Online Appendix

June 2019

Read the Briefing Paper

This Appendix provides the details underlying the calculations presented in section 3 of the Briefing Paper, together with additional information on the membership basis of the Generalized System of Preferences (GSP) of the EU and the list of conventions that need to be ratified and implemented by GSP+ members.

1. Methodology

Here I present the details of the mechanical graduations and the vulnerability criteria calculations.

a. Mechanical graduations:

$$imp_sh_{j,c}^{EU,GSP} = \frac{1}{3} \sum_{v=2015}^{2017} imp_sh_{s.c,y}^{EU,GSP}$$
 (1)

where:

$$imp_sh_{s,c,y}^{EU,GSP} = \frac{\sum_{k} EU_imp_{k,s,c,y}^{GSP}}{\sum_{c} \sum_{k} EU_imp_{k,s,c,y}^{GSP}}$$
(2)

 $EU_imp_{k,s,c,y}$ denotes EU imports of product k, in section s, from beneficiary c in year y. The GSP superscript denotes the set of GSP eligible products. The same procedure has been applied to imports reported by the UK and the EU-27.

- b. Vulnerability criteria:
 - i. Trade concentration:

$$div_c^{EU,GSP} = \frac{1}{3} \sum_{v=2015}^{2017} imp_sh_{cy}^{EU,GSP,7}$$
 (3)

where

$$imp_sh_{cy}^{EU,GSP,7} = \frac{\sum_{s=1}^{7} \left(\sum_{k} EU_imp_{k,s,c,y}^{GSP}\right)}{\sum_{s} \sum_{k} EU_imp_{k,s,c,y}^{GSP}}$$
(4)

where the summation over s in the numerator of eq. (4) is done over the top 7 sectors of each country. $EU_{-}imp_{k,s,c,v}^{GSP}$ denotes EU imports under GSP of product k, in section s, from

beneficiary *c* in year *y*. The same procedure is applied to imports reported by the UK and the EU-27.

ii. Size:

$$size_c^{EU,GSP} = \frac{1}{3} \sum_{y=2015}^{2017} imp_sh_{cy}^{EU,GSP}$$
 (5)

where

$$imp_sh_{cy}^{EU,GSP} = \frac{\sum_{s} \sum_{k} EU_imp_{k,s,c,y}^{GSP}}{\sum_{c} \sum_{s} \sum_{k} EU_imp_{k,s,c,y}^{GSP}}$$
(6)

 $EU_imp_{k,s,c,y}^{GSP}$ denotes EU imports under GSP of product k, sections s, from beneficiary c in year y. The same procedure is applied to imports reported by the UK and the EU-27.

2. Divergence in GSP import-share as calculated in this paper and by the EU.

There is one case where my calculations of EU GSP import-shares at the country-section level appear not to be aligned with the graduations imposed by the EU (this is out of the calculations involving several rounds of graduations, not just the 2020-22 reported here). Using 2015-2017 data, for section 15-b, I compute an EU import share of 32% for India, while the EU graduates India in this section (hence the EU must have computed a share > 57%). With the data I downloaded from COMEXT, however, I find that the bulk of EU imports in section 15-b came from Mozambique (46%), an EBA country not subject to graduation. On one hand it must be acknowledged that my calculations could include some margin of error, since the methodology adopted to compute the import-shares has been adapted by myself to reproduce the EU graduations as accurately as possible. On the other hand, since this is the only instance where my calculations appear not to match those performed by the EU, I remain confident that the results presented in this paper are on the whole correct.

3. Rules of Origin requirement and GSP eligibility

Currently, to qualify for GSP preferences, even if a product shipped from a beneficiary country is on the list of those eligible for the scheme, the product must satisfy a certain local content requirement, that ensures that a certain fraction of the product's value was produced in the beneficiary country. The Rules of Origin in EU's GSP, however, allow exporters to *cumulate* the value produced in the country of origin with the value added at a previous step of the chain of production, if this additional value originates in EU-28 countries. Now, it is unclear how this will operate in the UK's GSP. The UK might not recognise the value originating in the other EU27 countries as originating in the beneficiary country (and hence not allow the cumulation). If this is the case, there may be several instances of products no longer qualifying for preferential access in virtue of not complying with the Rules of Origin. Further, this issue could affect also GSP imports on the side of the EU, as the EU might not allow cumulation with UK value added. Because of data and information limitation this issue cannot be analysed in this paper; however, a more general discussion on cumulation (not specific to GSP) is

A POST-BREXIT GSP FOR THE UK: HOW TO GUARANTEE UNCHANGED MARKET ACCESS FOR DEVELOPING COUNTRIES?

provided in Gasiorek and Holmes (2017). More information on GSP specific rules of origin can instead be found in UNCTAD (2015).

4. Vulnerability criteria of current GSP+ and standard GSP members, full tables.

Table 2A: Vulnerability criteria for GSP+ eligibility - 2015-2017 data.

| | Concentration | | | | Size | | |
|-------------|---------------|-------|-------|------|------|-------|--|
| | EU | UK | EU-27 | EU | UK | EU-27 | |
| Armonia | 00.20 | 00.56 | 00.22 | 0.10 | 0.01 | 0.22 | |
| Armenia | 98.30 | 99.56 | 98.32 | 0.18 | 0.01 | 0.22 | |
| Bolivia | 92.36 | 94.05 | 93.60 | 0.08 | 0.02 | 0.09 | |
| Cape Verde | 98.53 | 99.20 | 98.58 | 0.07 | 0.00 | 80.0 | |
| Kyrgyzstan | 92.26 | 99.68 | 93.21 | 0.01 | 0.00 | 0.01 | |
| Mongolia | 96.87 | 99.88 | 96.27 | 0.02 | 0.04 | 0.02 | |
| Pakistan | 96.09 | 96.68 | 96.21 | 6.49 | 8.23 | 6.14 | |
| Philippines | 79.49 | 85.87 | 79.59 | 3.36 | 2.30 | 3.57 | |
| Sri Lanka | 91.87 | 95.08 | 90.64 | 2.49 | 5.01 | 1.98 | |

Source: Author's elaboration with COMEXT and TRAINS data for the 2015-2017 period. Concentration is measured as the share of the top 7 sectors in EU GSP imports from of a country; size is measured as the country's share of total EU GSP imports.

Table 3A: Vulnerability criteria of standard GSP members – 2015-2017 data.

| | Concentration | | | Size | | |
|--------------|---------------|--------|--------|-------|-------|-------|
| | EU28 | UK | EU27 | EU | UK | EU27 |
| | | | | | | |
| Congo | 98.90 | 99.96 | 99.15 | 0.07 | 0.03 | 0.07 |
| Cook Islands | 99.25 | 100.00 | 99.43 | 0.00 | 0.00 | 0.00 |
| India | 70.37 | 70.35 | 70.62 | 30.73 | 36.15 | 29.64 |
| Indonesia | 73.18 | 66.33 | 74.93 | 11.51 | 6.82 | 12.45 |
| Kenya | 96.66 | 97.18 | 97.25 | 0.98 | 1.28 | 0.92 |
| Micronesia | 99.38 | 100.00 | 99.61 | 0.00 | 0.00 | 0.00 |
| Nauru | 99.85 | 100.00 | 99.83 | 0.00 | 0.00 | 0.00 |
| Nigeria | 93.51 | 97.26 | 94.94 | 0.27 | 0.24 | 0.27 |
| Niue | 100.00 | 100.00 | 100.00 | 0.00 | 0.00 | 0.00 |
| Syria | 91.72 | 98.30 | 91.72 | 0.03 | 0.00 | 0.03 |
| Tajikistan | 99.53 | 100.00 | 99.70 | 0.02 | 0.00 | 0.02 |
| Tonga | 99.90 | 100.00 | 99.92 | 0.00 | 0.00 | 0.00 |
| Uzbekistan | 96.66 | 99.85 | 96.78 | 0.11 | 0.01 | 0.14 |
| Vietnam | 81.92 | 83.05 | 82.22 | 14.67 | 11.81 | 15.25 |

Source: Author's elaboration with COMEXT and TRAINS data for the 2015-2017 period. Concentration is measured as the share of the top 7 sectors in EU GSP imports from of a country; size is measured as the country's share of total EU GSP imports. In bold figures which would prevent GSP+ applications under a revised vulnerability criterion which would ensure GSP+ eligibility of all current GSP+ members.

5. Standard GSP, GSP+ and EBA beneficiaries list

Table A1: List of beneficiaries of EU's GSP¹

| Standard GSP | GSP+ | EBA | |
|--------------|-----------------|----------------------|-----------------------|
| Congo | Armenia | Afghanistan | Madagascar |
| Cook Islands | Bolivia | Angola | Malawi |
| India | Cape Verde | Bangladesh | Mali |
| Indonesia | Kyrgyz Republic | Benin | Mauritania |
| Kenya | Mongolia | Bhutan | Mozambique |
| Micronesia | Pakistan | Burkina Faso | Myanmar |
| Nauru | Philippines | Burundi | Nepal |
| Nigeria | Sri Lanka | Cambodia | Niger |
| Niue | | Central African Rep. | Rwanda |
| Syria | | Chad | Sao Tome and Principe |
| Tajikistan | | Comoros | Senegal |
| Tonga | | Congo (Dem. Rep.) | Sierra Leone |
| Uzbekistan | | Djibouti | Solomon Islands |
| Vietnam | | Equatorial Guinea | Somalia |
| | | Eritrea | South Sudan |
| | | Ethiopia | Sudan |
| | | Gambia | Tanzania |
| | | Guinea | Timor-Leste |
| | | Guinea Bissau | Togo |
| | | Haiti | Tuvalu |
| | | Kiribati | Uganda |
| | | Laos | Vanuatu |
| | | Lesotho | Yemen |
| | | Liberia | Zambia |

Source: Author's elaboration on information obtain from EU Regulations.

 $^{^{\}rm 1}\,\mbox{This}$ list is up to date as of March 2019.

6. List of international conventions that need to be ratified and implemented by GSP+ beneficiaries.

Table A2: International conventions on sustainable development and environmental protection.

| Convention | Participating GSP beneficiaries |
|---|--|
| Convention on the Prevention and Punishment of the Crime of Genocide | Congo, India, Nigeria, Syria, Tajikistan, Tonga, Uzbekistan, Vietnam. |
| 2. International Convention on the Elimination of All Forms of Racial Discrimination | Congo, India, Indonesia, Kenya, Nigeria, Syria, Tajikistan, Tonga, Uzbekistan, Vietnam. |
| 3. International Covenant on Civil and Political Rights | Congo, India, Indonesia, Kenya, Nigeria, Syria, Tajikistan, Uzbekistan, Vietnam. |
| 4. International Covenant on Economic, Social and Cultural Rights | Congo, India, Indonesia, Kenya, Nigeria, Syria, Tajikistan, Uzbekistan, Vietnam. |
| 5. Convention on the Elimination of All Forms of Discrimination against Women | Congo, Cook Islands, India, Indonesia, Kenya, Micronesia, Nauru, Nigeria, Syria, Tajikistan, Uzbekistan, Vietnam |
| 6. Convention against Torture and other Cruel, Inhuman or Degrading Treatment or Punishment | Congo, India, Indonesia, Kenya, Nauru, Nigeria, Syria, Tajikistan, Uzbekistan, Vietnam. |
| 7. Convention on the Rights of the Child | All |
| 8. Convention concerning Forced or Compulsory Labor, No. 29 | Congo, Cook Islands, India, Indonesia, Kenya, Nigeria, Syria, Tajikistan, Uzbekistan, Vietnam. |
| 9. Convention concerning Freedom of Association and Protection of the Right to Organize, No. 87 | Congo, Indonesia, Nigeria, Syria, Tajikistan, Uzbekistan. |
| 10. Convention concerning the Application of the Principles of the Right to Organize and to Bargain Collectively, No. 98 | Congo, Indonesia, Kenya, Nigeria, Syria, Tajikistan, Uzbekistan. |
| 11. Convention concerning Equal Remuneration for Men and Women Workers for Work of Equal Value, No. 100 | Congo, India, Indonesia, Kenya, Nigeria, Syria, Tajikistan, Uzbekistan, Vietnam. |
| 12. Convention concerning the Abolition of Forced Labor, No. 105 | Congo, Cook Islands, India, Indonesia, Kenya, Nigeria, Syria, Tajikistan, Uzbekistan. |
| 13. Convention concerning Discrimination in Respect of Employment and Occupation, No. 111 | Congo, India, Indonesia, Kenya, Nigeria, Syria, Tajikistan, Vietnam. |
| 14. Convention concerning Minimum Age for Admission to Employment, No. 138 | Congo, India, Indonesia, Kenya, Nigeria, Syria, Tajikistan, Uzbekistan, Vietnam. |
| 15. Convention concerning the prohibition and immediate action for the elimination of the worst forms of child labor, No. 182 | Congo, Cook Islands, India, Indonesia, Kenya, Nigeria, Syria, Tajikistan, Uzbekistan, Vietnam. |
| 16. Convention on International Trade in Endangered Species of Wild Fauna and Flora | Congo, India, Indonesia, Kenya, Nigeria, Tajikistan, Tonga, Uzbekistan, Vietnam. |
| 17. Montreal Protocol on Substances that Deplete the Ozone Layer | All |
| 18. Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal | All except Niue |

A POST-BREXIT GSP FOR THE UK: HOW TO GUARANTEE UNCHANGED MARKET ACCESS FOR DEVELOPING COUNTRIES?

| 19. Convention on Biological Diversity | All | | |
|---|--|--|--|
| 20. UN Framework Convention on Climate Change | All | | |
| 21. Cartagena Protocol on Biosafety | Congo, Cook Islands, India, Indonesia, Kenya, Nauru, Nigeria, Niue, Syria, Tajikistan, Vietnam | | |
| 22. Stockholm Convention on Persistent Organic Pollutants | All except Uzbekistan. | | |
| 23. Kyoto Protocol to the United Nations Framework Convention on Climate Change | All | | |
| 24. UN Single Convention on Narcotic Drugs | Congo, India, Indonesia, Kenya, Micronesia, Nigeria, Syria, Tonga. | | |
| 25. UN Convention on Psychotropic Substances | Congo, India, Indonesia, Kenya, Micronesia, Nigeria, Niue, Syria, Tajikistan, Tonga, Uzbekistan, Vietnam | | |
| 26. UN Convention against Illicit Traffic in Narcotic | All | | |
| Drugs and Psychotropic Substances | | | |
| 27. UN Convention against Corruption | All except Tonga. | | |

Source: Author's elaboration with data from https://treaties.un.org/