**Online Appendix for Pierluigi Montalbano et al. (2023): The Indirect Effects of Brexit**

**on African, Caribbean and Pacific trade with the UK and EU**

**Table A1 - Overview of EU-ACP EPAs**

|  |  |  |
| --- | --- | --- |
| **Region** | **EU Status/UK Replicationa** | **ACP Parties** |
| **Caribbean** | The CARIFORUM – EU EPA was signed in October 2008 and approved by the European Parliament in March 2009.*UK replicated* | CARIFORUM member states are: Antigua and Barbuda, The Bahamas, Barbados, Belize, Cuba, Dominica, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, St. Kitts and Nevis, Saint Lucia, St. Vincent and the Grenadines, Suriname and Trinidad and Tobago. |
| **Pacific Islands** | Provisional implementation of Interim Partnership Agreement by Papua New Guinea and Fiji. Samoa acceded to the EPA in December 2018 and Solomon Islands in May 2020. *UK replicated* | Cook Islands, Fiji, Kiribati, the Marshall Islands, Micronesia, Nauru, Niue, Palau, Papua New Guinea, Samoa, the Solomon Islands, Tonga, Tuvalu and Vanuatu |
| **West Africa** | Signing process underway; EPAs with Côte d’Ivoire and Ghana provisionally applied.*UK Not replicated*  | Economic Community of West African States (ECOWAS) member states (i.e. Benin, Burkina Faso, Cape Verde, Côte d’Ivoire, The Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo) and Mauritania |
| **Central Africa** | Provisional application by Cameroon; ongoing negotiations with the other parties*UK replicated for Cameroon* | Cameroon, Central African Republic, Chad, Congo, Democratic Republic of Congo, Equatorial Guinea, Gabon, São Tomé and Príncipe |
| **Eastern and Southern Africa (ESA)** | Provisional implementation by Madagascar, Mauritius, Seychelles, Zimbabwe; ongoing negotiations with the other parties*UK replicated* | Comoros, Djibouti, Eritrea, Ethiopia, Madagascar, Malawi, Mauritius, Seychelles, Sudan, Zambia and Zimbabwe |
| **East African Community (EAC)** | Kenya and Rwanda signed the EPA in September 2016, and Kenya has ratified it. For the EPA to enter into force, the remaining EAC members need to sign and ratify the agreement.*UK not replicated* | Burundi, Kenya, Rwanda, Tanzania, Uganda and South Sudan. |
| **Southern African Development Community (SADC)** | Ratified by all SACU members; provisional implementation for SACU; provisional application for Mozambique*UK replicated* | Southern African Customs Union (SACU) member states (i.e. Botswana, Lesotho, Namibia, South Africa, Swaziland) and Mozambique. Angola has an option to join the agreement in the future |
| a/ Trading conditions largely, if not precisely, rolled over. Source: Authors’ summary (September 2022). |  |

**Table A2 - Domestic content of ACP exports to the UK by sector (% of gross exports)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Sector** | **SADC** | **West Africa** | **Central Africa** | **East and South Africa** | **East African Community** | **Caribbean** | **Pacific** |
| *Agriculture* | 85.74 | 96.64 | 95.82 | 88.51 | 93.81 | 89.82 | 94.01 |
| *Fishing* | 84.89 | 90.74 | 69.02 | 49.89 | 85.13 | 78.84 | 85.72 |
| *Mining and Quarrying* | 80.66 | 95.19 | 89.61 | 60.78 | 80.64 | 95.57 | 86.41 |
| *Food & Beverages* | 88.08 | 91.72 | 87.28 | 75.30 | 80.54 | 77.63 | 83.38 |
| *Textiles and Wearing Apparel* | 83.49 | 88.03 | 81.15 | 50.91 | 80.62 | 83.30 | 71.09 |
| *Wood and Paper* | 83.12 | 89.87 | 89.86 | . | 76.52 | 76.36 | 81.26 |
| *Petroleum, Chemical and Non-Metallic Mineral Products* | 78.41 | 83.38 | 83.38 | . | 70.83 | 70.21 | 77.25 |
| *Metal Products* | 83.39 | 82.43 | 83.85 | . | 59.99 | 73.13 | 71.79 |
| *Electrical and Machinery* | 82.33 | 78.42 | 82.00 | . | 65.73 | 73.21 | 71.49 |
| *Transport Equipment* | 65.71 | 71.04 | 75.73 | . | 47.56 | 60.04 | 65.11 |
| *Other Manufacturing* | 81.75 | 82.44 | 81.33 | 36.98 | 81.16 | 75.80 | 67.50 |
| **Average** | **81.60** | **86.35** | **83.55** | **60.40** | **74.78** | **77.63** | **77.73** |

Source: Authors’ elaboration on EORA data

**Table A3 -** **Domestic Content of ACP exports towards the UK via the EU, by sector (% of their sectoral gross export to the EU), 2015**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Sector** | **SADC** | **West Africa** | **Central Africa** | **East and South Africa** | **East African Community** | **Caribbean** | **Pacific** |
| *Agriculture* | 5.38 | 5.12 | 3.93 | 4.15 | 7.05 | 6.54 | 4.70 |
| *Fishing* | 5.25 | 1.98 | 3.42 | 2.65 | 3.21 | 2.98 | 2.75 |
| *Mining and Quarrying* | 3.99 | 3.57 | 3.90 | 4.15 | 4.00 | 4.32 | 4.78 |
| *Food & Beverages* | 3.28 | 2.94 | 3.54 | 3.20 | 4.37 | 3.28 | 2.97 |
| *Textiles and Wearing Apparel* | 3.18 | 2.63 | 2.41 | 1.63 | 3.57 | 2.42 | 2.28 |
| *Wood and Paper* | 4.26 | 3.36 | 3.79 | 3.01 | 3.29 | 3.58 | 4.07 |
| *Petroleum, Chemical and Non-Metallic Mineral Products* | 5.21 | 3.30 | 5.16 | 4.47 | 3.43 | 3.99 | 2.86 |
| *Metal Products* | 4.60 | 5.20 | 4.44 | - | 4.47 | 5.20 | 3.01 |
| *Electrical and Machinery* | 3.34 | 4.44 | 3.90 | 2.39 | 3.35 | 3.44 | 5.89 |
| *Transport Equipment* | 3.50 | 3.88 | 3.38 | - | 3.59 | 3.37 | 4.62 |
| *Other Manufacturing* | 1.90 | 1.86 | 2.48 | 1.11 | 1.54 | 2.13 | 2.50 |
| ***Average*** | ***3.99*** | ***3.48*** | ***3.67*** | ***2.97*** | ***3.81*** | ***3.75*** | ***3.67*** |

Source: Authors’ elaboration on EORA data

**Table A4 –** **Sectoral aggregation for the GTAP Data Base and correspondence to EORA**

|  |  |  |  |
| --- | --- | --- | --- |
| *No.* | *Description* | *Comprising* | *Correspondence to EORA* |
| 1 | Paddy rice | pdr  | Agriculture |
| 2 | Wheat | wht  |
| 3 | Cereal grains nec | gro  |
| 4 | Vegetables, fruit, nuts | v\_f  |
| 5 | Oil seeds | osd  |
| 6 | Sugar cane, sugar beet | c\_b  |
| 7 | Plant-based fibers | pfb  |
| 8 | Crops nec | ocr  |
| 9 | Cattle,sheep,goats,horses | ctl  |
| 10 | Animal products nec | oap  |
| 11 | Wool, silk-worm cocoons | wol  |
| 12 | Forestry | frs  |
| 13 | Fishing | fsh  | Fishing |
| 14 | Coal | coa  | Mining and Quarrying |
| 15 | Oil | oil  |
| 16 | Gas | gas  |
| 17 | Minerals nec | oxt  |
| 18 | Meat: cattle,sheep,goats,horse | cmt  | Food & Beverages |
| 19 | Meat products nec | omt  |
| 20 | Vegetable oils and fats | vol  |
| 21 | Dairy products | rmk mil  |
| 22 | Processed rice | pcr  |
| 23 | Sugar | sgr  |
| 24 | Food products nec | ofd  |
| 25 | Beverages and tobacco products | b\_t  |
| 26 | Textiles | tex  | Textiles and Wearing Apparel |
| 27 | Wearing apparel | wap  |
| 28 | Leather products | lea  |
| 29 | Wood products | lum  | Wood and Paper |
| 30 | Paper products, publishing | ppp  |
| 31 | Petroleum, coal products | p\_c  | Petroleum, Chemical and Non-Metallic Mineral Products |
| 32 | Chemical,rubber,plastic prods | chm bph rpp  |
| 33 | Mineral products nec | nmm  |
| 34 | Ferrous metals | i\_s  | Metal Products |
| 35 | Metals nec | nfm  |
| 36 | Metal products | fmp  |
| 37 | Motor vehicles and parts | mvh  | Transport Equipment |
| 38 | Transport equipment nec | otn  |
| 39 | Electronic equipment | ele  | Electrical and Machinery |
| 40 | Machinery and equipment nec | eeq ome  |
| 41 | Manufactures nec | omf  | Other Manufacturing |
| 42 | Electricity & Gas | ely gdt  | Services |
| 43 | Water | wtr  |
| 44 | Construction | cns  |
| 45 | Trade | trd afs  |
| 46 | Transport nec | otp whs  |
| 47 | Sea transport | wtp  |
| 48 | Air transport | atp  |
| 49 | Communication | cmn  |
| 50 | Financial services nec | ofi  |
| 51 | Insurance | ins  |
| 52 | Business services nec | rsa obs  |
| 53 | Recreation and other services | ros  |
| 54 | Public services | osg edu hht dwe  |

Source: Authors’ elaboration on the GTAP Data Base.

**Table A5 –Changes in ACP domestic value added in exports towards the EU via the UK, by sector (share of sectoral value added), TCA scenario**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|   | SADC | West Africa | Central Africa | East and South Africa | East African Community | Caribbean | Pacific |
| Paddy rice | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Wheat | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | -0.001 |
| Cereal grains nec | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | -0.001 |
| Vegetables, fruit, nuts | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Oil seeds | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | -0.002 |
| Sugar cane, sugar beet | 0.000 | 0.000 | 0.000 | -0.001 | 0.000 | -0.002 | 0.000 |
| Plant-based fibers | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | -0.001 |
| Crops nec | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | -0.001 |
| Cattle,sheep,goats,horses | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | -0.001 |
| Animal products nec | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Wool, silk-worm cocoons | -0.002 | -0.001 | 0.000 | -0.001 | 0.000 | 0.000 | 0.000 |
| Forestry | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | -0.001 |
| Fishing | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | -0.001 |
| Coal | -0.001 | -0.001 | -0.001 | 0.000 | 0.000 | -0.001 | -0.001 |
| Oil | -0.002 | -0.006 | -0.003 | -0.001 | -0.002 | -0.001 | -0.001 |
| Gas | -0.001 | -0.001 | -0.001 | 0.000 | 0.000 | -0.002 | 0.000 |
| Minerals nec | -0.002 | -0.002 | -0.002 | -0.002 | -0.001 | -0.001 | -0.002 |
| Meat: cattle,sheep,goats,horse | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Meat products nec | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Vegetable oils and fats | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.015 |
| Dairy products | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | -0.001 |
| Processed rice | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Sugar | -0.001 | 0.000 | 0.000 | -0.001 | 0.000 | -0.002 | -0.041 |
| Food products nec | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | -0.001 |
| Beverages and tobacco products | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Textiles | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Wearing apparel | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Leather products | 0.000 | 0.000 | -0.001 | 0.000 | 0.000 | 0.000 | 0.000 |
| Wood products | 0.000 | 0.000 | -0.001 | 0.000 | 0.000 | 0.000 | 0.000 |
| Paper products, publishing | -0.001 | 0.000 | -0.001 | 0.000 | 0.000 | 0.000 | 0.000 |
| Petroleum, coal products | 0.004 | 0.000 | 0.000 | 0.000 | 0.005 | 0.002 | 0.000 |
| Chemical,rubber,plastic prods | -0.001 | 0.000 | -0.001 | 0.000 | 0.000 | -0.001 | 0.000 |
| Mineral products nec | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Ferrous metals | -0.001 | -0.001 | 0.000 | 0.000 | 0.000 | -0.001 | -0.001 |
| Metals nec | -0.009 | -0.001 | -0.001 | -0.001 | -0.002 | -0.003 | -0.002 |
| Metal products | -0.001 | 0.000 | -0.001 | 0.000 | 0.000 | 0.000 | -0.001 |
| Motor vehicles and parts | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Transport equipment nec | -0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Electronic equipment | 0.000 | 0.000 | 0.000 | -0.001 | 0.000 | 0.000 | -0.001 |
| Machinery and equipment nec | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Manufactures nec | 0.000 | 0.000 | -0.001 | 0.000 | 0.000 | 0.000 | 0.000 |

Source: Authors’ simulations using the GTAP-VA model.

**Table A6 –Changes in ACP domestic value added in exports towards the UK via the EU, by sector (share of sectoral value added), TCA scenario**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|   | SADC | West Africa | Central Africa | East and South Africa | East African Community | Caribbean | Pacific |
| Paddy rice | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Wheat | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | -0.001 |
| Cereal grains nec | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | -0.001 |
| Vegetables, fruit, nuts | -0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | -0.001 |
| Oil seeds | 0.000 | 0.000 | 0.000 | -0.001 | 0.000 | 0.000 | -0.003 |
| Sugar cane, sugar beet | -0.001 | 0.000 | 0.000 | -0.002 | 0.000 | -0.001 | 0.000 |
| Plant-based fibers | 0.000 | -0.001 | 0.000 | 0.000 | -0.001 | 0.000 | 0.000 |
| Crops nec | -0.002 | -0.002 | -0.002 | -0.001 | -0.002 | -0.003 | -0.004 |
| Cattle,sheep,goats,horses | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | -0.001 |
| Animal products nec | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | -0.001 |
| Wool, silk-worm cocoons | -0.006 | -0.001 | 0.000 | 0.000 | 0.000 | -0.001 | -0.001 |
| Forestry | -0.001 | 0.000 | -0.001 | 0.000 | 0.000 | 0.000 | -0.001 |
| Fishing | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | -0.001 |
| Coal | -0.003 | -0.002 | -0.001 | -0.001 | -0.001 | -0.002 | -0.002 |
| Oil | -0.007 | -0.010 | -0.004 | -0.002 | -0.008 | -0.003 | -0.002 |
| Gas | -0.002 | -0.004 | -0.001 | -0.001 | 0.000 | -0.003 | -0.001 |
| Minerals nec | -0.006 | -0.006 | -0.005 | -0.002 | -0.006 | -0.003 | -0.005 |
| Meat: cattle,sheep,goats,horse | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Meat products nec | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Vegetable oils and fats | 0.000 | -0.001 | 0.000 | 0.000 | 0.000 | 0.000 | -0.006 |
| Dairy products | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | -0.001 |
| Processed rice | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Sugar | -0.002 | -0.001 | 0.000 | -0.002 | 0.000 | -0.001 | -0.002 |
| Food products nec | 0.000 | -0.001 | 0.000 | 0.000 | 0.000 | 0.000 | -0.002 |
| Beverages and tobacco products | 0.000 | 0.000 | 0.000 | -0.001 | 0.000 | 0.000 | 0.000 |
| Textiles | -0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | -0.001 |
| Wearing apparel | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Leather products | -0.001 | -0.002 | -0.002 | -0.001 | -0.004 | 0.000 | -0.002 |
| Wood products | -0.001 | 0.000 | -0.002 | 0.000 | 0.000 | -0.001 | -0.001 |
| Paper products, publishing | -0.001 | 0.000 | -0.002 | 0.000 | 0.000 | -0.001 | -0.001 |
| Petroleum, coal products | 0.005 | 0.001 | -0.001 | -0.001 | 0.011 | 0.002 | 0.000 |
| Chemical,rubber,plastic prods | -0.001 | -0.002 | -0.002 | -0.001 | 0.000 | -0.002 | -0.001 |
| Mineral products nec | -0.001 | -0.001 | 0.000 | 0.000 | 0.000 | 0.000 | -0.001 |
| Ferrous metals | -0.002 | -0.001 | -0.001 | -0.001 | -0.001 | -0.002 | -0.005 |
| Metals nec | -0.006 | -0.002 | -0.002 | -0.002 | -0.003 | -0.006 | -0.004 |
| Metal products | -0.001 | -0.001 | -0.001 | 0.000 | -0.001 | -0.001 | -0.001 |
| Motor vehicles and parts | -0.001 | 0.000 | 0.000 | 0.000 | 0.000 | -0.001 | -0.001 |
| Transport equipment nec | -0.002 | 0.000 | 0.000 | -0.001 | -0.001 | -0.002 | 0.000 |
| Electronic equipment | -0.001 | 0.000 | 0.000 | -0.001 | 0.000 | -0.001 | -0.001 |
| Machinery and equipment nec | -0.001 | 0.000 | 0.000 | 0.000 | 0.000 | -0.001 | -0.001 |
| Manufactures nec | -0.001 | 0.000 | -0.001 | 0.000 | 0.000 | 0.000 | 0.000 |

Source: Authors’ simulations using the GTAP-VA model.