

# Global forecasts

Chief Investment Office GWM

Contents	Page
Economic growth & inflation	2
Target rates overview	4
Interest rates	5
Credit spreads	6
Major currencies	7
Emerging market currencies	8
Commodities	9
Equity Markets	10
Equity Markets	11
Real estate markets	12
Appendix: Contact	13
Appendix: Risk Information	14

CIO forecast tables reflect UBS CIO's view on growth, inflation, interest rates, and currencies for key countries and markets, real estate, as well as commodities. All future dates are UBS forecasts. The publication is updated every **Thursday**, unless developments require an intra-week forecast change, resulting in a mid-week update.

This list is not a template for the construction of your personal portfolio and you should discuss investment decisions with your client advisor. Current prices are indicative.

All asset class forecasts refer to end of period. For more information, please read more [here](#).

# Economic growth & inflation

## Europe - Real GDP

	2021	2022	2023F	2024F
Eurozone	5.9	3.4	0.5	0.6
- France	6.4	2.5	0.9	0.9
- Germany	3.1	1.9	-0.1	0.5
- Italy	8.3	3.9	0.7	0.8
- Spain	6.4	5.8	2.4	1.5
Switzerland	5.4	2.7	0.7	0.9
UK	8.7	4.3	0.6	0.6

Sources: Haver, CEIC, National Statistic, UBS

## Americas - Real GDP

	2021	2022	2023F	2024F
Brazil	5.0	2.9	3.2	1.4
Canada	5.0	3.4	1.1	0.2
Mexico	5.8	3.9	3.3	2.2
US	5.8	1.9	2.4	1.1

Sources: Haver, CEIC, National Statistic, UBS

## EMEA - Real GDP

	2021	2022	2023F	2024F
Czech Republic	3.6	2.4	-0.3	2.0
Hungary	7.2	4.6	-0.8	2.4
Poland	6.9	5.3	0.2	2.6
Russia	5.6	-2.1	2.4	1.2
South Africa	4.9	2.0	1.0	2.0
Turkey	11.4	5.6	4.4	2.4

Sources: Haver, CEIC, National Statistic, UBS

Values are displayed as % change year-on-year

The Switzerland economic forecasts were developed by CIO analysts. All other economic forecasts were developed by economists employed by UBS Investment Research (INV). INV is published by UBS Investment Bank. Forecasts and estimates are current only as of the date of this publication and may change without notice.

E = Estimate, F = Forecast

■ indicates an increase from the previous week

■ indicates a decrease from the previous week

## Europe - CPI

	2021	2022	2023F	2024F
Eurozone	2.6	8.4	5.5	2.4
- France	2.1	5.9	5.7	2.3
- Germany	3.2	8.6	6.0	2.3
- Italy	1.9	8.7	6.0	1.6
- Spain	3.0	8.3	3.6	2.8
Switzerland	0.6	2.8	2.2	2.0
UK	2.6	9.0	7.4	2.6

Sources: Haver, CEIC, National Statistic, UBS

## Americas - CPI

	2021	2022	2023F	2024F
Brazil	8.3	9.3	4.6	3.6
Canada	3.4	6.8	3.9	2.5
Mexico	5.7	7.9	5.5	4.1
US	4.7	8.0	4.2	2.7

Sources: Haver, CEIC, National Statistic, UBS

## EMEA - CPI

	2021	2022	2023F	2024F
Czech Republic	3.8	15.1	10.8	2.0
Hungary	5.1	14.6	17.9	5.0
Poland	5.1	14.4	11.4	4.3
Russia	6.7	13.7	5.8	7.0
South Africa	4.6	6.9	5.8	4.6
Turkey	19.6	72.3	54.2	60.8

Sources: Haver, CEIC, National Statistic, UBS

# Economic growth & inflation

## Asia - Real GDP

	2021	2022	2023F	2024F
Australia	5.2	3.7	1.9	1.6
New Zealand	6.0	2.7	1.6	2.2
China	8.4	3.0	5.2	4.4
Hong Kong	6.4	-3.5	3.6	2.5
India	9.1	7.2	6.3	6.2
Indonesia	3.7	5.3	5.0	4.8
Japan	2.2	1.0	1.9	0.7
Malaysia	3.3	8.7	4.2	4.0
Philippines	5.7	7.6	4.8	5.2
Singapore	8.9	3.6	0.7	1.8
South Korea	4.3	2.6	1.3	2.0
Taiwan	6.5	2.4	1.1	3.1
Thailand	1.5	2.6	2.4	3.4
Asia*	7.6	4.2	5.0	4.6

Sources: Haver, CEIC, National Statistic, UBS

## World - Real GDP

	2021	2022	2023F	2024F
World**	6.6	3.4	3.1	2.6

Sources: Haver, CEIC, National Statistic, UBS

## Asia - CPI

	2021	2022	2023F	2024F
Australia	2.9	6.6	5.7	3.6
New Zealand	3.9	7.2	5.7	3.1
China	0.9	2.0	0.4	1.2
Hong Kong	1.6	1.9	1.8	1.8
India	5.5	6.7	5.5	4.8
Indonesia	1.6	4.2	3.7	2.8
Japan	-0.2	2.5	3.3	2.3
Malaysia	2.5	3.4	2.6	2.2
Philippines	3.9	5.8	6.2	3.7
Singapore	2.3	6.1	4.8	3.3
South Korea	2.5	5.1	3.7	2.3
Taiwan	1.9	2.9	2.5	2.2
Thailand	1.2	6.1	1.4	1.9
Asia*	2.1	3.6	2.2	2.3

Sources: Haver, CEIC, National Statistic, UBS

## World - CPI

	2021	2022	2023F	2024F
World**	4.0	8.4	6.3	6.0

Sources: Haver, CEIC, National Statistic, UBS

Values are displayed as % change year-on-year

E = Estimate, F = Forecast

\* Excluding Japan, Australia &amp; NZ

\*\* Excluding Venezuela

 indicates an increase from the previous week

 indicates a decrease from the previous week

# Target rates overview

Central banks					
	Current	Mar 2024	Jun 2024	Sep 2024	Dec 2024
Fed	5.33	5.13	4.63	3.63	2.63
ECB	4.00	4.00	3.75	3.50	3.25
SNB	1.75	1.75	1.75	1.50	1.25
BoE	5.25	5.25	5.00	4.75	4.25
BoC	5.00	5.00	4.25	3.50	2.50
RBA	4.35	4.35	4.35	4.35	4.10
RBNZ	5.50	5.50	5.50	5.25	4.50
BoJ	-0.10	-0.10	0.00	0.25	0.25
PBoC*	1.83	1.80	1.70	1.70	1.70

Sources: Haver, CEIC, National Statistic, Bloomberg, UBS

Values are displayed as %

\* 7 day repo rate used as proxy for China target rate

■ indicates an increase from the previous week

■ indicates a decrease from the previous week

## Interest rates

## Europe

	Current	Mar 2024	Jun 2024	Sep 2024	Dec 2024
EUR ESTR*	3.90	3.77	3.51	3.22	2.71
EUR 2Y Bund	3.02	2.75	2.50	2.25	2.00
EUR 5Y Bund	2.57	2.50	2.25	2.00	2.00
EUR 10Y Bund	2.62	2.50	2.25	2.25	2.25
CHF SARON*	1.70	1.67	1.57	1.39	1.04
CHF 2Y Eidg.	1.28	1.00	0.75	0.75	0.70
CHF 5Y Eidg.	1.04	1.00	0.80	0.80	0.75
CHF 10Y Eidg.	1.06	1.00	0.90	0.90	0.90
GBP SONIA*	5.19	5.24	5.07	4.84	4.34
GBP 2Y Gilt	4.62	4.50	4.00	3.50	3.50
GBP 5Y Gilt	4.24	4.00	3.75	3.50	3.50
GBP 10Y Gilt	4.24	4.00	3.75	3.50	3.50

Sources: Bloomberg, UBS

## Americas

	Current	Mar 2024	Jun 2024	Sep 2024	Dec 2024
USD SOFR*	5.33	5.31	5.05	4.76	4.07
USD 2Y Treas.	4.93	4.25	3.75	3.25	3.25
USD 5Y Treas.	4.50	3.75	3.50	3.50	3.25
USD 10Y Treas.	4.49	4.00	3.75	3.50	3.50
USD 30Y Treas.	4.61	4.00	4.00	4.00	3.75
CAD OIS*	5.04	4.91	4.84	4.58	3.91
CAD 10Y GOV	3.70	3.70	3.50	3.40	3.30
MXN 3M TIIE	11.51	11.25	10.75	10.25	9.50
MXN 10Y Bono	9.67	10.00	9.80	9.60	9.50
BRL 3M Swap rate	11.82	11.00	10.00	9.00	9.00
BRL 5Y Treasury note	11.15	10.50	10.50	10.00	10.00

Sources: Bloomberg, Thomson Reuters, UBS

## Asia

	Current	Mar 2024	Jun 2024	Sep 2024	Dec 2024
JPY OIS*	-0.01	0.06	0.17	0.25	0.43
JPY 2Y JGB	0.12	0.15	0.20	0.25	0.25
JPY 5Y JGB	0.42	0.50	0.50	0.45	0.45
JPY 10Y JGB	0.86	1.00	1.00	0.90	0.80
AUD OIS*	4.32	4.45	4.45	4.44	4.08
AUD 10Y Gov	4.58	4.40	4.15	3.90	3.90
NZD OIS*	5.50	5.52	5.41	5.10	4.87
NZD 10Y Gov	5.09	4.90	4.65	4.40	4.40
CNY 7-day Repo	1.83	1.80	1.70	1.70	1.70
CNY 10Y Gov	2.65	2.75	2.80	2.85	2.85
HKD 3M Hibor	5.33	5.00	4.80	4.60	4.60
HKD 10Y Gov	4.10	3.50	3.30	3.40	3.40
INR 3M T Bill	6.94	6.60	6.60	6.35	6.10
INR 10Y Gov	7.27	7.00	6.50	6.30	6.30
BI 7 day repo rate	6.00	6.25	6.00	5.50	4.75
IDR 10Y Gov	6.74	6.50	6.30	6.00	6.00
MYR 3M Klibor	3.66	3.57	3.57	3.57	3.57
MYR 10Y Gov	3.94	3.80	3.50	3.50	3.50
PHP 3M Phibor	6.41	6.65	6.65	6.15	5.65
PHP 10Y Gov	6.85	6.00	5.50	5.50	5.50
SGD 3M SORA	3.75	3.40	3.20	3.00	3.00
SGD 10Y Gov	3.17	3.00	2.80	2.60	2.60
KRW 3M CD	3.97	3.51	3.26	2.76	2.26
KRW 10Y Gov	4.03	3.30	3.00	2.50	2.50
TWD 3M CP	1.61	1.37	1.24	1.12	0.99
TWD 10Y Gov	1.28	1.10	1.00	1.00	1.00
THB 3M Bibor	2.65	2.60	2.60	2.35	2.35
THB 10Y Gov	3.11	2.50	2.00	2.00	2.00

Sources: Bloomberg, Thomson Reuters, UBS

\* For short end of curve we use market implied rates

■ indicates an increase from the previous week

■ indicates a decrease from the previous week

# Credit spreads

Developed markets			
	Current	Jun 2024	Dec 2024
USD corporate	125	145	145
USD corporate (1-10 years)	120	130	130
Euro corporate	156	170	170
USD high yield	408	500	500
Euro high yield	458	500	500

Sources: Bloomberg Barclays, ICE Data Indices, UBS

Emerging markets			
	Current	Jun 2024	Dec 2024
EM sovereigns in USD	432	425	425
EM corporates in USD	344	350	350
Asia	270	260	250

Sources: JP Morgan, UBS

Values are displayed as basis points

■ indicates an increase from the previous week

■ indicates a decrease from the previous week

## Major currencies

## USD

	Current	Mar 2024	Jun 2024	Sep 2024	Dec 2024
EURUSD	1.07	1.08	1.10	1.11	1.12
USDJPY	151	145	143	141	140
GBPUSD	1.23	1.23	1.25	1.26	1.27
USDCHF	0.90	0.90	0.88	0.87	0.87
USDCAD	1.38	1.35	1.34	1.33	1.32
AUDUSD	0.64	0.67	0.69	0.71	0.72
NZDUSD	0.59	0.61	0.61	0.62	0.62
USDSEK	10.89	11.02	10.73	10.54	10.27
USDNOK	11.19	10.28	10.00	9.73	9.46

Sources: SIX Financial Information, UBS

## CHF

	Current	Mar 2024	Jun 2024	Sep 2024	Dec 2024
USDCHF	0.90	0.90	0.88	0.87	0.87
EURCHF	0.96	0.97	0.97	0.97	0.97
JPYCHF	0.60	0.62	0.62	0.62	0.62
GBPCHF	1.10	1.10	1.10	1.10	1.10
CADCHF	0.65	0.67	0.66	0.66	0.66
AUDCHF	0.58	0.60	0.61	0.62	0.62
NZDCHF	0.53	0.55	0.54	0.54	0.54
CHFSEK	12.12	12.27	12.16	12.06	11.86
CHFNOK	12.45	11.44	11.34	11.13	10.93

Sources: SIX Financial Information, UBS

## EUR

	Current	Mar 2024	Jun 2024	Sep 2024	Dec 2024
EURUSD	1.07	1.08	1.10	1.11	1.12
EURJPY	162	157	157	157	157
EURGBP	0.87	0.88	0.88	0.88	0.88
EURCHF	0.96	0.97	0.97	0.97	0.97
EURCAD	1.48	1.46	1.47	1.48	1.48
EURAUD	1.67	1.61	1.59	1.56	1.56
EURNZD	1.81	1.77	1.80	1.79	1.81
EURSEK	11.66	11.90	11.80	11.70	11.50
EURNOK	11.98	11.10	11.00	10.80	10.60

Sources: SIX Financial Information, UBS

## GBP

	Current	Mar 2024	Jun 2024	Sep 2024	Dec 2024
GBPUSD	1.23	1.23	1.25	1.26	1.27
GBPEUR	1.15	1.14	1.14	1.14	1.14
GBPCHF	1.10	1.10	1.10	1.10	1.10
GBPJPY	185	178	179	178	178
GBPCAD	1.70	1.66	1.68	1.68	1.68
GBPAUD	1.92	1.83	1.81	1.78	1.77
GBPNZD	2.08	2.01	2.05	2.03	2.05
GBPSEK	13.38	13.52	13.41	13.30	13.07
GBPNOK	13.75	12.61	12.50	12.27	12.05

Sources: SIX Financial Information, UBS

■ indicates an increase from the previous week

■ indicates a decrease from the previous week

# Emerging market currencies

## Asia

	Current	Mar 2024	Jun 2024	Sep 2024	Dec 2024
USDCNY	7.28	7.30	7.20	7.10	7.00
USDHKD*	7.82	7.80	7.80	7.80	7.80
USDINR	83.3	83.5	83.0	82.0	81.5
USDIDR	15,650	15,900	15,700	15,500	15,300
USDKRW	1,311	1,320	1,280	1,260	1,240
USDMYR	4.68	4.75	4.65	4.60	4.50
USDPHP	56.04	57.00	56.50	56.00	56.00
USDSGD	1.36	1.35	1.34	1.32	1.31
USDTHB	35.59	34.80	34.50	34.20	33.80
USDTHB	32.25	32.00	31.60	31.20	30.80

Sources: SIX Financial Information, UBS

## EMEA

	Current	Mar 2024	Jun 2024	Sep 2024	Dec 2024
EURPLN	4.44	4.70	4.70	4.70	4.70
EURCZK	24.60	24.70	24.70	24.70	24.70
USDZAR	18.47	18.00	17.80	17.60	17.60
USDILS	3.84	3.75	3.60	3.50	3.50

Sources: SIX Financial Information, UBS

## Latin America

	Current	Mar 2024	Jun 2024	Sep 2024	Dec 2024
USDMXN	17.48	17.90	18.00	18.20	18.40
USDBRL	4.89	5.00	5.00	5.00	5.00

Sources: SIX Financial Information, UBS

\* HKD is pegged to the USD

■ indicates an increase from the previous week

■ indicates a decrease from the previous week



## Commodities

## Energy

	Current	Mar 2024	Jun 2024	Sep 2024	Dec 2024
Brent Crude Oil, USD/bbl.	79.5	95.0	95.0	95.0	95.0
WTI Crude Oil, USD/bbl.	75.3	91.0	91.0	91.0	91.0
US Natural Gas, USD/MMBtu	3.11	3.00	3.00	3.20	3.80
NW Thermal Coal (AU), USD/MT	123	120	120	120	120

Sources: Bloomberg, UBS

## Precious Metals

	Current	Mar 2024	Jun 2024	Sep 2024	Dec 2024
Gold, USD/oz	1,950	1,900	1,950	2,050	2,150
Silver, USD/oz	22.7	23.0	24.0	25.0	26.0
Platinum, USD/oz	870	950	950	1,000	1,000
Palladium, USD/oz	1,060	1,100	1,100	1,050	1,050

Sources: SIX Financial Information, UBS

## Base Metals

	Current	Mar 2024	Jun 2024	Sep 2024	Dec 2024
Copper, USD/MT	8,142	8,500	9,000	9,500	9,500
Aluminum, USD/MT	2,264	2,250	2,300	2,350	2,400
Nickel, USD/MT	18,094	18,000	17,000	17,000	17,000
Zinc, USD/MT	2,610	2,500	2,500	2,600	2,700
Lead, USD/MT	2,191	2,100	2,100	2,150	2,200

Sources: Bloomberg, UBS

## Agriculture

	Current	Mar 2024	Jun 2024	Sep 2024	Dec 2024
Corn, USD/bu.	4.76	5.00	4.75	5.00	5.00
Wheat (CBT), USD/bu.	5.92	6.50	6.25	6.50	6.25
Soybeans, USD/bu.	13.66	13.50	12.50	12.50	12.50
Crude Palm Oil, MYR/MT	3,768	4,500	4,700	4,700	4,700
Cotton, USD/lb.	0.75	0.85	0.90	0.95	0.95
Sugar, USD/lb.	0.272	0.300	0.280	0.260	0.260
Coffee, USD/lb.	1.72	1.65	1.65	1.65	1.65
Cocoa, USD/MT	3,933	3,750	3,750	3,500	3,500

Sources: Bloomberg, UBS

## Livestock

	Current	Mar 2024	Jun 2024	Sep 2024	Dec 2024
Lean Hogs, USD/lb.	0.72	0.80	0.85	0.80	0.80
Live Cattle, USD/lb.	1.79	2.00	1.90	1.95	1.95

Sources: Bloomberg, UBS

Note: Current values refer to the spot for precious metals, to the 3 month futures for base metals and to the active futures for the other sectors

■ indicates an increase from the previous week

■ indicates a decrease from the previous week

# Equity Markets

## Americas

	Current	Jun 2024	Dec 2024
S&P 500	4,383	4,500	4,700

Sources: Datastream, UBS

## Europe

	Current	Jun 2024	Dec 2024
Euro Stoxx	438	485	495
Euro Stoxx 50	4,178	4,600	4,700
FTSE 100	7,402	7,860	8,160
SMI	10,595	11,300	11,640

Sources: Datastream, UBS

## Asia

	Current	Jun 2024	Dec 2024
MSCI Asia ex-Japan (\$)	606	665	685
Topix (Japan)	2,306	2,485	2,555
MSCI China	58	65	68

Sources: Datastream, UBS

## Emerging Markets

	Current	Jun 2024	Dec 2024
MSCI Emerging Markets (\$)	958	1,050	1,080

Sources: Datastream, UBS

## Global

	Current	Jun 2024	Dec 2024
MSCI AC World (LC)	805	845	880

Sources: Datastream, UBS

Equity forecasts are based on price performance and not total expected return.

■ indicates an increase from the previous week

■ indicates a decrease from the previous week

# Equity Markets

---

Earnings per share	2021	2022	2023F	2024F
S&P 500	211	220	220	240

---

Sources: Factset, UBS

E = Estimate, F = Forecast

■ indicates an increase from the previous week

■ indicates a decrease from the previous week

# Real estate markets

## Americas - Direct Real Estate\*

	2021	2022	2023F	2024F	LTF
Canada	3.87	3.90	4.30	4.60	4.50
US	3.90	3.60	4.00	4.20	4.20

Sources: MSCI Real Assets, UBS

## Europe - Direct Real Estate\*

	2021	2022	2023F	2024F	LTF
Belgium	4.60	4.50	5.00	5.30	4.80
France	3.40	3.40	4.00	4.20	3.90
Germany	3.30	3.10	3.50	3.70	3.40
Ireland	4.60	4.30	5.00	5.20	5.00
Italy	3.29	3.50	3.50	3.70	3.50
Netherlands	3.27	3.10	3.60	3.80	3.50
Spain	3.60	3.90	4.50	4.80	4.40
Switzerland	3.11	3.00	3.30	3.50	3.20
UK	4.21	3.80	4.60	4.80	4.50

Sources: MSCI Real Assets, UBS

## Africa - Direct Real Estate\*

	2021	2022	2023F	2024F	LTF
South Africa	7.86	7.90	9.20	9.60	9.30

Sources: MSCI Real Assets, UBS

## Asia - Direct Real Estate\*

	2021	2022	2023F	2024F	LTF
Australia	4.60	4.50	4.90	5.10	5.00
China	4.80	4.20	4.80	4.90	4.80
Hong Kong	3.50	3.30	3.70	3.98	3.80
Japan	4.09	3.94	4.30	4.50	4.20
Singapore	4.40	4.50	5.00	5.20	5.20

Sources: MSCI Real Assets, UBS

## Global - Listed Real Estate

	2021	2022	2023F	2024F	LTF
Equity dividend yields	3.30	4.10	4.50	4.20	4.00

Sources: FTSE EPRA Nareit, UBS

E = Estimate, F = Forecast, LTF = Long term forecast (7 years)

\* Benchmark income returns for direct real estate investments portfolios, all properties

■ indicates an increase from the previous week

■ indicates a decrease from the previous week

# Contact

---

## Economics and central banks

**Daniel Kalt**  
Regional CIO Switzerland

**Brian Rose**  
Senior Economist Americas

**Dean Turner**  
Economist, Europe

**Philip Wyatt**  
Economist Asia

**Yifan Hu**  
Regional CIO and Chief China Economist

**Michael Bolliger**  
CIO Global Emerging Markets

**Alejo Czerwonko**  
CIO Emerging Markets Americas

---

## Fixed income

**Frederick Mellors**  
Fixed Income Global

**Leslie Falconio**  
Senior Fixed Income  
Strategist Americas

---

## Credit

**Carolina Corvalan**  
Credit

---

## Forex

**Thomas Flury**  
Forex Global

**Tan Teck Leng**  
Forex Global

---

## Commodities

**Dominic Schnider**  
Commodity Global

**Giovanni Staunovo**  
Commodity Global

**Wayne Gordon**  
Commodity Global

---

## Equity markets

**Claudia Panseri**  
Equities Global

**David Lefkowitz**  
Equities Americas

**Nadia Lovell**  
Equities Americas

---

## Global real estate

**Thomas Veraguth**  
Economist Real Estate

## Appendix

UBS Chief Investment Office's ("CIO") investment views are prepared and published by the Global Wealth Management business of UBS Switzerland AG (regulated by FINMA in Switzerland) or its affiliates ("UBS"), part of UBS Group AG ("UBS Group"). UBS Group includes Credit Suisse AG, its subsidiaries, branches and affiliates. Additional disclaimer relevant to Credit Suisse Wealth Management follows at the end of this section. The investment views have been prepared in accordance with legal requirements designed to promote the **independence of investment research**.

### **Generic investment research – Risk information:**

This publication is **for your information only** and is not intended as an offer, or a solicitation of an offer, to buy or sell any investment or other specific product. The analysis contained herein does not constitute a personal recommendation or take into account the particular investment objectives, investment strategies, financial situation and needs of any specific recipient. It is based on numerous assumptions. Different assumptions could result in materially different results. Certain services and products are subject to legal restrictions and cannot be offered worldwide on an unrestricted basis and/or may not be eligible for sale to all investors. All information and opinions expressed in this document were obtained from sources believed to be reliable and in good faith, but no representation or warranty, express or implied, is made as to its accuracy or completeness (other than disclosures relating to UBS). All information and opinions as well as any forecasts, estimates and market prices indicated are current as of the date of this report, and are subject to change without notice. Opinions expressed herein may differ or be contrary to those expressed by other business areas or divisions of UBS as a result of using different assumptions and/or criteria.

In no circumstances may this document or any of the information (including any forecast, value, index or other calculated amount ("Values")) be used for any of the following purposes (i) valuation or accounting purposes; (ii) to determine the amounts due or payable, the price or the value of any financial instrument or financial contract; or (iii) to measure the performance of any financial instrument including, without limitation, for the purpose of tracking the return or performance of any Value or of defining the asset allocation of portfolio or of computing performance fees. By receiving this document and the information you will be deemed to represent and warrant to UBS that you will not use this document or otherwise rely on any of the information for any of the above purposes. UBS and any of its directors or employees may be entitled at any time to hold long or short positions in investment instruments referred to herein, carry out transactions involving relevant investment instruments in the capacity of principal or agent, or provide any other services or have officers, who serve as directors, either to/for the issuer, the investment instrument itself or to/for any company commercially or financially affiliated to such issuers. At any time, investment decisions (including whether to buy, sell or hold securities) made by UBS and its employees may differ from or be contrary to the opinions expressed in UBS research publications. Some investments may not be readily realizable since the market in the securities is illiquid and therefore valuing the investment and identifying the risk to which you are exposed may be difficult to quantify. UBS relies on information barriers to control the flow of information contained in one or more areas within UBS, into other areas, units, divisions or affiliates of UBS. Futures and options trading is not suitable for every investor as there is a substantial risk of loss, and losses in excess of an initial investment may occur. Past performance of an investment is no guarantee for its future performance. Additional information will be made available upon request. Some investments may be subject to sudden and large falls in value and on realization you may receive back less than you invested or may be required to pay more. Changes in foreign exchange rates may have an adverse effect on the price, value or income of an investment. The analyst(s) responsible for the preparation of this report may interact with trading desk personnel, sales personnel and other constituencies for the purpose of gathering, synthesizing and interpreting market information.

Different areas, groups, and personnel within UBS Group may produce and distribute separate research products **independently of each other**. For example, research publications from **CIO** are produced by UBS Global Wealth Management. **UBS Global Research** is produced by UBS Investment Bank. **Research methodologies and rating systems of each separate research organization may differ**, for example, in terms of investment recommendations, investment horizon, model assumptions, and valuation methods. As a consequence, except for certain economic forecasts (for which UBS CIO and UBS Global Research may collaborate), investment recommendations, ratings, price targets, and valuations provided by each of the separate research organizations may be different, or inconsistent. You should refer to each relevant research product for the details as to their methodologies and rating system. Not all clients may have access to all products from every organization. Each research product is subject to the policies and procedures of the organization that produces it.

The compensation of the analyst(s) who prepared this report is determined exclusively by research management and senior management (not including investment banking). Analyst compensation is not based on investment banking, sales and trading or principal trading revenues, however, compensation may relate to the revenues of UBS Group as a whole, of which investment banking, sales and trading and principal trading are a part.

Tax treatment depends on the individual circumstances and may be subject to change in the future. UBS does not provide legal or tax advice and makes no representations as to the tax treatment of assets or the investment returns thereon both in general or with reference to specific client's circumstances and needs. We are of necessity unable to take into account the particular investment objectives, financial situation and needs of our individual clients and we would recommend that you take financial and/or tax advice as to the implications (including tax) of investing in any of the products mentioned herein.

This material may not be reproduced or copies circulated without prior authority of UBS. Unless otherwise agreed in writing UBS expressly prohibits the distribution and transfer of this material to third parties for any reason. UBS accepts no liability whatsoever for any claims or lawsuits from any third parties arising from the use or distribution of this material. This report is for distribution only under such circumstances as may be permitted by applicable law. For information on the ways in which CIO manages conflicts and maintains independence of its investment views and publication offering, and research and rating methodologies, please visit [www.ubs.com/research-methodology](http://www.ubs.com/research-methodology). Additional information on the relevant authors of this publication and other CIO publication(s) referenced in this report; and copies of any past reports on this topic; are available upon request from your client advisor.

**Important Information About Sustainable Investing Strategies:** Sustainable investing strategies aim to consider and incorporate environmental, social and governance (ESG) factors into investment process and portfolio construction. Strategies across geographies approach ESG analysis and incorporate the findings in a variety of ways. Incorporating ESG factors or Sustainable Investing considerations may inhibit UBS's ability to participate in or to advise on certain investment opportunities that otherwise would be consistent with the Client's investment objectives. The returns on a portfolio incorporating ESG factors or Sustainable Investing considerations may be lower or higher than portfolios where ESG factors, exclusions, or other sustainability issues are not considered by UBS, and the investment opportunities available to such portfolios may differ.

**External Asset Managers / External Financial Consultants:** In case this research or publication is provided to an External Asset Manager or an External Financial Consultant, UBS expressly prohibits that it is redistributed by the External Asset Manager or the External Financial Consultant and is made available to their clients and/or third parties.

**USA:** Distributed to US persons only by UBS Financial Services Inc. or UBS Securities LLC, subsidiaries of UBS AG. UBS Switzerland AG, UBS Europe SE, UBS Bank, S.A., UBS Brasil Administradora de Valores Mobiliarios Ltda, UBS Asesores Mexico, S.A. de C.V., UBS SuMi TRUST Wealth Management Co., Ltd., UBS Wealth Management Israel Ltd and UBS Menkul Degerler AS are affiliates of UBS AG. **UBS Financial Services Inc. accepts responsibility for the content of a report prepared by a non-US affiliate when it distributes reports to US persons. All transactions by a US person in the securities mentioned in this report should be effected through a US-registered broker dealer affiliated with UBS, and not through a non-US affiliate. The contents of this report have not been and will not be approved by any securities or investment authority in the United States or elsewhere. UBS Financial Services Inc. is not acting as a municipal advisor to any municipal entity or obligated person within the meaning of Section 15B of the Securities Exchange Act (the "Municipal Advisor Rule") and the opinions or views contained herein are not intended to be, and do not constitute, advice within the meaning of the Municipal Advisor Rule**

For country information, please visit [ubs.com/cio-country-disclaimer-gr](https://ubs.com/cio-country-disclaimer-gr) or ask your client advisor for the full disclaimer.

#### **Additional Disclaimer relevant to Credit Suisse Wealth Management**

You receive this document in your capacity as a client of Credit Suisse Wealth Management. Your personal data will be processed in accordance with the Credit Suisse privacy statement accessible at your domicile through the official Credit Suisse website <https://www.credit-suisse.com>. In order to provide you with marketing materials concerning our products and services, UBS Group AG and its subsidiaries may process your basic personal data (i.e. contact details such as name, e-mail address) until you notify us that you no longer wish to receive them. You can optout from receiving these materials at any time by informing your Relationship Manager.

Except as otherwise specified herein and/or depending on the local Credit Suisse entity from which you are receiving this report, this report is distributed by Credit Suisse AG, authorised and regulated by the Swiss Financial Market Supervisory Authority (FINMA). Credit Suisse AG is a UBS Group company.

Version D/2023. CIO82652744

© UBS 2023. The key symbol and UBS are among the registered and unregistered trademarks of UBS. All rights reserved.