The impact of tariff liberalisation on Uzbekistan imports:
the case study of 35 product categories

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TECHNICAL NOTE
UZBEKISTAN

About the German Economic Team

Financed by the Federal Ministry for Economics and Energy, the German Economic Team (GET) advises the governments of Ukraine, Belarus*, Moldova, Kosovo, Armenia, Georgia and Uzbekistan on economic policy matters. Berlin Economics has been commissioned with the implementation of the consultancy.
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Content

1. Approach

Based on a request of the Center for Economic Research and Reforms (CERR), this technical note contains estimates of tariff liberalisation impact for 35 product groups on Uzbekistan imports.

The analysis uses a partial equilibrium model SMART (Single Market Partial Equilibrium Simulation Tool) of the World Bank's WITS (World Integrated Trade Solution). As the WITS database does not have relevant import duties for Uzbekistan, we replicated SMART calculations relying on its formulas and data on elasticity.

We use the following data and assumptions:

» **UZB imports at HS 6 digits**: UN Comtrade monthly data for the year 2022 - aggregated into annual data; converted from HS 2017 into HS 2012 to match the SMART elasticity dataset.

» **UZB import duty at HS 6 digits**: ad valorem components of MFN import duties from the file "Tariff changes for food products in Uzbekistan" provided by the CERR.

For group 22, "Fruit juices (including grape must) and vegetable juices", we used two import duties: 20% for a subset of products belonging to group 23 ", Tomato, grape, apple juices", and 10% for the rest of the products. This avoided discrepancies in the estimates.

For partners having no bilateral MFN agreement with Uzbekistan, the level of import duty is doubled.

For FTAs, import duties are set to zero. The following countries are considered as having FTAs with Uzbekistan: Russia, Kazakhstan, Belarus, Kyrgyzstan, Azerbaijan, Ukraine, Georgia, Moldova, Tajikistan, Turkmenistan

» **Import demand elasticity by product**: Based on WITS; for omitted values, elasticity is set equal to -1.

» **Elasticity of substitution**: -1.5 (default value in SMART).

» **Groups**: all groups from the file "Tariff changes for food products in Uzbekistan" provided by the CERR, but with some reservations.

We did not do estimates for group 27, "Chewing gum", separately, as we do not have sufficiently detailed data for this group. This group is a subset of group 26, "Food preparations not elsewhere specified or included", and thus estimated within this group.

Also, group 23, "Tomato, grape, apple juices", is a subset of group 22 ", Fruit juices (including grape must) and vegetable juices. Therefore, group 23, "Tomato, grape, apple juices", is not included in the calculation of aggregates.

We considered a scenario of **nullifying import duties** on products belonging to these groups. The changes concern all countries except FTA partners of Uzbekistan.

2.   Aggregate results by product groups

The complete elimination of import duties on products belonging to the specified product groups will increase imports by USD 58 m or 6.7% of UZB imports of these products in 2022.

The most significant absolute increase is in imports of group 26, "Food preparations not elsewhere specified or included", amounting to USD 10 m. The second largest – at USD 9 m – is registered in group 12, "Cane or beet sugar and chemically pure sucrose, in solid form".

In relative terms, the fastest import expansion is expected for group 9, "Sausages and similar products of meat", with a 58% increase compared to UZB imports in 2022. High growth rates are also demonstrated by group 6, "Other fruits, fresh".

Table 1: Impact of tariff liberalisation, by product groups

Group	Description	Total trade effect, USD thousand	UZB imports, 2022, USD thousand	Change, %
1	Meat and edible offal, of the poultry	4,847	49,165	9.9%
2	Buttermilk, curdled milk and cream, yogurt, kephir	38	14,948	0.3%
3	Cheese and curd.	865	26,350	3.3%
4	Other nuts, fresh or dried	1,342	7,743	17.3%
5	Apples, pears and quinces, fresh.	1,929	15,076	12.8%
6	Other fruit, fresh.	1,629	3,882	**42.0%**
7	Fruit, dried	116	1,086	10.7%
8	Cereal grains otherwise worked	14	11,826	0.1%
9	Sausages and similar products, of meat	2,495	4,343	**57.4%**
10	Other prepared or preserved meat, meat offal or blood.	54	7,059	0.8%
11	Prepared or preserved fish	664	8,381	7.9%
12	Cane or beet sugar and chemically pure sucrose, in solid form	**8,950**	56,328	15.9%
13	Other sugars	564	6,966	8.1%
14	Sugar confectionery (including white chocolate), not containing cocoa.	1,235	31,802	3.9%
15	Chocolate and other food preparations containing cocoa.	4,710	126,660	3.7%
16	Pasta, whether or not cooked or stuffed	79	25,104	0.3%
17	Bread, pastry, cakes, biscuits and other bakers' ware	1,277	56,777	2.2%
18	Other vegetables prepared or preserved otherwise than by vinegar or acetic acid, frozen	803	5,878	13.7%

Group	Description	Total trade effect, USD thousand	UZB imports, 2022, USD thousand	Change, %
19	Other vegetables prepared or preserved otherwise than by vinegar or acetic acid, not frozen	697	34,464	2.0%
20	Jams, fruit jellies, marmalades	185	5,150	3.6%
21	Fruit, nuts and other edible parts of plants, otherwise prepared or preserved	354	12,798	2.8%
22	Fruit juices (including grape must) and vegetable juices	504	6,755	7.5%
23	*Tomato, grape, apple juices*	*28*	*1,756*	*1.6%*
24	Sauces and preparations therefor	1,116	33,237	3.4%
25	Ice cream and other edible ice	61	5,487	1.1%
26	Food preparations not elsewhere specified or included	**10,274**	74,619	13.8%
28	Waters, including natural or artificial mineral waters and aerated waters, not containing added sugar	143	6,682	2.1%
29	Waters, including mineral waters and aerated waters, containing added sugar or other sweetening	966	68,548	1.4%
30	Other live plants (including their roots), cuttings and slips; mushroom spawn.	4,506	31,529	14.3%
31	Soya beans, whether or not broken.	0	24,409	0.0%
32	Soups and broths and preparations therefor	147	3,373	4.4%
33	Woven pile fabrics and chenille fabrics	1,036	10,021	10.3%
34	Textile fabrics impregnated, coated, covered or laminated with plastics	2,557	32,654	7.8%
35	Pile fabrics, including "long pile" fabrics and terry fabrics, knitted or crocheted.	4,198	56,570	7.4%
	Total (excluding group 23)	**58,354**	**865,670**	**6.7%**

Sources: UN ComTrade, WITS, CERR, own estimates

3. Aggregate results by countries

The tariff liberalisation will result in an increase in imports and a considerable reorientation of import flows. Imports from the EU will increase the most in absolute terms, amounting to USD 42 m. The expansion is caused by both trade creation and trade diversion effects. Other countries with the most pronounced positive total trade effects are Turkey, China, and India.

Countries currently having FTAs with Uzbekistan will face trade diversion. Imports from Russia will be affected the most, reducing by USD 29 m. However, that accounts for only 8% of the products imported from this partner.

Table 2: Impact of tariff liberalisation, by partners

Partner	Trade creation, USD thousand	Trade diversion, USD thousand	Total trade effect, USD thousand	UZB imports, 2022, USD thousand	Change, %
Top change by positive total trade effect					
EU	21,413	20,997	42,410	116,439	36%
including					
Poland	5,186	4,753	9,939	31,434	32%
France	4,052	3,628	7,679	17,499	44%
Italy	2,821	2,154	4,975	16,882	29%
Netherlands	1,944	2,137	4,081	11,171	37%
Germany	1,708	2,252	3,960	9,185	43%
Türkiye	7,508	4,665	12,173	54,670	22%
China	9,062	1,587	10,649	96,720	11%
India	5,738	1,028	6,766	38,300	18%
Iran	2,915	946	3,861	10,711	36%
USA	1,753	1,795	3,548	10,053	35%
United Arab Emirates	2,124	544	2,668	7,154	37%
Top change by negative total trade effect					
Moldova	0	-548	-548	2,004	-27%
Kazakhstan	0	-1,893	-1,893	64,036	-3%
Belarus	0	-2,002	-2,002	20,721	-10%
Ukraine	0	-2,387	-2,387	29,069	-8%
Russian Federation	0	-28,511	-28,511	363,534	-8%

Sources: UN ComTrade, WITS, CERR, own estimates

4.   Conclusions

Full liberalisation of imports of considered 35 product groups will have a moderate impact. The UZB imports of these products will increase by USD 58 m or 6.7% compared to 2022. However, the change in import duties will result in a noticeable trade reorientation from Russia towards the EU, Turkey, and China.

Methodological annex

Trade creation (TC) is the direct increase in imports $m_{g,c}$ following a reduction in the tariff $t_{g,c}$ imposed on good g from country c.

$$TC_{g,c} = m_{g,c}\varepsilon_{g,c}\Delta t_{g,c} \,,$$

where for each g and c, $\Delta t_{g,c} = (t_{wto} - t_{applied})/(1 + t_{applied})$ and
$\varepsilon_{g,c}$ is the elasticity of import demand, $\varepsilon_{g,c} < 0$

Trade diversion (TD) is the indirect change in imports after a reduction in the tariff caused by the change in relative prices of goods supplied by different trade partners.

$$TD_{g,c} = m_{g,\neq c}m_{g,c}\Delta t_{g,c}\sigma_{g,c,\neq c}/(m_{g,\neq c} + m_{g,c} + m_{g,c}\Delta t_{g,c}\sigma_{g,c,\neq c}) \,,$$

where $\sigma_{g,c,\neq c}$ is the elasticity of substitution between imports from country c affected by tariff change and imports from countries $\neq c$ not affected by tariff change. Export supply is assumed to be perfectly elastic.

$\sum_c TD_{g,c} = 0$, i.e. total increase in imports from countries affected by tariff change is equal to the total reduction in imports from countries not affected by the change in tariff.

Total trade effect = Trade creation + Trade diversion

Sources: Jammes O., Olarreaga M. (2005) "Explaining SMART and GSIM"