EFFECTS OF EU-MERCOSUR TRADE AGREEMENT ON BILATERAL TRADE: THE ROLE OF BREXIT

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OUTLINE

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INTRODUCTION

- After 20 years of negotiations, the countries of Mercosur and the EU approved a broad liberalization agreement.
  - It is a big agreement, involving many sectors and commitments (tariffs changes, labor market rules, climate change issues, etc.).

- This agreement implies challenges for the Brazilian trade and industrial policy:
  - The economy is “very closed” and focused on providing the domestic market.
  - The facilitation of the entry of foreign goods can be a risk of "*primarization*"
    - considering that European goods have greater investments, better infrastructure and technology, their entry without barriers could represent an unfair competition, especially to Brazilian industry.
  - At same time, Brexit raises doubts about the potential effects of this agreement, especially in relation to the size of the European market and trade distortions

INTRODUCTION

- In this sense, this study aims to **evaluate the impact of the EU-Mercosur Agreement on the Brazilian economy using GTAP**.
  - We simulate the effects of reducing import tariffs on tradable goods.
  - We look the effects on Brazilian foreign trade, bilateral flows (EU, UK and BRA), as well as the effects on the level of well-being and GDP.

- Our contributions:
  1. We generate evidence on the protectionism and multilateralism (actual) debate, allowing for short-run analysis of trade policy.
  2. We assessed the role of Brexit considering the feedback effects with GTAP.
  3. We analyzed the possible channels for changes in Brazilian foreign trade with the new “big” agreement.

WHAT COULD BE THE POTENTIAL GAINS FOR BRAZIL FROM THE EU-MERCOSUR AGREEMENT?

1. Increased size market:

- Together, Mercosur and the EU represent about 25% of world GDP and a consumer market of almost 800 million people.

2. Intensify trade and investment networks:

- The EU is Mercosur's 2nd largest trading partner (after China), and Mercosur is the EU's 8th largest extra-regional partner.
- Brazil is the 4th largest non-EU FDI destination.

3. Brexit opportunities: Brexit may result in new trade deals and market relations.

- The transition period can be an opportunity to start new negotiations.
- New markets: The UK imports about 50% of what it consumes in food and beverages, of which 60% are from EU origin
  - If Brexit reduces the trade flows between EU-UK, Brazil can be favored.

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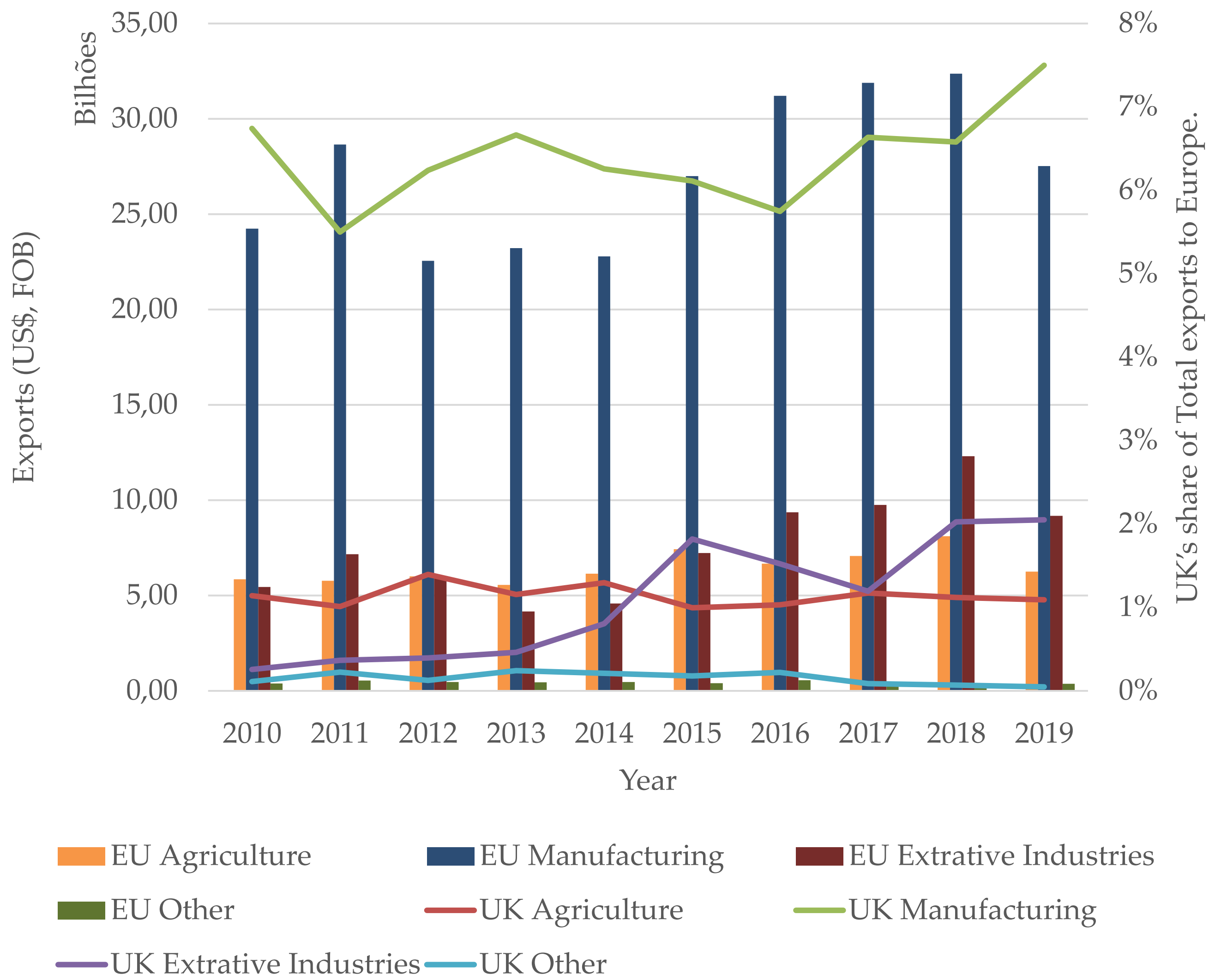
POTENTIAL GAINS FOR BRAZIL FROM THE EU-MERCOSUR AGREEMENT

- The EU represents about 18% of Brazilian exports.
  - And of that, on average 8% were to the UK.
  - The main sectors are manufacturing and agricultural goods.

- Brazil represents about 70% of all trade between Mercosur and EU.



Brazilian exports (US$, FOB)

METHODS AND DATA

- We adopted the GTAP version 9 in static simulations and standard short-run closure.
  - The model is calibrated for 57 industries, 8 production factors and 140 countries.
- Sectorial aggregation:
  - 9 groups

1 GrainsCrops	6 Manufaturing
2 MeatLstk	7 Util_Cons
3 Extraction	8 TransComm
4 ProcFood	9 OthServices
5 TextWapp	

- Regional setting in two scenarios:
  - 11 regional aggregations in the first scenario
  - 12 in the second (excluding the United Kingdom (GRB) from the EU).

Regional aggregation

1 - Brazil (BRA);
2 - Argentina (ARG);
3 - Uruguay (URU);
4 - Paraguay (PAR);
5 - EU (EU) (with United Kingdom, GRB);
7 - United States (USA);
8 - China (CHI);
9 - Andean Community (DAC);
10 - Rest of Latin America (RAL);
11 - Rest of the world (ROW).

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12 – United Kingdom (GRB)

5 - EU (EU) (without United Kingdom, GRB);*

Note: The GTAP nomenclature for United Kingdom. In this paper we will use GRB or UK to describe the country.

METHODS AND DATA

Scenarios and simulations

- Regarding the current trade agreements, we assume an "***almost soft Brexit***"
  - We change the tariffs (in the same line of EU-Mercosur agreement)
    - For two sets of tariffs in GTAP (*target the sector-level tariffs, RTMS, and the Ordinary Import Duty, TRFV*), we assume the same levels of EU to ROW in the relationship between EU and UK (and vice versa).

(RTMS, TRFV) from **EU to ROW** = (RTMS, TRFV) from **EU to GRB**
(RTMS, TRFV) from **GRB to ROW** = (RTMS, TRFV) from **GRB to EU**

Note: When creating the regional aggregation unique to GRB region, GTAP proportionally recalculated the other corresponding parameters and tariffs.

METHODS AND DATA

Scenarios and simulations

Tariffs will be partially removed along of 10 years.

- Under the EU-Mercosur agreement:
  - 92% of imports from Mercosur will enter tariff-free in the EU.
  - Similarly, 91% of imports from the EU will enter tariff-free in Mercosur.
  - In the industrial sector, Europe will release 100% of its tariffs in 10 years and Mercosur will liberalize 91%.

Scenarios	Exogeneous shock	Origin	Destination	Industry	Change (%)
1	*tms* (power of the tariffs on imports)	EU[1]	BRA ARG URU PAR	Traded Commodities (TC)	-75%
		BRA ARG URU PAR	EU	Traded Commodities (TC)	-75%
2	*tms* (power of the tariffs on imports)	EU	BRA ARG URU PAR	Traded Commodities (TC)	-75%
		BRA ARG URU PAR	EU	Traded Commodities (TC)	-75%
	TFRV (ordinary import duty)	GRB	EU	All industries	Same of GRB to ROW
		EU	GRB	All industries	Same of EU to ROW
	RTMS (target the sector-level tariffs)	GRB	EU	All industries	Same of GRB to ROW
		EU	GRB	All industries	Same of EU to ROW

EU with UK

EU without UK

Shocks and effects

- The shock is implemented as the **power of tariffs,** that is, ***1 + tax rate*,** affecting the exogenous variable $tms(i,r,s)$, of industry i, from region r to s.

- The **domestic price** linkage equation (which associates domestic and global prices) is

$$pms\ (i,r,s)\ =\ \underbrace{tms}_{\text{power of tariffs}}\ (i,r,s)\ +\ \underbrace{pcif}_{\text{global CIF price}}\ (i,r,s)$$

- The size of the effect on pms depends on the $pcif$, which in turn depends on FOB costs ($pfob$).

- This dynamic implies changes in the demand for exports (from r to s):

$$qxs\ (i,r,s)\ =\ \underbrace{qim}_{\text{aggregate imports}}\ (i,s)\ -\underbrace{ESUBM}_{\text{Armington CES for domestic and imported allocation}}\ (i).\left[pms\ (i,r,s) -\ \underbrace{pim}_{\text{composed import market price}}\ (i,s)\right]$$

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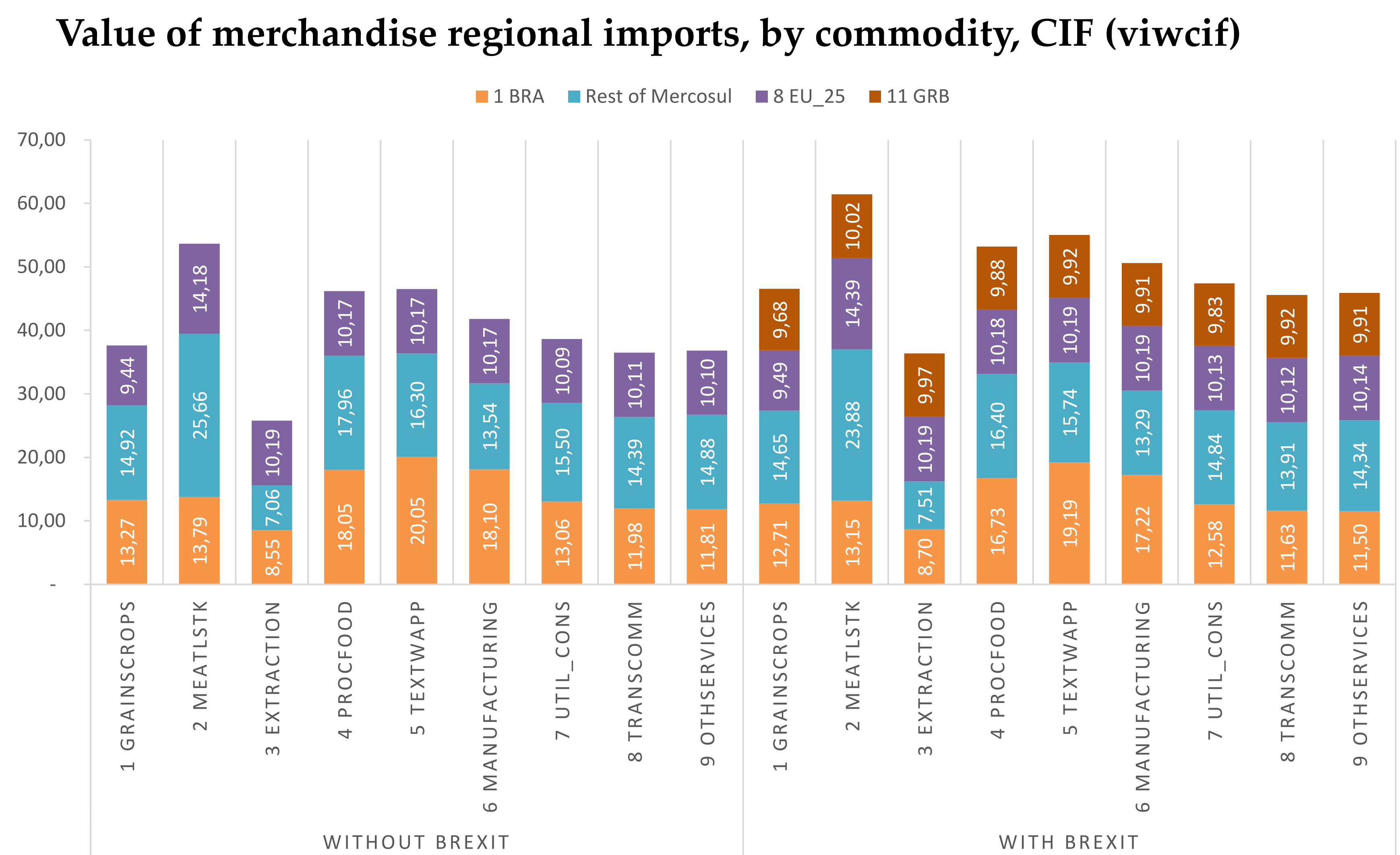
RESULTS

Changes on value of merchandise regional exports, by commodity (*vxwfob*)

	Industry	BRA	ARG	URU	PAR	EUA	CHI	RAL	EU	CAD	ROW	GRB
Without Brexit	GrainsCrops	7	6.75	-5.4	7.78	10.46	10.17	10.06	10.2	9.84	10.15	-
	MeatLstk	54.83	166.98	97.67	36.27	10.86	6.63	8.96	-1.78	7.32	7.95	-
	Extraction	9.48	12.04	5.67	1.52	10.04	10.05	9.99	9.8	9.99	9.98	-
	ProcFood	19.78	5.74	-5.17	14.48	10.19	9.92	10.09	9.64	9.98	9.92	-
	TextWapp	7.19	5.47	-15.2	1.21	10.07	9.94	9.97	10.76	9.75	9.99	-
	Manufactury	6.74	3.3	-5.83	2.17	9.92	9.96	9.81	10.59	9.76	9.92	-
	Util_Cons	7.02	6.94	-5.21	8.18	10.2	10.21	10.25	9.84	10.29	10.14	-
	TransComm	7.92	5.79	2.19	8.31	10.21	10.16	10.19	9.99	10.26	10.12	-
	OthServices	6.94	5.28	-4.33	7.1	10.27	10.23	10.26	9.88	10.33	10.18	-
With Brexit	GrainsCrops	7.53	6.63	-3.28	7.77	10.42	10.17	10.07	10.19	9.87	10.14	9.55
	MeatLstk	47.81	164.66	84.52	35.08	10.76	6.79	9.23	1.41	7.02	8.41	-3.68
	Extraction	9.62	11.93	4.36	1.79	10.02	10.03	9.99	9.79	9.99	9.98	9.99
	ProcFood	18.79	5.75	-2.71	14.25	10.21	9.94	10.11	9.67	10	9.95	9.42
	TextWapp	7.89	5.17	-11.96	1.37	10.06	9.94	9.97	10.76	9.75	9.99	10.12
	Manufactury	7.29	3.51	-3.5	2.45	9.93	9.96	9.82	10.58	9.79	9.93	10.02
	Util_Cons	7.59	6.77	-2.86	8.14	10.2	10.21	10.25	9.83	10.29	10.15	10.15
	TransComm	8.28	5.8	3.38	8.32	10.19	10.15	10.18	9.97	10.24	10.11	10.12
	OthServices	7.44	5.28	-2.17	7.11	10.24	10.2	10.23	9.84	10.3	10.15	10.15

- In general, the export sectors most benefited in Brazil are Meat and Livestock and Processed Foods.
- In the presence of Brexit, the effect on exports is less when compared to the first scenario.
- The UK, as an isolated region, has the potential to capture part of the international demand in these sectors.

RESULTS



- There is an increase in the entry of foreign goods from all sectors into the Brazilian economy (which can be adverse effects on the domestic's industries).
- In both scenarios, there is a greater increase in imports of Textiles and Clothing and Manufactured goods.

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RESULTS

Effects on bilateral prices and quantities in BRA, EU and GRB

Variable	GrainsCrop	MeatLstk	Extraction	ProcFood	TextWapp	Manufactu	Util_Cons	TransCom	OthServices
Scenario 1									
pfob[i.BRA.EU]	11.43	11.64	9.99	11.1	10.65	10.41	10.92	11.03	11.08
pcif[i.BRA.EU]	11.28	11.55	9.99	11.02	10.62	10.39	10.92	11.03	11.08
pms[i.BRA.EU]	10.1	-11.87	9.98	-1.44	6.29	9.69	10.92	11.03	11.08
pm[i.BRA]	11.43	11.64	9.99	11.1	10.65	10.41	10.92	11.03	11.08
pim[i.BRA]	11.06	11.43	9.91	7.73	7.75	7.48	10.11	9.99	9.99
qim[i.BRA]	1.82	1.51	-1.27	7.05	8	7.31	2.69	1.81	1.66
qxs[i.BRA.EU]	-1.89	318.74	-0.15	61.43	28.81	2.05	-3.77	-3.44	-3.56
pfob[i.EU.BRA]	9.69	9.59	9.98	9.92	10.01	10.02	10.03	10.02	10.05
pcif[i.EU.BRA]	9.73	9.61	9.98	9.93	10.01	10.02	10.03	10.02	10.05
pms[i.EU.BRA]	3.16	4.69	8.21	-0.43	-6.03	1.68	10.03	10.02	10.05
pm[i.EU]	9.69	9.59	9.98	9.92	10.01	10.02	10.03	10.02	10.05
pim[i.EU]	9.8	6.16	9.95	9.62	9.96	9.98	9.99	9.99	10
qim[i.EU]	-0.49	7.78	0.22	0.27	0.19	0.17	0.09	0.1	0.09
qxs[i.EU.BRA]	47.96	60.42	17.94	52.24	197.75	58.59	3.02	1.68	1.46
Scenario 2									
pfob[i.GRB.BRA]	9.8	9.78	9.96	9.94	9.95	9.96	9.95	9.95	9.95
pcif[i.GRB.BRA]	9.81	9.79	9.96	9.94	9.95	9.96	9.95	9.95	9.95
pms[i.GRB.BRA]	9.81	9.79	9.96	9.94	9.95	9.96	9.95	9.95	9.95
pm[i.GRB]	9.8	9.78	9.96	9.94	9.95	9.96	9.95	9.95	9.95
pim[i.GRB]	9.96	9.87	9.95	9.98	9.96	9.99	9.99	9.99	10
qim[i.GRB]	-0.27	-0.23	0.01	-0.1	-0.03	-0.07	-0.14	-0.07	-0.08
qxs[i.GRB.BRA]	7.03	11.48	-1.57	-1.76	-7	-8.03	2.96	1.64	1.52

$.(i,r,s)$

$pfob$ and $pcif$ increases and reduce the effect's size on pms

The shock in tms generates a reduction in aggregate imports in the UK in all industries, at the same time as there is an increase in exports to Brazil.

- There is a large increase in European demand for Brazilian goods from the Livestock and Meat Products, Processed Foods industries and Textiles and Clothing.
- The EU-Mercosur agreement induces an increase in imports from Brazil of European products (also UK), with clear positive effects of liberalization for Europe.

RESULTS

Equivalent variation (EV) (US$) million and change in value of GDP (%).

Region	Scenario 1		Scenario 2	
	EV	vgdp	EV	vgdp
BRA	3361.23	10.96	2783.88	10.78
ARG	1872.55	11.77	1866.71	11.77
URU	883.38	16.66	740.68	15.57
PAR	78.68	11.09	78.09	11.1
EUA	-1350.35	9.89	-1221.15	9.9
CHI	-1402.10	9.89	-1223.78	9.9
RAL	-473.51	9.89	-427.3	9.9
EU	7525.42	10.05	7034.12	10.06
CAD	-154.38	9.87	-143.5	9.89
GRB			-2540.04	9.93
ROW	-2842.82	9.92	-302.18	9.94

- The change in tariffs generates welfare gains in Brazil and in the EU due increase GDP.
- Liberalization leads to a greater increase in equivalent variation (EV) for the EU compared to Brazil.
- Brexit reduces the gains for Brazilian economy with Brexit in terms of GDP and EV.
- The UK shows a negative effects in terms of well-being mainly because of the increase in tariff barriers.

CONCLUSIONS

- We assume the same design as the EU-Mercosur bilateral trade shocks
  - The net results indicate differences in the degree of competitiveness gains and, also, of the market potential to be explored by these regions.

- The general results show that there is a very large increase in exports from the EU to the Brazil (and Mercosur) markets.
  - The opposite effect, however, is sector-specific.
  - This indicates the need to create specific policies that do not harm Brazilian industry, not even local producers.

- Brazil would be a positive effects of exports from the Meat and Livestock and Processed Foods industries;

- There are differences in the Brazilian welfare gains and foreign trade when we include Brexit
  - The UK becomes more "closed" with the new tariff rules; however, UK and Brazil increases their trade relations (open market spaces)

CONCLUSIONS

Limitations and future work

- The EU-Mercosur agreement is much broader (it involves legal, climatic issues, labor laws, etc.) and we only consider the tariff role.
  – This may have restricted the results obtained.

- In relation to Brexit, we simulated a simple scenario compared to the complexity and the possible implications of EU's exit (just tariffs changes)
  – It is necessary to change the design of the simulated scenarios.

- It is important to consider a dynamic model that allows for more consistent long-run analyzes.
  – The agreement proposes tariff changes over 10 years.

THANK YOU!

"Brasileiros, chegou a hora de realizar o Brasil."
[Brazilians, it's time to make Brazil.]
Mário de Andrade (1893 – 1945). He was one of the pioneers of modern Brazilian poetry.

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