Corona and the World Economy. What to expect for World Trade and Investment?
The lecture in a nutshell

1. Focus on impact on international trade and investment
2. Coronanomics (a few key economic principles)
3. Key data and stylized facts (introduction of data sources)
4. Before Corona: deglobalization 2.0
5. What will happen next to the world economy?
6. Suggested readings and useful (data sources)
1. Focus on international trade and FDI: is that not missing the key point?
The macro-economic impact of Corona is serious but not catastrophic.
Catastrophic pandemics

Summary of studies of the macroeconomic impact of HIV/AIDS in Africa

<table>
<thead>
<tr>
<th>Study</th>
<th>Geographic coverage</th>
<th>Annual GDP growth rate reduction (10-15 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dixon et al (2001)</td>
<td>41 countries</td>
<td>2% to 4%</td>
</tr>
<tr>
<td>World Bank (2001)</td>
<td>Swaziland</td>
<td>1.5%</td>
</tr>
<tr>
<td>World Bank (2001)</td>
<td>Namibia</td>
<td>1.1%</td>
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<tr>
<td>World Bank (2000)</td>
<td>Lesotho</td>
<td>0.8%</td>
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<tr>
<td>Bonnel (2000)</td>
<td>50 countries</td>
<td>0.7%</td>
</tr>
<tr>
<td>Quattek et al (2000)</td>
<td>South Africa</td>
<td>0.3-0.4%</td>
</tr>
<tr>
<td>BIDPA (2000)</td>
<td>Botswana</td>
<td>1.5%</td>
</tr>
<tr>
<td>Bloom et al (1995)</td>
<td>51 countries</td>
<td>Insignificant</td>
</tr>
<tr>
<td>Cuddington ea (1994)</td>
<td>Malawi</td>
<td>0.3%</td>
</tr>
<tr>
<td>Cuddington (1993)</td>
<td>Tanzania</td>
<td>0.7%</td>
</tr>
<tr>
<td>Over (1992)</td>
<td>30 SSA countries</td>
<td>0.15% to 0.6%</td>
</tr>
</tbody>
</table>


Macro-economic impact of Ebola (GDP reduction, percentage points)

The global growth impact is about – 0.5 percentage points.

OECD (March 2, 2020 forecast)

UNCTAD (March 9, 2020 forecast)

Why focus on trade?
The analysis of trade and investment has so far been limited

• Early indicators are only available with two months delay and thus do not contain corona-information,
• but current Coronablabla suggests that international economic organizations know what is happening.
• Current analyses still deal with a China-only shock
• This will not be a rerun of the 2008/9 world trade and investment collapse
• It may strengthen the tendency towards deglobalization that started around 2008/9
• From a purely scientific perspective this is an interesting natural experiment
2. Coronanomics 1.0

A. How to read and understand pandemic graphs
B. Supply and demand shocks
C. Economic contagion: the role of international value chains
D. Trade Shocks: Uncertainty and International Specialization
A. The endemic curve

Pay attention to

• What is measured?
  • new cases
  • number of sick people
  • Deaths

• Small versus large numbers
• Linear versus loglinear axes

The endemic curve

Endemic curve (number of current patients)

Reported curve in the media (number of positive tests or deaths)

DOP: Duration of Onset to Peak
DOE: Duration of Onset to End

Linear versus logarithmic representation

How to read Graphs

Linear

Total confirmed COVID-19 cases
The large increase in the number of cases globally and in China on Feb 17 is the result of a change in reporting methodology. It is explained at OurWorldInData.org/Coronavirus


Logarithmic

Total confirmed COVID-19 cases
The large increase in the number of cases globally and in China on Feb 17 is the result of a change in reporting methodology. It is explained at OurWorldInData.org/Coronavirus


### Economic channels

<table>
<thead>
<tr>
<th>Containment measures</th>
<th>Supply</th>
<th>Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quarantines</td>
<td>Factory closures</td>
<td>Loss of confidence</td>
</tr>
<tr>
<td>Travel bans and restrictions</td>
<td>Cutbacks in service provisions</td>
<td>Business and tourism travels</td>
</tr>
<tr>
<td>Closure of public places</td>
<td>Supply chain disruption</td>
<td>Education and entertainment services</td>
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### Economic channels

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<th>Demand</th>
<th>Missing drivers</th>
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<td>Quarantines</td>
<td>Factory closures</td>
<td>Loss of confidence</td>
<td>Wealth effects</td>
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<tr>
<td>Travel bans and restrictions</td>
<td>Cutbacks in service provisions</td>
<td>Business and tourism travels</td>
<td>Fear</td>
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<tr>
<td>Closure of public places</td>
<td>Supply chain disruption</td>
<td>Education and entertainment services</td>
<td>Avoidance</td>
</tr>
</tbody>
</table>

- Costs of intervention
- Uncertainty, business failures
- Unemployment
- Irrationality

15/03/2020 12:21

Coronanomics
Supply versus Demand

15/03/2020 12:21

Coronanomics
Transmission of Shocks via Global Networks (Value Chains) faster than earlier pandemics.

Source: UNCTAD calculations based on Comtrade data
Contagion and international value chains

Bullwhip effect 2008Q1/9Q2 (per cent deviation from levels at the start of 2008Q1)

Import reduction during the trade collapse versus share of vertical specialization in trade

Unweighted simple average based on publicly reported data from DSM, Philips, Akzo Nobel and Thyssen Krupp (Peels et al., 2009, p. 6 and appendix)
Trade shocks in the neoclassical trade model
Production possibilities

Theory of trade shocks

Production possibilities frontier

Inefficient

Impossible
Terms of trade

Consumption point

Domestic production point

Theory of trade shocks
Theory of trade shocks
Welfare over time

Free trade, full specialization utility

Autarky utility

Tijd
Liberalization: from autarky to free trade

- Opening of trade (different price ratio’s)
- Specialization starts: growing export sector; declining import sector
- Reallocation of factors of production takes time
- Consumption (welfare) follows specialization
- Note that this is a positive trade shock

• What happens if a trade shock occurs?
• So movement from free trade to autarky!
Domestic production = consumption after trade shock

Consumption point before trade shock
Welfare over time

Free trade, full specialization utility

Autarky utility

Trade shock
Two major implications follow from this model

- The initial impact of a trade shock is deeper than the long run impact.
- For the future, firms and consumers will realize the risks of globalization and see the benefits of lesser specialization. This is an additional force towards deglobalization.
3. Key data and stylized facts

https://www.worldometers.info/coronavirus/

https://ourworldindata.org/coronavirus
Interpreting the data
(series start when more than 20 cases per day are reported)
Preliminary Findings

• China has been able to contain and the same seems true for South Korea. The top in the number of patients occurs after about 4 weeks.
• The virus spreads and as it does the epicenter of the pandemic shifts toward Europe and then probably the US.
• This generates a cycle in the number of patients.
4. Before Corona: Deglobalization 2.0

KOF globalization index 1970-2017

Openness of the world economy

Stylized Facts
4. Before Corona: Deglobalization 2.0

Change in world openness by decade

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<tbody>
<tr>
<td>Average</td>
<td>0.0%</td>
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Change in world openness 1880-2020

- Change in openness yoy
- 7 yr moving average
Some differences and similarities of the context of the 1930s and the 2000s

<table>
<thead>
<tr>
<th></th>
<th>1930s</th>
<th>2000s</th>
</tr>
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<tbody>
<tr>
<td>Long-run reductions of trade costs</td>
<td>●</td>
<td>●</td>
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<tr>
<td>New modes of transportation</td>
<td>●</td>
<td>●</td>
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<tr>
<td>Revolution in communication</td>
<td>●</td>
<td>●</td>
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<tr>
<td>Entry of new countries (recent capitalist countries)</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Key innovations</td>
<td>●</td>
<td>●</td>
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<tr>
<td>Financial innovation and capital account liberalization</td>
<td>●</td>
<td>●</td>
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<tr>
<td>Changing hegemony</td>
<td>●</td>
<td>●</td>
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<tr>
<td>Saving surplus hegemnon</td>
<td>●</td>
<td></td>
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<tr>
<td>Multilateral trade governance</td>
<td></td>
<td>●</td>
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<tr>
<td>Protectionism</td>
<td>●</td>
<td></td>
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<td>Economically motivated mass migration</td>
<td>●</td>
<td></td>
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<tr>
<td>Initial international policy coordination</td>
<td></td>
<td>●</td>
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<tr>
<td>Substantial presence of international value chains</td>
<td></td>
<td>●</td>
</tr>
</tbody>
</table>
Trade developments

World trade collapse 2008/9 and world trade slowdown

Trade weakness especially since mid 2019

Fig. 3. Volume of Trade, selected regions and countries; index (2005 = 100)
Based on monthly data from CPB Netherlands Bureau for Economic Policy Analysis (CPB, date accessed 15 2016); trade volume for a country or region is average of export and import index.
World Trade (almost real time)

**CPB world trade monitor 2000-2019**

Index number

<table>
<thead>
<tr>
<th>Year</th>
<th>Index</th>
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<tbody>
<tr>
<td>2000</td>
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<td>2005</td>
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<td>2010</td>
<td></td>
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<tr>
<td>2015</td>
<td></td>
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</tbody>
</table>

**Container throughput**

Index number

<table>
<thead>
<tr>
<th>Year</th>
<th>Index</th>
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</thead>
<tbody>
<tr>
<td>2013</td>
<td></td>
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<tr>
<td>2014</td>
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<td>2018</td>
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<tr>
<td>2019</td>
<td></td>
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<tr>
<td>2020</td>
<td></td>
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</tbody>
</table>

Date accessed: March 16 2020

Coronanomics
Other correlates of deglobalization

**FDI in percent of GPP**

**Border walls and fences 1970-2019**

- Increase/decrease (lhs)
- Number of walls (rhs)
Private (household) flows

Stylized Facts

Remittances (%GPP 1980-2018)

Global annual tourism arrivals (millions, 1980–2018)


Source: Roser (2018) based on UNWTO
Trump’s foreign (trade) policy is rational

- Large Country can benefit from trade restriction (terms of trade)
- Neo-Mercantilistic: hurt the adversary more
- Destroy the governance instruments of the next hegemon
- It is dangerous, but not irrational
## Maximum impact trade wars in 2030 (percentage change from base line)

<table>
<thead>
<tr>
<th></th>
<th>US-China-EU trade war</th>
<th>US-OECD trade war</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GDP</td>
<td>import openness</td>
</tr>
<tr>
<td>United States</td>
<td>-1.2</td>
<td>-21.0</td>
</tr>
<tr>
<td>China</td>
<td>-3.5</td>
<td>-12.6</td>
</tr>
<tr>
<td>European Union</td>
<td>-1.7</td>
<td>-2.1</td>
</tr>
<tr>
<td>World</td>
<td>-1.2</td>
<td>-4.3</td>
</tr>
</tbody>
</table>

*Source: Bollen and Rojas-Romagosa, 2018, Appendix 3.*
Costs and benefits of globalization

Net benefits

Intensity of globalization

Benefits, costs

Costs

Benefits

Stylized Facts
Shift in marginal cost schedule

Marginal costs and benefits, optimum intensity

Shift in marginal cost schedule

Marginal costs
Marginal benefits
Marginal costs
Marginal benefits

Optimum
Intensity of globalization

Optimum
Intensity of globalization

Marginal cost curve shifts up
5. What did we learn?

- The policy and scientific communities were prepared for a pandemic. Pandemics cannot be prevented, they can be managed to some extent.

- The assessment is still very preliminary; we first need data. The economic impact of the corona virus is not catastrophic even when the costs of policy measures are higher than expected.

- Economic corona shocks are going to cascade until group immunity at the world level is sufficient.

- The corona virus increases the ‘marginal cost of intensified globalization’ (the curve shifts up) and the optimal level of globalization is reduced.

Accessed March 15, 2020
5. What’s next?

• We will see cascading trade shocks. Trade uncertainty will increase and reduce international specialization. Deglobalization will deepen, also when the virus disappears

• If we can keep our heads cool and implement trustworthy, sustainable and transparent policies, this crisis is manageable

• If irrationality, denial and fake statistics get the overhand this may develop into another global financial crisis – even though the real economy impact is manageable

• You can help! Stay calm, stay safe.
Useful Resources
Useful Resources

- CEPR, Economics in the time of COVID-19 by Richard Baldwin, Beatrice Weder di Mauro, 

- OECD Interim Economic Assessment “Coronavirus: The world economy at risk March 2020,

- Our world in data (interactive curevs, doubling time, data) “Coronavirus Disease (COVID-19) – Research and
  Statistics by Max Roser, Hannah Ritchie and Esteban Ortiz-Ospina”), https://ourworldindata.org/coronavirus

- UNCTAD, The Coronavirus Shock: A Story of Another Global Crisis Foretold

- UNCTAD, Global investment monitor, Impact of The Coronavirus Outbreak on Global FDI

- Voxeu (columns for economic policy makers), : https://voxeu.org/article/oil-price-wars-time-covid-19 (Links
  to an external site.) and https://voxeu.org/article/coronavirus-and-macroeconomic-policy

- World-o-meters (interactive curves the global level; data; active cases),
  https://www.worldometers.info/coronavirus/

Useful Data Resources on International Trade and Investment

- KOF globalization index (update due in March or April 2020) [http://globalization.kof.ethz.ch/](http://globalization.kof.ethz.ch/)
- WTO [https://www.wto.org/english/res_e/statis_e/statis_e.htm](https://www.wto.org/english/res_e/statis_e/statis_e.htm)
- Global trade alert [http://www.globaltradealert.org/data_extraction](http://www.globaltradealert.org/data_extraction)
Useful Resources

Deglobalization 2.0 (Video by Institute of Social Studies in The Hague)

704 views • Jul 25, 2019

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