



## EXECUTIVE SUMMARY

- **This note, the first of a series of monthly bulletins aiming to track trade and logistics information in real time, documents the beginning of a dramatic drop in international trade as a result of COVID-19. The trade slowdown, initially most evident in China, is increasingly spreading to other regions.** The evidence for this comes both from logistics data on shipping and air traffic, and from merchandise trade data. Trade volumes saw a sharp reduction following the onset of the pandemic.
- **Container throughput data show strong downturns in China, spreading to Europe and the United States.** Terminals operated by the Chinese shipping company China Ocean Shipping Company (COSCO) show a year-on-year (YoY) decline of 9.0 percent in China and 7.3 percent in the North Sea in the first quarter of 2020, with the March data showing a rebound in China. Similarly, container throughput at Long Beach, California declined by 5.9 percent YoY for the first quarter of 2020.
- **High-frequency shipping data for the first part of April showed major reductions in capacity on the main trade lines, signaling further reductions in container throughput.** The reduction in capacity is more significant for Europe-Asia routes than trans-Pacific routes, amounting to 33 percent and 13 percent reductions, respectively.
- **The sharp decline in aviation connectivity represents substantial reductions in airborne shipping capacity.** The decline in global passenger flights, which began in February accelerated, reached a -59.2 percent YoY drop in the week of 8 April. This is important because about half of all air cargo travels in passenger planes (“belly cargo”) rather than on dedicated cargo planes.
- **Merchandise trade data available or estimated for 84 countries reveal that exports declined by 5.7 percent YoY in February, continuing the deceleration in global trade that began in early 2018.** February declines were concentrated in China, Europe, and the Middle East and North Africa, the same regions that began to experience significant impacts of COVID-19.
- **China’s exports to the world declined by 17 percent YoY in January-February 2020.** This decline was largely driven by manufacturing exports across virtually all sub-sectors. Data from Japan and the United States reported significantly steeper declines in imports from China in February than in January. In aggregate, the United States and Japan showed weakening imports in February, while exports remained relatively flat.
- **China’s imports of certain medical products related to COVID-19 surged in January-February, including masks; protective clothing; ventilators and related products; and hydrogen peroxide.**
- **The five countries with the largest number of reported COVID-19 cases as of February 29 (Bahrain, China, Italy, Republic of Korea, and Singapore) all likely experienced double-digit percentage declines in both exports and imports during Jan-Feb 2020.** The Islamic Republic of Iran, with the seventh largest number of reported cases, may have experienced a decline in exports as large as 50 percent.

<sup>1</sup> This note has been prepared by the Global Trade and Regional Integration Unit of the World Bank under the guidance of Caroline Freund, Global Director of Trade, Investment and Competitiveness. It is the first in a series of monthly bulletins aiming to track trade and logistics information in real time. This first note suffers from significant data limitation. More data with better coverage of developing countries is expected in the near future. The note was prepared by a team led by Michael Ferrantino, with contributions from Jean Francois Arvis, Cristina Constantinescu, Karly Dairabayeva, and Woori Lee. For further information about this note please contact Michael Ferrantino (Lead Economist; <mailto:mferrantino@worldbank.org>), or Antonio Nucifora (Practice Manager, Global Trade and Regional Integration Unit, [anucifora@worldbank.org](mailto:anucifora@worldbank.org)). A full list of Trade and Covid-19 briefs is available at <https://www.worldbank.org/en/topic/trade/brief/trade-and-covid-19>

## 1. Logistics and shipping data point to a global slowdown on trade

Port, shipping line, and aviation data indicate a sharp reduction of the volume of trade following the onset of the COVID-19 pandemic. The reduction in scheduled shipping and air traffic, beginning in China, has spread to other parts of the world. As expected, due to the relatively long time lag between shipments and the gradual spread of the pandemic across continents, the intensity of the decline in trade activity differs between trading partners. Forward looking data, such as anticipated cargo by shipping lines for April point to further reductions in coming months.

This section uses logistics and shipping data to paint a picture of trade activity, including (partial) port throughput statistics, information from shipping lines (cancellation of services) and aviation schedules. These data are generally available with a much shorter time-lag than official trade statistics, about two weeks to a month compared to a 2- to 4-month time lag in official trade statistics. Hence, these data are very useful to gauge a just-in-time picture of the trade activity well before official trade statistics are released.<sup>2</sup>

### a. Container throughputs in ports: Drop in China has since spread

Container throughput statistics, which measure the number of containers that pass through ports, are generally available on a quarterly basis. This limits the ability to understand the shock to global trade that has occurred since the onset of the pandemic. However, there are useful exceptions, including China Ocean Shipping Company (COSCO) terminal in China. COSCO, the major Chinese shipping and port company, operates most terminals in China and has a strong presence in Asia (Korea, Singapore), the Mediterranean, and the North Sea. COSCO global statistics are available mid-month for the previous month. The port of Long Beach, California, the United States' major west coast gateway, also publishes monthly data updated up to March 2020.

Based on data up to February 2020, the COSCO data shows the following trend (Figure 1 and Table 1):

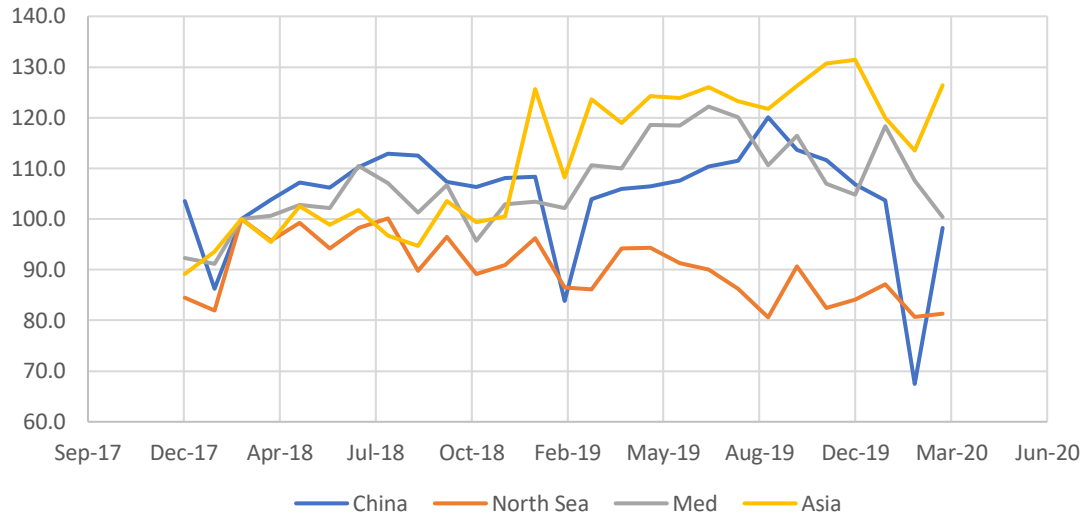
- A strong downturn in container throughput in China in February 2020 (about -15 percent YoY for February, followed by the post Chinese New year rebound in March. The quarterly throughput is down by 9 percent from 2019.
- A delayed impact for throughput in other East Asian countries
- The Mediterranean and North European activities are down by 9 percent and 5 percent respectively in March 2020 from March 2019<sup>3</sup>

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<sup>2</sup> Unfortunately, there are several limitations to logistics and shipping data, including: (i) the lack of granularity of data for developing countries/regions for global high-frequency data, which limits the ability to identify trends for developing countries; and (ii) the indirect and uncertain relationship between supply-chain indicators and trade flows (the former show changes in capacity or throughput while the latter show value or product composition), which is affected by load factors, proportion of loaded containers, and share of locally traded versus transshipped containers.

<sup>3</sup> The 7 percent decline for the first two months in the North Sea terminal was part of an already decreasing trend

**Figure 1: Trend in COSCO monthly throughput by region (base 100 March 2018)<sup>4</sup>**



Source: COSCO

**Table 1: Quarterly COSCO throughput (thousands of TEU)**

	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	YoY % change
<b>China</b>	16795	18382	19451	18648	17167	18548	19818	19243	15616	-9.0%
<b>North Sea</b>	1350	1465	1460	1401	1363	1418	1302	1304	1263	-7.3%
<b>Med</b>	2781	2998	3127	2995	3102	3404	3461	3220	3200	3.1%
<b>Asia</b>	1673	1756	1734	1795	2114	2171	2194	2298	2129	0.7%
<b>N America</b>	41	50	41	36	38	42	67	57	52	37.1%

Source: COSCO

Container throughput at the port of Long Beach, California declined through March 2020 on par with the European trend and less than China (Table 2 and Figure 2). This relatively modest decline is in line with expectations considering the shipping time, and lag in the transmission of the pandemic across continents. The drop was sharper for import containers, and seemed to accelerate an existing downward trend due to lingering impacts from US-China trade tensions. The data through March do not yet show any impact on exports.

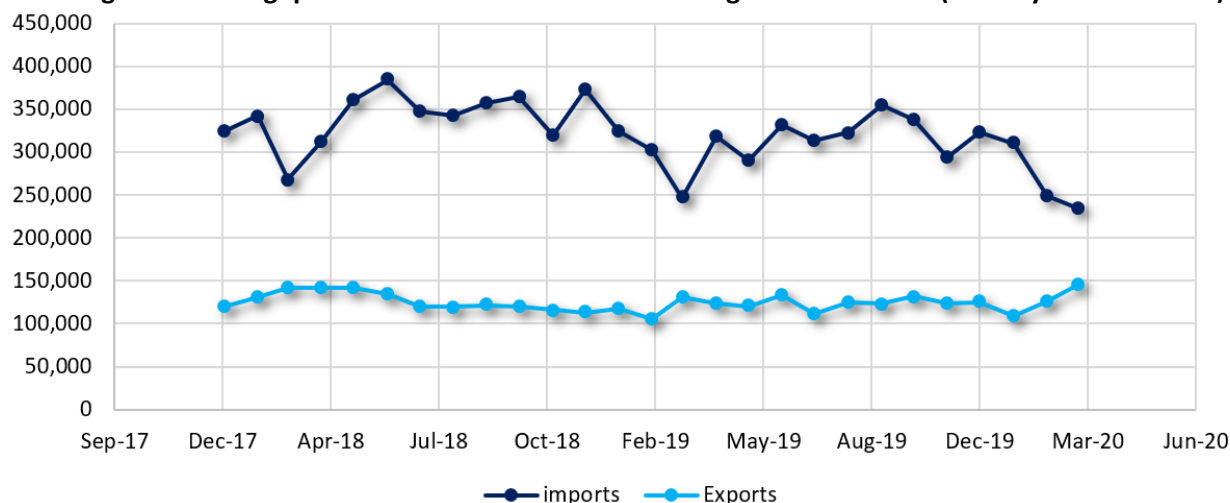
**Table 2. Quarterly port of Long Beach throughput (thousands of TEU)**

1000 TEUs	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	YoY % change for Q1
<b>Import</b>	935	1,058	1,048	1,057	874	940	991	954	793	-9.2%
<b>Export</b>	394	419	361	349	354	378	360	381	380	7.2%
<b>Empties</b>	566	581	660	663	579	561	642	619	510	-11.9%
<b>Total</b>	3,223	3,535	3,478	3,475	3,034	3,197	3,344	3,288	2,856	-5.9%

Source: Port of Long Beach

<sup>4</sup> Unfortunately, the data does not break containers between exports, imports and empties.

**Figure 2: Throughput of loaded TEU containers at Long Beach Terminal (January 18 - March 20)**



Source: Port of Long Beach.

### b. Shipping lines: Sharp downward adjustment in capacity

Shipping data from shipping lines or tracking systems are reported with higher frequency than port throughput. Shipping lines are extremely reactive to demand. They adjust their services in real time to reduce their variable costs when facing downturns. Adjustments may take the form of either cancellation of scheduled services (“blank sailings”) or reduction of speed (“slow steaming”). Both reduce the effective capacity in an observable way.

Data on container liner shipping cancellations for April compared to the pre-crisis schedule showed major reductions on the main trade lines (Table 3).<sup>5</sup> While these have not yet appeared in container throughput, they are likely to be reflected in data for late April and May. The reduction in capacity is more significant for Europe-Asia routes than trans-Pacific routes.

**Table 3: Change in April capacity deployed by shipping lines on main shipping routes (TEU)**

	Initial	Reduction	Change
<b>Asia Europe, other than via Gulf</b>	795,018	326,507	-41%
<b>Asia Europe via Gulf</b>	1,725,601	564,928	-33%
<b>Trans-Pacific</b>	990,682	127,763	-13%

Source: MDST

<sup>5</sup> There is no equivalent data for secondary lines serving developing countries pending analysis of ship tracking data.

### c. Aviation: Dramatic contraction in passenger flights and “belly cargo”

The massive reduction in aviation connectivity is mostly the result of the sharp reduction in scheduled passenger flights, amounting to -59.2 percent globally YoY in the week of 8 April (Table 4). This directly reduces the so called “belly cargo” capacity, which normally accounts for about half of all air cargo volumes.<sup>6</sup>

**Table 4: Global scheduled flights, weekly YoY change**

Region	6 Jan	13 Jan	20 Jan	27 Jan	3 Feb	10 Feb	17 Feb	24 Feb	2 Mar	9 Mar	16 Mar	23 Mar	30 Mar	6 Apr
ALL	1.5%	1.3%	0.5%	0.2%	-3.6%	-9.9%	-10.7%	-10.1%	-7.9%	-10.1%	-12.4%	-28.7%	-47.7%	-59.2%
Germany	-8.6%	-8.8%	-8.4%	-8.5%	-7.9%	-8.0%	-6.6%	-5.1%	-5.0%	-15.4%	-30.2%	-71.9%	-88.6%	-92.6%
Spain	-1.1%	-4.6%	-4.8%	-4.5%	-3.8%	-2.5%	0.6%	-1.6%	-1.4%	-2.9%	-13.7%	-74.3%	-88.5%	-92.6%
Hong Kong	-11.3%	-10.8%	-8.0%	-8.7%	-20.6%	-44.7%	-57.7%	-63.3%	-70.4%	-77.5%	-80.8%	-81.7%	-88.3%	-92.3%
UK	-1.8%	-4.1%	-4.2%	-5.1%	-4.3%	-4.0%	-3.0%	-1.9%	-2.7%	-15.5%	-19.3%	-53.5%	-75.6%	-90.7%
Singapore	-1.1%	-0.1%	1.2%	-0.3%	-8.2%	-15.4%	-18.5%	-22.4%	-25.4%	-35.7%	-35.5%	-76.9%	-90.8%	-89.9%
Italy	0.8%	-5.0%	-4.2%	-4.8%	-4.3%	-3.5%	-2.8%	-6.2%	-8.8%	-21.6%	-73.9%	-88.0%	-89.2%	-89.0%
France	1.4%	-1.5%	-1.9%	-1.3%	-0.3%	0.6%	1.7%	-0.5%	-2.0%	-3.8%	-13.7%	-41.3%	-81.4%	-87.0%
UAE	-2.4%	-1.4%	-1.8%	-2.1%	-1.9%	-3.3%	-3.5%	-3.3%	-2.9%	-8.3%	-24.4%	-57.6%	-85.8%	-84.4%
Sweden	-13.8%	-8.5%	-7.8%	-7.0%	-5.7%	-5.4%	-6.4%	-4.9%	-4.8%	-6.4%	-14.1%	-65.3%	-77.1%	-84.2%
Australia	-3.4%	-3.4%	-3.2%	-3.9%	-3.6%	-5.0%	-1.7%	-2.5%	-1.7%	-2.3%	-2.9%	-15.9%	-63.1%	-78.1%
India	2.9%	2.8%	1.6%	1.2%	1.9%	6.2%	10.8%	6.7%	9.9%	10.0%	8.3%	1.8%	-68.0%	-71.1%
South Korea	1.8%	2.1%	3.4%	1.4%	-3.4%	-9.3%	-15.7%	-17.9%	-34.1%	-52.1%	-56.1%	-55.7%	-56.6%	-59.3%
China	7.8%	8.8%	1.6%	-0.5%	-22.7%	-63.3%	-70.8%	-62.3%	-41.6%	-42.9%	-38.7%	-37.5%	-43.9%	-46.2%
USA	1.6%	1.3%	1.5%	2.2%	1.5%	1.3%	1.5%	0.6%	-2.1%	-1.3%	-0.5%	-4.8%	-23.0%	-45.2%
Japan	2.6%	2.3%	2.6%	2.1%	-0.8%	-3.2%	-4.6%	-5.6%	-7.6%	-15.0%	-19.2%	-24.3%	-27.9%	-32.0%

Source: Schedules Analyser

Source: OAG.

Note: This table compares weekly flights with equivalent week in previous year (e.g. Monday 6 January 2020 vs. Monday 7 January 2019).

## 2. Global trade slows in January-February 2020<sup>7</sup>

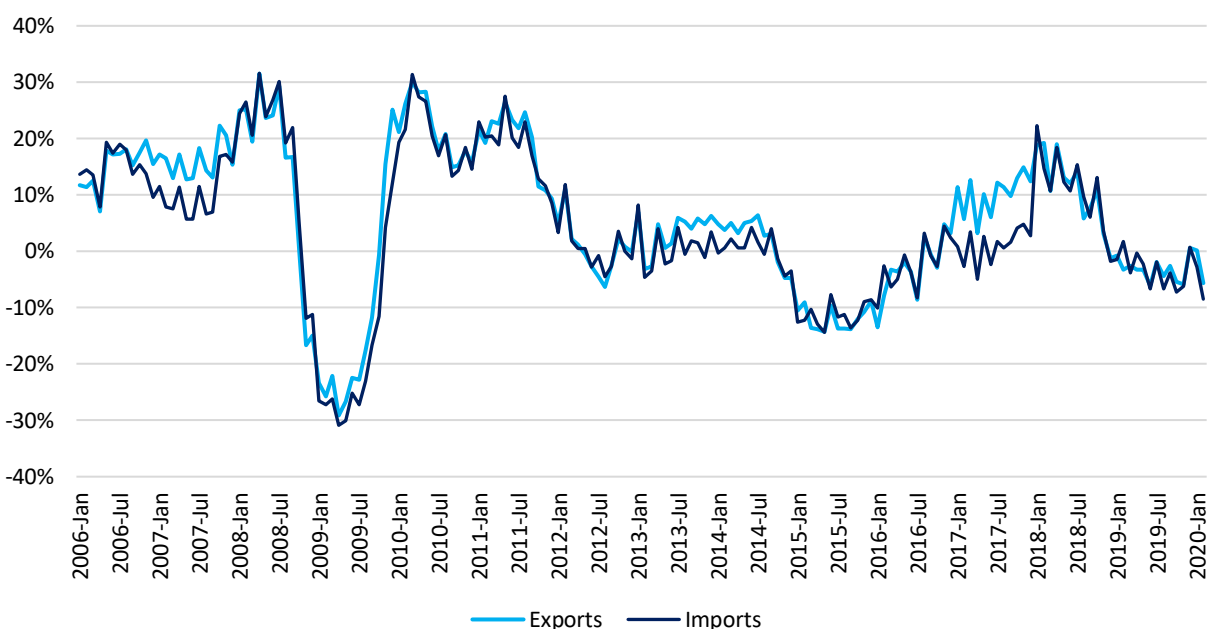
Merchandise trade continued to decline in January-February of 2020. The data show that the trade slowdowns have been sharper in countries most affected by COVID-19 outbreaks – China, in particular – suggesting that as the virus spreads, its effects on trade will continue to put downward pressure on imports and exports. These declines continue a downward trend beginning early in 2018, before COVID-19 – a trend due to re-shoring in global value chains, US-China trade tensions, declines in the price of oil, and other factors. As of February, the latest month for which trade data is available, the drop has not been as severe as the Great Trade Collapse of 2008-2009 (Figure 3).<sup>8</sup> However, it may become so in the future.

<sup>6</sup> “Belly cargo” refers to cargo carried in the bellies of passenger aircraft, rather than on dedicated cargo aircraft.

<sup>7</sup> From this point onward, this note uses detailed monthly data from national sources and World Bank Global Trade Monitor for the aggregate. Due to the lag in data release, February trade statistics are available only for a few countries at the point of analysis (April 9th). We therefore focus the analysis on China, where COVID-19’s impact was most severe in January-February, and the United States and Japan, two major trade partners for which February trade data are available. Despite the lag in availability, merchandise trade data reveal details about the types of products being shipped, and their ultimate origins and destinations, that are not always apparent from logistics-based indicators.

<sup>8</sup> Figure 3 is based on a combination of officially reported monthly data and mirrored data from China, Japan, and the United States. The most recent months in the figure are subject to revision.

**Figure 3. Global aggregate monthly exports and imports, YoY percent change**



Source: World Bank staff calculations, using Global Monitor Data, and mirror data from the China, USA, and Japan in case data missing for Jan/Feb 2020.

Global trade growth was flat in January 2020 compared to a year earlier, but declined in February (Table 5). Imports declined in almost all regions as a result of the reduction in exports from China. In February, trade declined sharply in the European Union (EU27), with significant impacts on both exports (-7.9% YoY) and imports (-18.9% YoY), which may in part reflect the effects of COVID-19. The contraction in trade was concentrated in high-income and upper-middle income countries, consistent also with the initial spread of COVID-19 in China, Korea, and Europe (Table 6).

**Table 5. Trade by region in January-February 2020, YoY growth (%) to 2019**

	Exports		Imports	
	January	February	January	February
<b>East Asia &amp; Pacific</b>	<b>-8.6%</b>	<b>-5.7%</b>	<b>-5.2%</b>	<b>-2.1%</b>
<i>Of which China</i>	-24.8%	-5.1%	-18.6%	13.5%
<i>Of which Japan</i>	-2.8%	-0.6%	-3.9%	-13.6%
<b>Europe &amp; Central Asia</b>	<b>3.7%</b>	<b>-6.6%</b>	<b>-1.1%</b>	<b>-18.2%</b>
<i>Of which EU27</i>	1.8%	-7.9%	-1.6%	-18.9%
<b>Latin America &amp; Caribbean</b>	<b>-1.8%</b>	<b>-0.6%</b>	<b>-1.1%</b>	<b>-2.4%</b>
<b>Middle East &amp; North Africa</b>	<b>11.6%</b>	<b>-10.9%</b>	<b>2.5%</b>	<b>-5.6%</b>
<b>North America</b>	<b>0.4%</b>	<b>0.5%</b>	<b>-3.7%</b>	<b>-4.1%</b>
<i>Of which United States</i>	-0.5%	1.1%	-4.0%	-4.1%
<b>South Asia</b>	<b>-1.0%</b>	<b>6.6%</b>	<b>-0.7%</b>	<b>2.2%</b>
<b>Sub-Saharan Africa</b>	<b>7.6%</b>	<b>3.8%</b>	<b>-3.8%</b>	<b>-13.8%</b>
<b>TOTAL</b>	<b>0.1%</b>	<b>-5.7%</b>	<b>-2.8%</b>	<b>-8.5%</b>

Source: World Bank Global Monitor, mirror data from major trading partners, and World Bank staff estimates

**Table 6. Trade by income group in January-February 2020, YoY growth (%) to 2019**

	Exports		Imports	
	January	February	January	February
High income	1.7%	-5.2%	-3.7%	-10.4%
Upper middle income	-3.8%	-10.4%	-0.3%	-6.2%
Lower middle income	-4.8%	15.3%	-2.7%	1.1%
Low income	9.6%	50.2%	-7.1%	-36.2%
<b>TOTAL</b>	<b>0.1%</b>	<b>-5.7%</b>	<b>-2.8%</b>	<b>-8.5%</b>

Source: World Bank Global Monitor, mirror data from major trading partners, and World Bank staff estimates

### a. Focus on China: Pronounced effects with exports dropping faster than imports

China was the first country to be affected by COVID-19, with cases first noted by authorities in December 2019, in Wuhan, Hubei province, and accelerating in January and February 2020 before tapering off in March.<sup>9</sup> Chinese exports to the world decreased by 17 percent YoY from January-February 2019 to January-February 2020, while Chinese imports declined by 4 percent YoY (Table 7). Manufacturing exports, which make up the largest part of Chinese exports, declined by 18 percent. The decline in exports is consistent with widespread quarantines having an impact on industrial production. China's National Bureau of Statistics reported a 13.5 percent decline in industrial production in January-February compared to the year previous, closely in line with the export drop. However, the asymmetric impact on exports and imports caused a reversal in China's merchandise trade balance, from a surplus of \$42.5 billion in Jan-Feb 2019 to a deficit of \$7.1 billion in Jan-Feb 2020 (Table 7).

**Table 7. China summary for January-February**

<b>China reported trade</b>	Exports Jan+Feb 2019 (USD, millions)	Exports Jan+Feb 2020 (USD, millions)	YoY percentage change (%)	Imports Jan+Feb 2019 (USD millions)	Imports Jan+Feb 2020 (USD millions)	YoY Percentage change (%)
Agriculture	10,485	9,274	-12	21,481	23,184	8
Extractive	7,170	7,688	7	81,028	87,510	8
Manufacturing	333,947	275,486	-18	208,299	188,850	-9
<b>Total</b>	<b>353,326</b>	<b>292,449</b>	<b>-17</b>	<b>310,808</b>	<b>299,544</b>	<b>-4</b>
<b>Top 10 COVID Feb 29</b>	59,352	48,717	-18	70,264	64,775	-8
<b>Rest of the World</b>	293,974	243,731	-17	240,544	234,769	-2

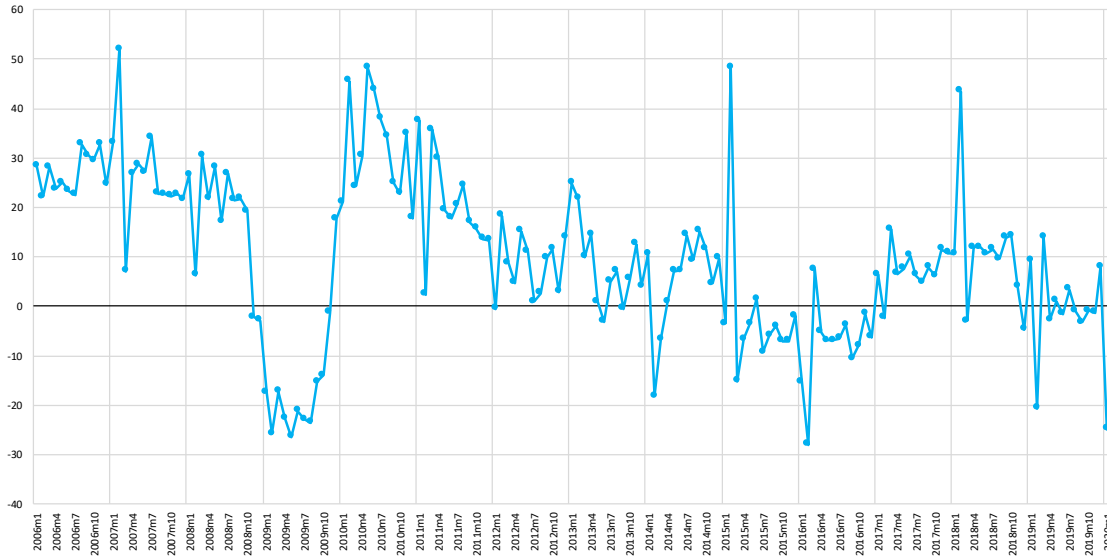
Source: China Customs

Note: China Customs does not report bilateral and disaggregated trade data for January 2020 separately from February 2020. Agriculture includes HS2 chapters 01-24; Extractives 25-27; and Manufacturing 28-97. Sectoral totals may sum up to less than the aggregate because of unclassified trade in HS 98-99. Top 10 COVID countries are based on per capita number of positive cases as of February 29<sup>th</sup> 2020 (see Table 14 for list of countries).

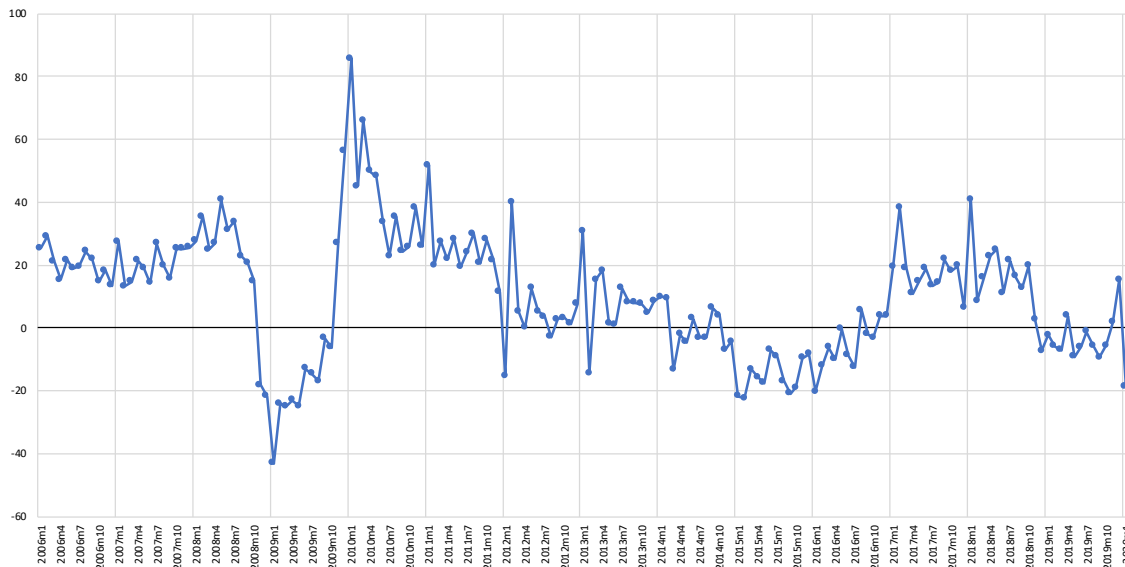
<sup>9</sup> Chinese official data report 17,015 cases of COVID-19 through January 31, 55,128 in February, and 10,136 in March.



**Figure 4a. China aggregate exports, percentage change year-on-year**



**Figure 4b. China aggregate imports, percentage change year-on-year**



Source: World Bank Economic Monitor based on national statistics.

China's goods exports in January-February 2020 remained below their respective levels in 2019, continuing a deceleration that began in 2018. Exports declined sharply in January, consistent with the early celebration of Chinese New Year (January 25), but instead of recovering after the holiday period – as has been usually the case in previous years – they continued to decline in February due to the lockdown imposed to contain COVID-19 (Figure 4a).<sup>10</sup> In contrast, imports in January and February grew in line with

<sup>10</sup> Each year, the Chinese trade values for January and February are affected by a specific form of volatility associated with the changing date of the Chinese New Year. This volatility remains in the monthly data even after controlling for seasonal adjustment and can confound the year on year comparisons. For example, the large year on year decline in exports in January 2020 relative to January 2019 is due in great part to the fact that January 2020 saw depressed exports as a result of the Chinese New Year falling on January 25 in 2020, while January 2019 was much less affected since in 2019 the Chinese New Year fell on February 5. CPB Netherlands' World Trade Monitor addresses this additional volatility by replacing the actual trade values in January and February with the simple average of the figures for the two months.



the dynamic observed throughout 2019, being affected nevertheless by the increased volatility typical during season of the Chinese New Year celebration (Figure 4b).

China's exports declined across the board and at double digit rates for most sectors in January and February. The decline in manufacturing exports fluctuates in a relatively narrow range from 16 percent to 27 percent by major category. In absolute terms, the largest declines in Chinese exports were in machinery and electronics (\$24.7 billion), followed by textiles and clothing (\$7.5 billion), miscellaneous manufactures (\$6.7 billion), and metals (\$6.1 billion) (Table 8, columns 1-3).

Mirror data from Japan and the United States (which record monthly bilateral trade with China from the point of view of China's trading partners), suggest that the drop in Chinese exports was significantly more severe in February than in January, in line with the expansion of reported COVID-19 cases and corresponding response of quarantines and social distancing.<sup>11</sup> The United States' reported imports from China declined by 19.9 percent in January but 31.1 percent in February (YoY), while Japan's reported imports from China declined by 5.9 percent (YoY) in January but a massive 46.9 percent in February (Table 8, columns 4-7).

**Table 8. China's exports by sector: Comparison of China, US and Japan data for Jan-Feb split**

Chinese exports by sector	Exports Jan+Feb 2019 (million U.S. dollars)	Exports Jan+Feb 2020 (million U.S. dollars)	Percentage change (%)	January percentage change (%)		February percentage change (%)	
				To USA	To Japan	To USA	To Japan
				01-05 Animal	2,456	1,914	-22.1
06-15 Vegetable	3,644	3,559	-2.3	-9.1	-1.0	-10.8	-22.4
16-24 Foodstuffs	4,386	3,801	-13.3	24.1	1.2	-7.9	-41.1
25-27 Minerals	7,170	7,688	7.2	-63.0	29.2	-61.8	2.2
28-38 Chemicals	19,696	16,396	-16.8	-12.8	-13.4	-25.3	-43.6
39-40 Plastic / Rubber	14,870	12,369	-16.8	-12.4	-3.6	-18.6	-49.3
41-43 Hides, Skins	4,626	3,801	-17.8	-29.6	8.8	-40.0	-64.1
44-49 Wood	5,734	4,492	-21.7	-17.3	4.4	-26.9	-49.4
50-63 Textiles, Clothing	36,845	29,404	-20.2	-30.0	4.1	-39.0	-63.0
64-67 Footwear	9,813	7,825	-20.3	-20.7	6.1	-32.9	-65.4
68-71 Stone / Glass	10,194	7,484	-26.6	-26.8	3.9	-27.0	-43.3
72-83 Metals	27,308	21,254	-22.2	-15.4	-9.6	-24.0	-53.9
84-85 Mach/Elec	153,417	128,688	-16.1	-22.2	-10.7	-35.4	-43.2
86-89 Transportation	16,534	14,345	-13.2	-10.2	-7.8	-19.4	-47.6
90-97 Miscellaneous	34,910	28,065	-19.6	-19.5	-4.4	-30.7	-48.2
98-99 Special	1,723	1,363	-20.9	19.4		1.9	
<b>TOTAL</b>	<b>353,326</b>	<b>292,449</b>	<b>-17.2</b>	<b>-19.9</b>	<b>-5.9</b>	<b>-31.1</b>	<b>-46.9</b>

Source: China Customs, US Census, Japan Customs

Note: First three columns based on Chinese reported data (which does not report January and February separately for bilateral and disaggregated trade) and last four columns based on mirrored data (reported by USA and Japan). Totals for China reported data are for trade with the world.

<sup>11</sup> In interpreting mirror data, it should be noted that goods in transit take time to move. For many transactions between China and Japan, China may post exports in the same month as Japan posts imports. This will also be true of airborne or postal shipments from China to the United States. However, container shipping from China to the United States, accounting for the largest share of China-U.S. exports, may take approximately 30 days, so that many Chinese exports in January correspond to U.S. imports in February, and so on. The goods themselves may have been ordered a few months prior to their shipment. Nonetheless, the data are indicative of a steeper decline in Chinese exports in February than in January.

Imports of many sectors have declined too, but the aggregate drop is smaller than for exports. Declines in imports of machinery and electronics, which have the largest value in China's import basket, were limited to \$3.6 billion (3.8 percent). This suggests that when production in these sectors rebounds, there should be an adequate supply of imported intermediate inputs. Imports of minerals, the second largest value in Chinese imports, increased by 8.0 percent (\$6.5 billion) (Table 9, columns 1-3).

The rise in China's imports of animal products from the US reflects a 7-fold increase in meat purchases in January-February 2020 compared to the previous year. These imports had accelerated sharply since September 2019 as a means of counteracting the devastating effects of the outbreak of African swine fever in China. They had also been facilitated by the relaxation of China's non-tariff measures in meat and poultry. As for the imports from the US of soybeans and other oil seeds, the YoY gains in January 2020 - consistent with the agreement between the US and China signed on January 15 - were wiped out in February, resulting in a 13 percent YoY decline in foodstuffs imports from the US in the first two months of 2020.

**Table 9. Chinese imports by sector: Comparison of China, US and Japan data for Jan-Feb split**

Chinese imports by sector	Imports Jan Feb 2019 (million U.S. dollars)	Imports Jan Feb 2020 (million U.S. dollars)	Percentage change (%)	January percentage change (%)		February percentage change (%)	
				From USA	From Japan	From USA	From Japan
				01-05 Animal	5,955	8,502	42.8
06-15 Vegetable	11,749	11,430	-2.7	67.0	-41.2	-64.4	-19.8
16-24 Foodstuffs	3,778	3,252	-13.9	-0.8	26.5	-17.0	1.7
25-27 Minerals	81,028	87,510	8.0	-76.9	-10.2	-76.4	-23.9
28-38 Chemicals	24,774	21,912	-11.6	-15.3	-18.3	19.4	-1.1
39-40 Plastic / Rubber	13,081	11,781	-9.9	-3.3	10.1	-1.8	-0.8
41-43 Hides, Skins	1,217	923	-24.1	-11.0	7.6	-30.5	-28.9
44-49 Wood	7,663	6,401	-16.5	-16.8	-26.6	-9.8	-26.4
50-63 Textiles, Clothing	5,331	5,007	-6.1	25.9	-13.5	53.3	4.4
64-67 Footwear	942	829	-12.0	1.1	199.5	12.2	179.2
68-71 Stone / Glass	11,422	8,025	-29.7	21.7	-30.0	160.8	4.7
72-83 Metals	14,911	14,428	-3.2	-16.3	-5.0	-26.5	-5.5
84-85 Mach/Elec	95,576	91,972	-3.8	9.5	-5.6	-3.2	-1.3
86-89 Transportation	15,867	12,031	-24.2	-15.1	5.5	-60.3	12.7
90-97 Miscellaneous	15,970	14,131	-11.5	-6.1	-8.2	6.5	3.6
98-99 Special	1,546	1,411	-8.8	2.3		-10.0	
<b>TOTAL</b>	<b>310,808</b>	<b>299,544</b>	<b>-3.6</b>	<b>1.1</b>	<b>-6.7</b>	<b>-19.2</b>	<b>0.0</b>

Source: China Customs, US Census, Japan Customs

Note: First three columns based on Chinese reported data (which does not report January and February separately) and last four columns based on mirrored data (reported by USA and Japan).

## **b. COVID-19 continues and deepens US-China trade slowdown**

The declines in US-China trade, originally driven by the imposition of tariffs on both sides starting in mid-2018, appear to have deepened as a result of the impact of COVID-19 on China. Year-on-year declines in US-China trade in January-February 2020, as reported in US data<sup>12</sup>, shows a continuation of the pattern

<sup>12</sup> U.S. data have the advantage for this purpose that they include goods re-exported from China through Hong Kong, which in China's data are recorded as exports to Hong Kong.

that began in late 2018, and possibly an acceleration (Figure 5). The YoY decline in China’s exports to the United States reached 30 percent, and in China’s imports from the United States approached 20 percent.<sup>13</sup>

**Figure 5. US trade with China, Year-on-Year growth (%)**



Source: US Census

At the aggregate level, US exports were largely flat in the first two months of 2020. January exports declined -0.3 percent (YoY) while February exports increased by 1.2 percent (YoY) (Table 10). Imports declined by 4.1% (YoY) in January and 4.2% (YoY) in February, reflecting the reduction of supplies from China.

<sup>13</sup> The United States imposed tariff surcharges on a range of Chinese products in July 2018, expanding the list of products in September 2018 and August 2019. China responded on each date by simultaneously imposing tariff surcharges on increasing numbers of U.S. products. In January 2020, a “Phase 1” trade deal was announced that involved U.S. suspension of further tariff surcharges on imports from China in exchange for China’s commitment to purchase more U.S. agricultural goods.

**Table 10. United States summary for January-February 2020**

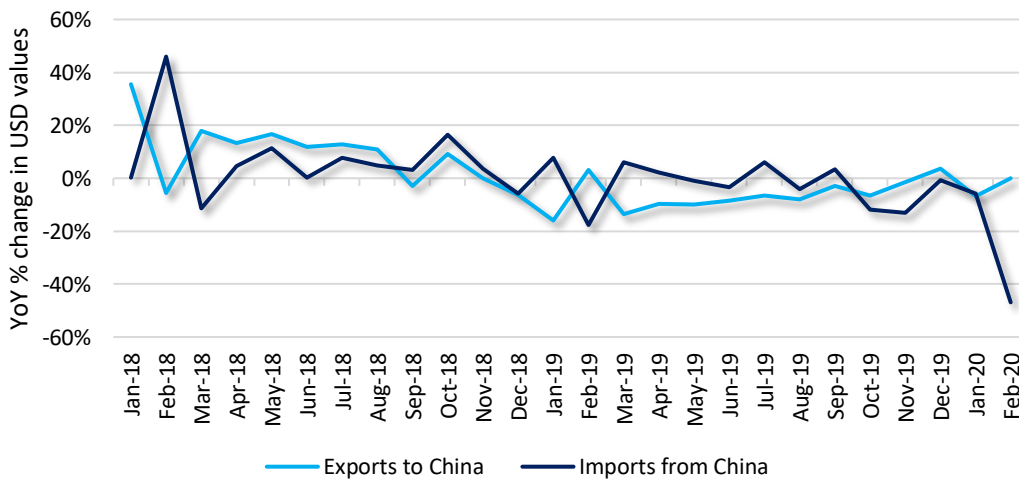
US reported data	January 2019 (USD, millions)	January 2020 (USD, millions)	YoY percentage change (%)	February 2019 (USD, millions)	February 2020 (USD, millions)	YoY percentage change (%)
<b>Panel A. Exports</b>						
Agriculture	11,573	11,637	0.5%	11,130	11,557	3.8%
Extractive	16,408	18,635	13.6%	15,430	18,124	17.5%
Manufacturing	98,100	95,118	-3.0%	100,323	98,396	-1.9%
<b>Total</b>	<b>129,546</b>	<b>129,121</b>	<b>-0.3%</b>	<b>130,504</b>	<b>132,057</b>	<b>1.2%</b>
Top 10 COVID Feb 29	24,783	25,142	1.4%	24,784	24,205	-2.3%
Rest of the World	104,763	103,979	-0.7%	105,719	107,851	2.0%
<b>Panel B. Imports</b>						
Agriculture	13,941	14,484	3.9%	12,420	13,135	5.8%
Extractive	17,087	17,291	1.2%	14,993	14,567	-2.8%
Manufacturing	171,420	161,218	-6.0%	155,804	147,128	-5.6%
<b>Total</b>	<b>210,838</b>	<b>202,120</b>	<b>-4.1%</b>	<b>191,279</b>	<b>183,335</b>	<b>-4.2%</b>
Top 10 COVID Feb 29	73,770	62,869	-14.8%	59,366	47,130	-20.6%
Rest of the World	137,069	139,251	1.6%	131,912	136,206	3.3%

Source: US Census

Note: Agriculture includes HS2 chapters 01-24; Extractives 25-27; and Manufacturing 28-97. Sectoral totals may sum up to less than the aggregate because of unclassified trade in HS 98-99. Top 10 COVID countries are based on per capita number of positive cases as of February 29<sup>th</sup> 2020 (see Table 14 for list of countries).

Japan’s reported data show a significant drop of imports from China in February (Figure 6). Bilateral trade flows with China have been relatively stable for Japan in the past two years, except for seasonal fluctuations in January and February due to the yearly variations in the date of Chinese New Year. February 2020 however saw a steep decline in Japanese imports from China, much more severe than what could be explained by the national holiday. Aggregate Japanese exports have not yet seen large drops (except for extractives), while imports fell significantly in February, especially from countries heavily affected by COVID-19 (Table 11).

**Figure 6. Japan’s trade with China, Year-on-Year growth (%)**



Source: Japan Customs

**Table 11. Japan summary for January-February 2020**

Japan reported data	January 2019 (USD, millions)	January 2020 (USD, millions)	YoY percentage change (%)	February 2019 (USD, millions)	February 2020 (USD, millions)	YoY percentage change (%)
<b>Panel A. Exports</b>						
Agriculture	485	452	-6.8%	572	571	-0.3%
Extractive	1,375	1,303	-5.2%	1,326	1,113	-16.1%
Manufacturing	49,290	47,944	-2.7%	55,910	55,759	-0.3%
<b>Total</b>	<b>51,149</b>	<b>49,699</b>	<b>-2.8%</b>	<b>57,808</b>	<b>57,442</b>	<b>-0.6%</b>
Top 10 COVID Feb 29	15,588	14,567	-6.5%	17,060	17,394	2.0%
Rest of the World	35,561	35,131	-1.2%	40,748	40,048	-1.7%
<b>Panel B. Imports</b>						
Agriculture	5,862	5,861	0.0%	5,341	4,793	-10.3%
Extractive	16,313	15,723	-3.6%	14,943	13,952	-6.6%
Manufacturing	42,053	40,157	-4.5%	34,555	28,628	-17.2%
<b>Total</b>	<b>64,229</b>	<b>61,741</b>	<b>-3.9%</b>	<b>54,839</b>	<b>47,373</b>	<b>-13.6%</b>
Top 10 COVID Feb 29	24,560	24,030	-2.2%	18,641	13,323	-28.5%
Rest of the World	39,669	37,711	-4.9%	36,198	34,049	-5.9%

Source: Japan Customs

Note: Agriculture includes HS2 chapters 01-24; Extractives 25-27; and Manufacturing 28-97. Sectoral totals may sum up to less than the aggregate because of unclassified trade in HS 98-99. Top 10 COVID countries are based on per capita number of positive cases as of February 29<sup>th</sup>, 2020 (see Table 14 for list of countries). Reported values in Japanese Yen converted to US dollars using monthly average exchange rate.

### c. Focus on trade in COVID-19 medical products <sup>14</sup>

COVID-19 has led to increased demand for key medical products, such as personal protective equipment for frontline workers, as well as more complex technologies, such as ventilators. Data from January and February show Chinese trade in medical products reflects, on the export side, the general contraction in manufacturing, and, on the import side, some increase in demand associated with COVID-19 (Table 12). The corresponding trends for the United States and Japan are presented for comparison purposes.

**Table 12. Exports and Imports in aggregate medical products: China, US, and Japan**

Medical products	Jan+Feb 2019 (USD, millions)	Jan+Feb 2020 (USD, millions)	YoY percentage change (%)
<b>Panel A. Exports</b>			
China	13,352	11,652	-12.7%
USA	18,818	19,547	3.9%
Japan	4,729	4,967	5.0%
<b>Panel B. Imports</b>			
China	10,775	11,459	6.4%
USA	29,983	32,379	8.0%
Japan	8,098	8,011	-1.1%

Source: World Bank staff calculations, using national statistics: China Customs, US Census, Japan Customs

<sup>14</sup> "Medical products" are defined at the HS6 level based on a World Bank compilation of lists from a variety of sources.

The increase in China’s imports of medical products was concentrated in a small number of key products used to respond to the pandemic. Certain COVID-19-related items were imported by China in large quantities in the first two months of 2020 (Table 13). Import surges were observed for medical masks, HS 630790 (\$671 million more than the previous year same period), protective clothing, HS 621010<sup>15</sup> (\$205 million more), and ventilators, oxygen masks and nebulizers, cannula, and CPAP machines, HS 901920 (\$57 million more). These are all goods which China imports very little of in normal times. However, exports of the same category of goods declined by about the average for all manufactured exports. This suggests that China was able to maintain some productive capacity in the face of the lockdown, and that China’s exports of COVID-19-related goods should have returned gradually to the market in March and April and should continue to increase beyond that. An increase in imports of hydrogen peroxide for external use, HS 300490 (\$141 million more than the previous year) was more modest in percentage terms, since China is usually a net importer of this product.

**Table 13. Import surges of China’s COVID-related medical products, January-February 2020 Year-on-Year changes**

	Exports			Imports		
	Jan+Feb 2019 (USD, millions)	Jan+Feb 2020 (USD, millions)	YoY percentage change (%)	Jan+Feb 2019 (USD, millions)	Jan+Feb 2020 (USD, millions)	YoY percentage change (%)
H <sub>2</sub> O <sub>2</sub> put up for internal or external use as a medicine	322	353	10	1,955	2,096	7
Medical masks	768	645	-16	31	706	2,174
Protective clothing	136	118	-13	1	206	40,591
Ventilators, oxygen mask, nebulizer, nasal cannula and CPAP machines	112	90	-20	32	89	174

#### **d. Focus on countries affected earliest by COVID-19**

Countries with the ten largest number of officially reported cases of COVID-19 per capita (as of February 29, 2020) showed declines in both exports and imports during January and February (Table 14). For six of these countries, both exports and imports declined year-on-year, including the four most affected – Bahrain, China, Italy, and the Republic of Korea. In Iran, estimated exports were cut in half, while for Iceland, estimated imports were cut in half. None of the ten countries exhibited increases in both exports and imports.

As of end-February, a period corresponding with the observable trade pattern, few countries likely had crossed the threshold for which COVID-19 had observable economic effects. When data for March becomes available, very likely reflecting more widespread economic contraction, the relationship across countries between the progress of COVID-19 and merchandise trade will be much clearer.

<sup>15</sup> This category includes paper garments; disposable garments used in medical, laboratory, or clinical settings or in contaminated areas; and disposable briefs and panties.

**Table 14. Top 10 COVID-19 affected countries (as of Feb 29)**

	YoY change in exports Jan-Feb 2020	YoY change in imports Jan-Feb 2020	COVID-19 cases Feb 29 per million people
Korea, Rep.	-8.1%	-8.9%	60.60
China	-17.2%	-3.6%	56.82
Bahrain	-32.1%	-4.7%	24.15
Italy	-10.1%	-16.3%	18.71
Singapore	0.7%	-1.3%	17.58
Kuwait	34.1%	-17.0%	10.46
Iran, Islamic Rep.	-50.8%	21.1%	7.09
Iceland	-5.6%	-50.9%	2.85
United Arab Emirates	9.8%	-9.5%	2.14
Switzerland	-7.2%	-10.0%	2.08
10-country average	-10.4%	-6.1%	---

Note: The table uses official data for China, and for the other countries, estimates based on aggregated mirror data reported by China, Japan, and the United States. The 10-country average uses export weights for exports and import weights for imports.



## Annex: Estimated changes in imports and exports for all countries

Annex Table A1. January and February YoY changes 2019-2020

	Exports		Imports	
	January	February	January	February
Albania	4.4%	5.4%	-1.3%	1.5%
Algeria	-17.3%	10.5%	-22.3%	-51.3%
Argentina	-0.6%	-2.8%	-12.7%	-24.0%
Australia	10.6%	-16.2%	-2.2%	-15.1%
Austria	2.8%	-12.3%	-18.9%	-61.6%
Bahrain	3.7%	9.4%	19.6%	12.7%
Belarus	-2.4%	-33.3%	4.7%	-26.4%
Belgium	-2.7%	11.6%	-6.3%	-14.1%
Bolivia	-25.9%	-23.9%	5.6%	1.2%
Brazil	-19.2%	0.0%	-1.3%	5.0%
Bulgaria	13.7%	-22.5%	-6.8%	-43.2%
Canada	3.7%	-1.5%	-1.3%	-4.5%
Chile	-0.2%	-5.7%	-2.9%	-18.3%
China	-24.8%	-5.1%	-18.6%	13.5%
Colombia	11.5%	-5.2%	6.5%	9.0%
Costa Rica	2.0%	18.3%	13.9%	7.7%
Croatia	-1.1%	-23.9%	-10.7%	-54.2%
Cyprus	15.0%	-36.1%	129.9%	-8.8%
Czech Republic	10.2%	-7.4%	5.2%	-23.1%
Denmark	31.8%	10.8%	21.3%	-15.0%
Dominican Republic	-13.1%	-1.3%	3.9%	-8.1%
Ecuador	36.9%	23.9%	11.2%	-19.8%
Egypt Arab Rep	13.2%	-32.1%	9.2%	-16.7%
Estonia	-31.2%	-15.2%	-28.8%	-27.6%
Finland	-2.4%	-26.0%	-12.1%	-25.3%
France	-12.1%	-32.1%	-0.8%	-8.9%
Germany	-2.8%	-16.1%	-7.1%	-19.2%
Greece	10.9%	-2.1%	12.0%	-28.8%
Guatemala	8.1%	1.2%	8.1%	18.9%
Hong Kong SAR, China	-22.1%	5.3%	-15.7%	0.8%
Hungary	16.4%	9.5%	5.1%	-19.8%
Iceland	-34.4%	1.3%	-6.5%	-22.1%
India	-0.9%	3.3%	-0.7%	2.5%
Indonesia	-2.1%	11.0%	-4.8%	-5.1%
Iran, Islamic Rep	-40.3%	-64.0%	45.7%	-2.1%
Ireland	18.7%	7.6%	15.6%	-7.8%
Israel	3.3%	-6.7%	-5.1%	-6.9%
Italy	-4.3%	-10.4%	4.0%	0.4%
Japan	-2.8%	-0.6%	-3.9%	-13.6%
Jordan	-3.7%	27.6%	-1.8%	-10.1%
Kazakhstan	46.6%	-1.5%	20.4%	-14.9%
Kenya	20.1%	-9.0%	-10.9%	-30.1%
Korea, Rep	-6.5%	4.3%	-5.4%	1.6%
Kuwait	56.9%	-1.7%	-3.8%	-11.7%
Latvia	21.3%	-39.8%	-9.2%	-28.4%
Lithuania	5.4%	-18.8%	-7.6%	-23.3%

Luxembourg	3.3%	-12.8%	-50.6%	-71.2%
Malaysia	-0.6%	9.5%	-1.5%	9.0%
Mexico	3.2%	0.6%	-3.2%	-3.8%
Morocco	0.5%	-0.8%	0.6%	-0.1%
Netherlands	14.6%	7.6%	-3.3%	-10.5%
New Zealand	5.1%	-2.2%	-5.8%	-15.7%
North Macedonia	-23.9%	-64.4%	0.0%	-6.6%
Norway	-12.0%	-8.8%	-4.4%	-15.1%
Oman	60.8%	13.0%	2.7%	-25.6%
Pakistan	-2.8%	13.8%	-6.8%	1.6%
Paraguay	-5.3%	-1.8%	8.7%	-5.3%
Peru	12.4%	-13.1%	-0.2%	-1.5%
Philippines	-0.3%	-14.4%	15.2%	-9.4%
Poland	8.7%	-5.2%	6.1%	-23.6%
Portugal	3.4%	13.0%	-3.2%	-20.2%
Qatar	1.1%	-21.3%	47.1%	-22.6%
Romania	-2.7%	-14.4%	14.8%	-22.8%
Russian Federation	32.1%	10.8%	-2.7%	-28.3%
Saudi Arabia	10.5%	-11.2%	4.4%	3.9%
Singapore	-5.0%	-0.2%	-0.5%	6.6%
Slovakia	-10.9%	-8.6%	8.3%	-34.9%
Slovenia	5.3%	66.5%	-3.7%	-30.2%
South Africa	9.0%	2.9%	-2.1%	-7.3%
Spain	12.1%	2.2%	9.7%	-15.8%
Sri Lanka	2.1%	-0.7%	15.8%	-3.4%
Sweden	-1.4%	-0.7%	-9.5%	-7.3%
Switzerland	7.3%	-0.5%	1.1%	-2.3%
Taiwan, China	-6.8%	23.9%	-17.6%	44.7%
Thailand	3.3%	-4.5%	-11.0%	-8.3%
Tunisia	2.7%	8.3%	-7.9%	18.2%
Turkey	5.1%	2.6%	18.1%	8.2%
Uganda	9.6%	50.2%	-7.1%	-36.2%
Ukraine	32.6%	7.8%	-8.7%	-26.6%
United Kingdom	4.2%	-12.8%	-4.4%	-13.9%
United States	-0.5%	1.1%	-4.0%	-4.1%
Uruguay	-11.0%	-5.5%	7.3%	-8.4%
Vietnam	-17.4%	50.0%	-13.7%	26.6%
Zambia	-16.0%	-6.6%	-6.3%	-34.8%

Source: World Bank Global Monitor, China Customs, US Census, Japan Customs

Note: For countries missing data on Global Monitor for Jan/Feb 2020, we estimate using YoY growth rate for mirrored data based on US, China, and Japan. These data are subject to revisions, which for mirrored data may in some cases be substantial.