

# **Economics in the Time of Covid-19: The economic impact on Asia**

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# East Asian Value Chains and the Coronavirus

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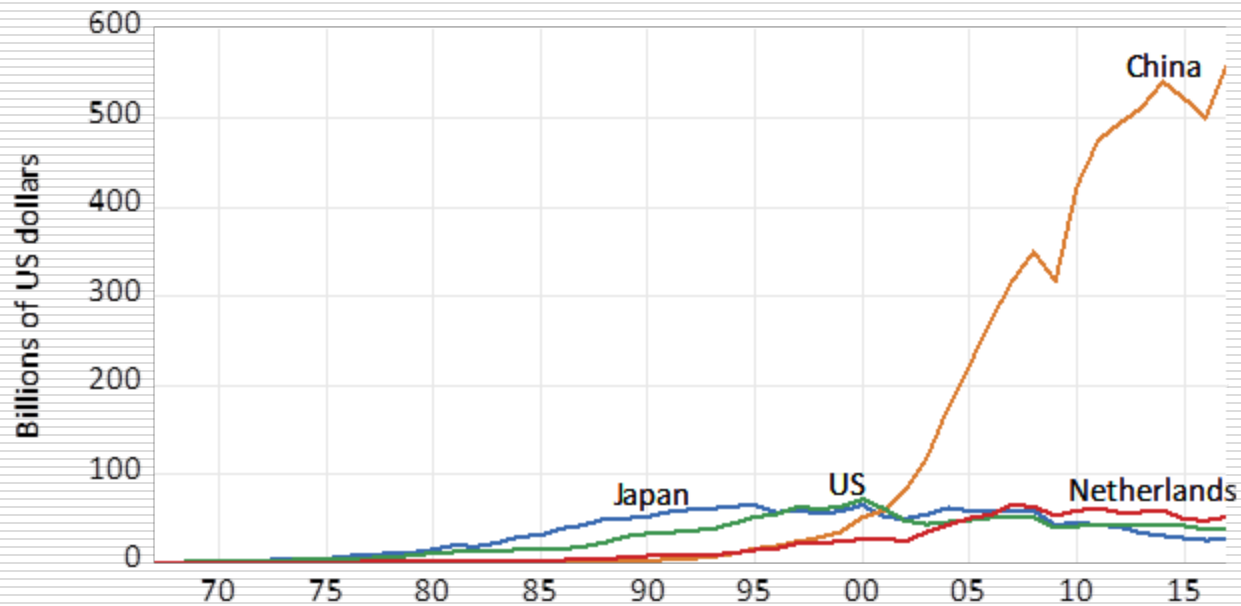
# China-Centered Value Chains

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- After China's 2001 WTO Accession, multinationals were attracted to China by:
  - 1) Investor confidence China would respect the rule of law.
  - 2) Special Economic Zones (SEZs) with benefits & low taxes.
  - 3) Superb highways, ports & airports close to SEZs.
  - 4) Hundreds of millions of low-wage, disciplined workers.
  - 5) Weak exchange rates in China & upstream Asian countries.
  
- 80% of China's trade surplus is in electronics. Its exports of computers, phones, and consumer electronics now surpass exports from next 14 leading countries together.
  
- Protectionist pressures have multiplied.

# Final Electronics Goods Exports from Leading Exporters

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# How COVID-19 Affects Chinese Value Chains

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- ❑ One-third of 300 million migrant workers could not return to work after the Lunar New Year.
- ❑ Truck drivers could not make deliveries.
- ❑ Third-, fourth-, and fifth-tier suppliers depend on cash. Have not gotten paid & could easily go bankrupt. If these firms supply key components, whole supply chains may be disrupted.
- ❑ Factory activity interrupted. Purchasing Manager's Index (PMI) plummeted to 35.7 in February from 50 in January.
- ❑ China is getting back to work. Asian supply chains proved resilient to supply shocks (2011 earthquake & Thai floods).
- ❑ Demand shocks more problematic.

# Chinese Government Is Maintaining Demand for Chinese Microchips

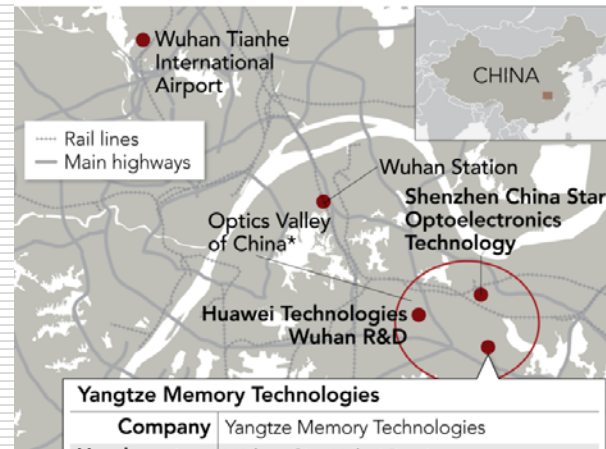
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- ❑ Goal chip self sufficiency. China's "Big Fund" supports Wuhan's Yangtze Memory (YM) & other chipmakers.
- ❑ YM hires lead engineers from TSMC & other large chipmakers to acquire tacit knowledge.
- ❑ Workers patriotic, keep producing chips in Wuhan even during epidemic.
- ❑ Government supports huge capital formation.
- ❑ Chinese firms currently one generation behind frontier but determined to catch up.

# Yangtze Memory Technologies

## Exception to the rule

Even as the virus epicenter of Hubei was locked down to prevent the spread of infection, workers and chips moved in and out of Yangtze Memory in Wuhan's high-tech manufacturing zone.



### Yangtze Memory Technologies

<b>Company</b>	Yangtze Memory Technologies
<b>Headquarters</b>	Wuhan City, Hubei Province
<b>Year founded</b>	July 2016
<b>Chairman</b>	Zhao Weiguo
<b>CEO</b>	Simon Yang
<b>Employees</b>	6,000
<b>Product</b>	3D NAND flash memory chips
<b>R&amp;D centres</b>	Wuhan, Shanghai, Beijing, Silicon Valley
<b>Competitors</b>	Samsung Electronics, Kioxia, SK Hynix, Western Digital, Micron Technology and Intel

\*Showing only a general area

Source: Company, Nikkei Asian Review research

# After the Dust Settles

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- ❑ Chinese renminbi, Korean won, Japanese yen have depreciated. This will keep U.S. dollar price of Asian electronics cheap.
- ❑ Fierce competition between China, Korea, Taiwan, & Japan in semiconductors and electronics will push prices even lower.
- ❑ Massive US fiscal stimulus added to trillion USD bud. deficit will increase US demand.
- ❑ East Asia-U.S. imbalances likely to return and drive protectionism.



# Steps to Take

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- ❑ Lead firms (e.g., Apple) should become aware of third- or fourth-tier suppliers producing key components.
- ❑ Firms should diversify & reduce dependence on Chinese value chains.
- ❑ After 1997 Asia Crisis and 2008 GFC, Asia's surpluses with US ballooned. Asia should work with US to avoid this and divert protectionist pressure.

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□ Thank You