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Brexit Impacts on Agricultural Production Patterns on Trade Flows

Thomas Heckeleei

Selected Paper prepared for presentation at the International Agricultural Trade Research Consortium's (IATRC's) 2016 Annual Meeting: Climate Change and International Agricultural Trade in the Aftermath of COP21, December 11-13, 2016, Scottsdale, AZ.

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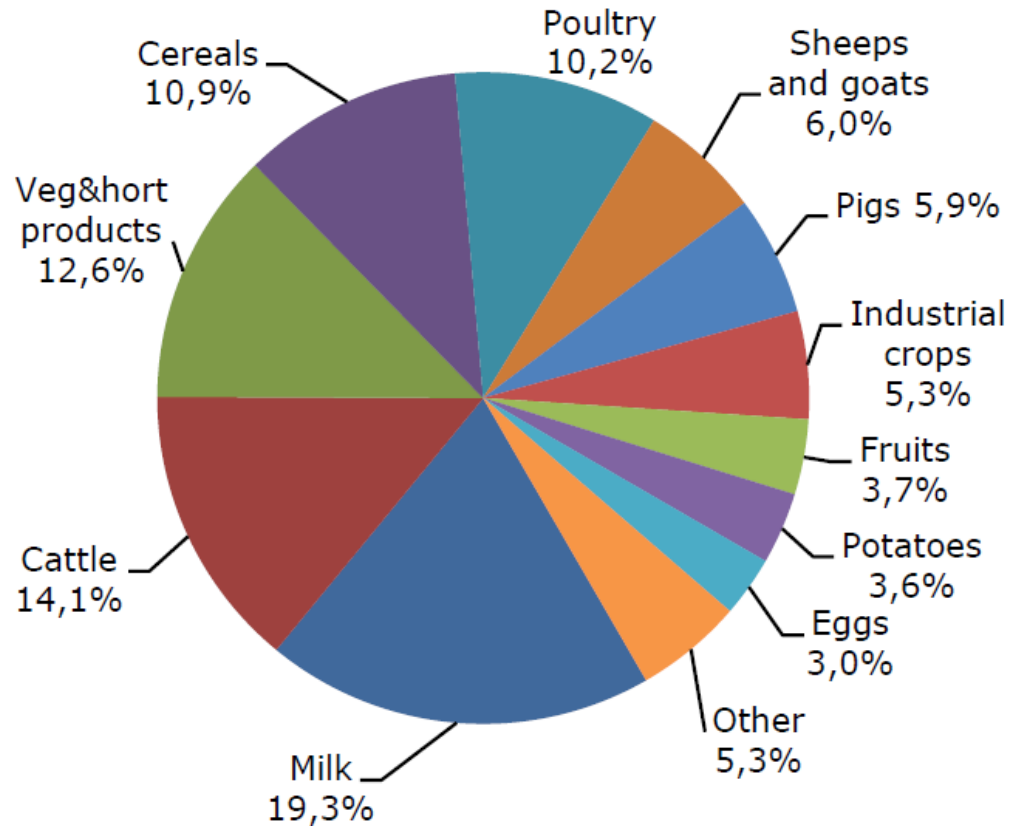
Brexit Impacts on Agricultural Production Patterns and Trade Flows

Thomas Heckeley
University of Bonn

Organised session at IATRC annual meeting

December 11, 2016
Scottsdale, AZ, USA

UK-Agriculture



Output components (2009-2013 average); values at constant producer prices

EU Commission 2014

UK to EU share of all UK exports

Percent of all exports 2014 and the value-added share of industry including energy and construction⁴

Mining and quarrying	86.5	8.0
Wood and products of wood and cork, except furniture; articles of straw and plaiting materials	77.6	0.7
Textiles, wearing apparel, leather and related goods	70.3	1.9
Paper and paper products	69.7	1.4
Agriculture, hunting, forestry and fishing	68.4	n.a.
Rubber and plastics products	65.3	3.1
Printing and the reproduction of recorded media	46.6	1.5
Motor vehicles, trailers and semi-trailers	44.0	3.6
Furniture; other manufacturing	43.7	3.0
Machinery and equipment n.e.c.	38.6	4.0
Other transport equipment	28.1	3.0
Basic metals	16.8	1.2
Memorandum: metal and electrical engineering industry ⁵	35.7	22.1

UK trade balances with EU

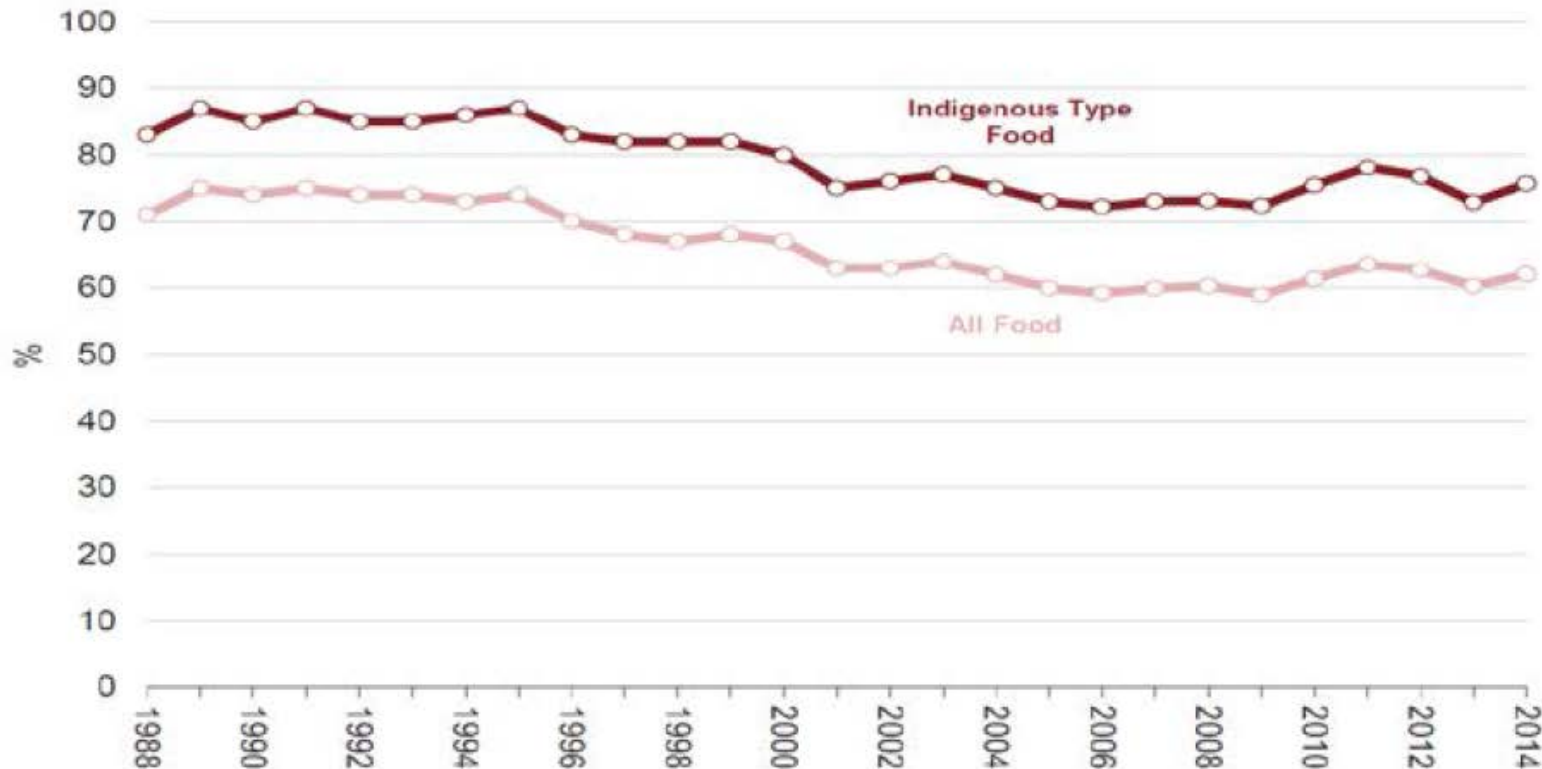
2014, million \$

Motor vehicles, trailers and semi-trailers	-44,422.4
Food, beverages and tobacco	-22,935.4
Computer, electronic and optical products	-15,015.3
Machinery and equipment n.e.c.	-10,110.5
Basic pharmaceutical products and pharmaceutical preparations	-9,532.2
Chemicals and chemical products	-8,795.8
Electrical equipment	-6,205.5
Printing and the reproduction of recorded media	54.3
Other transport equipment	533.8
Coke and refined petroleum products	1,220.9
Extraction of crude petroleum and natural gas	24,278.4
Memorandum: metal and electrical engineering industry	-84,336.6

Busch and Matthes, 2016

UK food self sufficiency

Figure 3 UK food production to supply ratio, 1998-2014 (by value)



Lang and Schoen 2016

UK-Food origins

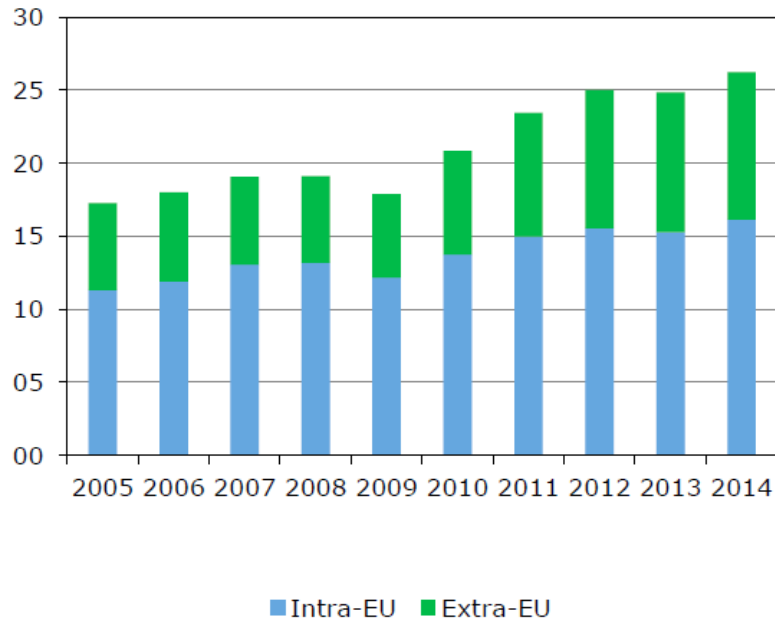
Figure 4: **Origins of food consumed in the UK 2014, by value**



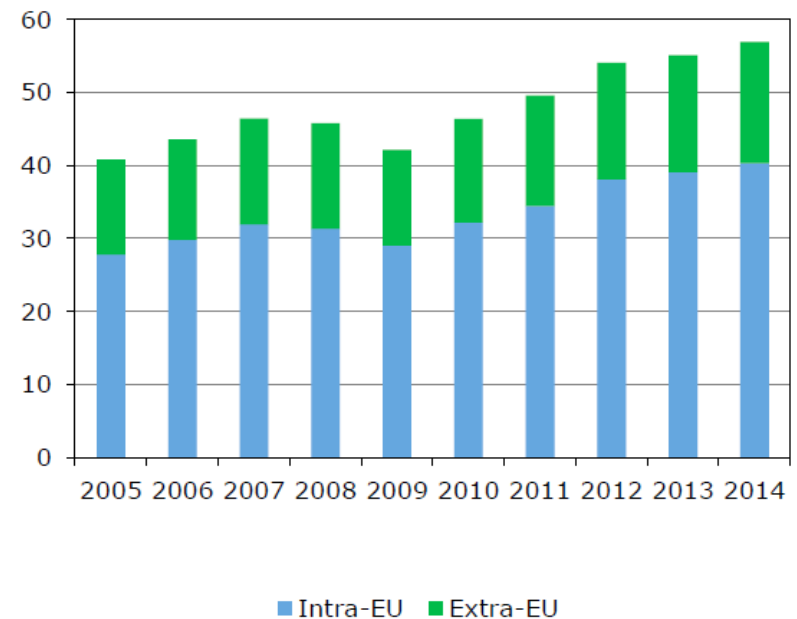
Lang and Schoen 2016

EU as supplier/buyer for UK food

UK exports of agrifood products to EU and non-EU countries (€bn)



UK imports of agri-food products from EU and non-EU countries (€bn)



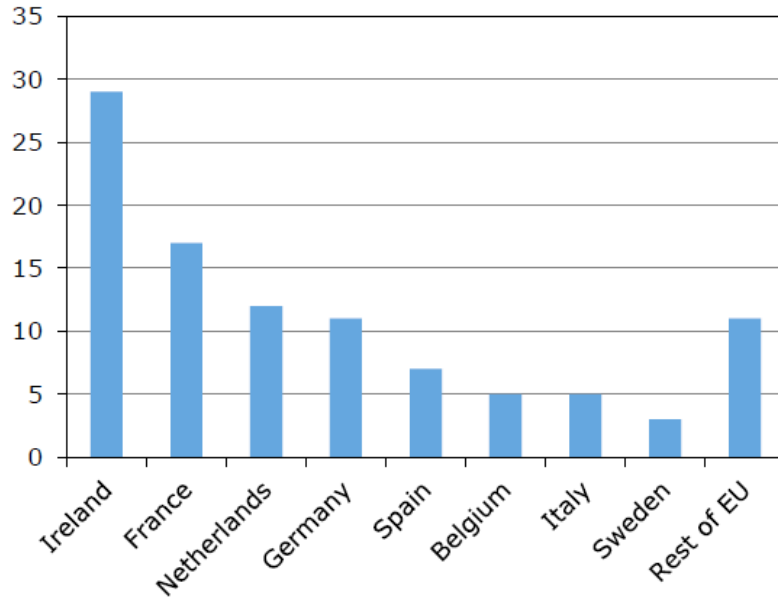
van Berkum et al., 2016

EU as supplier/buyer for UK food

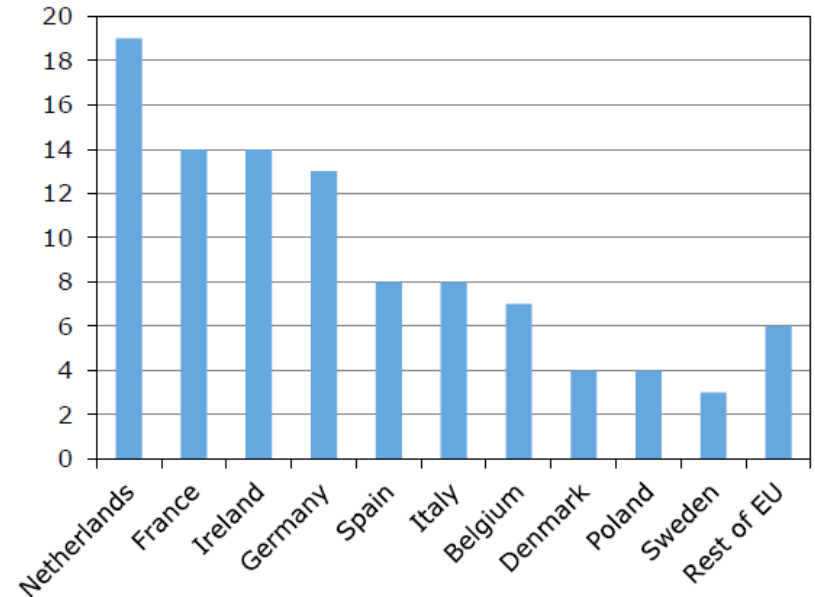
2014 provisional data '000 tonnes	Cereals	Refined sugar	Fresh veg	Fresh fruit	Beef and veal	Pigmeat	Mutton and lamb	Poultry meat
Production ('000 tonnes unless otherwise specified)	24,468	1,446	2,796	427	871	820	307	1,648
Imports from the EU	2,645	476	1,925	1,452	237	726	17	465
Total imports	4,018	1,175	2,179	3,614	324	737	112	495
EU imports as % of total imports	65.83%	40.51%	88.34%	40.18%	73.15%	98.51%	15.18%	93.94%
Exports to the EU	1,795	232	103	97	125	157	116	237
Total exports	2,471	326	118	99	134	219	117	331
EU exports as % of total exports	72.64%	71.17%	87.29%	97.98%	93.28%	71.69%	99.15%	71.60%
Total supply	26,016	2,295	4,857	3,942	1,061	1,338	302	1,812
EU imports as % of total supply	10.17%	20.74%	39.63%	36.83%	22.34%	54.26%	5.63%	25.66%

UK's major trading partners in EU (food)

UK exports to EU MS, 2014
(% of 16 bn euro)

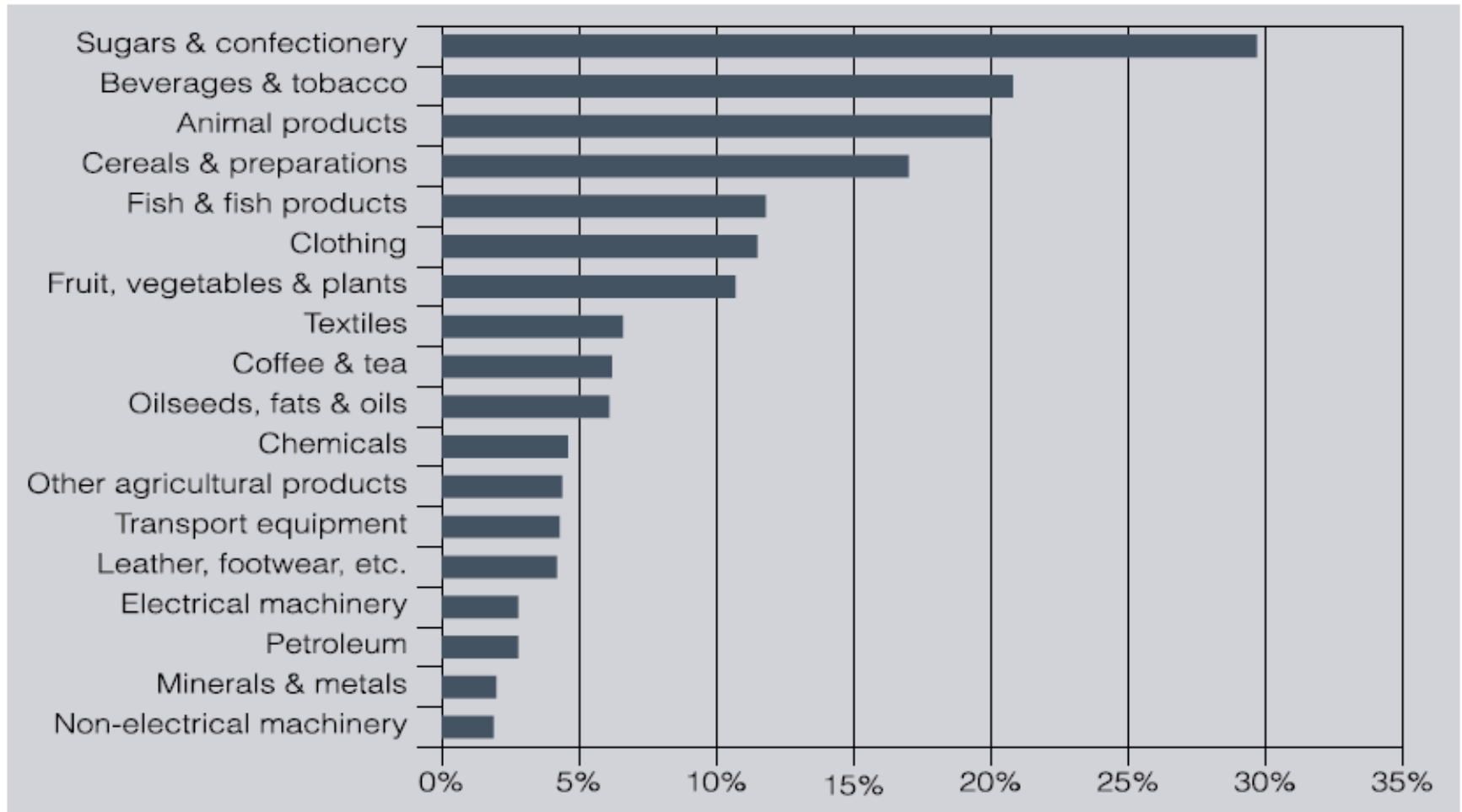


EU imports from EU MS, 2014
(% of 40 bn euro)



van Berkum et al., 2016

Tariff rates applied by EU



Lang and Schoen 2016

UK-EU options

The UK's relationship with the EU	Agriculture 'in' an agreement	Agriculture 'out'	
		Existing most-favoured-nation (MFN) tariffs	Unilateral tariff reduction by the UK
Customs Union			
European Economic Area			
Simple Free Trade Area (FTA)			
No formal link	Not Valid		

Swinbank 2016

Overview of scenarios

Name/label of scenarios	Agricultural policy assumptions		
	No changes in Rural Development Policy plus ...		
	100% Direct payments (DP)	50% Direct payments	No Direct payments
Baseline	Benchmark (existing CAP applies)	Not considered	Not considered
FTA between UK and EU	FTA+100%DP	FTA+50% DP	FTA+0%DP
WTO default position	WTO+100%DP	WTO+50%DP	WTO+0%DP
UK Trade Liberalisation	UK TL+100% DP	UK TL+50%DP	UK TL+0%DP

van Berkum et al., 2016

Impacts of FTA between UK, EU

van Berkum et al., 2016



Percentage difference in price, production, consumption and trade in Scenario 1 (FTA, 5% trade facilitation costs and a 3% negative price wedge for sheep meat) a) compared to the baseline scenario, 2025

	Soft wheat	Barley	Rapeseeds	Sugar	beef	pork	Poultry	Eggs	Sheep	Raw milk	Butter	cheese	SMP	WMP
Price	5.0	5.0	5.0	4.9	4.6	4.9	4.9	4.5	2.3	4.3	5.0	5.0	4.9	5.5
Production	1.2	1.2	0.1	1.1	1.1	0.7	1.5	-0.8	1.1	1.1	0.1	0.1	18.9	7.8
Use	1.2	0.4	1.8	0.0	-0.1	-0.4	0.0	-0	2.2		-0.2	-1.1	0.0	0.0
Net exports b)		9.5	-7.4						-48.7				1333	
Net imports b)	1.6			-0.6	-17.9	-2.1	-18.2	0.4			-0.6	-2.5		-62.3

a) See Section 5.2.1 for explanation; b) net exports stands for a positive trade balance. A positive sign means an increase (exports increase) and a negative sign means a decline of the positive trade balance. Net imports stands for a negative trade balance. A positive sign means the negative trade balance becomes more negative, and a negative sign means the negative trade balance becomes less negative (imports decline).

WTO default impacts

van Berkum et al., 2016



Percentage difference in price, production, consumption and trade in Scenario 2 (WTO default, 8% trade facilitation costs, UK loses access to the EU's preferential import regimes) compared to the baseline scenario, 2025

	Soft wheat	Barley	Rapeseeds	Sugar	beef	pork	poultry	Eggs	Sheep	Raw milk	Butter	cheese	SMP	WMP
Price	8.0	8.0	8.0	11.5	7.4	7.8	8.1	7.1	8.8	7.2	8.8	8.3	7.8	9.3
Production	2.0	2.0	0.2	2.9	1.5	1.2	2.5	-1.3	6.8	2.0	0.4	-0.2	32.5	13.5
Use	2.1	0.6	2.9	-0.1	-0.1	-0.6	0.2	-0	-0.8		-0.4	-1.9	0.0	0.0
Net exports a)		16.6	-12.4						326				2285	
Net imports a)	2.4			-1.5	-26.4	-3.5	-28.9	0.6			-1.4	-4.1		-107

a) Net exports stands for a positive trade balance. A positive sign means an increase (exports increase) and a negative sign means a decline of the positive trade balance. Net imports stands for a negative trade balance. A positive signs means the negative trade balance becomes more negative, and a negative sign means the negative trade balance becomes less negative (imports decline)

UK Trade liberalisation impacts

van Berkum et al., 2016

The impact of a UK Trade liberalisation scenario (50% border tariff reduction and 8% trade facilitation costs), in percentage difference in price, production, consumption and trade compared to the baseline scenario, 2025

	Soft wheat	Barley	Rapeseeds	Sugar	beef	Pork	poultry	Eggs	Sheep	Raw milk	Butter	Cheese	SMP	WMP
Price	7.9	8.0	8.0	-4.6	-14.9	-3.3	-6.6	8.7	-4.7	2.2	-0.6	3.9	8.0	3.8
Production	1.3	1.3	0.5	-1.9	-6.6	-1.9	-2.5	-1.2	-6.6	-0.7	-1.9	0.5	-2.6	-1.7
Use	-2.3	0.4	2.9	0.0	0.6	-1.7	0.1	-0	-1.8		0.1	-0.9	0.0	0.0
Net exports a)		10.8	-10.0						-206				-181	
Net imports a)	-17.2			1.0	106	-1.3	29.0	0.5			2.2	-2.7		13.5

a) Net exports stands for a positive trade balance. A positive sign means an increase (exports increase) and a negative sign means a decline of the positive trade balance. Net imports stands for a negative trade balance. A positive signs means the negative trade balance becomes more negative, and a negative sign means the negative trade balance becomes less negative (imports decline).

Take home messages

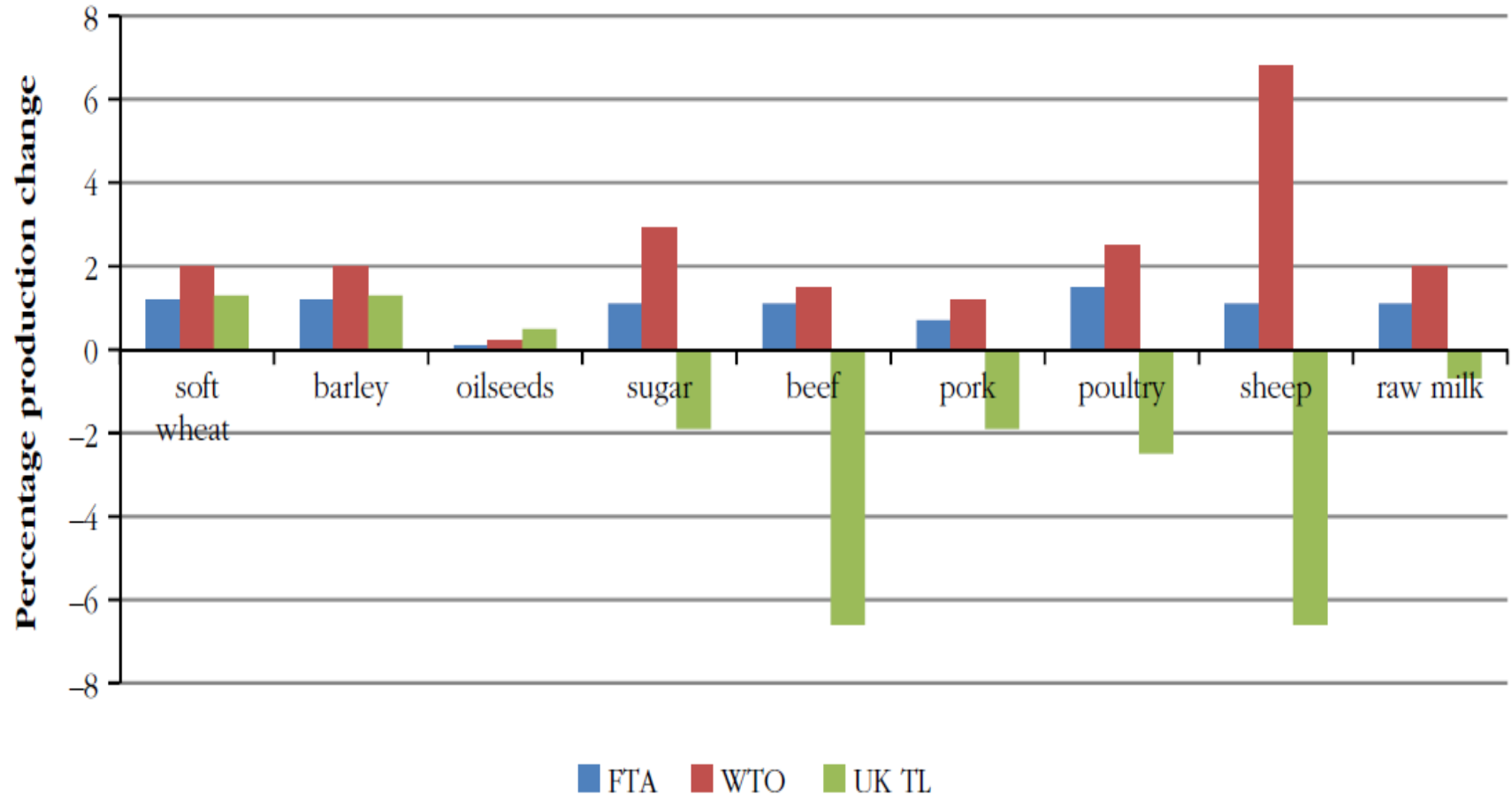
- UK substantial net importer for food overall and for F&V and meat in particular
- EU core trade partner, especially on import side (increasing share over last years)
- FTA and even more WTO type scenarios on trade relationships imply higher food prices and generally increased self-sufficiency rate
- Unilateral UK trade liberalization leads to differentiated price developments with opportunities for foreign exporters in meat
- Policy scenario and transition remains still very uncertain

Price changes in comparison



Jongeneel et al., 2016

Production changes in comparison



Jongeneel et al., 2016

- Busch, B. and Matthes, J. (2016): Brexit – The Economic Impact A Meta-Analysis. IW Report 10/2016
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- Lang, T. and Schoen, V. (2016): Food, the UK and EU: Brexit or Bremain? Food Research Collaboration Policy Brief
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