"Crowdsourcing" the Recovery in ASEAN+3 Services Trade[1]

August 14, 2020

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I. Introduction

1.   **The ASEAN+3's vastly under-rated services trade sector could yet play an important role in the region's economic recovery.** Last year, growth in service exports helped support the region's external sector during the US-China trade conflict, remaining positive albeit at a much slower rate than in 2018 (Figure 1). However, with service exports in several regional economies propelled largely by travel and tourism, the decimation of the industry by the COVID-19 pandemic in 2020 has led to estimates that any recovery in the region's service sector may take quite a while, possibly only when a vaccine is found (AMRO, 2020a). In our view, contributions from any recovery will depend on the composition and size of each economy's service export sector, with some better positioned to benefit than others.

2.   **Service exports are significant for many of the ASEAN+3 economies.** At the top end, they make up as much as 42 percent of total exports for the Philippines, and around 30 percent for Myanmar and Cambodia, corresponding to a varied 10, 7, and 22 percent of GDP, respectively (Figure 2). For Singapore and Hong Kong, China (hereafter "Hong Kong"), where total exports amount to more than 100 percent of GDP, services account for 30 and 16 percent, respectively, the equivalent of 51 and 31 percent of GDP. Conversely, at the other end of the scale, service exports account for less than 10 percent of total exports for Brunei Darussalam (hereafter "Brunei"), China, and Vietnam, and well below 10 percent of their GDP.

3.   **Some service sectors have already turned around, following the initial shock from the pandemic.** Indeed, the Asian region's sectoral Purchasing Manager Index (PMI) suggests that some segments of the service sector may even be recovering at a much quicker pace than the manufacturing and resource sectors (Figure 3). Activity in financial services (e.g., banking and insurance) picked up in June and July, while other service sectors also strengthened in June, but softened somewhat the following month. In contrast, manufacturing (e.g., industrial goods) and resources are still weakening, albeit at a slower pace, and the production of electronics is lagging.

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4. **Our aim is to provide a guide on which ASEAN+3 economies are likely to see the quickest recovery in, and strongest contributions from, their services trade sectors.** In the absence of timely balance of payments data, whose publication tends to lag by several months, we employ a novel method of drawing on the AMRO surveillance team's expert judgment to rank the relative speed of recovery of the various service sectors. We then develop "crowdsourced" services trade indices for each member economy, based on those views.

Figure 1. ASEAN+3: Performance of Goods and Service Exports
(Percent year-over-year; 3-month moving average)

Mar: −55.9
Apr: −82.9
May: −95.3

Goods (volume)   Goods (USD)   Services (USD)   Tourist Arrivals
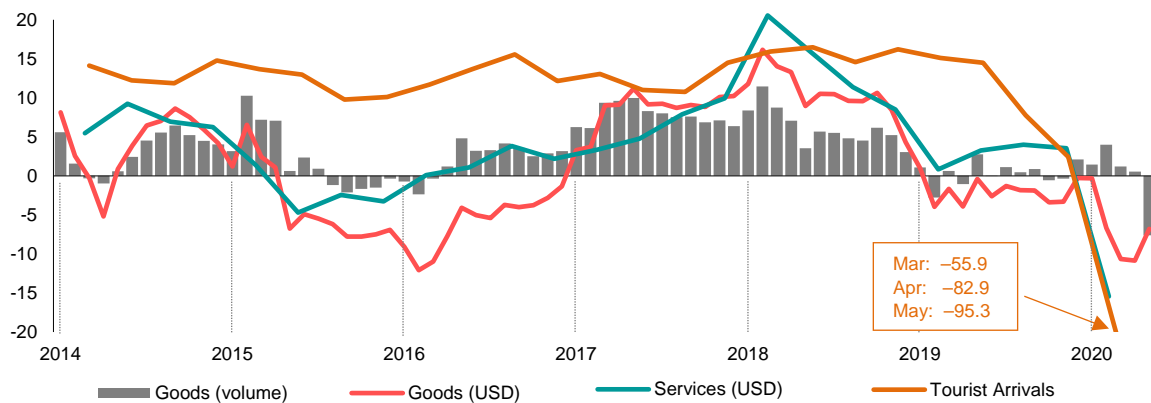
Sources: National authorities; and AMRO staff calculations.
Note: Tourist arrivals are for selected economies only where timely data are available, namely, Cambodia; Hong Kong, China; Korea; Singapore; Thailand; and Vietnam.

Figure 2. ASEAN+3: Composition of Goods and Service Exports, 2015–19 Average

Percent of Total Exports

Percent of GDP

Goods   Services
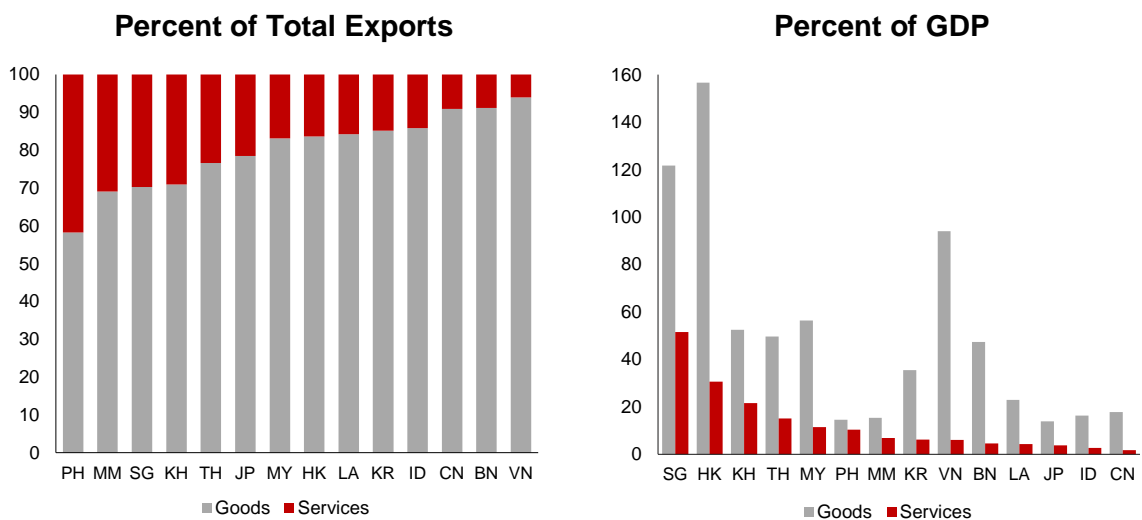
Sources: Haver Analytics; and AMRO staff calculations.
Note: BN = Brunei Darussalam; CN = People's Republic of China; HK = Hong Kong; ID = Indonesia; JP = Japan; KH = Cambodia; KR = Korea; LA = Lao PDR; MY = Malaysia; MM = Myanmar; PH = Philippines; SG = Singapore; TH = Thailand; and VN = Vietnam.

Figure 3. Monthly PMI: Global Electronics and Asia Sectors

Sectors	2018 Jan - Dec		2019 Jan - Dec		2020 Jan - Jul	
Global Sector						
Electronics						
Asia Sector						
Basic Materials						
Chemicals						
Resources						
Forestry & Paper						
Metals & Mining						
Consumer Goods						
Automobiles & Auto Parts						
Food & Beverages						
Household & Personal Use						
Consumer Services						
Financial Services						
Banks						
Insurance						
Real Estate						
Healthcare						
Healthcare Services						
Pharmaceuticals						
Industrials						
Industrial Goods						
Machinery						
Construction Materials						
Industrial Services						
Commercial						
General Industrial						
Transportation Services						
Technology						
Technology Equipment						
Software & Services						

Source: IHS Markit.
Note: The PMI headings are coded by colors. The deeper the red the further below (< 40) from the diffusion level of 50; greener denotes the further above (> 60) from 50. A PMI reading above 50 denotes an increase in business activity over previous month, and a reading below 50 denotes otherwise.

II.   Service Exports in the Region

5.   **The composition of service exports across the ASEAN+3 economies is highly diversified**. The IMF's Balance of Payments and International Investment Position Manual (sixth edition) (hereafter "BPM6") lists twelve categories of services, all of which are exported by the ASEAN+3 region to the rest of the world (Figure 4).[2] Travel and transportation collectively account for between 40–50 percent of the region's total service exports, with the remaining portion led by telecommunications and financial services, shares of which have also increased over time (Figure 5).

6.   **The COVID-19 pandemic has highlighted the dominance of the travel and transportation businesses for services trade in the ASEAN+3 region.** Except for a few economies, many in the region have more than 50 percent of their service exports coming from these sectors (Figure 6), which explains why they have been very vulnerable to border lockdowns and travel bans, put in place since February 2020 (Choo and others, 2020). As key tourist destinations—where tourism also contributes significantly to GDP—Cambodia

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[2]   See Appendix I for the list of services and corresponding definitions.

and Thailand appear to be the most exposed to the loss in travel demand due to the pandemic. Meanwhile, supply chain disruptions, which have resulted in a decline in international freight activity, have severely affected key transportation hubs, notably, Singapore, Hong Kong, and goods export-driven economies, such as Brunei and Korea.

Figure 4. ASEAN+3: Share of Total Service Exports, by Industry, 2015–2019
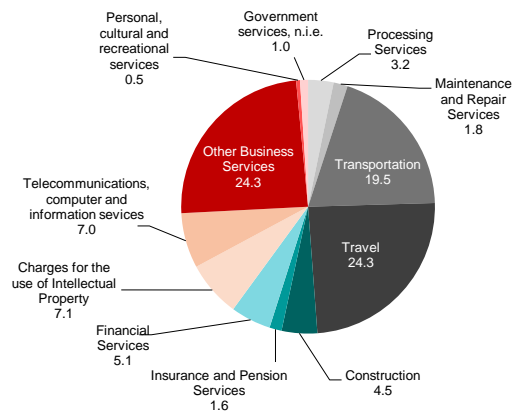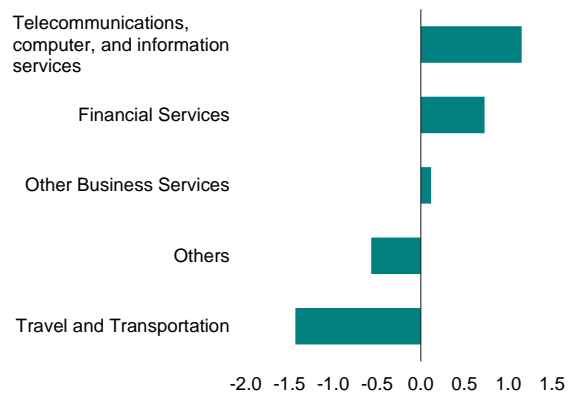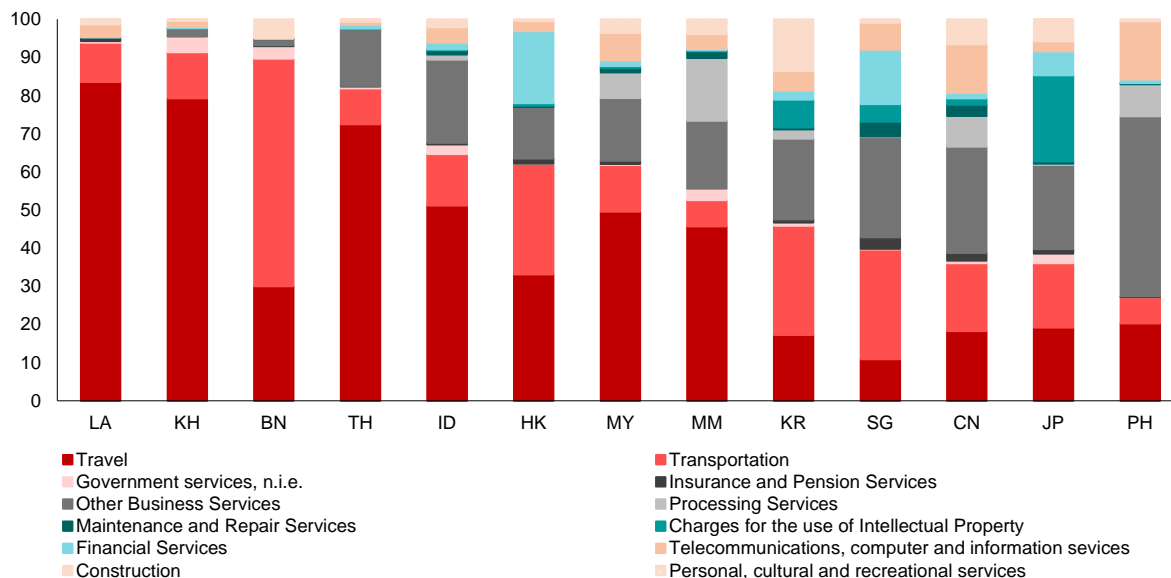(Percent)

Figure 5. ASEAN+3: Change in Share of Total Service Exports, 2015 and 2019
(Percentage points)

Sources: Haver Analytics; and AMRO staff calculations.
Note: Vietnam is not included in the total given that it does not report a sectoral breakdown of its services trade. n.i.e. = not included elsewhere.

Figure 6. ASEAN+3: Composition of Service Exports, 2015–19 Average
(Percent share of total service exports)

Sources: Haver Analytics; and AMRO staff calculations.
Note: Vietnam is not included in the total given that it does not report a sectoral breakdown of its services trade. Vietnam's annual average service exports for 2015–2019 was USD 3.4 billion, while the annual average for goods exports during the same period was USD 53.6 billion. BN = Brunei Darussalam; CN = People's Republic of China; HK = Hong Kong; ID = Indonesia; JP = Japan; KH = Cambodia; KR = Korea; LA = Lao PDR; MY = Malaysia; MM = Myanmar; n.i.e. = not included elsewhere; PH = Philippines; SG = Singapore; and TH = Thailand.

7.   **A breakdown of service exports reveals where the potential drivers of growth may be for the region's economies, post-pandemic**. Containment measures, restrictions on international movements, and strict social distancing mean that demand and supply activity in some service sectors is unlikely to return to pre-pandemic levels any time soon. Consequently, those economies with high reliance on travel and transportation service exports will likely see subdued growth in service exports for some time to come. Similarly, service sectors that involve physical interactions, such as accommodation, aviation, construction, maintenance and repair, recreational services, and those auxiliary to manufacturing, will continue to be negatively affected.

III. "Crowdsourced" Services Trade Recovery Rankings

8.   **So, which services trade sectors are likely to recover first?** We conducted an independent, internal survey with AMRO's Surveillance Group to obtain consensus on the speed of recovery across the various services trade sectors (Appendix I). Staff were asked to rank the 12 sectors defined in BPM6, in the order of what they thought the relative speeds of recovery would be, with a rank of 1 being the fastest, and 12 the slowest. A total of 33 responses was collected and the rankings for each of the 12 services trade sectors were subsequently averaged to obtain the consensus rankings (Figure 7).

Figure 7. ASEAN+3: AMRO Staff's Rankings of the Relative Speed of Recovery in 12 Services Trade Sectors

(Average rank)
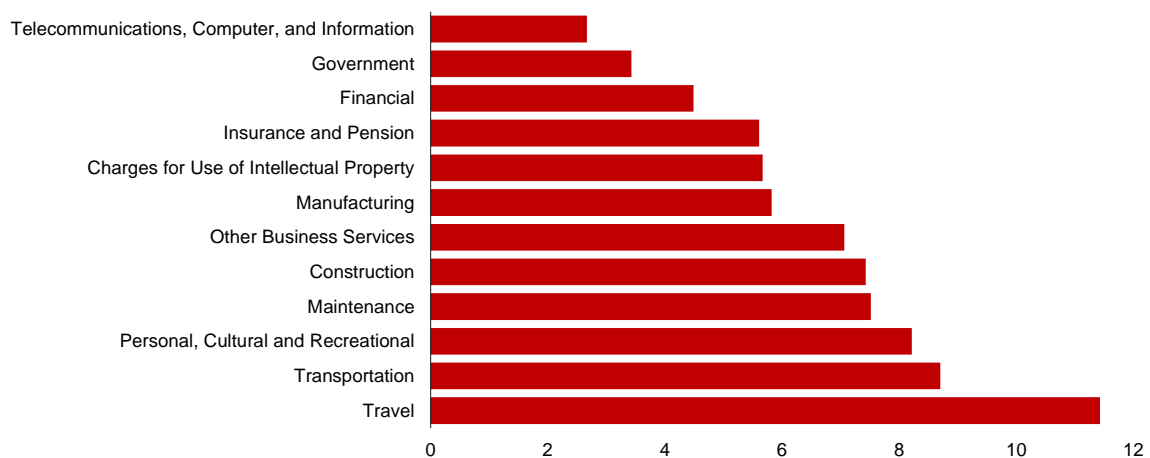
Source: AMRO staff estimates.
Note: Rankings are relative—a rank of 1 denotes the trade services sector that is expected to recover fastest among the 12 sectors; a rank of 12 denotes the slowest.

9.   **There are clear trends in AMRO staff's views on some of the sectors.** The distributions of surveyed rankings are manifestly skewed for the more obvious sectors, but are quite even for several others that are less so (Appendix II):

- Unsurprisingly, respondents are of the view that travel, transportation, and recreational services will be slowest to recover.

- Conversely, areas such as financial, government, and telecommunications and information services are considered most likely to recover quickly (or be least affected).

- The distributions in responses on the manufacturing and other business service sectors are quite even.

- Among the remaining services, those requiring on-site presence (e.g., construction and maintenance), tend to be lower ranked, while those that may be delivered online (e.g., intellectual property, insurance and pension) are expected to turn around more rapidly.

IV. The AMRO Services Trade Indices

10.   **Based on the survey results, we first derive the AMRO Services Trade Recovery Index (STRI) for each ASEAN+3 economy.** To create the index, we weight the survey rankings of the relative speed of recovery in the 12 services trade sectors with the (2015–19 average) share of each of these sectors in an economy's total service exports. The estimates are then normalized to between 0–1, where an index of 0 represents slowest to recover and 1 denotes quickest to turn around, such that:

$$\text{AMRO Services Trade Recovery Index} = \sum \left[\frac{12 - \text{component average ranking}}{11} \times \text{component \% share} \right].$$

11.   **The STRI reveals which economies' service exports are likely to recover quickest**. The Index is highest for Singapore and the Philippines, followed by China and Japan (Figure 8), indicating that these economies export a larger share of services in sectors that AMRO staff anticipate will recover more quickly (e.g., financial services for Singapore and other business services for the Philippines). Service exports are expected to take longer to recover in economies such as Thailand, Cambodia and Lao PDR because of their concentration in travel-related activities.

12.   **Ultimately, the size of service exports relative to an economy's GDP is key in terms of their contribution to its overall recovery from the pandemic.** We weight an economy's STRI by the ratio of its service exports to GDP, to estimate the AMRO Services Trade Contribution Index (STCI), which incorporates both the speed and size of recovery:

$$\text{AMRO Services Trade Contribution Index} = \frac{\text{Service exports}}{\text{GDP}} \times \text{STRI}.$$

13.   **The importance of service exports to the recovery of individual ASEAN+3 economies changes once size is taken into account, as identified by the STCI.** In other words, service exports could provide important support to recovery in economies with a high STCI (Figure 9). The economy could either have: (1) a relatively lower STRI but with a large service export sector as a percentage of GDP (e.g., Hong Kong); or (2) a high STRI and a large service export sector (e.g., Singapore). In contrast, service exports that only make up a very small part of GDP would play a much more limited role even for economies with high STRI scores (e.g., China and Japan).

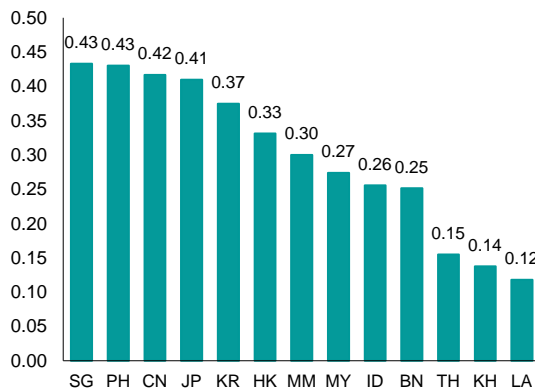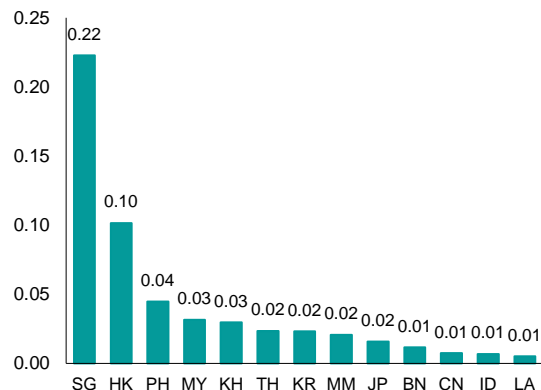**Figure 8. ASEAN+3: AMRO Services Trade Recovery Index (STRI)**

Figure 9. ASEAN+3: AMRO Services Trade Contribution Index (STCI)

Sources: Haver Analytics; and AMRO staff estimates.
Note: The STRI is normalized to a range of 0–1; the higher the index, the quicker the recovery in service exports. The STCI could potentially be >1 if a country's service exports are >100 percent of GDP; the higher the index, the quicker and larger the contribution of service exports to recovery. Vietnam is not included in the total given that it does not report a sectoral breakdown of its services trade. BN = Brunei Darussalam; CN = People's Republic of China; HK = Hong Kong; ID = Indonesia; JP = Japan; KH = Cambodia; KR = Korea; LA = Lao PDR; MY = Malaysia; MM = Myanmar; PH = Philippines; SG = Singapore; and TH = Thailand.

V. Conclusion

14.   **The US-China trade conflict and the COVID-19 pandemic underscore, now more than ever, the importance of having a diversified export sector.** This note does the following:

- rank the relative speed of recovery of each services trade sector via an internal survey of AMRO surveillance staff;

- estimate which ASEAN+3 economy would likely see the quickest recovery in their service exports based on the sectoral composition of those exports; and

- determine which ASEAN+3 economy would likely get the biggest boost to growth from their service exports, in terms of speed and size.

15.   **Our findings suggests that ASEAN+3 economies could adopt various strategies to refocus and diversify activity to strengthen their resilience against the unexpected.** For example:

- Economies that are highly reliant on manufactured goods or commodity exports could potentially grow their service exports (e.g., China and Vietnam, Brunei and Indonesia);

- Economies that generate relatively large service exports, but which are very narrowly focused, such as on tourism, could diversify their basket of services (e.g., Cambodia, Thailand);

- Economies that have well-diversified service exports, but which currently contribute little to GDP, could upscale their service export sectors (e.g., China, Japan, Korea, the Philippines);

- Economies that have well-diversified service exports, which already contribute significantly to GDP, could take advantage of the existing breadth and economies of scale by further developing the sectors that are benefiting from the pandemic (e.g., Singapore, Hong Kong).

16.   **The pandemic has identified the "defensive" service industries, that is, those that are likely to continue to do well irrespective of whether a vaccine is found or not.** In particular, services involving research and development, professional and management consulting services, as well as business process outsourcing—which can be undertaken remotely—have demonstrated that they can continue to be executed, and in a more cost-efficient manner, during the pandemic. Meanwhile, other activities that are also not sensitive to social distancing requirements, such as digital services, digital banking, telecommunications, and other computer services, represent promising growth drivers for the region (AMRO, 2020b), and are likely to accelerate in the wake of the pandemic.

Appendix I. AMRO Internal Survey on ASEAN+3 Relative Speed of Recovery in Services Trade

Appendix Figure 1. *Survey Monkey* Example

Recovery in Services Trade

1. Please rank the order in which you expect the services trade sectors below to recover from the pandemic, with 1 being the quickest and 12 being the slowest.

Tip: Instead of selecting the numbers in the drop down box and changing them when you calibrate the rankings, you can just drag and move the boxes in the order of your preferred rankings.

Manufacturing
(processing, assembly, labeling, packing on physical inputs undertaken by enterprises that do not own the goods concerned, e.g., oil refining, assembly of electronics)

Maintenance and Repair
(e.g., maintenance and repair of ships, aircraft, including any parts or materials supplied by the repairer)

Transportation
(carriage of people and objects from one location to another, e.g., cruises, postal and courier services)

Travel
(goods and services acquired by nonresidents during visits, e.g., business travel expenses, student tuition and living costs)

Construction
(creation, renovation, repair, or extension of fixed assets, e.g., construction of roads, site preparation, painting)

Insurance and Pension
(e.g., life insurance and annuities, non-life insurance, reinsurance, freight insurance, pensions)

Financial
(financial intermediary and auxiliary services, except insurance and pension fund services, e.g., credit card services, commissions, and charges related to financial leasing)

Charges for Use of Intellectual Property
(e.g., patents, trademarks, copyrights, industrial processes and designs including trade secrets, franchises)

Telecommunications, Computer, and Information
(e.g., broadcast or transmission of images and data, data-processing)

Other Business Services
(research and development services, professional and management consulting services, waste treatment and de-pollution, agricultural, and mining services, operating leasing)

Personal, Cultural and Recreational
(e.g., production of motion pictures, health services, education services)

Government
(services supplied by and to government, embassies and international organizations)

Done

Appendix II. "Crowdsourced" Rankings on Recovery in Services Trade Sectors

Appendix Figure 1. ASEAN+3: Distribution of AMRO Staff's Rankings of the Relative Speed of Recovery in 12 Services Trade Sectors
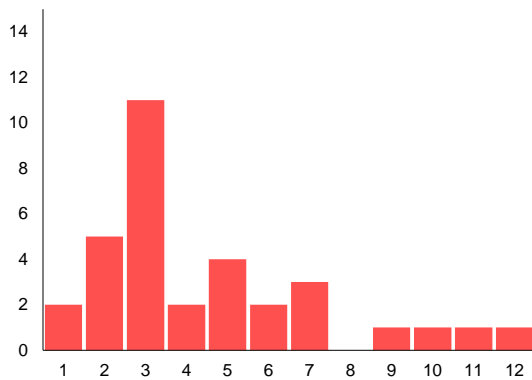(Number of votes)

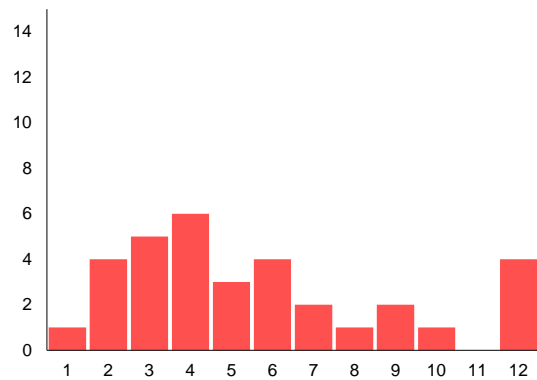Telecommunications, Computer, and Information
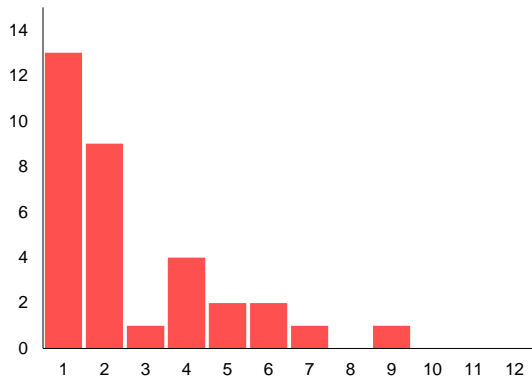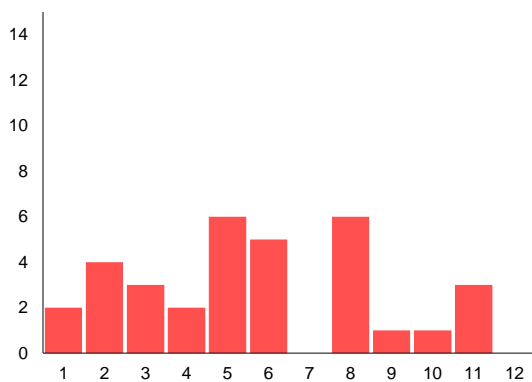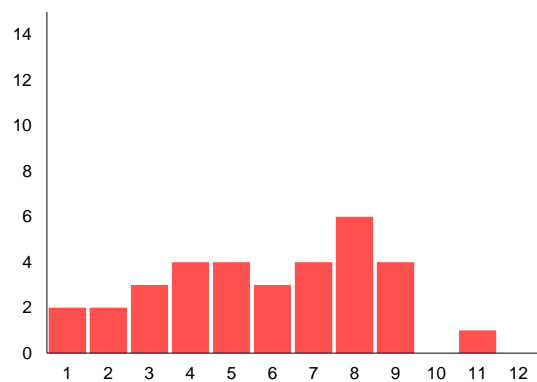

Government
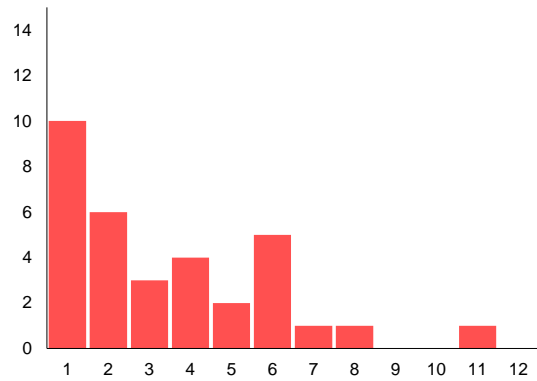
Financial

Insurance and Pension
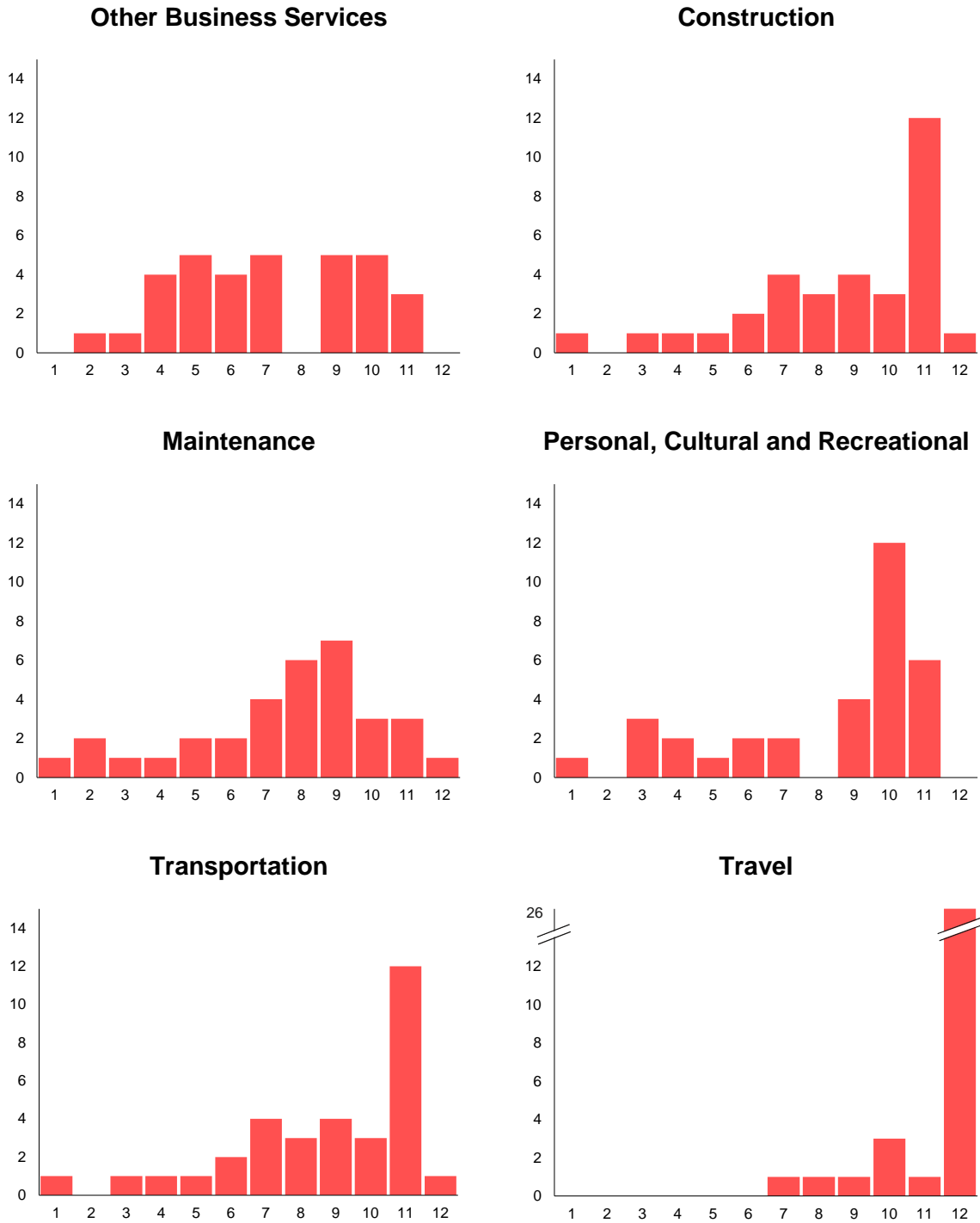

Charges for Use of Intellectual Property

Manufacturing

Sources: Haver Analytics; and AMRO staff estimates.
Note: Rankings are relative—a rank of 1 denotes the trade services sector that is expected to recover fastest among the 12 sectors; a rank of 12 denotes the slowest.

Appendix Figure 1. ASEAN+3: Distribution of AMRO Staff's Rankings of the Relative Speed of Recovery in 12 Services Trade Sectors
(Number of votes)
(Continued)

Other Business Services

Construction

Maintenance

Personal, Cultural and Recreational

Transportation

Travel

Sources: Haver Analytics; and AMRO staff estimates.
Note: Rankings are relative—a rank of 1 denotes the trade services sector that is expected to recover fastest among the 12 sectors; a rank of 12 denotes the slowest.

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https://www.amro-asia.org/a-lonely-planet-asean3-travel-and-tourism-in-the-time-of-covid-19/.