



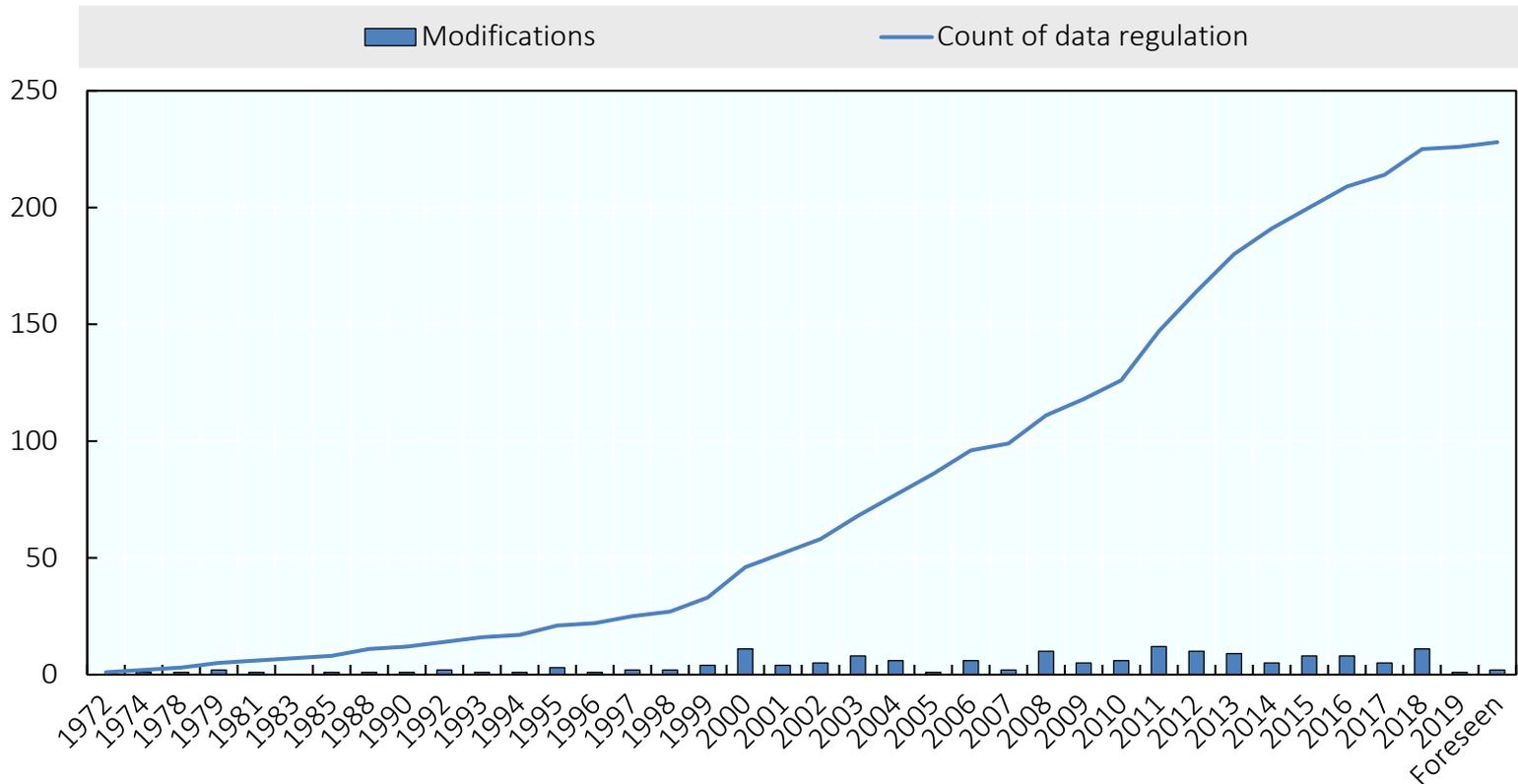
# Trade and cross-border data flows

Mapping the policy environment and thinking about the economic implications

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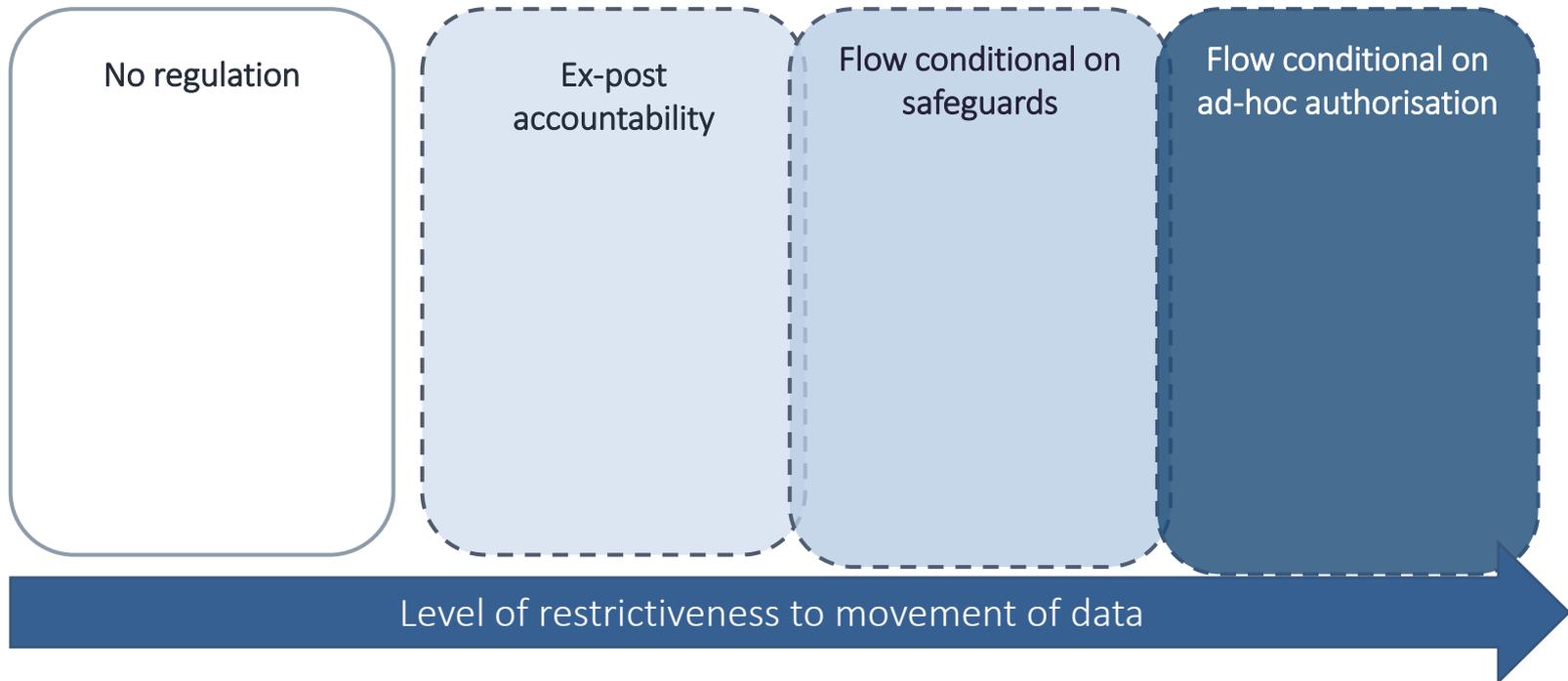
WTO Trade Dialogues  
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# Pervasive exchange of data has fuelled concerns about use and misuse of data leading to new data policies...



Casalini, F. and Lopez-Gonzalez, J. (2019) "trade and cross-border data flows", OECD Trade Policy Papers, No. 220, OECD Publishing, Paris.  
<http://dx.doi.org/10.1787/b2023a47-en>

## 4 broad approaches to cross-border data flows



Source: adapted from Casalini and Lopez-Gonzalez (2019)

## » Emerging patchwork of regulation is creating challenges

- For governments and individuals there are growing **uncertainties related to the applicable rules** in any given situation.
- For firms challenges relate to **ability to internationalise** (more difficult and costly to operate across different markets, affecting SMEs more), but also more difficult to know what level of data protection to afford to consumers in different markets (affecting their **ability to protect data**).
- Governments have turned to different **instruments to build trust in cross-border data flows** (see OECD paper for G20):
  - Plurilateral arrangements (OECD Privacy Guidelines, APEC CBPR, Convention 108+...)
  - Trade agreements and partnerships (CPTPP, USMCA, DEPA)
  - Unilateral instruments (adequacy, contracts...)
  - Private sector and other tech initiatives (privacy enhancing technologies, sandboxes...)

## » Understanding and measuring how cross-border data flows generate value is difficult

- How bits and bytes translate into dollars and cents is not easy to establish:
  - **No data on data** (lack of data on volume of cross-border data transfers and difficult to establish origin and destination – data flows in mysterious ways).
  - **Data is different** (valued at use, not volume, not scarce, can be copied and shared at virtually no cost’).
  - Difficult to tell **how firms use and derive value from data** (is it just an intermediate input or a factor of production? is it substitutable with K and L? is it factor enhancing?).
- Challenging to conceptualise impact of emerging regulation:
  - Restrictions on data flows are more like **export restrictions** but different approaches likely to have different impacts.
  - Also hard to establish **ad-valorem equivalents** (for some, barriers to data might entail simple cost increases, for others barriers to access might affect entire operation).
- **Difficult to measure the economic value of trust** (need to think more carefully about the benefits of privacy protection). Need to move away from thinking about privacy as a cost.
- Need to think more carefully about underlying frameworks:
  - **Data access and use can shape markets and competition between firms** (winner takes most dynamics).
  - Free flow of information can also lead to loss of consumer welfare when firms charge prices at ‘willingness to pay’.

## » Thinking about the appropriate tools to evaluate costs and benefits

- Range of tools and models exist to better understand the economic impact:
  - **Ex-ante models**: mathematical models allowing to model hypothetical scenarios (CGE models) – assumption driven.
  - **Ex-post models**: econometric analysis using past events (gravity-type models) – difficult to isolate regulation change as concurrent with other events affecting trade (e.g. EU-Japan)
  - **Firm level surveys**: useful to gather specific insights – difficult to get large enough or comparable sample size (and costly).
  - **Combinations of the above**: firm level surveys to feed into CGE models calibrated using econometric analysis.
- Working in an imperfect environment (data issue)
- Difficult to provide a model that gives the answer, but can make headway in different parts of the ‘problem’ making it more manageable.
- The policy discussion is ongoing, and we need the economic analysis to enable that this is an evidence based discussion.

## **Contact us**

We look forward to hearing from you!



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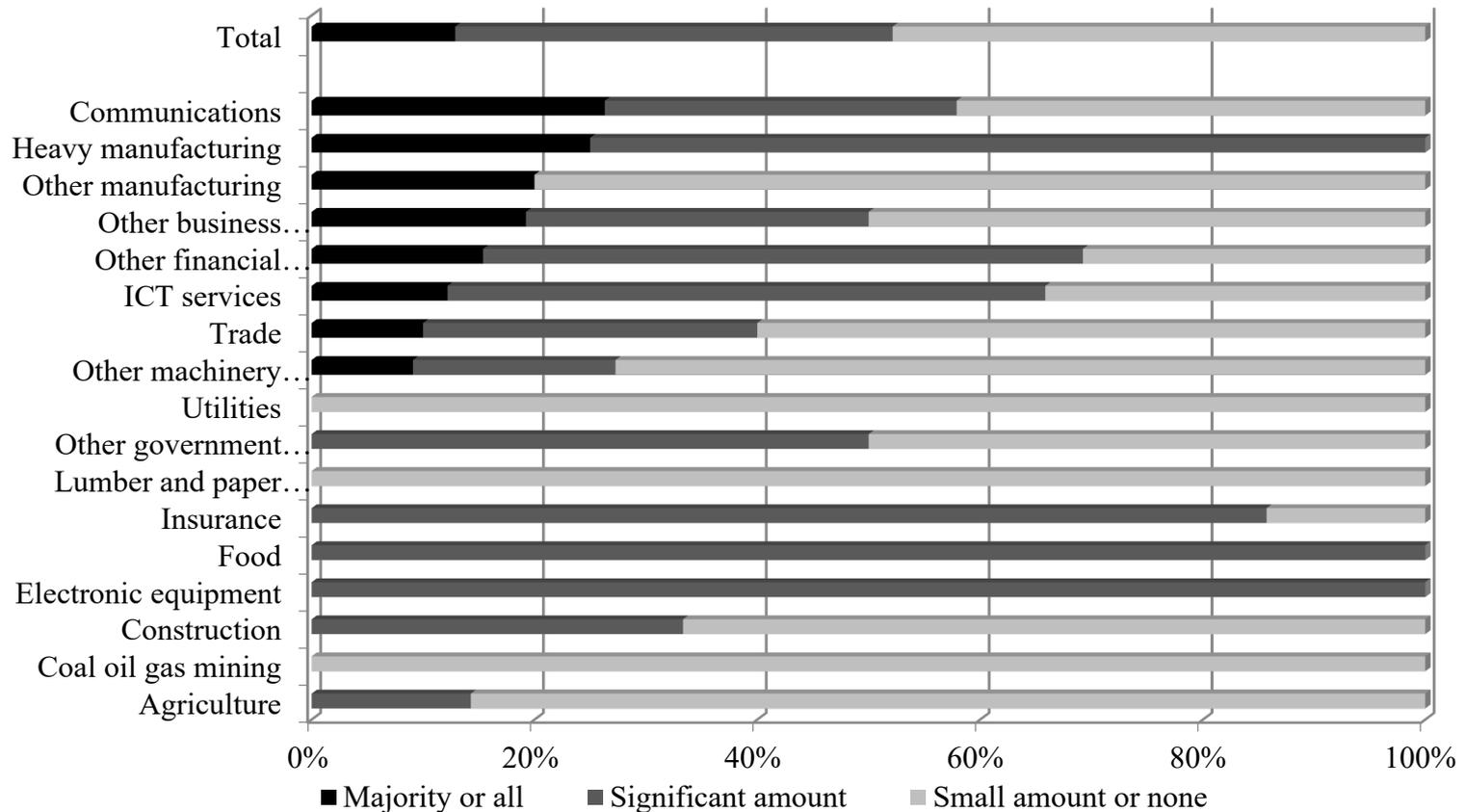
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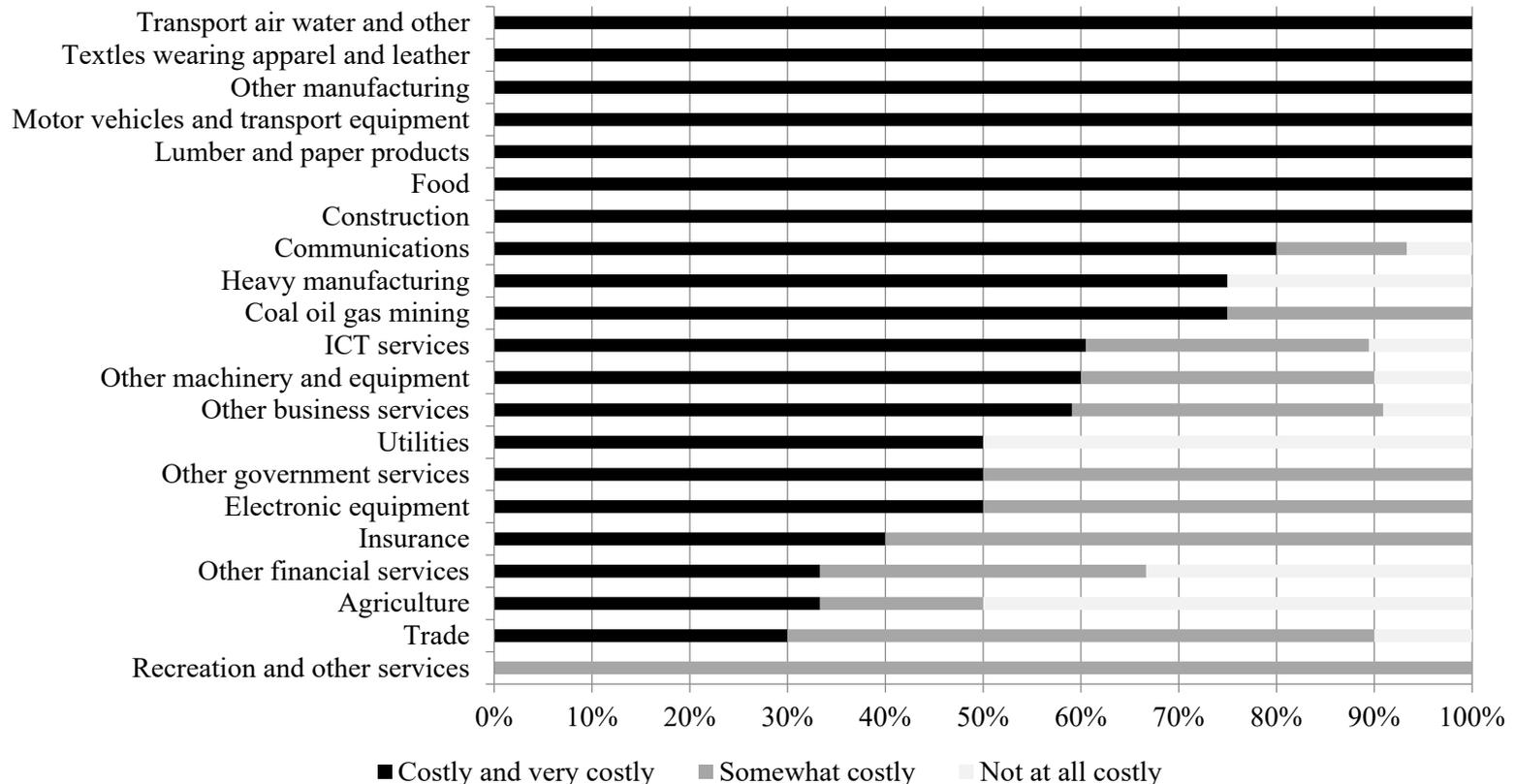
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# Some Pieces of the Puzzle: Importance of personal data varies by sector but stronger for services



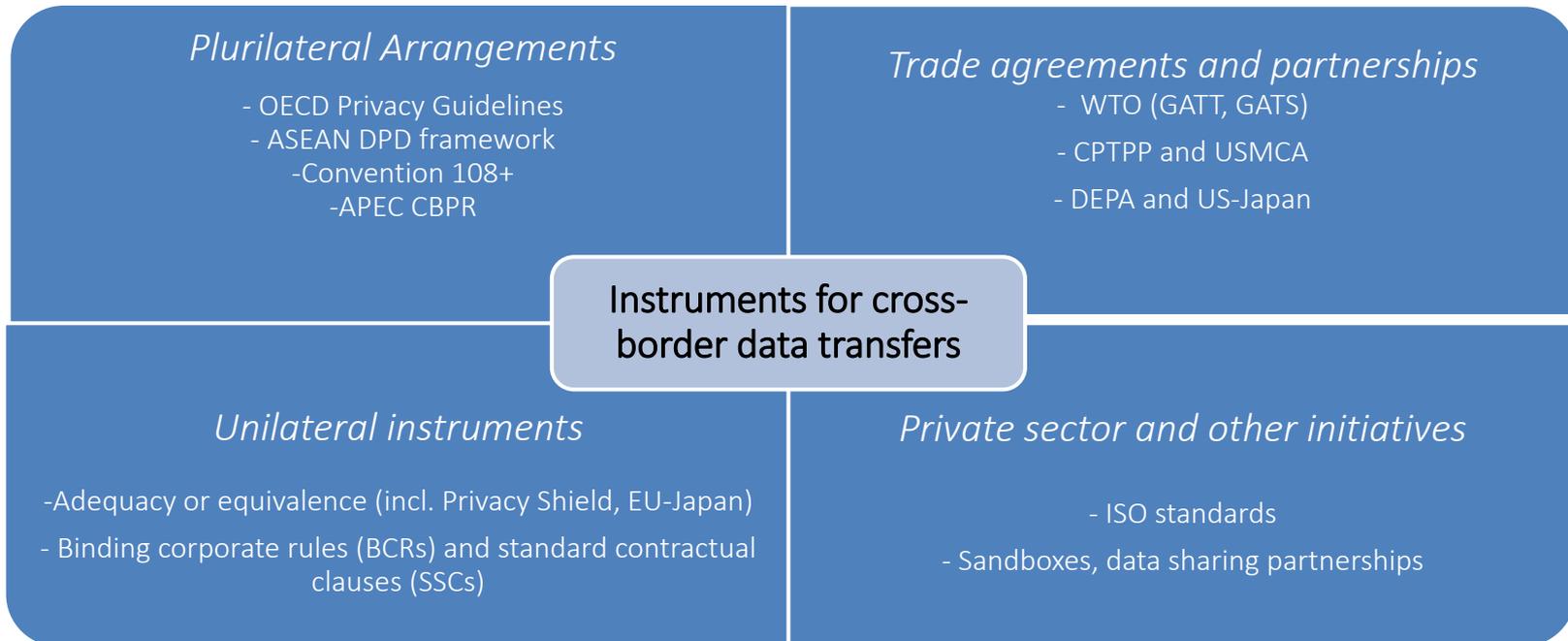
Bars show the share of respondents by answer given across sectors. This figure is based on answers from 159 firms and only sectors for which we have more than 3 respondent is represented. Coal oil gas mining and Construction: 3; Heavy manufacturing: 4 Other manufacturing: 5; Agriculture and Insurance: 7; Trade: 10; Other machinery and equipment: 11; Other financial services: 13; Communications: 19; Other business services: 26; ICT services: 41.

## » Some Pieces of the Puzzle: Separating personal from non personal data can be costly



Bars show the share of respondents by answer given across sectors. This figure is based on answers from 165 firms. Including 18 answering “I don’t know”. Lumber and paper products, Motor vehicles and transport equipment, Recreation and other services, Textiles wearing apparel and leather, Transport air water and other are represented by a single firm; Electronic equipment, Food, Other government services, Utilities (2 firms); Construction (3); Coal oil gas mining and Heavy manufacturing (4); Insurance (5); Agriculture (6); Other machinery and equipment and Trade (10); Other financial services (12); Communications (15); Other business services (22) and ICT services (38).

## Governments have turned to different instruments to enable data flows with trust



OECD (2020) "Mapping approaches to data and data flows", Report for the G20 Digital Economy Task Force. <http://www.oecd.org/trade/documents/mapping-approaches-to-data-and-data-flows.pdf>