Divergent Recovery in the ASEAN+3 amid the COVID-19 Pandemic[1]

September 8, 2021

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I.   Introduction

1.   **For almost 20 months now, the COVID-19 pandemic has upended the world economy, including the ASEAN+3 region**. More than 12 million cases have been confirmed in the region so far, with more than 250,000 deaths. Resurgent infections and accompanying restrictions on work and social lives have had severe impact on businesses and people. ASEAN+3 GDP contracted by 0.2 percent in 2020 after growing by around 5 percent or more for many years. Renewed waves of infection by more contagious variants of the virus continue to disrupt economic activity, albeit to a lesser degree than during the early border closures and global lockdown during the spring of 2020.

2.   **The ongoing recovery has been uneven across sectors and businesses, segments of the population, and individual economies**. These divergences will likely intensify if the unequal distribution of vaccines allow some countries to recover much more rapidly than others (Ferreira 2021). Manufacturing has rebounded quickly and innovation in digitalization is thriving, but close-contact services and the travel industry continue to be heavily affected by virus-induced restrictions. The extent of such divisions will depend on how well the virus is contained; whether businesses in hard-hit sectors remain viable as the pandemic continues; whether employment will eventually bounce back and workers can be trained and upskilled to meet the demands of transformed economies; or whether many of the scars have already become permanent (Stiglitz 2020).

3.   **Different recovery speeds and divergence across the ASEAN+3 members could result in lasting intra-regional inequality.** Though regional economies have been on a gradual path of recovery, economies with slower vaccination progress, less policy support, and greater reliance on travel and tourism will likely lag behind (IMF 2021). Output losses in these economies will take longer to recover (Levy Yeyati and Filippini 2021). Different-sized losses risk rising inequality, by widening intra-regional disparities in living standards, and reversing gains in poverty reduction.

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4.   **AMRO staff's *Divergent Recovery Index (DRI)* attempts to measure this potential divergence across economies in the region.** The index combines several health, economic, and capacity indicators, capturing the progress in virus containment and vaccinations, the composition of each economy, remaining policy space, cumulative output losses, as well as innovation potential. By aggregating these indicators into an overall index, the DRI could provide useful insights into areas of strength and weakness relative to peers, and possibly allow policymakers to gauge the way forward.

II.   Drivers of Divergent Economic Recovery

5.   **The COVID-19 pandemic has had a more far-reaching, global, and lasting impact than many expected early on.** Economic output in many ASEAN+3 member economies contracted sharply in 2020, and although it has started to rebound, output generally remains below pre-pandemic levels (Figure 1). Some output losses are likely to persist as the economic fallout is expected to leave some permanent scars, even with the pickup in growth in recent quarters (AMRO 2021). Indeed, the data points to a growing divergence within the region, with China leading the recovery and other economies—many impacted by renewed infections and subsequent containment measures—recovering more gradually (Figure 2).

6.   **Several key factors will likely determine the shape and trajectory of each economy's recovery from the pandemic.** First and foremost, it is crucial whether an economy has suffered or is experiencing large virus outbreaks, and if policymakers and the healthcare system have been and are able to adequately handle them. Without the ability to effectively contain infections, the constant specter of new spikes in infections would make any sustainable recovery—including the resumption of many services—difficult to achieve (AMRO 2021). Business and consumer confidence, important drivers of domestic demand, would be influenced by the perceived risks, even though policymakers have become generally more adept at targeting restrictions.
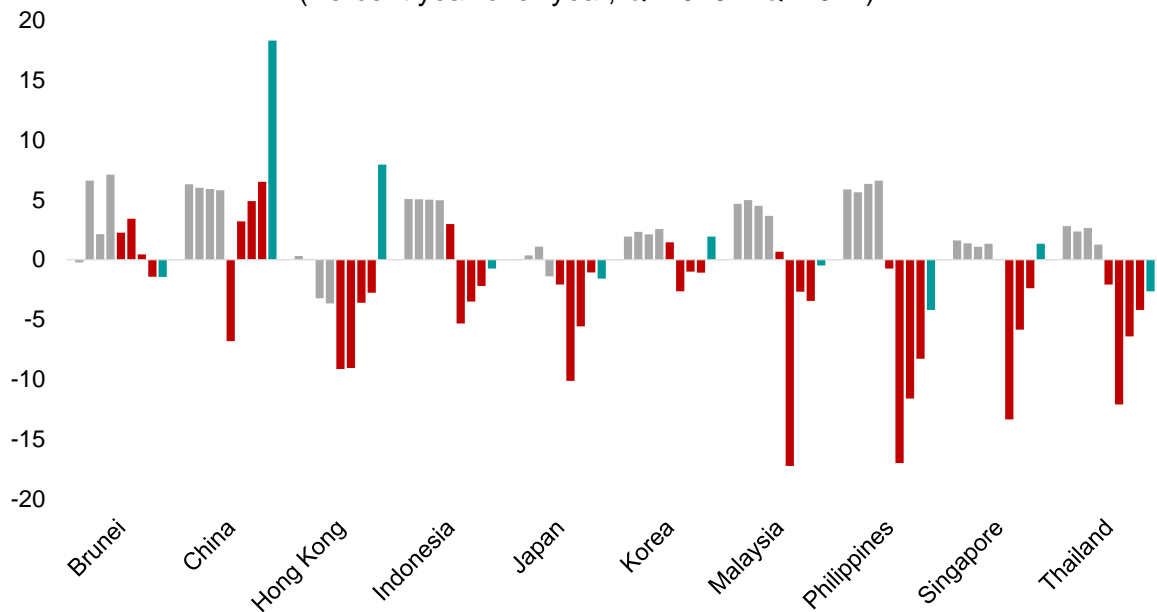
Figure 1. Selected ASEAN+3: Quarterly Real GDP
(2019 average = 100)
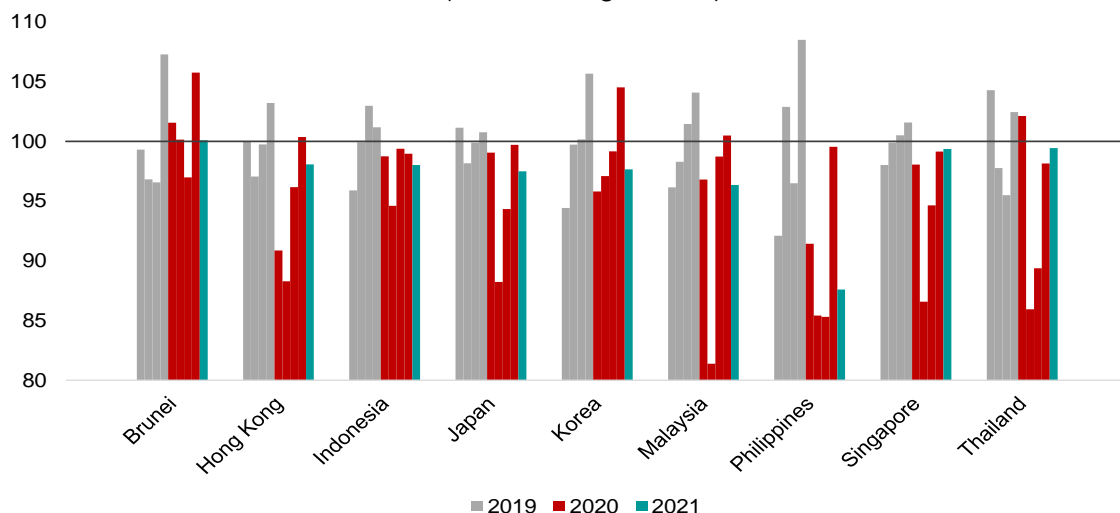
Sources: National authorities via Haver Analytics; and AMRO staff calculations.
Note: ASEAN+3 economies shown in the chart are selected based on data availability.

Figure 2. Selected ASEAN+3: Quarterly Real GDP Growth
(Percent year-over-year, Q12019 – Q12021)

Sources: National authorities via Haver Analytics; and AMRO staff calculations.
Note: ASEAN+3 economies shown in the chart are selected based on data availability.

7. **Enabling mass vaccinations will be vital in significantly reducing the severity of the disease and facilitating the move to a new normal.** With several efficacious vaccines now available in many countries, access to those vaccines and the pace of vaccination programs will be an important driver of economic recovery (IMF 2021). The greater the progress in vaccinating a population, the lower the risk of grave illness or death, even with the new variants, and the quicker it would be to bring the pandemic under control, hence enabling a sustained turnaround in economic activity.

8. **The composition and relative importance of particular sectors within each economy will play a central role in driving any turnaround.** Some sectors have benefited from pandemic-induced demand or have been able to adapt to new ways of doing business, while others have been devastated by circumstances beyond their control, particularly travel and other services that require face-to-face interaction, which are responsible for a large share of employment in many regional economies. Correspondingly, the different drivers of growth in each economy influence their pace of recovery, and are dependent on the pandemic situation at home and abroad, as well as their reliance on domestic versus external demand—via exposure to and reliance on international trade, tourism and remittances.

9. **Policy measures targeted at protecting lives and livelihoods have been most critical in ensuring survival and recovery.** Policy support, if deployed appropriately, should help reduce permanent scars to the economy, by trying to minimize output losses, bridging business closures, supporting impaired balance sheets, curtailing job losses, and ensuring that workers are able to reskill as needed for a transforming economy. Consequently, the remaining policy space could be used to further boost the economy or if renewed waves of infections necessitate further support.

10. **The ability to adjust to rapid digital transformation is supporting growth in some economies, as they move to a new normal.** Access to digital infrastructure and technical capacity has seen consumers and businesses adapt to and profit from an

increasingly more digitalized economy. Going forward, the capability within an economy to transform these behavioral shifts into more broad-based economic benefit will depend on its ability to provide the requisite infrastructure (AMRO 2020), enable the formation of innovative businesses, and strengthen human capital by training and upskilling workers, leading to employment growth and a rebound in services.

III. AMRO's Divergent Recovery Index

11.   **AMRO's DRI is based on several measurable dimensions of the factors discussed above.** Indicators that capture the main characteristics of these factors are compiled to develop a parsimonious overall index. The DRI does not capture the idiosyncrasies of each economy, but aims to provide a broad picture that is comparable across the region. The index comprises the following pillars and corresponding indicators:[2]

Pillar 1: Virus containment and vaccines

    1.1   *Total number of COVID-19 deaths.* A higher number of deaths points to severe outbreaks and less successful containment. Measuring deaths compared to the caseload also includes implicit assumptions on healthcare capacity, demographics, and thus the perceived risks within a population.[3] Successful containment is the main prerequisite for sustained economic recovery.

    1.2   *Current stage of Covid Cycle.* We rely on AMRO's high-frequency Covid Cycle tool to assess which stage economies are at in the pandemic (Hinojales and others 2020; Oeking 2021). Stages of the Covid Cycle are not calculated as a comparison across countries, but rather, over the time series of each economy, with a weaker stage signaling that a current outbreak is worse than previous outbreaks within the same economy. Repeated resurgences in infections would suggest that any economic recovery will be anemic or delayed.

    1.3   *Current vaccination progress.* Rapid, wide-reaching vaccination campaigns that help to reduce deaths and severe cases of the disease would speed up economic recovery. While all ASEAN+3 members have rolled out their vaccination drives, progress has been very divergent (Figure 3).

Pillar 2: Economic composition

    2.1   *Share of close-contact services to GDP.* Close-contact services, including travel and tourism-related ones, have been hard hit by social distancing measures and closed borders, and are expected to be the biggest laggard in any recovery. The larger their share in GDP, the longer full recovery is expected to take.

    2.2   *Share of manufacturing, mining and quarrying to GDP.* Although the manufacturing as well as the mining and quarrying sectors (mostly oil and

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[2] See Appendix I for additional details.

[3] Data on COVID-19-related statistics differ with respect to quality, availability and comparability (Oeking 2021), and are also not standardized across economies. We assume considerable differences in the way individual authorities track and record their outbreaks, including significant underestimation of deaths in some instance.

gas) suffered an initial blow during the early stages of lockdowns, they recovered quickly, fueled by pandemic-induced demand and pent-up savings, and are expected to continue to drive economic recovery in the region (Figure 4).

2.3 *Share of vulnerable employment.* Vulnerable employment has been affected strongly by the pandemic and its restrictions, and is expected to take longer to recover than other types of employment. We assess employment in smaller enterprises (micro, small, and medium-sized enterprises), which are likely to have smaller buffers as well as informal employment—much of it in the services sector—as vulnerable.

Figure 3. ASEAN+3: Vaccinations vs. Aspired population coverage, as of September 6, 2021
(Percent of population)
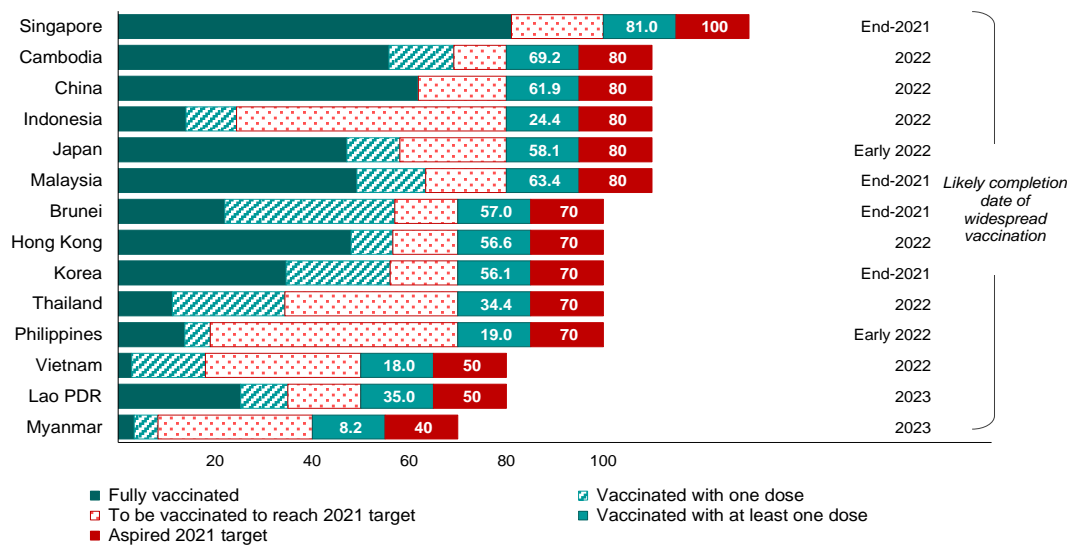
Sources: Economist Intelligence Unit; Our World in Data via Haver Analytics; various media sources; and AMRO staff estimates and calculations.
Note: Percent of population vaccinated with one dose refers to the difference between total administered doses divided by two to reflect the two-dose regime of most vaccines and the proportion of population that is fully vaccinated. Aspired 2021 targets and completion dates of widespread vaccination are goals, forecasts, or estimates.

Figure 4. ASEAN+3: Real GDP by Industry
(Percent of total)
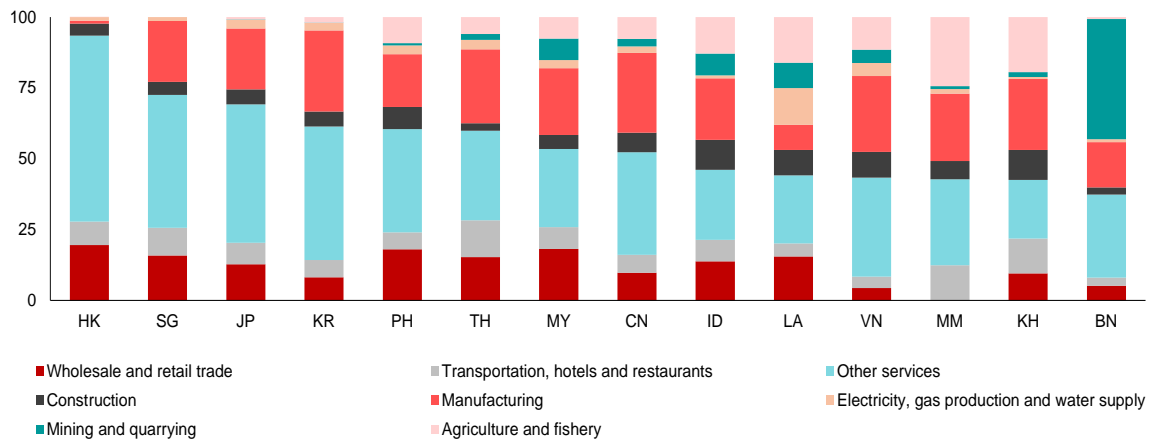
Sources: National authorities via Haver Analytics; Wind; and AMRO staff calculations.
Note: Refers to the latest pre-pandemic year available. BN = Brunei Darussalam; KH = Cambodia; CN = China; HK = Hong Kong; ID = Indonesia; JP = Japan; KR = Korea; LA = Lao PDR; MY = Malaysia; MM = Myanmar; PH = Philippines; SG = Singapore; TH = Thailand; and VN = Vietnam.

Pillar 3: Policy space

> *3.1*   *Remaining policy space.* The larger the remaining policy space, the greater the ability to exit more gradually or provide support whenever further public health measures and accompanying economic policy support measures are needed.

Pillar 4: Cumulative output losses

> *4.1*   *Projected real GDP output losses.* The deeper the output losses and scars, the more difficult it will be to achieve "full" economic recovery.

Pillar 5: Potential innovation in digitalization

> *5.1*   *Digital penetration / digital infrastructure.* Better existing infrastructure in information and communications technology would support the shift to greater digitalization, which is likely to be even more relevant in the current and post-pandemic world.

> *5.2*   *Innovation potential.* More ongoing innovation and potential to further transform would support a concerted move to a new normal and promote a more speedy economic recovery.

> *5.3*   *Human capital.* A more digitalized world is likely to require higher overall skill levels, which would also support the shift to a new normal.

12.   **Using these indicators, a score for each main pillar as well as the overall DRI score are estimated for each economy in the ASEAN+3 region.** Each indicator ranking is standardized from "1" to "4" with higher scores implying better chances of a speedy economic recovery. For each of the main pillars with more than one indicator, simple averages are calculated to arrive at the pillar score. Finally, the pillar scores are averaged to arrive at the aggregated DRI score (Figure 5), each pillar entering with the same weight.

13.   **The results show that the recovery potential across the ASEAN+3 members varies significantly.** Several economies are currently facing renewed waves of COVID-19 infections, requiring further lockdowns and policy support, which complicates their recovery. Economies that have greater concentration in pandemic-unfriendly sectors, narrowing policy space, and weaker digital innovation potential are indeed posting scores that suggest they have much catching up to do to be competitive in the new normal. In contrast, those that are likely to experience smaller output losses during this crisis and exhibit strong innovation capabilities should benefit from the shift toward becoming more digitalized economies.

IV. Conclusion

14.   **The pace and quality of economic recovery from the Covid crisis will be uneven across the ASEAN+3 region.** The economic fallout from the pandemic will induce lasting scars, and any full recovery is unlikely as long as vaccinations are not sufficiently widespread to prevent further resurgences in infections requiring renewed containment measures. But within this context, some economies and sectors have and will continue to benefit from their ability to innovate and take advantage of the rapid acceleration in digitalization, and strategically deploy their pent-up savings. In contrast, economies with

large informal sectors and those that rely on close-contact services could struggle to bounce back, and must adapt, upskill, and reinvent themselves to survive and thrive.

15.   **The divergence in economic recovery could lead to widening inequality, both across the region and within individual economies.** While some segments of the population and sectors of the economy have rebounded relatively quickly, others remain under pressure. Job losses will take time to be absorbed, business and household balance sheets will take time to be repaired, and high leverage could imply sluggish spending going forward. Inequality is likely going to be exacerbated as a result. The **Divergent Recovery Index** highlights some of the factors that will determine the shape and trajectory of recovery among ASEAN+3 economies.

16.   **Policy support has played a critical role in addressing the economic crisis and will need to remain accommodative to ensure a sustained recovery.** As suggested by the DRI, policy priorities in the region will have to necessarily be different to avoid lasting increases in inequality within or across economies. Policy responses to date have, appropriately, been tailored to address the varying stages of the pandemic, the structural economic characteristics, as well as output losses. The size and effectiveness of any policy measure and the availability of remaining policy space to deal with problems as they arise will be crucial in returning economies to a sustainable growth path. Regional cooperation, through the provision of adequate access to vaccines, fostering trade in both goods and services, and ensuring access to a liquidity backstop if needed, will be a critical building block toward recovery and convergence.

Figure 5. ASEAN+3: Divergent Recovery Index, as of September 6, 2021
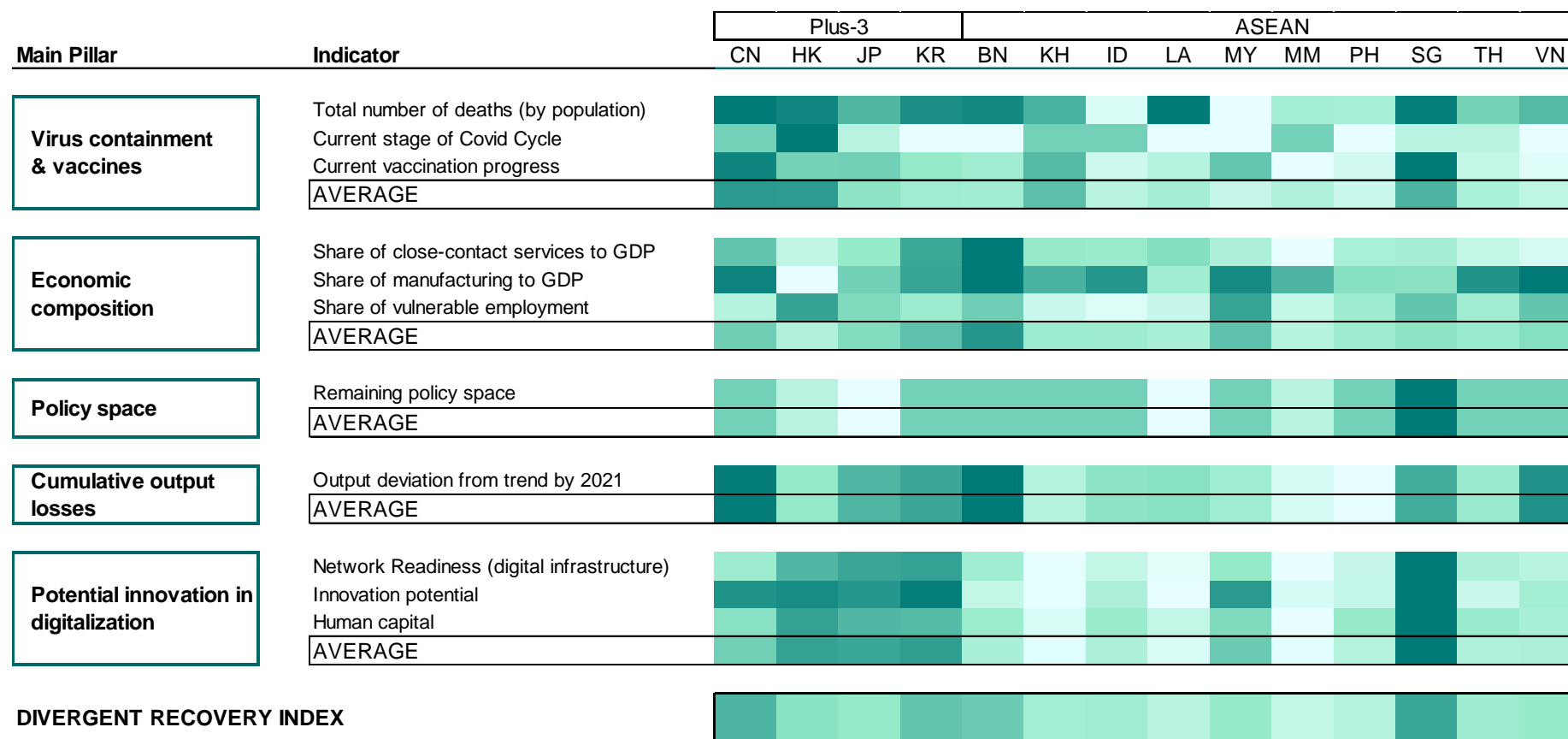
Sources: Asian Development Bank (ADB); International Food Policy Research Institute (IFPRI); Johns Hopkins University, national authorities, and Our World in Data, all via Haver Analytics; Organization for Economic Co-operation and Development (OECD); Portulans Institute; World Bank; World Economic Forum; World Intellectual Property Organization; and AMRO staff calculations, estimations, and projections.
Note: Data for each indicator are standardized from "1" (light green) to "4" (dark green); the main pillars are built on simple averages across sub-indicators. The final index averages across pillars. The higher the score (the darker the green), the more conducive the conditions for recovery. The score is lower for a larger share of close-contact services, or lower share of manufacturing, or lower share of vulnerable employment, as measured by the share of employment in MSMEs and informal employment.

Appendix I. Indicators and Data

Appendix Table 1. Divergent Recovery Index: Definitions and Sources of Indicators

	Indicator	Definition	Source
Pillar 1: Virus Containment and Vaccines			
1.1	Total number of deaths (by population)	Confirmed COVID-19 deaths per million of population (1=high; 4=low)	Johns Hopkins University; Haver Analytics; and AMRO staff calculations
1.2	Current stage of Covid Cycle	Current stage of Covid Cycle (1=first stage; 4=end stage); average over the last 30 days and the last 7 days	Johns Hopkins University; Haver Analytics; and AMRO staff calculations (see Hinojales and others 2020)
1.3	Current vaccination progress	Vaccines administered per 100 people in the population (1=low; 4=high)	Our World in Data; Haver Analytics; and AMRO staff calculations
Pillar 2: Economic Composition			
2.1	Share of close-contact services (retail trade, transportation, hospitality) to GDP	Sum of the shares of wholesale and retail trade to GDP, accommodation and food services to GDP, and transport and storage to GDP; measured in real terms, last pre-pandemic year available (1=high; 4=low)	Haver Analytics; and AMRO staff calculations
2.2	Manufacturing, mining and quarrying to GDP	Share of real manufacturing GDP and mining and quarrying GDP to total GDP, last pre-pandemic year available (1=low; 4=high)	Haver Analytics; and AMRO staff calculations
2.3	Share of vulnerable employment	Combined score of the two indicators below, with equal weights	
	Share of employment by MSMEs	Share of employment in micro, small, and medium-sized enterprises to total employment, last pre-pandemic year available (1=high; 4=low)	National authorities; World Bank; and AMRO staff calculations and estimates
	Share of informal employment	Informal employment as a percentage of total non-agricultural employment, last pre-pandemic year available (1=high; 4=low)	International Labor Organization; OECD; National authorities; and AMRO staff estimates

Indicator	Definition	Source
Pillar 3: Policy Space		
3.1 Remaining policy space	Assessment of fiscal policy space and monetary policy space (1=limited; 4=ample)	AMRO staff estimates, based on Poonpatpibul and others (2020); AMRO (2021), Table 1.5
Pillar 4: Cumulative Output Losses		
4.1 Projected real GDP output losses	Projected deviations of real GDP levels from trend by 2021; pre-pandemic trend is based on average 2017–19 GDP growth rates after taking the logarithmic transformation of real GDP. The growth path for each economy is based on AMRO's quarterly projections.	National authorities via Haver Analytics; and AMRO staff estimates and projections See AMRO (2021), Figs 1.3.1 and 1.3.2
Pillar 5: Innovation in Digitalization		
5.1 Digital penetration / digital infrastructure	Network Readiness Index 2020 (1=low; 4=high)	Portulans Institute; and AMRO staff estimates
5.2 Innovation potential	Global Innovation Index 2020 (1=low; 4=high)	World Intellectual Property Organization
5.3 Human capital	Global Competitiveness Index 2017-18, 5th pillar: Higher education and training (1=low; 4=high)	World Economic Forum

Source: AMRO staff compilations.

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