



Impact of Brexit on the Irish Agricultural Sector

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Overview

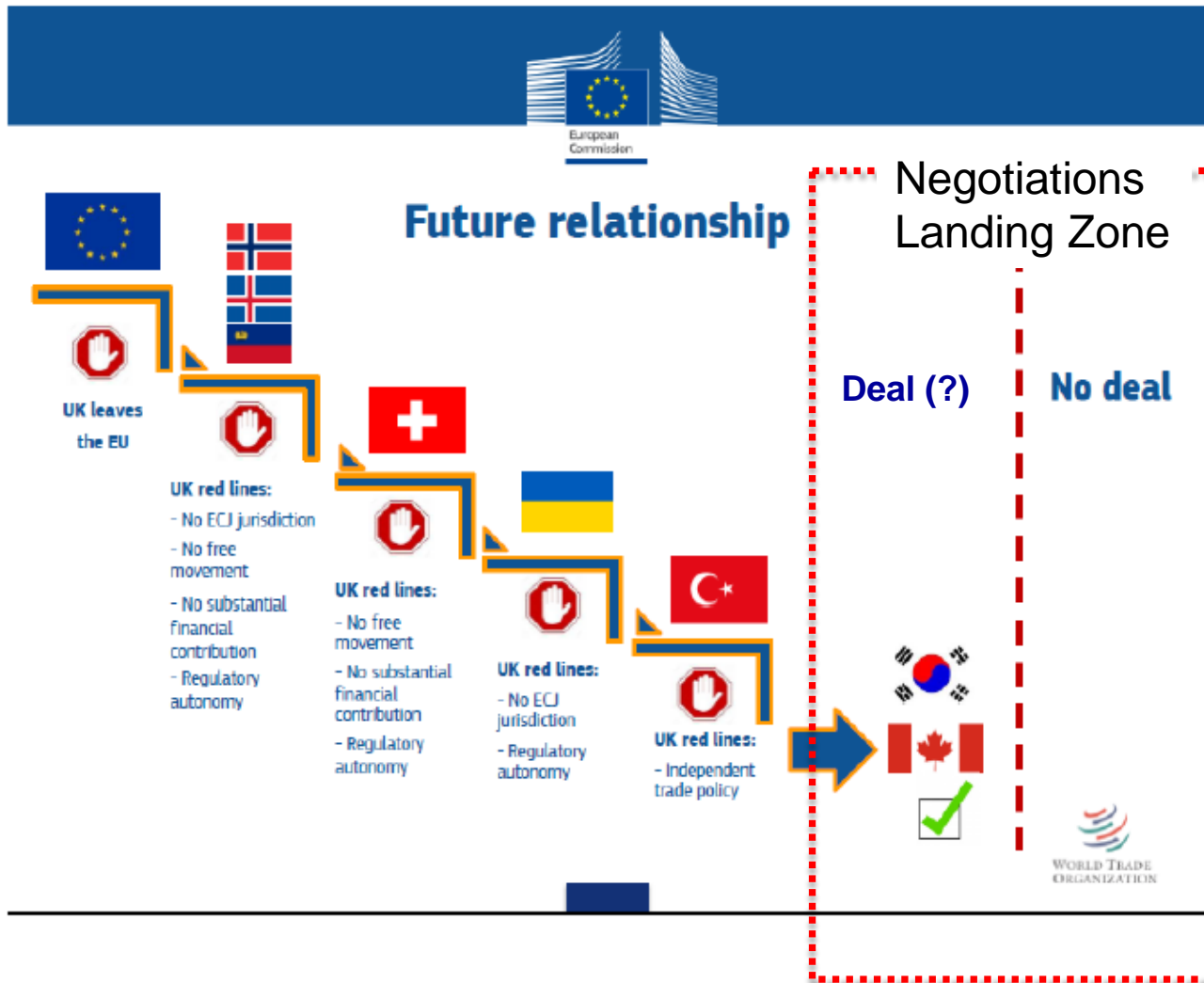
- Brexit means Brexit
 - But what does Brexit really mean ?
- Channels through which Brexit will affect Irish Ag.
- Which sectors are likely to be most affected?
- Impact analysis
- Conclusions

“Brexit means Brexit”

But what does Brexit really mean ?

- Future UK-EU trade relationship remains unclear
- But UK Government’s *current* “red lines” are known
- What post-Brexit seems inevitable are
 - Tariff Barriers (?)
 - Non-Tariff Barriers
 - CAP Budgetary implications
- Draft Council Guidelines on future FTA (March 7)
 - Possibility for greater progress if red lines move/change

Barnier's "Steps of Doom"





Possible Brexit Outcomes ?



Very Soft Brexit:

- UK agrees to stay in SM & CU
- No tariffs
- No non-tariff barriers
- UK contribute to EU Budget
- UK unable to do FTA with others

Softer Brexit:

- UK and EU reach an FTA
- No tariffs apply to UK-EU trade
- UK leaves SM and CU
- Non-tariff barriers
- UK might contribute to EU Budget?

UK free to do future FTA
others Countries

**Negotiations
Landing Zone**

Hard Brexit A:

- UK applies EU WTO Bound Tariffs
- EU treats UK like a WTO member
- Non-tariff barriers & Tariffs
- UK no longer contributes to EU Budget

Hard Brexit B:

- EU treats UK like a WTO member
- UK liberalises unilaterally or via FTA with other non-EU countries
- Non-tariff barriers
- UK no longer contributes to EU Budget

“Brexit means Brexit”

1st channel of impact

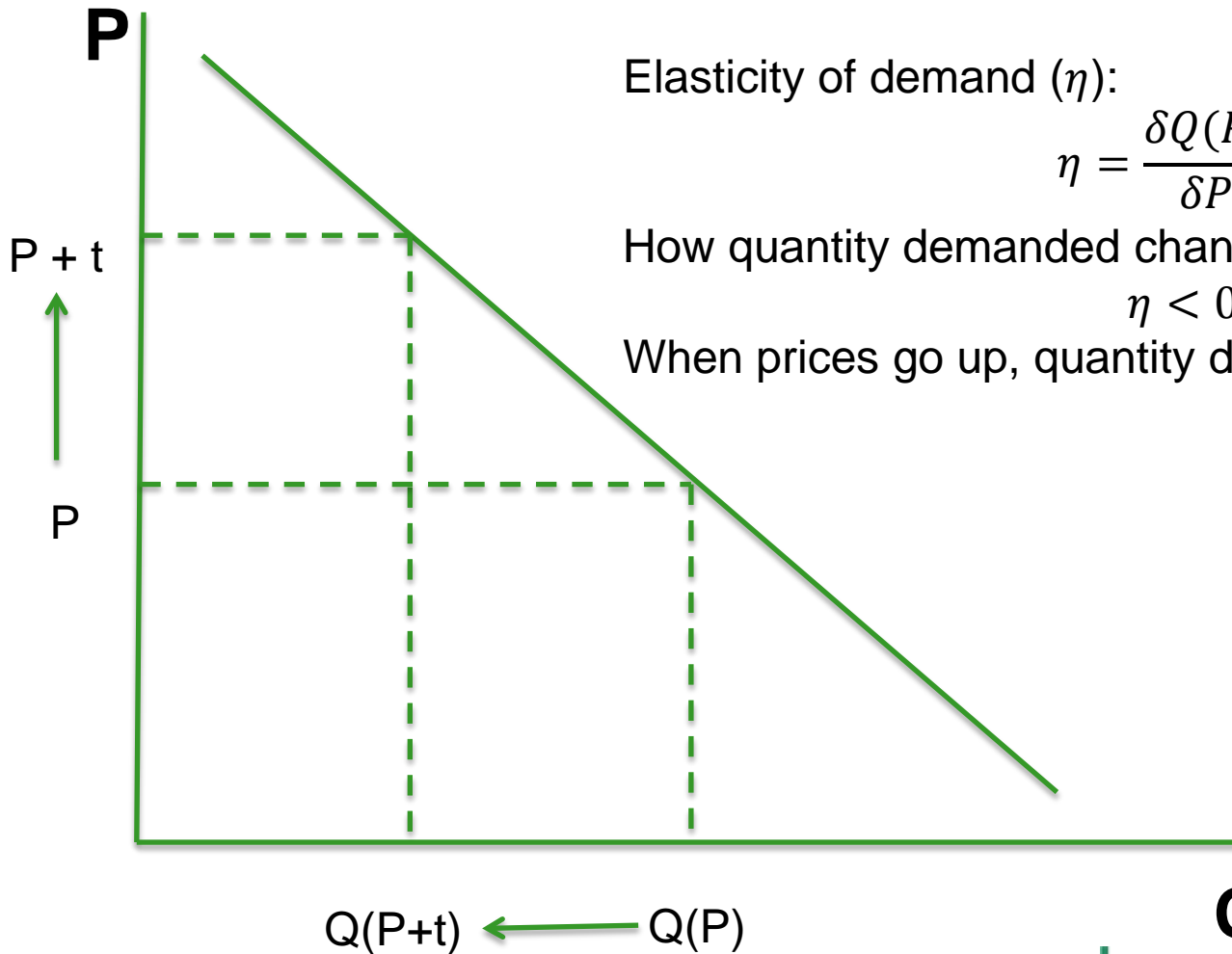
- Lower UK contributions to EU budget
- Will reduce the size of EU budget
 - Unless MS agree to increase contributions
 - Mood music suggests increased contributions will be difficult
- Agriculture accounts for ~40% of EU spending
 - EU Budget cut suggest lower CAP spending
- Lower CAP spending in Ireland (as a result of Brexit)
 - will lead to lower Irish farm incomes (Channel #1)

“Brexit means Brexit”

2nd Channel of impact

- Higher trade costs between EU MS and UK due to
 - Possible tariff barriers
 - **Probable** Non-tariff barriers
- Assuming import demand curves slope downwards
 - i.e. you import less as import prices increase
- What will this mean ?

Econ 101: Demand Curves



Elasticity of demand (η):

$$\eta = \frac{\delta Q(P) P}{\delta P Q}$$

How quantity demanded changes when prices change

$$\eta < 0$$

When prices go up, quantity demand goes down

“Brexit means Brexit”

2nd Channel of impact

- Higher trade costs between EU MS and UK due to
 - Possible tariff barriers
 - **Probable** Non-tariff barriers
- Because import demand curves slope downwards
 - i.e. you import less as import prices increase
- **This will mean**
 - Lower UK exports to Ireland (and the EU)
 - Lower Irish (& other EU) exports to the UK

“Brexit means Brexit”

2nd (3rd and 4th) Channel of impact

- Brexit could cause loss of *preferential* market access to UK
 - Irish (EU) exports to UK will decline
 - Irish exports to less EU profitable markets will have to grow
 - Diverted Irish exports will negatively affect EU market prices
 - Irish Ag output volume will also decline (due to lower farm prices)
- Lower Irish farm incomes (Channel #2)
- Sterling/euro exchange rate has already changed (Channel #3)
 - Irish/EU exports to UK less competitive (and vice versa)
- Possible impact on Ireland of future UK agricultural & food policy developments (Channel # 4)

Brexit

Magnitude of impacts ?

- Exposure of Irish farm enterprises to Brexit a function of
 - Dependence on UK market
 - Degree of preferential market access lost due to Brexit
 - Dependence of family farm incomes on CAP direct payments
- Resilience with respect to any Brexit shock
 - a function of the level of existing margins earned
 - low margins currently => likely low levels of resilience
- Dominant sectors in Irish Ag. are Beef & Dairy
 - Use these to illustrate some of the Brexit issues facing Irish ag.

Irish Beef and Dairy

Brexit impacts: “similar but not the same”

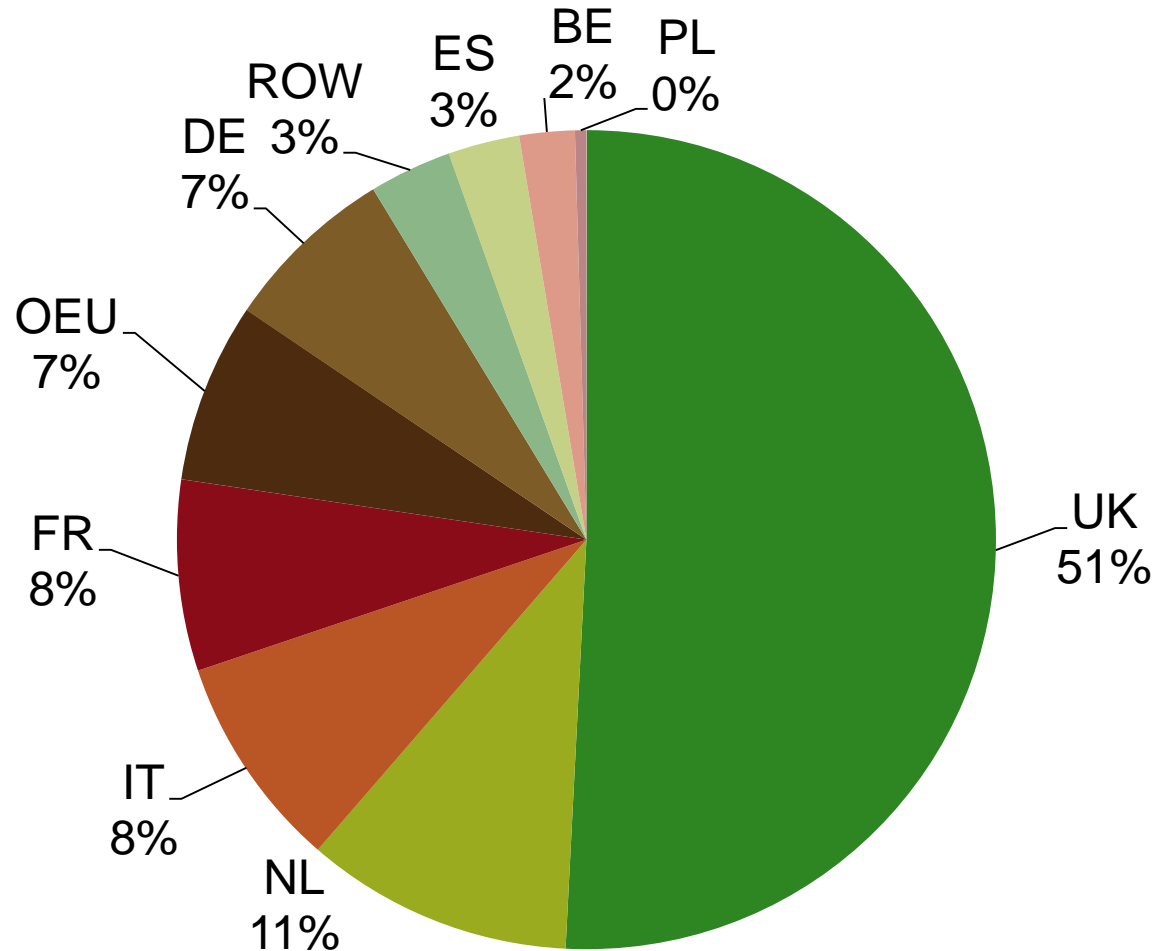
- Irish Beef exports
 - 90% of Irish production
 - over ½ exported to UK
- Beef MFN tariffs are very high
 - significant loss of preferential market access
- Potential for high NTB
- Irish beef farm incomes
 - highly dependent on CAP payments
- Beef production margins
 - Currently very low margins (on average)

Irish Beef and Dairy

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- Irish beef farm incomes
 - highly dependent on CAP payments
- Beef production margins
 - Currently very low margins (on average)
- 90% of Irish milk (milk equiv.) is exported
 - UK accounting for 21% of export value
 - Over half of Irish cheddar exports to UK
- MFN tariffs still very high
 - but Irish dairy less dependent on EU market
- Preferential Market Access (and loss of same)
 - somewhat less important as compared to beef
- Potential for high NTB
- Dairy farm income less dependent on CAP direct payments
- Relatively healthy production margins

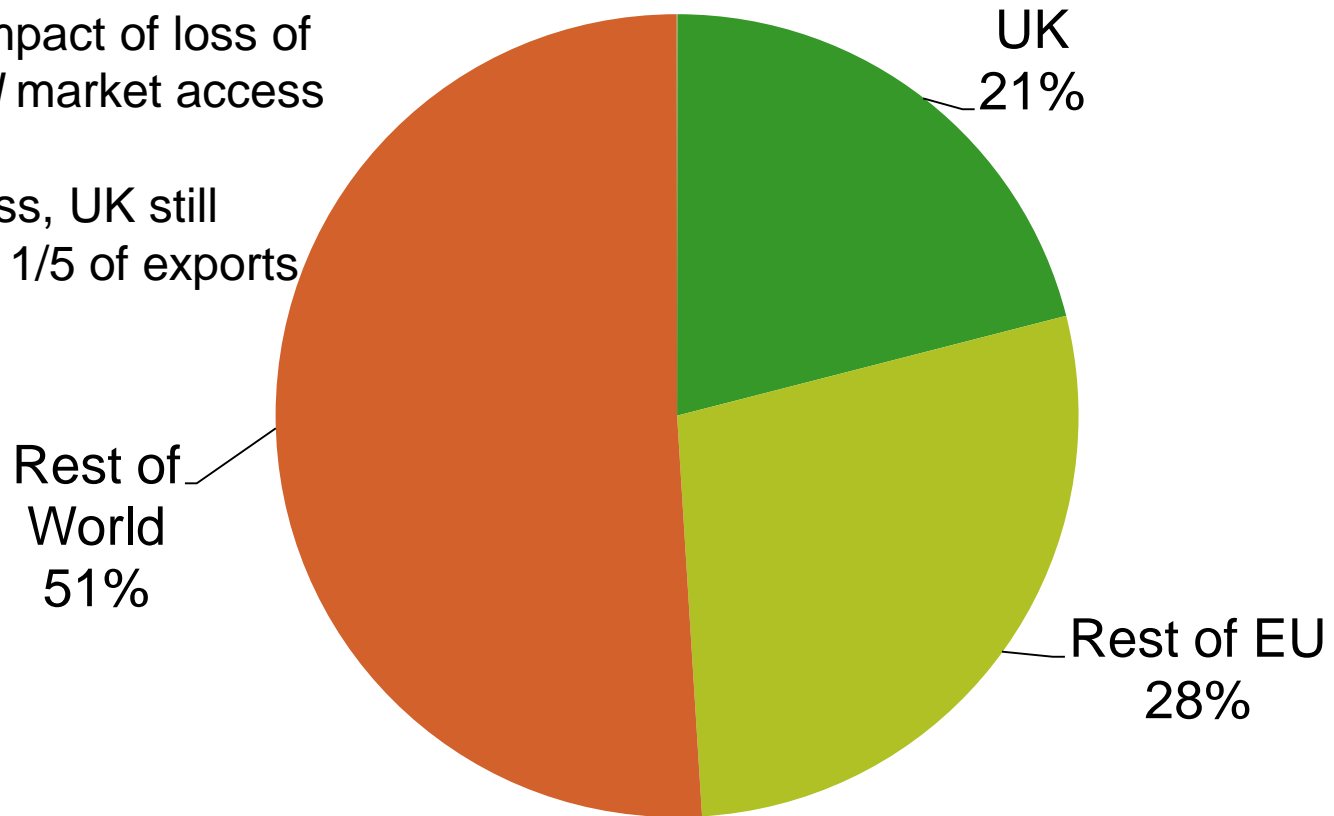
Irish Beef Exports Value: 2016



Source: Eurostat COMEXT

Irish Dairy Exports

- Much greater importance of exports to ROW
- Reduces impact of loss of *preferential* market access
- Nevertheless, UK still accounts > 1/5 of exports



Source: Elaboration based on Eurostat COMEXT

Hard Brexit Tariff Cliff: EU MFN Tariff Example

- **02013000** “Fresh or Chilled Bovine Meat, Boneless”
 - Value of UK imports from Ireland in 2016: €600.33 m
 - Volume of UK imports from Ireland in 2016: 93,316 tonnes
 - Average value per 100kg: €643.33/100kg
- EU bound MFN tariff is a compound tariff
 - 12.8% ad valorem **plus** a specific tariff of €303.4/100kg
- So the AVE of the compound tariff @ 2016 prices is
 - $([\text{€}643.3 \times (1.128) + 303.4] / \text{€}643.3 - 1) \times 100 = 59.96\%$
 - That gives a price of **over €1,000 per 100kg**

Brexit Scenarios

Prices

- Irish agri-food exports to the UK will decline and be diverted to other (less valuable) markets
 - IE in 2017 exported > 250kt (cwe) of beef to UK
 - » ~3.7% of EU27 beef domestic use
- Additional beef supply (relative to use) on EU27 markets will lead to lower EU prices
 - Magnitude of price shock will depend on
 - » future trade relationship between UK and EU
 - » elasticity of import demand for Irish agricultural and food products on UK and alternative EU and non-EU export markets

Brexit Scenarios

Impacts on Ag & Food Trade

- What is “**the**” elasticity of UK import demand ?
 - Median estimate from Imbs and Mejean (2017) of -6.1 used by Morgenroth and Lawless (2016)
 - Imbs and Mejean estimate for UK food import demand is -4.85
 - Given potential tariff and non-tariff barriers => Brexit destroys IE-UK food trade
- General expectation that import demand more elastic than domestic demand but maybe not as high as -5

Brexit Scenarios

Impacts on UK beef import demand

- Tiffin et al. (2011) study on UK food demand elasticities
 - UK beef demand elasticity circa -0.6
 - Import demand elasticity likely larger
 - Only applying EU MFN tariffs (circa 60%)
 - » If $\eta = \left[\frac{\delta Q}{Q} \right] / \left[\frac{\delta P}{P} \right] = -0.6$ with tariff of 60% then $\left[\frac{\delta Q}{Q} \right] \Rightarrow -36\%$
 - » If $\eta = \left[\frac{\delta Q}{Q} \right] / \left[\frac{\delta P}{P} \right] = -1.2$ with tariff of 60% then $\left[\frac{\delta Q}{Q} \right] \Rightarrow -72\%$
 - » If $\eta = \left[\frac{\delta Q}{Q} \right] / \left[\frac{\delta P}{P} \right] \leq -1.66$ with tariff of 60% then $\left[\frac{\delta Q}{Q} \right] \Rightarrow -100\%$

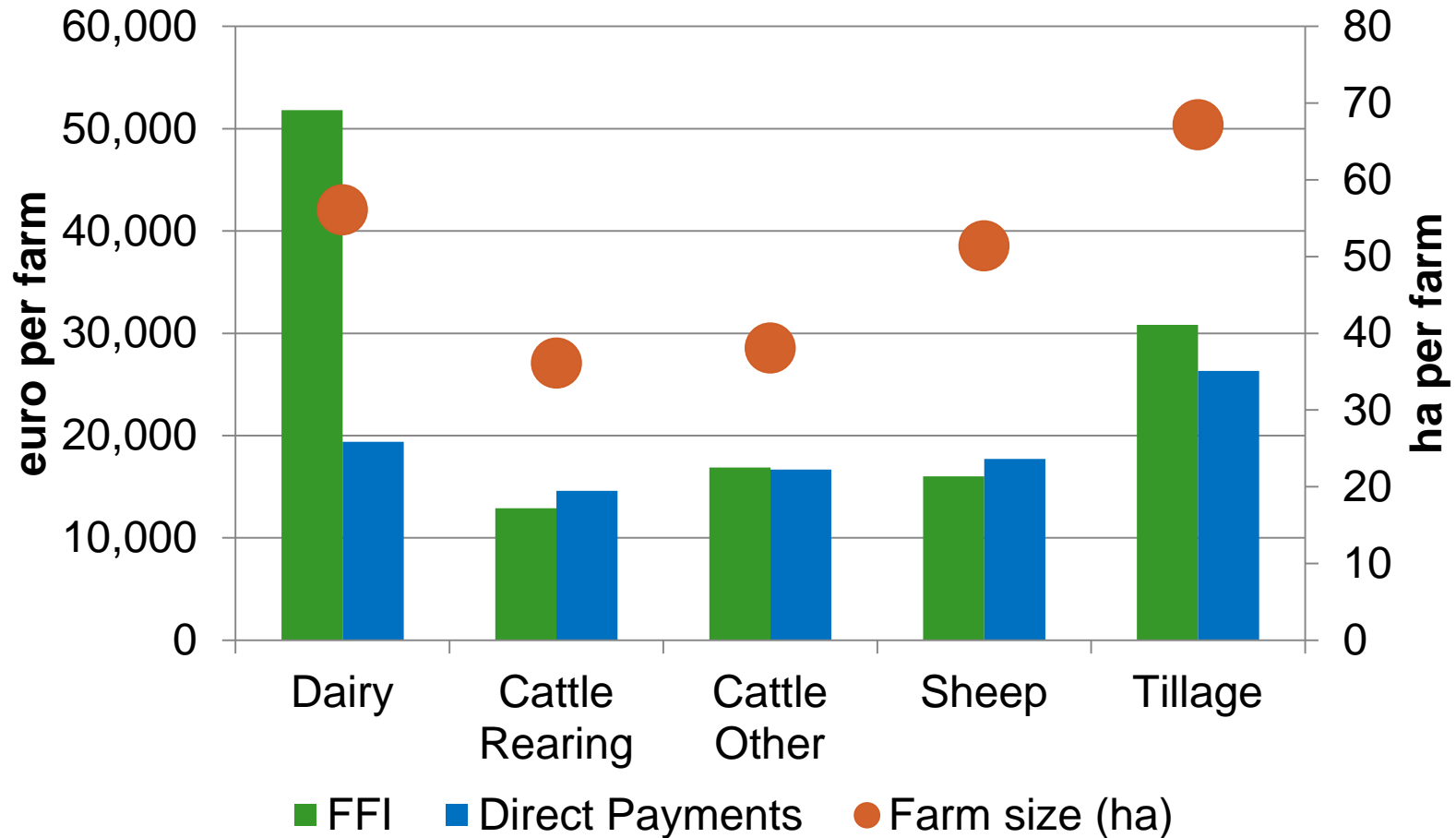
Preferential Market Access II

Non-tariff barriers (NTBs) to trade

- Non-tariff barriers will arise if UK exits CU & SM
 - Customs procedures incl. rules of origin checks, regulatory standards and checks for compliance, SPS, etc.
- Lessons from the economics literature
 - large economic gains from trade agreements now come **not from tariffs reductions** but from **deep regulatory convergence**
- **Much of the economic pain from Brexit will arise due to regulatory divergence**
- Even with a EU-UK FTA non-tariff barriers arising because of regulatory divergence will reduce EU-UK trade

Average Irish Family Farm Incomes

Subsidy Dependency and resilience in face of Brexit



Source: Teagasc National Farm Survey 2016

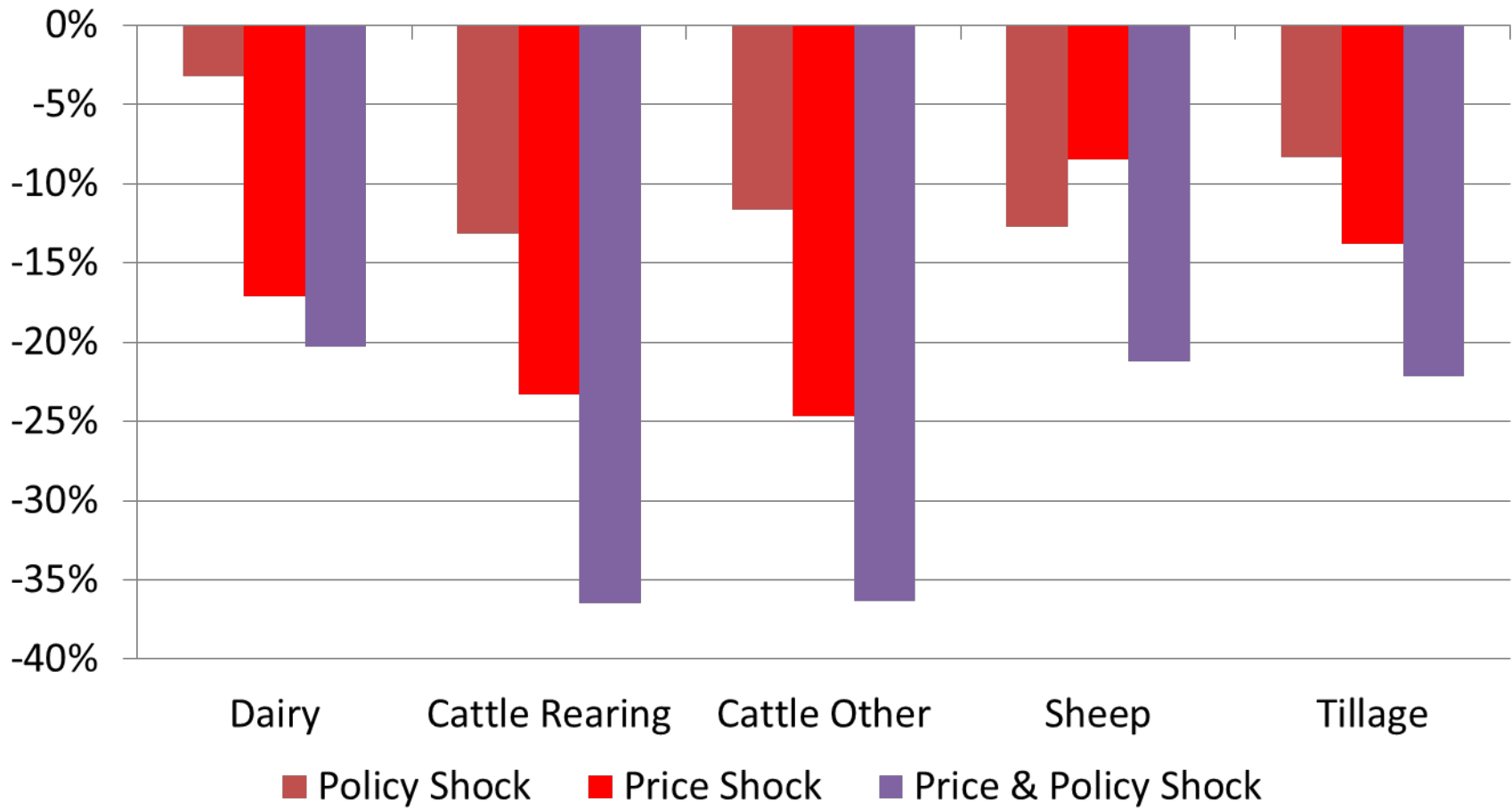
Brexit Impact Analysis:

Static Analysis using Teagasc NFS

- **Brexit Trade Shock:**
 - Price assumptions based on LEI (2016) analysis for NFU and analysis using the FAPRI-Ireland model
 - Scaled by sector, based on importance of UK market
- **Brexit Agricultural Budget Policy Shock:**
 - Our assumption Brexit created EU budget hole is not filled by EU27
 - 10% cut in CAP receipts at farm level
- **Static analysis using 2013-2015 Teagasc NFS farm level data**
 - Estimates likely on the “conservative” side

Brexit Impact Analysis:

Static Analysis using Teagasc NFS



Source: Donnellan, Hanrahan and Thorne (2016)

Brexit Scenarios Summary

Production and Income

- Ongoing Teagasc analysis all points to large negative impact on Irish farming of UK decision
- Magnitude of negative impact will depend on
 - Future EU-UK trade relationship
 - Continued alignment (or not) of UK to EU regulatory standards
 - Sensitivity of import demand w.r.t. higher trade costs

“*Innovation to Compete in the Global Livestock Industry*” & Brexit

- “I am prepared for the worst, but hope for the best”
 - *Benjamin Disraeli*
- Brexit => Additional competitiveness challenges for both Irish and British livestock agriculture
 - How can animal science help farmers to compete post-Brexit ?
- Given uncertainty over nature of future relationship still *some* basis to continue to work for a “less bad” outcome