Data protection & competitiveness: assessing the economic costs

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Outline

- The importance of free cross-border data flows
 - * What, why and for whom has the internet done?
- The economic impact of data flow restrictions
 - Why important for all firms?
 - Channels through which data flows have impact
- Conclusion
 - Final policy implications of data flow restrictions

Importance of cross-border data flows

* The importance of free cross-border data flows

- The economic impact of data flow restrictions
- Laws, methodology & results
- Conclusion

Importance of cross-border data flows

- The Internet has transformed international trade:
 - E-commerce: and the digitalisation of products: books, music, movies, taxis, medical equipment etc. are increasingly supplied digitally
 - Servification: global commerce and manufacturing is increasingly dependent on services, in large part thanks to the Internet and ICT
 - Global value chains: data services / ICT "glues" fragmented production lines across countries; GVCs specifically important in Asian region.

Importance of cross-border data flows

Both of these developments are driving growth

E-commerce

- Korea "standout ecommerce market" (Borderfree report)
- Indonesia to boom in the next two years (Redwing report)
- Vietnam has huge untapped potential

Servification

- ↔ +/-- half of services trade is facilitated by ICT (UNCTAD, 2009)
- Data accounts for 4-31% of production input in services
- Services & internet tool for development
- **Global value chains:** input trade; tariffs still valuable?

The economic impact of data flow restrictions

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The economic impact of data flow restrictions

- Recent proliferation of data restrictions across countries
 - Dev'd & dev'ing; recent news; impact on economy (SMEs)
- Data localization / data storage locally wider effects
 - \neq internet companies: finance, retail, manufacturing, logistics
 - Regulatory hurdles leads to <u>productivity</u> losses (TFP)
- Businesses processes rely on access to personal data
 - Business models, HR, headquarter services, marketing
- * <u>Technical data vs. personal data hard to distinguish</u>
 - Cloud computing; "Big-data"; "Internet-of-things"

The economic impact of data flow restrictions

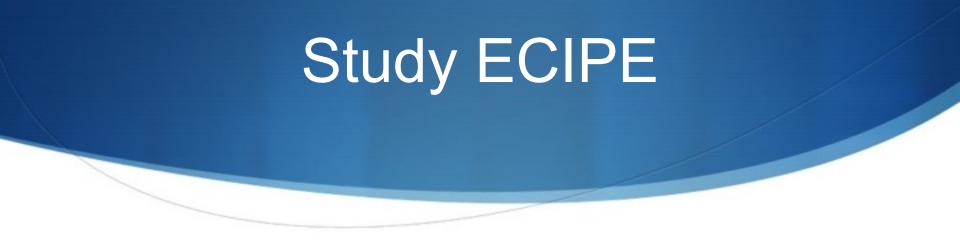
Sector	Intensity of data services use	
Communications	31.8	
Business / ICT services	6.8	
Financial services	5.0	
Machinery	4.9	
Other consumer services	4.8	
Other business services	4.0	
Distribution	3.7	
Transport	3.2	
Chemicals	0.8	

Four channels of data restrictions

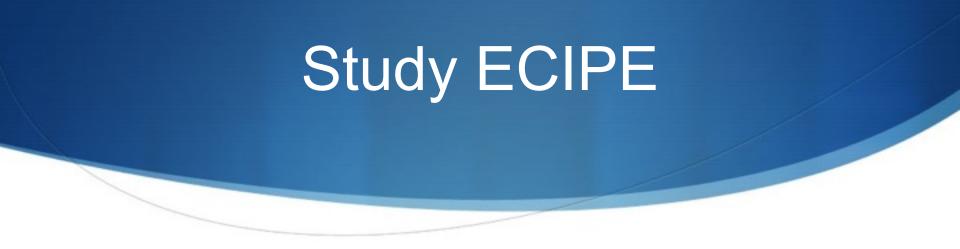
- Price increases: domestic data services providers faced with increased costs, firms are required to store and process data locally
- Trade barrier: external data service providers faced with an additional trade barrier against data processing and internet services.
- Investment channel: Indonesian exporters face higher input costs due to the regulation, they suffer a comparative disadvantage, less attractive to foreign investment (FDI)
- R&D channel: the effectiveness of R&D is affected to the extent that product development relies on customer and market data, crucial for innovations in services and goods!

Four channels of data restrictions

- In short, who are hurt?
 - Domestic producers / exporters: their exports become less competitive, due to increased production costs, in effect a productivity loss (TFP)
 - <u>Consumers</u>: price increases lead to a direct welfare loss for consumers consuming end-goods; lower investment leads to job losses.
 - Foreign service providers: incur higher production costs through required IT capacity expansion and face extra regulatory hurdles to market access.



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- Indonesia: ITE law and GR82
- Vietnam: Decree 72
- Korea: PIPA & Partial data localisation in financial services

Map out most important barriers that have an effect



- Quantifies the costs of data flow restrictions by using different models:
 - Analysing of <u>data services intensity</u> across all sectors of a typical economy such as Indonesia, Korea or Vietnam
 - Introducing <u>price increases</u> and <u>TFP losses</u> to domestic economy to estimate productivity impact of regulation
 - Estimating <u>economic impact</u> on domestic GDP, and trade and investment flows for an economy
 - By taking stock of IDN/ KOR/ VNM position in world economy

Study ECIPE

	GDP	Investment	Exports
Korea	-1.1%	-3.6%	-0.3%
Indonesia	-0.7%	-2.6%	-0.5%
Vietnam	-1.7%	-3.1%	-1.7%

Conclusion

- The Internet and cross-border data flows are rapidly transforming global trade, while driving economic growth
- Data flows will be of paramount importance to growth trajectory in next few years
- Restrictive regulation would heavily impact the domestic economy by decreasing productivity, hampering exports and discouraging investment
- Designing data protection regulation in a way that does not impede crossborder data flows will be crucial to maintain competitiveness, in search of common policy through out ASEAN?