

GLOBAL ECONOMY



Motilal Oswal values your support in the Asiamoney Brokers Poll 2022 for India Research, Sales, Corporate Access and Trading team. We [request your ballot.](#)



Nikhil Gupta – Research analyst (Nikhil.Gupta@MotilalOswal.com)

Yaswi Agrawal – Research analyst (Yaswi.Agrawal@MotilalOswal.com)

Investors are advised to refer through important disclosures made at the last page of the Research Report.

Motilal Oswal research is available on www.motilaloswal.com/Institutional-Equities, Bloomberg, Thomson Reuters, Factset and S&P Capital.



- ❖ In an effort to provide a further edge to investors, we introduced a unique presentation on the global economy, covering as many as 39 nations, together accounting for over 85% of global GDP in CY21.
- ❖ Our intent to work on this comprehensive and extremely detailed data-oriented presentation is to provide a one-stop shop to all our readers. We hope this presentation will offer a bird's eye view of how the world economy is evolving.
- ❖ We have attempted to cover the most important macroeconomic indicators to offer our readers an idea of various themes, such as: a) consumption v/s investments, b) linkages between monetary variables and inflation, c) key trends in global debt, d) government finances, e) monetary economics, f) international trade developments, g) the global housing market condition, and h) the labor market situation in developed nations.
- ❖ This presentation will be released in the first month of every quarter, covering all published data as of the recently concluded quarter.

We cover 39 nations in this presentation...



Advanced economies (AEs):

Australia (AU)

Canada (CA)

Euro Area (EA) – 19*

Hong Kong (HK)

Japan (JP)

Singapore (SG)

South Korea (SKr)

Taiwan (TW)

United States of America (US)

United Kingdom (UK)

*Austria (AT), Belgium (BE), Cyprus (CY), Estonia (EE), Finland (FI), France (FR), Germany (DE), Greece (GR), Ireland (IE), Italy (IT), Latvia (LV), Lithuania (LT), Luxembourg (LU), Malta (MT), The Netherlands (NL), Portugal (PT), Slovakia (SK), Slovenia (SI), and Spain (ES)

Emerging and developing economies (E&DEs):

Brazil (BR)

China (CN)

India (IN)

Indonesia (ID)

Malaysia (MY)

Mexico (MX)

Philippines (PH)

Russia (RU)

South Africa (SAf)

Thailand (TH)

Turkey (TR)

All data used is up to 1st Aug'22

...and discuss the following macroeconomic parameters



01 >> Highlights of 2QCY22

02 >> Financial market trends:

- ❖ Equity markets stabilized in 2QCY22 before rallying in Jul'22
- ❖ Bond markets – Falling in AEs, stable-to-higher in E&DEs
- ❖ US Dollar (USD) strengthening continues

03 >> Gross domestic product (GDP) growth and its components

04 >> How much debt is too much?

05 >> Inflation: Has likely reached the peak

06 >> Government finances: Fiscal deficit has narrowed sharply in 1QCY22

07 >> Monetary economics: Monetary tightening is visible now

08 >> External sector vulnerabilities are coming to fore in some E&DEs

09 >> Housing market: Has begun losing steam

10 >> Labor market trends (for select AEs only): Continue to remain very strong

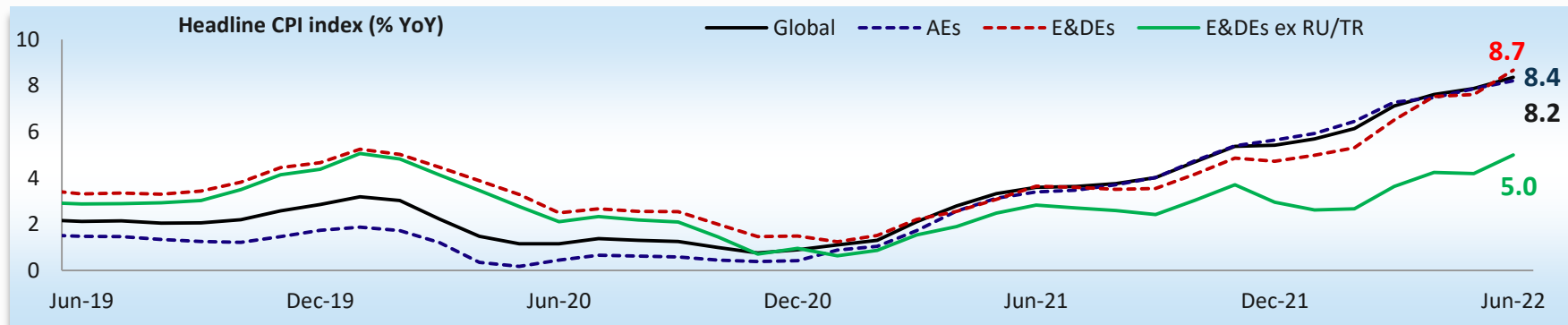


- ❖ Global economy has changed dramatically in 2QCY22. As inflation surged higher than expected almost everywhere, several Central Banks (CBs) moved suddenly and sharply to implement monetary tightening in the quarter. Global monetary aggregates (narrow/broad money supply and currency in circulation) have either declined or flattened in recent months.
- ❖ Although global headline inflation surpassed 8% level in Jun'21, the core inflation in AEs was stable at 5% for the third successive month. Although most of the major CBs have hiked rates in 2QCY22, some E&DEs such as ID/TH have yet to hike rates, while CN cut rates last in Jan'22.
- ❖ Not surprisingly then, financial markets have turned volatile. After stabilizing in 2QCY22, equity markets gained in Jul'22. Further, with the rising US recession fears, 10-yr yield in AEs declined in the recent months, while it remained stable-to-higher in E&DEs.
- ❖ With crude oil prices being higher than USD100/bbl, not only headline inflation has risen, but external sector vulnerabilities have also risen in many E&DEs. Going forward, this would remain a key monitorable.
- ❖ Finally, while the housing market has started losing some steam in 2QCY22, the labor market (in selected AEs) continues to remain very strong.

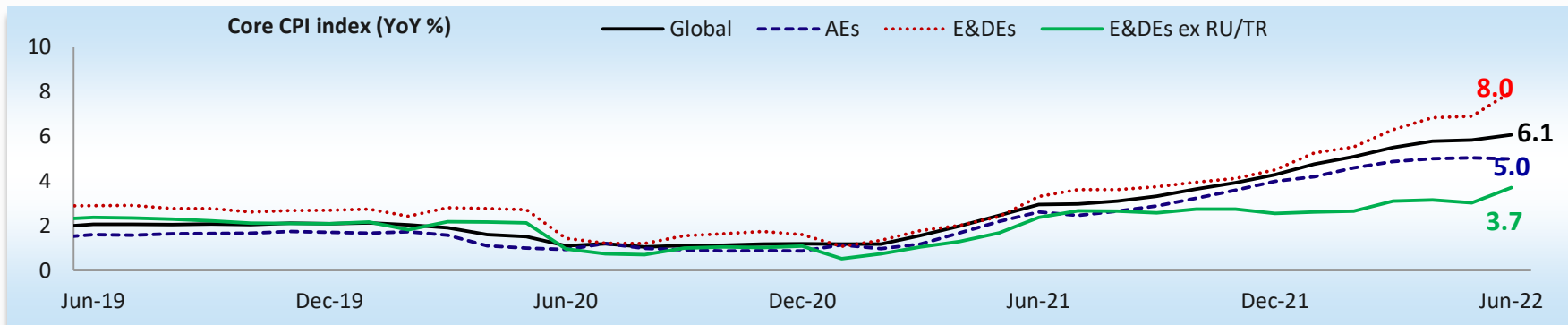
#1: Has inflation peaked?



Headline CPI inflation at multi-decadal highs all across the globe



Core inflation is also very high all over the world but it softened in AEs in Jun'22



Aggregate indices are weighted by nominal GDP

Source: CEIC, various national sources, MOFSL

#2: Some EMs are yet to hike policy interest rates



	Current	CY21-end	CY19-end	Record* low	Record* peak	Last move	Headline inflation#
Brazil (BR)	13.25	9.25	4.50	2.00	26.50	↑ (Jun'22)	11.3 (9.0)
China (CN)	3.70	3.80	4.15	3.70	7.47	↓ (Jan'22)	1.7 (1.0)
India (IN)	4.90	4.00	5.15	4.00	9.00	↑ (Jun'22)	6.8 (6.5)
Indonesia (ID)	3.50	3.50	5.00	3.50	17.67	↓ (Feb'21)	3.0 (2.3)
Malaysia (MY)	2.25	1.75	3.00	1.75	5.50	↑ (Jul'22)	2.5 (2.1)
Mexico (MX)	7.75	5.50	7.25	3.00	18.64	↑ (Jun'22)	7.5 (6.9)
Philippines (PH)	3.25	2.00	4.00	2.00	15.00	↑ (Jul'22)	4.4 (4.9)
Russia (RU)	8.00	8.50	6.25	4.25	45.00	↓ (Jul'22)	14.6 (16.1)
S Africa (SAf)	5.50	3.75	6.50	3.50	13.50	↑ (Jul'22)	6.3 (6.1)
Thailand (TH)	0.50	0.50	1.25	0.50	5.00	↓ (May'20)	5.6 (1.9)
Turkey (TR)	14.00	14.00	11.25	4.50	400.27	↓ (Nov'21)	64.6 (66.5)

*Since CY00

Figure in parenthesis is Core inflation

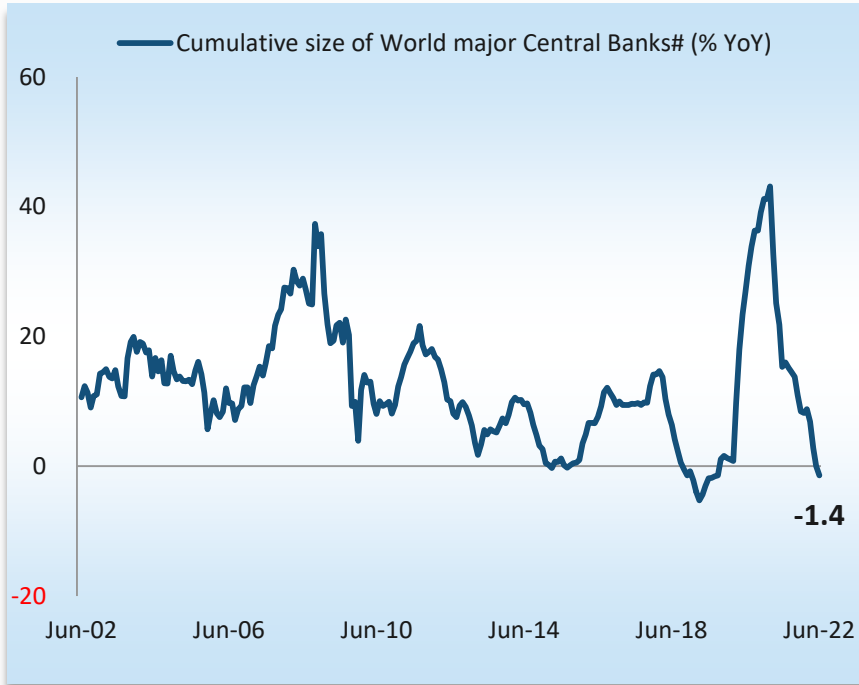
#Jan-Jun'22

Source: BIS, CEIC, MOFSL

#3: Global Central Banks are set to tighten monetary policy



While balance sheets of global central banks declined marginally by 20 bps YoY in May'22, world currency in circulation has been reducing at a fast pace



Saf data not available for Apr-Jun'22 period. BR/CA/SKr data not available for Jun'22

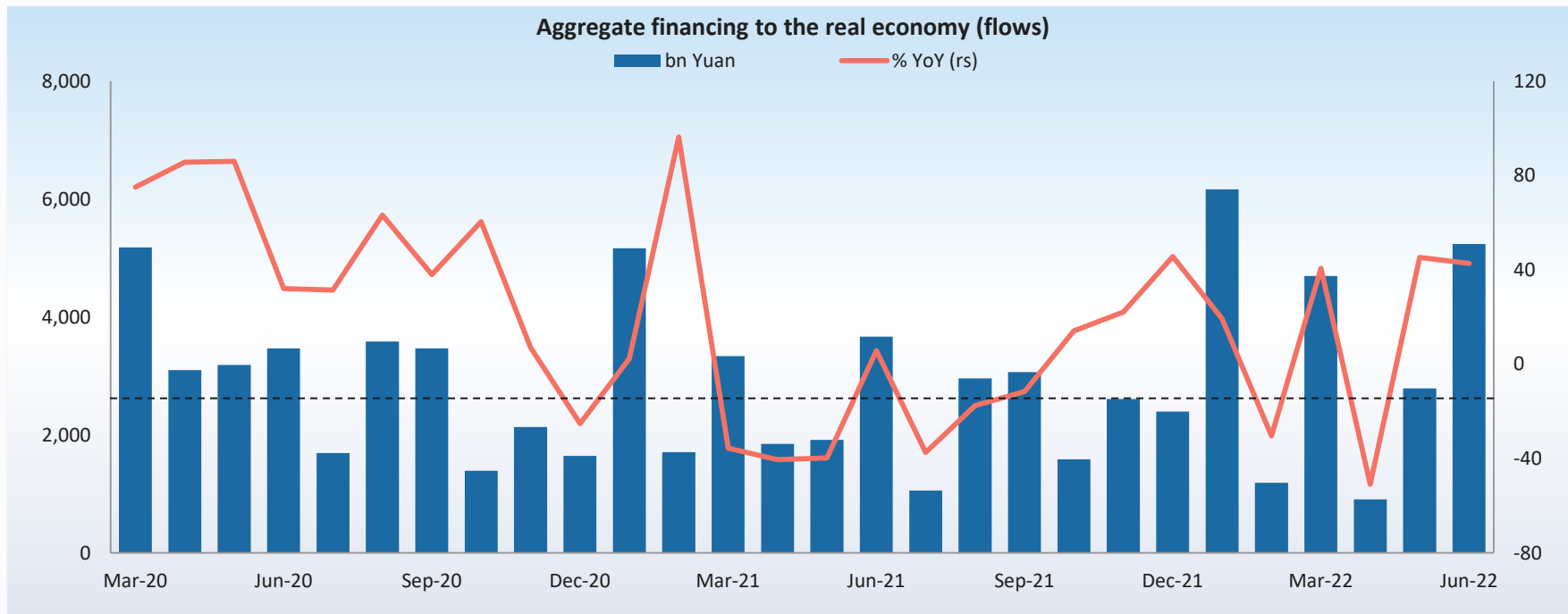


PH data not available for Apr-Jun'22 period. BR/SKr data not available for Jun'22
Source: Various national sources, CEIC, MOFSL

#4: China continues to be on the path to monetary easing



Aggregate financing to China grew 43%/20% in Jun'22/2QCY22, respectively

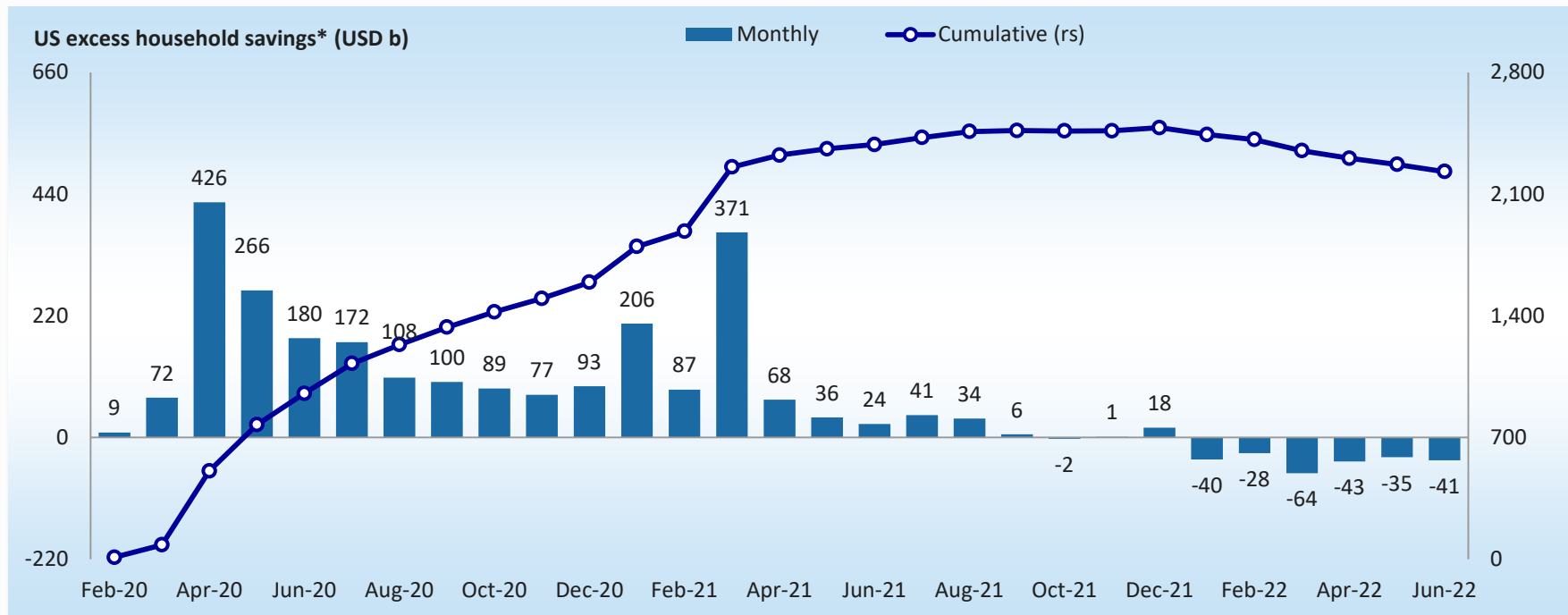


Source: People's Bank of China (PBoC), MOFSL

#5: Gradual withdrawal of excess personal savings continues in the US



The US excess household savings* peaked in Dec'21 and has fallen at ~USD40b/month in 1HCY22



* Implies an estimate of COVID-led additional savings

Source: US Bureau of Economic Analysis, CEIC, MoFSL



- 01 ➤ Highlights of 2QCY22
- 02 ➤ **Financial market trends:**
 - ❖ **Equity markets stabilized in 2QCY22 before rallying in Jul'22**
 - ❖ Bond markets – Falling in AEs, stable-to-higher in E&DEs
 - ❖ US Dollar (USD) strengthening continues
- 03 ➤ Gross domestic product (GDP) growth and its components
- 04 ➤ How much debt is too much?
- 05 ➤ Inflation: Has likely reached the peak
- 06 ➤ Government finances: Fiscal deficit has narrowed sharply in 1QCY22
- 07 ➤ Monetary economics: Monetary tightening is visible now
- 08 ➤ External sector vulnerabilities are coming to fore in some E&DEs
- 09 ➤ Housing market: Has begun losing steam
- 10 ➤ Labor market trends (for select AEs only): Continue to remain very strong

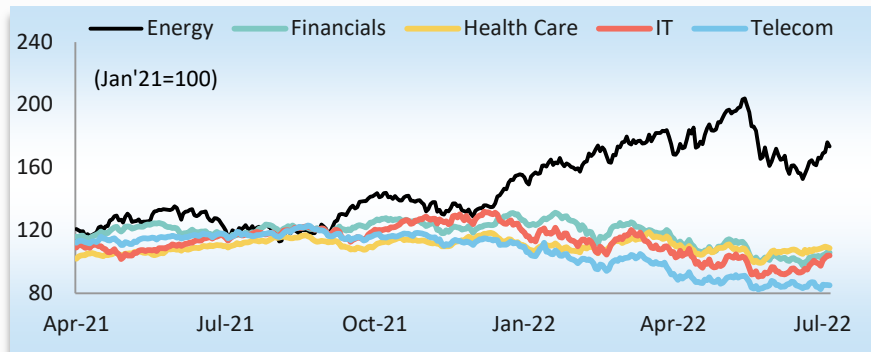


Global equity markets – led by AEs – recover in Jul'22

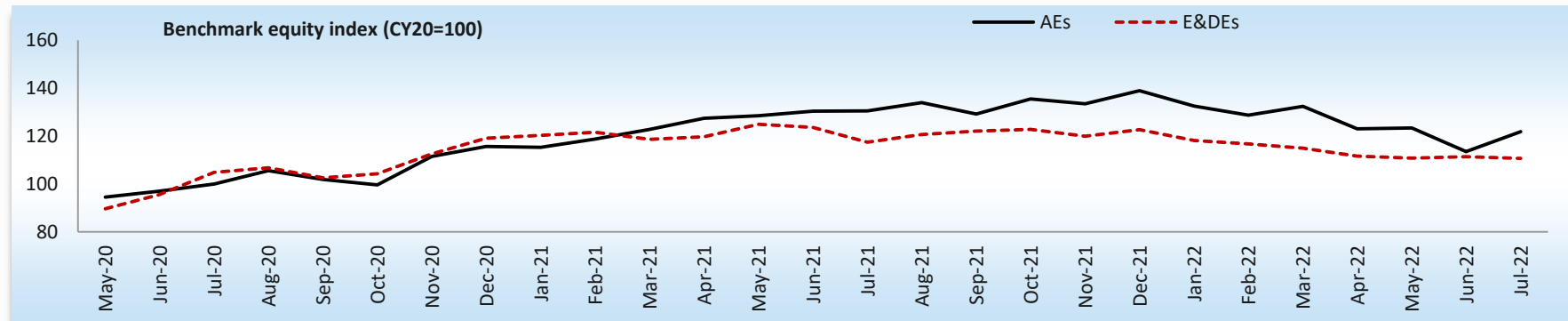
S&P Global 100 index has recovered strongly in the second half of Jul'22...



...supported by Energy & IT sector



Global equity markets have recovered in Jul'22, primarily led by AEs; E&DEs markets were at 21-month low



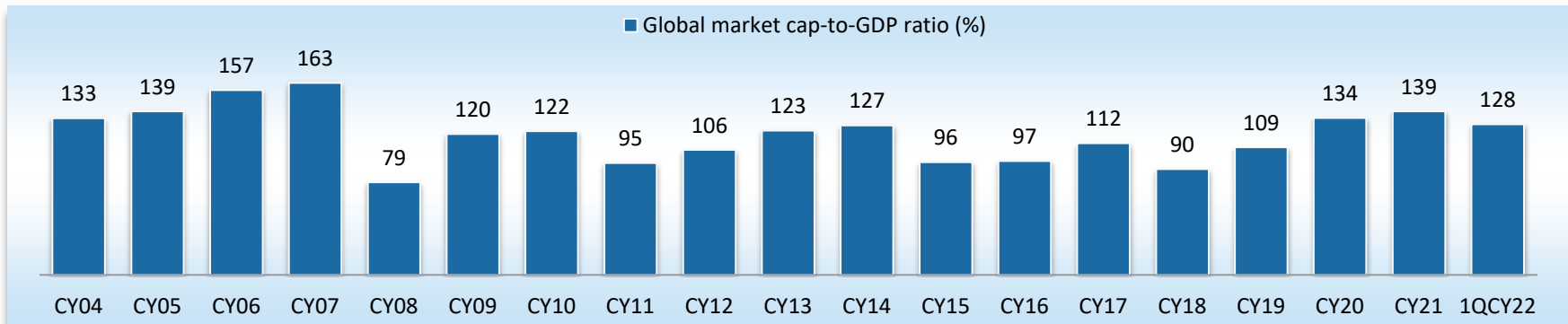
Aggregate indices are weighted by market capitalization

Source: Bloomberg, CEIC, MOFSL

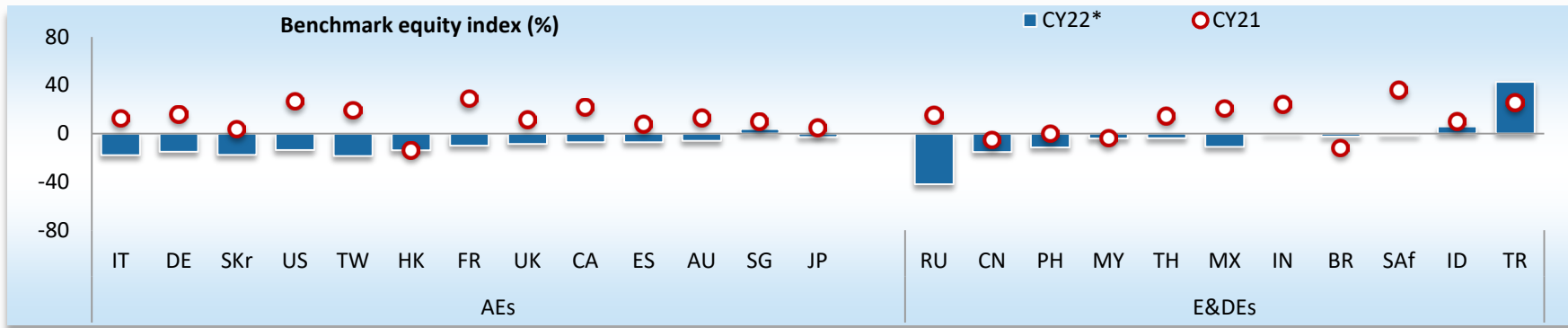


Global m-cap-to-GDP ratio contracts in 1QCY22

Global m-cap-to-GDP ratio declined to 128% in 1QCY22



After a strong CY21, equity markets have fallen almost everywhere in CY22*



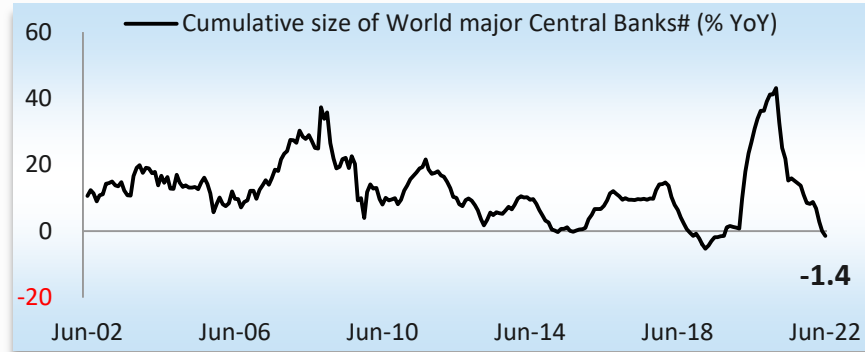
* Point-to-point comparison (1st Aug'22 over 31st Dec'21)

Source: Bloomberg, CEIC, MOFSL

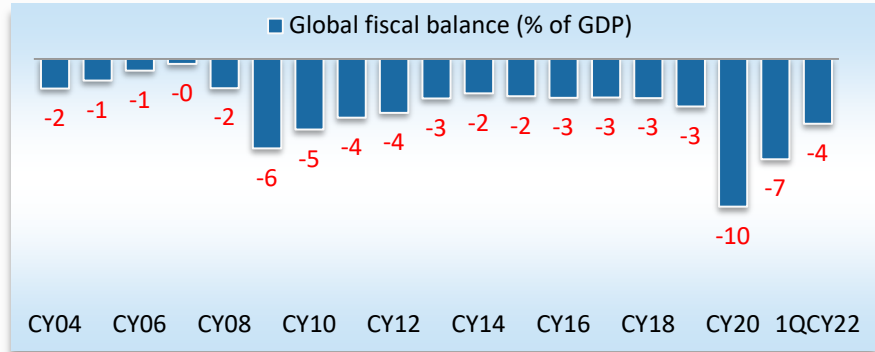
Global economic stimulus peaks



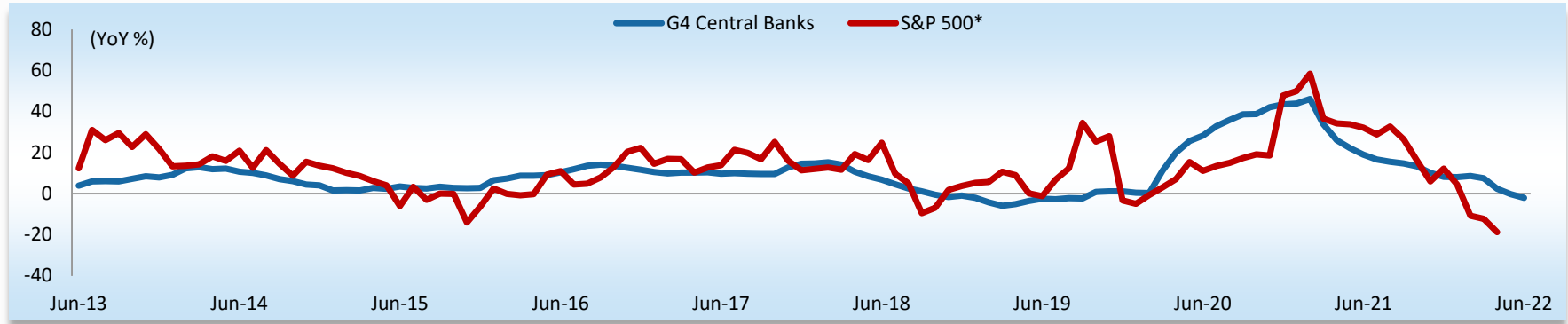
Global central banks' balance sheets have just begun to contract...



...and the global fiscal deficit also narrowed in 1QCY22



The weakness in the global equity markets is in line with shrinking balance sheets of central banks



#PH data not available for Apr-Jun'22 period. BR/Skr data not available for Jun'22

*S&P 500 index is forwarded by three months

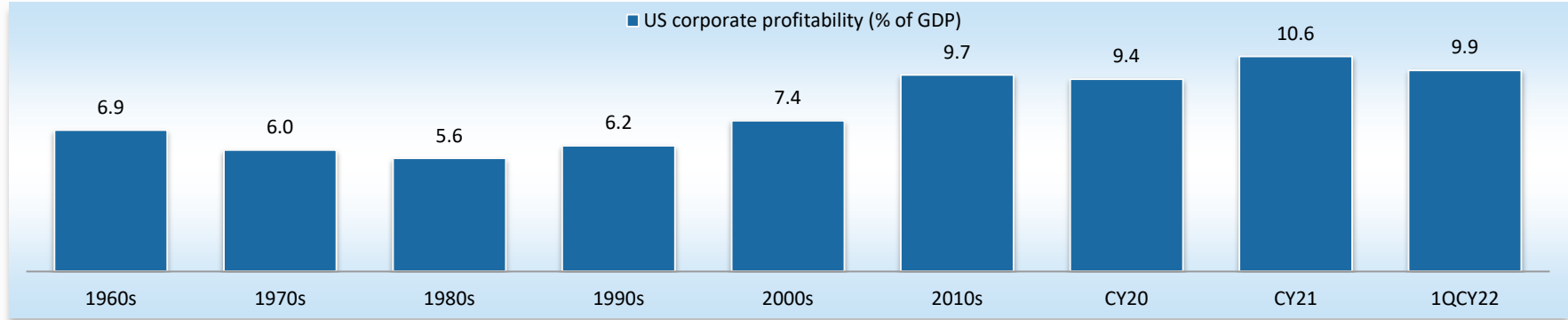
G4 = US Fed, ECB, Bank of Japan and PBoC

Source: Bloomberg, CEIC, MOFSL

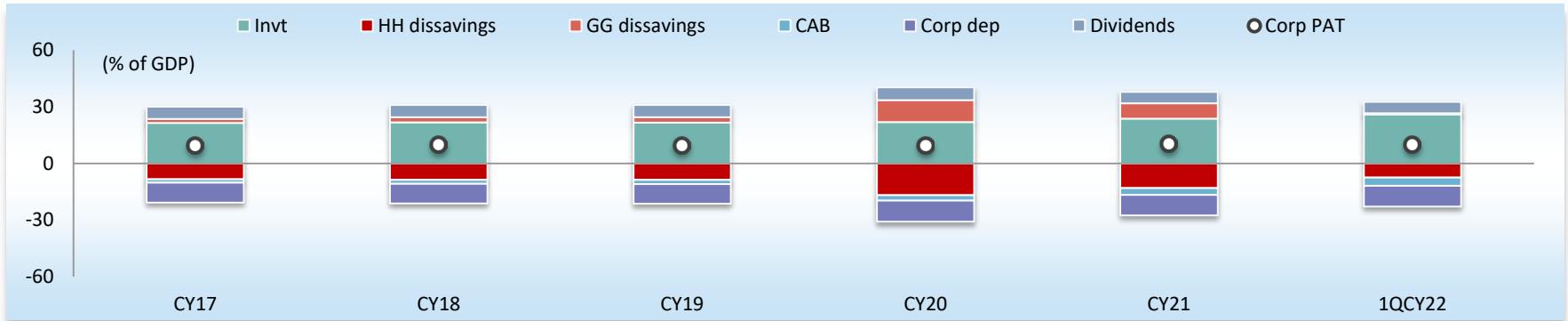
The US corporate profitability moderates slightly from its peak in 1QCY22



The US corporate profitability moderated slightly but remained high at 9.9% of GDP in 1QCY22...



...supported by higher investments (primarily residential)



Corporate profitability = Investments – household savings – government savings + current account balance – corporate depreciation + dividends

Source: US Bureau of Economic Analysis, CEIC, MOFSL

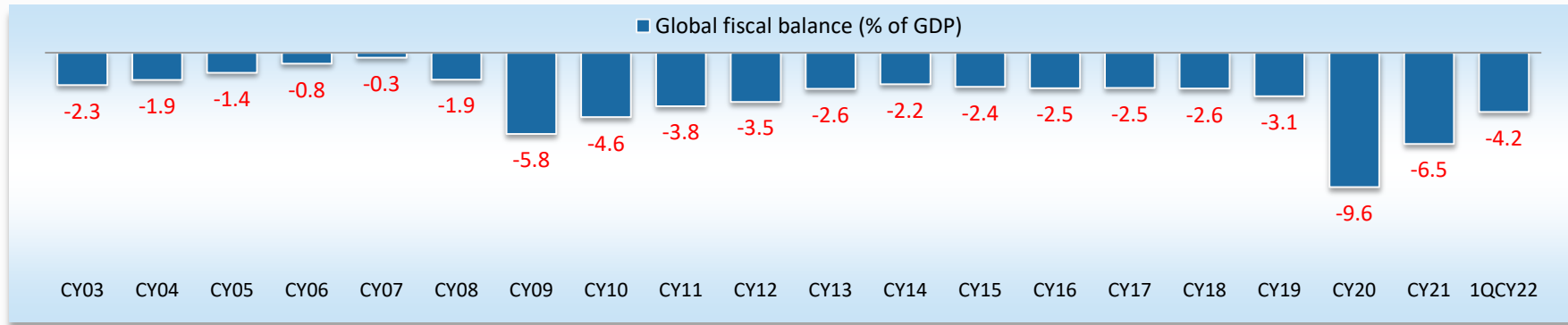


- 01 ➤ Highlights of 2QCY22
- 02 ➤ **Financial market trends:**
 - ❖ Equity markets stabilized in 2QCY22 before rallying in Jul'22
 - ❖ **Bond markets – Falling in AEs, stable-to-higher in E&DEs**
 - ❖ US Dollar (USD) strengthening continues
- 03 ➤ Gross domestic product (GDP) growth and its components
- 04 ➤ How much debt is too much?
- 05 ➤ Inflation: Has likely reached the peak
- 06 ➤ Government finances: Fiscal deficit has narrowed sharply in 1QCY22
- 07 ➤ Monetary economics: Monetary tightening is visible now
- 08 ➤ External sector vulnerabilities are coming to fore in some E&DEs
- 09 ➤ Housing market: Has begun losing steam
- 10 ➤ Labor market trends (for select AEs only): Continue to remain very strong

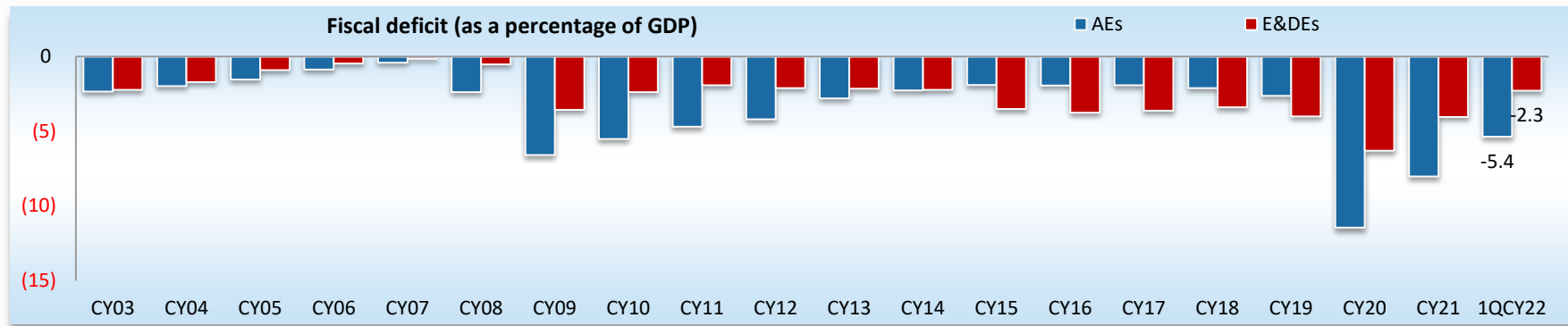


Global fiscal deficit narrows substantially in 1QCY22...

Global fiscal deficit has narrowed in 1QCY22...



...although it remains high in AEs, more than double of that in E&DEs

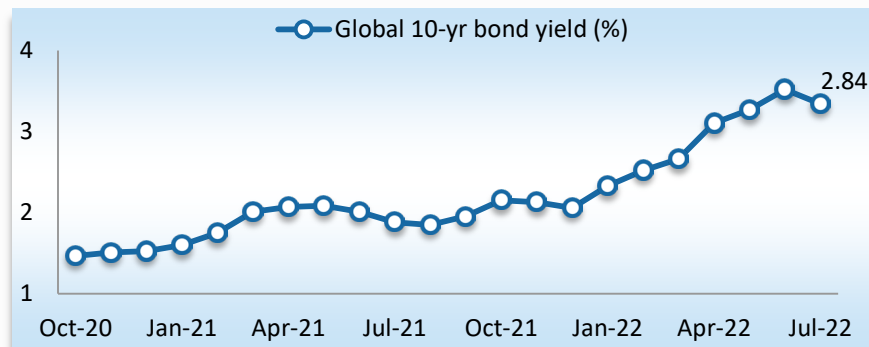


Source: CEIC, Various national sources, MOFSL

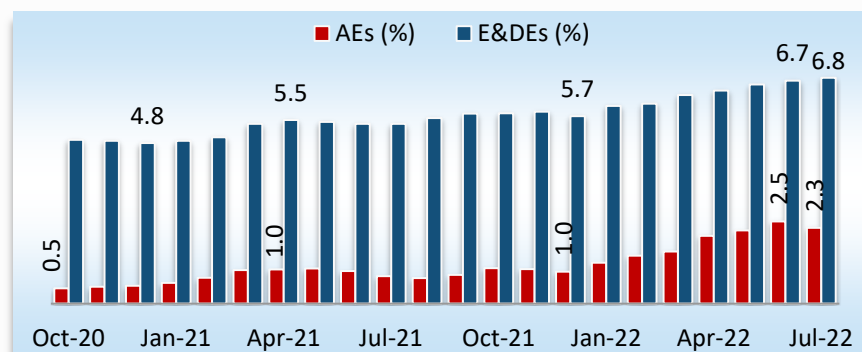
...but bond yields moderate in Jul'22



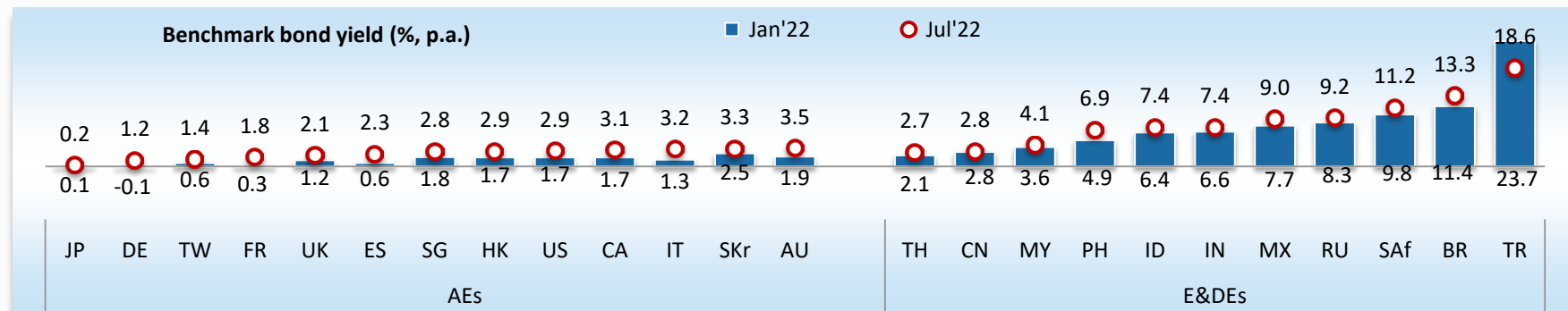
Global 10-yr bond yield has moderated to 2.8% level in Jul'22...



...due to softer AE yields



Bond yields in Jul'22 are higher v/s Jan'22 in all nations, except CN/TR



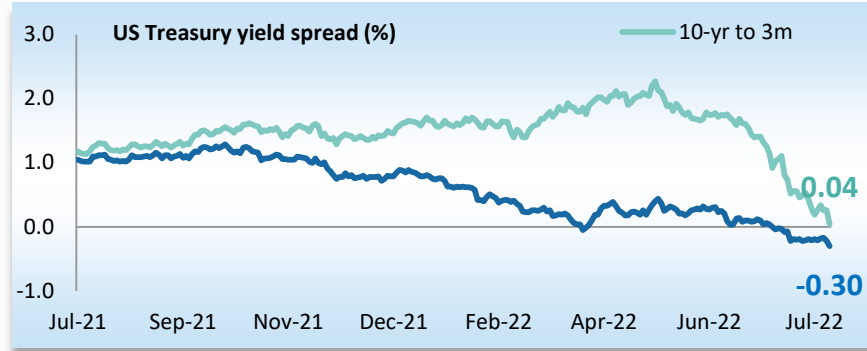
Aggregate indices are weighted by outstanding government debt

Source: Bloomberg, CEIC, MOFSL

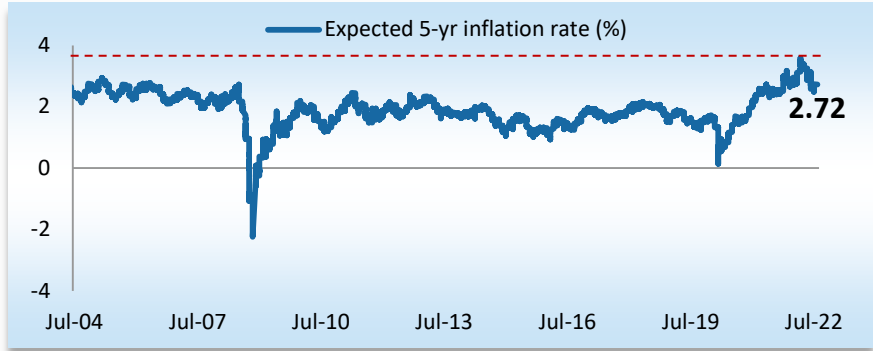
The US bond market tightens in recent weeks



The US Treasury spreads have narrowed substantially in recent months...

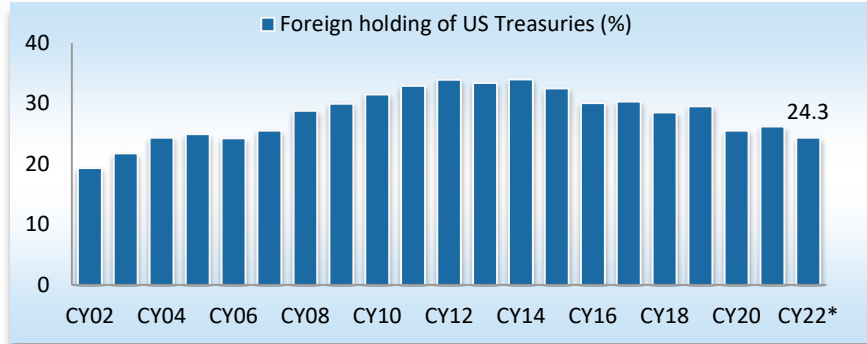


...but the breakeven 5-year inflation has reduced to just 2.7% in Jul'22



All data as of 1st Aug, 2022

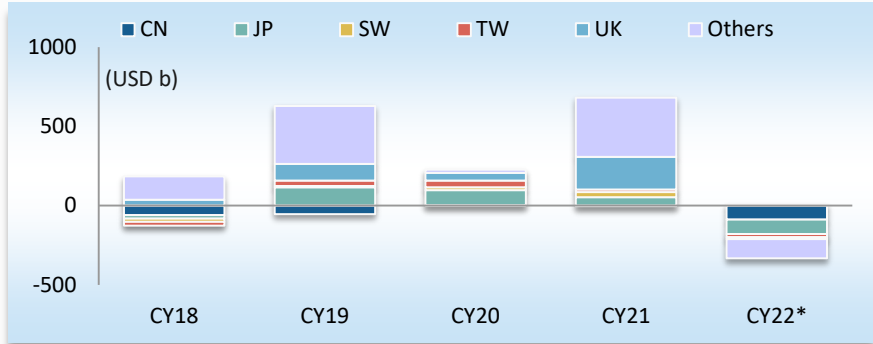
Holdings of US Treasuries by foreigners have also declined continuously...



*Latest data as of May'22

MOTILAL OSWAL

...with all nations posing sellers in CY22 so far (Jan-May'22)



SW = Switzerland

Source: Bloomberg, CEIC, MOFSL

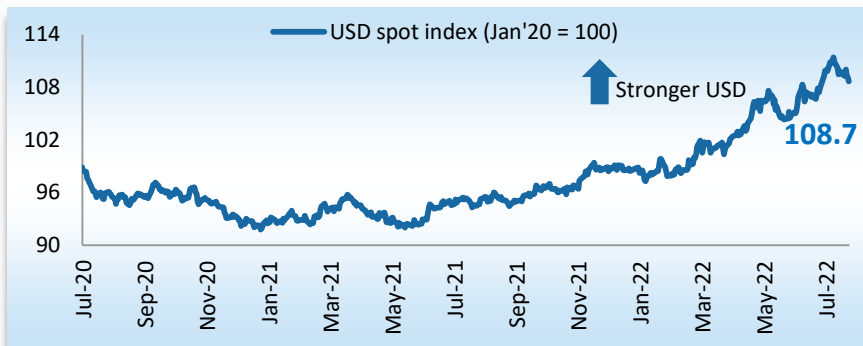


- 01 ➤ Highlights of 2QCY22
- 02 ➤ **Financial market trends:**
 - ❖ Equity markets stabilized in 2QCY22 before rallying in Jul'22
 - ❖ Bond markets – Falling in AEs, stable-to-higher in E&DEs
 - ❖ **US Dollar (USD) strengthening continues**
- 03 ➤ Gross domestic product (GDP) growth and its components
- 04 ➤ How much debt is too much?
- 05 ➤ Inflation: Has likely reached the peak
- 06 ➤ Government finances: Fiscal deficit has narrowed sharply in 1QCY22
- 07 ➤ Monetary economics: Monetary tightening is visible now
- 08 ➤ External sector vulnerabilities are coming to fore in some E&DEs
- 09 ➤ Housing market: Has begun losing steam
- 10 ➤ Labor market trends (for select AEs only): Continue to remain very strong

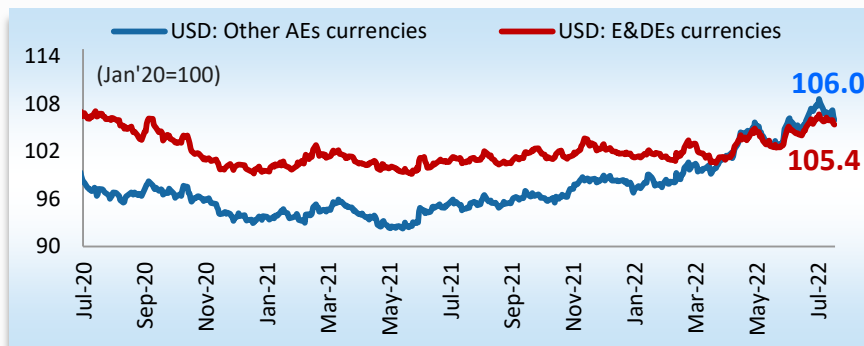
The USD strengthens sharply in CY22



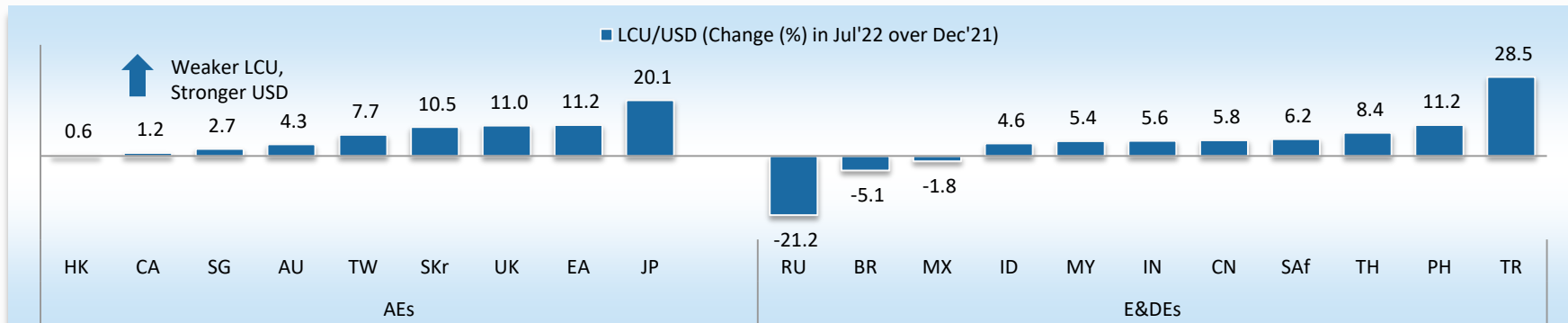
The USD spot index strengthened ~11% in the seven months of CY22...



...against both AEs and E&DEs



Several AE currencies have weakened in double digits against the USD in CY22



Local currency unit (LCU)

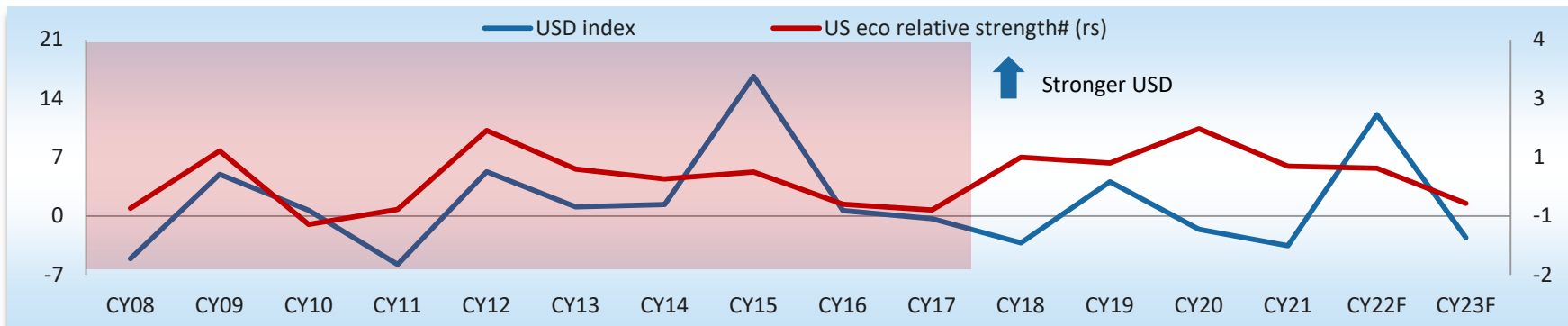
All data as of 1st Aug'22

Source: Bloomberg, CEIC, MOFSL

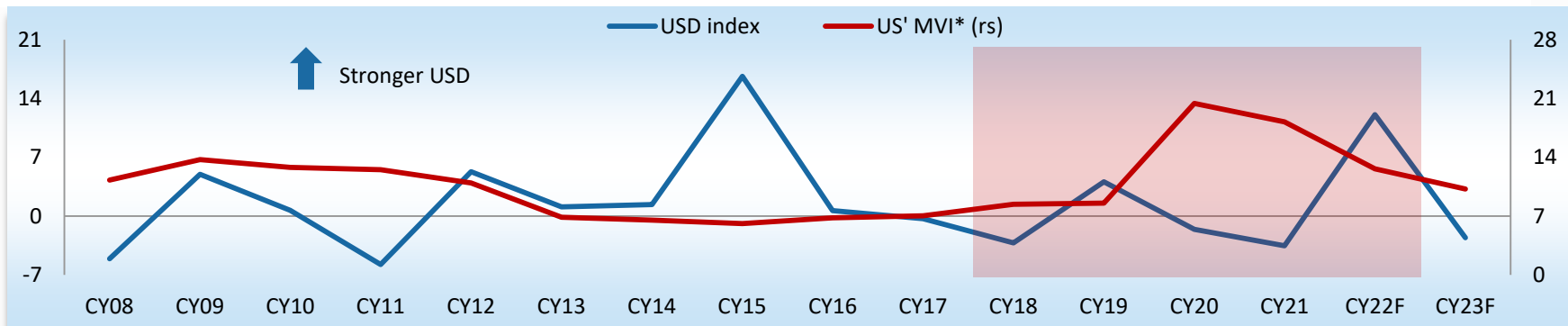
What drives the USD: global growth outlook or the US domestic fundamentals?



The USD saw a strong correlation with its relative economic strength vis-à-vis RoW until CY17...



...but domestic fundamentals have been more important for the USD since CY18 (inverse correlation between US' MVI and USD)



#US real GDP growth v/s that for the rest of the world (RoW)

*Macro Vulnerability Index (MVI) = Fiscal deficit + current account deficit + core PCE inflation
Source: International Monetary Fund (IMF), CEIC, Bloomberg, MOFSL

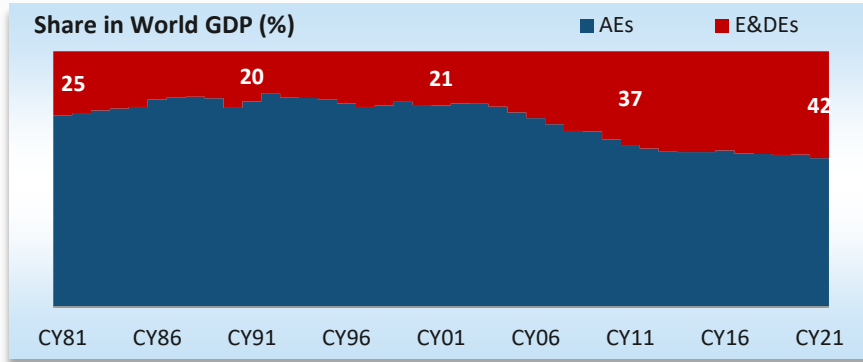


- 01 ➤ Highlights of 2QCY22
- 02 ➤ Financial market trends:
 - ❖ Equity markets stabilized in 2QCY22 before rallying in Jul'22
 - ❖ Bond markets – Falling in AEs, stable-to-higher in E&DEs
 - ❖ US Dollar (USD) strengthening continues
- 03 ➤ Gross domestic product (GDP) growth and its components
- 04 ➤ How much debt is too much?
- 05 ➤ Inflation: Has likely reached the peak
- 06 ➤ Government finances: Fiscal deficit has narrowed sharply in 1QCY22
- 07 ➤ Monetary economics: Monetary tightening is visible now
- 08 ➤ External sector vulnerabilities are coming to fore in some E&DEs
- 09 ➤ Housing market: Has begun losing steam
- 10 ➤ Labor market trends (for select AEs only): Continue to remain very strong

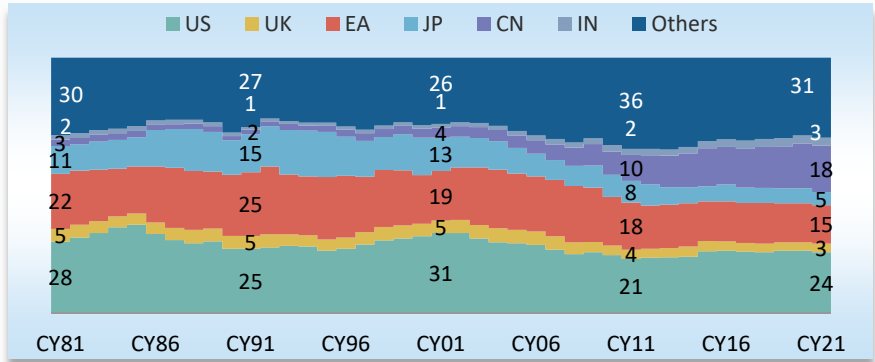
Long-term trends in global GDP since the 1980s



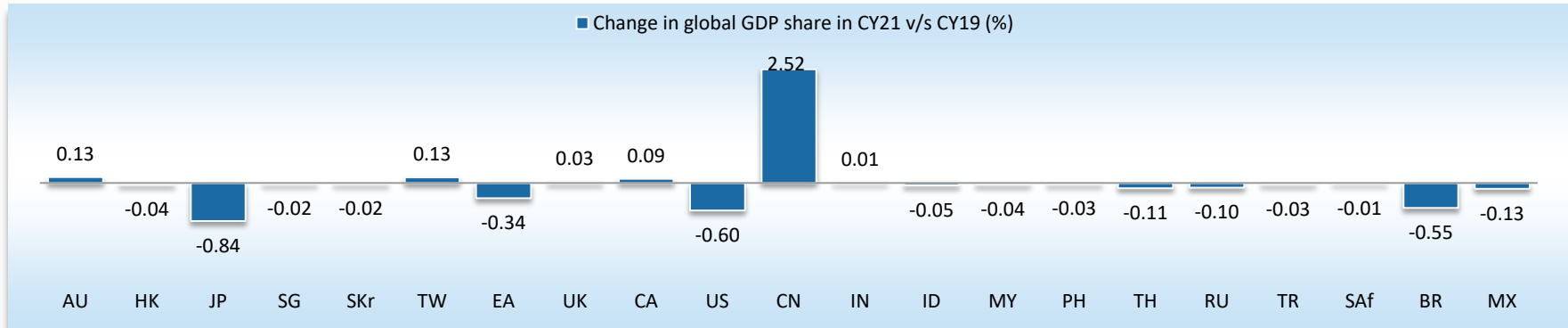
E&DEs now account for 42% of global GDP...



...with CN/IN gaining at the cost of Europe/JP



Among key E&DES, only CN gained, while IN/Saf maintained its share in Global GDP; JP, BR, EA and the US lost the most

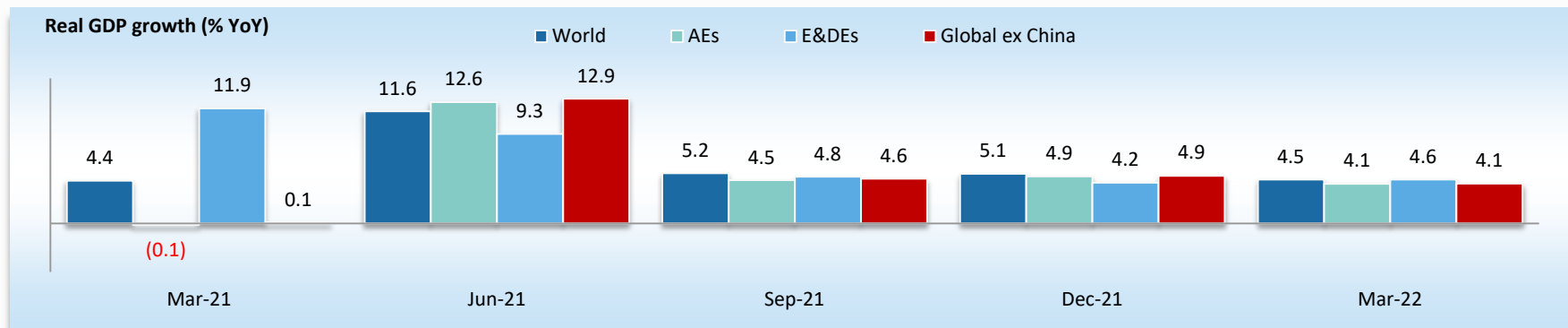


Source: IMF, CEIC, Various national sources, MOFSL

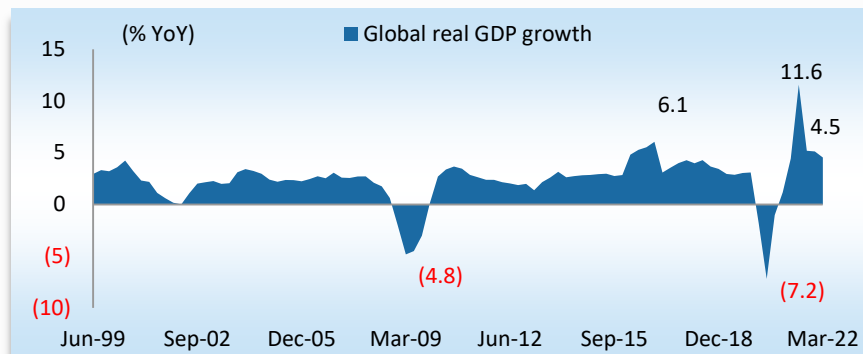
Global real GDP grows 4.5% YoY in 1QCY22...



The global economy grew 4.5% YoY in 1QCY22, lower than in 2HCY21, but similar to 1QCY21

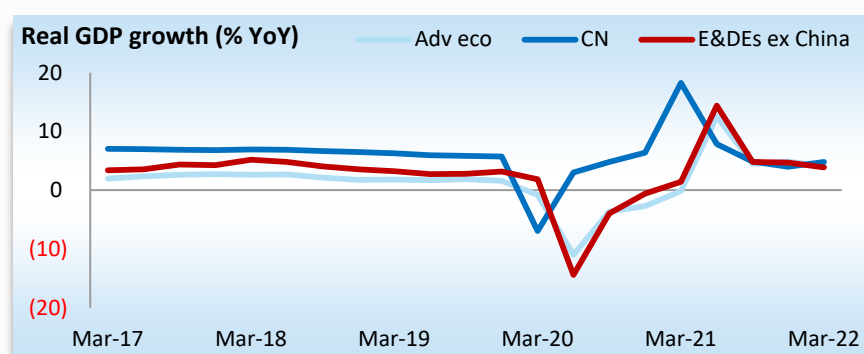


Long-term trends in global real GDP growth



Aggregate data is weighted by nominal GDP

Excluding CN, E&DEs grew at four-quarter low of 3.9% YoY in 1QCY22

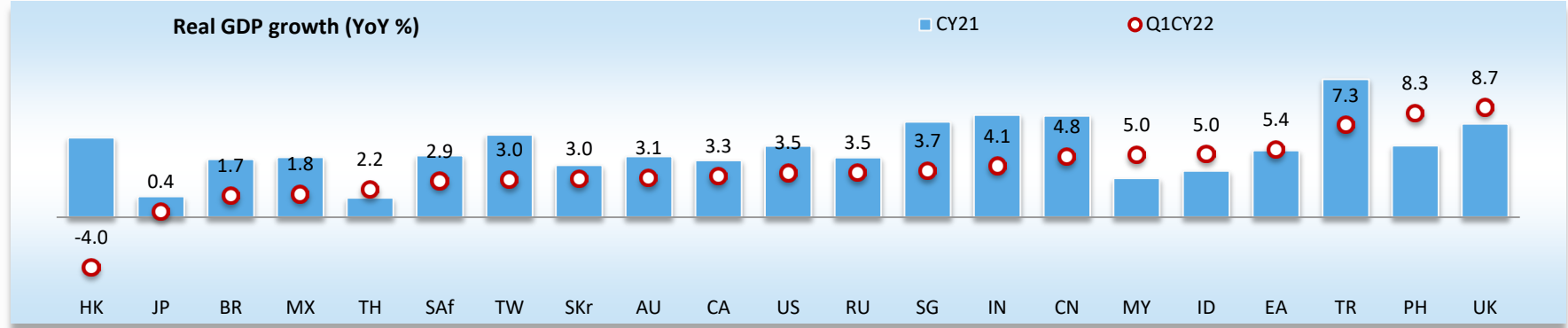


Source: CEIC, various national sources, MOFSL

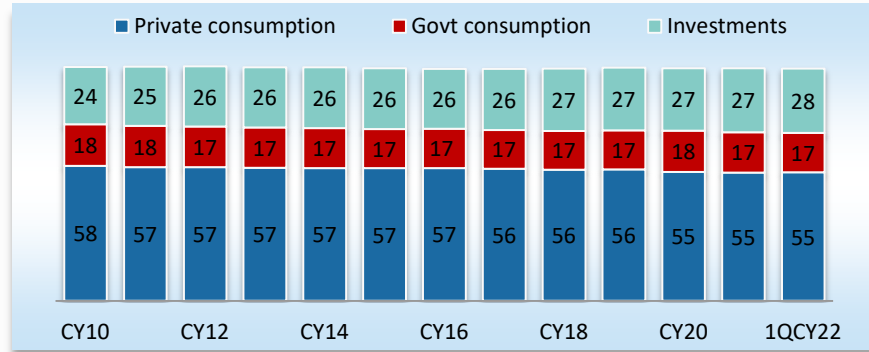
...with striking differences among nations



Real GDP growth in IN was somewhere in the middle at 4.1% YoY in 1QCY22

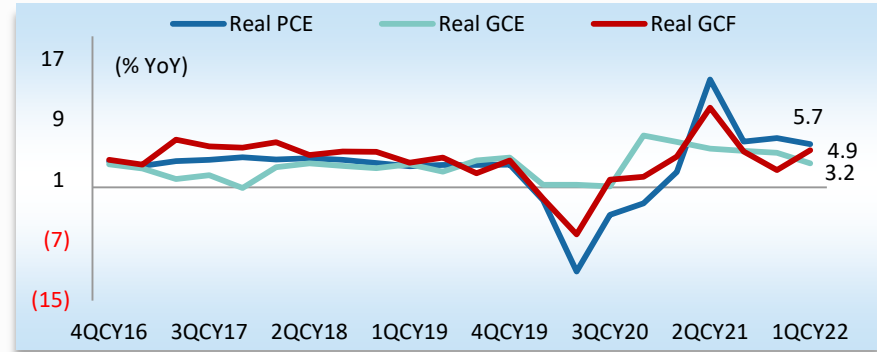


Share of private consumption remained constant in 1QCY22



Does not add up to 100% as there are 'net exports' and 'discrepancies' as well

Softening in GDP growth was broad-based (v/s 4QCY21)

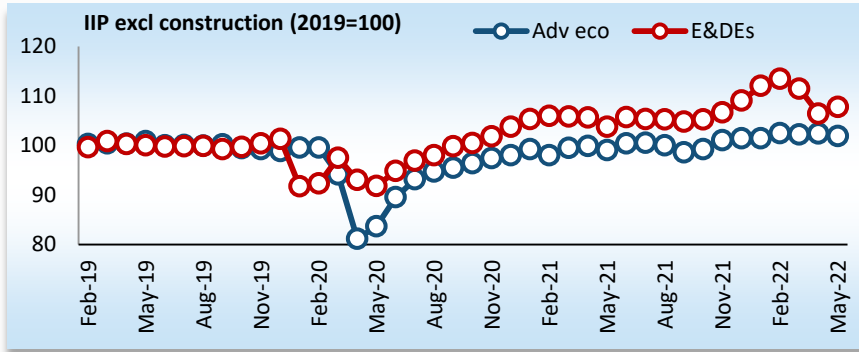


Source: CEIC, various national sources, MOFSL

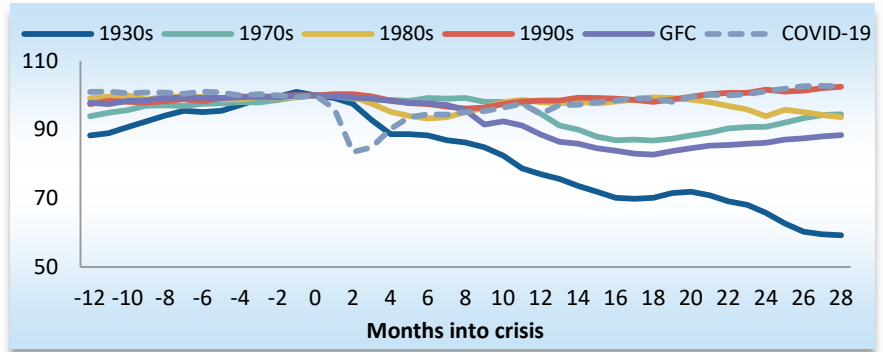
Industrial production continues to grow decently in E&DEs...



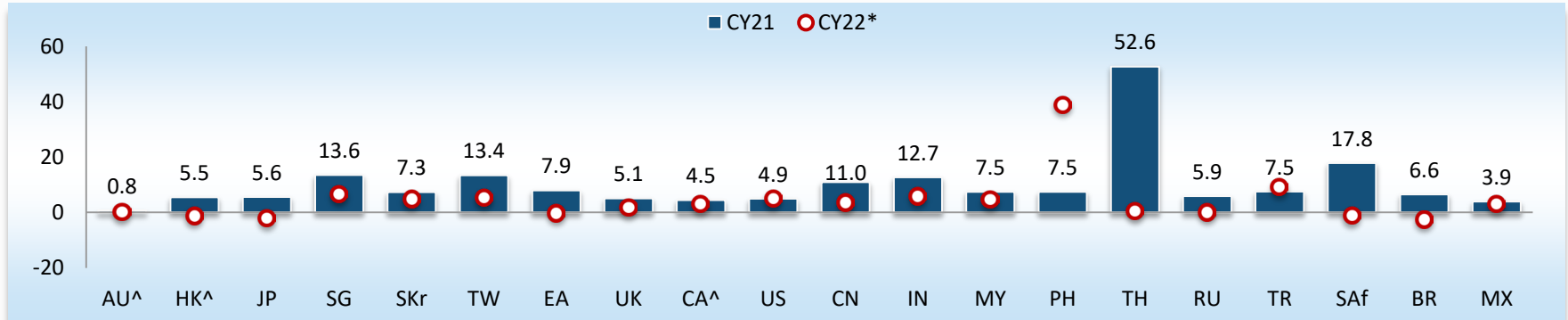
IIP remained subdued in AEs v/s E&DEs...



...but, compared with previous crisis, saw total recovery in the US



Industrial production has weakened in all economies except PH and TR in CY22*



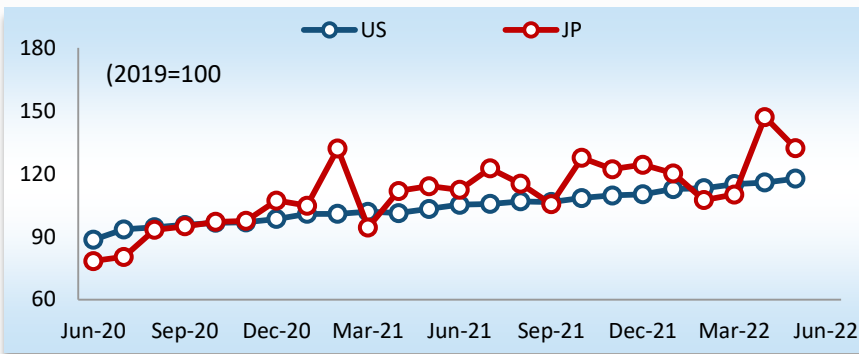
^Data up to Mar'22; *Up to May'22 otherwise

Source: CPB Netherlands, National Bureau of Economic Research (NBER), CEIC, MOFSL
Starting dates for recession from NBER (1930s = Aug'28, 1970s = Jan'73, 1980s = Jan'80, 1990s = Jul'90, GFC = Dec'07, COVID-19 = Feb'20)

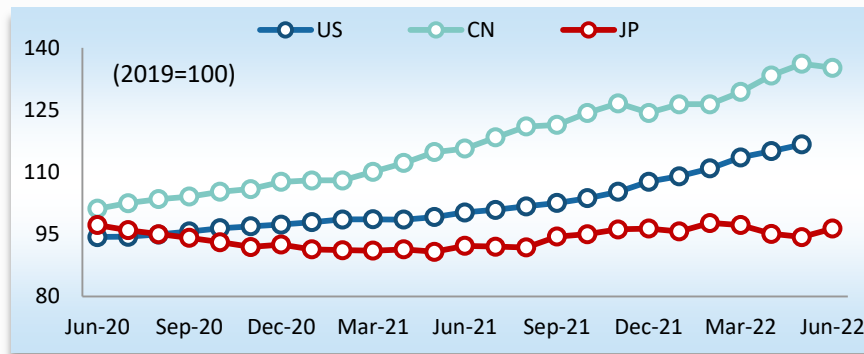
...and capacity utilization is back to pre-COVID levels



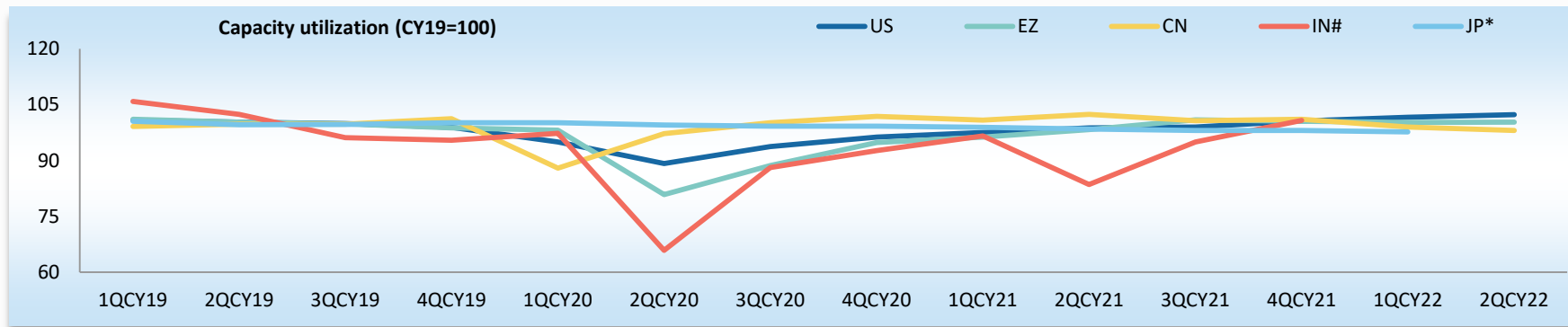
New manufacturing orders exceeded pre-COVID levels in AEs...



...and inventory levels picking up in the US, high in CN but subdued in JP



Capacity utilizations steadily come in line with pre-COVID levels in most AEs



India data up to 4QCY21 and *JP data up to 1QCY22

Source: CEIC, various national sources, MOFSL

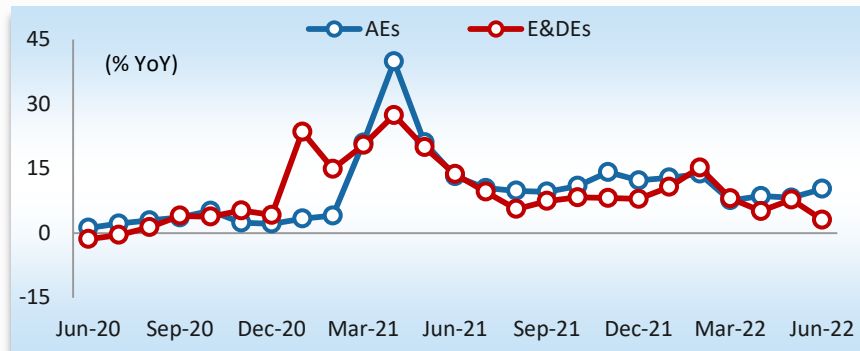
Retail sales continue to grow decently in 2QCY22...



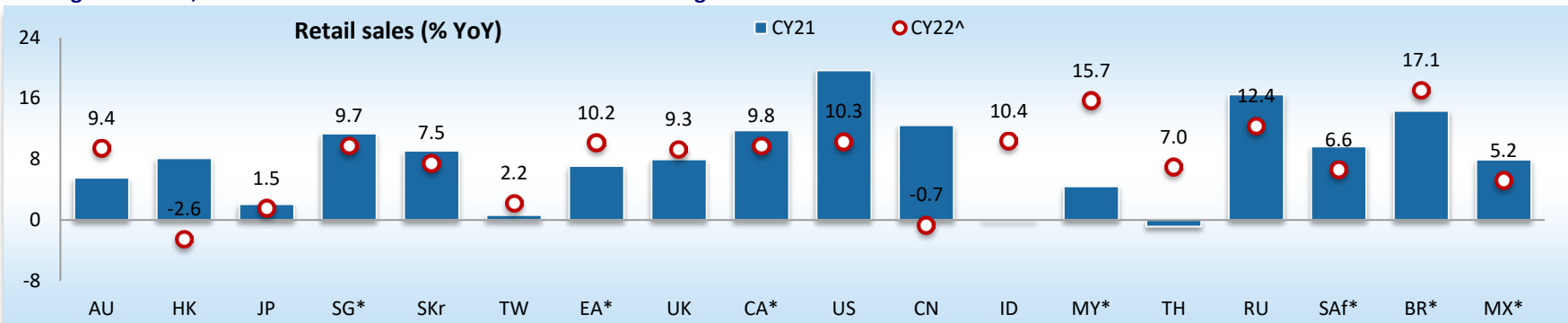
Nominal retail sales continued to grow decently in 2QCY22...



...with better growth in AEs than E&DEs



Barring HK and CN, retail sales increased in all other economies during CY22^



#Based on 37 nations; data unavailable for IN and PH

^ Up to Jun'22, * Available up to May'22

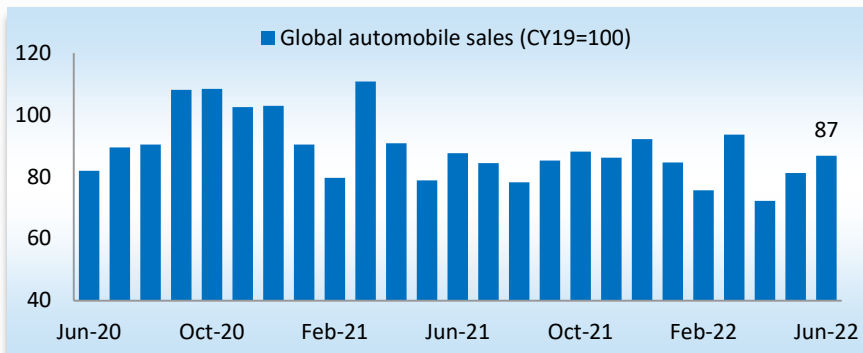
Jun'22 not yet available for SG, EZ, CA, MY, TR, Saf, BR and MX

Source: CEIC, various national sources, MOFSL

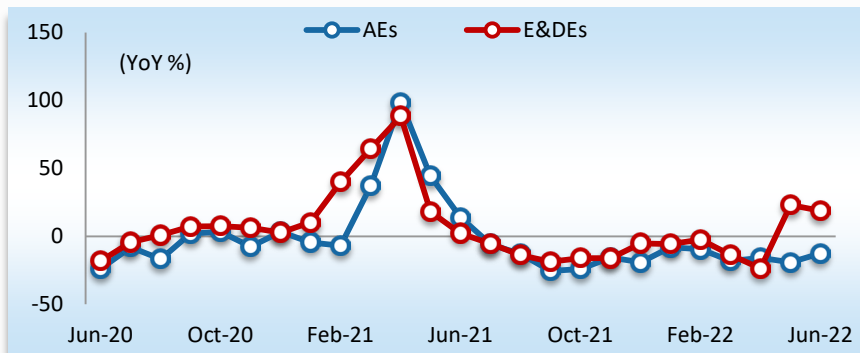
...while global Automobile sector is weak



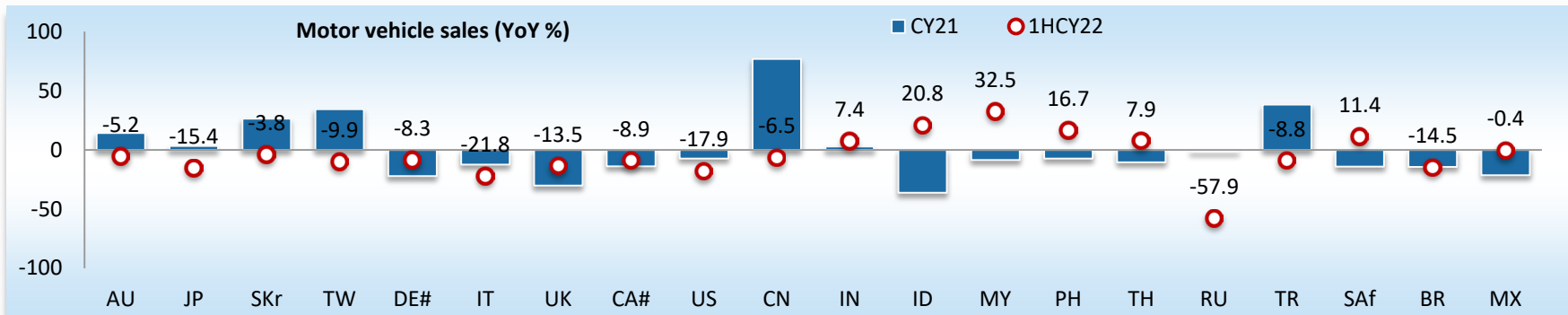
Global Automobile sales were still 13% lower in Jun'22 than in CY19...



...with sales declining continuously in AEs; E&DEs recovered in May-Jun'22



Auto sales declined in all AEs and CN as well; Most E&DEs, however, posted growth in 1HCY22



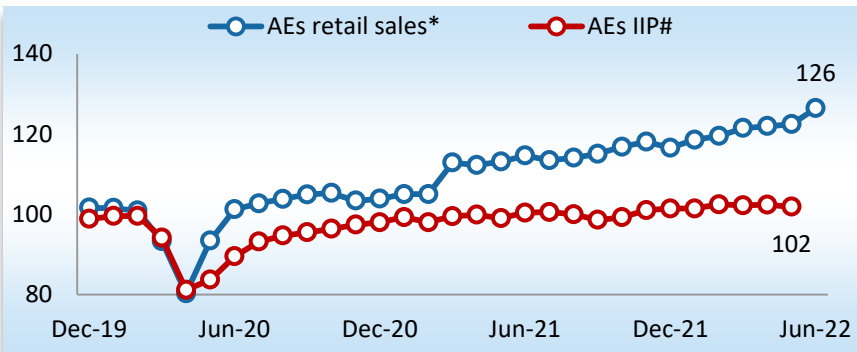
DE/CA data unavailable for Jun'22

Source: CEIC, various national sources, MOFSL

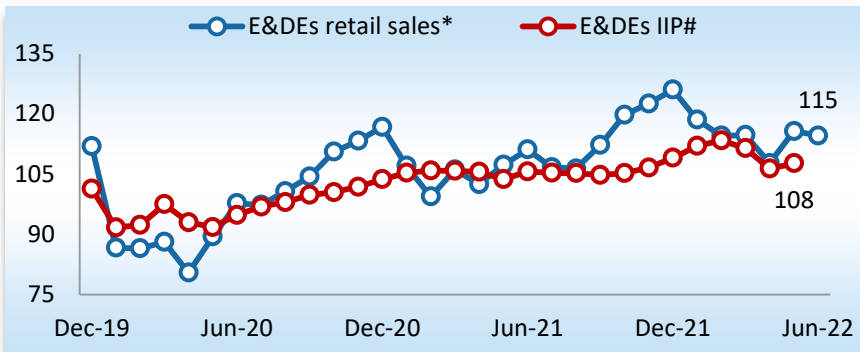
Consumption v/s investment: Different growth drivers in AEs v/s E&DEs



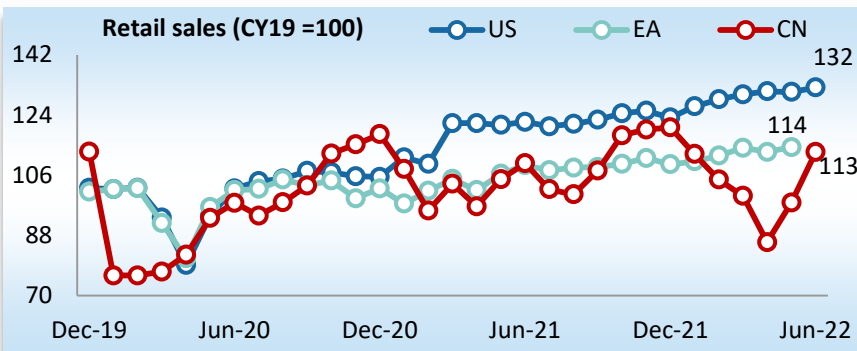
Retail sales saw stronger recovery in AEs...



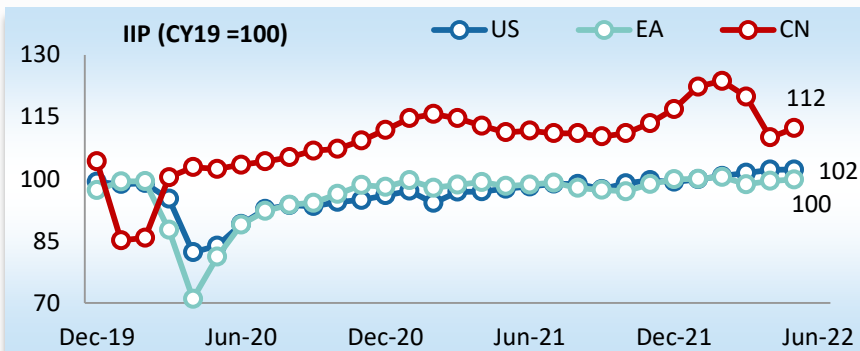
...while the divergence was not so stark in E&DEs



Recovery was seen in retail sales in all economies



In contrast, IIP was up in CN, but only slightly higher than CY19 in the US/EA



*Based on a sample of 37 nations (no data available for IN and PH)

From the World Trade Monitor

Source: CEIC, CPB Netherlands, MOFSL

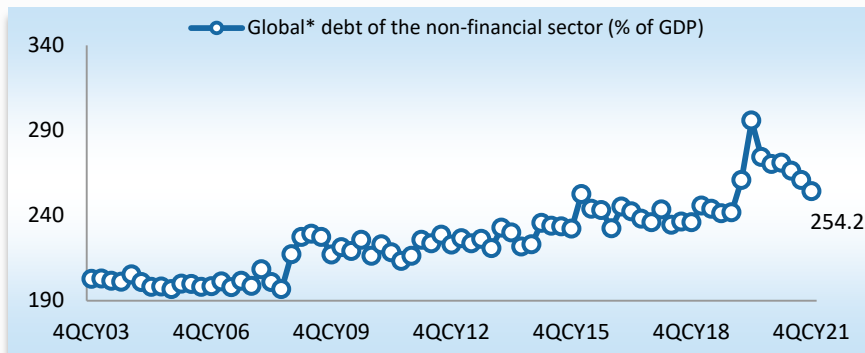


- 01 ➤ Highlights of 2QCY22
- 02 ➤ Financial market trends:
 - ❖ Equity markets stabilized in 2QCY22 before rallying in Jul'22
 - ❖ Bond markets – Falling in AEs, stable-to-higher in E&DEs
 - ❖ US Dollar (USD) strengthening continues
- 03 ➤ Gross domestic product (GDP) growth and its components
- 04 ➤ **How much debt is too much?**
- 05 ➤ Inflation: Has likely reached the peak
- 06 ➤ Government finances: Fiscal deficit has narrowed sharply in 1QCY22
- 07 ➤ Monetary economics: Monetary tightening is visible now
- 08 ➤ External sector vulnerabilities are coming to fore in some E&DEs
- 09 ➤ Housing market: Has begun losing steam
- 10 ➤ Labor market trends (for select AEs only): Continue to remain very strong

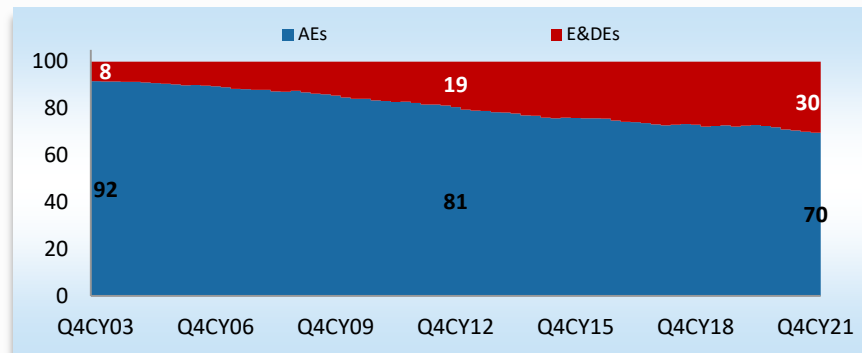
Global debt-to-GDP ratio has moderated further in 4QCY21



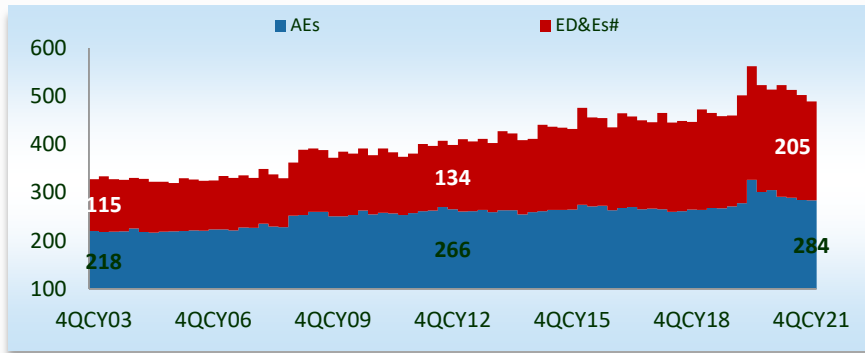
Global debt peaked at 296% of GDP in 2QCY20 and fell to 254% in 4QCY21



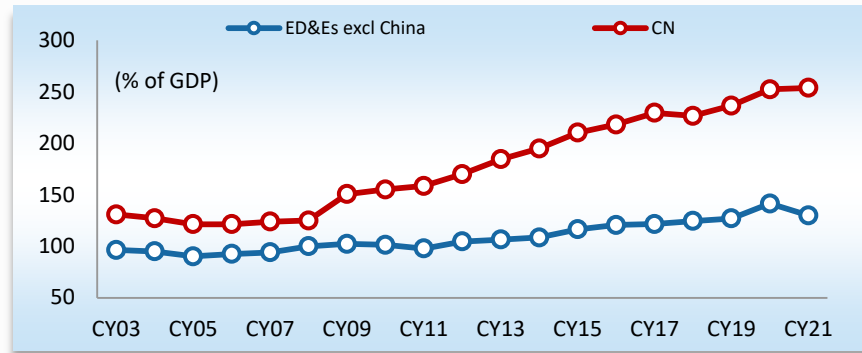
The share of AEs remained unchanged at 70% in 3QCY21



Debt-to-GDP ratio decreased in both AEs and E&DEs



Excl. CN, debt for E&DEs reduced to 130% in CY21



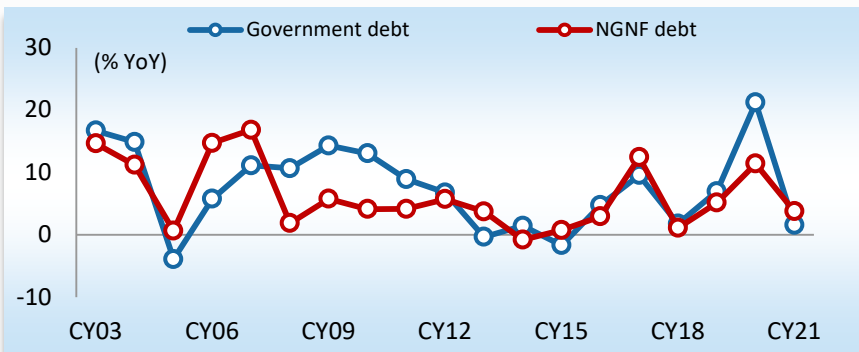
*In addition to our sample of 37 nations (TW/PH excluded), this section includes eight more nations (Czech Republic, Denmark, Sweden, Norway, SW, Hungary, Poland, and Argentina)

Source: Bank for International Settlements (BIS), IMF CEIC, MOFSL

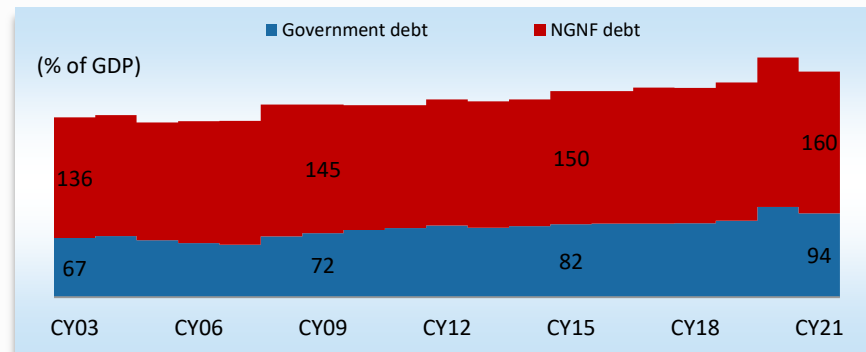
The moderation has been broad-based



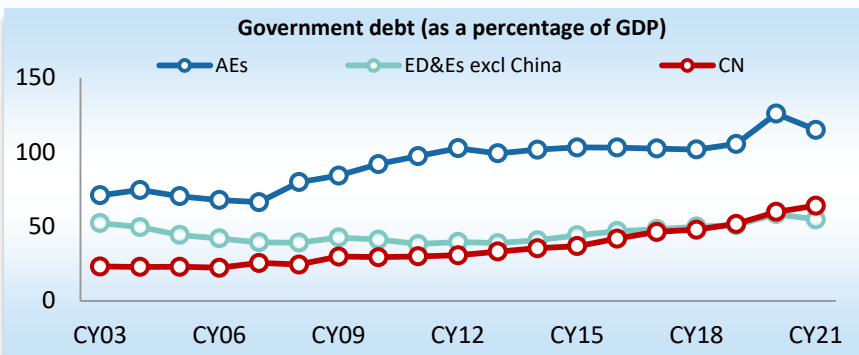
Government debt moderated faster than NGNF debt in CY21



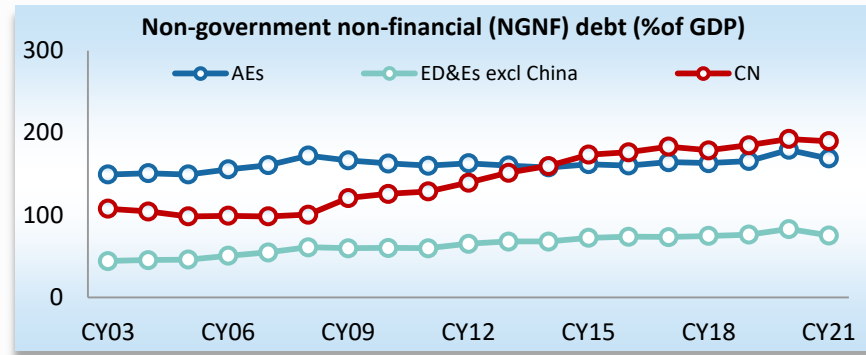
Both government and NGNF debt moderated in CY21



Government debt in CN rose while that in E&DEs reduced in 4QCY21...



...but NGNF debt in CN is more comparable to that in AEs



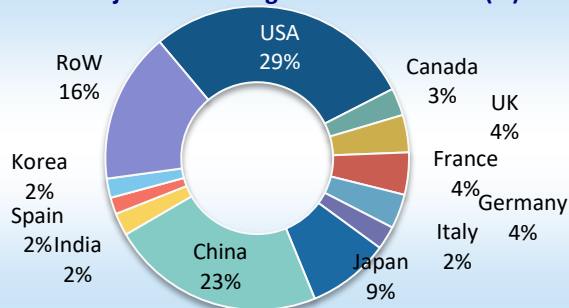
Source: BIS, CEIC, MOFSL

Global debt eases further in 1QCY22 (for select economies)

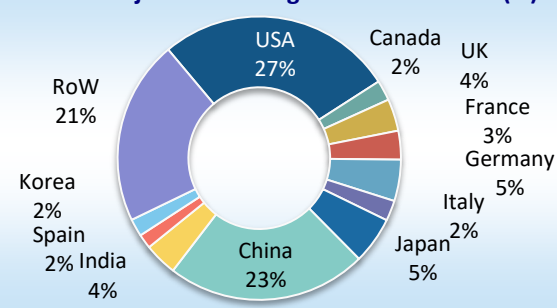


Share of major economies in global GDP and debt was similar in CY21

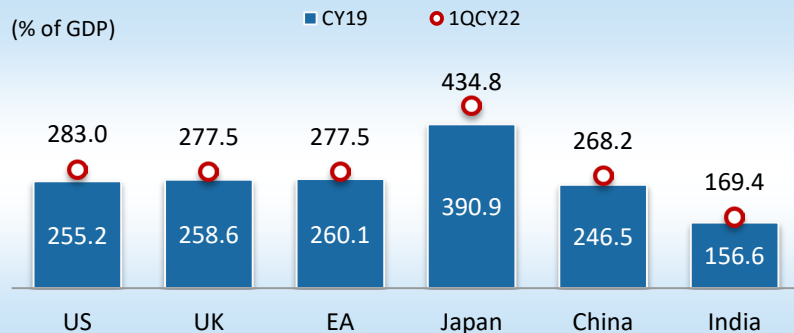
Share of major nations in global debt in CY21 (%)



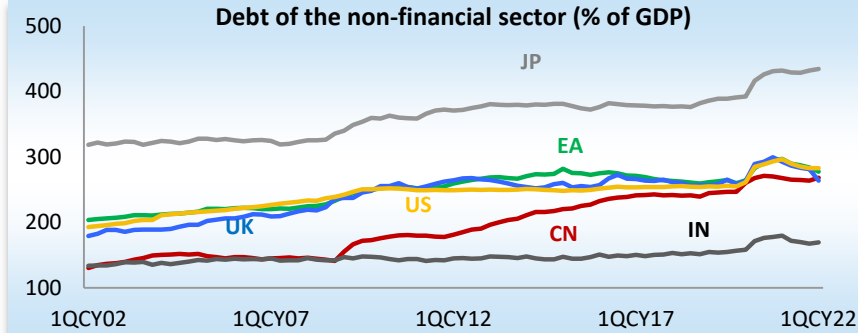
Share of major nations in global GDP in CY21 (%)



The global debt-to-GDP ratio eased further in 1QCY22...



...but remained high for most nations



Source: IMF, BIS, CEIC, Various national sources, MOFSL

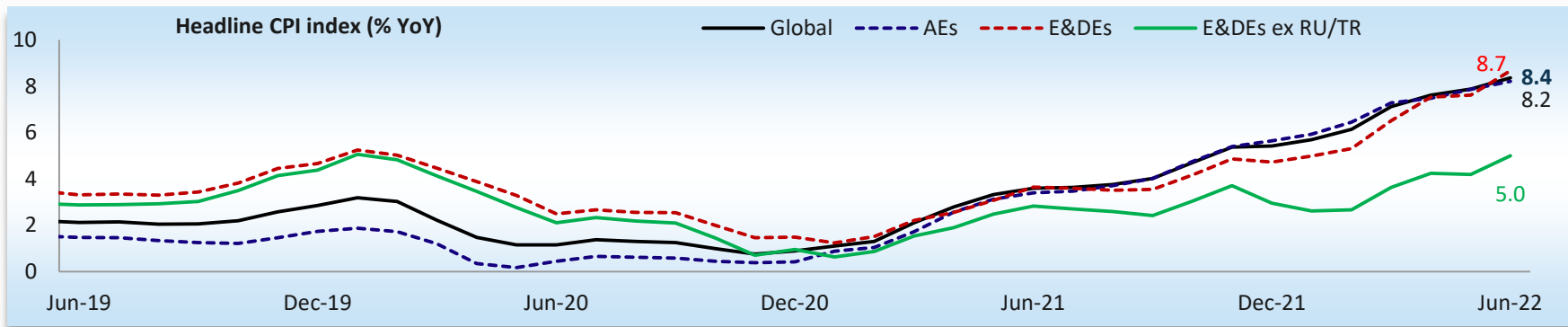


- 01 ➤ Highlights of 2QCY22
- 02 ➤ Financial market trends:
 - ❖ Equity markets stabilized in 2QCY22 before rallying in Jul'22
 - ❖ Bond markets – Falling in AEs, stable-to-higher in E&DEs
 - ❖ US Dollar (USD) strengthening continues
- 03 ➤ Gross domestic product (GDP) growth and its components
- 04 ➤ How much debt is too much?
- 05 ➤ Inflation: Has likely reached the peak
- 06 ➤ Government finances: Fiscal deficit has narrowed sharply in 1QCY22
- 07 ➤ Monetary economics: Monetary tightening is visible now
- 08 ➤ External sector vulnerabilities are coming to fore in some E&DEs
- 09 ➤ Housing market: Has begun losing steam
- 10 ➤ Labor market trends (for select AEs only): Continue to remain very strong

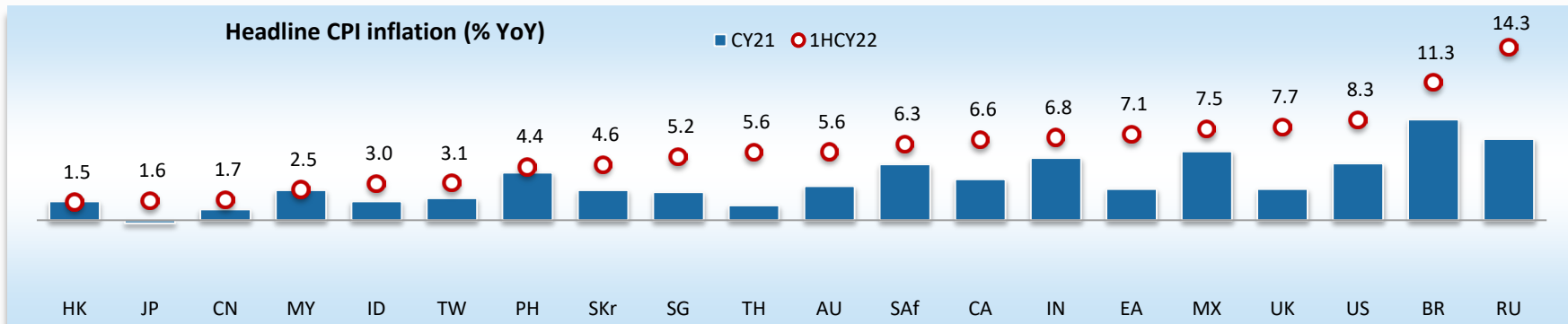
Global headline CPI inflation at a multi-decade high...



Headline CPI inflation at multi-decadal highs all across the globe



Inflation in 1HCY22 higher than CY21 in all nations barring HK/MY



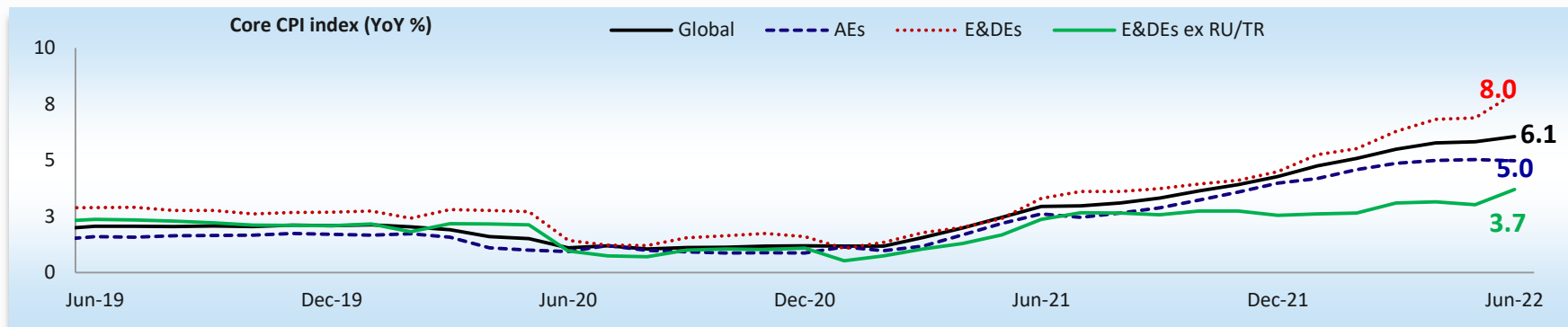
Aggregate indices are weighted by nominal GDP

Source: CEIC, various national sources, MOFSL

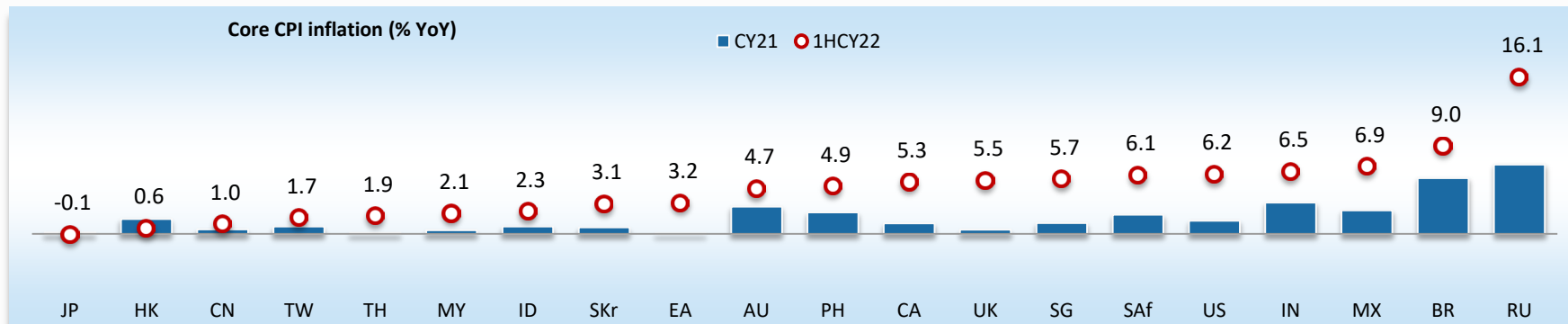
...and core inflation stable for the last three months in AEs



Core inflation is also very high all over the world but it softened slightly in Jun'22 in AEs



Core inflation in 1HCY22 higher than CY21 in all nations except JP and HK



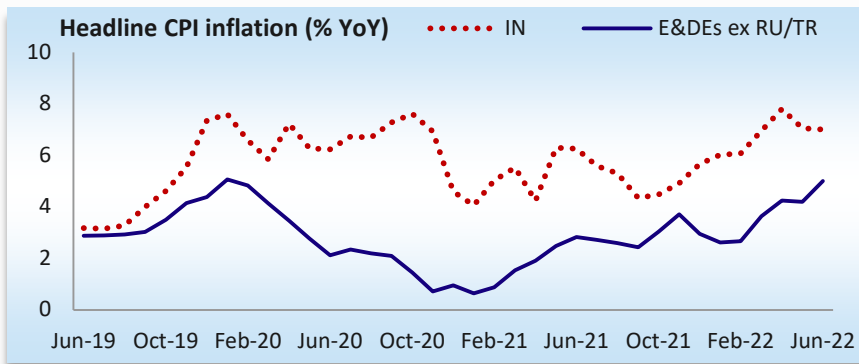
Aggregate indices are weighted by nominal GDP

Source: CEIC, various national sources, MOFSL

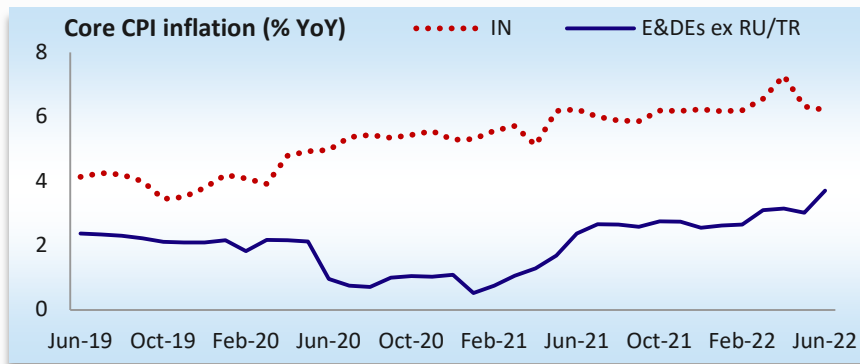
Falling core inflation reflects the role of energy prices



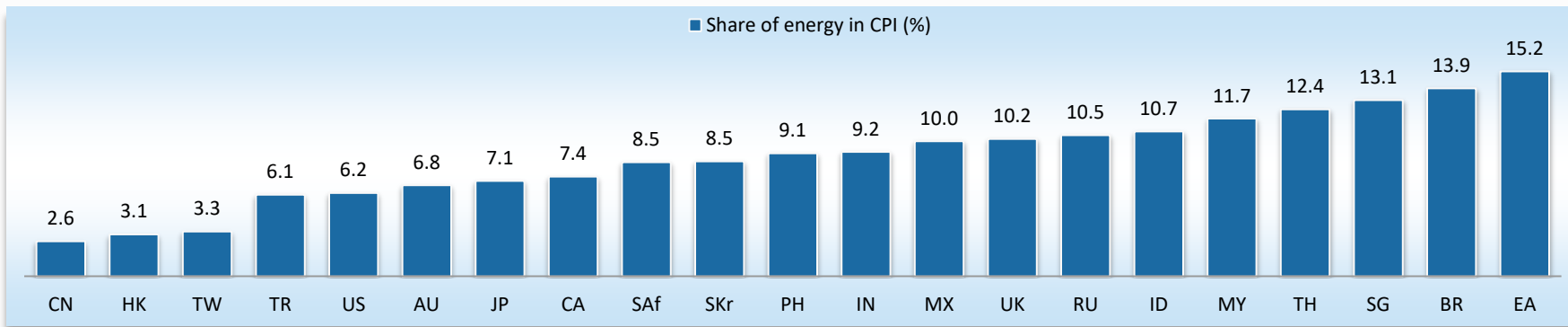
The surge in headline inflation in IN is lesser than broad E&DEs...



...and so is the rise in core inflation



CN/HK has the least share of energy in its CPI-basket, while EA/BR has the highest share



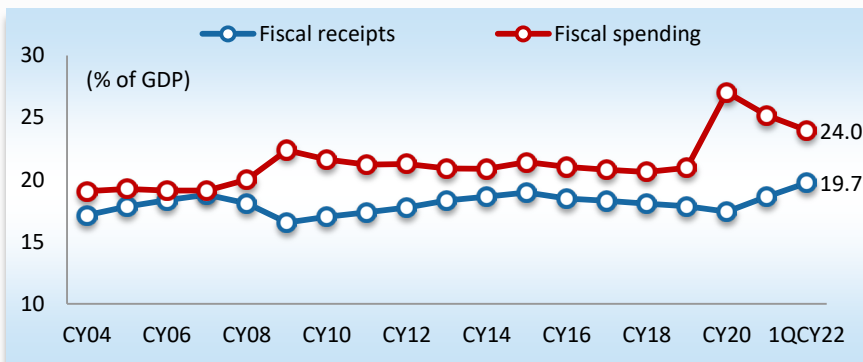


- 01 ➤ Highlights of 2QCY22
- 02 ➤ Financial market trends:
 - ❖ Equity markets stabilized in 2QCY22 before rallying in Jul'22
 - ❖ Bond markets – Falling in AEs, stable-to-higher in E&DEs
 - ❖ US Dollar (USD) strengthening continues
- 03 ➤ Gross domestic product (GDP) growth and its components
- 04 ➤ How much debt is too much?
- 05 ➤ Inflation: Has likely reached the peak
- 06 ➤ Government finances: Fiscal deficit has narrowed sharply in 1QCY22
- 07 ➤ Monetary economics: Monetary tightening is visible now
- 08 ➤ External sector vulnerabilities are coming to fore in some E&DEs
- 09 ➤ Housing market: Has begun losing steam
- 10 ➤ Labor market trends (for select AEs only): Continue to remain very strong

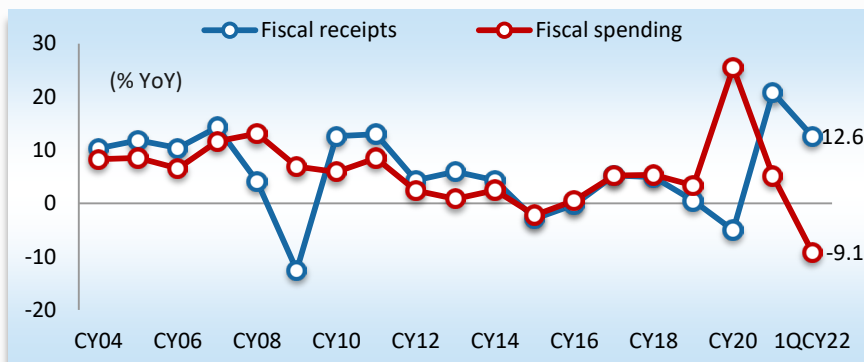
Global fiscal deficit narrows substantially in 1QCY22...



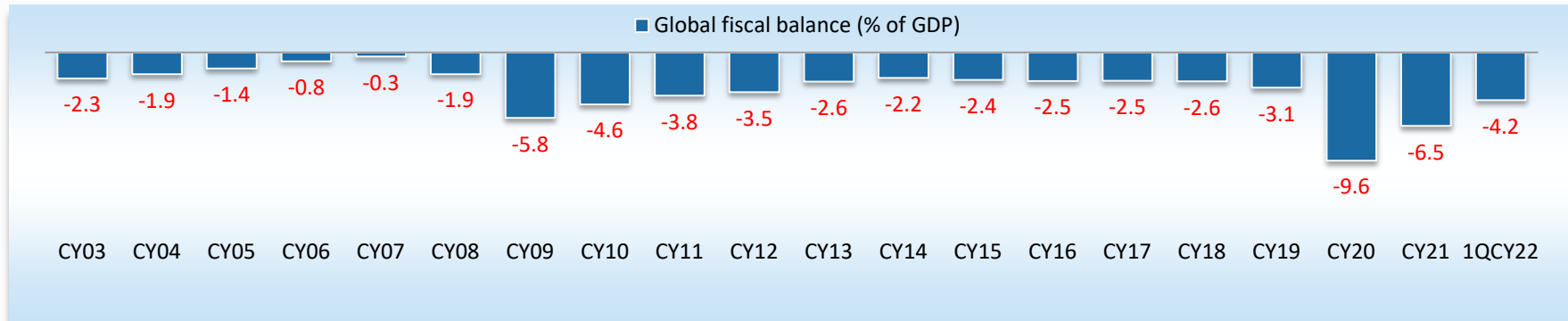
Global fiscal spending remained high in 1QCY22...



...but declined in YoY terms in 1QCY22



Global fiscal deficit narrowed sharply in 1QCY22, but was still higher v/s pre-COVID levels



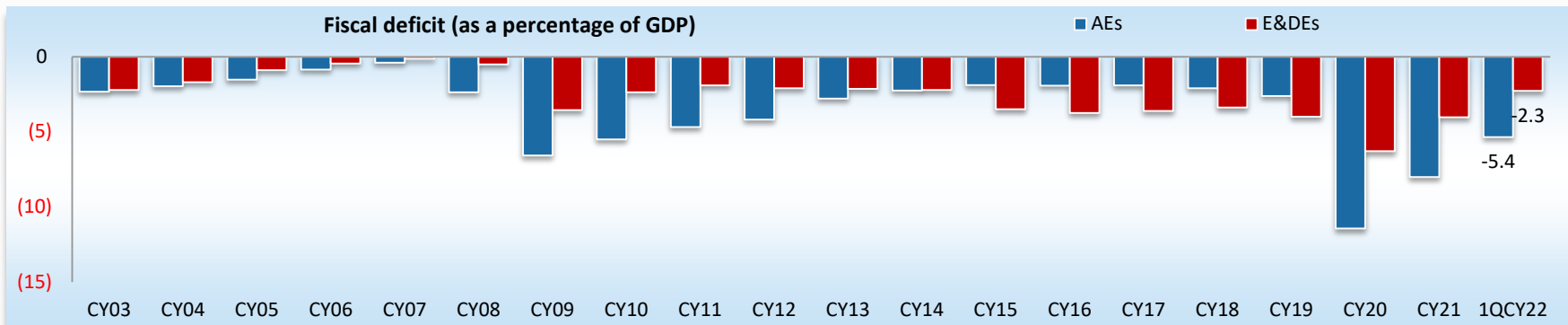
Aggregate indices are calculated using USD values

Source: CEIC, various national sources, MOFSL

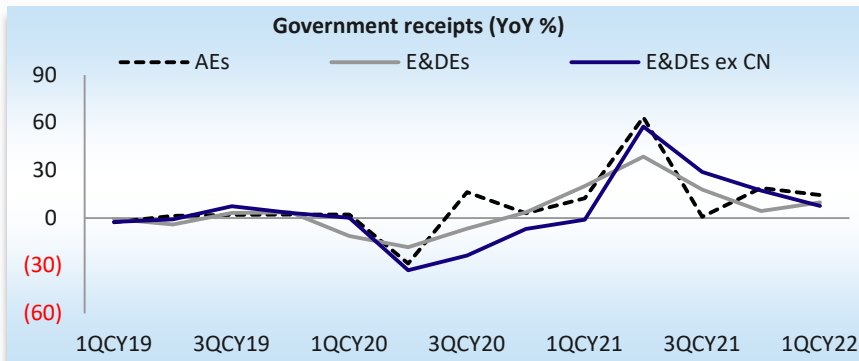
...primarily led by still easy fiscal policy in AEs



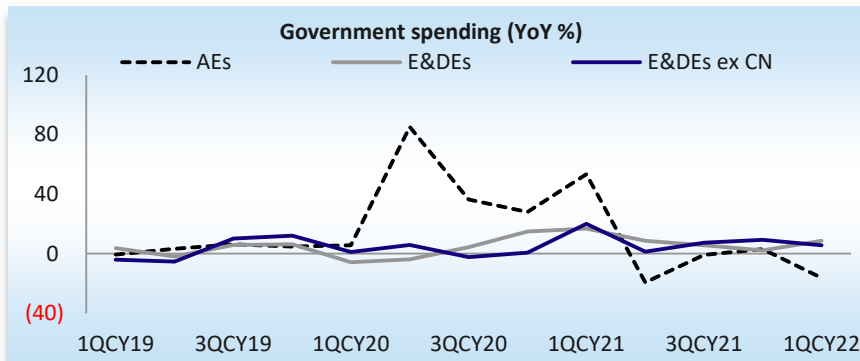
The fall in global fiscal deficit in 1QCY22 was due to both AEs and E&DEs



Fiscal receipts moderated everywhere...



...and fiscal spending declined in AEs in 1QCY22



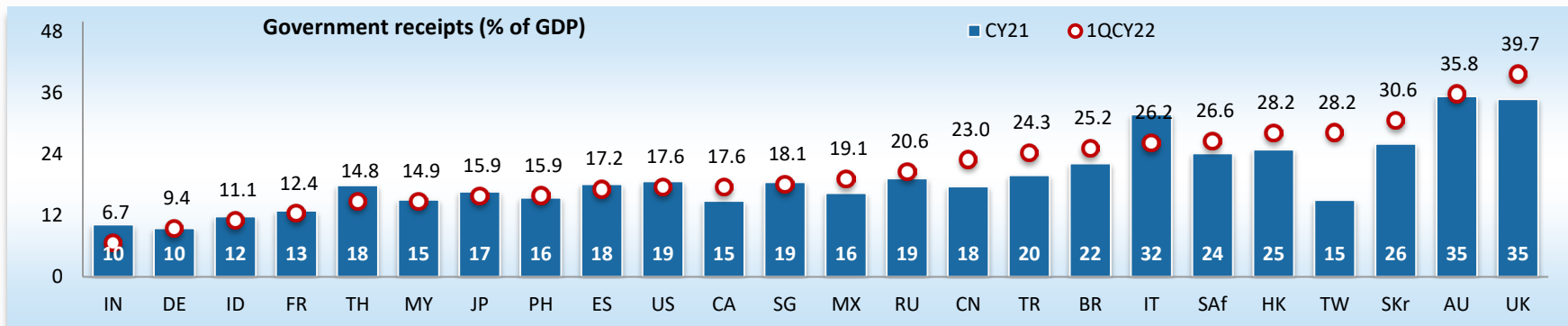
Aggregate indices are calculated using USD values

Source: CEIC, various national sources, MOFSL

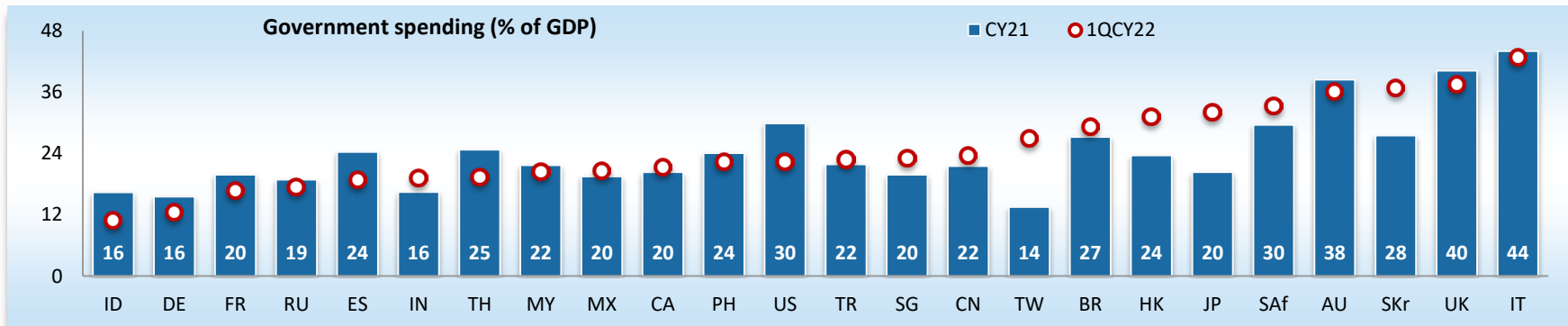
IN has among the lowest receipts in 1QCY22



IN's government receipts fell to the lowest at 6.7% of GDP in 1QCY22 v/s 10% of GDP in CY21



However, IN's fiscal spending increased in 1QCY22 v/s CY21



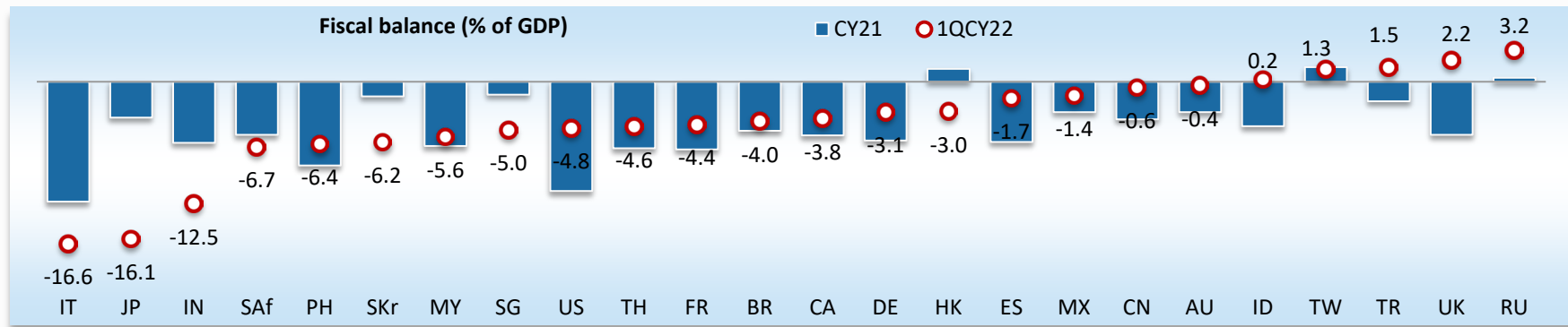
Data for central government only for most E&DEs

Source: CEIC, various national sources, MOFSL

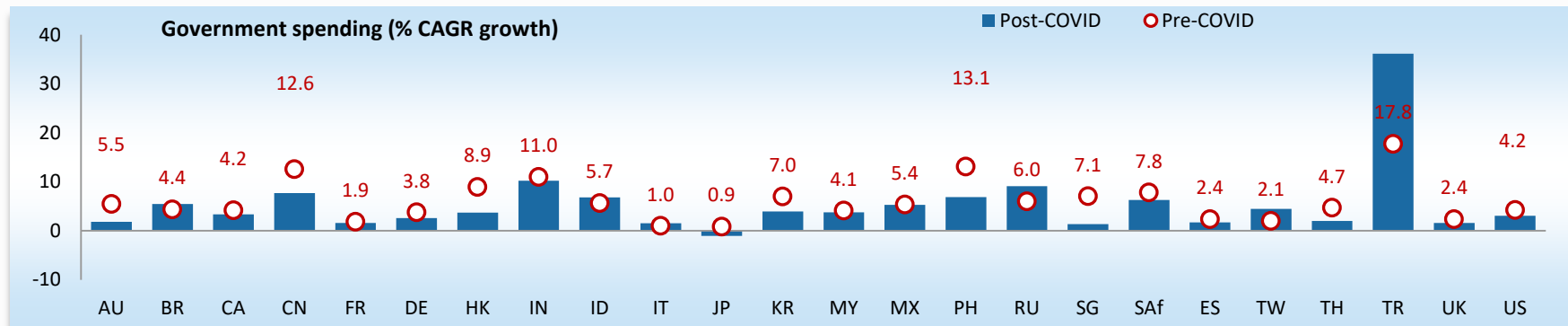
Fiscal support to GDP growth would weaken in the post-COVID era



RU, UK, TR and TW had fiscal surplus in 1QCY22; IT, IN and JP ran highest deficit



Barring BR, ID, IT, RU, TR and TW, government spending growth in post-COVID period would be lower than in the pre-COVID period in all other nations



Pre-COVID = CY15-19, post-COVID = CY22-26 (based on IMF forecast)

Source: CEIC, IMF, various national sources, MOFSL

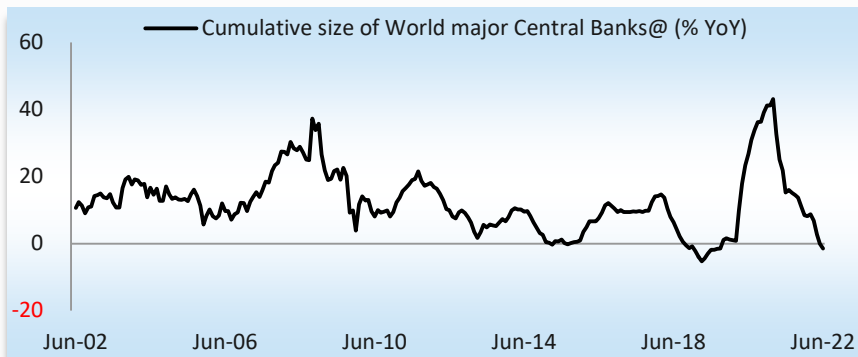


- 01 ➤ Highlights of 2QCY22
- 02 ➤ Financial market trends:
 - ❖ Equity markets stabilized in 2QCY22 before rallying in Jul'22
 - ❖ Bond markets – Falling in AEs, stable-to-higher in E&DEs
 - ❖ US Dollar (USD) strengthening continues
- 03 ➤ Gross domestic product (GDP) growth and its components
- 04 ➤ How much debt is too much?
- 05 ➤ Inflation: Has likely reached the peak
- 06 ➤ Government finances: Fiscal deficit has narrowed sharply in 1QCY22
- 07 ➤ **Monetary economics: Monetary tightening is visible now**
- 08 ➤ External sector vulnerabilities are coming to fore in some E&DEs
- 09 ➤ Housing market: Has begun losing steam
- 10 ➤ Labor market trends (for select AEs only): Continue to remain very strong

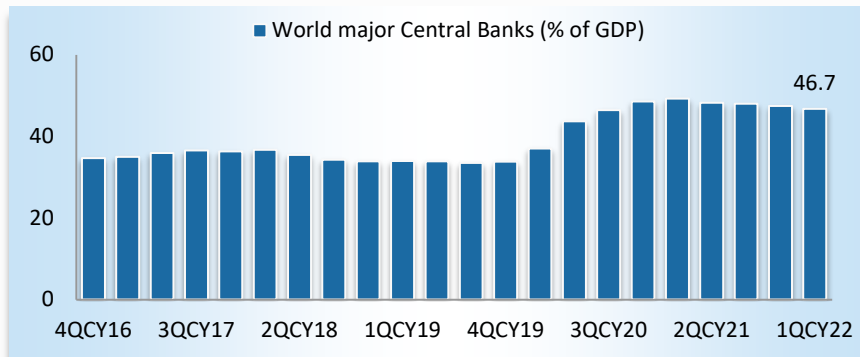
The balance sheets of central banks decline marginally in Jun'22...



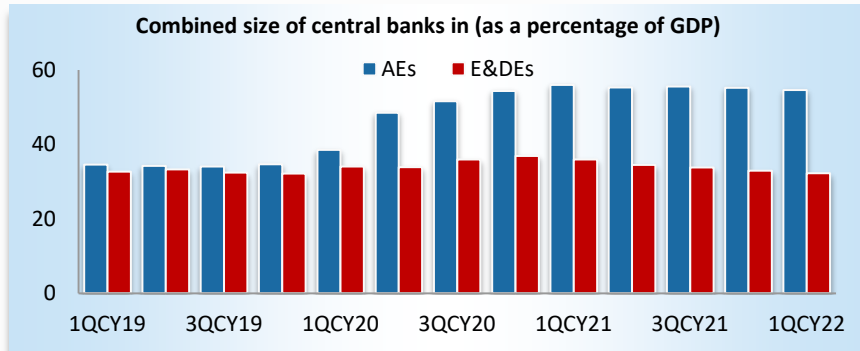
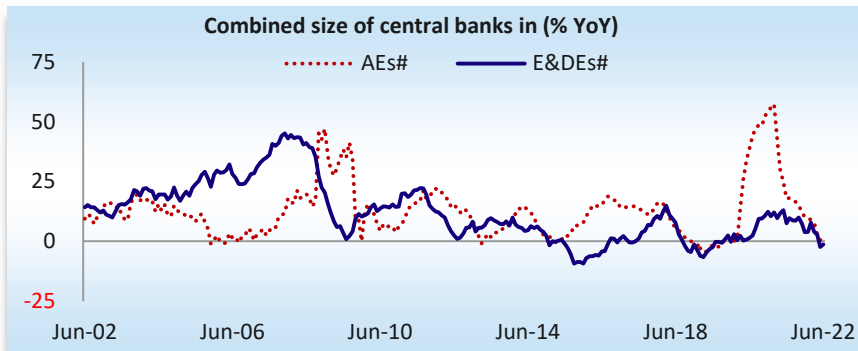
The balance sheets of central banks declined 1.4% YoY in Jun'22...



...and stood at 46.7% of GDP in 1QCY22



The decline is broad based among AEs and E&DEs



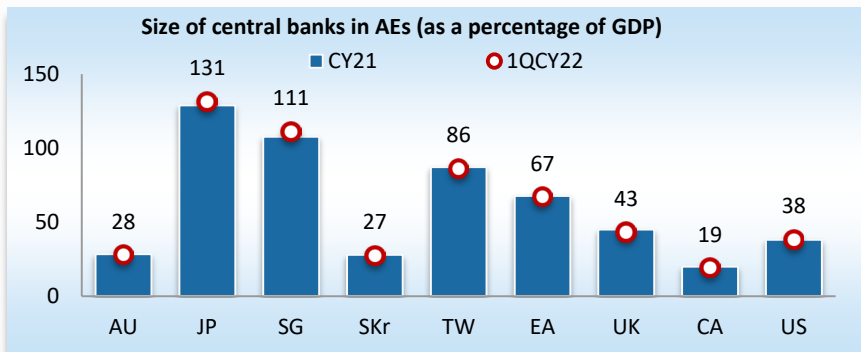
@PH data not available for Apr-Jun'22 period. BR/SKr data not available for Jun'22
 # SAF data not available for Apr-Jun'22 period. BR/CA/SKr data not available for Jun'22

Aggregate indices are calculated using USD values
 Source: CEIC, various national sources, MOFSL

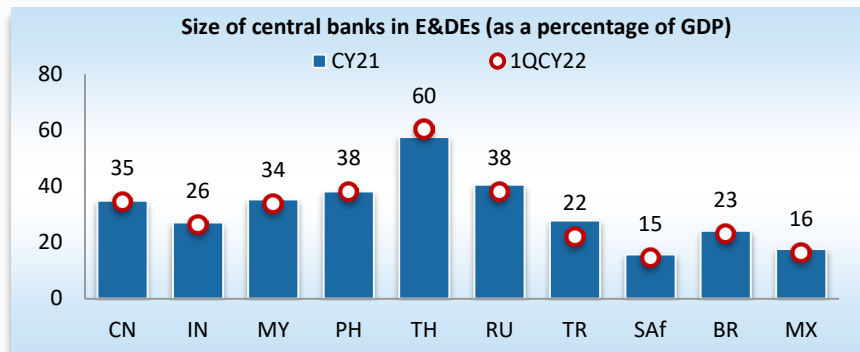
...with across the board moderation



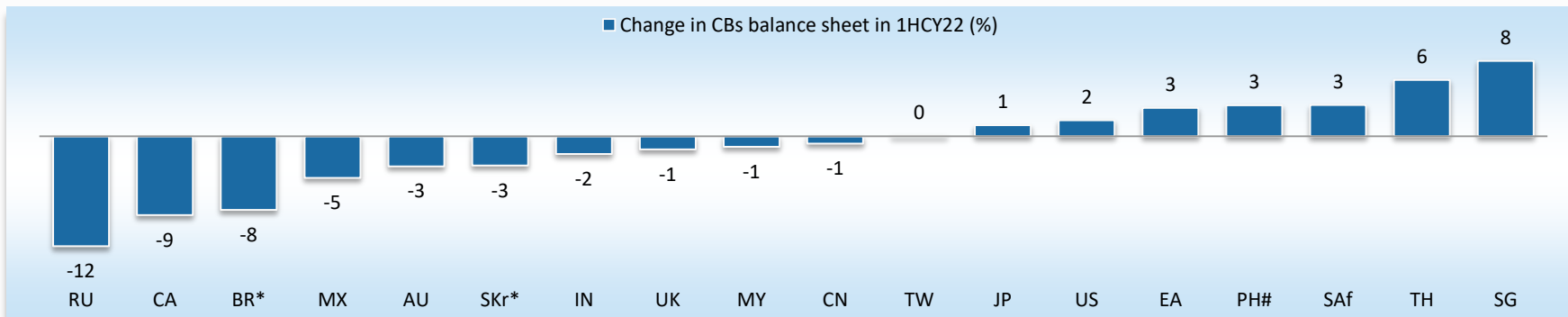
As a percentage of GDP, BoJ continues to be the largest Central Bank...



...with Bank of Thailand being the largest among the major E&DEs



Balance sheets of many Central banks have declined in 1HCY22; increased majorly for TH and SG



Aggregate indices are calculated using USD values (HK/ID excluded)

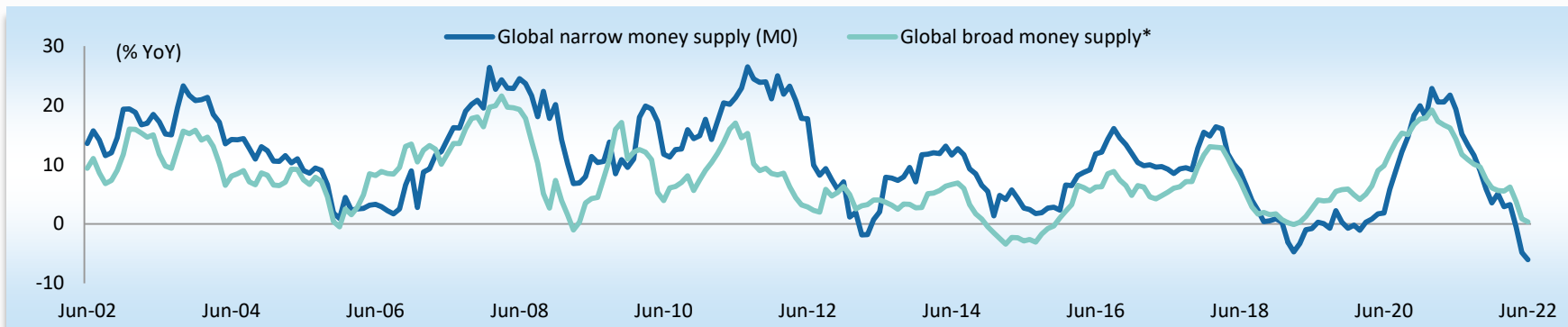
PH data not available up to Mar'22, *BR/SKr only up to May'22

Source: CEIC, various national sources, MOFSL

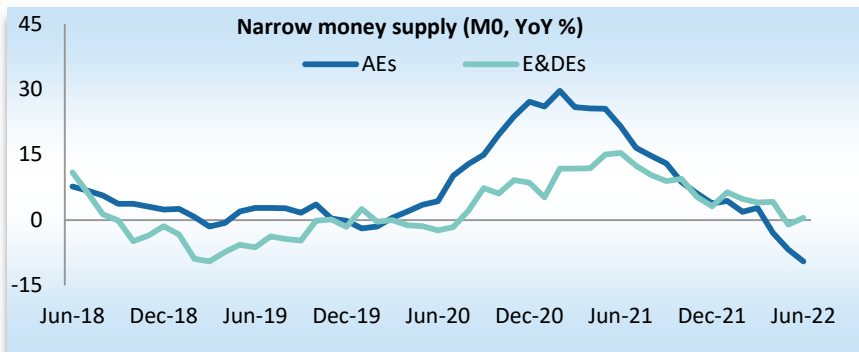
Money supply growth weakens sharply in Jun'22...



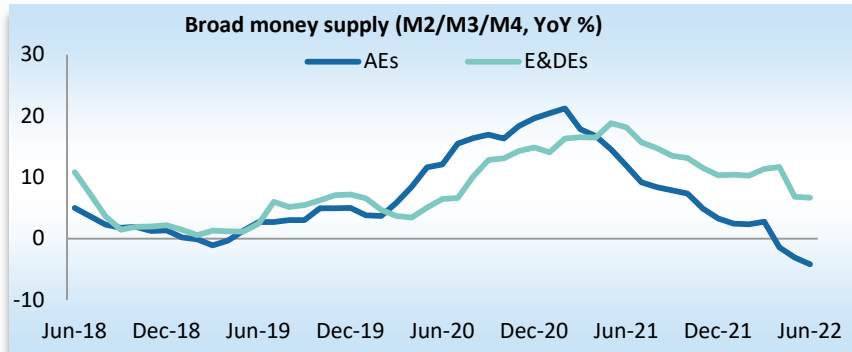
Global narrow money supply (M0) contracted in 2QCY22, though the broad money supply was almost stagnant in Jun'22



Narrow money supply has fallen faster in AEs (partly led by high base)...



...and broad money supply also declined in AEs, without base effect



SKR data not available for Jun'22; CA and BR broad money supply not available for Jun'22

*M2 (CN, RU, SKR, TW, TH, TR, US), M3 (AU, CA, EA, JP, MY, PH, Saf) and M4 (BR, IN, MX, SG, UK)

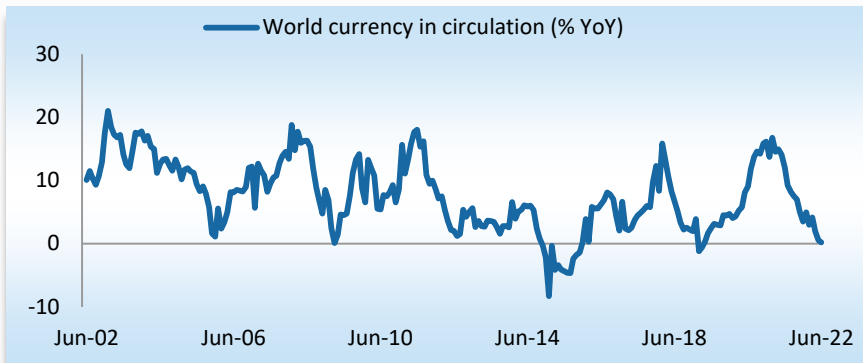
Aggregate indices are calculated using USD values (HK/ID excluded)

Source: CEIC, various national sources, MOFSL

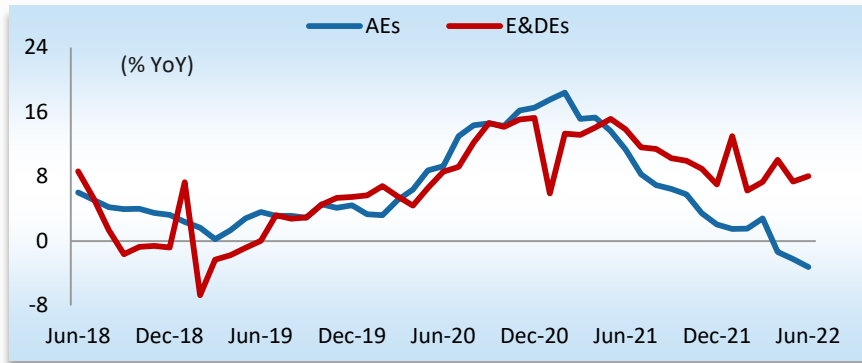
...and growth in currency in circulation (CIC) also flattens



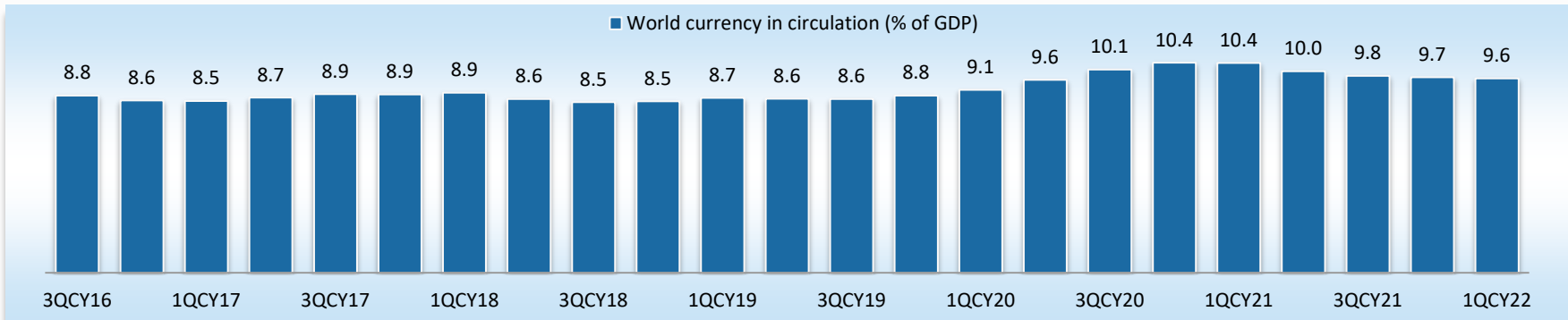
World CIC was stagnant in Jun'22...



...led by 3rd consecutive fall in AEs



Global CIC-to-GDP ratio continued to fall from its peak to 9.6% in 1QCY22



Aggregate indices are calculated using USD values (HK/ID excluded)

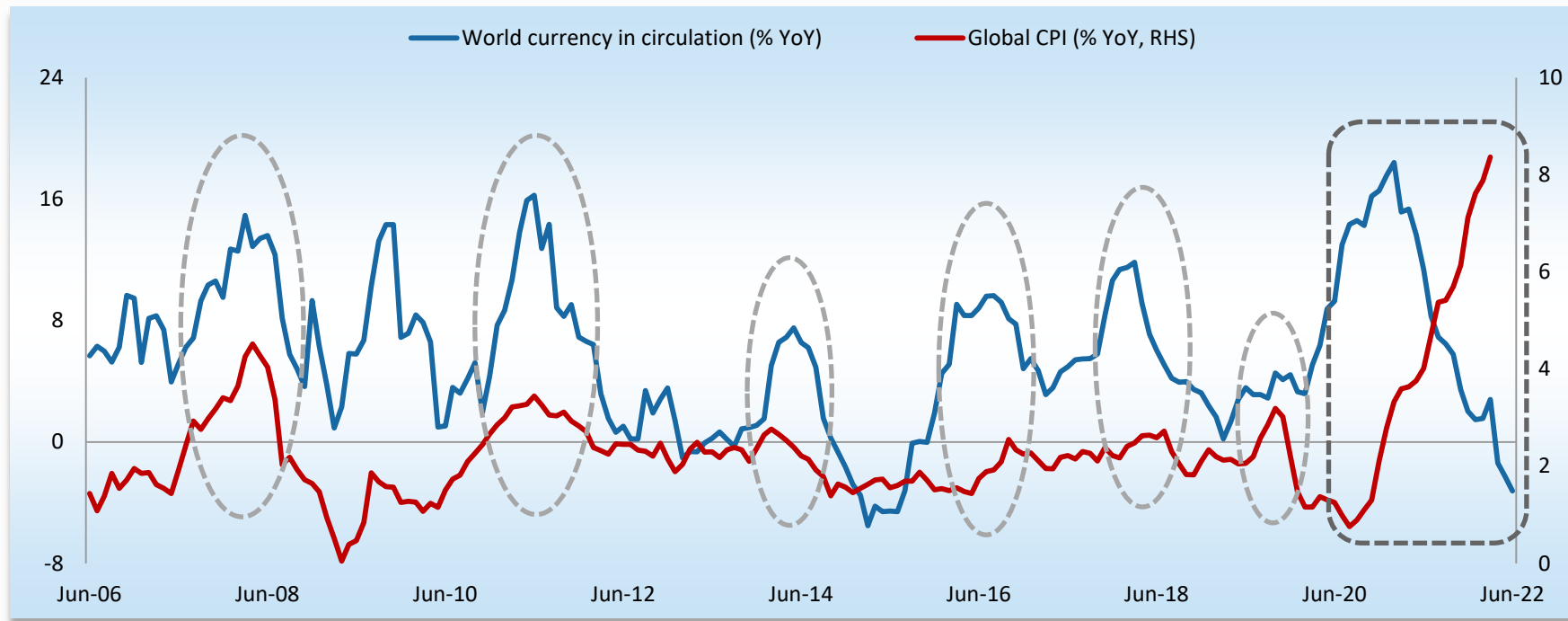
Saf data not available for Apr-Jun'22; SKr and CA data not available for Jun'22

Source: CEIC, various national sources, MOFSL

Global inflation is likely to have peaked



Historical relationship between CIC growth and inflation has eluded for some time now; but global inflation has likely peaked out now



Source: CEIC, various national sources, MOFSL

Some EMs are yet to hike policy interest rates



	Current	CY21-end	CY19-end	Record* low	Record* peak	Last move	Headline inflation#
Brazil (BR)	13.25	9.25	4.50	2.00	26.50	↑ (Jun'22)	11.3 (9.0)
China (CN)	3.70	3.80	4.15	3.70	7.47	↓ (Jan'22)	1.7 (1.0)
India (IN)	4.90	4.00	5.15	4.00	9.00	↑ (Jun'22)	6.8 (6.5)
Indonesia (ID)	3.50	3.50	5.00	3.50	17.67	↓ (Feb'21)	3.0 (2.3)
Malaysia (MY)	2.25	1.75	3.00	1.75	5.50	↑ (Jul'22)	2.5 (2.1)
Mexico (MX)	7.75	5.50	7.25	3.00	18.64	↑ (Jun'22)	7.5 (6.9)
Philippines (PH)	3.25	2.00	4.00	2.00	15.00	↑ (Jul'22)	4.4 (4.9)
Russia (RU)	8.00	8.50	6.25	4.25	45.00	↓ (Jul'22)	14.6 (16.1)
S Africa (SAf)	5.50	3.75	6.50	3.50	13.50	↑ (Jul'22)	6.3 (6.1)
Thailand (TH)	0.50	0.50	1.25	0.50	5.00	↓ (May'20)	5.6 (1.9)
Turkey (TR)	14.00	14.00	11.25	4.50	400.27	↓ (Nov'21)	64.6 (66.5)

*Since CY00

Figure in parenthesis is Core inflation

#Jan-Jun'22

Source: BIS, CEIC, MOFSL



- 01 ➤ Highlights of 2QCY22
- 02 ➤ Financial market trends:
 - ❖ Equity markets stabilized in 2QCY22 before rallying in Jul'22
 - ❖ Bond markets – Falling in AEs, stable-to-higher in E&DEs
 - ❖ US Dollar (USD) strengthening continues
- 03 ➤ Gross domestic product (GDP) growth and its components
- 04 ➤ How much debt is too much?
- 05 ➤ Inflation: Has likely reached the peak
- 06 ➤ Government finances: Fiscal deficit has narrowed sharply in 1QCY22
- 07 ➤ Monetary economics: Monetary tightening is visible now
- 08 ➤ **External sector vulnerabilities are coming to fore in some E&DEs**
- 09 ➤ Housing market: Has begun losing steam
- 10 ➤ Labor market trends (for select AEs only): Continue to remain very strong

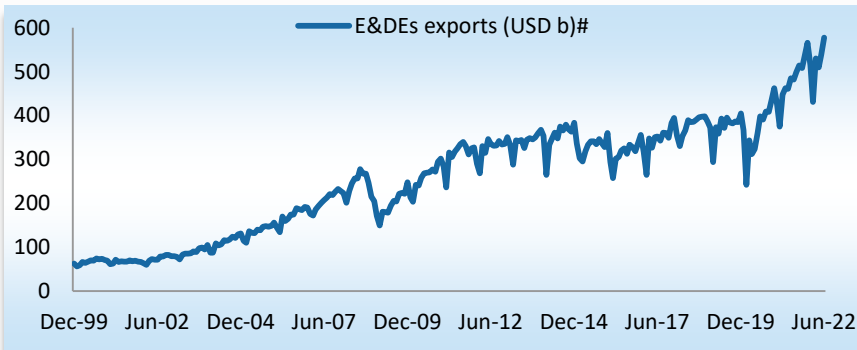
Global trade growth picked up strongly in CY21; but decelerates in CY22



Global trade at three-month high in May'22

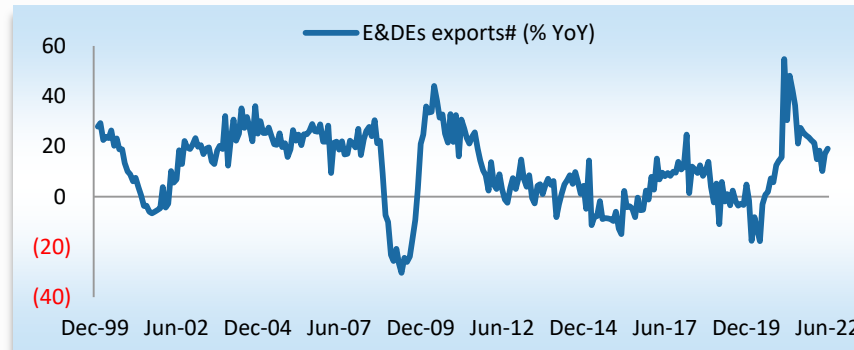


E&DEs exports were at five month high in May'22



• From World Trade Monitor

Growth has decelerated from CY21 highs; it nevertheless remains strong



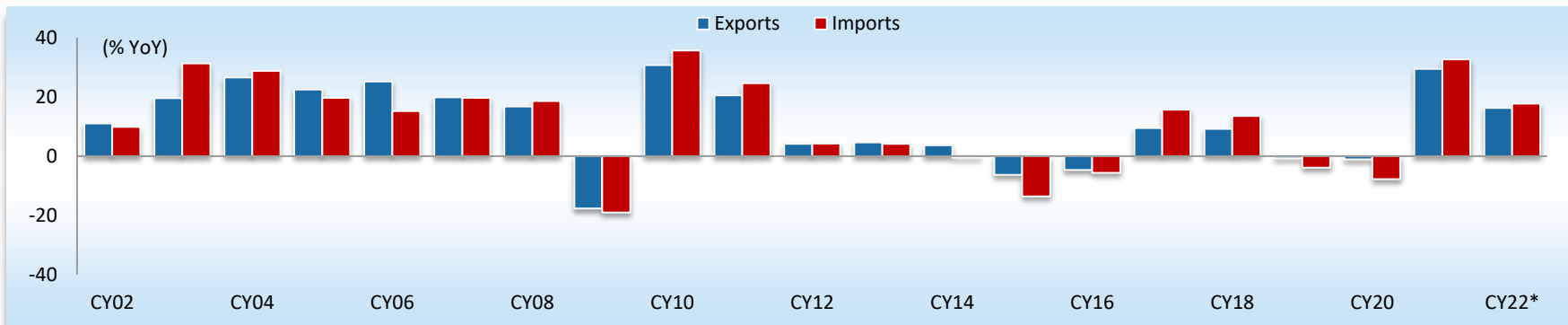
Does not include RU. Data not available for EA, the UK, CA and PH for Jun'22

Source: CPB Netherlands, CEIC, MOFSL

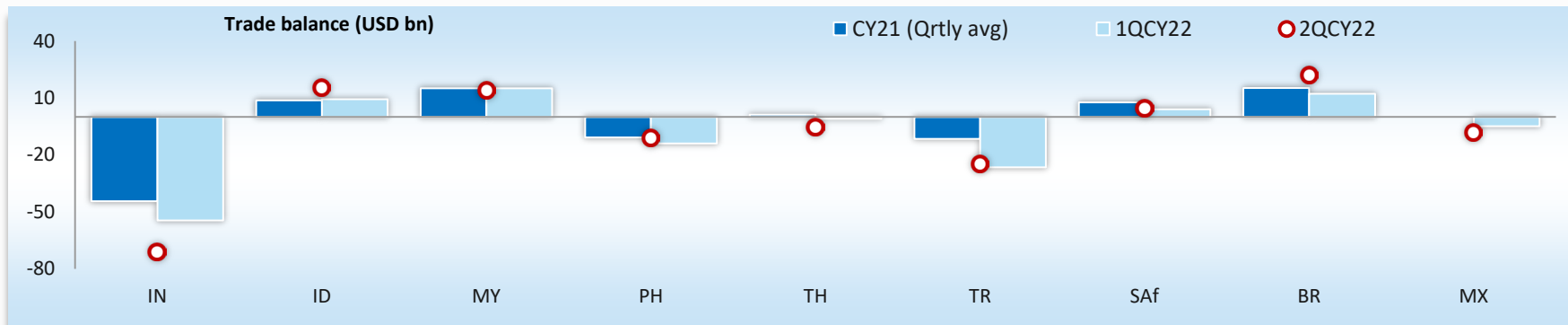
Trade by E&DEs moderates so far in CY22



Exports growth lower than import growth in E&DEs in CY22 so far...



...with CN loosing at the cost of IN, MX and others



Aggregate indices are calculated using USD values

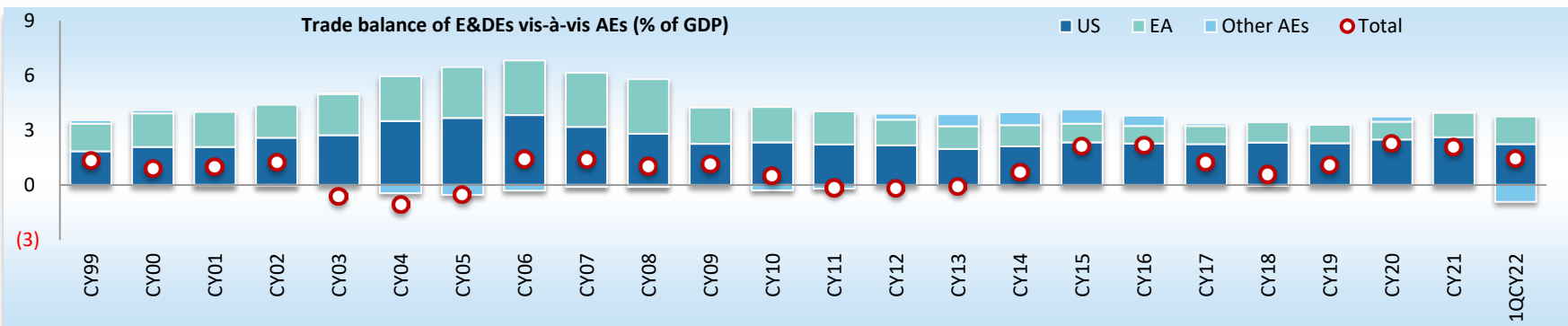
*Jan-May'22

Source: CEIC, various national sources, MOFSL

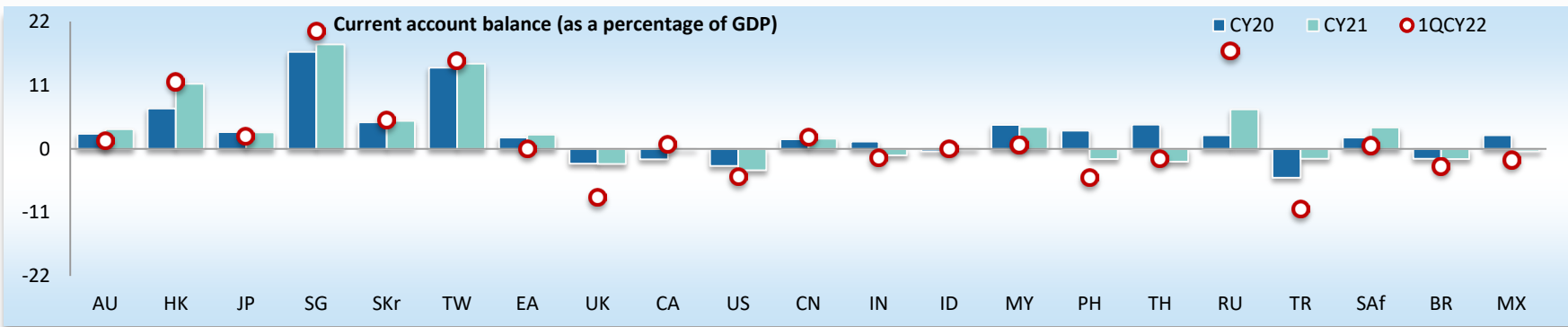
Trends in current account / trade balance vary across countries



Merchandise trade balance worsened in both AEs (except in EA) and E&DEs



The current account balance in seven economies – HK, SG, SKr, TW, CA, CN and RU improved in 1QCY22 v/s CY21



Aggregate indices are calculated using USD values

Source: CEIC, Various national sources, MOFSL

IN holds fourth-largest FXR; RU stands at a close fifth as of Jun'22



Forex reserves (Jun'22)		Forex reserves (Dec'21)		Forex reserves (Dec'19)	
CN	3,247	CN	3,427	CN	3,223
JP	1,311	JP	1,406	JP	1,324
SW*	964	SW*	858	SW*	856
IN	589	IN	634	RU	554
RU	584	RU	631	Saudi Arabia	500
TW	549	TW	548	TW	478
Saudi Arabia	466	HK	497	IN	460
HK	447	SKr	463	HK	441
SKr	438	Saudi	454	SKr	409
SG	314	BR	362	BR	357

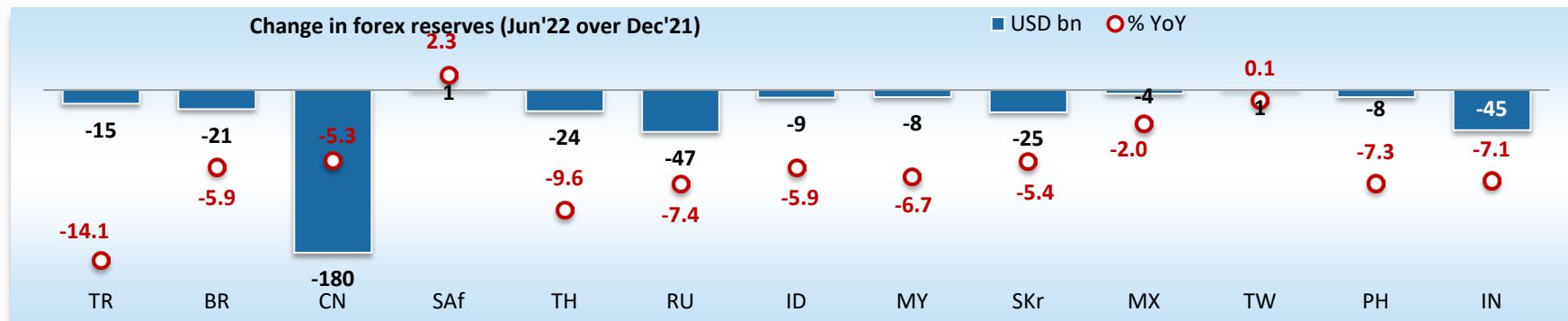
* SW= Switzerland.

Source: IMF, CEIC, various national sources, MOFSL

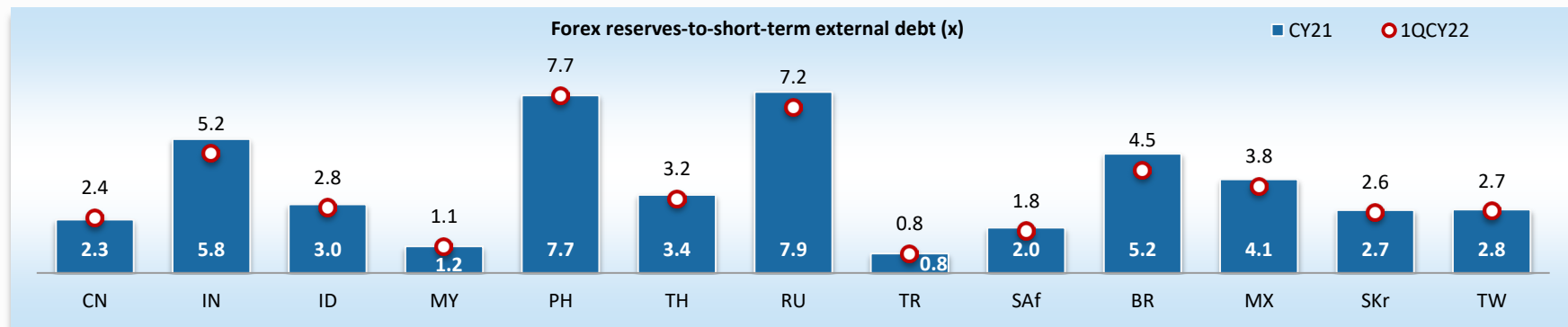
External vulnerability increases across most E&DEs



All economies except SAf and TW witnessed a decline in forex reserves in Jun'22 v/s Dec'21...



...and the forex assets-to-liabilities ratio has worsened in most E&DEs in 1QCY22 except in CN



Source: CEIC, various national sources, MOFSL

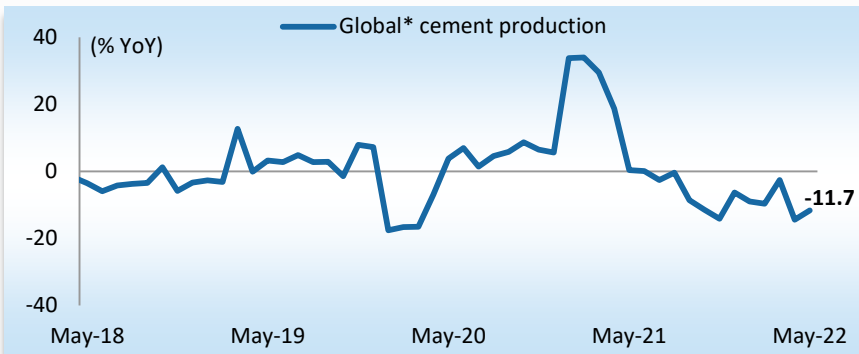


- 01 ➤ Highlights of 2QCY22
- 02 ➤ Financial market trends:
 - ❖ Equity markets stabilized in 2QCY22 before rallying in Jul'22
 - ❖ Bond markets – Falling in AEs, stable-to-higher in E&DEs
 - ❖ US Dollar (USD) strengthening continues
- 03 ➤ Gross domestic product (GDP) growth and its components
- 04 ➤ How much debt is too much?
- 05 ➤ Inflation: Has likely reached the peak
- 06 ➤ Government finances: Fiscal deficit has narrowed sharply in 1QCY22
- 07 ➤ Monetary economics: Monetary tightening is visible now
- 08 ➤ External sector vulnerabilities are coming to fore in some E&DEs
- 09 ➤ Housing market: Has begun losing steam
- 10 ➤ Labor market trends (for select AEs only): Continue to remain very strong

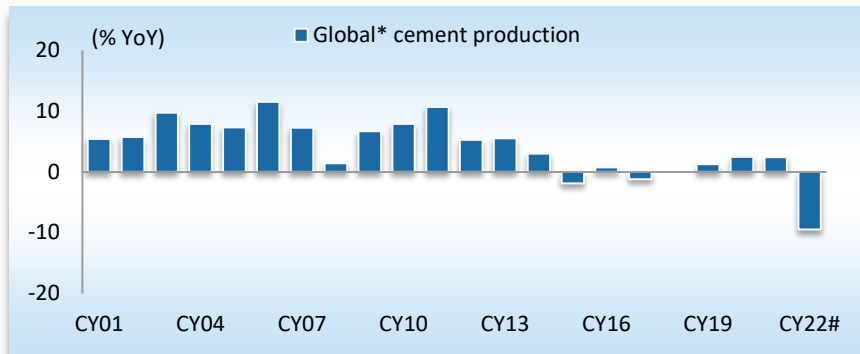
Cement production continues to contract in 2QCY22



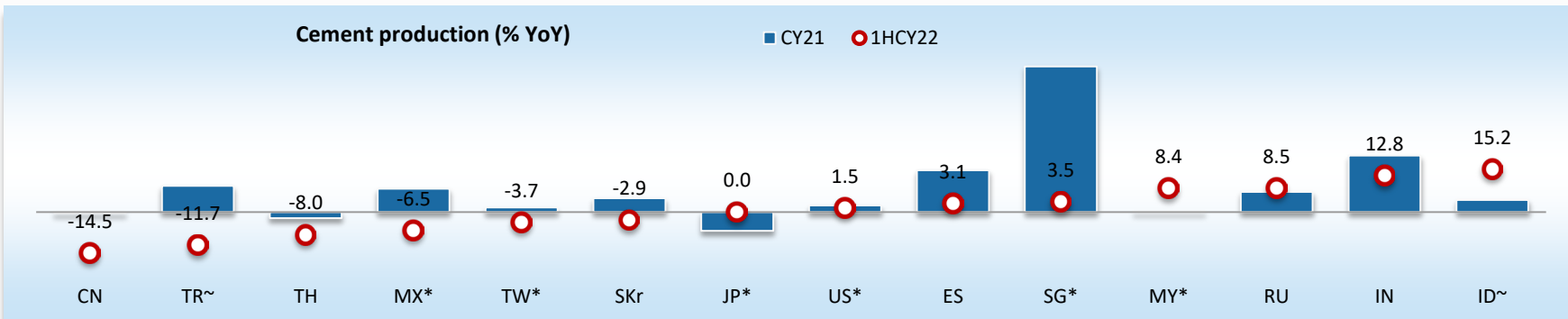
Global cement production declined for 11th consecutive month in May'22



...leading to 9.5% YoY fall in Jan-May'22



Cement production varied significantly across nations in 1HCY22, with growth in RU, IN and ID being the highest



* Jan-May'22; ~Jan-Mar'22

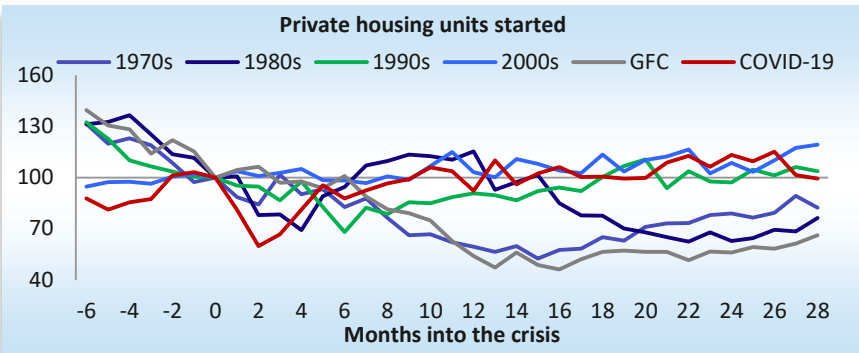
*Based on 14 countries, accounting for ~75% of global cement production (CN, IN, ID, JP, MY, SG, SKr, TW, TH, ES, RU, TR, MX, and the US)

Source: CEIC, USGS, various national sources, MOFSL

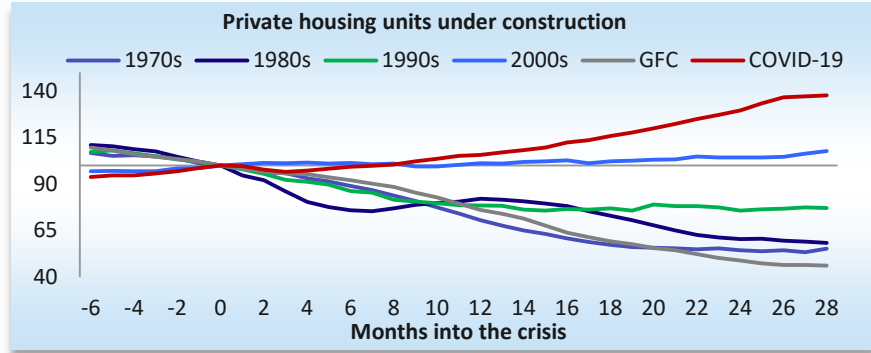
The US housing market starts weakening in 2QCY22



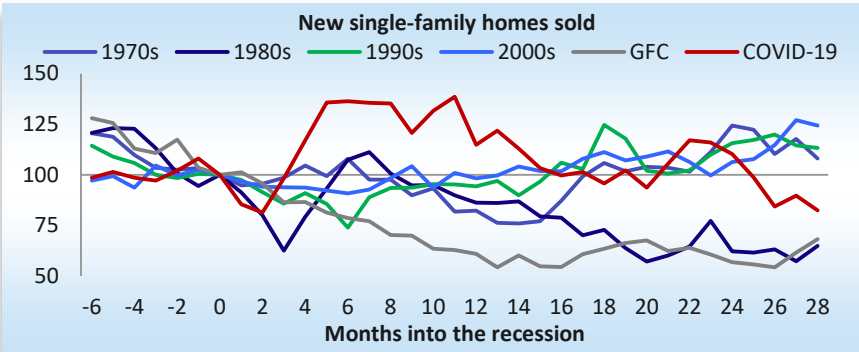
Housing starts have fallen sharply in the last two months...



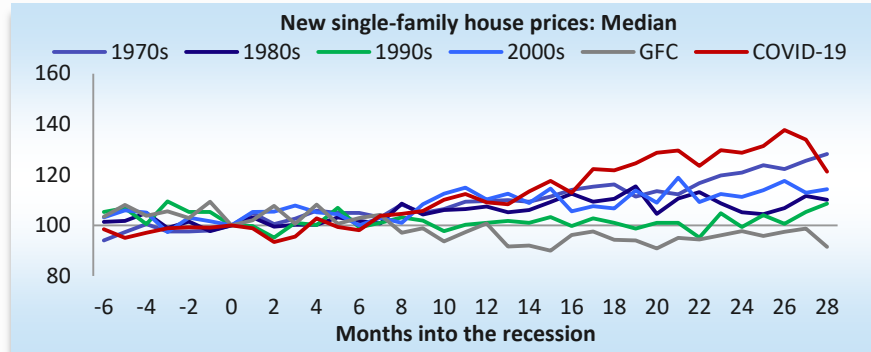
...with housing construction almost stagnant in Jun'22 (v/s May'22)



Home sales have also fallen sharply since Mar'22...



...and median house prices, though remain high, have fallen in May-Jun'22



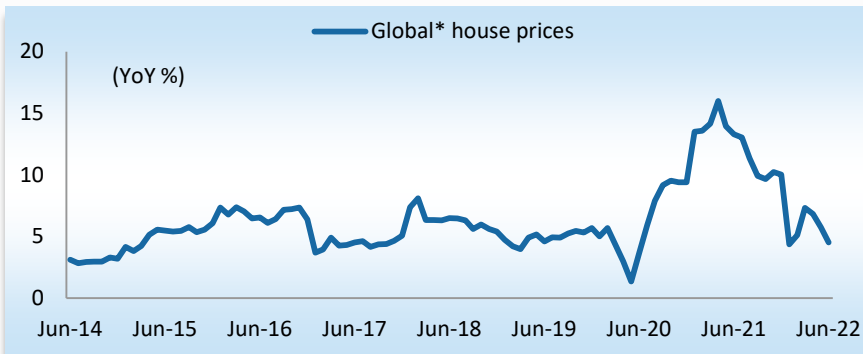
Starting dates for recession from NBER (1970s = Jan'73, 1980s = Jan'80, 1990s = Jul'90, 2000s = Mar'01, GFC = Dec'07, COVID-19 = Feb'20)

Source: CEIC, National Bureau of Economic Research (NBER), MOFSL

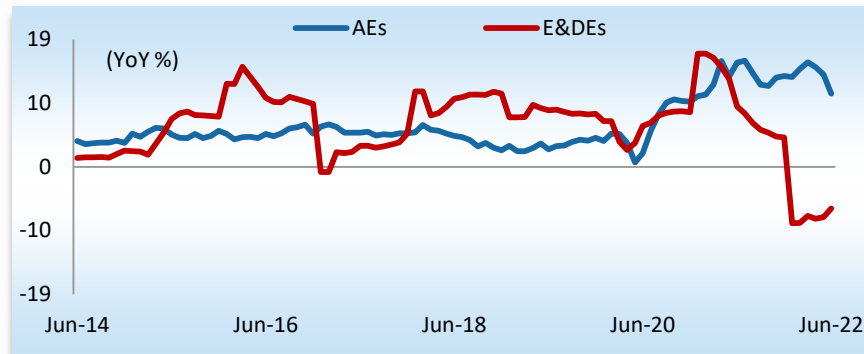
Global housing market begins to lose some steam in 2QCY22



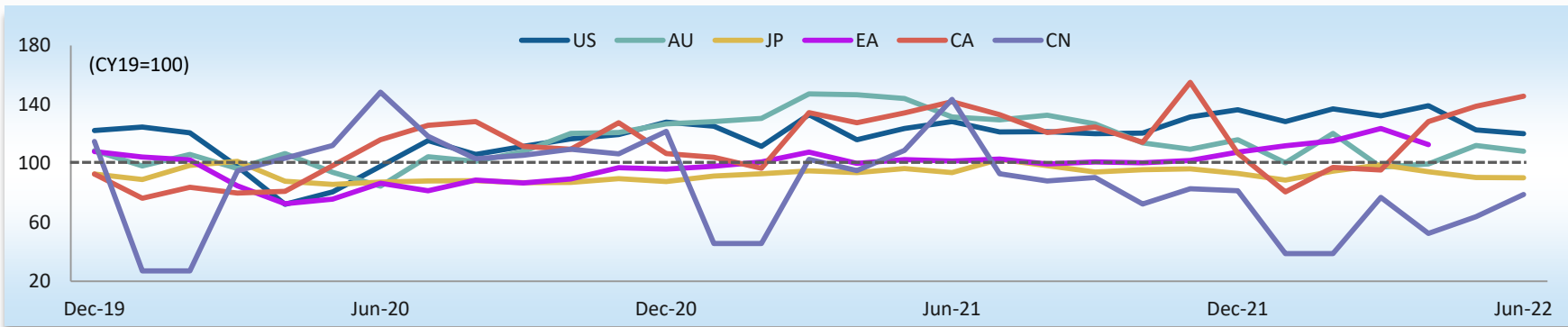
Growth in house prices have come off in recent months...



...primarily led by China (E&DEs)



Housing starts/Building permits have also started to ease



*Based on 12 nations (HK, JP, SKr, ES, UK, CA, US, CN, TW, TH, SAf, and BR)

Source: CEIC, various national sources, BIS, MOFSL

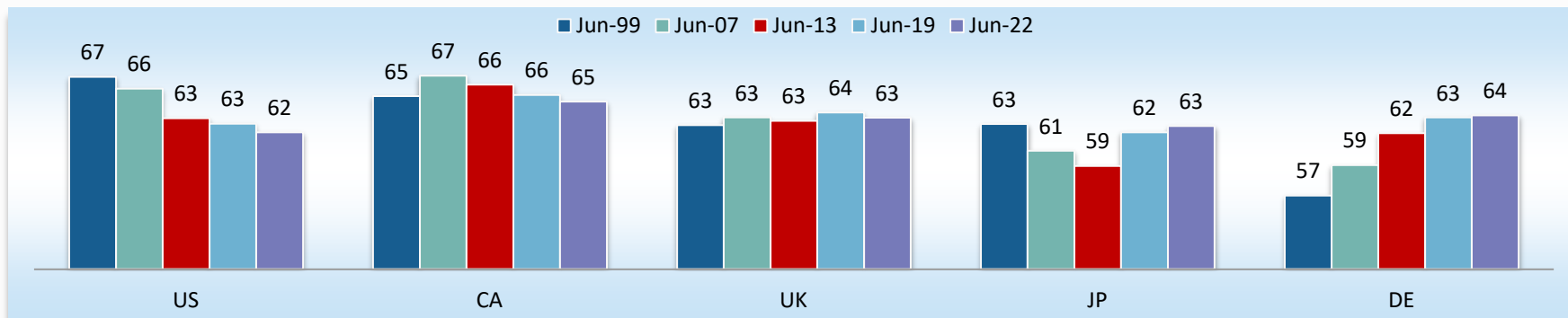


- 01 ➤ Highlights of 2QCY22
- 02 ➤ Financial market trends:
 - ❖ Equity markets stabilized in 2QCY22 before rallying in Jul'22
 - ❖ Bond markets – Falling in AEs, stable-to-higher in E&DEs
 - ❖ US Dollar (USD) strengthening continues
- 03 ➤ Gross domestic product (GDP) growth and its components
- 04 ➤ How much debt is too much?
- 05 ➤ Inflation: Has likely reached the peak
- 06 ➤ Government finances: Fiscal deficit has narrowed sharply in 1QCY22
- 07 ➤ Monetary economics: Monetary tightening is visible now
- 08 ➤ External sector vulnerabilities are coming to fore in some E&DEs
- 09 ➤ Housing market: Has begun losing steam
- 10 ➤ Labor market trends (for select AEs only): Continue to remain very strong

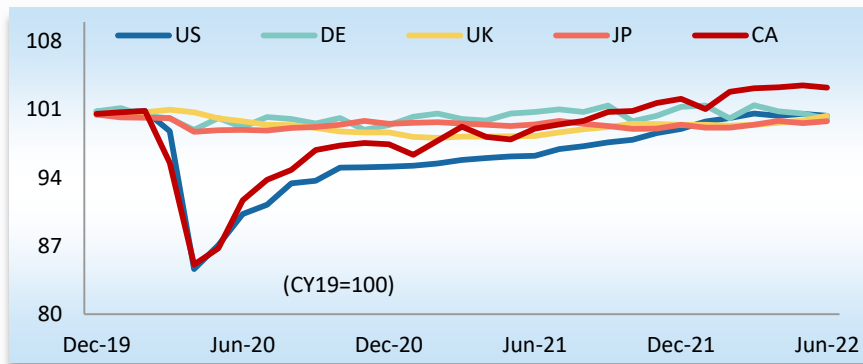
Labor markets different across major AEs



LFPR has fallen consistently in the US for the past two decades and it has risen consistently in DE

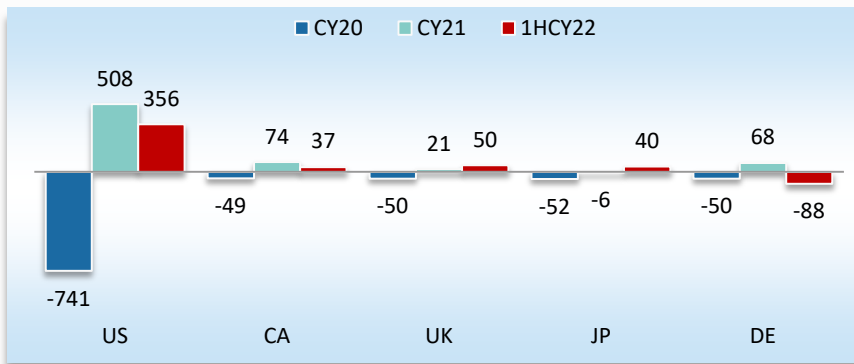


Barring CA, employment in Jun'22 was similar to that in CY19



* Data up to Jun'22

German employment has declined sharply in 1HCY22

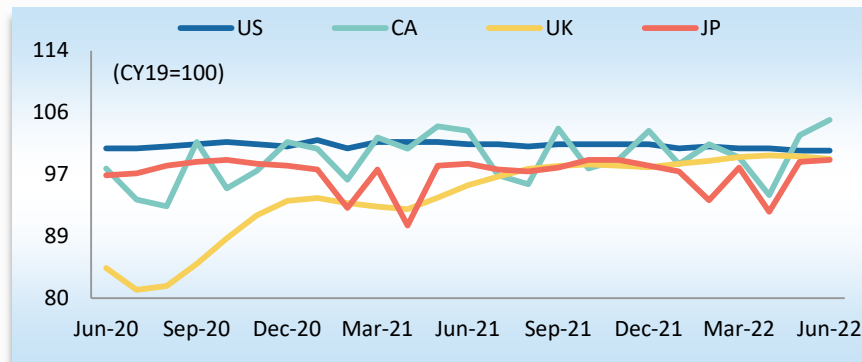
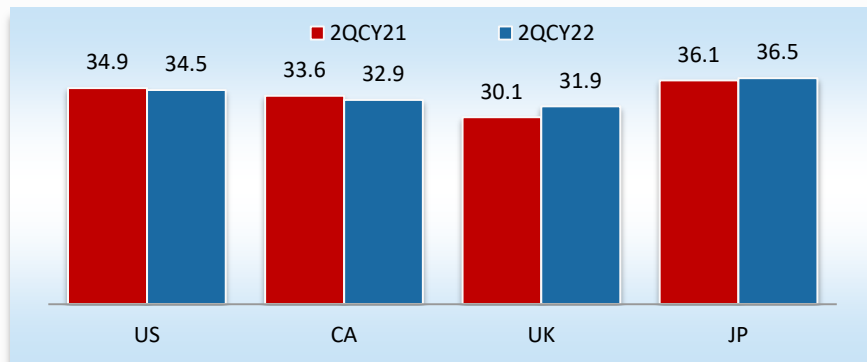


Source: CEIC, various national sources, BIS, MOFSL

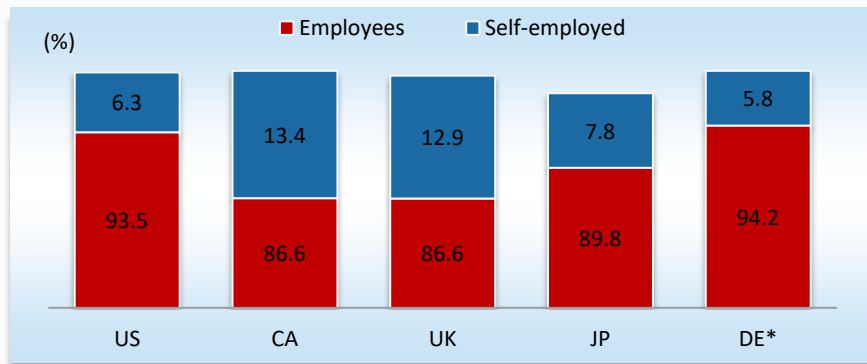
Weekly hours worked moderates in the US and CA in 2QCY22



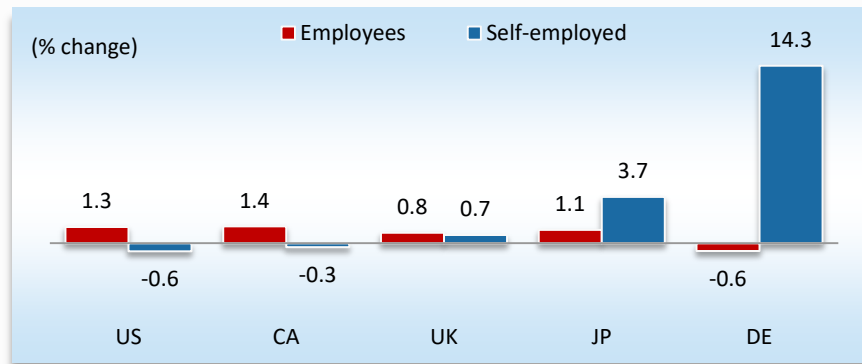
Average weekly hours worked reduced in the US/CA, while it increased in JP and the UK



Regular employees account for 87-94% of the workforce in these AEs...



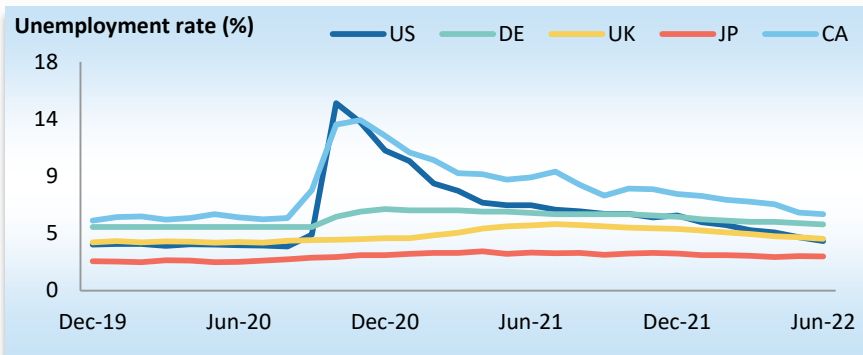
...and self-employed were adversely in 1HCY22 in the US/CA



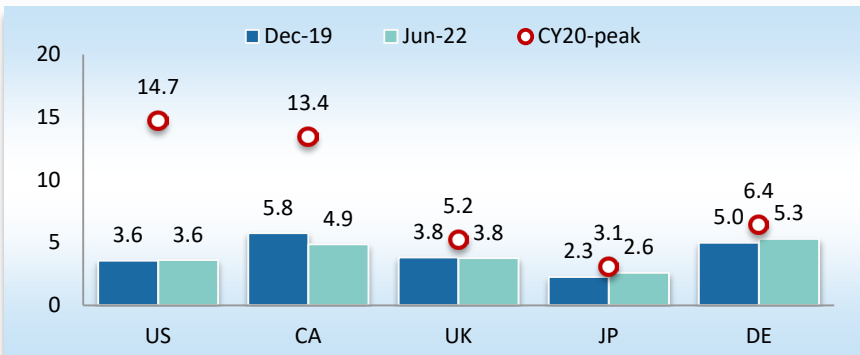
Unemployment rate low but real wages declining



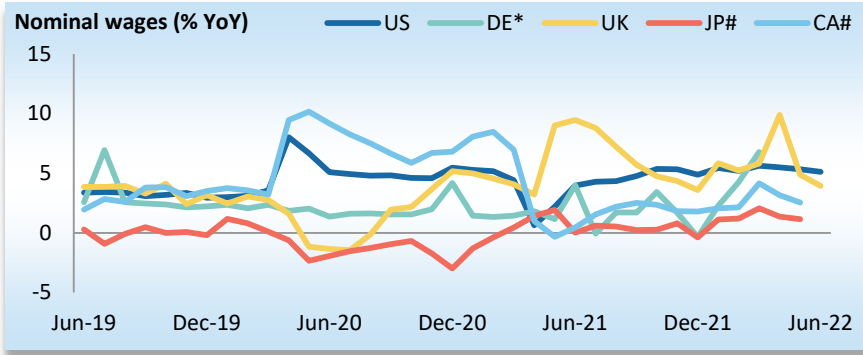
The unemployment rate has narrowed substantially everywhere...



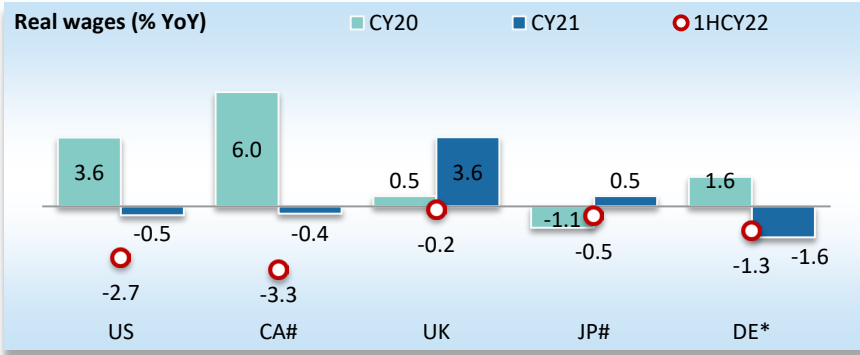
...with the unemployment rate in Dec'21 similar to that in Dec'19 levels



Although nominal wages are growing everywhere...



...real wages are declining because of higher inflation



Data available up to May'22

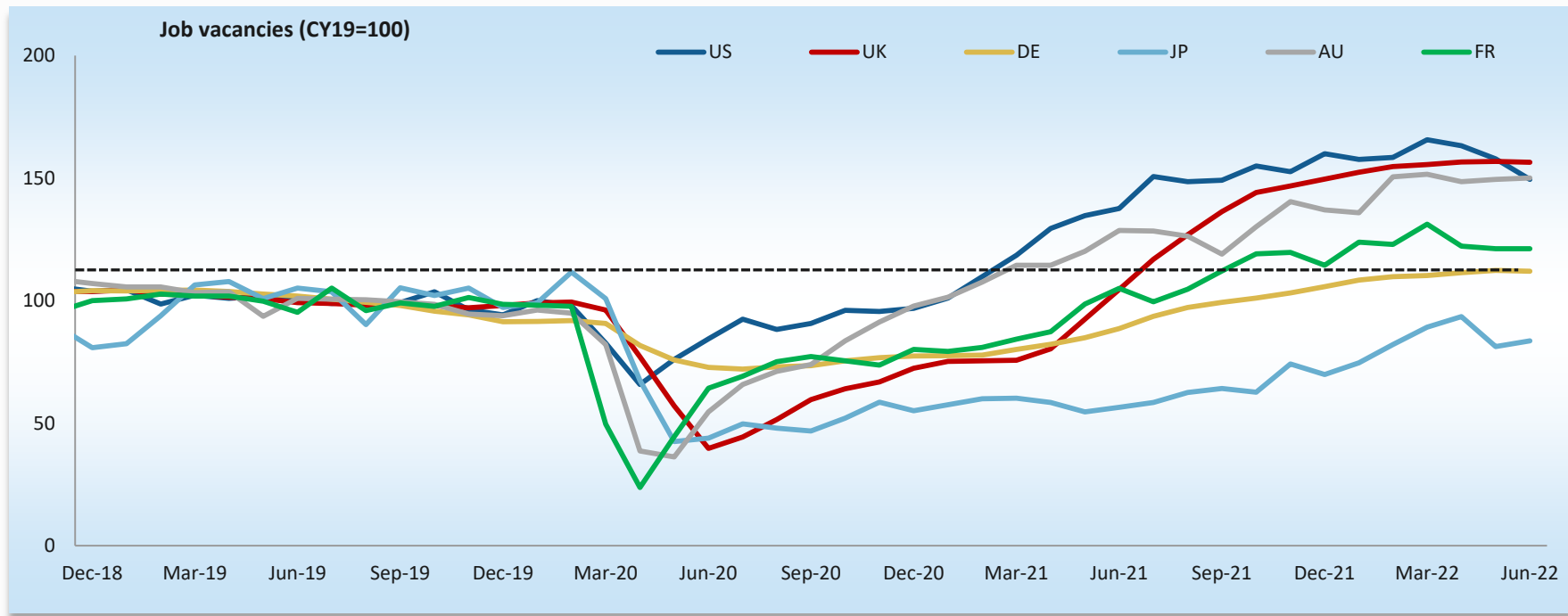
* Data up to Mar'22

Source: CEIC, various national sources, MOFSL

...and job vacancies remain exceptionally high in all AEs, except JP



The Labor market in the US/UK/AU was much tighter than in EA nations/JP



Source: CEIC, various national sources, MOFSL

Job openings in the US; Job vacancies in the UK, FR and DE; Number of jobs advertised in JP; and Job advertisements in newspapers and on the internet in AU

NOTES

Explanation of Investment Rating	
Investment Rating	Expected return (over 12-month)
BUY	>=15%
SELL	< - 10%
NEUTRAL	> - 10 % to 15%
UNDER REVIEW	Rating may undergo a change
NOT RATED	We have forward looking estimates for the stock but we refrain from assigning recommendation

*In case the recommendation given by the Research Analyst is inconsistent with the investment rating legend for a continuous period of 30 days, the Research Analyst shall within following 30 days take appropriate measures to make the recommendation consistent with the investment rating legend.

Disclosures:

The following Disclosures are being made in compliance with the SEBI Research Analyst Regulations 2014 (herein after referred to as the Regulations).

Motilal Oswal Financial Services Ltd. (MOFSL) is a SEBI Registered Research Analyst having registration no. INH000000412. MOFSL, the Research Entity (RE) as defined in the Regulations, is engaged in the business of providing Stock broking services, Investment Advisory Services, Depository participant services & distribution of various financial products. MOFSL is a subsidiary company of Passionate Investment Management Pvt. Ltd.. (PIMPL). MOFSL is a listed public company, the details in respect of which are available on www.motilaloswal.com. MOFSL (erstwhile Motilal Oswal Securities Limited - MOSL) is registered with the Securities & Exchange Board of India (SEBI) and is a registered Trading Member with National Stock Exchange of India Ltd. (NSE) and Bombay Stock Exchange Limited (BSE), Multi Commodity Exchange of India Limited (MCX) and National Commodity & Derivatives Exchange Limited (NCDEX) for its stock broking activities & is Depository participant with Central Depository Services Limited (CDSL) National Securities Depository Limited (NSDL), NERL, COMRIS and CCRL and is member of Association of Mutual Funds of India (AMFI) for distribution of financial products and Insurance Regulatory & Development Authority of India (IRDA) as Corporate Agent for insurance products. Details of associate entities of Motilal Oswal Financial Services Limited are available on the website at <http://onlinereports.motilaloswal.com/Dormant/documents/Associate%20Details.pdf>

Details of pending Enquiry Proceedings of Motilal Oswal Financial Services Limited are available on the website at <https://galaxy.motilaloswal.com/ResearchAnalyst/PublishViewLitigation.aspx>

MOFSL, its associates, Research Analyst or their relative may have any financial interest in the subject company. MOFSL and/or its associates and/or Research Analyst may have actual/beneficial ownership of 1% or more securities in the past 12 months. MOFSL and its associate company(ies), their directors and Research Analyst and their relatives may; (a) from time to time, have a long or short position in, act as principal in, and buy or sell the securities or derivatives thereof of companies mentioned herein. (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies) or may have any other potential conflict of interests with respect to any recommendation and other related information and opinions.; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report. Research Analyst may have served as director/officer, etc. in the subject company in the past 12 months. MOFSL and/or its associates may have received any compensation from the subject company in the past 12 months.

In the past 12 months, MOFSL or any of its associates may have:

- managed or co-managed public offering of securities from subject company of this research report,
- received compensation for investment banking or merchant banking or brokerage services from subject company of this research report,
- received compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company of this research report.
- Subject Company may have been a client of MOFSL or its associates in the past 12 months.

MOFSL and its associates have not received any compensation or other benefits from the subject company or third party in connection with the research report. To enhance transparency, MOFSL has incorporated a Disclosure of Interest Statement in this document. This should, however, not be treated as endorsement of the views expressed in the report. MOFSL and / or its affiliates do and seek to do business including investment banking with companies covered in its research reports. As a result, the recipients of this report should be aware that MOFSL may have a potential conflict of interest that may affect the objectivity of this report. Compensation of Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions. Above disclosures include beneficial holdings lying in demat account of MOFSL which are opened for proprietary investments only. While calculating beneficial holdings, It does not consider demat accounts which are opened in name of MOFSL for other purposes (i.e holding client securities, collaterals, error trades etc.). MOFSL also earns DP income from clients which are not considered in above disclosures.

Terms & Conditions:

This report has been prepared by MOFSL and is meant for sole use by the recipient and not for circulation. The report and information contained herein is strictly confidential and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent of MOFSL. The report is based on the facts, figures and information that are considered true, correct, reliable and accurate. The intent of this report is not recommendatory in nature. The information is obtained from publicly available media or other sources believed to be reliable. Such information has not been independently verified and no guaranty, representation of warranty, express or implied, is made as to its accuracy, completeness or correctness. All such information and opinions are subject to change without notice. The report is prepared solely for informational purpose and does not constitute an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments for the clients. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. MOFSL will not treat recipients as customers by virtue of their receiving this report.

Analyst Certification

The views expressed in this research report accurately reflect the personal views of the analyst(s) about the subject securities or issues, and no part of the compensation of the research analyst(s) was, is, or will be directly or indirectly related to the specific recommendations and views expressed by research analyst(s) in this report.

Disclosure of Interest Statement

Companies where there is interest

- Analyst ownership of the stock

No

A graph of daily closing prices of securities is available at www.nseindia.com, www.bseindia.com. Research Analyst views on Subject Company may vary based on Fundamental research and Technical Research. Proprietary trading desk of MOFSL or its associates maintains arm's length distance with Research Team as all the activities are segregated from MOFSL research activity and therefore it can have an independent view with regards to subject company for which Research Team have expressed their views.

Regional Disclosures (outside India)

This report is not directed or intended for distribution to or use by any person or entity resident in a state, country or any jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL & its group companies to registration or licensing requirements within such jurisdictions.

For Hong Kong:

This report is distributed in Hong Kong by Motilal Oswal capital Markets (Hong Kong) Private Limited, a licensed corporation (CE AYY-301) licensed and regulated by the Hong Kong Securities and Futures Commission (SFC) pursuant to the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) "SFO". As per SEBI (Research Analyst Regulations) 2014 Motilal Oswal Financial Services Limited (SEBI Reg No. INH000000412) has an agreement with Motilal Oswal capital Markets (Hong Kong) Private Limited for distribution of research report in Hong Kong. This report is intended for distribution only to "Professional Investors" as defined in Part I of Schedule 1 to SFO. Any investment or investment activity to which this document relates is only available to professional investor and will be engaged only with professional investors." Nothing here is an offer or solicitation of these securities, products and services in any jurisdiction where their offer or sale is not qualified or exempt from registration. The Indian Analyst(s) who compile this report is/are not located in Hong Kong & are not conducting Research Analysis in Hong Kong.

For U.S:

Motilal Oswal Financial Services Limited (MOFSL) is not a registered broker - dealer under the U.S. Securities Exchange Act of 1934, as amended (the "1934 act") and under applicable state laws in the United States. In addition MOFSL is not a registered investment adviser under the U.S. Investment Advisers Act of 1940, as amended (the "Advisers Act" and together with the 1934 Act, the "Acts"), and under applicable state laws in the United States. Accordingly, in the absence of specific exemption under the Acts, any brokerage and investment services provided by MOFSL, including the products and services described herein are not available to or intended for U.S. persons. This report is intended for distribution only to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the Exchange Act and interpretations thereof by SEC (henceforth referred to as "major institutional investors"). This document must not be acted on or relied on by persons who are not major institutional investors. Any investment or investment activity to which this document relates is only available to major institutional investors and will be engaged in only with major institutional investors. In reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act") and interpretations thereof by the U.S. Securities and Exchange Commission ("SEC") in order to conduct business with Institutional Investors based in the U.S., MOFSL has entered into a chaperoning agreement with a U.S. registered broker-dealer, Motilal Oswal Securities International Private Limited. ("MOSIPL"). Any business interaction pursuant to this report will have to be executed within the provisions of this chaperoning agreement.

The Research Analysts contributing to the report may not be registered /qualified as research analyst with FINRA. Such research analyst may not be associated persons of the U.S. registered broker-dealer, MOSIPL, and therefore, may not be subject to NASD rule 2711 and NYSE Rule 472 restrictions on communication with a subject company, public appearances and trading securities held by a research analyst account.

For Singapore

In Singapore, this report is being distributed by Motilal Oswal Capital Markets Singapore Pte Ltd ("MOCMSPL") (Co.Reg. NO. 201129401Z) which is a holder of a capital markets services license and an exempt financial adviser in Singapore, as per the approved agreement under Paragraph 9 of Third Schedule of Securities and Futures Act (CAP 289) and Paragraph 11 of First Schedule of Financial Advisors Act (CAP 110) provided to MOCMSPL by Monetary Authority of Singapore. Persons in Singapore should contact MOCMSPL in respect of any matter arising from, or in connection with this report/publication/communication. This report is distributed solely to persons who qualify as "Institutional Investors", of which some of whom may consist of "accredited" institutional investors as defined in section 4A(1) of the Securities and Futures Act, Chapter 289 of Singapore ("the SFA"). Accordingly, if a Singapore person is not or ceases to be such an institutional investor, such Singapore Person must immediately discontinue any use of this Report and inform MOCMSPL.

Disclaimer: The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent. This report and information herein is solely for informational purpose and may not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient. Each recipient of this document should make such investigations as it deems necessary to arrive at an independent evaluation of an investment in the securities of companies referred to in this document (including the merits and risks involved), and should consult its own advisors to determine the merits and risks of such an investment. The investment discussed or views expressed may not be suitable for all investors. Certain transactions - including those involving futures, options, another derivative products as well as non-investment grade securities - involve substantial risk and are not suitable for all investors. No representation or warranty, express or implied, is made as to the accuracy, completeness or fairness of the information and opinions contained in this document. The Disclosures of Interest Statement incorporated in this document is provided solely to enhance the transparency and should not be treated as endorsement of the views expressed in the report. This information is subject to change without any prior notice. The Company reserves the right to make modifications and alternations to this statement as may be required from time to time without any prior approval. MOFSL, its associates, their directors and the employees may from time to time, effect or have effected an own account transaction in, or deal as principal or agent in or for the securities mentioned in this document. They may perform or seek to perform investment banking or other services for, or solicit investment banking or other business from, any company referred to in this report. Each of these entities functions as a separate, distinct and independent of each other. The recipient should take this into account before interpreting the document. This report has been prepared on the basis of information that is already available in publicly accessible media or developed through analysis of MOFSL. The views expressed are those of the analyst, and the Company may or may not subscribe to all the views expressed therein. This document is being supplied to you solely for your information and may not be reproduced, redistributed or passed on, directly or indirectly, to any other person or published, copied, in whole or in part, for any purpose. This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction. Neither the Firm, not its directors, employees, agents or representatives shall be liable for any damages whether direct or indirect, incidental, special or consequential including lost revenue or lost profits that may arise from or in connection with the use of the information. The person accessing this information specifically agrees to exempt MOFSL or any of its affiliates or employees from, any and all responsibility/liability arising from such misuse and agrees not to hold MOFSL or any of its affiliates or employees responsible for any such misuse and further agrees to hold MOFSL or any of its affiliates or employees free and harmless from all losses, costs, damages, expenses that may be suffered by the person accessing this information due to any errors and delays.

Registered Office Address: Motilal Oswal Tower, Rahimtullah Sayani Road, Opposite Parel ST Depot, Prabhadevi, Mumbai-400025; Tel No.: 022 71934200/ 022-71934263; Website www.motilaloswal.com.

CIN No.: L67190MH2005PLC153397. Correspondence Office Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad(West), Mumbai- 400 064. Tel No: 022 7188 1000.

Registration Nos.: Motilal Oswal Financial Services Limited (MOFSL)*: INZ000158836(BSE/NSE/MCX/NCDEX); CDSL and NSDL: IN-DP-16-2015; Research Analyst: INH000000412. AMFI: ARN - 146822; Investment Adviser: INA000007100; Insurance Corporate Agent: CA0579 ;PMS:INP000006712. Motilal Oswal Asset Management Company Ltd. (MOAMC): PMS (Registration No.: INP000000670); PMS and Mutual Funds are offered through MOAMC which is group company of MOFSL. Motilal Oswal Wealth Management Ltd. (MOWML): PMS (Registration No.: INP000004409) is offered through MOWML, which is a group company of MOFSL. Motilal Oswal Financial Services Limited is a distributor of Mutual Funds, PMS, Fixed Deposit, Bond, NCDs, Insurance Products and IPOs. Real Estate is offered through Motilal Oswal Real Estate Investment Advisors II Pvt. Ltd. which is a group company of MOFSL. Private Equity is offered through Motilal Oswal Private Equity Investment Advisors Pvt. Ltd which is a group company of MOFSL. Research & Advisory services is backed by proper research. Please read the Risk Disclosure Document prescribed by the Stock Exchanges carefully before investing. There is no assurance or guarantee of the returns. Investment in securities market is subject to market risk, read all the related documents carefully before investing. Details of Compliance Officer: Name: Neeraj Agarwal, Email ID: na@motilaloswal.com, Contact No.: 022-71881085.

* MOSL has been amalgamated with Motilal Oswal Financial Services Limited (MOFSL) w.e.f August 21, 2018 pursuant to order dated July 30, 2018 issued by Hon'ble National Company Law Tribunal, Mumbai Bench.

MOTILAL OSWAL