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Brexit and International Agricultural Trade

Lorraine Mitchell

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USDA-ERS

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The UK's Place in the EU

- The UK has voted to withdraw from the EU
- The UK is 12 percent of the population of the EU, and 16 percent of the GDP
- One of the few large countries that is a net contributor to the EU budget
- 44 percent of UK exports go to the EU, and 2/3 of its agricultural trade is with the EU

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The Terms of the UK Withdrawal from the EU

- Two years from the invocation of Article 50, which happened in March 2017
- Many issues to negotiate, i.e. trade agreement
- The single market is more than trade
 - Regulation
 - Product standards
 - Tax incentives
 - Professional/transactional licensing/insurance
 - Free movement of labor
- EU exit payment

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Some Brexit Issues are Unique to Agriculture

- The UK is not food self-sufficient
 - Seventy percent of UK land in agricultural production
 - Still, agricultural and food imports are almost 3 times as high as agricultural and food exports
- Farmers receive quite a bit from the CAP.
 - CAP style payments will continue for two years after Brexit
 - Unclear what happens after that
 - Widespread view that payments will fall

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A Number of Distinct Potential Effects

- Trade – Tariffs
 - Particular concern that failed negotiations will mean that the EU imposes MFN tariffs on UK goods
 - Treaty of Lisbon
- Trade regulations, harmonization
- Macro shocks
 - Reduction of jobs in financial sector (GDP of financial sector =35 billion GBP)
 - Lump sum payment (20 – 60 billion euros)
 - Reduction in labor supply

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Other Work on Brexit

- Boulanger and Phillipidis (2015) a net welfare loss to the UK
 - Assumes EU –Canadian tariffs are applied to the UK, and that the UK loses the intra-EU trade cost reduction of 2-5 percent.
- IMF (2016)
 - an EFTA type scenario would result in a 1.5 percent decline in UK GDP
 - MFN tariffs (no agreement) would lead to a 4.5 percent decline
- Van Berkum et al. (2016)
 - MFN or FTA with EU lead to increased prices and farm incomes
 - Trade liberalization leads to a decline in farm incomes, unless direct payments are preserved.

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Why Do This?

Arguments from the Referendum

- Reduced fiscal pressure from net payments to EU
- More trade with third countries
 - Can negotiate to favor the UK's comparative advantage
 - Can align product regulations more closely with UK preferences
- Less trade, more domestic production
- Higher wages with lower labor supply

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How Do We Begin to Weigh Different Aspects of Trade?

- Where do the advantages of EU membership come from?
 - What is the marginal effect of an increase in tariffs?
 - What is the marginal effect of dropping out of the EU, beyond tariffs
 - What is the marginal effect of joining EFTA, above and beyond belonging to the EU
- What is the effect of distance/contiguity on agricultural trade
 - Is distance so determinative of trade costs that it outweighs RTA benefits?
- Are these costs and benefits different for the UK?

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Basic Gravity Model

- Poisson model (Silva and Tenreyro, 2006)
- Fixed effects
- Agricultural Imports = \log Distance + Contiguity + Common Language + EU Membership + EFTA Membership + \log Tariff + Other RTA membership + Σ Fixed Effects_{importers} + Σ Fixed Effects_{exporters}
- Interactive terms for the UK (either exports or imports)

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Data

- Global Trade Atlas for agricultural imports – 75 countries
 - Major players
 - 2015
 - WTO definition of agriculture
- CEPII data for distances, language, contiguity
- WITS tariff data – simple average over agricultural tariff lines, 2015
- Binary variables for RTA membership (WTO website)

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Gravity Coefficients, Overall

Variable	Coefficient	P	Significance
Contiguity	1.157	0	***
Log distance	-0.225	0	***
Common Language	0.268	0.008	***
EU Member	0.478	0.037	**
EFTA Member	1.592	0	***
Log tariff	0.214	0.694	
RTA	0.502	0	***

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Gravity Coefficients, UK Interactive Terms

Variable	Coefficient	P	Significance
UK Contiguity	0.905	0.038	**
UK Distance	0.094	0.513	
UK Common Language	0.046	0.865	
UK EU member	0.061	0.842	
UK Log Tariff	-1.108	0.491	
UK RTA	-0.08	0.719	
UK Importer	1.528	0.222	
UK Exporter	0.944	0.453	

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Discussion

- Determinants of UK agricultural trade are not that different from the determinants of agricultural trade in the rest of the world
- Exception is contiguity
 - This represents trade with Ireland
 - Effect of contiguity is greater than that of two random neighboring countries
 - Major issue: what is to become of this trade, nature of the border, implications for NI
 - Can't just add coefficients for UK and overall contiguity – see Shang et al. (2017)

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Discussion (cont.)

- Sources of trade policy benefits
 - High marginal benefits from being an EU member
 - High marginal benefits to being an EFTA member
 - Benefits to RTA similar to those of being in the EU
 - Benefits of just tariff reductions less clear
- Distance and contiguity are very important
- Adding the benefits of small distances to the benefits of being in the EU might require a better RTA than average

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Future Directions

- Improve tariff data
- Disaggregate
- Add structural components, like GDP
 - Methodological challenges
 - May never be able to measure the sum of all of the possible shocks in a partial equilibrium model
- More investigation of the relationship between UK and Irish trade

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