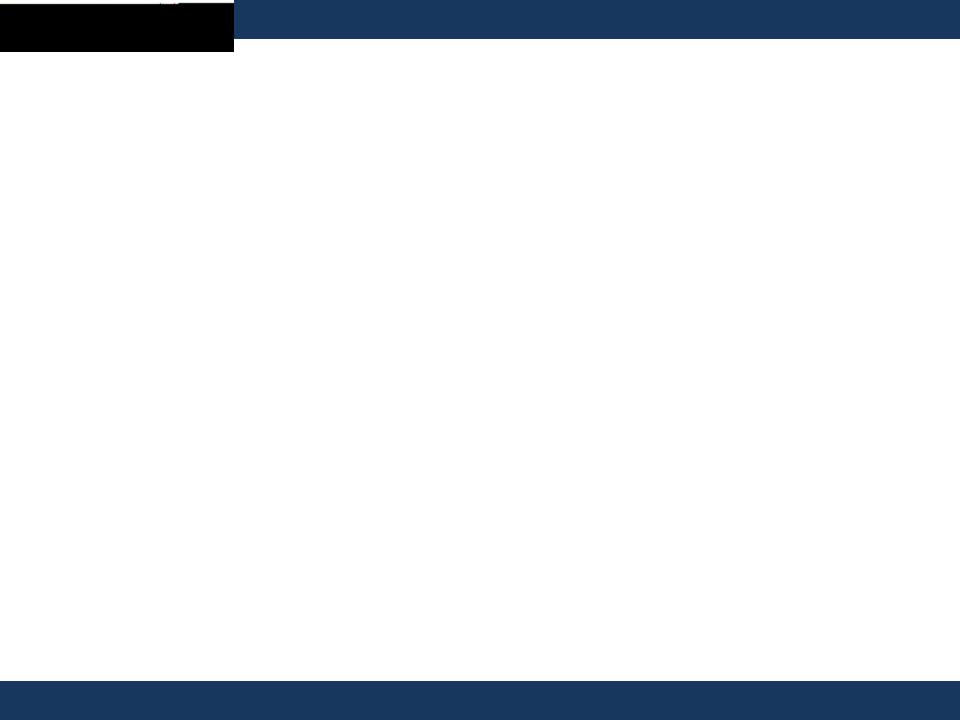
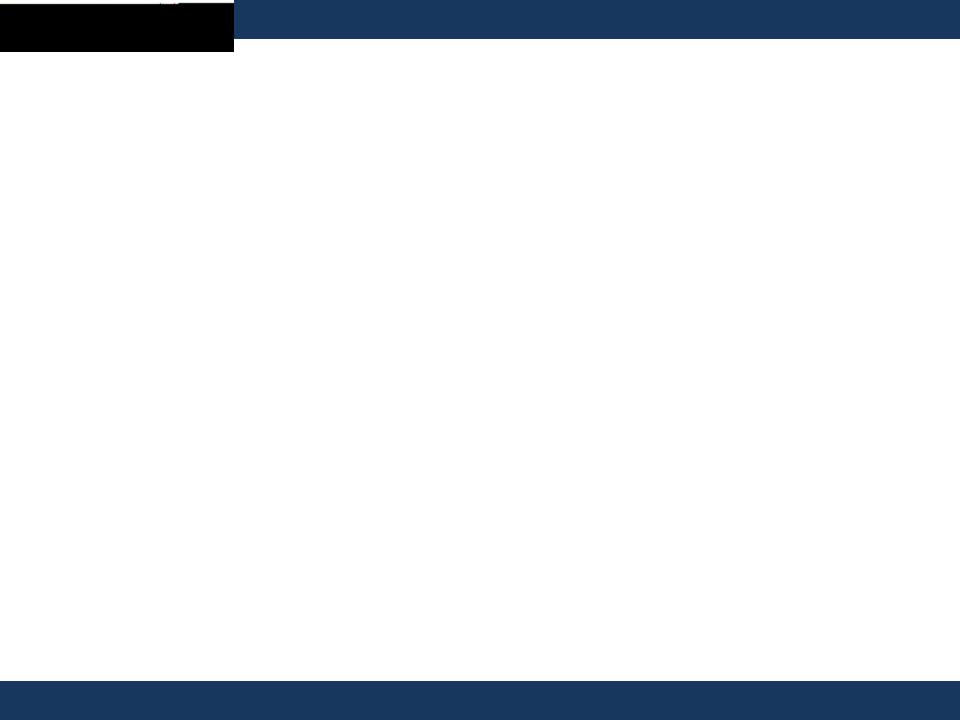
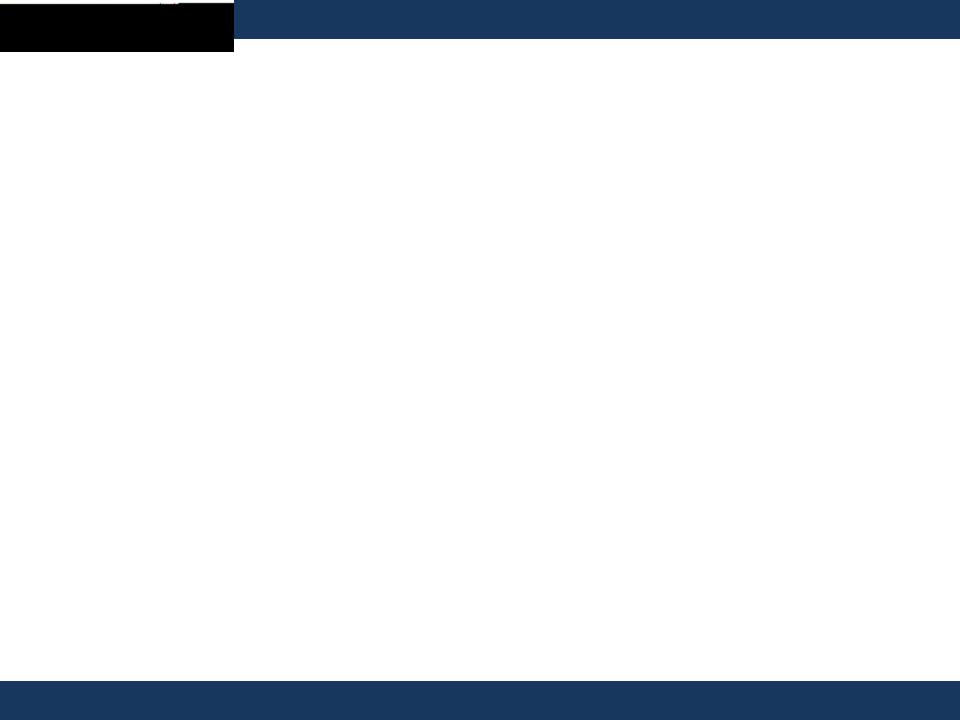
1. Motivation: The increasing relevance of time as a trade barrier;

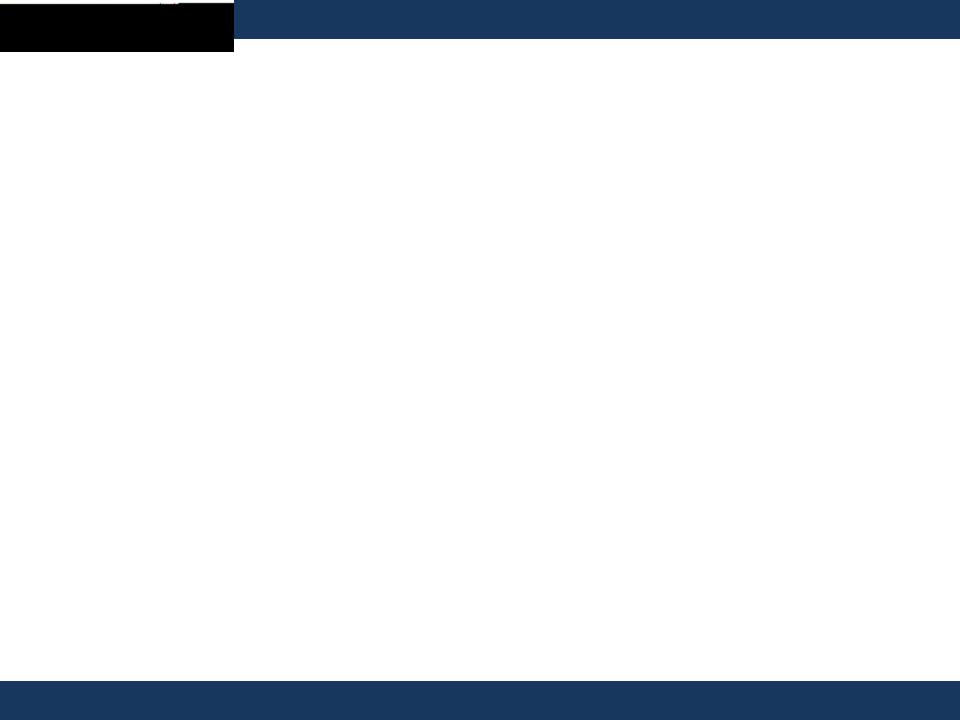












9.0. Measuring the costs of delays at

9.1. Measuring the costs of delays at Customs at the product level (Hummels and Schaur, AER, 2013)

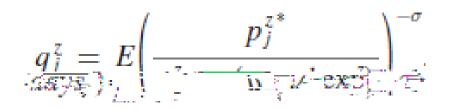
In the model, Consumers have CES type preferences over a bundle of differentiated goods:

$$U = \left(\sum_{j}\sum_{z}\lambda_{j}^{z}(q_{j}^{z})^{\theta}\right)^{1/\theta} \qquad \theta = (\sigma-1)/\sigma,$$

The time of delivery by firms is treated as a product quality dimension, according to:

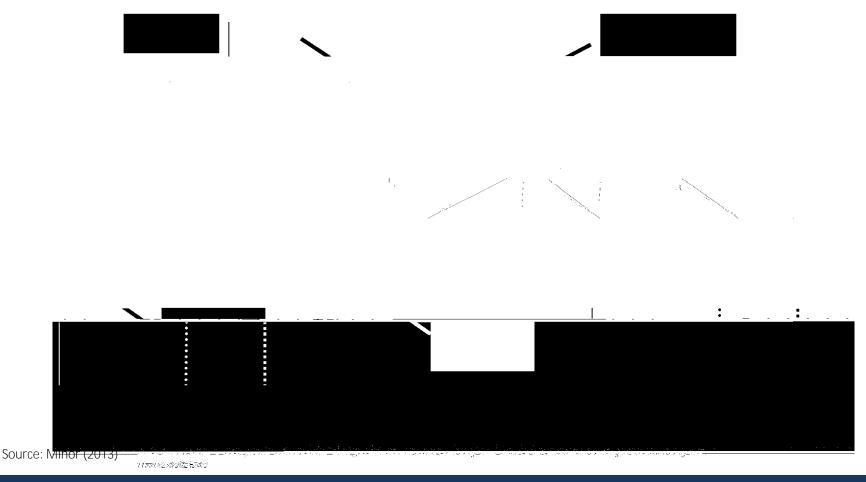


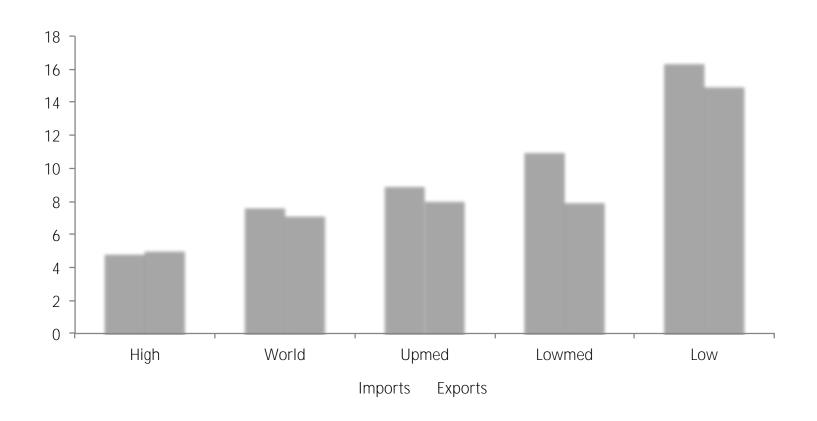
9.2. Measuring the costs of delays at Customs at the product level (Hummels and Schaur, AER, 2013)



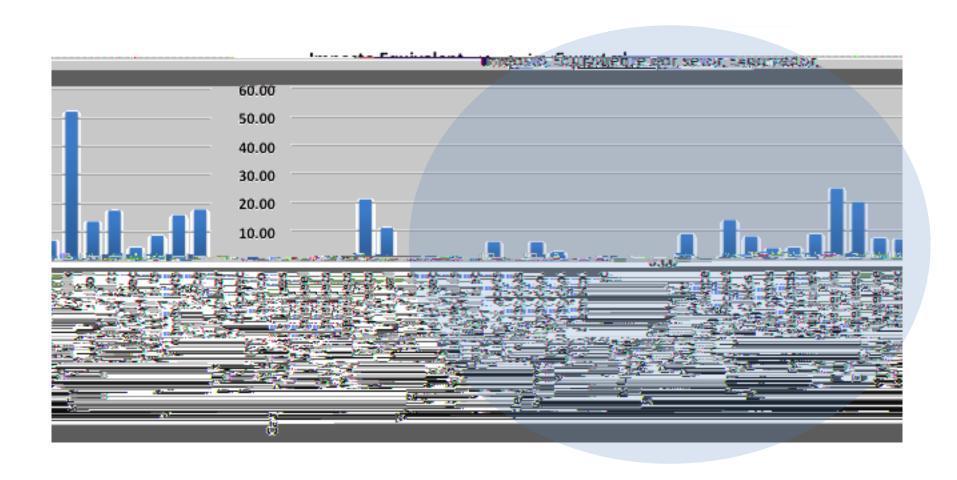
9.3. This idea can be illustrated by the graphic below. For the equilibrium quantity  $Q^*$ , consumers are willing to pay  $P^*$  for a good that arrives late. They would pay  $P^1$  for a zero delay good. Therefore, the implicit Ad valorem cost of delay will be  $(P^1-P^*)/P^*$ .

Supply Demand and Welfare Impacts (Partial Equilibrium) of Reducing a Delay in Trade





1.





## The architecture of Global Value Chains in 2011, from the perspective of VS, broken down by factor of production

VS						
	Land	Skilled	Unskilled	Capital	NatRes	VS
High						
High Upmed						
Lowmed						
Low						

- 1. Trade in intermediates is reality in the four country groups presented (VS);
- Global/regional value chains are concentrated in manufacturing sectors (Capital);
- Unskilled labor tasks tend to be offshored at a higher degree in comparison to skilled labor tasks...(Unskilled/Skilled)

Source: GTAP-9 (2011)

1.	Rich countrie	s are predominantly s	suppliers of capit	tal/skilled lahor in	ntensive tasks to	the
1.	Mich Countino	s are predominantly s			iteriarve taaka to	tric

Hertel et al (2001) and Fugazza & Maur (2008),

CES type demand equation for good "i", exported from country "r"

(%)	High	Upmed	lowmed	Low
VS				
VS1				
VS+VS1				

2\/	(%)
٧J	( / 0 )

	Land	Skilled	Unskilled	Capital	NatRes	VS
High Upmed Lowmed						
Upmed						
Lowmed						
Low						

#### VS1(%)

	Land	Skilled	Unskilled	Capital	NatRes	VS1
High						
Upmed						
Lowmed						
Low						



quality has risen in a large number of OECD countries and some emerging ), becoming, once again, a hotly debated policy concern;

increasing inequality not only in wages but also on other factors of the is mixed

mixed

VS (backward linkages):

# Breaking down VS and VS1 confirms the Grossman and Rossi-Hansberg

### Final Remarks

### Merci!

(Lucas.ferraz@fgv.br)