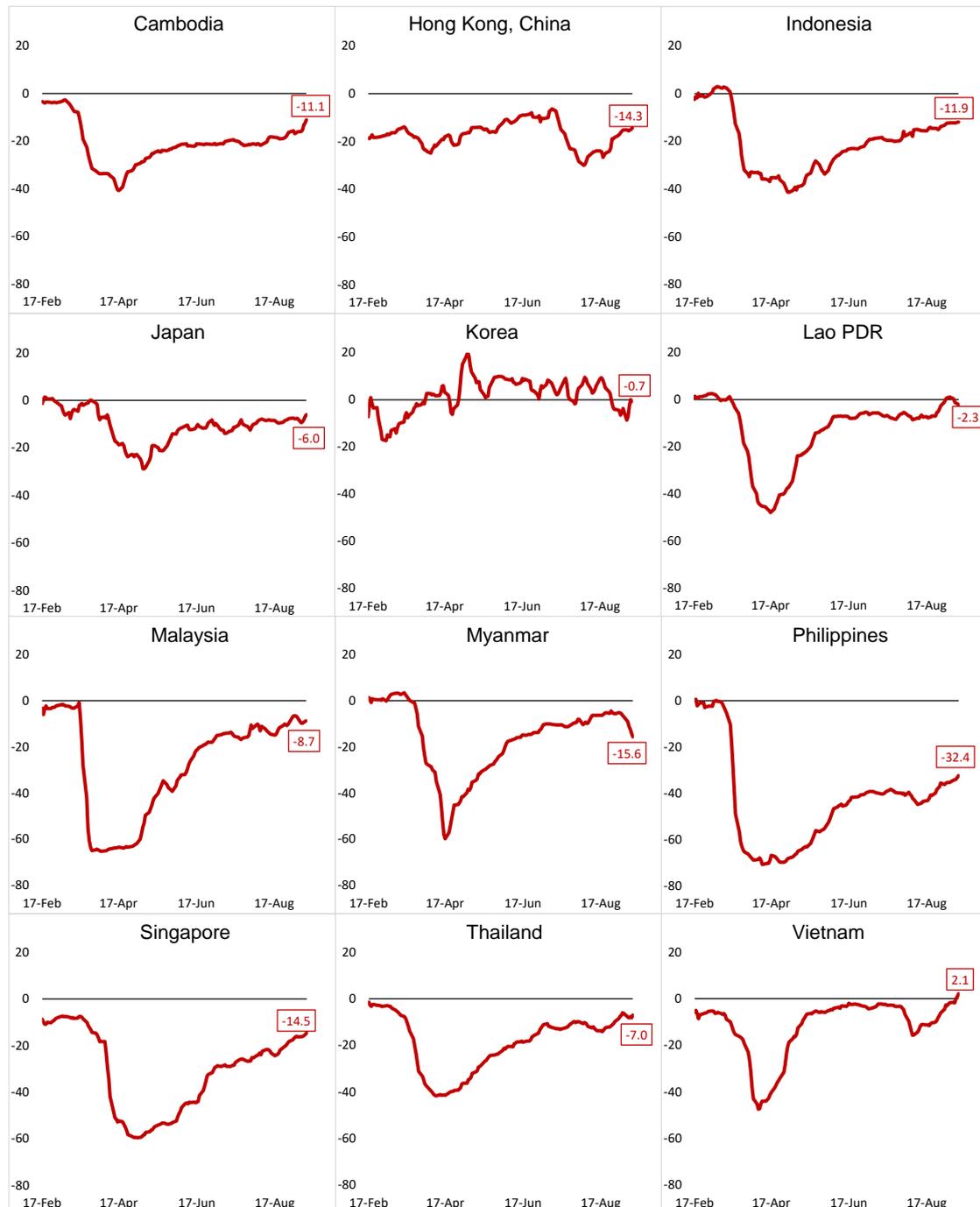


Wednesday, September 16, 2020

Data as of September 11, 2020, unless otherwise stated

Figure 1. Selected ASEAN+3 Economies: Aggregate Non-Residentials Mobility
(Percentage change from baseline: January 3–February 6, 2020 = 0, 5-day moving average)

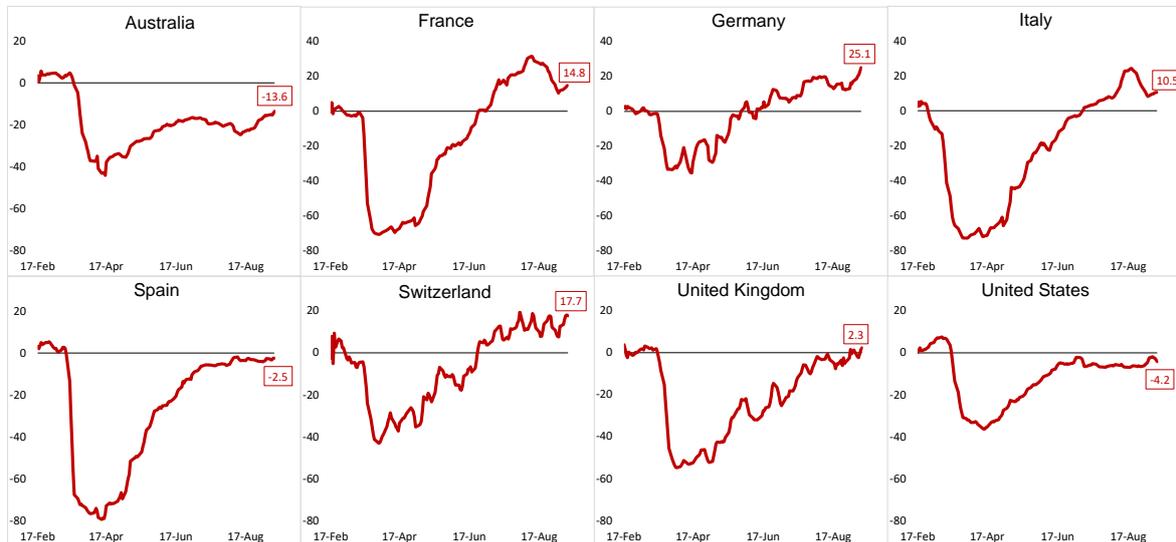


Sources: Haver Analytics, sourced from Google COVID-19 Community Mobility reports; and AMRO staff calculations.

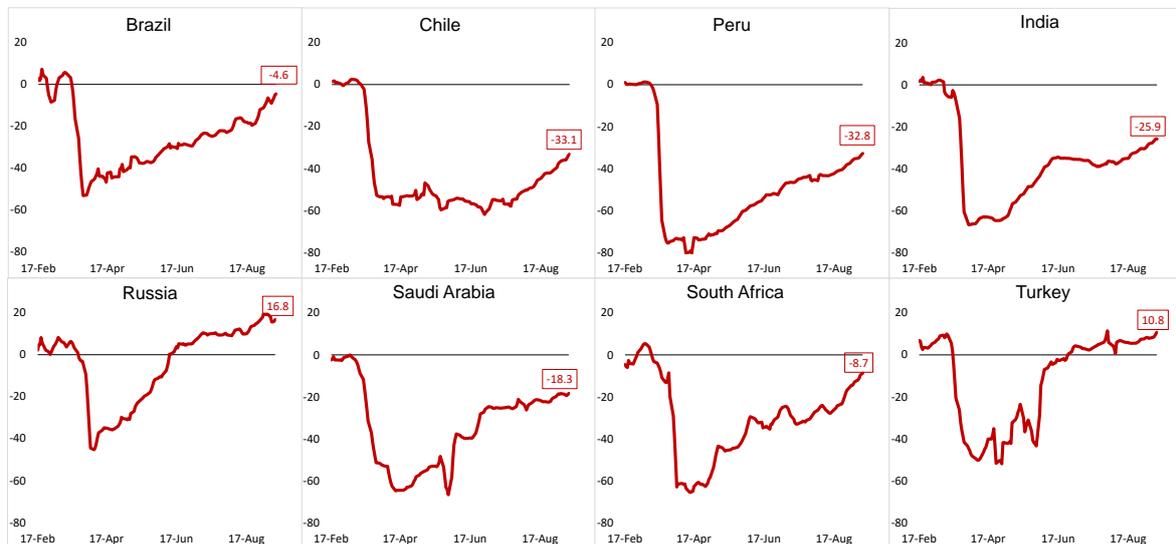
Note: Google Community Mobility data show how visits and lengths of stay at different places change compared to a baseline. The changes are calculated with the same kind of aggregated and anonymized data used to show popular times for places in Google Maps. Changes for each day are compared to a baseline value for that day of the week. The baseline is the median value, for the corresponding day of the week, during the 5-week period. Brunei and China data are not available. "Non-residentials" refer to the aggregated mobility data for places such as groceries and pharmacies, retail and recreation facilities, parks, transit stations and workplaces (see Appendix I). The percentage change in non-residential mobility is calculated based on a change in total visitors, compared to the baseline period.

Figure 2. Selected Non-Regional Economies: Aggregate Non-Residentials Mobility
(Percentage change from baseline: January 3–February 6, 2020 = 0, 5-day moving average)

Advanced Economies



Emerging Market Economies

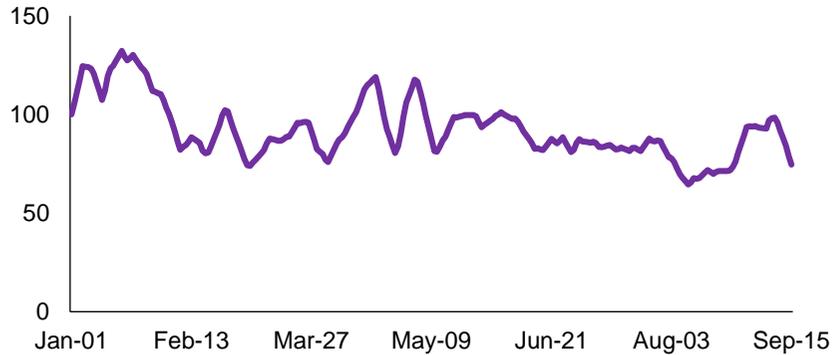


Sources: Haver Analytics, sourced from Google COVID-19 Community Mobility reports; and AMRO staff calculations.

Note: Google Community Mobility data show how visits and lengths of stay at different places change compared to a baseline. The changes are calculated with the same kind of aggregated and anonymized data used to show popular times for places in Google Maps. Changes for each day are compared to a baseline value for that day of the week. The baseline is the median value, for the corresponding day of the week, during the 5-week period. "Non-residentials" refer to the aggregated mobility data for places such as groceries and pharmacies, retail and recreation facilities, parks, transit stations and workplaces (Appendix I). The percentage change in non-residential mobility is calculated based on a change in total visitors, compared to the baseline period.

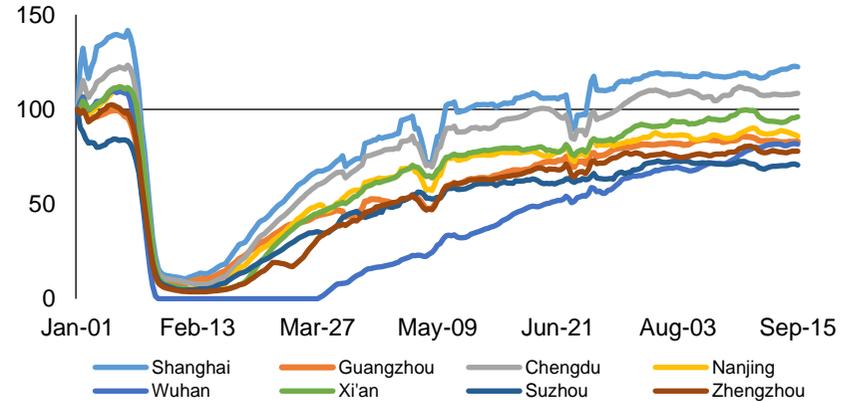
Figure 3. China: Selected Daily Activity Indicators, 2020
(Data as of September 15, 2020)

China: Daily Air Quality Index
(January 1, 2020 = 100, 7-day moving average)



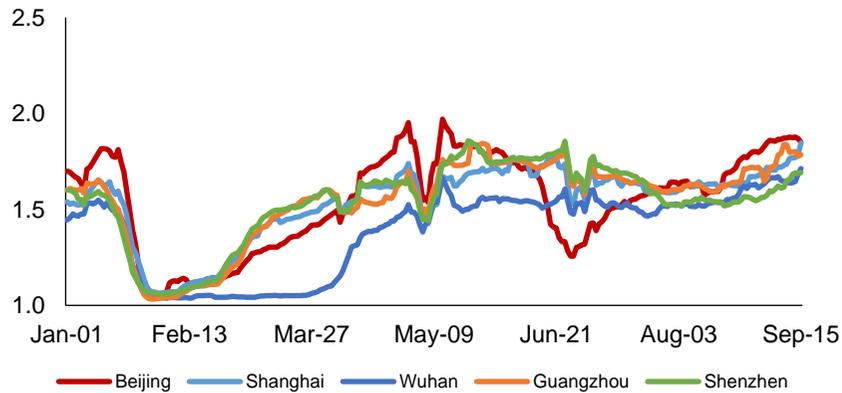
Sources: Haver Analytics; and AMRO staff calculations.
Note: Air quality is taken as a proxy for the intensity of activity in different industries, as this is in part affected by factories' burning of coal. The closer the value to 0, the lower the air pollution.

Selected Cities: Metro Passenger Volumes
(January 1, 2020 = 100, 7-day moving average)



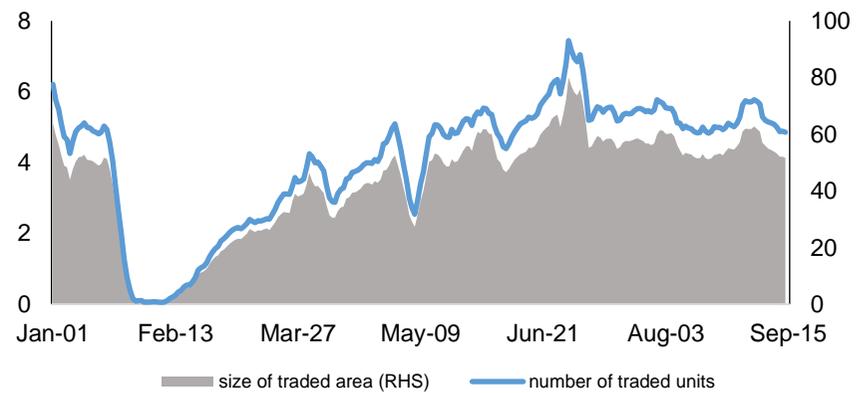
Sources: Wind; and AMRO staff calculations.

Daily Traffic Congestion Index
(7-day moving average)



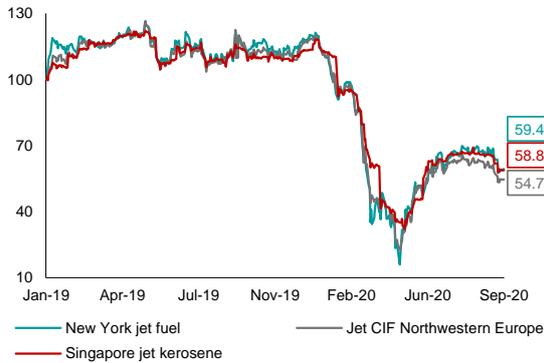
Sources: Wind; and AMRO staff calculations.
Note: Congestion delay index = the travel time under traffic congestion/ travel time under free flow.

30 Major Cities: Daily Property Trading Volume
(thousand units; ten thousand square meters, 7-day moving average)



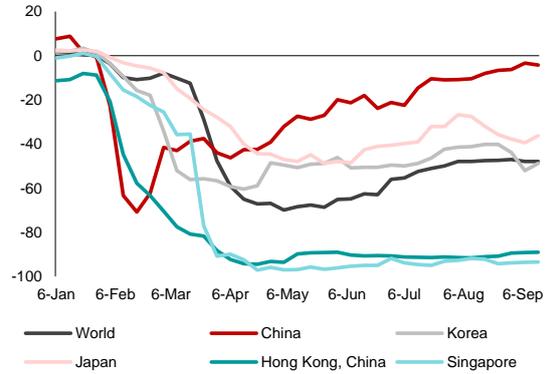
Sources: Wind; and AMRO staff calculations.

Figure 4. Price of Jet Fuel
(January 1, 2020 = 100,
as of September 15, 2020)



Sources: Bloomberg Finance, L.P.; and AMRO staff calculations.

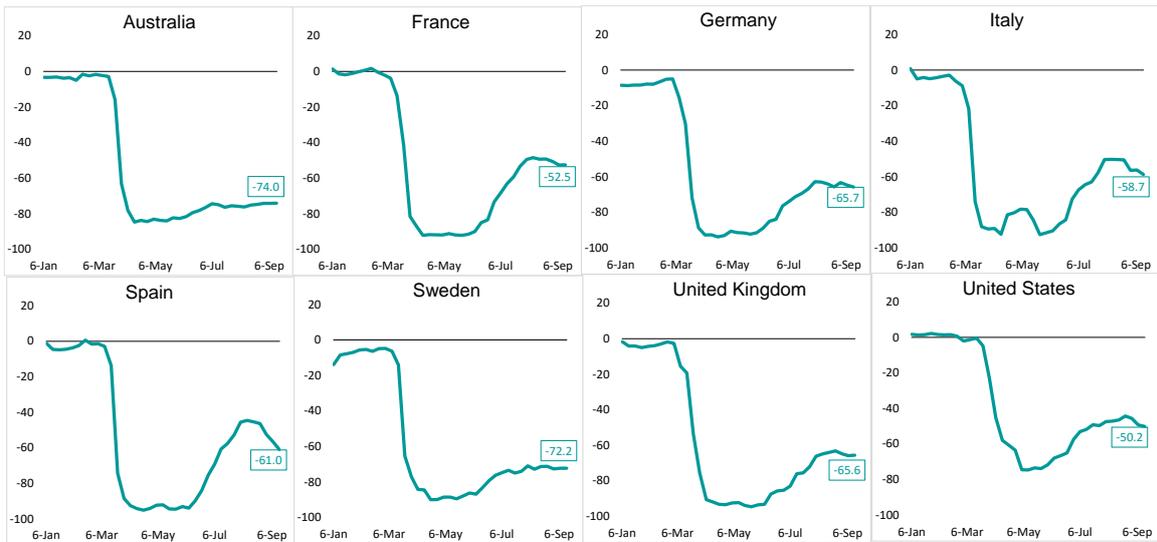
Figure 5. World and Selected ASEAN+3 Economies: Weekly Scheduled Flights
(Percent year-over-year change,
as of September 14, 2020)



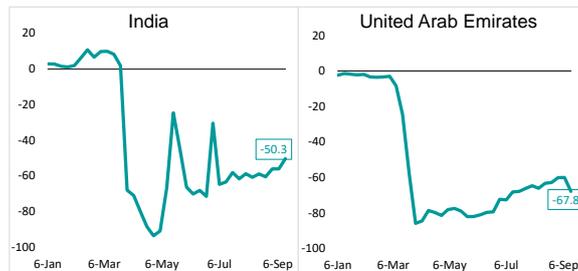
Sources: Official Aviation Guide; and AMRO staff calculations.
Note: Data include international and domestic flights.

Figure 6. Selected Non-Regional Economies: Weekly Scheduled Flights
(Percent year-over-year change, as of September 14, 2020)

Advanced Economies



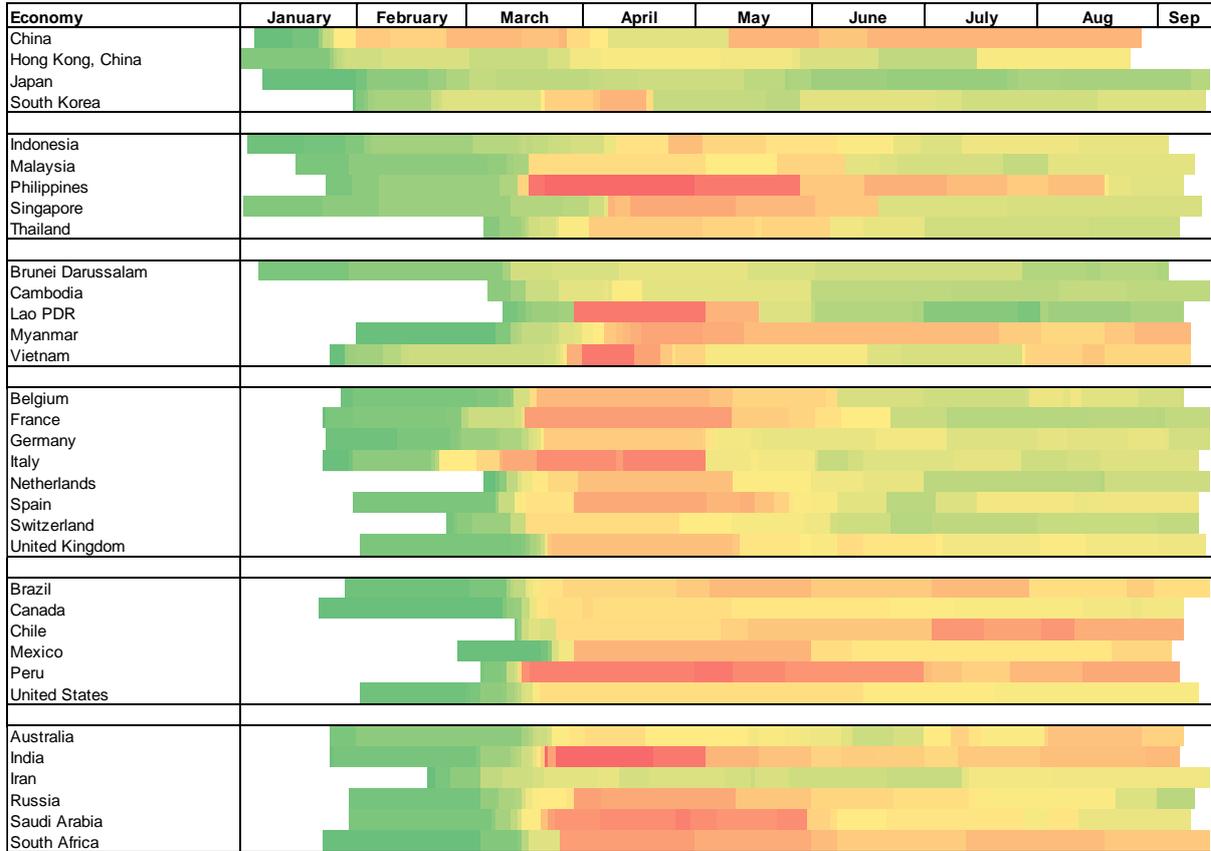
Emerging Market Economies



Sources: Official Aviation Guide; and AMRO staff calculations.

Note: Data include international and domestic flights. The spike in India's number of scheduled flights in the week of May 18 is due to its sudden resumption of domestic flights.

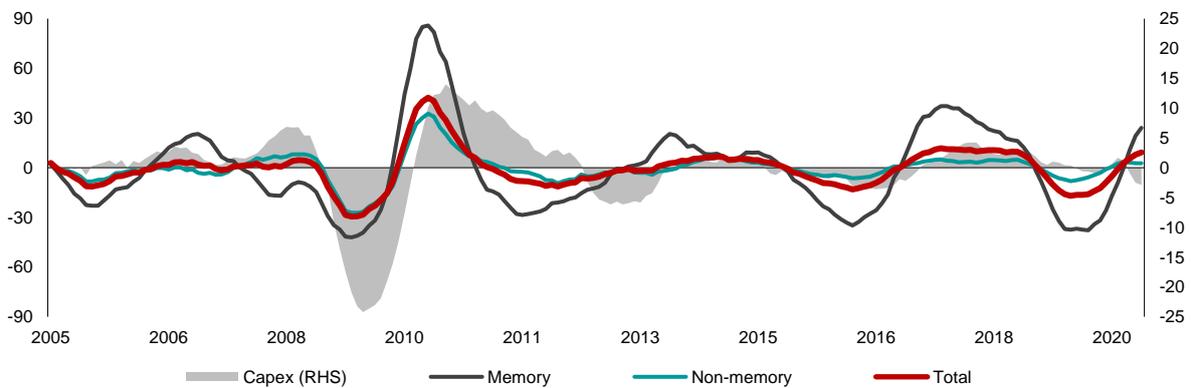
Figure 7. Selected Economies: COVID-19 Government Response Stringency
(Daily index, as of September 15, 2020)



Sources: Thomas Hale, Sam Webster, Anna Petherick, Toby Phillips, and Beatriz Kira (2020). Oxford COVID-19 Government Response Tracker, Blavatnik School of Government. Via Our World in Data.

Note: The index records the number and "strictness" of government policies for containing COVID-19, using nine closure indicators (including school, work, and border travel). The redder the color, the more stringent the set of policies vis-a-vis the rest of the world, and can be taken to mean that the COVID-19 infections are still not under control.

Figure 8. Monthly Global Semiconductor and Capex Cycles
(Percent year-over-year, 6-month moving average)



Sources: Haver Analytics; World Semiconductor Trade Statistics Inc.; and AMRO staff estimates.

Note: All cycles are estimated by applying the Hodrick-Prescott filter separately, with a smoothing factor lambda of 14,400. Semiconductor data represent global sales; capex data are for the euro area, Japan, and the United States. Data up to June 2020.

Figure 9. Monthly Purchasing Manager Index (PMI): Global Electronics and Asia Sectors



Source: IHS Markit.

Note: The PMI headings are coded by colors. The deeper the red the further below (< 45) from the diffusion level of 50; greener denotes the further above (> 55) from 50. A PMI reading above 50 denotes an increasing in business activity over previous month, and a reading below 50 denotes otherwise.

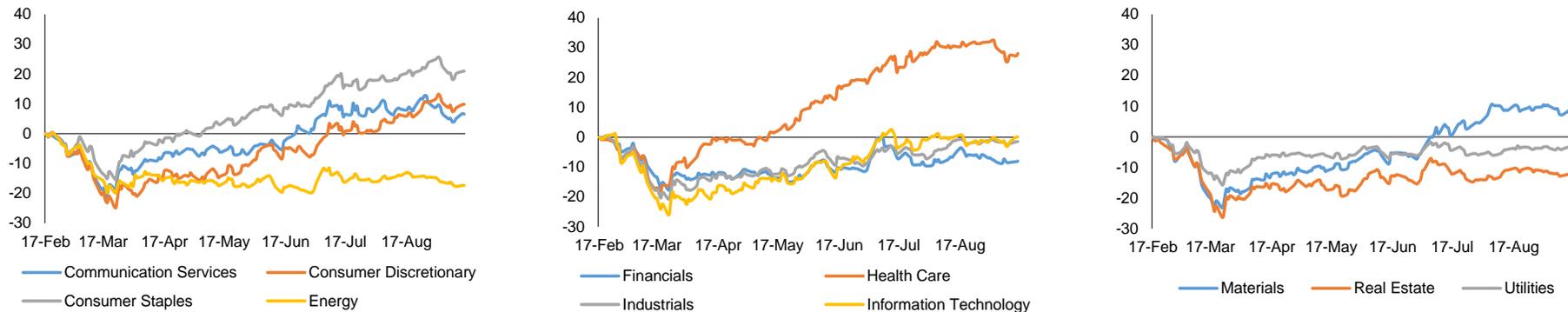
Figure 10. ASEAN+3: Market Recovery Indicators,
(Percentage change since February 17, 2020; Data as of September 15, 2020)

Sector	CN	HK	JP	KR	ID	MY	PH	SG	TH	VN
Communication Services	-0.6	14.5	-4.7	44.1	-12.7	-10.7	21.3	-30.8	-14.5	2.8
Consumer Discretionary	27.4	20.6	-5.9	7.3	-22.0	-33.4	-25.3	-30.4	11.4	-11.9
Consumer Staples	59.4	-0.4	-9.4	3.9	-4.2	-1.7	7.1	-14.7	-1.7	11.5
Energy	-14.0	-22.4	-25.2	-1.0	-3.4	1.3			-22.1	-6.5
Financials	-2.8	-9.6	-15.0	-7.4	-16.3	-13.5	-32.8	-21.6	-31.4	-10.3
Health Care	34.8	31.2	10.5	78.6	16.3	89.6			0.3	6.8
Industrials	11.2	-15.0	-6.5	2.9	-28.2	-7.3	-13.1	-31.4	-14.2	-1.8
Information Technology	1.4	36.3	-9.3	-1.9	-1.5			14.5	53.7	9.7
Materials	15.9		-6.6	27.8	-11.1	-8.7			-9.6	33.4
Real Estate	11.4	-15.7	-24.3	51.4	-25.1		-28.6	-17.2	-21.8	-7.3
Utilities	12.0	-21.0	-9.3	-17.8	-25.7	-7.5	-0.2		-15.4	-12.6
Equity Index	10.5	-11.5	-0.3	9.0	-13.1	-0.4	-17.9	-22.6	-15.8	-4.1
FX (vs USD)	2.8	0.2	3.9	0.5	-8.7	0.3	4.4	2.1	0.0	0.2
10yr yield (bp)	20.6	-86.1	5.8	-14.0	32.5	-26.3	-111.3	-75.0	16.0	1.1

Sources: Bloomberg Finance, L.P.; and AMRO staff calculations.

Note: Changes are in percent, except for the 10-year yield. The stocks included in the benchmark indices are classified into sectors as per MSCI GICS classification.

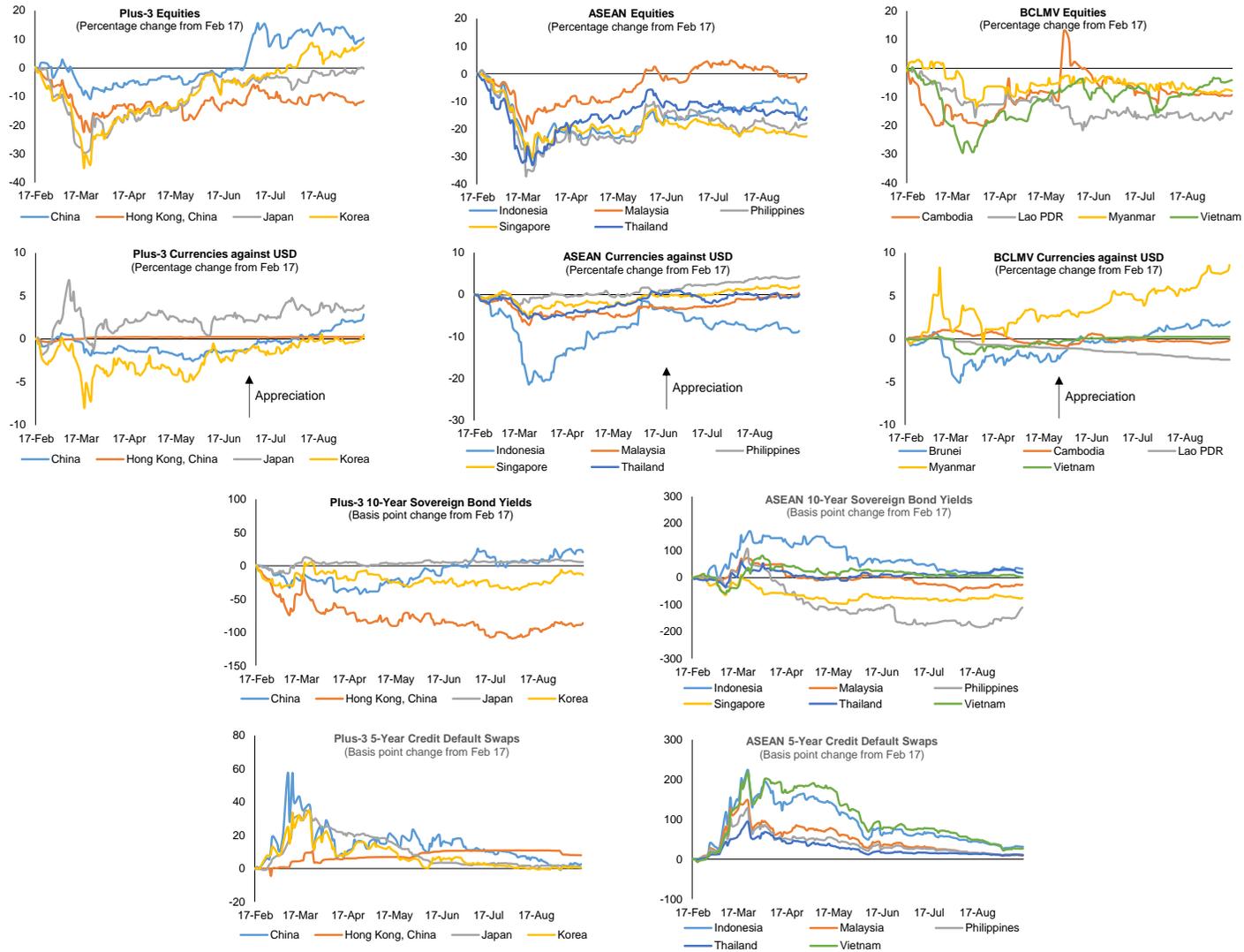
Figure 11. ASEAN+3: Sectoral Equity Indices
(Percentage change from baseline: February 17, 2020 = 0; Data as of September 15, 2020)



Sources: Bloomberg Finance, L.P.; and AMRO staff calculations.

Note: The regional equity indices are weighted using stock market capitalization, in US dollar values, as of February 17, 2020. The stocks included in the benchmark indices are classified into sectors as per MSCI GICS classification.

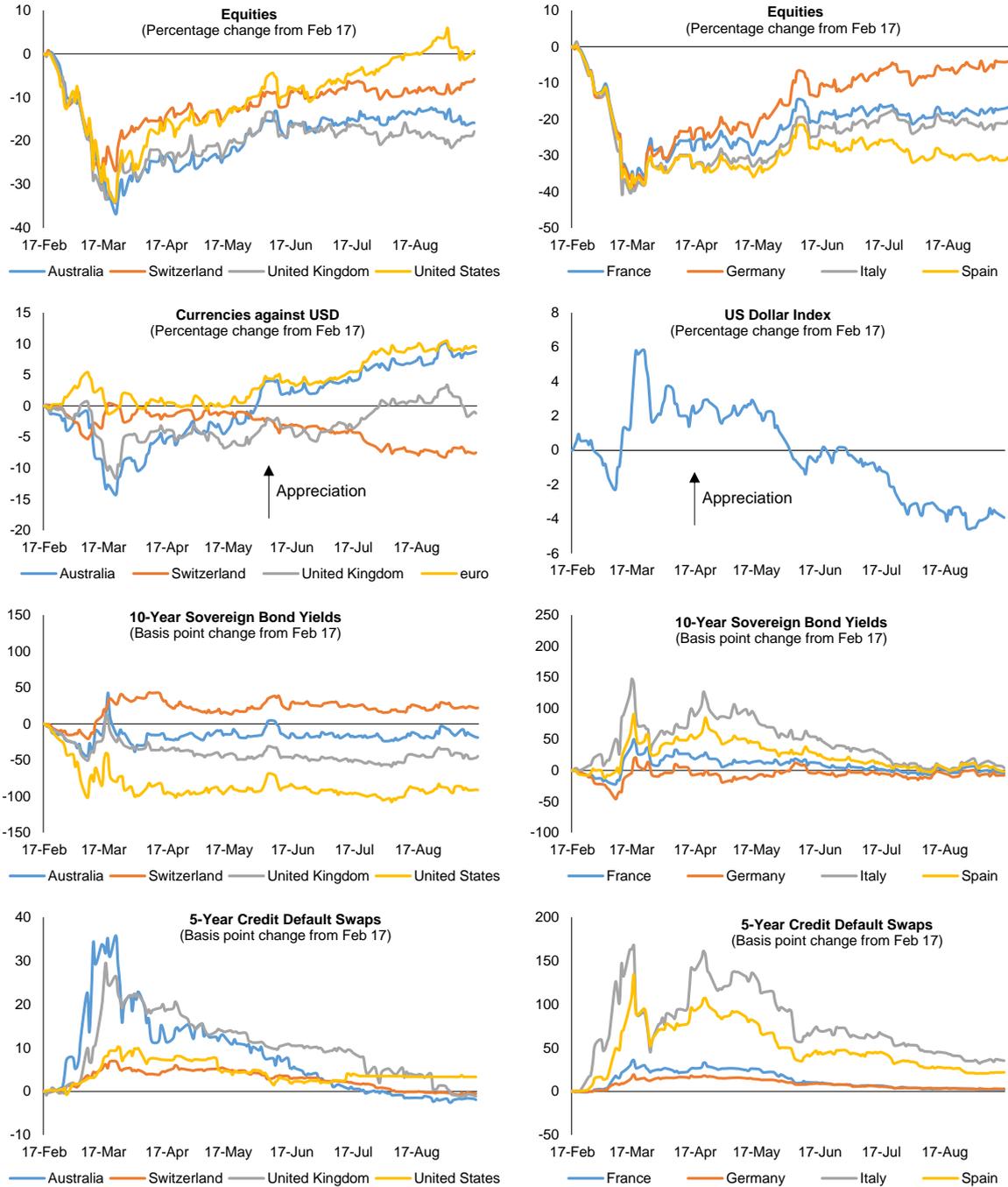
Figure 12. ASEAN+3: Market Recovery Indicators, by Economy
(Data as of September 15, 2020)



Sources: Bloomberg Finance, L.P; and AMRO staff calculations.

Figure 13. Non-regional Economies: Market Recovery Indicators, by Economy
(Data as of September 15, 2020)

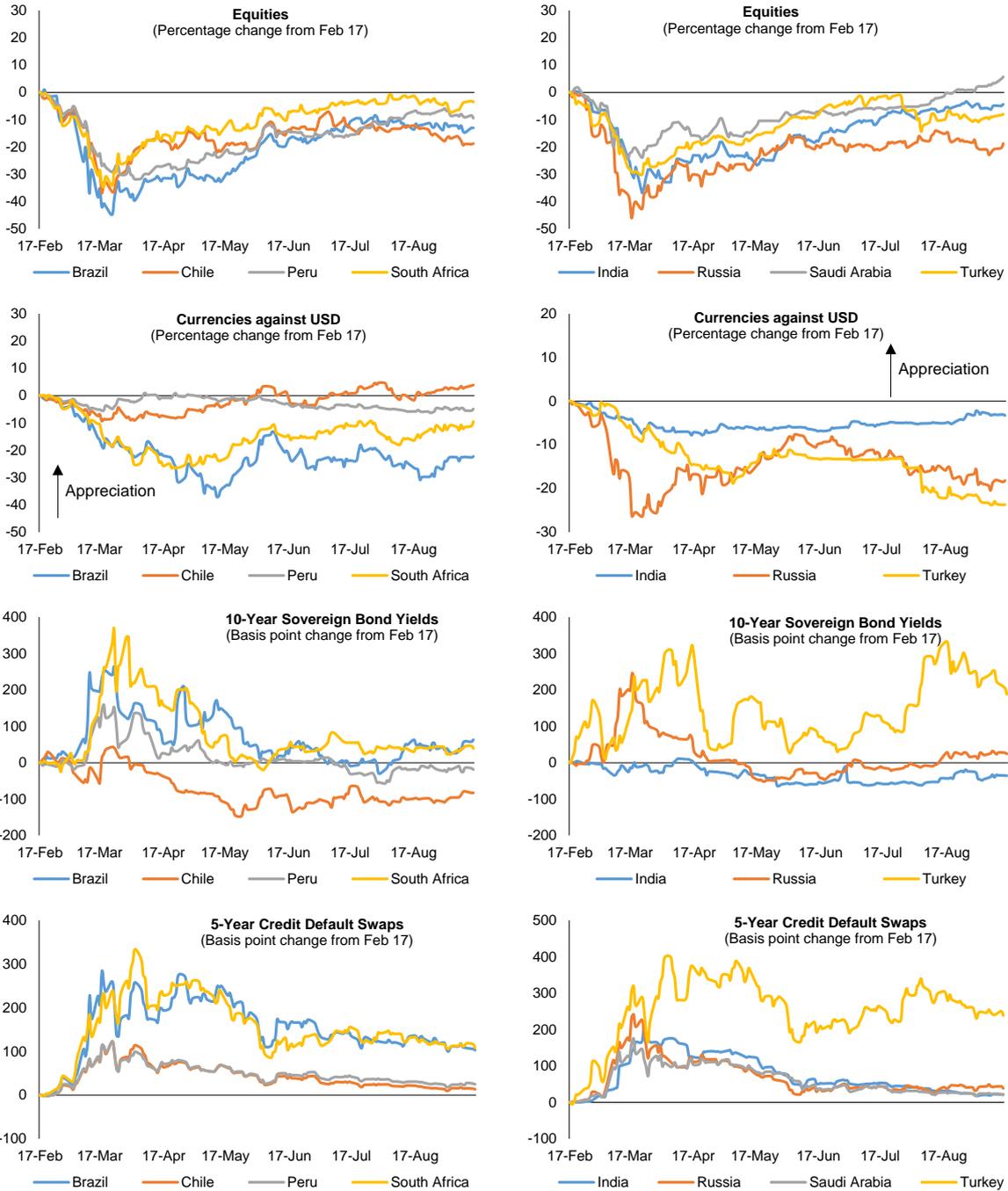
Advanced Economies



Sources: Bloomberg Finance, L.P.; and AMRO staff calculations.

Figure 13. Non-regional Economies: Market Recovery Indicators, by Economy
(Continued; Data as of September 15, 2020)

Emerging Market Economies

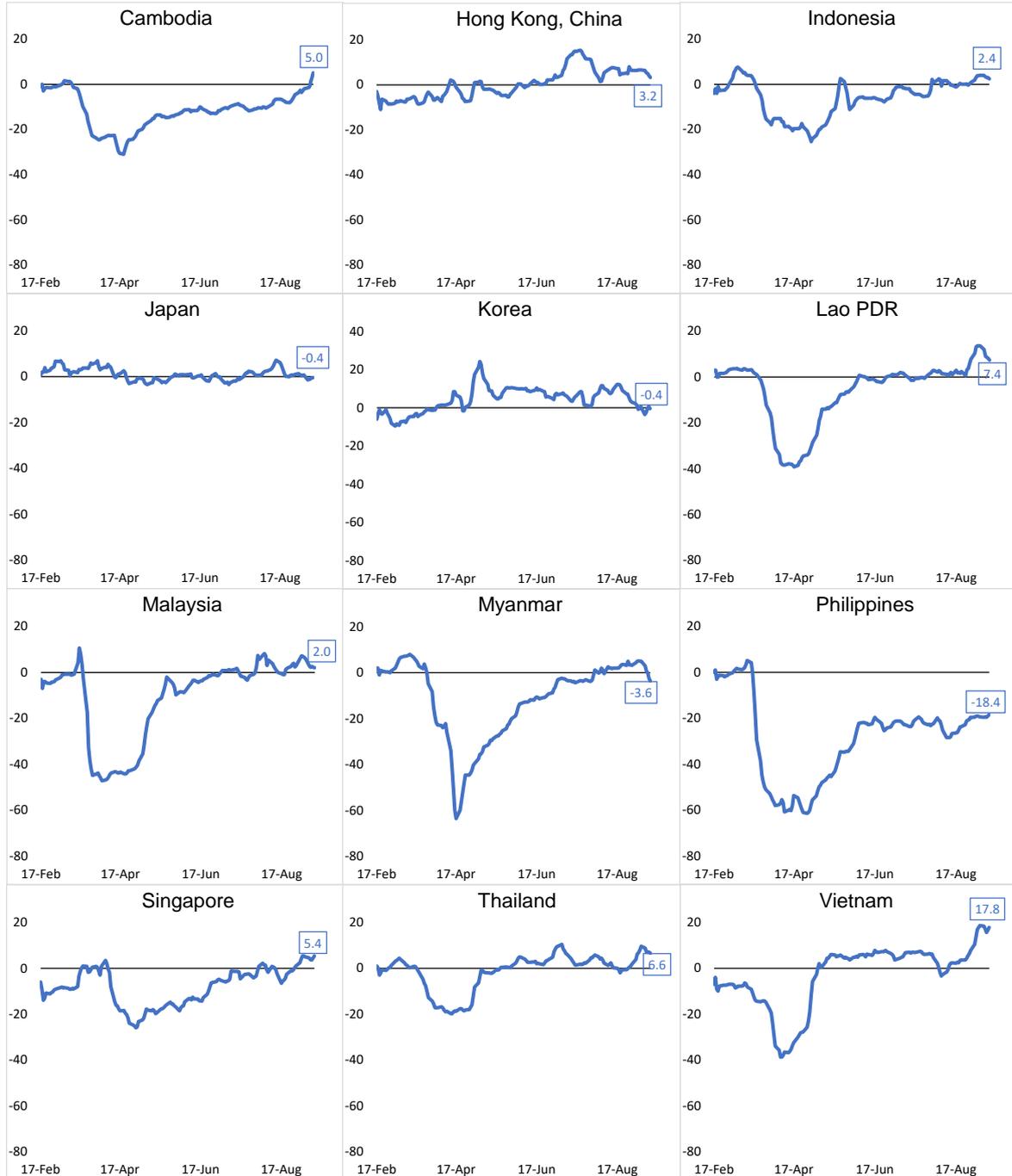


Sources: Bloomberg Finance, L.P.; and AMRO staff calculations.

Appendix I. Non-Residentials Mobility: Individual Places

Appendix Figure 1. Selected ASEAN+3 Economies: Visits to Groceries and Pharmacies

(Percentage change from baseline: January 3–February 6, 2020 = 0, 5-day moving average)



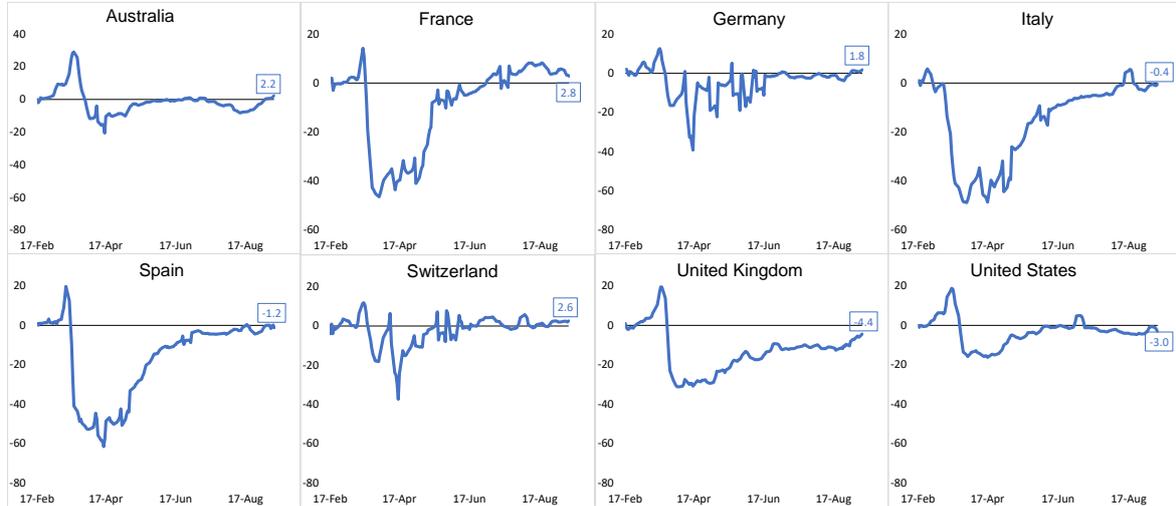
Sources: Haver Analytics, sourced from Google COVID-19 Community Mobility reports; and AMRO staff calculations.

Note: "Groceries and Pharmacies" include grocery markets, food warehouses, farmers' markets, specialty food shops, drug stores, and pharmacies.

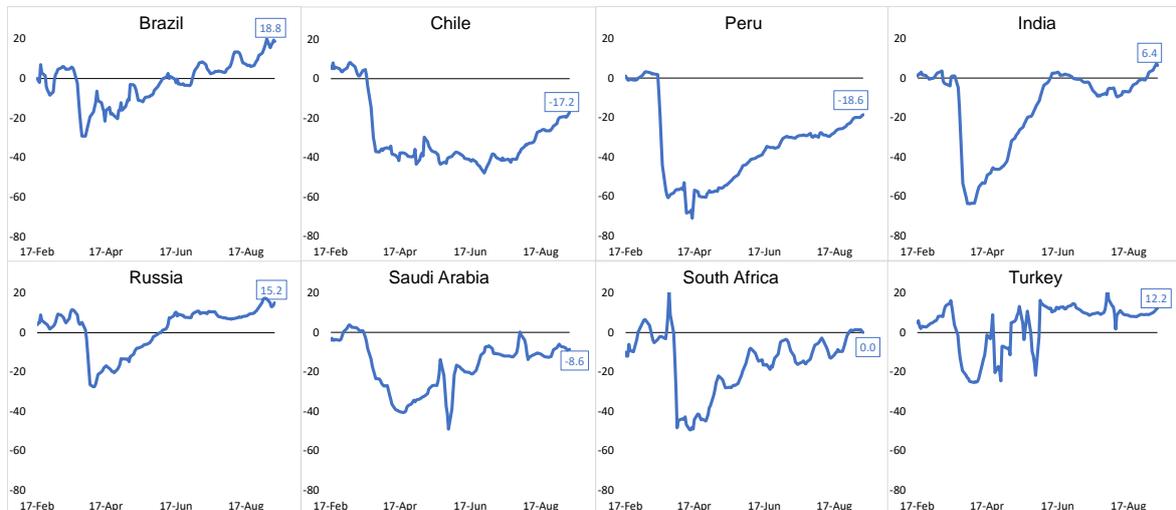
Appendix Figure 2. Selected Non-Regional Economies: Visits to Groceries and Pharmacies

(Percentage change from baseline: January 3–February 6, 2020 = 0, 5-day moving average)

Advanced Economies



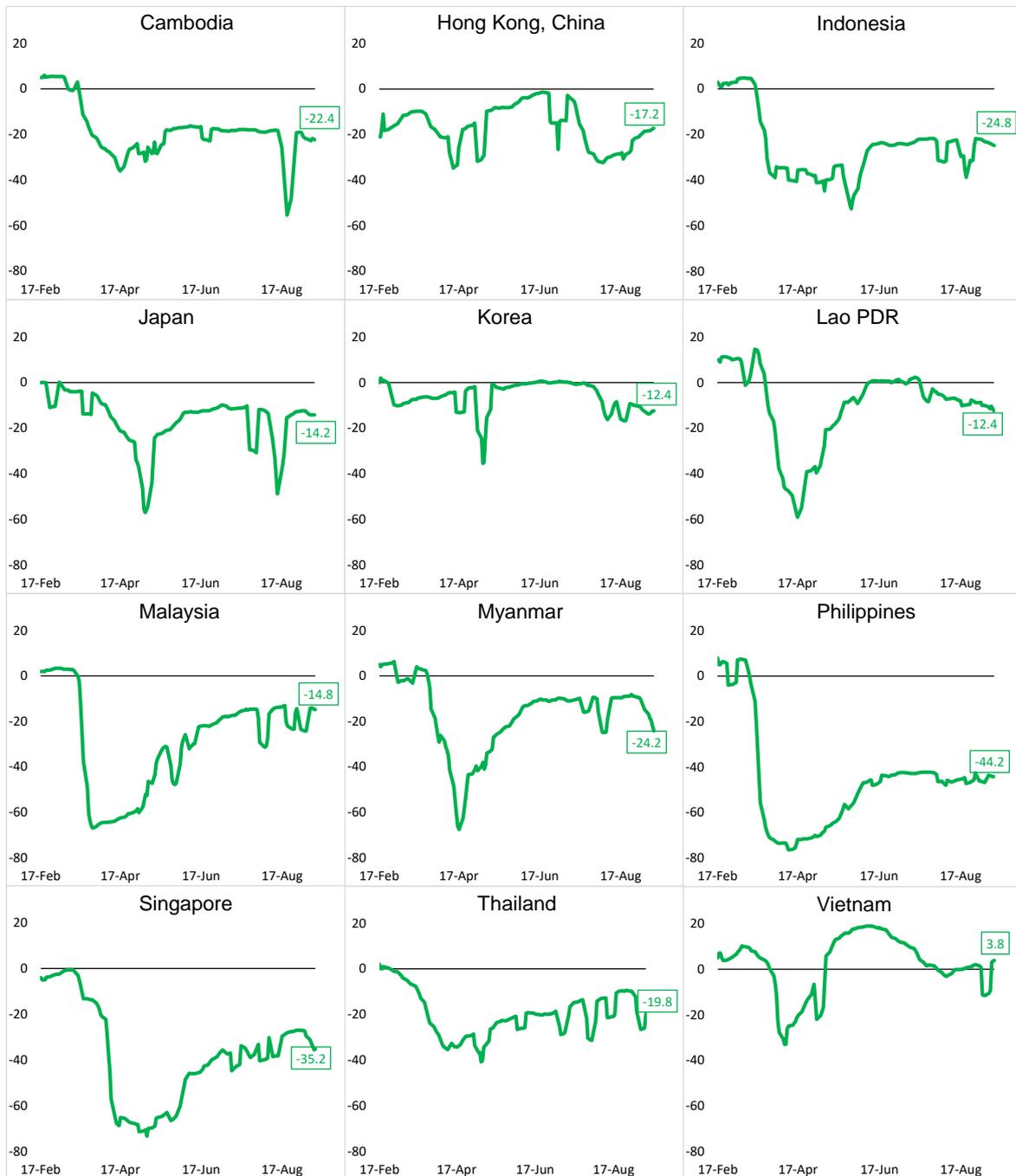
Emerging Market Economies



Sources: Haver Analytics, sourced from Google COVID-19 Community Mobility reports; and AMRO staff calculations.

Note: "Groceries and Pharmacies" include grocery markets, food warehouses, farmers' markets, specialty food shops, drug stores, and pharmacies.

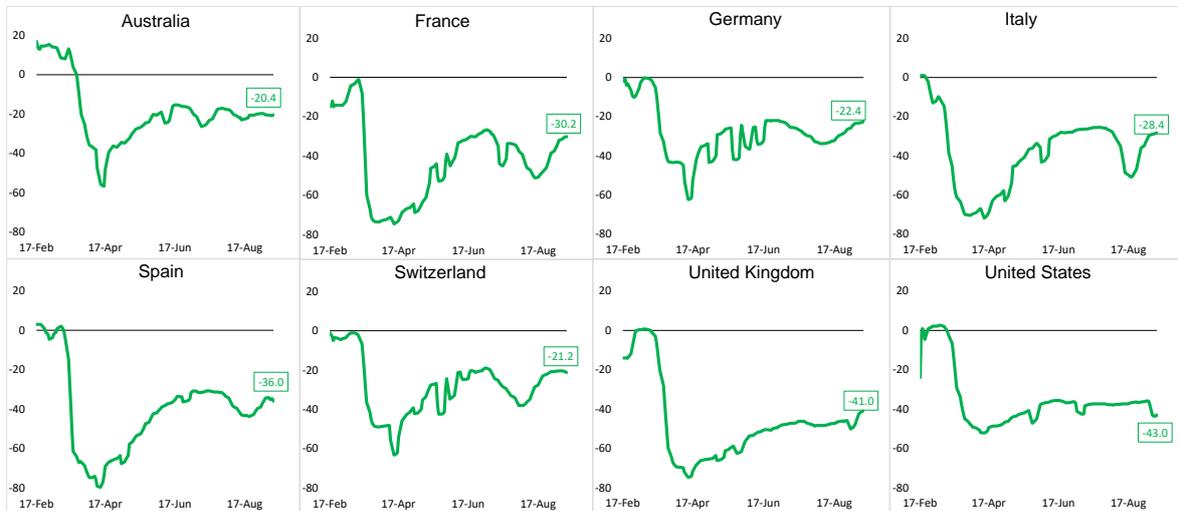
Appendix Figure 3. Selected ASEAN+3 Economies: Visits to Workplaces
 (Percentage change from baseline: January 3–February 6, 2020 = 0, 5-day moving average)



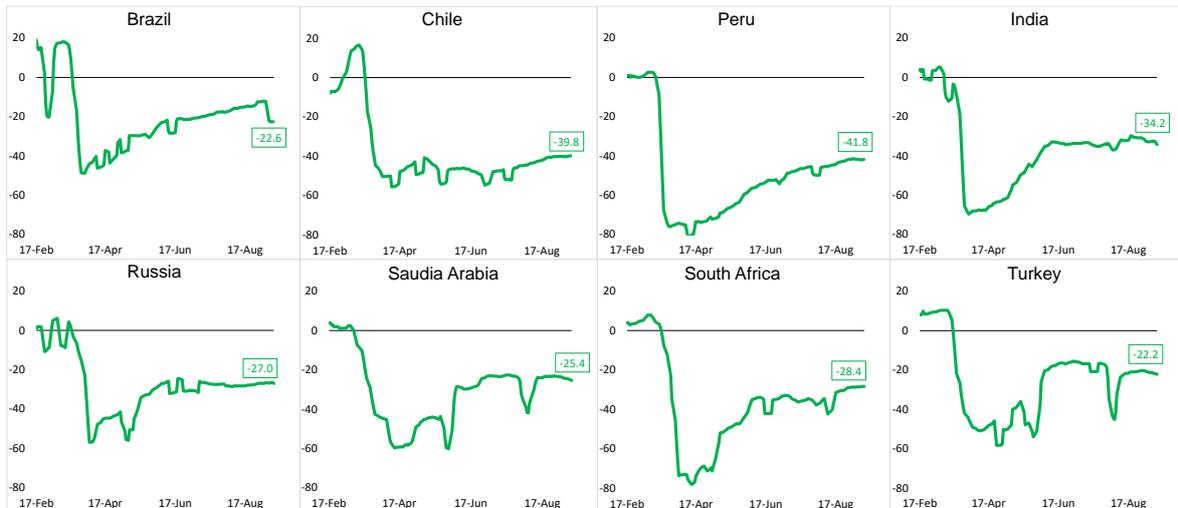
Sources: Haver Analytics, sourced from Google COVID-19 Community Mobility reports; and AMRO staff calculations.

Appendix Figure 4. Selected Non-Regional Economies: Visits to Workplaces
 (Percentage change from baseline: January 3–February 6, 2020 = 0, 5-day moving average)

Advanced Economies

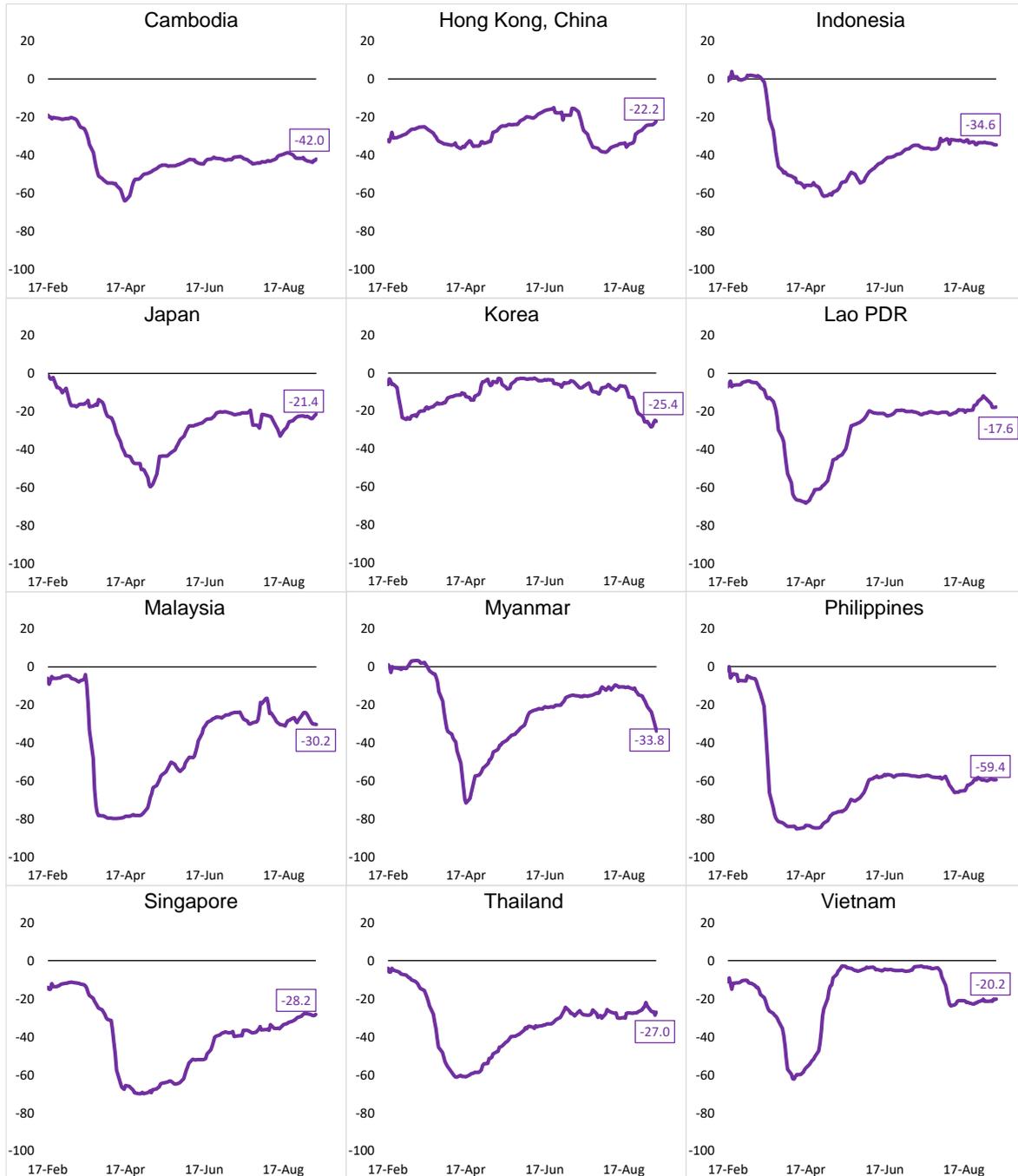


Emerging Market Economies



Sources: Haver Analytics, sourced from Google COVID-19 Community Mobility reports; and AMRO staff calculations.

Appendix Figure 5. Selected ASEAN+3 Economies: Visits to Transit Stations
(Percentage change from baseline: January 3–February 6, 2020 = 0, 5-day moving average)

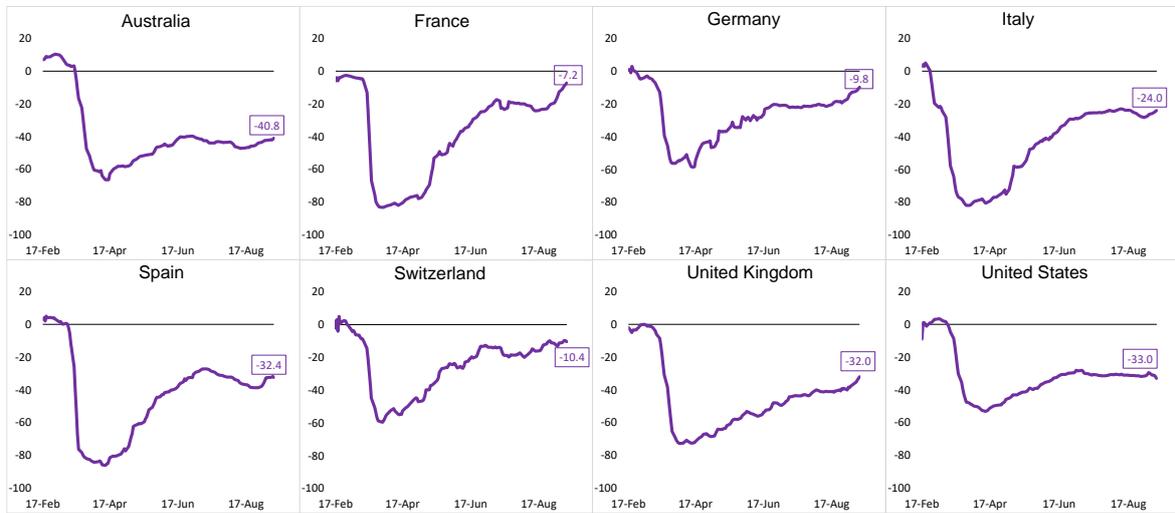


Sources: Haver Analytics, sourced from Google COVID-19 Community Mobility reports; and AMRO staff calculations.

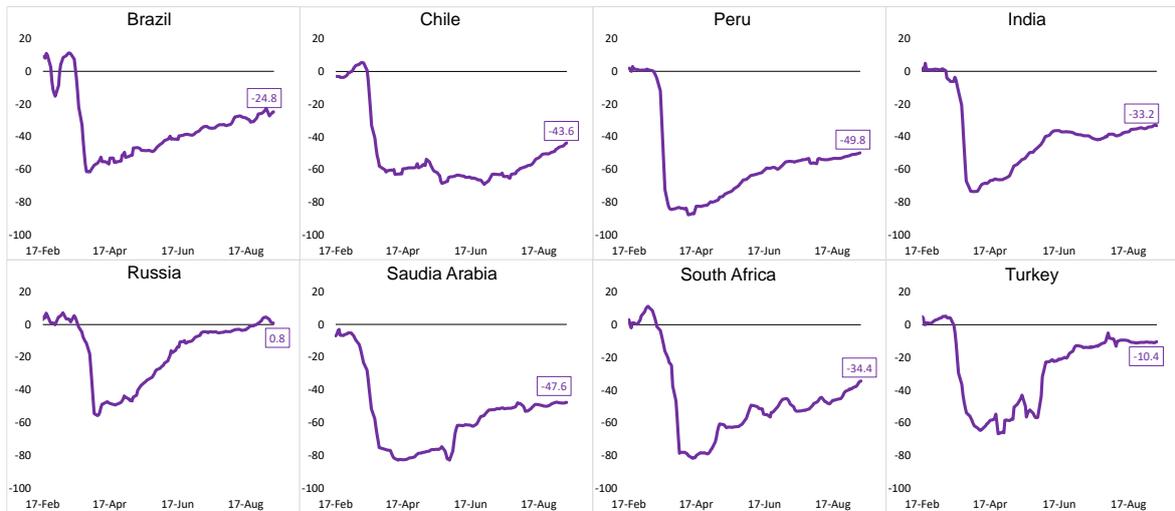
Note: "Transit Stations" include public transport hubs such as subway, bus, and train stations.

Appendix Figure 6. Selected Non-Regional Economies: Visits to Transit Stations
 (Percentage change from baseline: January 3–February 6, 2020 = 0, 5-day moving average)

Advanced Economies

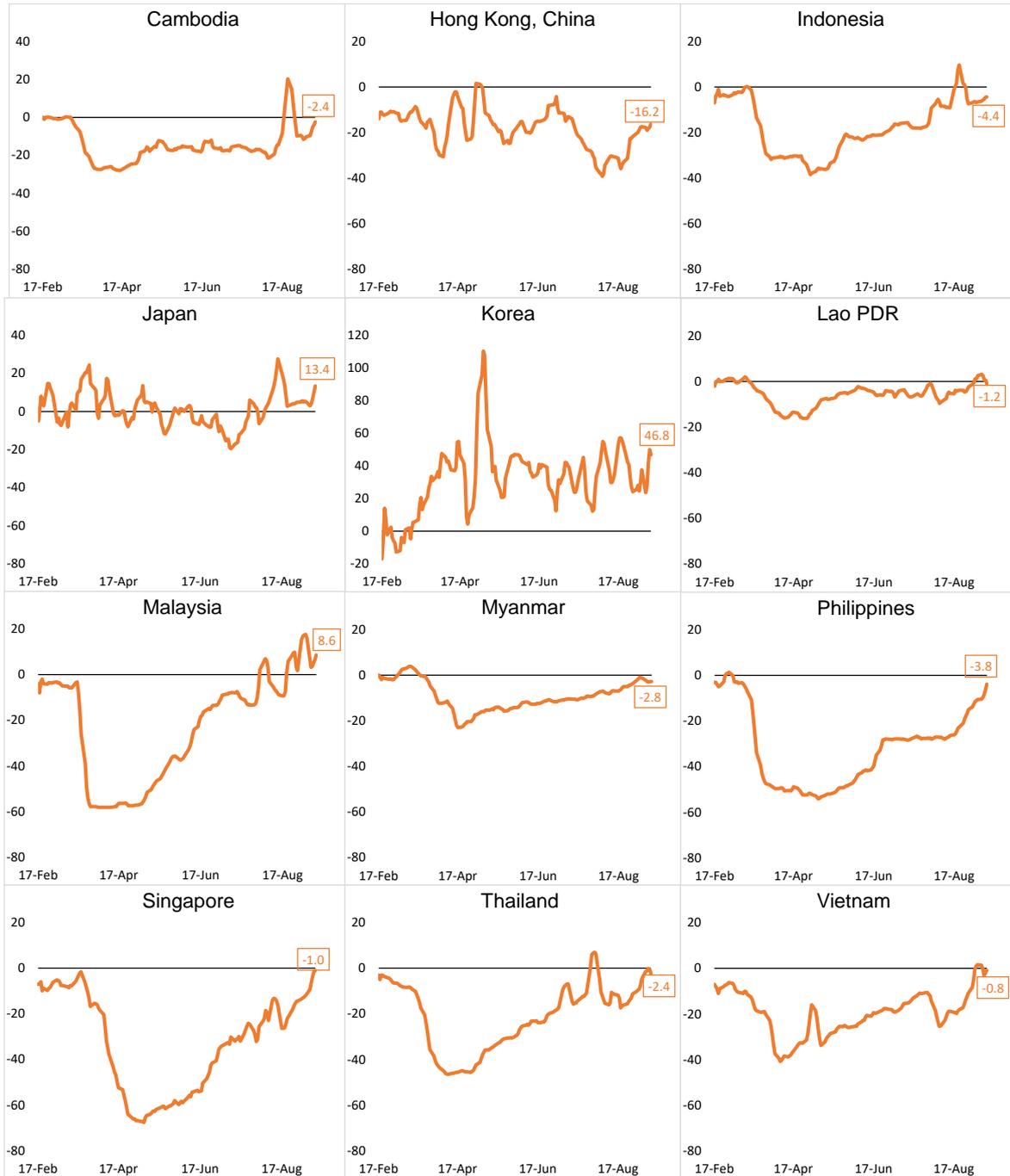


Emerging Market Economies



Sources: Haver Analytics, sourced from Google COVID-19 Community Mobility reports; and AMRO staff calculations.
 Note: "Transit Stations" include public transport hubs such as subway, bus, and train stations.

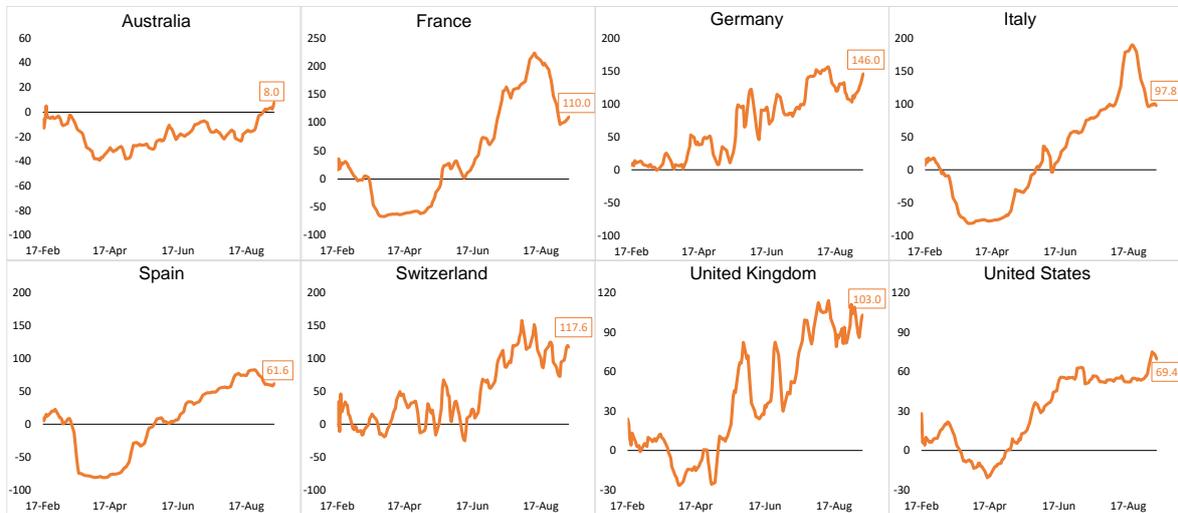
Appendix Figure 7. Selected ASEAN+3 Economies: Visits to Parks
 (Percentage change from baseline: January 3–February 6, 2020 = 0, 5-day moving average)



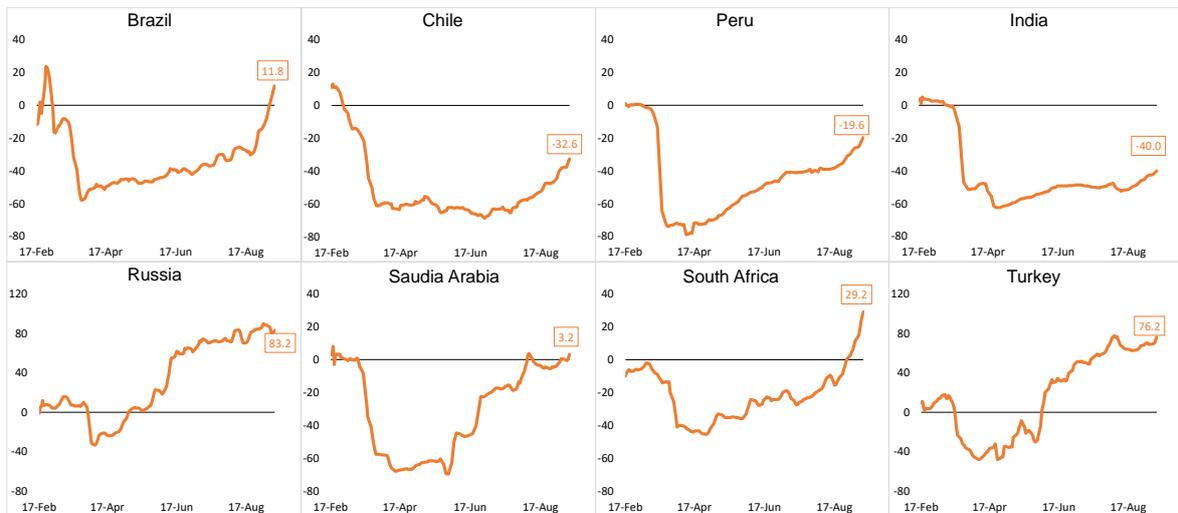
Sources: Haver Analytics, sourced from Google COVID-19 Community Mobility reports; and AMRO staff calculations.
 Note: "Parks" include local parks, national parks, public beaches, marinas, dog parks, plazas, and public gardens.

Appendix Figure 8. Selected Non-Regional Economies: Visits to Parks
 (Percentage change from baseline: January 3–February 6, 2020 = 0, 5-day moving average)

Advanced Economies



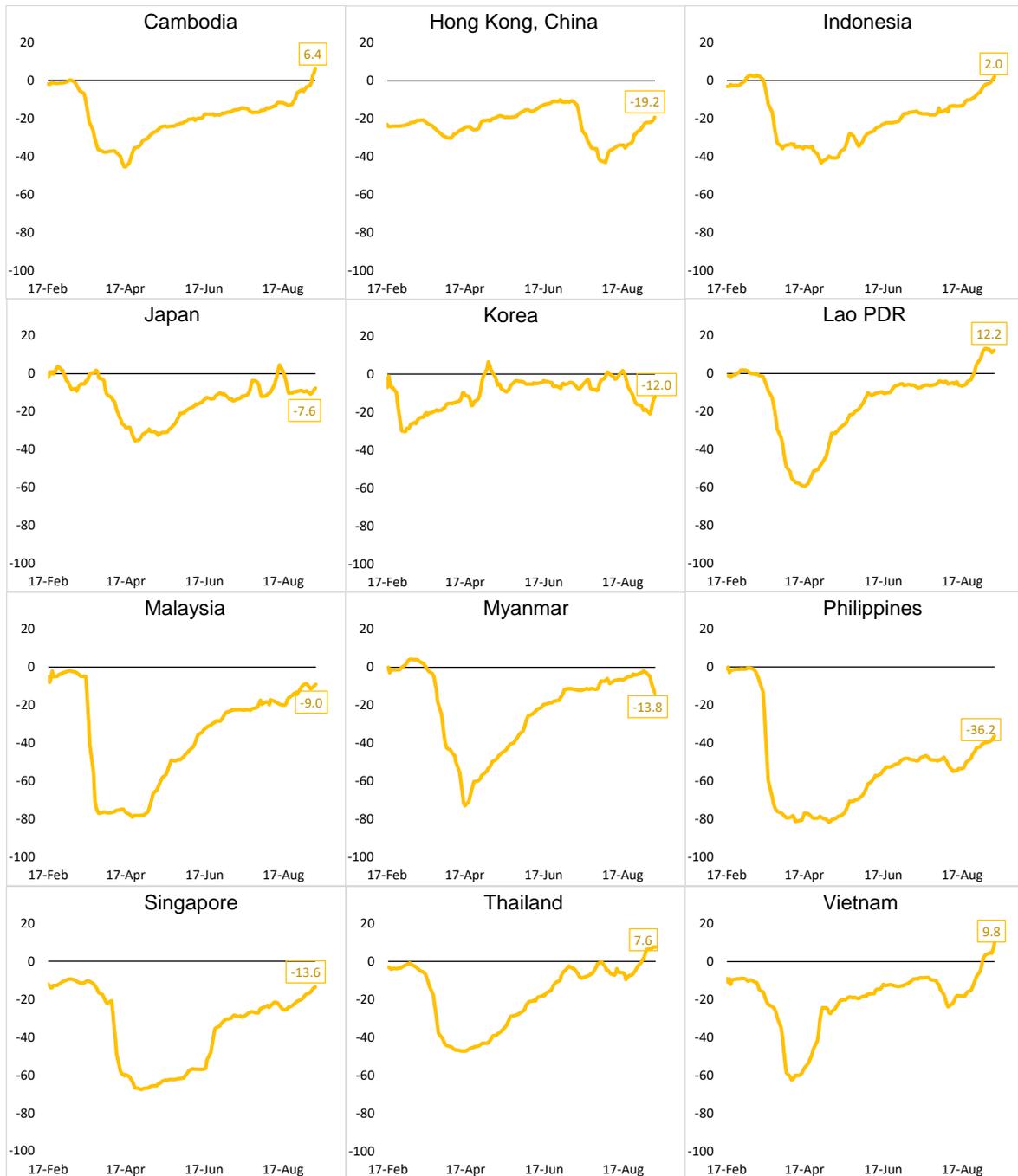
Emerging Market Economies



Sources: Haver Analytics, sourced from Google COVID-19 Community Mobility reports; and AMRO staff calculations.
 Note: "Parks" include local parks, national parks, public beaches, marinas, dog parks, plazas, and public gardens.

**Appendix Figure 9. Selected ASEAN+3 Economies:
Visits to Retail and Recreation Facilities**

(Percentage change from baseline: January 3–February 6, 2020 = 0, 5-day moving average)

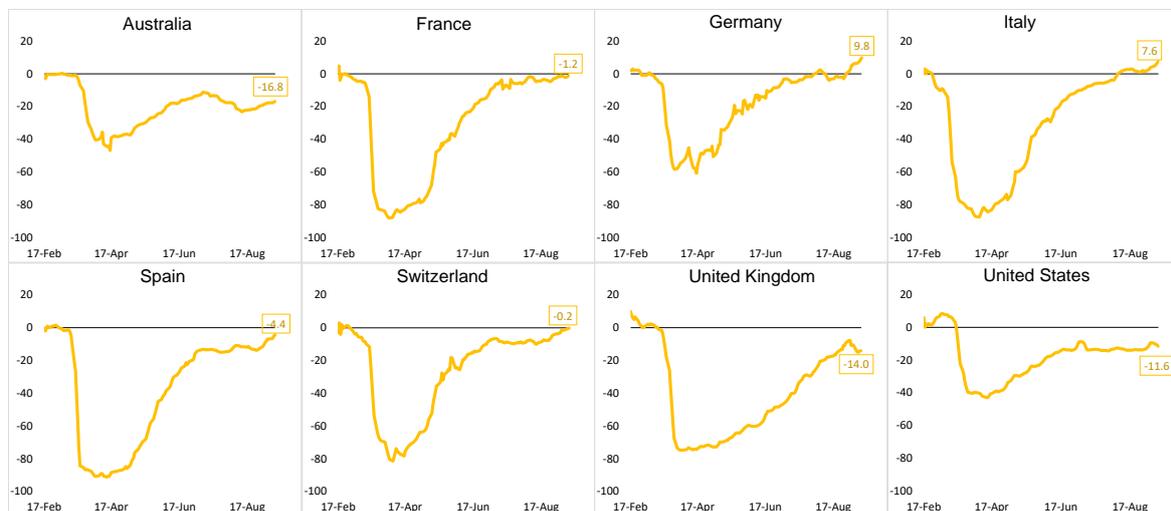


Sources: Haver Analytics, sourced from Google COVID-19 Community Mobility reports; and AMRO staff calculations.
Note: "Retail and Recreation Facilities" include restaurants, cafes, shopping centers, theme parks, museums, libraries, and movie theaters.

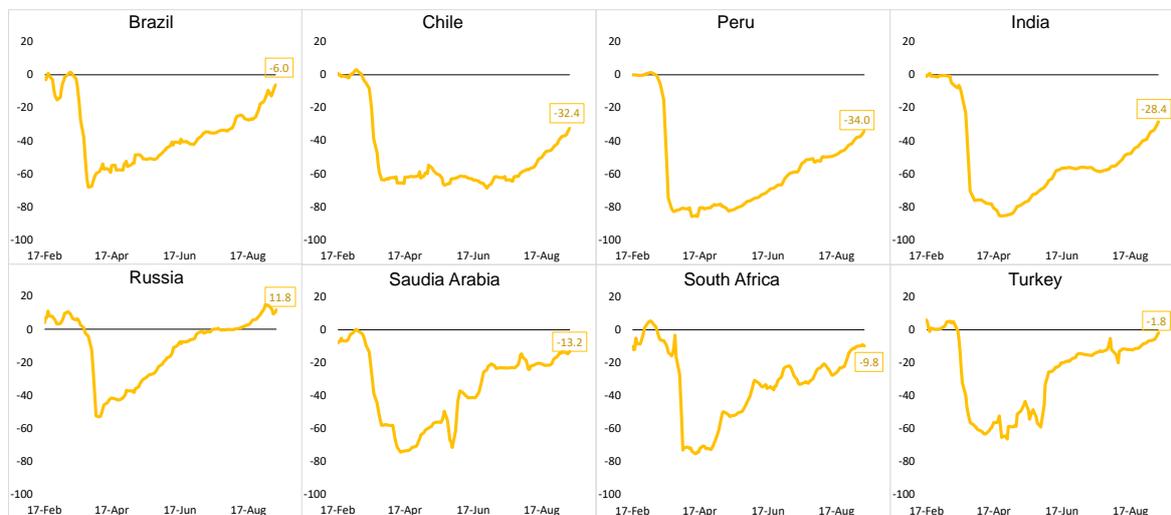
Appendix Figure 10. Selected Non-Regional Economies: Visits to Retail and Recreation Facilities

(Percentage change from baseline: January 3–February 6, 2020 = 0, 5-day moving average)

Advanced Economies



Emerging Market Economies



Sources: Haver Analytics, sourced from Google COVID-19 Community Mobility reports; and AMRO staff calculations.

Note: "Retail and Recreation Facilities" include restaurants, cafes, shopping centers, theme parks, museums, libraries, and movie theaters.