EU DATA VIZ

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European and international trade: summary for cabinet briefings
European and International Trade: Summary for Cabinet Briefings

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Overview
Two products:

1. **Fiche**: complexity of EU international trade reduced to a 3 × 3 matrix of infographics.
   - Quantitative support to policy makers.

2. **DG TRADE website**: geolocation of companies benefiting from trade agreements.
   - Trade agreements not only useful to large firms.
Fiche for International Trade
Questions

1. How much does the EU trade?
2. What products does the EU trade?
3. With whom does the EU trade?

Trade as import/export of

A. Merchandise
B. Services
C. Investments

→ Represent EU Trade as a $3 \times 3$ matrix.
How much [1.] does the EU trade in Merchandise [A.]?
With Whom [3.] does the EU trade in Services [B.]?

EU28 Trade in Services in 2017 by Partner

- United States: €236 exports, €224 imports
- Switzerland: €119 exports, €72 imports
- China: €47 exports, €31 imports
- Singapore: €29 exports, €22 imports
- Japan: €34 exports, €18 imports
- Norway: €29 exports, €16 imports
- Canada: €22 exports, €13 imports
- India: €16 exports, €17 imports
- Russia: €29 exports, €13 imports
- Bermuda: €5 exports, €28 imports
- Other: €346 exports, €267 imports

Value (bio €): 0 100 200 300 400
The EU remains the world's first merchandise trader with a share of 15% and the second exporter (after China).

Japan and the United States are the top two merchandise exporter; China, Germany, and Switzerland are the top three importers.

The EU is the world's first merchandise trader with the highest value of imports and exports.

The EU's Merchandise Trade with China has been increasing steadily since 2008, while its trade with the United States has remained relatively stable.

EU28 Merchandise Trade: Year-on-Year Growth

EU28 Standing in the World and Latest Trends

The EU has maintained its position as a leading merchandise trader, with a share of 15% in 2018.

Key Facts

- The EU is the world's largest merchandise trader, with a share of 15%.
- China is the world's second largest merchandise trader, with a share of 14%.
- The US is the world's third largest merchandise trader, with a share of 12%.
- The EU is the world's largest importer of merchandise, with a share of 16%.
- China is the world's largest exporter of merchandise, with a share of 15%.

Share of World Exports, Imports and Total Trade of Merchandise

EU28 Merchandise and Service Trade

EU28 Trade in Services

EU28 Merchandise Trade

EU28 Trade in Services: Year-on-Year Growth

EU28 Standing in the World and Latest Trends

EU28 Merchandise Trade: Year-on-Year Growth

EU28 Service Trade: Year-on-Year Growth

EU28 Merchandise and Service Trade: Quarterly Data

Key Facts

- The EU is the world's largest merchandise trader, with a share of 15%.
- China is the world's largest exporter of merchandise, with a share of 15%.
- The US is the world's largest importer of merchandise, with a share of 16%.
- The EU is the world's largest exporter of services, with a share of 16%.
- China is the world's largest importer of services, with a share of 15%.

Share of World Exports, Imports and Total Trade of Services

EU28 Trade in Services: Year-on-Year Growth

EU28 Trade in Services: Quarterly Data

EU28 Standing in the World and Latest Trends

EU28 Standing in the World and Latest Trends

EU28 Trade in Services

EU28 Merchandise Trade

EU28 Trade in Services: Year-on-Year Growth

EU28 Standing in the World and Latest Trends

EU28 Merchandise Trade: Year-on-Year Growth

EU28 Service Trade: Year-on-Year Growth

EU28 Merchandise and Service Trade: Quarterly Data

Key Facts

- The EU is the world's largest merchandise trader, with a share of 15%.
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EU28 Merchandise and Service Trade: Quarterly Data
FTA Comes to Town
Trade Agreements and Companies near You

See https://kutt.it/blDff8.
EU-Japan FTA Comes to Town

See https://kutt.it/s898mx. Rebuff the narrative that FTAs only beneficial to Apple, Google, Amazon etc...
EU-Japan FTA in the Neighbourhood

EU-Japan trade in your town

Towns and cities across the EU export to Japan. Here's a sample. It draws on a sub-set of all EU companies exporting to Japan.

- Location of one or more companies

Zoom into the map to see where companies exporting to Japan are located.
Conclusions
Conclusions and Remarks

• Data for the fiche open source and sustainable.
• Automatised process to produce the fiche (R + ggplot2 + \LaTeX).
• Feedback on both the fiche and the FTA comes to town website is more than welcome. Any suggestions for improvement?

Last but not least...

Thank you for your attention!
Supplementary Material
• Synthesise statistical information for colleagues non necessarily well-versed into statistics.

• Disseminate statistical information and awareness about EU trade and the standing of the EU vs its main competitors (US, China, Japan).

• Provide interactive visualisations and an agile one-pager (recto-verso) for meetings and discussions where facts and figures on EU and international trade are needed.

• Make the key messages transparent: clarity can never be traded off for aesthetics.
Why They Are Still Relevant

- Can be easily incorporated into reports, papers and all sort of analytical products.
- Ease of distribution: by email, social media, as a hard copy on the fly to participants to meetings.
- The final product is an image: you do not worry about hosting your product or your technology being incompatible with that of the website.
- In general they address different needs from interactive visualisations, so there is no tension between the two.
We sometimes get this remark and we cannot just shrug it off.

- 99% of the time the person suggesting this is both an experienced statistician and familiar with the topic i.e. the opposite of the intended audience.

- “Data visualization is the rendering of information in a visual format to help communicate data while also generating new patterns and knowledge through the act of visualization itself.”

- In other words, statistical visualisation stimulates both the statistician and the audience to engage with the data.

- I do not get invited to this conference to show a table!
When we monitor the EU trade, we usually focus on

1. **How much**: Overall value of import-export (of services, merchandise and investments).

2. **With whom**: Trade relation of the EU with its main business partners.

3. **What**: Items being traded (what kind of merchandise, services and investments).

→ three statistical quantities of interest for three indicators (services, merchandise and investments).

- go for a $3 \times 3 = 9$ subdiagrams geometric solution. If you know what you want to represent, a lot of design questions are automatically answered.
The first page of the fiche consists of 3 lines with 3 diagrams each. We show one line in this slide.

- Numbers in the plots to anticipate requests for data.
- Trends in merchandise trade (left); latest available data broken down by trade partners (middle), and type of product (right).
- Same structure for investments and services → limit the potential for misunderstanding and the cognitive effort.
• Goal: visualise the EU standing vs its main competitors and long time trends.
• For instance: evolution of merchandise trade worldwide

We do the same for the trade in services.
This question often appears in meetings and statistical requests, so we included it in the fiche.