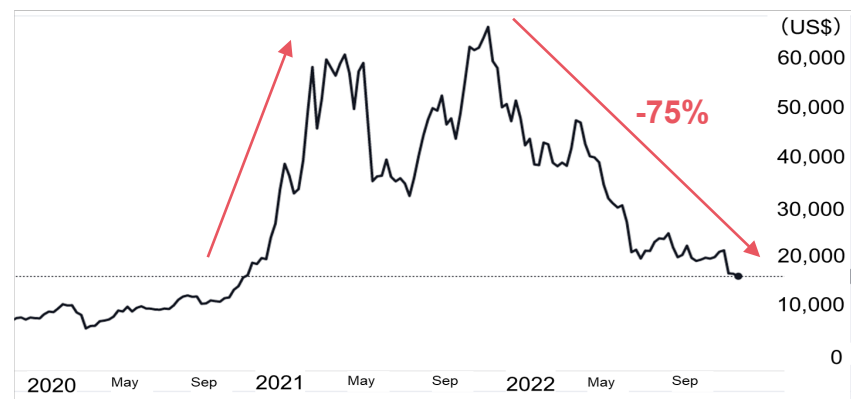
Reduction & elimination of intermediaries and centralized processes

## Market trends

- There has been monetary tightening in U.S. and a series of market crashes and bankruptcies including the collapse of the Terra stablecoin (May) and the bankruptcy of FTX, a leading exchange (November), and disruption is ongoing.
- Governments of leading countries are adopting policies to promote environments from the perspectives of both regulation and encouraging innovation (Japan: Basic Policy (June); U.S.: Executive Order (March)).
- Well-known brands and IP holders and platform companies have entered the NFT market. It is expected that use cases as tools for marketing and community development will expand.



## Bitcoin market price



(Source: Prepared by SCGR based on data from TradingView)