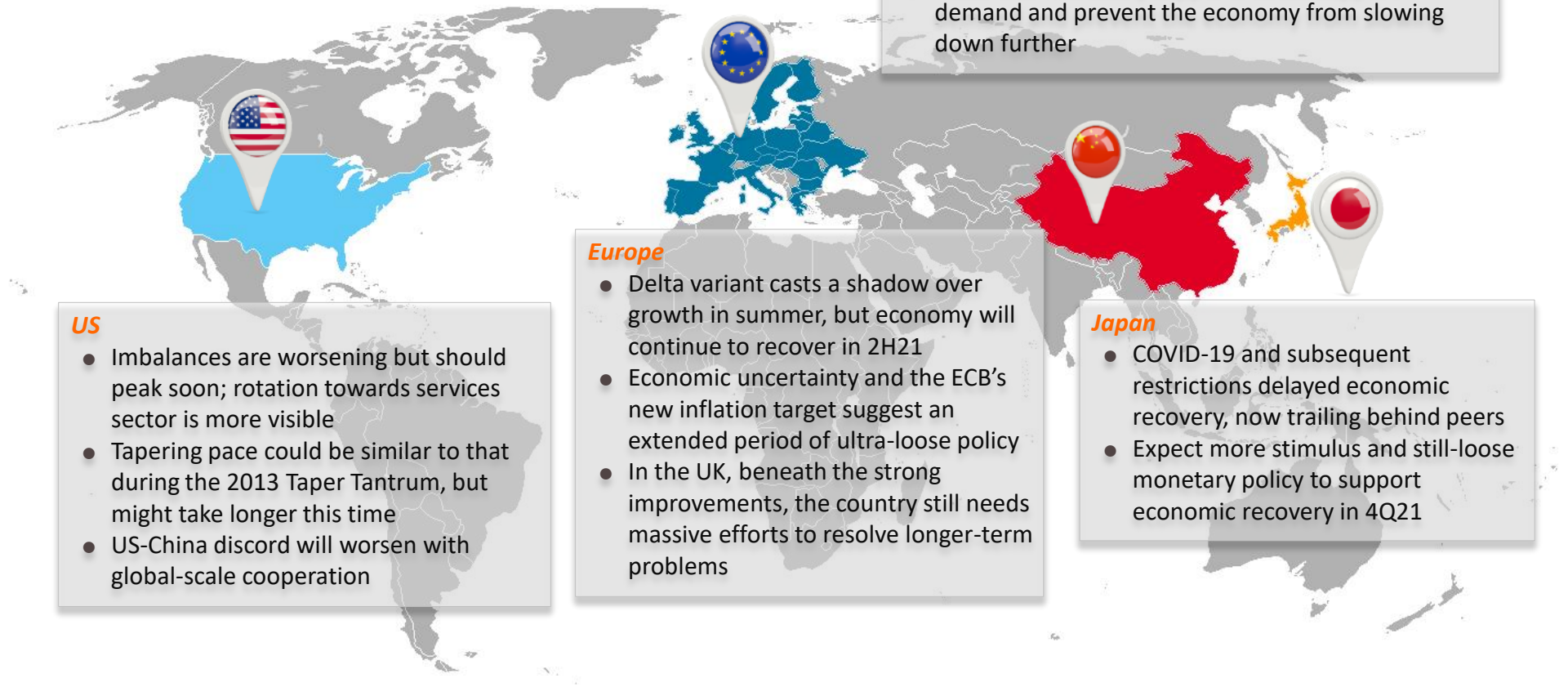

krungsri
Research
A member of MUFG
a global financial group
MONTHLY ECONOMIC
BULLETIN
July 2021
Krungsri Research

Global: Recovery gathers momentum



China

- Economy likely to slow down in 2H21
- Retail sales are improving but private investment is trailing behind, suggesting a sporadic recovery
- Fiscal and monetary supports could support demand and prevent the economy from slowing down further

US

- Imbalances are worsening but should peak soon; rotation towards services sector is more visible
- Tapering pace could be similar to that during the 2013 Taper Tantrum, but might take longer this time
- US-China discord will worsen with global-scale cooperation

Europe

- Delta variant casts a shadow over growth in summer, but economy will continue to recover in 2H21
- Economic uncertainty and the ECB's new inflation target suggest an extended period of ultra-loose policy
- In the UK, beneath the strong improvements, the country still needs massive efforts to resolve longer-term problems

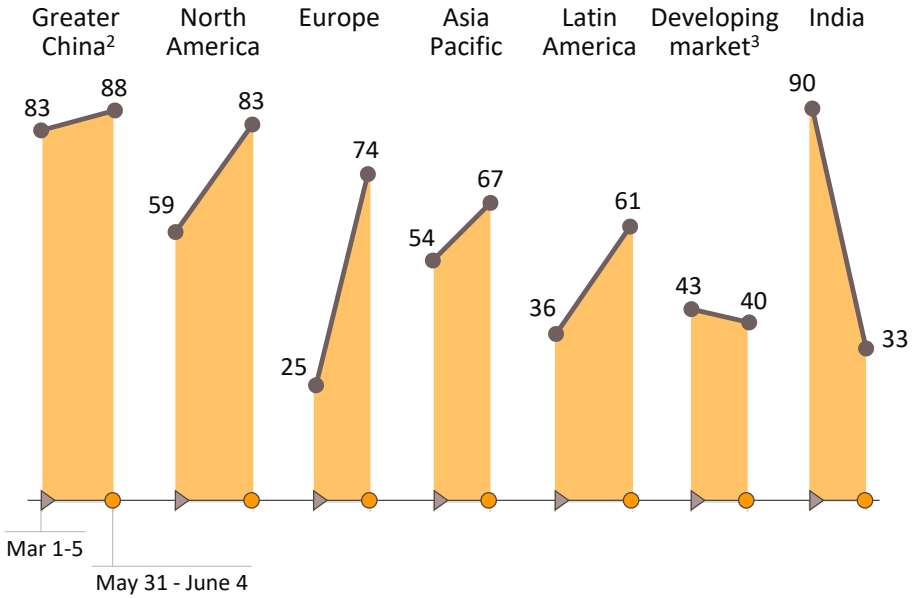
Japan

- COVID-19 and subsequent restrictions delayed economic recovery, now trailing behind peers
- Expect more stimulus and still-loose monetary policy to support economic recovery in 4Q21

Economic conditions are expected to improve in most regions, led by advanced economies

Economies in most parts of the world are improving, except for India and developing markets (including the Middle East, North Africa, South Asia, and sub-Saharan Africa). Executives are more upbeat about their own economies. According to a survey by McKinsey, 73% of respondents said conditions in their home economies are better now than they were six months ago compared to 53% in the previous quarter. **This is the first time in three years that a majority of respondents reported improving conditions at home.** In addition, the share of respondents who believe global economic conditions are better now than they were six months ago has risen to 70%, the largest in more than 10 years. Executives in developed economies are increasingly optimistic about global economic conditions, as are those of emerging-economies.

Share of respondents who say economic conditions in their respective countries are better than 6 months ago,[1] region by office, %

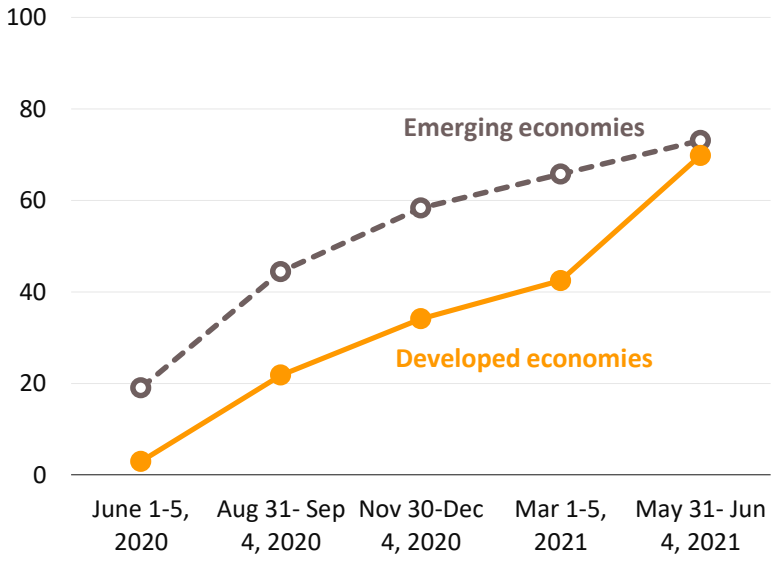


1/ Respondents who answered "the same" or "worse" are not shown in Mar 2021; Greater China, n=117; North America, n=210; Europe, n = 377; Asia Pacific, n = 108; Latin America, n =67; developing market, n =70; India, n= = 69. In June 2021; Greater China, n=114; North America, n=203; Europe, n = 362; Asia Pacific, n = 109; Latin America, n =62; developing market, n =79; India, n= = 81

2/ Includes Hong Kong and Taiwan

3/ Includes Middle East, North Africa, South Asia, and sub-Saharan Africa

Share of respondents who say conditions in the global economy are better than 6 months ago,1 region by office, %



1/ Respondents who answered "the same" or "worse" are not shown in June 2020; emerging economies, n =681; developed economies, n=1,541. In Sep2020; emerging economies, n =359; developed economies, n=779. In Dec 2020; emerging economies, n =441; developed economies, n=941. In Mar 2021; emerging economies, n =327; developed economies, n=691. In Jun 2021; emerging economies, n =338; developed economies, n=672.

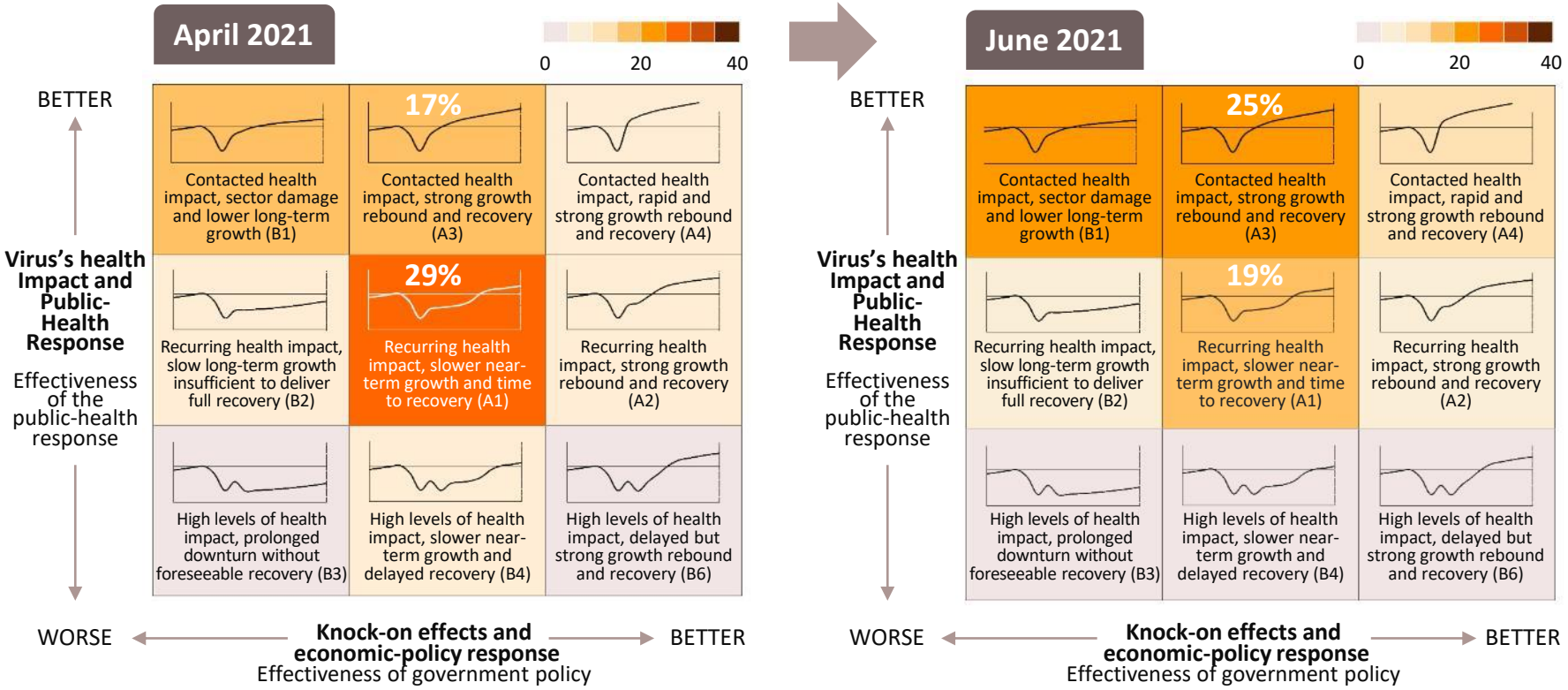
Source: McKinsey, Krungsri Research

More respondents believe latest outbreak would be contained and economy would recover soon

In another sign of optimism, more respondents selected growth-oriented scenarios as the most likely outcome for their respective economies. All three scenarios involve effective control of COVID-19, instead of a recurrence of or failure to contain the virus in April's survey. On the nine likely scenarios for pandemic impact on the economy, for the first time since July 2020, 25% of respondents selected A3 (characterized by successful containment of virus and public-health impact, and strong economic recovery) compared to only 17% in April. A3 replaces A1 (localized recurrences of the virus and slower near-term growth) as the most likely scenario. Only 19% of respondents now rank A1 as most likely, down from 29% previously.

Scenario for the COVID-19 pandemic's impact on GDP in respondents countries

(% of respondents[1] who rank each scenario as most likely)

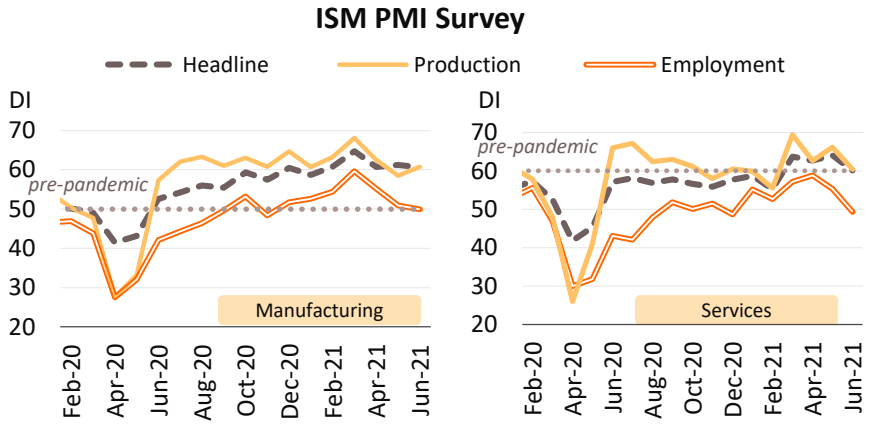


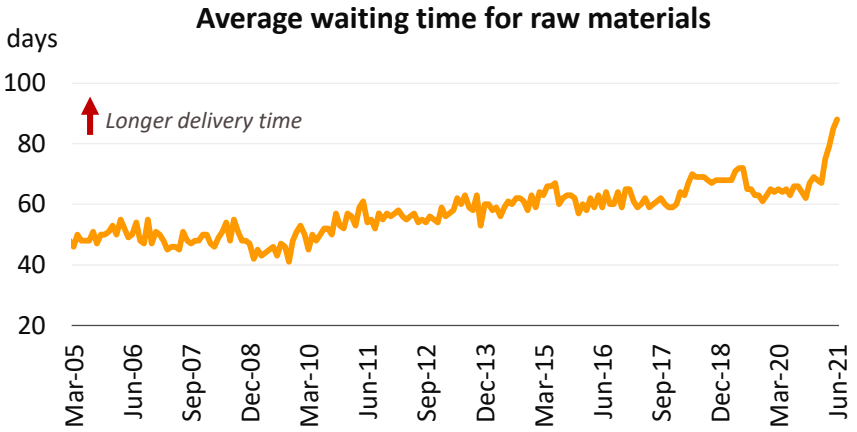
Note: [1]April 2021, n=1,158, June 2021, n =974

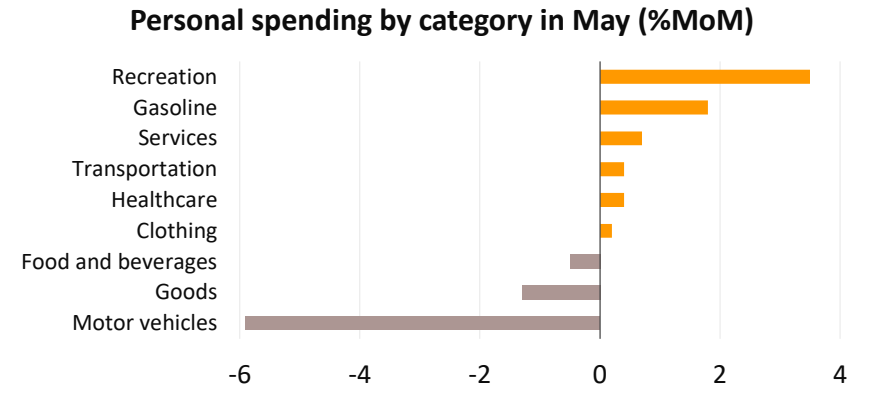
Source: McKinsey, Krungsri Research

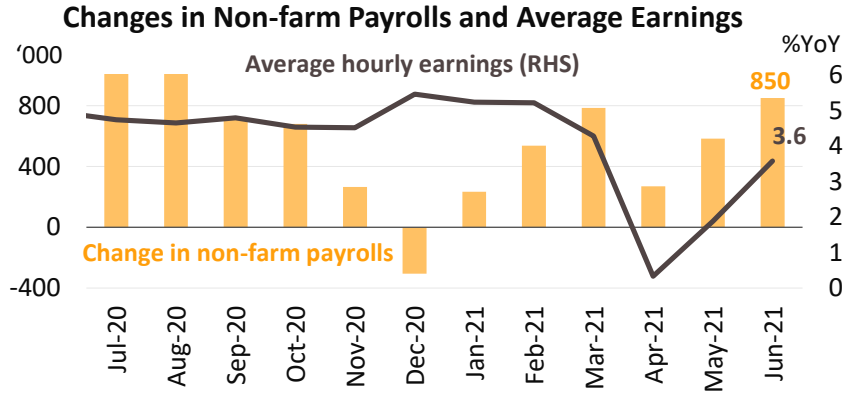
US: Imbalances are worsening but should peak soon; rotation towards services sector is more visible

Economic growth remains strong but supply and demand imbalances are capping the upside of growth. Manufacturing PMI showed factory strains have eased only mildly in June but the waiting period for raw materials hit a record-high of 88 days. This would be near **the worst supply bottleneck before easing in late 3Q21 due partly to fading effects of pent-up demand.** Services PMI pulled back slightly after hitting record-high in the previous month. Employment sub-index signaled a larger contraction due to labor shortage, especially in tourism sector and restaurants. **Rotation towards services spending is more visible since 2Q21** as spending on services rose 0.7% MoM in May led by recreation sector, while spending in goods dropped by 1.3%. Non-farm payrolls increased by 850k jobs, indicating labor is filling new jobs. **Average hourly earnings were volatile** in recent months due to the uncertain labor market and employees offering special bonus to return to work. Looking ahead, **wages could trend up as the government supports a minimum wage hike. Although higher wages would push up prices, it could also lift consumer purchasing power. Coupled with accumulated savings and wealth from pandemic stimulus measures, consumption should be strong in 2H21.**





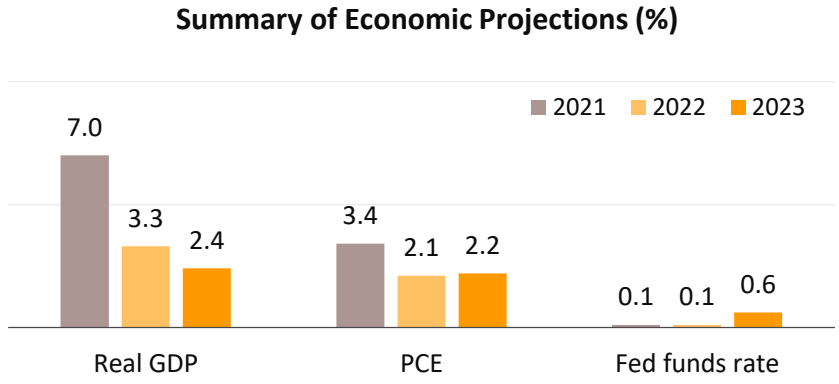


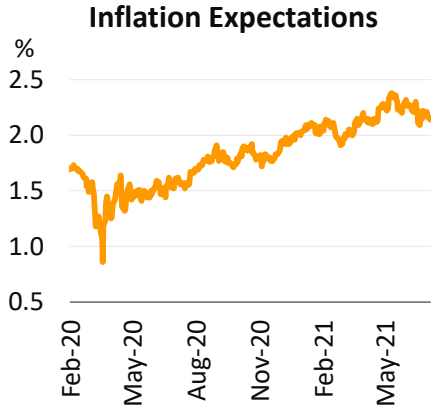


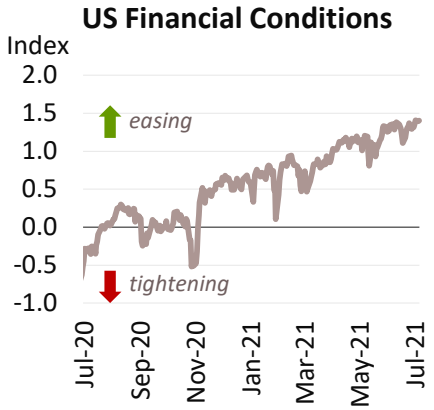
Source: Institute for Supply Management (ISM), Bureau of Economic Analysis (BEA), Bureau of Labor Statistics (BLS), Krungsri Research

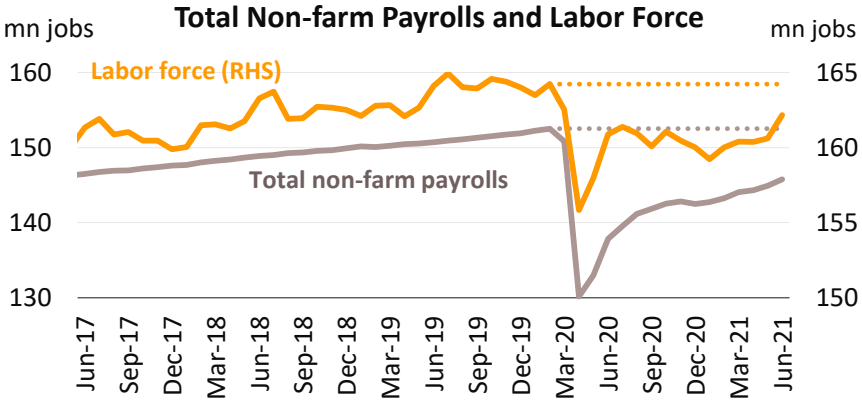
Tapering pace could be similar to that during the 2013 Taper Tantrum, but might take longer this time

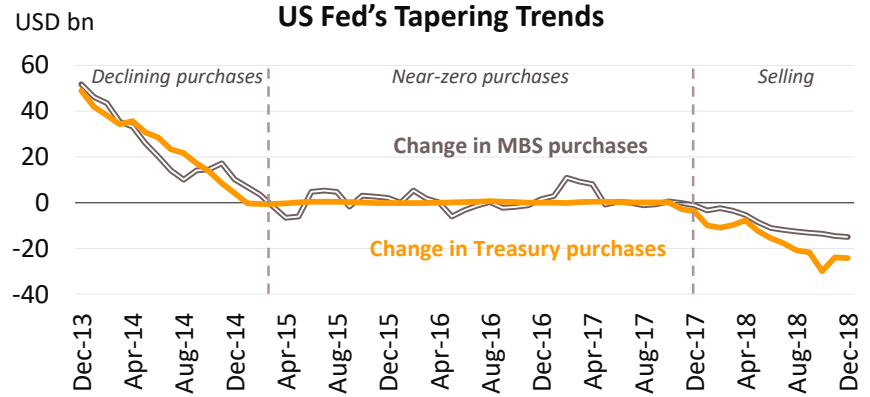
The June FOMC meeting suggested the Fed might raise rates faster-than-expected, possibly to 0.6% in 2023, according to median projections. **The Fed has already observed good economic progress and could meet their criteria for 'substantial progress' by the end of the year.** Inflation has surged after reopening and inflation expectations remain above the Fed's target. The Fed acknowledges inflation pressures are stronger and more persistent than anticipated. Moreover, financial conditions have eased since November last year. This suggests the central bank has achieved its objective of injecting liquidity. Amid the plentiful job openings, **if the US can add about 600k jobs per month in 2H, that would bring unemployed workers to below 2 million (near pre-pandemic level) by year end, assuming a smaller labor force due to retirement and voluntary unemployment**. We maintain that the Fed would announce tapering in 4Q21. Based on past trends, **the Fed would taper gradually starting with reducing monthly purchases of Treasury and MBS by USD5–10bn each in the first year after the announcement. Subsequently, they would drop purchases to zero for few years before deciding to sell these assets. The tapering this time would be similar that during the 2013 Taper Tantrum, but the larger purchase volume during the pandemic suggest it would take about 2 years to taper down to near-zero.**









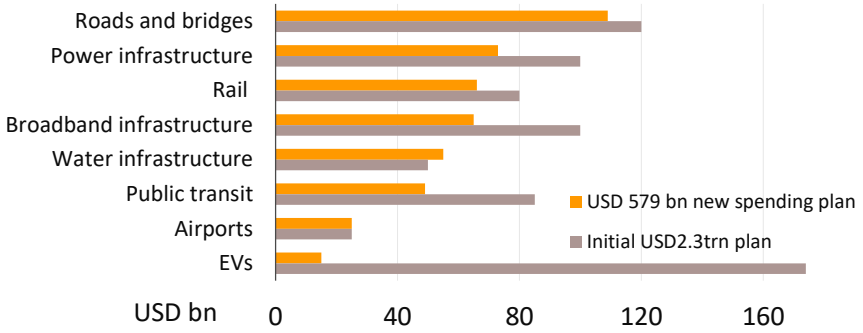


Source: Bureau of Labor Statistics (BLS), Federal Reserve Board, Federal Reserve Bank of New York, Bloomberg, Krungsri Research

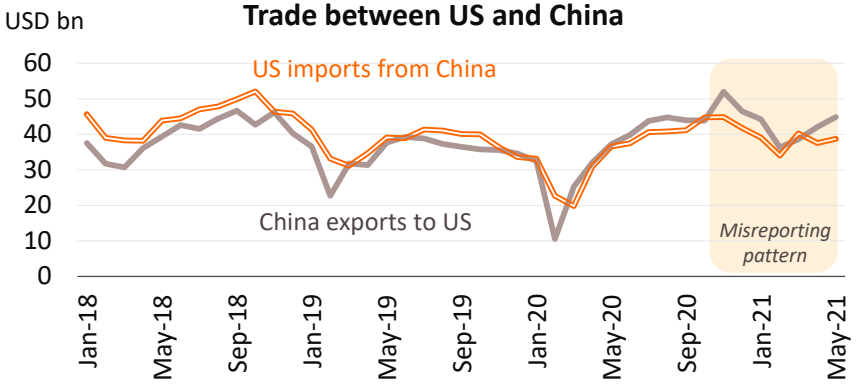
US-China discord will worsen with global-scale cooperation

Apart from the short-term goals of supporting recovery, the government will again address the local transportation and networks to maintain the US's position to compete with China in the 21st century. The White House and senators have reached an agreement on the infrastructure bill comprising USD579bn in new spending. But combined with the renewal of existing funding for infrastructure, total spending would reach only USD 1.2trn over the next 8 years, short of the initial proposal of USD2.3trn. **However, this is unlikely to be a final deal** as the democrats could use the budget reconciliation process to pass relief packages together with the American Families Plan or the Congress could approve the rest of the packages as separate bills. **US-China tension is likely to escalate, triggered by a range of disputes, from bilateral trade to cooperation with other major countries and sowing discord against China on a global scale.** In trade, the US and China have both misreported trade data to benefit from tax policy, but that has caused the US to lose USD10bn in tax revenues in 2020 and widened US trade deficit. **The US administration has announced steps to strengthen the domestic supply chain and build up manufacturing capacities,** targeting critical products. Besides, the US would continue to seek more strategic alliances with the EU, Quad, NATO and developing countries by funding infrastructure under the *Build Back Better World* (B3W) program, to offer an alternative to China's BRI. **Looking ahead, US policies on China would remain aggressive with more strategic competition, the global supply chain would decouple gradually, and tensions could persist and become more difficult to resolve.**

Highlights of new spending on infrastructure bill*



Trade between US and China



Policy recommendations after reviewing supply chain

Products	Plans to strengthen domestic production
Semiconductor	Department of Commerce would provide USD50bn on top of USD75bn on R&D, and support domestic manufacturing
Lithium battery	Department of Energy would distribute USD17bn to support new research and manufacturing
Rare earth minerals	US would develop capacity for sustainable production, refining and recycling
Pharmaceuticals	Department of Health and Human Services would use USD60mn to develop a platform to increase production

Build Back Better World (B3W) partnerships

The new global infrastructure initiative led by G7 nations would help fund the construction of over USD40trn worth of infrastructure in the developing world

B3W would be greener and more inclusive than China's BRI. G7 nations would use the market-driven private sector, paired with high standards and transparency in public funding, to drive long-term and sustainable development.

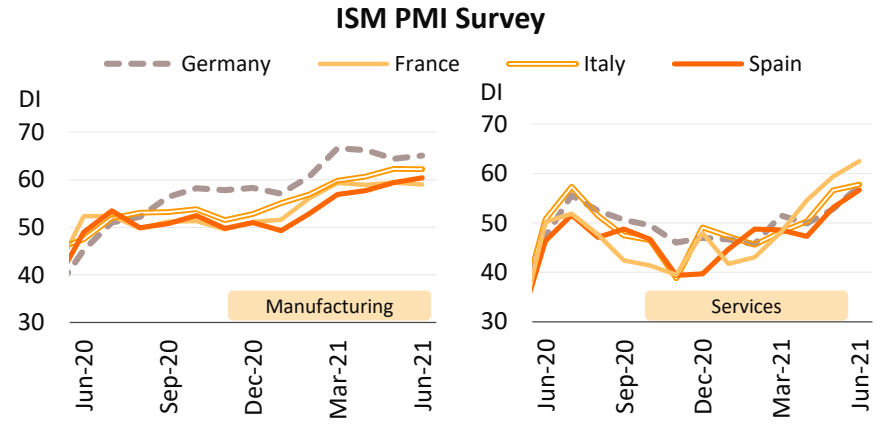
Major principles

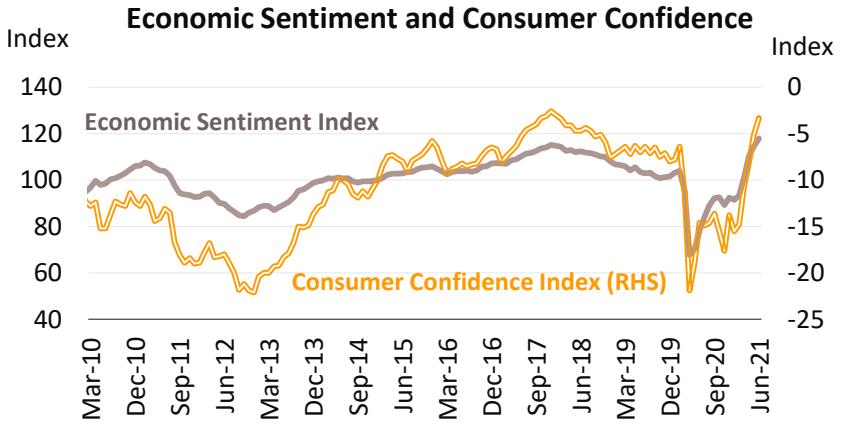
- Value-driven
- Good governance and strong standards
- Climate-friendly
- Strong-strategic partnerships
- Mobilize private capital through development finance
- Enhance the impact of multilateral public finance

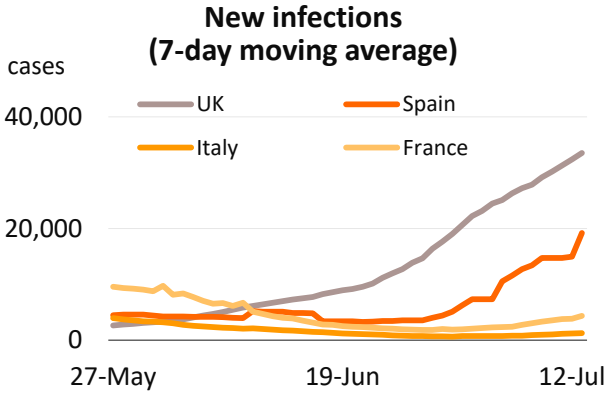
Source: The White House, Census Bureau, CIEC, CNBC, Bloomberg, Krungsri Research

EU: Delta variant casts a shadow over growth in summer, but economy will continue to recover in 2H21

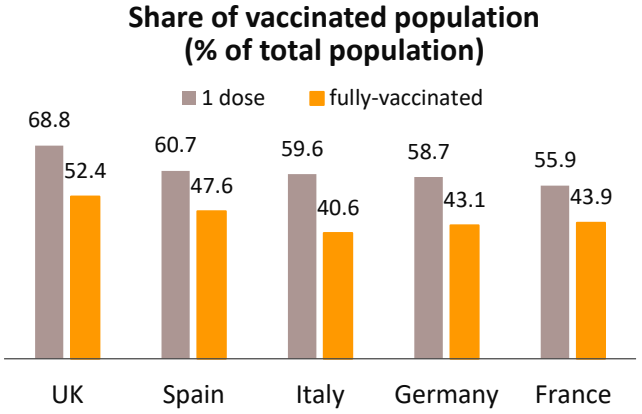
The economic recovery trajectory is being threatened by the more-infectious delta variant, leaving vaccination programs to bear the burden of supporting recovery. Manufacturing sector continues to expand but there are lingering supply problems. **Eurozone is optimistic the services sector would recover** fueled by more social gatherings. **Consumer confidence has improved to above pre-pandemic levels** and is close to a new high, which **confirms expectations for domestic demand to recover in the coming quarters. Despite these developments, the delta variant continues to threaten recovery.** New cases in the UK and Spain have almost tripled in early July, prompting some countries to apply stricter regulations for UK travelers. Spain would be hit hard because UK arrivals make up the majority of tourists in the country. However, **more than half the population in major economies have received at least one dose of vaccine, suggesting it is still possible to ride on intra-EU tourism.** In our view, the impact of new waves on tourism-reliant countries would be more visible in late July. **This implies recovery could stumble in 3Q21, especially in the tourism and services sectors, but there would be limited impact on 2H21 economic growth** because pent-up demand would partly offset the impact of rising daily cases, and initial disbursements under the EU Recovery Fund would start in 3Q21.







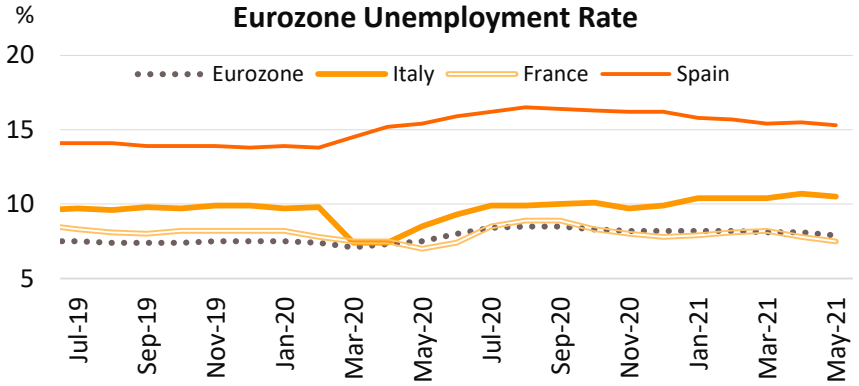


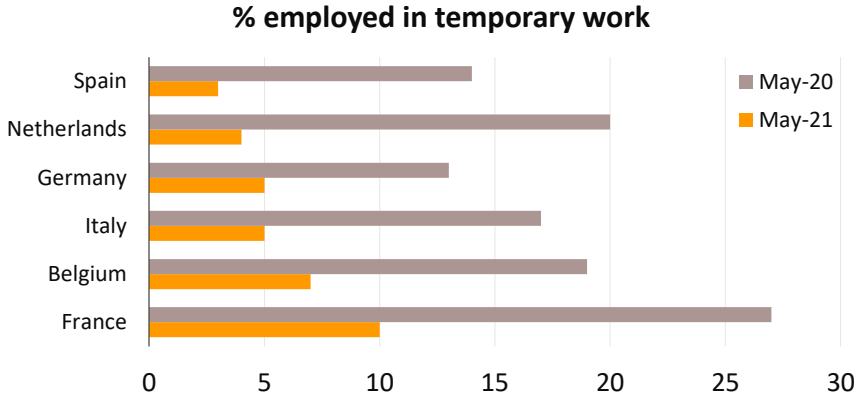


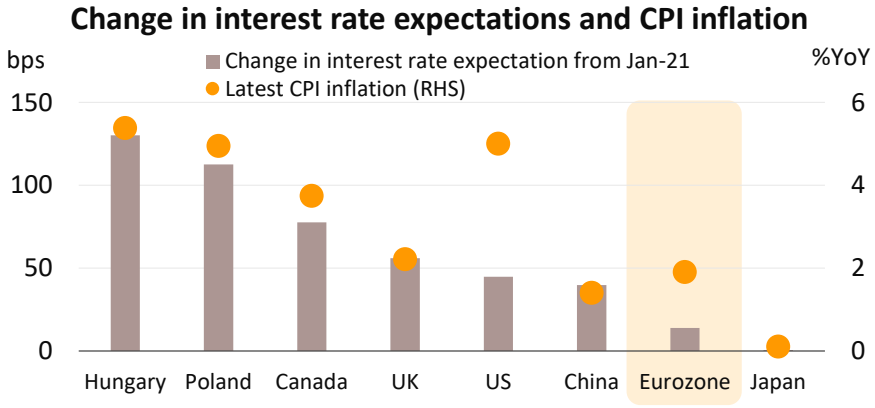
Source: IHS Markit, Eurostat, Our World in Data, Bloomberg, Capital Economics, Krungsri Research

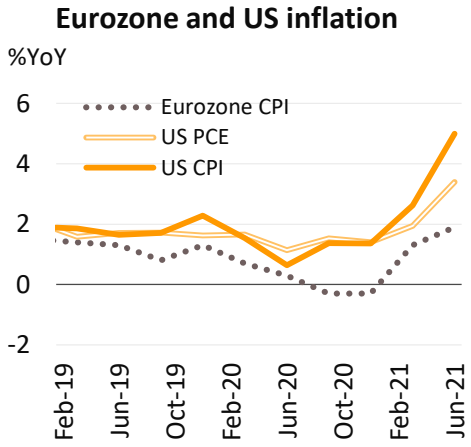
Economic uncertainty and the ECB's new inflation target suggest an extended period of ultra-loose policy

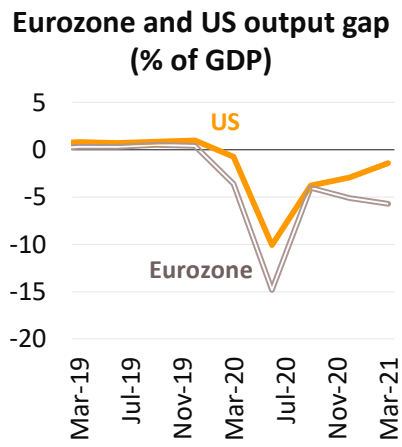
Rapid economic developments and rising inflation worldwide will pressure central banks to tighten policy or hike rates, but the ECB is unlikely to do that. High uncertainty will continue to encourage the ECB to provide support to ensure a sustainable recovery. Jobless rate in Eurozone has not spiked because of the job retention programs. **Although the number of furloughed workers had dropped across the bloc in 2Q21, jobless rate would rise later this year after the furlough schemes start to expire from September, which would make the labor market more volatile. On monetary policy, the ECB agreed on a new inflation target of 2%** compared to 'below but close to 2%' and to allow inflation to overshoot target if needed. **This would justify the move to maintain record-low interest rates and ultra-loose monetary policy for longer.** The ECB would change its guidance at the July meeting to reflect the new framework, additional stimulus, and inflation outlook. Typically, interest rate expectations rise the most where inflation has been highest. Unfortunately, **inflation in Eurozone is rising slower than in the US and other advanced economies, suggesting the underlying trend remains fragile,** and the output gap in the Eurozone indicates there still needs to be supportive policies. **The combined factors could push the ECB to continue to buy bonds under the PEPP program until March 2022, to increase purchases under the APP throughout next year, and to maintain record-low interest rates at least until 2023.**







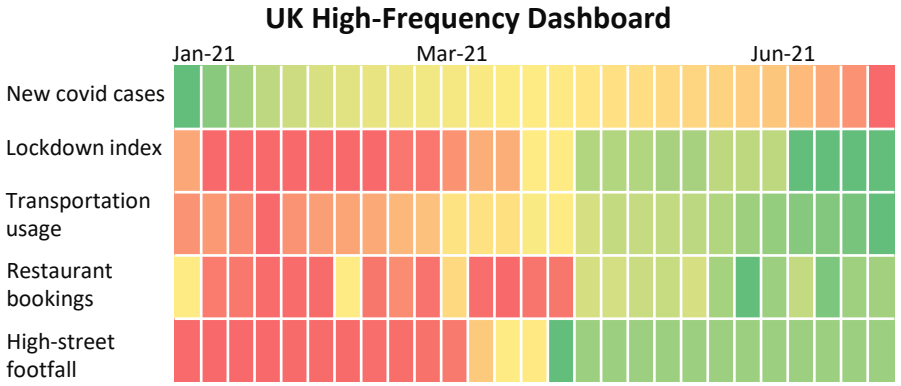


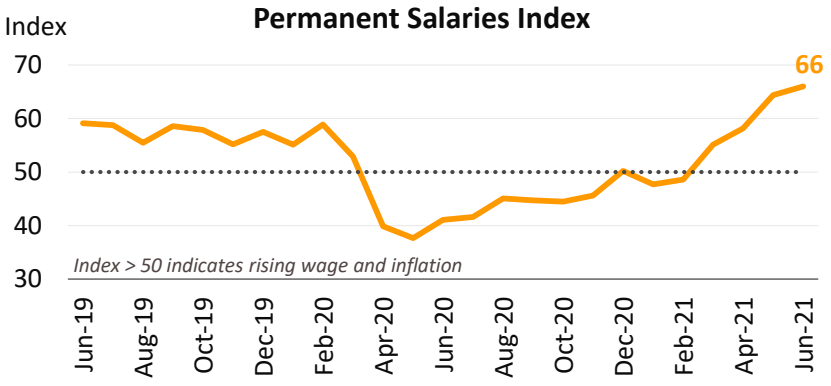


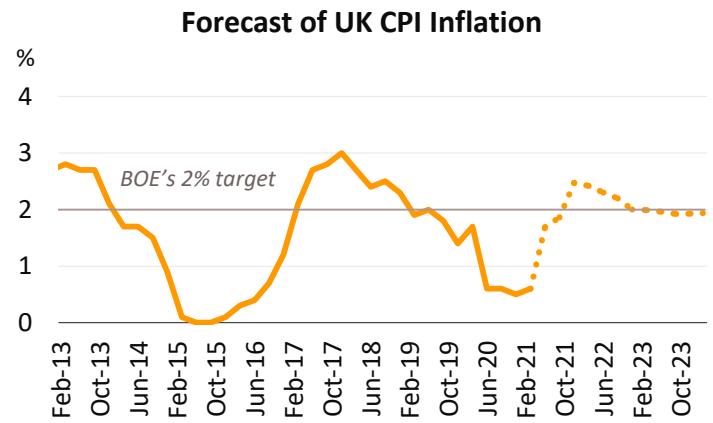
Source: Eurostat, National Statistics Office, Capital Economics, Bloomberg, Krungsri Research

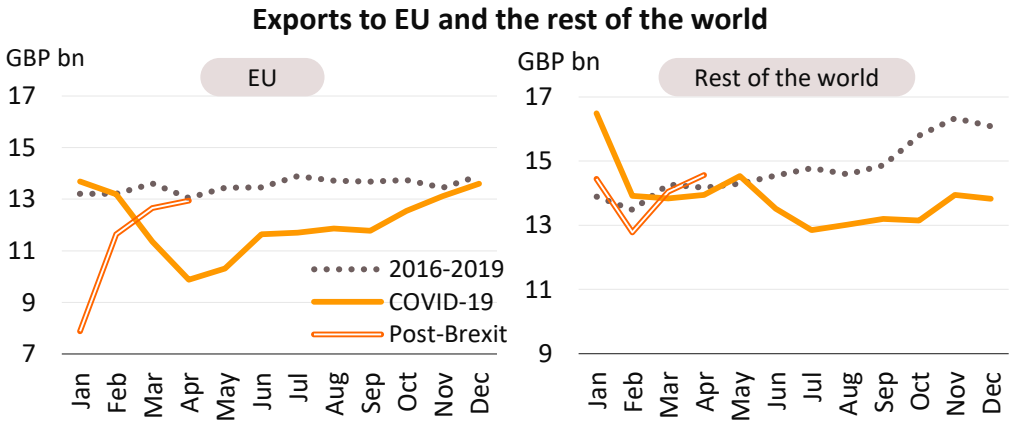
UK: Beneath the strong improvements, nation still needs massive efforts to resolve longer-term problems

Economic activity has improved significantly since the beginning of the year driven by the retail and services sectors. High-frequency data indicate notable developments in outdoor activities along with easing restrictions. **However, new covid cases dominated by the more-infectious delta variant has delayed reopening to late-July. Shortage of several key inputs would affect recovery in 2H,** including raw material, food and labor mainly due to logistics problems, supply disruptions, and lack of truck drivers. Permanent Salaries Index rose sharply in June, reflecting a shortage in both labor supply and skilled workers. **The shortage problem might be extended due to slower immigration and additional red tape in dealing with EU consumers and suppliers after Brexit, which could feed into inflationary pressure.** The BOE forecasts inflation would peak at 2.5% this year before falling to their 2% target. **Rising inflation would encourage the central bank to raise interest rates sooner, with the first rate hike possible in 1H23. The UK has more to do to ease post-Brexit adjustments, especially in trade and business services.** Despite rising exports, the UK could lose its regional hub status for the services sector and there could be reshoring of EU companies. That means the UK would need to negotiate new trade agreements such as the CPTPP, and pivot away from Europe to stay competitive. **Thus, any reopening accomplishments would not guarantee long-term prosperity. The UK needs to put in greater efforts to avoid scars on the economy caused by Brexit.**







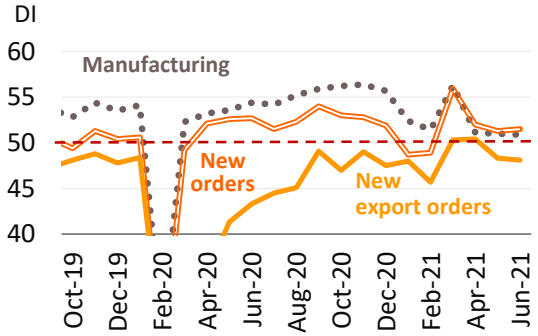


Source: Office of National Statistics (ONS), Recruitment and Employment Confederation, Bank of England (BOE), Bloomberg, Krungsri Research

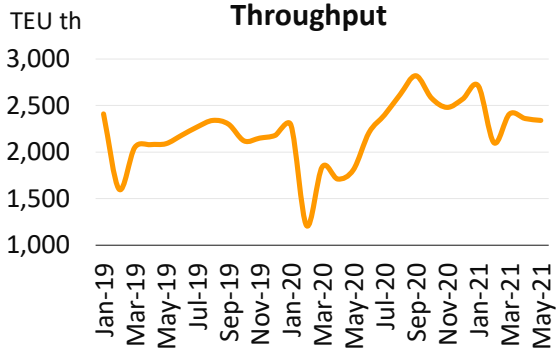
China: Economy likely to slow down in 2H

In 2Q21, China's GDP growth improved to +1.3% QoQ sa (from +0.4% in 1Q21. However, it decelerated to +7.9% YoY, slower than market expectation (and compared to +18.3% in 1Q21). Towards the end of 2Q21, there were signs of a slowdown, with **June Manufacturing PMI falling to a 4-month low of 50.9**. However, that was partly due to temporary supply bottlenecks at Shenzhen's Yantian Port as well as tight container shipping capacity, as reflected by falling container throughput. Since the port resumed operations, the congestion in marine traffic has gradually eased along with an improving Port Climate Index. And hard data (June exports) revealed that external demand continued to grow along with recovering global trade. **Meanwhile, Non-Manufacturing PMI slipped to 53.5 as new orders decreased,** partly due to stricter measures to control the outbreak in the southern region but the Input Price sub-index could grow amid the epidemic containment. **Although China still has several growth drivers, the supply-side economy - manufacturing and non-manufacturing sectors – show signs of slowdown from the beginning of the year.**

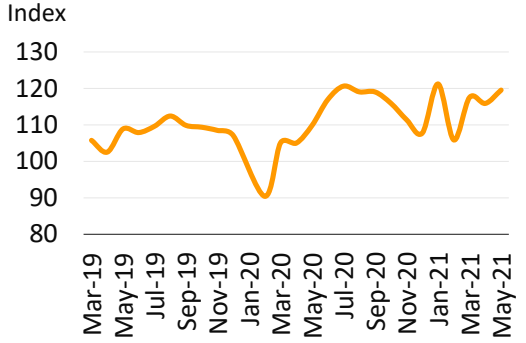
Official Manufacturing PMI



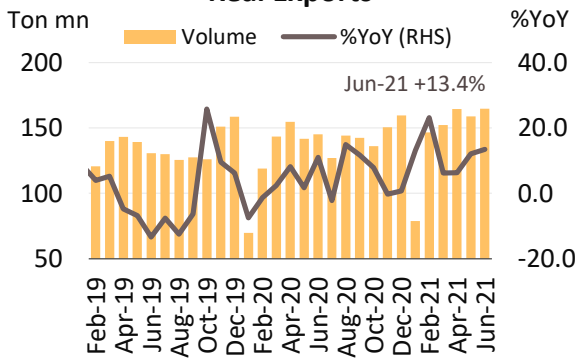
Chinese Ports: Container Throughput



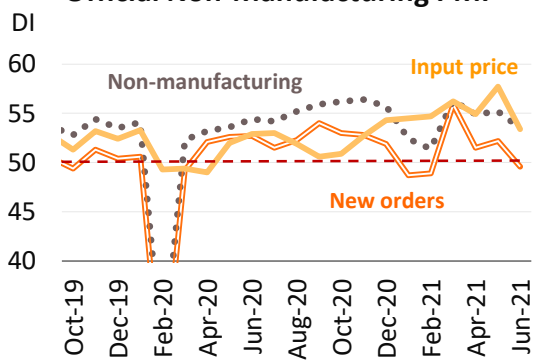
Chinese Port Climate Index



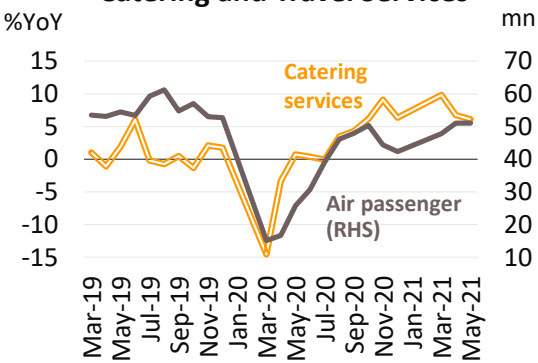
Real Exports



Official Non-Manufacturing PMI



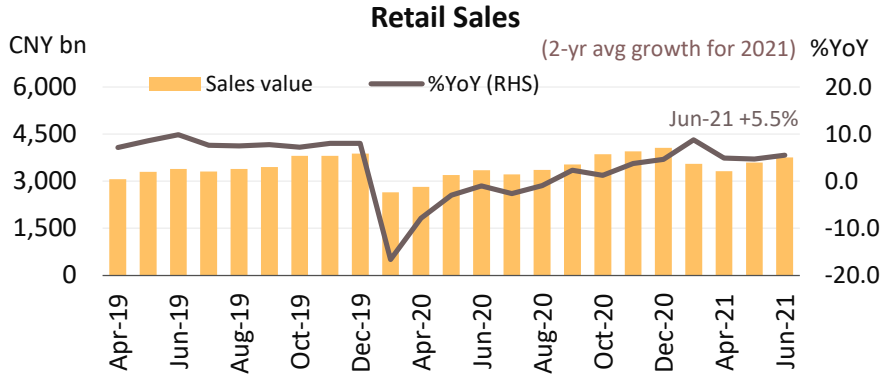
Catering and Travel Services

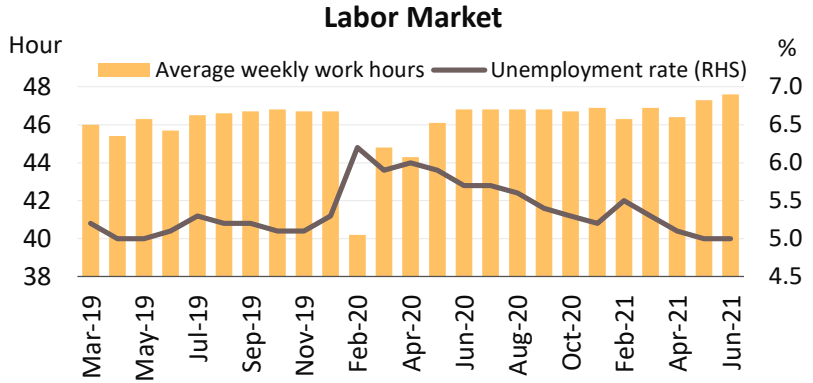


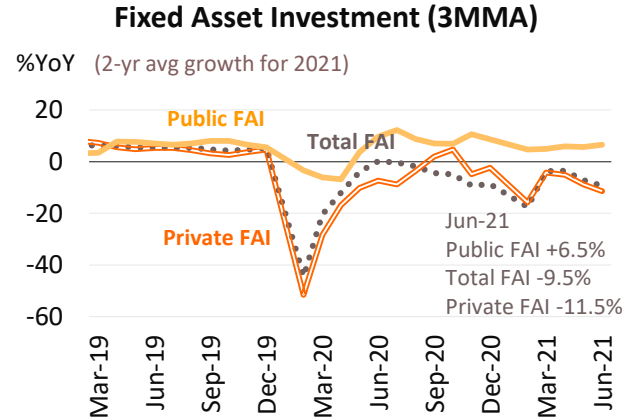
Source: National Bureau of Statistics, CEIC, Bloomberg, Capital Economics, Reuters, Krungsri Research

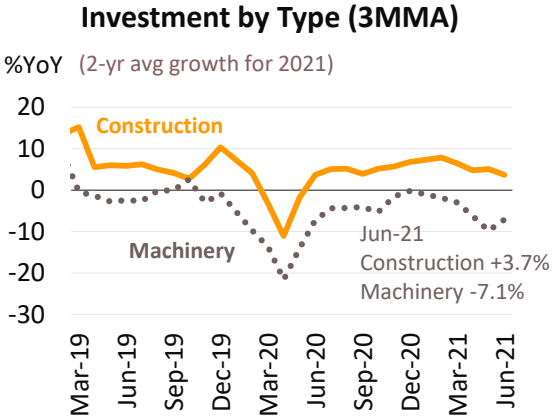
Retail sales are improving but private investment is trailing behind, suggesting a sporadic recovery

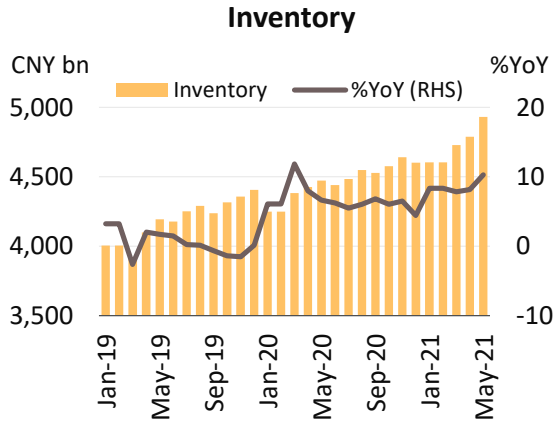
The post-pandemic recovery is not broad-based given private investment remains weak, but domestic consumption has improved. June retail sales posted positive growth for the 8th consecutive month, driven by the improving labor market. Unemployment rate remains at a 2-year low of 5.0% while average weekly working time is at a 4-year high of 47.6 hours, indicating a tightening labor market. These pressures will push up wages, which would in turn, support the recovery in household consumption. But in contrast, **private investment remains weak and is even falling behind public investment**. The 2-year average growth of private fixed asset investment has contracted for the 6th straight month. Meanwhile, public investment growth in 1H21 is slower than the year before. In addition, construction spending has outpaced spending on machinery & equipment, suggesting the business sector has slowed down expansion activity. And, the piling up of inventory would also prompt manufacturers to delay investment. **Hence, the recovery in domestic demand is uneven and requires further supporting policy measures, especially to boost private investment.**









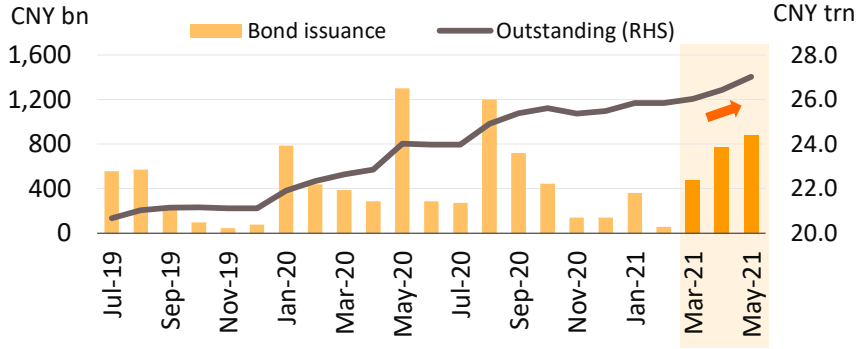


Source: National Bureau of Statistics, CEIC, Bloomberg, Capital Economics, Krungsri Research

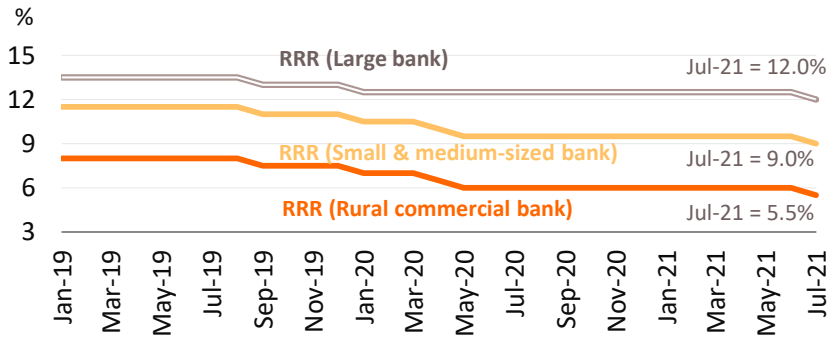
Fiscal and monetary measures could support demand and prevent the economy from slowing down further

To spur domestic demand, especially still-weak investment, China is stepping up public investment. Recently, local governments have issued more bonds to boost infrastructure investment. In May, it recorded CNY875bn, the highest since September 2020. On the monetary side, **the People's Bank of China (PBOC) announced it would cut reserve requirement ratio (RRR) for all banks by 50 bps, effective 15 July, 2021; this is the first reduction in 15 months (since the pandemic started).** It will inject additional liquidity into the banking system, in order to increase credit supply to shore up domestic demand. In June, banks' loan growth inched-up for the first time since February, alongside slowly expanding money supply. Reducing RRR would allow banks to lend out more. In terms of inflationary pressure, both headline and factory-gate inflation rates have passed the peak but have not led to broad-based accelerating prices, partly due to measures to mitigate the impact of higher commodity prices. The lower prices would allow the PBOC to continue to pursue monetary easing while keeping financing costs low to support domestic demand. **Looking ahead, the PBOC would keep policy interest rates unchanged and continue to employ an accommodative policy to accelerate recovery in the real sector and prevent a sharp economic slowdown.**

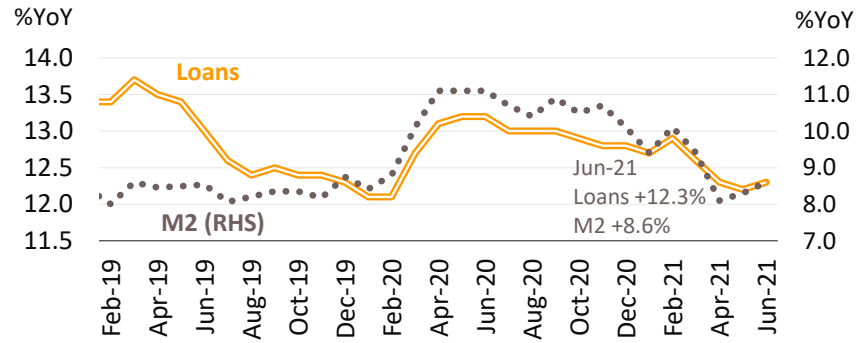
Local Government Bond Issuance



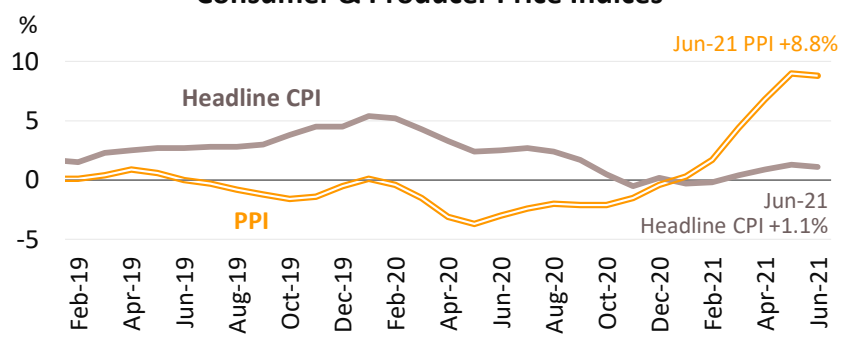
Reserve Requirement Ratio



M2 & Loans



Consumer & Producer Price Indices

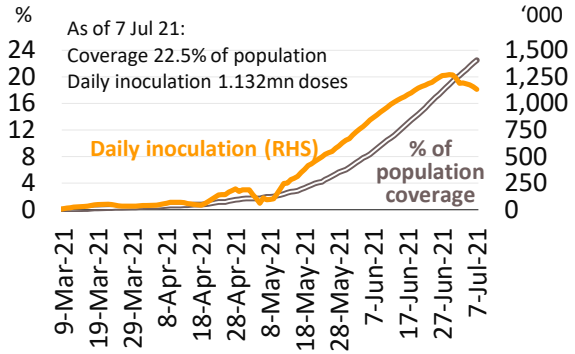


Source: The People's Bank of China (PBOC), CEIC, Bloomberg, Krungsri Research

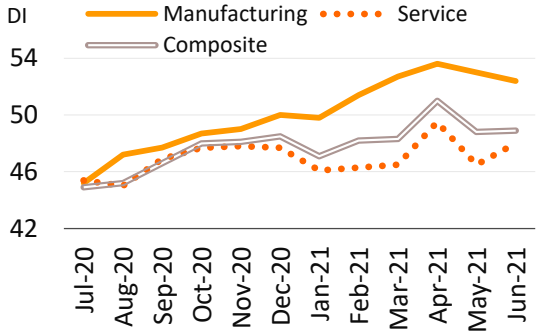
Japan: VoC and subsequent restrictions delayed economic recovery, now trailing behind peers

The COVID-19 situation has worsened in Japan since early July, with a rising number of daily cases mostly attributed to the Delta variant. That has prompted Japan to declare a state of emergency for the fourth time since the pandemic started, this time application to Tokyo and Okinawa. Consequently, the Tokyo Olympic Games will be held without domestic spectators but there would still be revenue from broadcasting rights. Meanwhile, the mass vaccination program has slowed down because of bottlenecks in vaccine supply and distribution. **The latest outbreaks have hurt economic activities, especially in the services sector.** Jibun Services PMI fell for the 17th consecutive month in June. However, Manufacturing PMI has been expanding since February. **The resilient manufacturing sectors has been supported by the recovering exports** with 2-year average export growth rising for the third consecutive month in May. In addition, business sentiment has recovered; 2Q21 Tankan survey is poised to swing up and companies have increased capital expenditure (CAPEX) budgets for 2022. **The strong export and investment momentum also supported the labor market,** as monthly household cash earnings grew 1.9% YoY, a 3-year high. That has led to improving purchasing power, which pushed up retail sales, especially sales of general merchandise and durable goods. **To conclude, there are positive signs in manufacturing, exports, business expectations, labor market and retail sales, but the resurgence of new cases and outbreaks have pushed back reopening plans, and Japan's recovery is now trailing behind that in other major economies.**

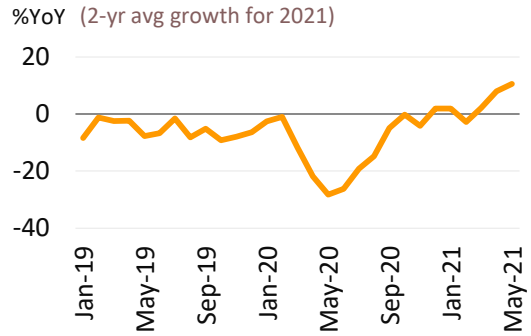
Progress in vaccination



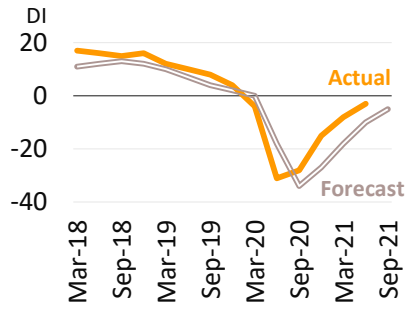
Jibun PMI



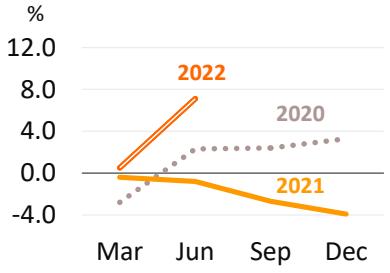
Exports



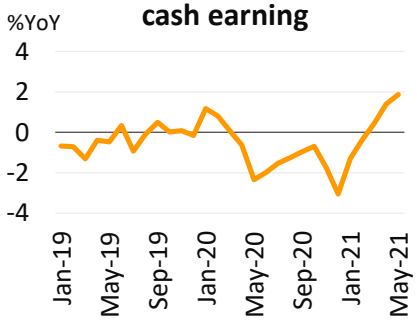
Tankan business condition



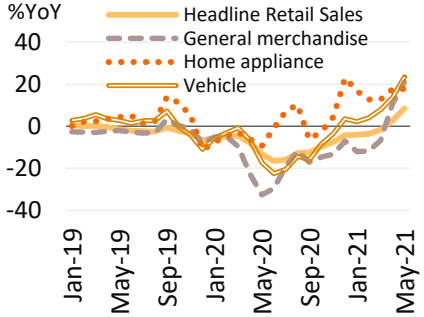
Tankan CAPEX



Household monthly cash earning



Retail Sales (3MMA)



Source: CEIC, Jibun Markit, Bank of Japan, Capital Economics, Bloomberg, Krungsri Research

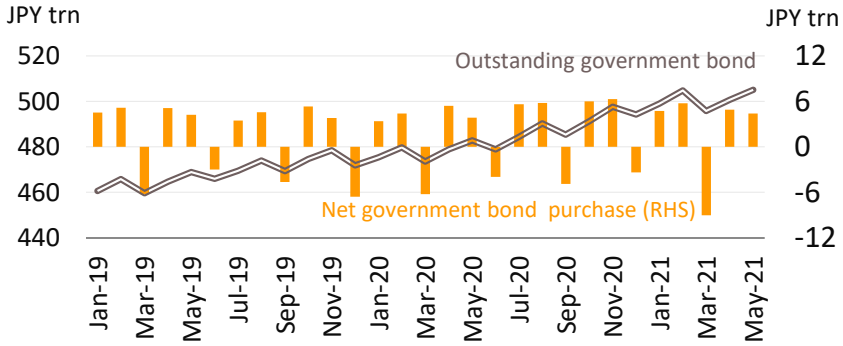
Expect more stimulus and still-loose monetary policy to support economic recovery in 4Q21

The recent outbreaks dominated by the Delta variant would hurt the Japanese economy in 3Q21. Hence, we expect the government to launch additional relief measures, including to help those hit by recent outbreaks. **The Suga government might introduce another supplementary budget worth about JPY30trn or 5.6% of GDP,** to help the hardest-hit individuals and businesses, as well as to drive a post-pandemic economy. In terms of monetary policy, the Bank of Japan (BOJ) has extended the emergency funding facility by 6 months to end-March 2022, and also announced a new lending facility (possibly start by end-2021) to spur private investment to address global warming. The BOJ has also continued to fine-tune monetary policy implementation by reducing monthly government bond purchases in 3Q21 to allow financial markets to be more efficient. The BOJ will reduce purchases of 1-to-3, 5-to-10 and 10-to-25 years-to-maturity buckets by at least JPY25bn. However, that adjustment is minimal compared to total quarterly net purchases of JPY1,462.9bn in 1Q21. We would not consider this policy tweak a tapering because it would not affect the pace of asset purchases. In terms of policy direction, 6 of the 9 monetary policy board members are dovish and likely to maintain an accommodative policy stance going forward. **Looking ahead, the relief measures would ease the negative consequences of the pandemic in 3Q21 and support overall economic recovery in 4Q21.**

Expected a 4th Supplementary Budget

Stimulus measures	Expect the additional relief measures to include post-COVID revitalization schemes, especially for • Semiconductor industry (JPY1trn) • Digitization (JPY2trn) • Climate change mitigation (JPY2trn)
Possible launch	Prior to the general election in Oct 2021
Expected Size	Around JPY30trn (5.6% of GDP)

BOJ's government bond purchase



Source: Bank of Japan, Cabinet Office, CEIC, Bloomberg, Krungsri Research

BOJ's additional monetary policy measures

Measures	Objective
Combat Climate Change - Lending facilities *(This program is expected to be launched by end-2021)*	BOJ will offer cheap loans to financial institutions to offer financing for activities aimed at combating climate change
Fine-tune monetary policy	• BOJ will reduce monthly government bond purchases in 3Q21, but would maintain bond purchases to keep JGB yields at zero percent • This measure would allow markets to function more efficiently

BOJ Policy Board – Majority of members are dovish



Thailand: Recovery is pushed back again

Our model suggests the latest wave of COVID-19 infections in Thailand would peak in August and drop below 1,000 in November, based on the current pace of inoculation.

- The worst-case scenario in our previous forecast of infections is now the baseline scenario for our current forecast as the number of new infections has risen to nearly 10,000 per day since early July. Vaccine efficacy remains key to driving down daily cases. In our latest baseline scenario, we expect the number of new cases to drop below 1,000/day by November this year. In the worst case, where the vaccines are less effective and July lockdown cannot contain the outbreaks, daily new cases could exceed 20,000 and the lockdown would last longer.

We cut 2021F GDP growth for the fourth time by 0.8 ppt to +1.2% to reflect Thailand's worst COVID-19 outbreak and limited policy supports; promising exports could reduce some of the pain.

- The surge in COVID-19 cases in Thailand dominated by the Delta variant, concerns over vaccine efficacy and delayed vaccination program suggest the containment measures would continue into October. The large negative impact of the latest COVID-19 outbreak would substantially outweigh gains from limited policy supports and strong exports. The net impact on Thai GDP growth would be minus 0.8 ppt, taking our 2021 full-year growth projection to only +1.2% vs +2.0% in the previous forecast. The economy could slip into a technical recession in 3Q in response to worsening domestic outbreak since the Songkran holidays.

We downgraded 2021F foreign tourist arrivals and private consumption but raised export growth projection; K-shape recovery becomes more visible.

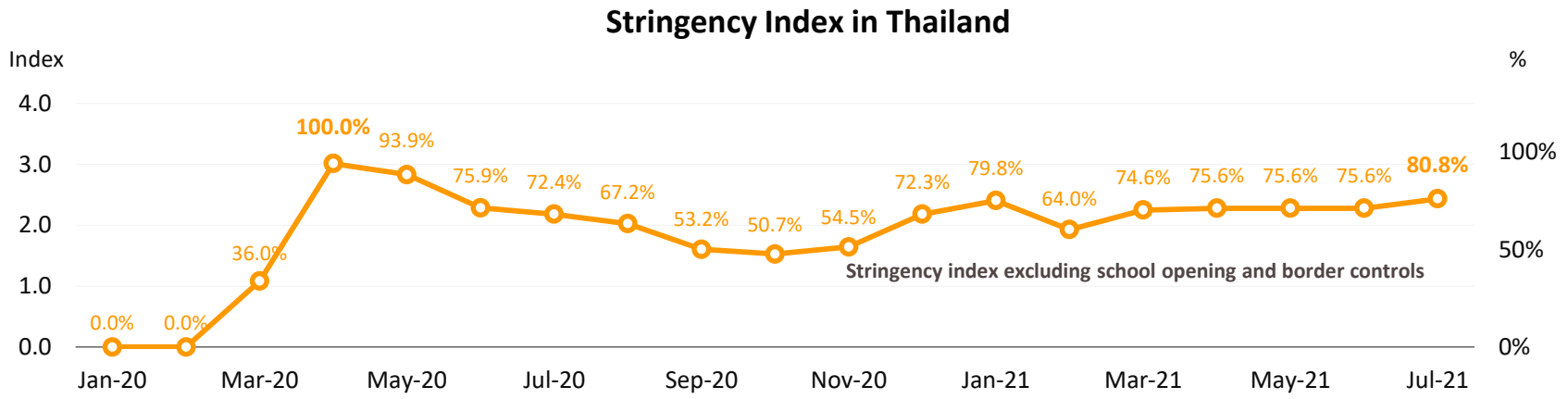
- The worse- and longer-than-expected outbreak in Thailand coupled with the dominant Delta variant in many countries prompted us to revise down 2021F foreign tourist arrivals to 210,000 (from 330,000) and to cut private consumption growth to +1.1% from +1.8%. However, we raised forecast export growth for this year (based on BOT data) to +15% from +9.5%. The strong exports outlook would alleviate some of the adverse impact on manufacturing production and business investment.

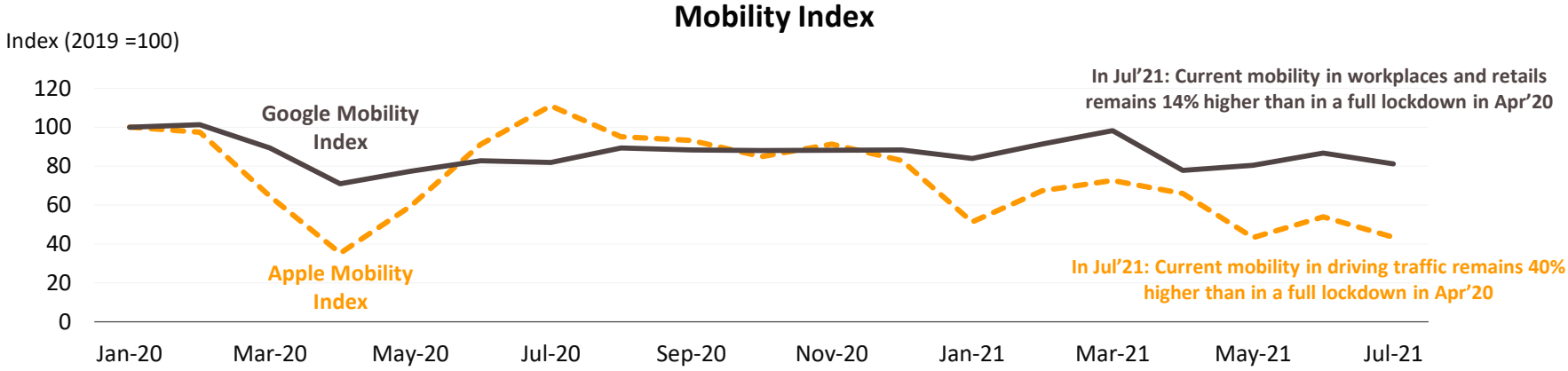
BOT is likely to maintain policy rate; need more targeted stimulus to limit scars.

- We expect the BOT to keep policy rates at record lows this year and next year because Thailand's economic recovery is fragile and the nation could take longer to see a broad-based recovery. On targeted monetary policy, the current financial assistance was designed to address issues before the latest outbreaks, suggesting a need for more targeted monetary stimulus to help severely affected groups and to prevent permanent economic scars.

Third wave is the most severe but July lockdown is less strict than the previous year

The third wave which started in April is the most severe in Thailand with new cases reaching 10,000/day. This has prompted the government to impose stricter containment measures and impose a 14-day (partial) lockdown in July. **The Stringency Index by the University of Oxford reveals the current lockdown is only 81% as strict as the one in April 2020.** Google Mobility Index, which reflect traffic congestion at workplace, retail, and recreation venues, is at 81.1 (pre-pandemic base = 100). Apple Mobility Index, which reflects driving traffic congestion, is at 43.4 (pre-pandemic base = 100). **This means the latest mobility indicators are 14% higher than during the full lockdown in April 2020 for workplace and retail venues, and 40% higher for traffic.**



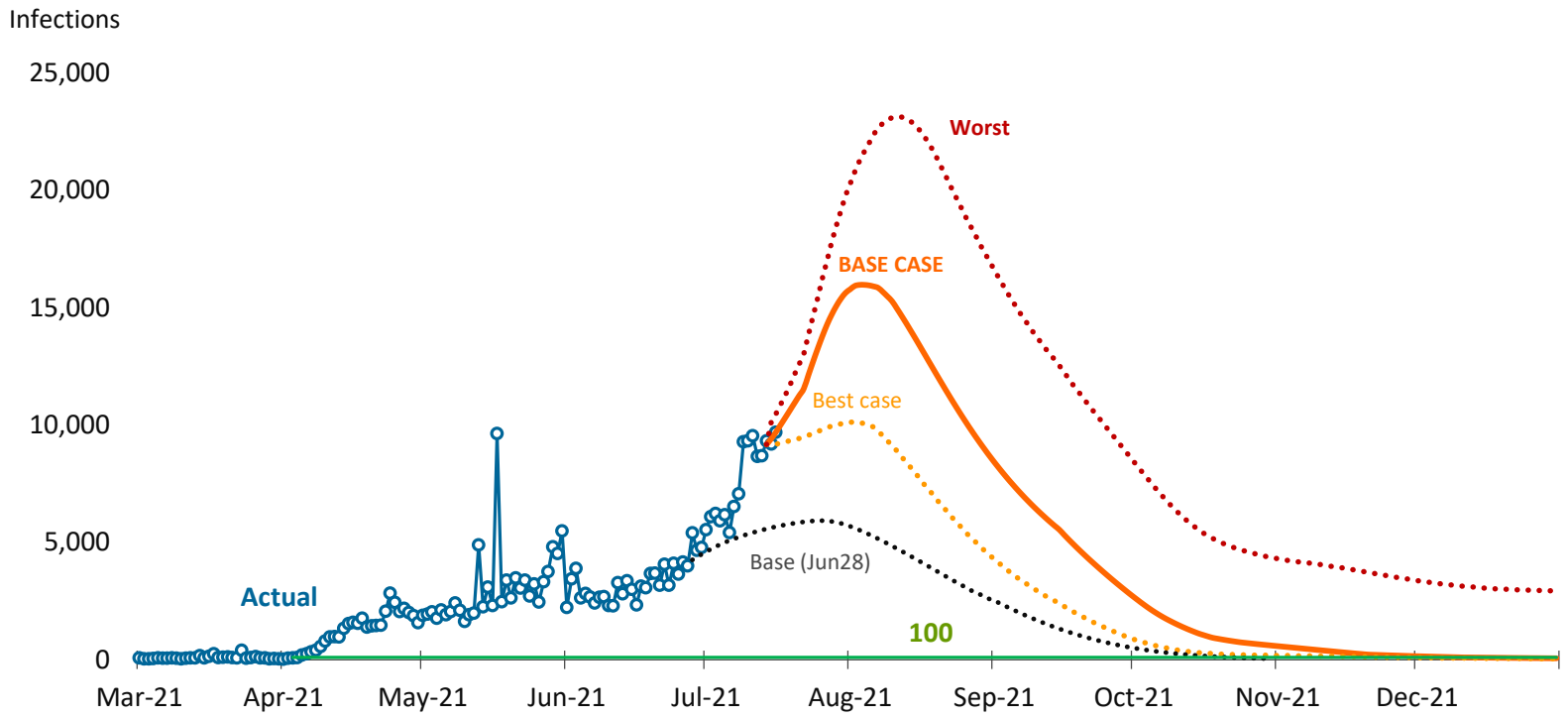


Source: University of Oxford, Google, Apple

Latest wave could peak in August and drop below 1,000/day in November, based on current pace of inoculation

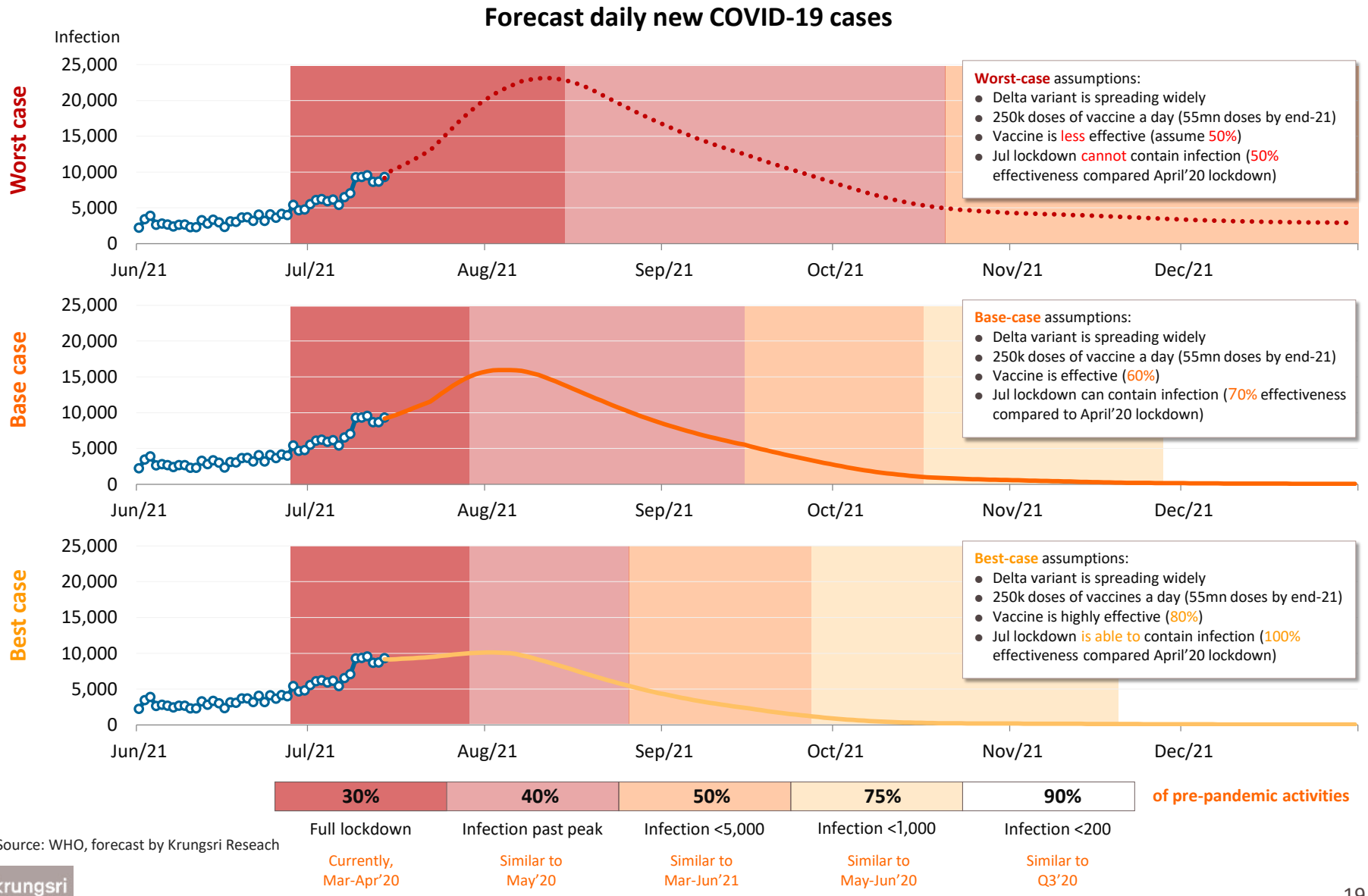
The worst-case scenario in our previous forecast is now our baseline scenario as new cases have risen to nearly 10,000 per day since early July. More importantly, it is dominated by the Delta variant and is spreading to several provinces. Our latest forecast assumes new cases in Thailand would be attributed to the Delta and Beta variants in the coming months, so we analyzed historical data for Thailand, India, South Africa, and the UK. The July lockdown in Thailand is assumed to be 70% as effective as the lockdown in April 2020, suggesting new cases would increase to 15,000/day by early-August. Thailand is expected to dispense 250,000 doses of vaccine per day the rest of this year, taking total vaccines dispensed to 55m doses by year-end. This could help to bring down daily new cases, especially after September. **Vaccine efficacy remains key to driving down daily cases (assuming 60% vaccine efficacy). In our latest base case scenario, we expect the number of new cases to drop below 1,000/day by November this year.** In the worst case, where the vaccines are less effective and July lockdown cannot contain the outbreaks, daily new cases could exceed 20,000 and the lockdown would last longer.

Forecast daily new COVID-19 cases



Source: WHO, forecast by Krungsri Research
Note: forecast as of Jul 14, 2021

Assumption for each scenario and anticipated containment measures



Source: WHO, forecast by Krungsri Reseach

Thailand Economic Outlook 2021

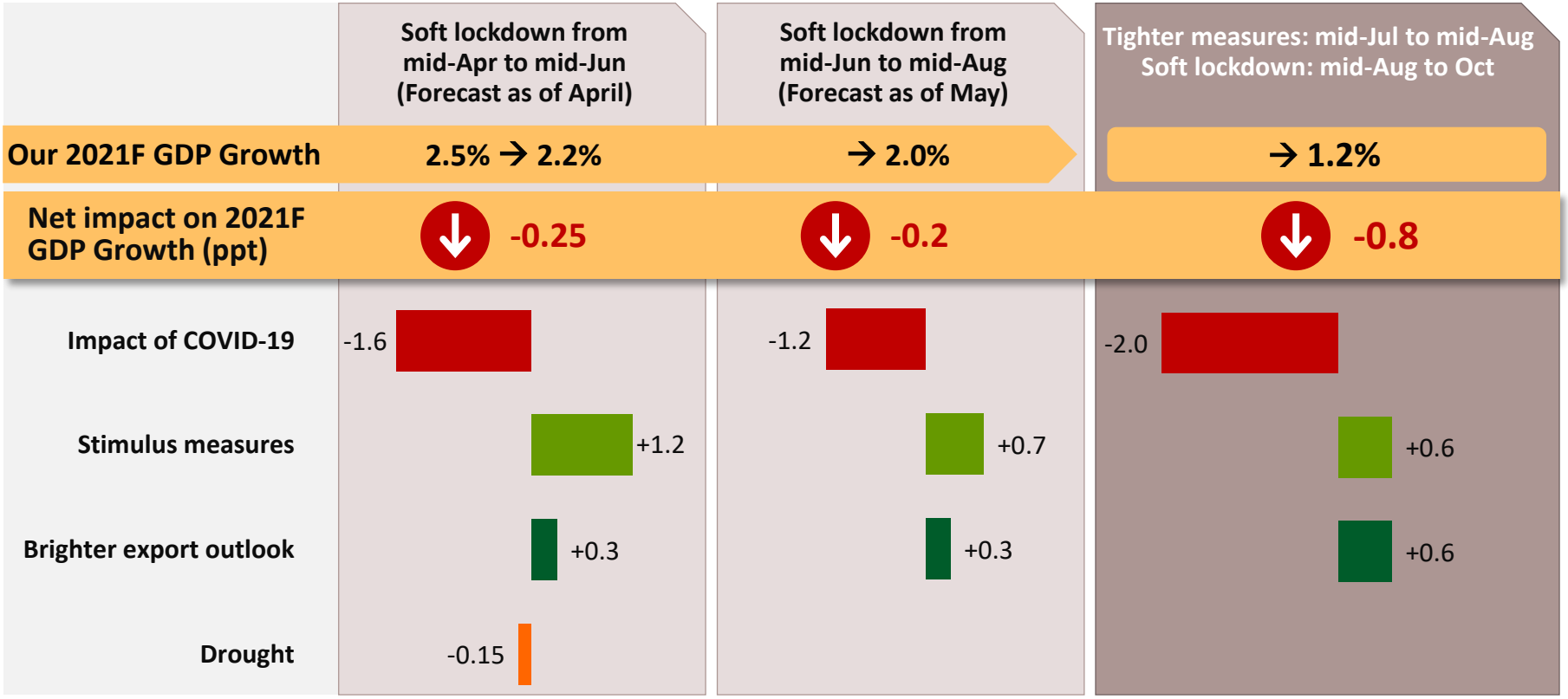
Krungsri Research Forecast		2019	2020	2021F	
				Previous	Latest
GDP growth	YoY (%)	2.3	-6.1	2.0	1.2 ▼
Private Consumption Expenditure	YoY (%)	4.0	-1.0	1.8	1.1 ▼
Government Consumption Expenditure	YoY (%)	1.7	0.9	4.3	4.3 =
Private Investment	YoY (%)	2.7	-8.4	3.9	3.9 =
Public Investment	YoY (%)	0.1	5.7	8.4	7.9 ▼
Nominal Exports in USD (f.o.b.)	YoY (%)	-3.3	-6.6	9.5	15.0 ▲
Nominal Imports in USD (f.o.b.)	YoY (%)	-5.6	-13.5	16.0	21.5 ▲
Current Account Balance	USD, bn	38.2	16.5	2.0	-2.4 ▼
Tourist Arrivals	Mn, persons	39.8	6.7	0.33	0.21 ▼
Headline Inflation	YoY (%)	0.7	-0.8	1.1	1.2 ▲
Exchange rate (end of period)	THB/USD	30.1	30.0	30.5	31.5 ▲
Policy Interest rate (end of period)	(%)	1.25	0.50	0.50	0.50 =
Dubai crude price (period average)	USD/bbl	63	42	62	66 ▲

Source: Office of the National Economic and Social Development Council (NESDC), Bank of Thailand (BOT), Ministry of Commerce (MOC), Ministry of Tourism and Sports (MOTS), Krungsri Research

We trimmed GDP growth forecast again given more severe outbreak and limited policy support, despite strong exports

The surge in COVID-19 cases in Thailand dominated by the Delta variant, concerns over vaccine efficacy and delayed vaccination program suggest the containment measures would continue into October. On this note, **we estimate the combined negative impact of supply disruption, demand shock, and weaker tourism activity, would reduce Thai GDP growth by 2.0 ppt this year. However, strong exports would lift GDP growth by 0.6 ppt. We also expect the government to introduce additional relief measures worth THB100bn this year which could add 0.6 ppt to GDP growth**, but both fiscal and monetary policy supports seem limited compared to the pandemic impact and past relief measures. The large negative impact of the latest COVID-19 outbreak would substantially outweigh gains from limited policy supports and strong exports. **The net impact on Thai GDP growth would be minus 0.8 ppt, taking our 2021 full-year growth projection to only +1.2% vs +2.0% in the previous forecast.**

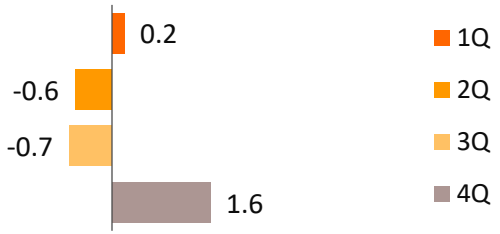
Revision to our Thailand Economic Growth Forecasts since April 2021



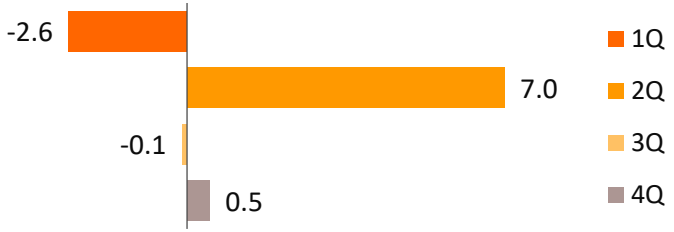
Source: Krungsri Research

Thai economy could slip into a technical recession in 3Q given more severe domestic outbreak since April

Quarterly GDP Growth Forecast (2021):% QoQ



Quarterly GDP Growth Forecast (2021): %YoY



1H21: Recovery retarded by domestic headwinds

External Factors

- **Gradual recovery led by huge stimulus measures**
- **Regionalization** and ASEAN dynamism
- **Rising COVID-19 infections worldwide**
- Crisis legacies such as unemployment and debt

Domestic Factors

- **Domestic policy supports**
- Infrastructure investment
- **Resurgence of domestic pandemic in early 1Q and 2Q**
- **High-reliance on tourism sector** leaves substantial damage on domestic businesses, jobs and income
- **Domestic political uncertainty**
- High private and public debts
- Crisis legacies worsened by further travel restrictions
- Drought impact

2H21: External tailwinds and mass vaccination to ease domestic headwinds in 4Q

External Factors

- **Resilient global manufacturing, reopening of services sector**
- **Huge stimulus measures** led by the US and Eurozone
- **Regionalization** and ASEAN dynamism
- Concern over unwinding of monetary stimulus
- Uncertainty over vaccination and pandemic amid crisis legacies

Domestic Factors

- **Additional stimulus measures** to support domestic spending
- Mass vaccination in 2H21
- Plans to gradually reopen pilot areas to foreign tourists
- **Concerns over vaccine efficacy and delayed vaccination**
- **High-reliance on tourism sector** leaves substantial damage on domestic businesses, jobs and income
- **Domestic political uncertainty**
- High private and public debts
- Crisis legacies worsened by further travel restrictions

Source: Krungsri Research

Thailand expected to dispense 55m doses of vaccines by year-end, only half the official target of 100m doses

The Delta variant has taken a toll on domestic economic activity since mid-July. New cases have reached almost 10,000 per day. The government has imposed more stringent measures on 10 provinces designated as red zones (maximum & strict control zones), including the Bangkok Metropolitan Region. There have been stricter controls on movement and activities, including curfews, effective 12 July. Up to 15 July, the government has dispensed 14 million doses of vaccine or an average of 240,000 doses per day. Assuming the pace of vaccination is around 250,000/day, Thailand would have dispensed 55 million doses by year-end, far below the official target of 100 million doses.

COVID-19 Control Zones

Zone	Started on 18 June	Started on 12 July
Maximum control	**10 provinces** (Bangkok, Nonthaburi, Nakhon Pathom, Samut Prakan, Pathum Thani, Samut Sakon, Songkla, Yala, Narathiwat and Pattani)	**10 provinces** (Bangkok, Nonthaburi, Nakhon Pathom, Samut Prakan, Pathum Thani, Samut Sakon, Songkla, Yala, Narathiwat and Pattani)
High-control	**5 provinces**	**24 provinces** ▲
Control	**9 provinces**	**25 provinces** ▲
High-surveillance	**53 provinces**	**18 provinces** ▽
Surveillance	-	-

Countdown: 100 mn doses by end-2021

Current pace of vaccination

(as of 15 July 2021)

Latest vaccination

14 mn doses

Latest average vaccination rate

~240k doses/day

We assumed **250k** doses of vaccine would be dispensed daily the rest of this year, implying **55mn** doses dispensed by year-end.

Official target: 100 mn doses by year-end

Targeted vaccination the rest of this year

86 mn doses

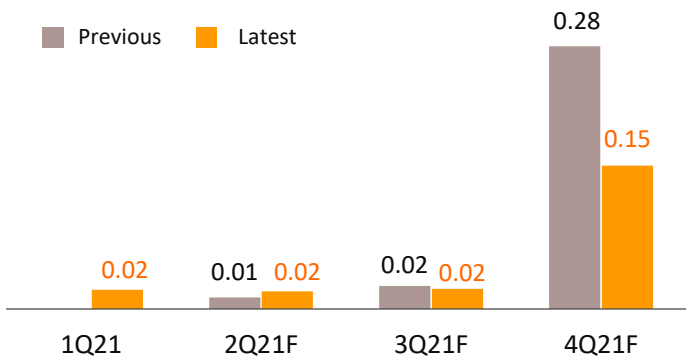
The rate of vaccination to achieve the official target

> 500K doses/day

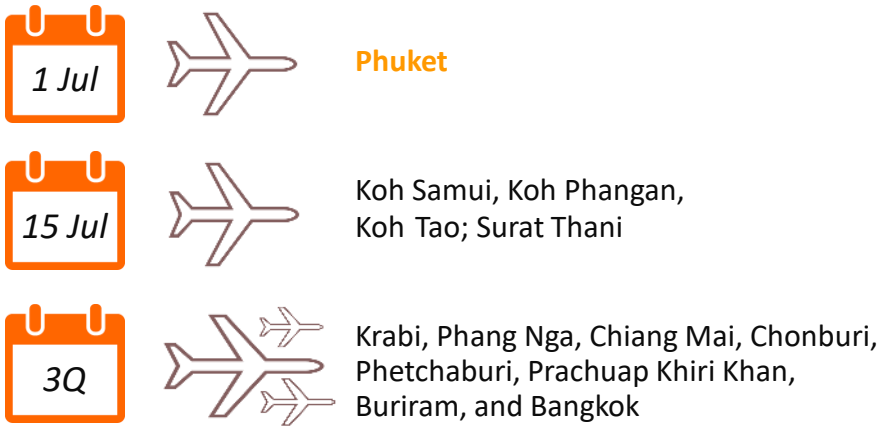
Source: Google, Krungsri Research

Trimmed 2021F foreign tourist arrivals to 210,000 despite *Phuket Sandbox and Samui Plus kicking-off in July*

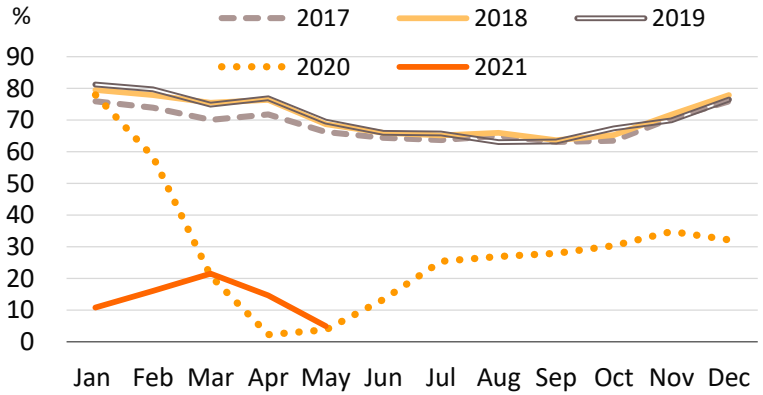
Projected foreign tourist arrivals in 2021
(persons, mn)



Reopening Timeline for Foreign Tourists



Nationwide average occupancy rate



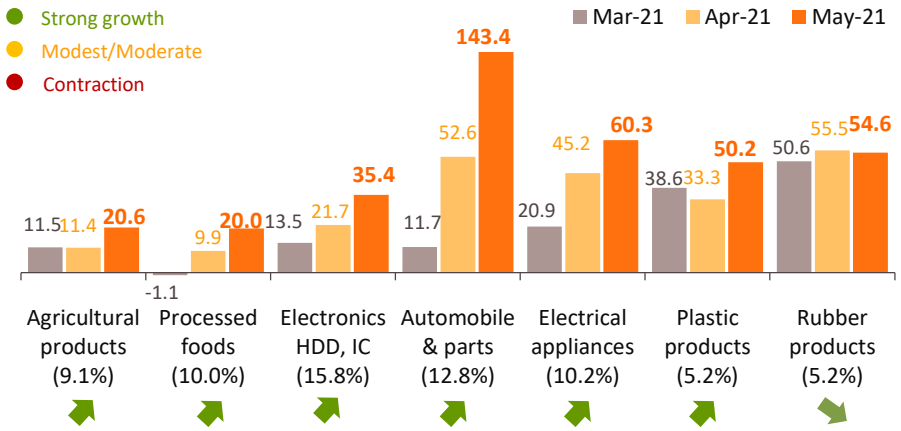
Source: MOTS, Krungsri Research

Krungsri Research's view

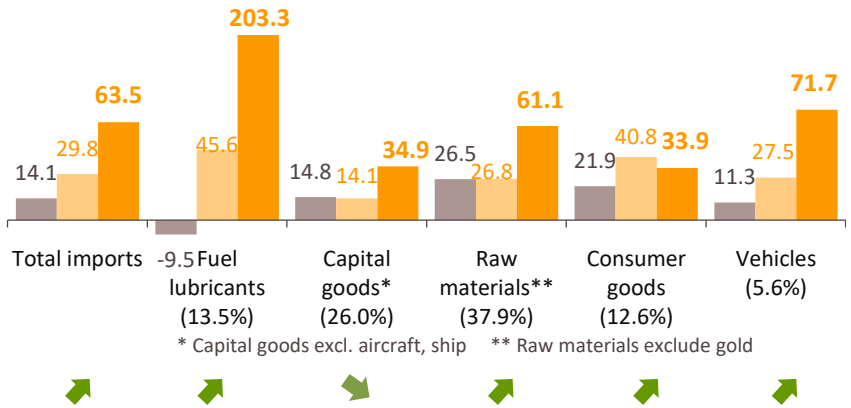
- **In May, tourism sector remained lackluster.** Foreign tourist arrivals reached only 6,052 because of strict international travel restrictions. Domestic tourism activity has slowed substantially since the third wave. Average occupancy rate has tumbled to close to a 1-year low. To help the tourism sector, the government initiated the Phuket Sandbox program (started on 1 July). The government plans to reopen other tourist destinations in Surat Thani in mid-July, and later, followed by destinations in other provinces.
- **However, there are lingering risks and uncertainties despite the sandbox programs. We revised down 2021F foreign tourist arrivals to 210,000 from 330,000 in the previous projection, for the following reasons:** (i) rising daily cases dominated by the Delta variant in Thailand and worldwide; (ii) concerns over vaccine efficacy and delays in vaccine procurement and distribution; and (iii) weak recovery of the inbound tourism industry amid strict controls at both departure and arrival countries. Recently, Europe removed Thailand from the COVID-19 safe list. These developments could derail Thailand's plan to fully reopen 10 pilot provinces by October.

Raised export growth forecast for this year to +15% from +9.5%; growth reached an 11-year high in May

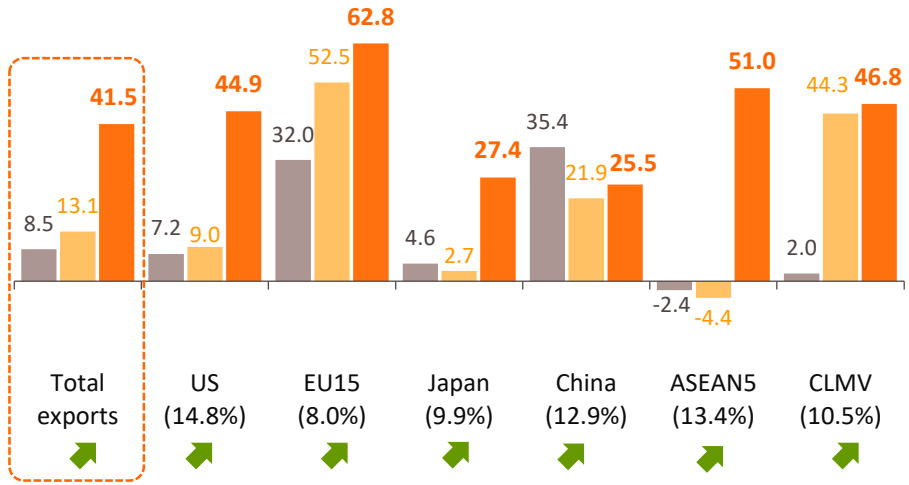
Exports by major product (%YoY)



Imports by major product (%YoY)



Exports by major destination (%YoY)



Source: MOC, Krungsri Research

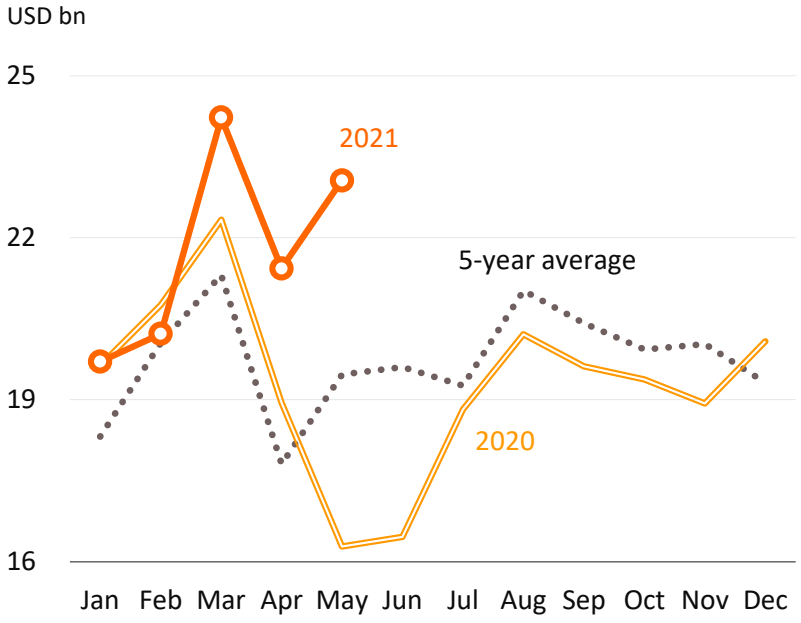
Krungsri Research's view

- **May exports surged 41.5% YoY to USD23.1bn, close to the recent high of USD24.2bn in March.** Excluding oil, exports grew 38.2%. Stripping out the base effects, 2-year average export growth also improved to +9.6% in May vs +7.6% in April. Most of the major export items registered stronger growth. Exports to major markets registered positive growth.
- **Imports of major products accelerated in May,** except consumer goods. 2-year average growth of raw material imports (excluding gold) accelerated to +19.4% in May from +10.8% in April, a positive signs for exports and manufacturing production.
- **We raised export growth forecast for this year (based on BOT data) to +15% from +9.5%,** premised on a more optimistic outlook for the global economy and reopening of economic activities in advanced countries. However, export growth would decelerate in the second half of this year premised on the gradual unwinding of transitory factors, including the large base-effect, pent-up demand, and supply bottlenecks.

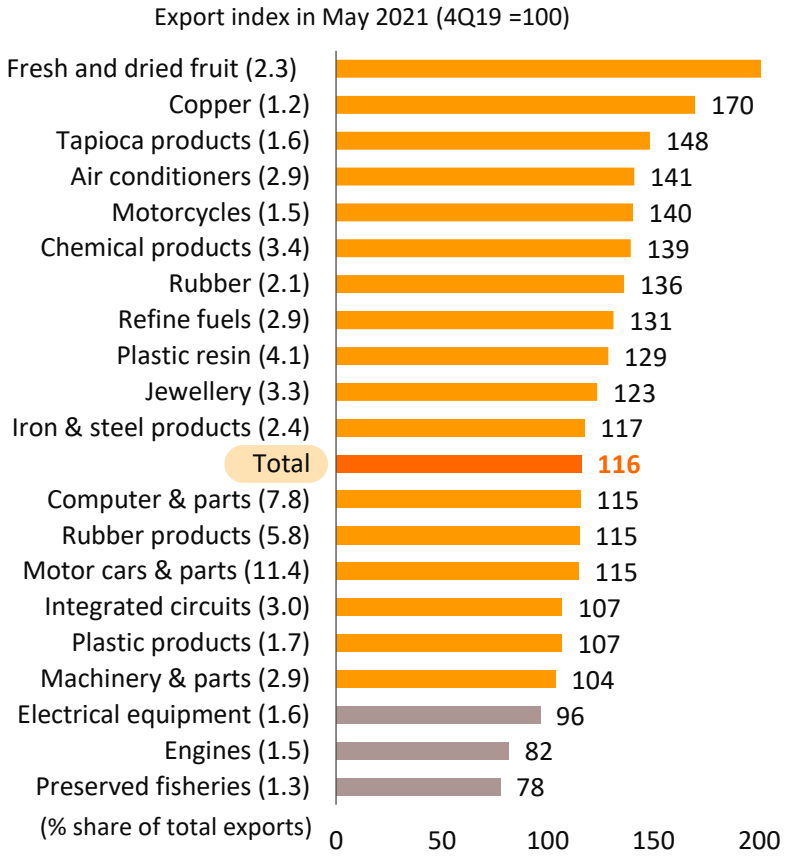
May export value is much higher than 5-year average data; more broad-based recovery by products

Thai exports are gaining momentum. May export value (USD23.1bn) is close to the recent high recorded in March and well above the last 5-years' May average of USD19.47bn. Out of Thailand's top 20 export products (64.8% of total exports), export values for 17 products (60.4% of total exports) have exceeded pre-COVID levels, led by fresh, frozen & dried fruit, tapioca products, air conditioners, chemical products, and rubber. If export values of more products improving (i.e. more broad-based improvement), that would support domestic manufacturing production and private investment ahead.

Thailand: Export value is above 5-year average level



Thailand's top 20 exports: most have exceeded pre-pandemic levels

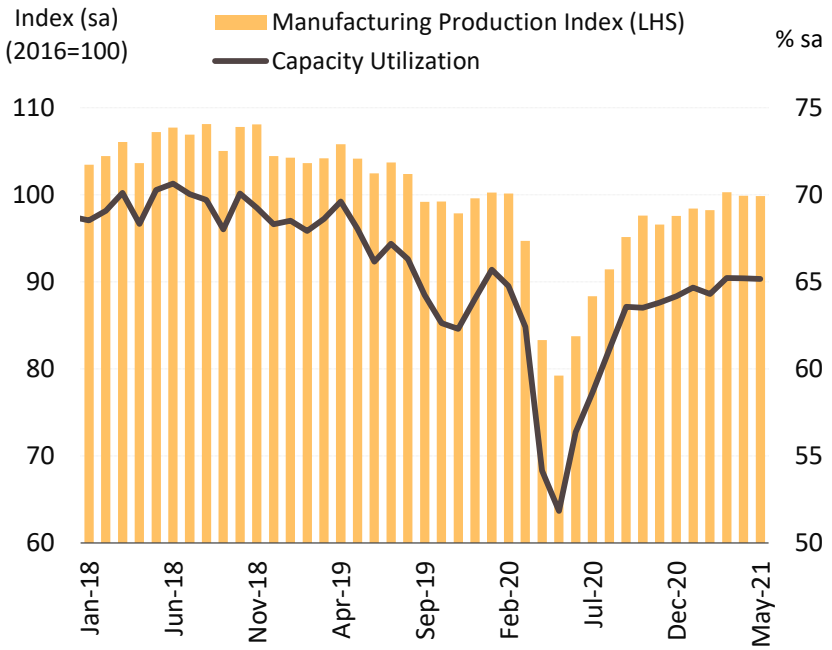


Source: MOC, Krungsri Research

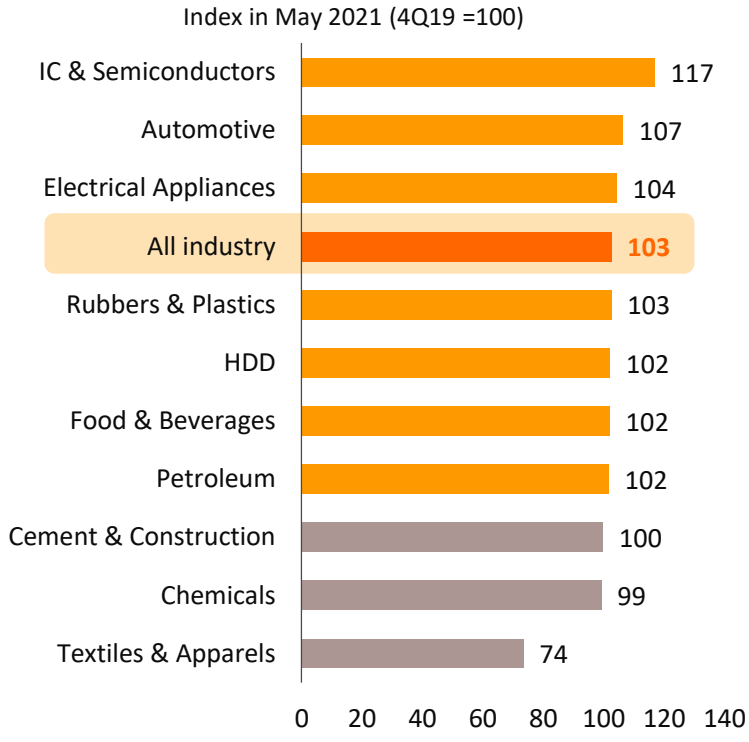
Strong exports would mitigate COVID-19 impact on manufacturing production

The latest COVID-19 situation in Thailand could dampen domestic demand. However, Manufacturing Production Index was steady in May and remained above pre-pandemic level for the 3rd straight month supported by stronger exports as trading partners' economies recover. The improving index was led by the electronics, automotive, electrical appliances, and rubber & plastics industries. Capacity Utilization rate (sa) was steady at 65.2 in May, higher than at end-2019 (pre-pandemic level). For the second half of 2021, Krungsri Research expects the strong exports to mitigate the latest COVID-19 impact on manufacturing production.

Manufacturing Production Indicators



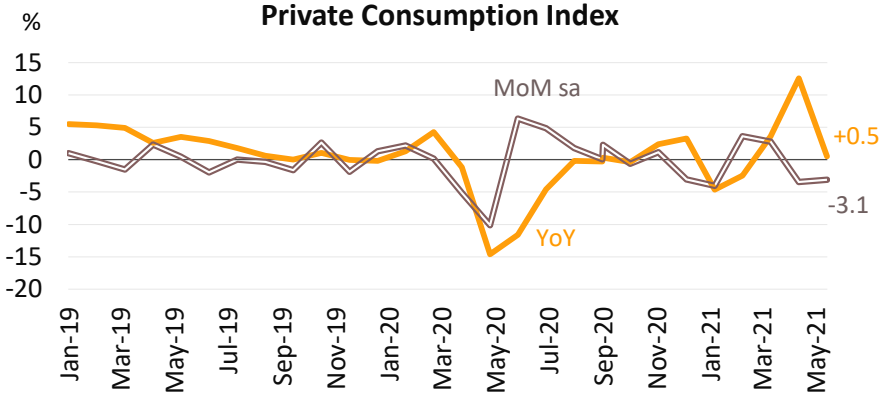
Manufacturing Production: Top 10 industries

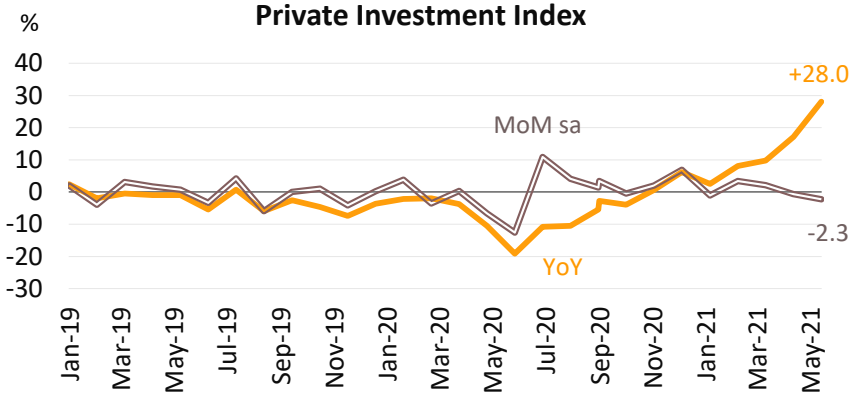


Source: OIE, Krungsri Research

Private *investment* buoyed by promising exports, but *consumption* would be dragged by latest outbreak

Although Private Investment Index (PII) slipped 2.3% MoM sa in May, the index registered double-digit growth on year-on-year basis for the 2nd consecutive month, boosted by stronger export growth. The PII also has been rising since late 2020 and exceeded pre-pandemic level. The survey which was conducted before daily cases surged, revealed Business Sentiment Index picked up in June. **We will maintain our private investment growth forecast for 2021 at 3.9% vs -8.4% in 2020, as a windfall from promising exports could be offset by weaker domestic demand.** On household spending, Private Consumption Index (PCI) fell for the 2nd month in May (-3.1% MoM sa or +0.5% YoY), with declines in all categories attributed to the latest wave. The Consumer Confidence Index also continued to drop to a record low in June. **Given a possible rise in unemployment, lower income, and limited stimulus measures, we revised down private consumption growth forecast for this year to +1.1% from +1.8% in the previous forecast.**



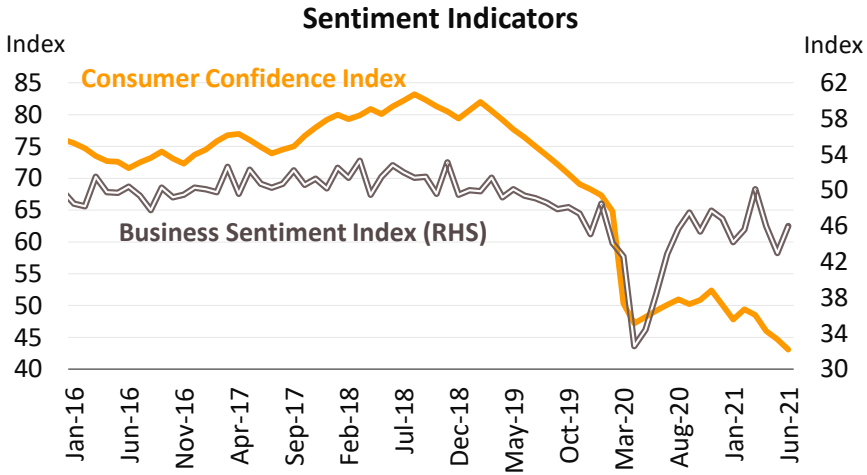


Private Spending by category

Private spending indicators 4Q19 =100*	2020 J	F	M	A	M	J	J	A	S	O	N	D	2021 J	F	M	A	M
Private consumption (sa)																	
Non-durables																	
Semi-durables																	
Durables																	
Services																	
Non-residents expenditure																	
Private investment (sa)																	
Construction material sales																	
Imports of capital goods																	
Machinery sales																	
Newly registered vehicles																	

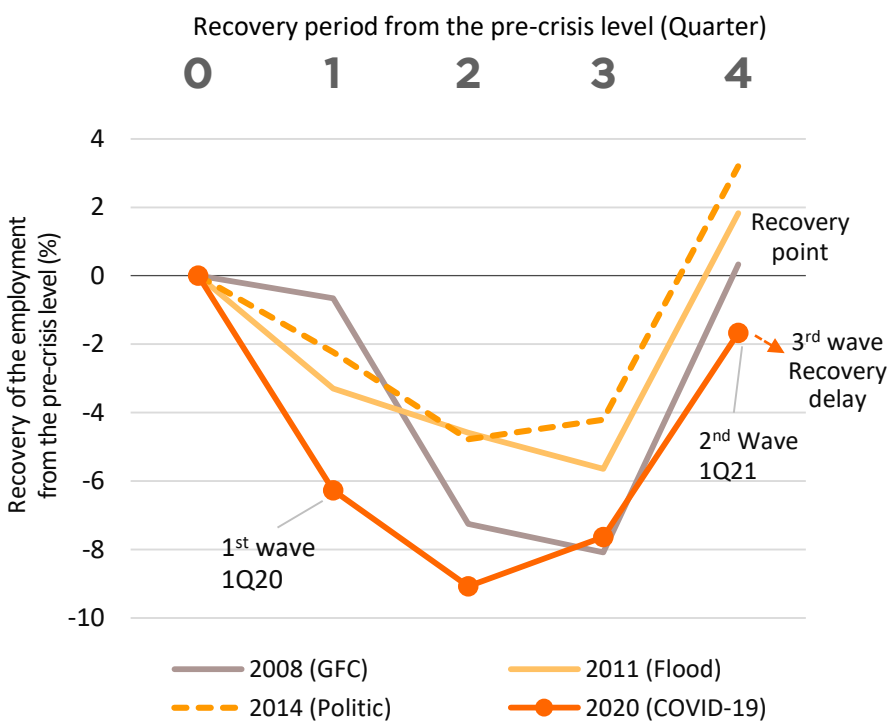
**Green > 100, Red < 100 / Darker green (red) indicates stronger (weaker) momentum*

Source: BOT, University of the Thai Chamber of Commerce (UTCC), Krungsri Research



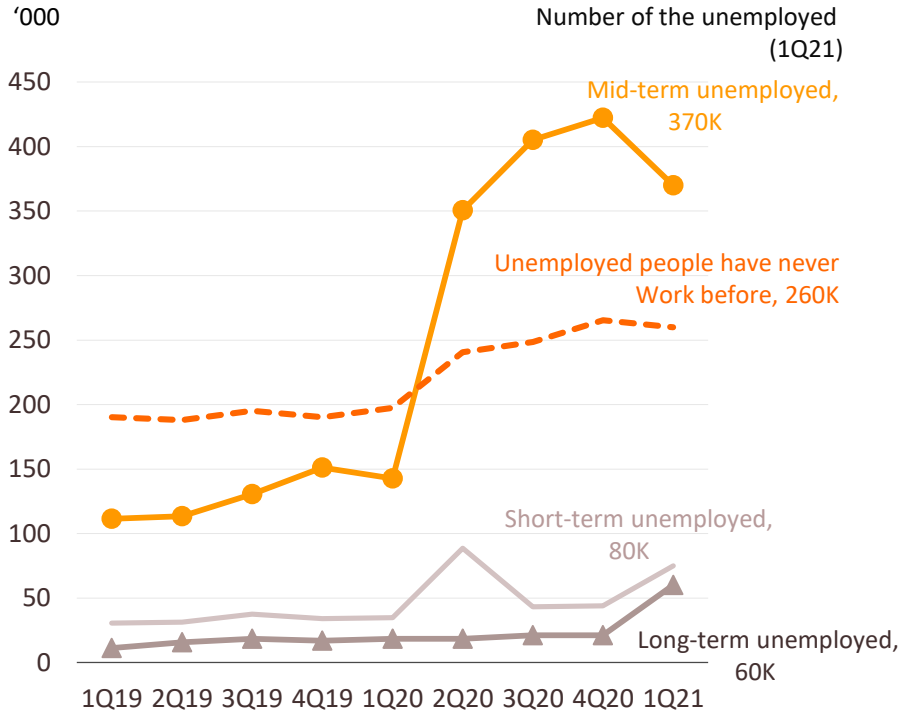
BOT expects recovery in the labor market tends to be slower than before, likely W-shaped

Employment in non-agricultural* sector vs pre-crisis level



* Calculated from 11.4 million sample of non-agricultural and construction sectors' workers

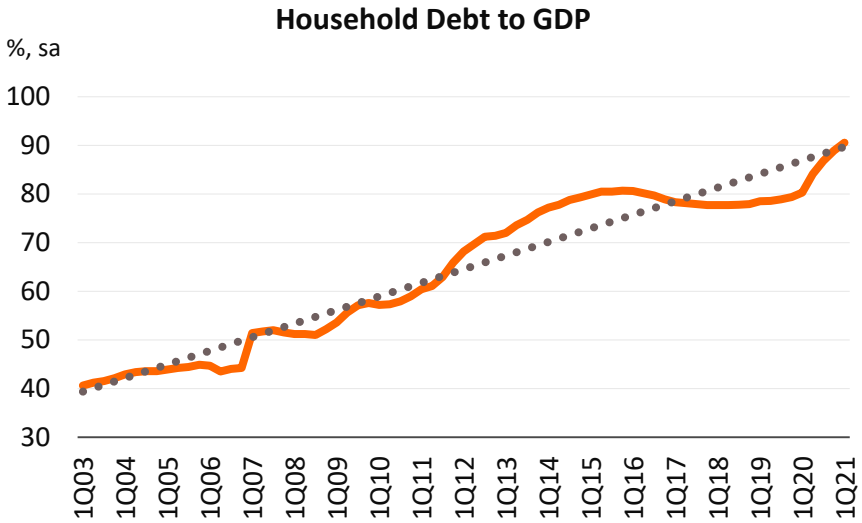
Unemployment (adjusted sa)

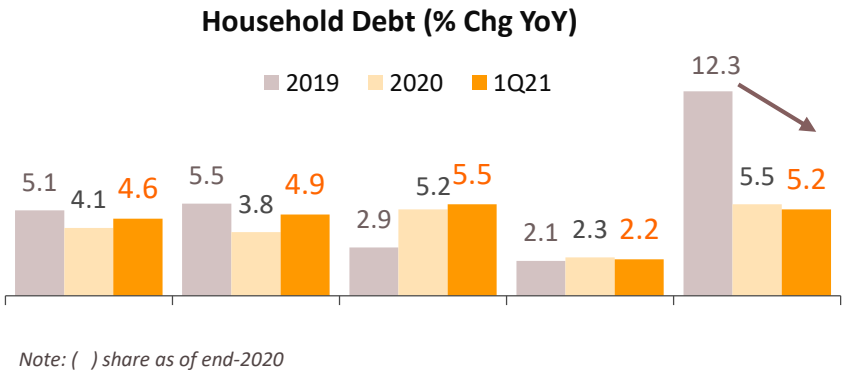


Note: the short-term unemployed (< 1 month), mid-term unemployed (1 month – 1 year), long-term unemployed (> 1 year)

Source: the survey of population's unemployment, National Statistical Office of Thailand, calculated by BOT

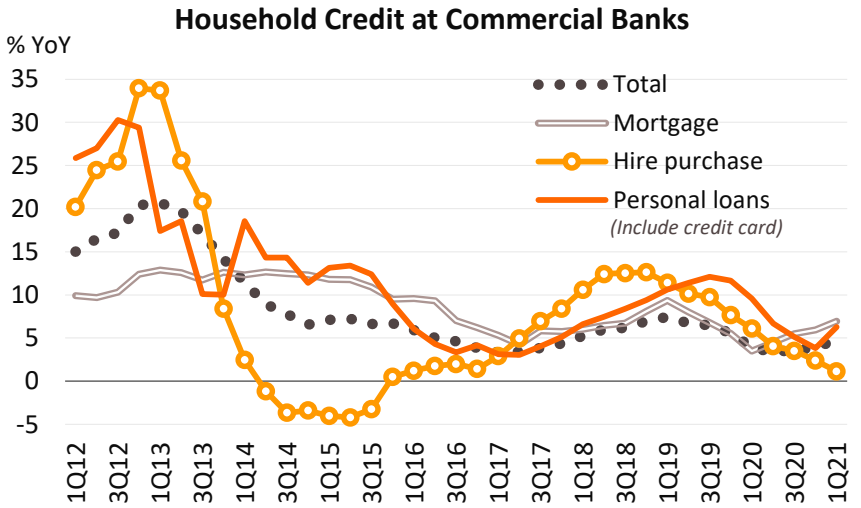
Household debt has risen to a new high of 90.6% of GDP, limiting consumption growth





Note: ( ) share as of end-2020

Total debt	Commercial banks (42.8%)	SFIs (28.2%)	Saving Cooperatives (15.0%)	Credit card, Leasing (10.5%)



Source: BOT, Krungsri Research

Krungsri Research's View

- In 1Q21, household debt-to-GDP ratio rose for the 11th consecutive quarter to 90.6%, the highest since the central bank began keeping records in 2003, compared to 88.9% in 4Q20.
- Growth of household debt accelerated mildly to +4.6% YoY from +4.1% in 4Q20, due to the extended pandemic impact on income and ability to repay debt in the household sector.
- The record-high household debt could limit recovery in household spending in the next period when the pandemic impact eases.

Additional policy supports seem limited compared to the pandemic impact and past relief measures

The Cabinet approved a THB42bn relieve package at the 13 July meeting. It includes (i) THB30bn in cash aid for businesses and workers in 9 business segments that are affected by the lockdown in dark-red zones, including Bangkok Metropolitan Region and 4 provinces in the South; (ii) THB12bn to subsidize 2-months of discounts on electricity and water bills nationwide. The relief measures would be partly-funded by THB500bn from the Borrowing Bill. In addition, the MOF and BOT are allowing financial institutions to offer two-month debt moratorium for individuals and SMEs hit by the latest lockdown. However, the latest supports seem limited compared to the pandemic impact and past relief measures.

First decree allows government to borrow up to

THB1 trn

I THB45 bn to support the public healthcare system

- Vaccine procurement, financial aid for public health officers

II THB550 bn relief for those affected by the pandemic

- Financial aid for eligible persons and farmers affected by the first and second outbreaks

III THB400 bn to revive the economy

- Economic and social rehabilitation through projects that will create jobs, strengthen communities, and build infrastructure

THB245 bn; Relief measures to address third wave

2Q21

- THB85.5 bn; Rao Chana and Rao Rak Kun schemes
- THB20 bn; soft loans by SFIs

2H21

- THB19.4 bn; additional monthly handout for welfare card holders & vulnerable people
- THB93 bn; Phase 3 Co-payment Khon La Khrueng scheme
- THB28 bn; Ying Chai Ying Dai scheme

THB10.7 bn; To stimulate domestic tourism

Additional decree will allow government to borrow up to

THB500 bn

I THB30 bn to support the public healthcare system

II THB300 bn relief for those affected by the pandemic

III THB170 bn to revive the economy

NEW

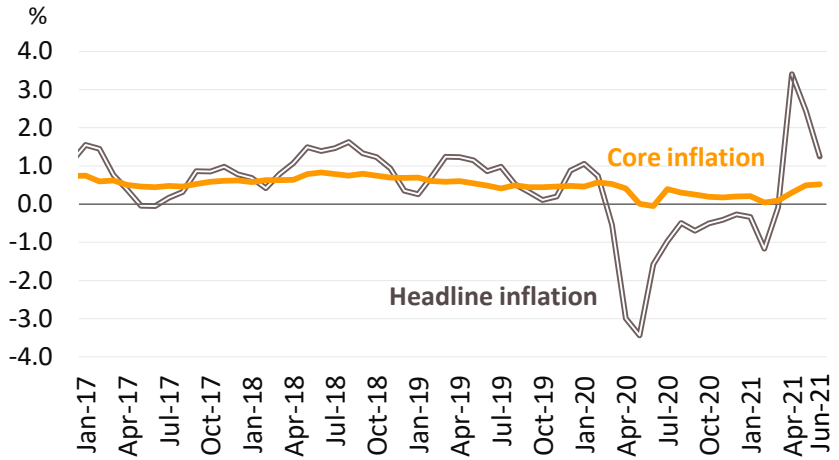
THB42 bn; Additional relief measures

- **THB30 bn; Relief measures for workers and entrepreneurs in 10 dark-red provinces in 9 business segments, including** construction, hotels, food services, art, entertainment and recreation
  - Employees under Section 33 of Social Security Act (SSA) will receive up to THB10,000 cash aid per person for 1 month
  - Workers under Sections 39 and 40 of SSA will receive THB 5,000 cash aid per person for 1 month
  - Employers under Section 33 of SSA will get THB3,000 for each worker, capped at 200 workers, for 1 month
- **THB12 bn; Discounts on electricity and water bills for all residents (July-August)**

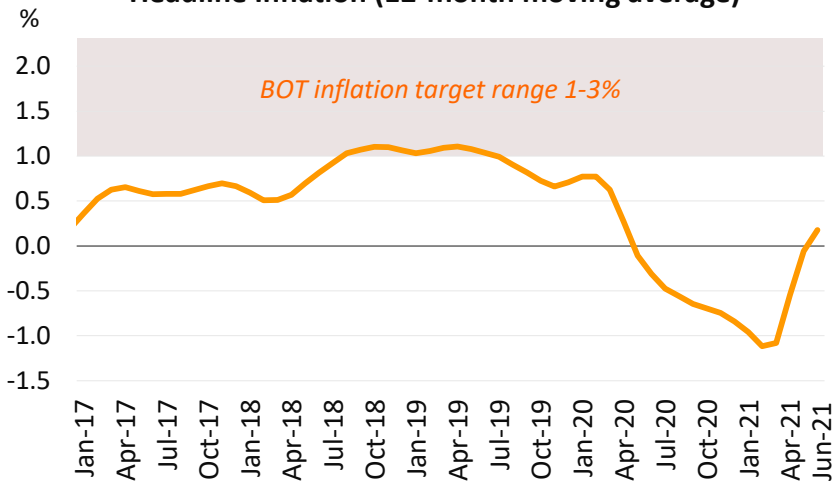
Source: The cabinet, Krungsri Research

Measure to ease cost of living slowed down headline inflation; inflationary pressure will remain benign in 2H

Inflation data



Headline Inflation (12-month moving average)



Source: MOC, Krungsri Research

Consumer Price Index: Major categories

Consumer Price Index (% YoY)*	Weight	2020 J	F	M	A	M	J	J	A	S	O	N	D	2021 J	F	M	A	M	J
Headline CPI	**100.00%**																		
Food & beverages	40.93%																		
Apparel & footwears	2.23%																		
Housing & furnishing	23.13%																		
Medical & personal care	5.71%																		
Transportation & communication	22.09%																		
Recreation & education	4.51%																		
Tobacco & alcoholic beverages	1.40%																		
Raw food	20.83%																		
Energy	11.69%																		
Core CPI	**67.48%**																		

** Green > 0%, Red < 0% / Darker green (red) indicates stronger (weaker) momentum*

Krungsri Research's view

- **In June, headline inflation softened to 1.25% YoY** from 2.44% in May, due to measures to reduce cost of living, specifically water and electricity bills. Price of raw food fell due to slower consumption following the latest outbreak. However, fuel price continued to rise by 27.6% due to higher global oil prices.
- **Core inflation** (excluding Raw Food and Energy components) rose to 0.52% YoY in June vs 0.49% in May, due to last year's low base.
- **We now forecast headline inflation at 1.2% for 2021, a notch higher than our previous projection of 1.1% .** This would be driven by rising oil prices and a weaker baht. **We had raised Dubai crude price for this year to USD66 a barrel from USD62 previous forecast. However, inflationary pressure will remain benign** with 12-month moving average expected to hit the lower end of BOT's target range by year-end because of weak purchasing power and domestic demand triggered by the pandemic.

BOT likely to keep policy rate despite more pessimistic outlook; need more targeted stimulus to limit scars

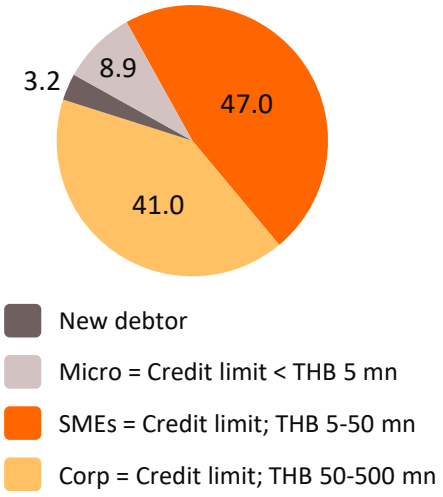
We expect the BOT to keep policy rate at a record low this and next year. Even though the global economic recovery is gaining momentum and several central banks have signaled they would unwind massive monetary stimulus sooner than expected, Thailand is in no hurry to raise policy rate. This is because the recovery in Thailand remains weak and the nation could take longer to see a broad-based recovery. In addition, the BOT recently indicated there was downside risk to its GDP growth forecast because of the longer-than-expected outbreak. Hence, **Thailand is likely to employ a very-accommodative policy this year and next year to nurture a sustainable economic recovery.** Looking at debt relief measures, as of 12 July, the BOT has approved THB72.4bn in financial aid for up to 23,687 borrowers, averaging THB3.1mn credit line per borrower. Around 47% of borrowers are SMEs involving THB50mn in existing loans, and 48% are in the commerce sector. Under the Asset Warehousing program, only THB0.9bn has been approved for 2 borrowers/hoteliers**. Indeed, this financial assistance was designed before domestic cases started to surge, suggesting Thailand needs more targeted monetary stimulus to improve liquidity in affected groups and to prevent permanent economic scars.**

BOT's measures to help entrepreneurs and accelerate debt restructuring (as of 10 June)

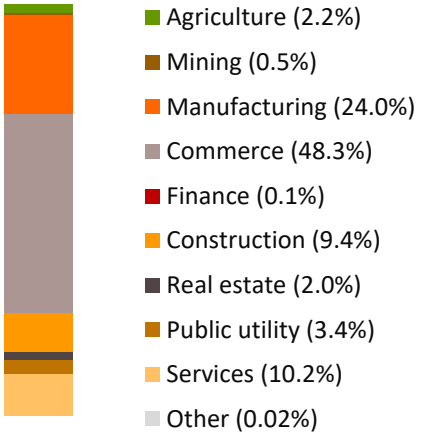
1. **Extend debt moratorium** for SMEs to end-December, from end-June
2. **Provide incentives for financial institutions** that offer additional financial assistance to SMEs other than debt moratorium.
3. **Allow financial institutions to pay interim dividends in 2021** capped at 2020 dividend payout ratio and 50% of 1H21 net profit

Rehabilitation Credit* (THB72.4 bn)

Classified by debtor



Classified by type



Note: as of 12 July 2021
Source: BOT, Krungsri Research

KRUNGSRI RESEARCH

Somprawin Manprasert, Ph.D. — **Head of Research Division and Chief Economist**

Phornphan Phoksuphat — Head of Macroeconomic and Industry Research

Macroeconomic Team

- Sujit Chaivichayachat — Head of Macroeconomic Research
- Chamadanai Marknual, Ph.D. — Senior Economist
- Churailuk Pholsri — Senior Economist (Forecasting)
- Sathit Talaengsatya — Senior Economist (Regional Economy)
- Kusalin Charuchart — Economist

Industry Team

- Taned Mahattanalai — Senior Analyst (Digital)
- Poonsuk Ninkitsaranont — Senior Analyst (Healthcare, Mobile Operators)
- Piyanuch Sathapongpakdee — Senior Analyst (Transport & Logistics)
- Narin Tunpaiboon — Senior Analyst (Power Generation, Modern Trade, Chemicals, Medical Devices)
- Puttachard Lunkam — Analyst (Hotels, Construction Contractors, Construction Materials, Industrial Estate)
- Patchara Klinchuanchun — Analyst (Real Estate)
- Wanna Yongpisanphob — Analyst (Automobile, Electronics & Electrical Appliances, Food & Beverages)
- Chaiwat Sowcharoensuk — Analyst (Agriculture)
- Aphinya Khanunthong — Analyst (Energy, Petrochemicals)

Intelligence Team

- Pimnara Hirankasi, Ph.D. — Head of Intelligence Team
- Rachot Leingchan — Analyst
- Arpakorn Nopparattayaporn — Analyst
- Chutipha Klungjaturavet — Analyst

MIS and Reporting Team

- Suratchanee Somprasong — Administrator
- Thamon Sernsuksakul — Administrator
- Chirdsak Srichaiton — MIS Officer
- Wongsagon Keawuttung — MIS Officer

Subscribe Us

For research subscription, contact

krungsri.research@krungsri.com

Disclaimer

All material presented in this report, unless specifically indicated otherwise, is under copyright to Krungsri Research. None of the material, nor its content, nor any copy of it, may be altered in anyway, or copied to any other party, without the prior express written permission of Krungsri Research. This document is based on public information believed to be reliable. Nevertheless, Krungsri Research would not affirm the accuracy and completeness of this information. We accept no liability whatsoever for any direct or consequential loss arising from any use of this document or its content. Information, opinions and estimates contained in this report are our own, which are not necessarily the opinions of Bank of Ayudhya Public Company Limited and its affiliates. It reflects a judgment at its original date of publication by Krungsri Research and are subject to change without notice.