



university of
 groningen

faculty of economics
 and business

Occupations at Risk: The Exposure of UK Jobs to Brexit's Trade Effects

Bart Los and Pieter IJtsma

(University of Groningen, Groningen Growth and Development Centre)

“The Economic Implications of Brexit on European Regions”,
Brussels, Committee of the Regions, February 22, 2019

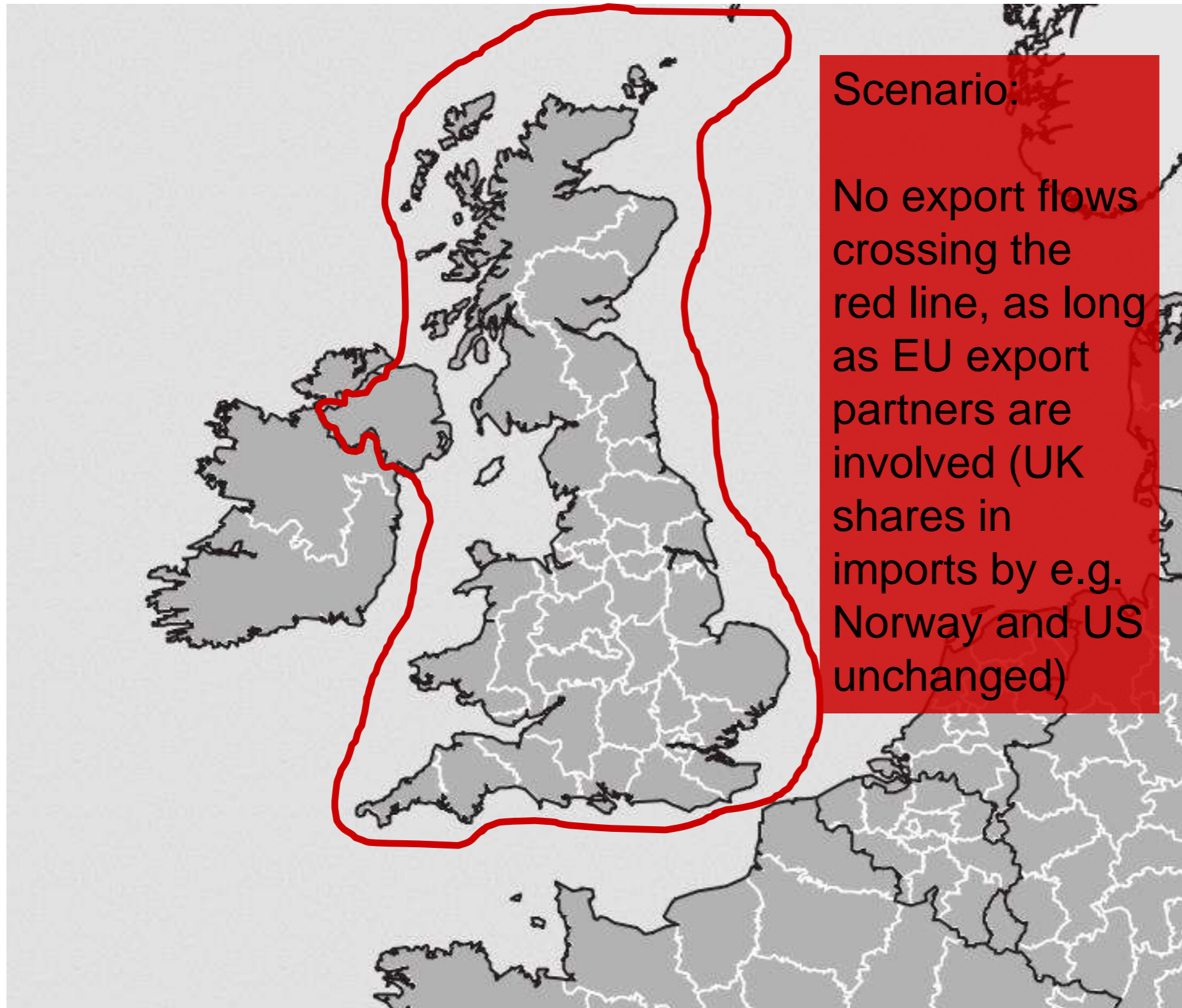


“Which shares of UK employment (by occupation) are at risk as a consequence of Brexit-related trade barriers?”

which is not identical to

“Which shares of employment will be lost as a consequence of Brexit?”

- No attention to counteracting substitution effects (UK labor substituting for imports from EU)
- No attention to additional effects of reductions in FDI (e.g. Swindon-Honda's no longer sold to UK or US customers)



Global IO-tables (from the World Input-Output Database, 2016 release) allow for mapping of gross exports flows on employment (see Timmer et al., 2014, *JEconPersp*)

“Employment exposed to Brexit”: Difference between actual UK employment and employment without UK to EU exports



Novel aspect: focus on occupations

- If specific sectors are hit hard by Brexit, one could argue that laid-off workers could be absorbed by other sectors
- Situation comparable to effects of a move from autarky to free trade causes despecialization in a sector in Ricardian or Heckscher-Ohlin trade models
- Implicit assumption: labour is perfectly mobile between sectors
- Reality: managers can move from one sector to another one, and manual production workers maybe as well, but
- Managers cannot do manual production jobs, and vice versa...



- New database that can be appended to WIOD, cross-tabulation of jobs by occupation and industry-of-employment (e.g. number of clerical support workers in the UK machinery industry)
- Database described in Timmer, Miroudot and De Vries (2018), “Functional Specialization in Trade”, *Journal of Economic Geography* (great paper, with lots of policy implications!); ISCO2008 classification.
- Data used for this presentation: for 2013 (most recent data available). Supply-chain effects included.
- Assumption: if 5% of output in a given industry is “at risk”, 5% of employment in all occupations is at risk.



Results for 1-digit ISCO08 categories

		#jobs (2013), in 000s	at risk
0.	Armed forces occupations	84	1.2%
1.	Managers	3,197	7.5%
2.	Professionals	7,277	6.6%
3.	Technicians and Associated Professionals	3,756	6.7%
4.	Clerical support workers	2,921	7.7%
5.	Services and sales workers	5,589	3.1%
6.	Skilled Agricultural, Forestry and Fishery Workers	334	11.7%
7.	Craft and Related Trades Workers	2,505	7.5%
8.	Plant and Machine Operators and Assemblers	1,452	10.9%
9.	Elementary Occupations	2,623	7.4%
	<i>Total</i>	<i>29,738</i>	<i>6.6%</i>



Results for detailed ISCO08-classes, occupations at highest risk (100,000 jobs or more)

	#jobs, 000s	at risk
Assemblers	112.7	15.6%
Architects and designers	256.1	14.0%
Blacksmiths and toolmakers	123.5	13.9%
Manufacturing Labourers	250.2	13.0%
Market gardeners and crop growers	186.7	12.1%
Food etc. machine operators	125.9	12.0%
Other craft workers	109.3	11.9%
Authors, journalists and linguists	141.7	11.8%
Finance professionals	417.7	11.4%
Sales agents and brokers	252.4	11.2%



Results by gender, all occupations

	#jobs, 000s	at risk
Jobs held by male workers	15,917	8.0%
Jobs held by female workers	13,822	4.9%

Numbers of jobs in 2013