



University of St.Gallen

Institute for Law and Economics



SWISS TRADE MONITOR



Edition 7:
Agricultural Protectionism

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From insight to impact.

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Suggested Citation (APA 7th edition):

Legge, Stefan, Oberholzer, Ronny, and Rosenthal, Jason (2023). *“Agricultural Protectionism”*, Swiss Trade Monitor, 7th Edition, University of St.Gallen.

Date: August 9, 2023

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Publisher: University of St.Gallen, Institute for Law and Economics
Tax & Trade Policy
Varnbühlstrasse 19
CH-9000 St.Gallen

Electronic Publication: <https://ile.unisg.ch/>

Key Findings

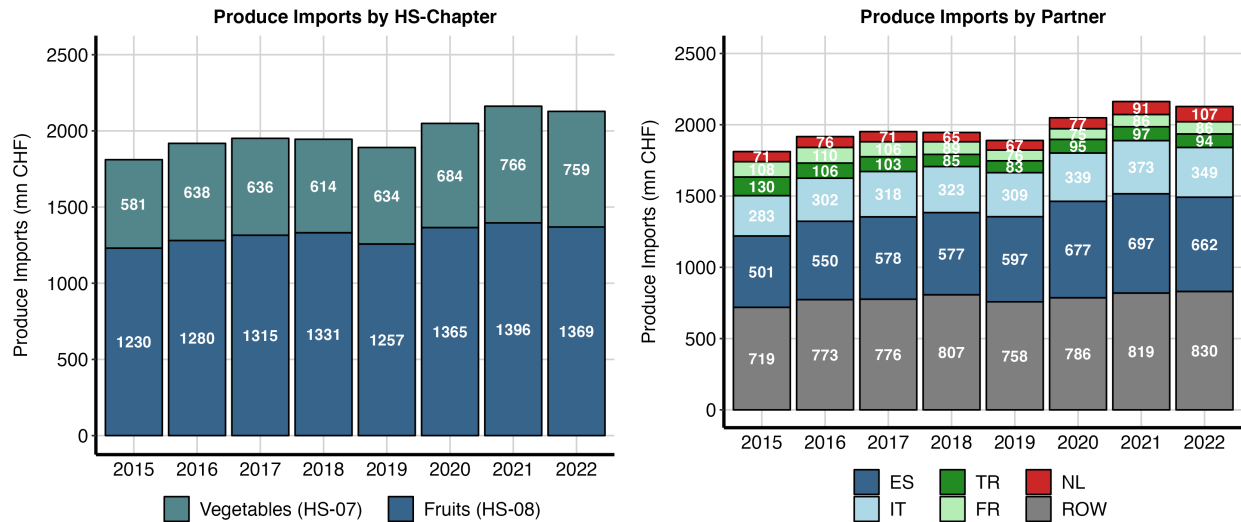
- Agricultural protectionism – the use of tariffs, quotas and other controls in trade policy to limit the imports of foreign agricultural products in favour of the domestic market – is present and widespread in Switzerland’s foreign trade. Historically, this sector has been one of the most restricting in Swiss trade policy: Almost every product also grown domestically is subject to a form of trade control.
- Of the annual produce imports amounting to roughly two billion Swiss Francs, the most important types are tomatoes, pepperoni, berries and citrus fruits. The most important trade partners are Spain and Italy.
- Tariffs imposed on goods during the Swiss harvest period (in excess of the admissible import quota) are prohibitively high. This is documented by the fact that out-of-quota imports are very limited – both in frequency and trade volume.
- There is evidence that the seasonal trade controls affect Swiss market prices. While trade barriers keep Swiss products competitive during their harvest season, the limited supply of imported products and/or the rapid increase of import values through high duties have price-increasing effects on produce markets in Switzerland.

The Swiss Trade Monitor

Switzerland is a small open economy. The international exchange of goods and services is crucial for the nation’s economic prosperity. The aim of the *Swiss Trade Monitor* is to document key trends in Switzerland’s foreign trade. Its seventh edition explores Switzerland’s imports of agricultural products. We shed light on import patterns and seasonal tariff protectionism embedded in its trade policy. The data sources for this report are the Swiss Federal Office for Customs and Border Security (FOCBS) for trade data, the Federal Statistical Office (FSO) for Consumer Price Index (CPI) data and the Federal Office of Agriculture (FOAG) for price series of agricultural products.

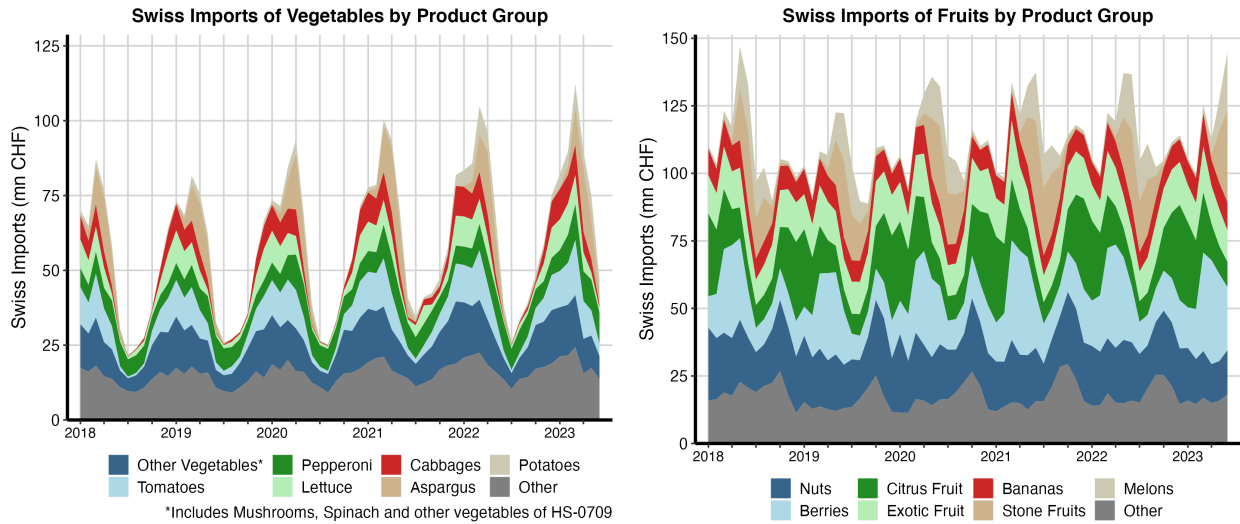
Imports of Fruits and Vegetables

In the year 2020, Swiss vegetable and fruit imports crossed the two billion CHF mark, demonstrating limited but steady growth in this trade sector over the last decade. In terms of trade volume, Switzerland imports more fruits (HS-08) than vegetables (HS-07). Regarding the origin of imported produce, Spain and Italy dominate as Switzerland's most important source countries for agricultural products. Roughly half of all imports originate from the two Mediterranean countries.



Note: The figures show annual import volumes (in million CHF) of HS-Chapters HS-07 and HS-08, separated by HS-Chapter (left) and trade partner (right).

Monthly imports of the main fruits and vegetables (or categories) are illustrated below. A clear pattern of counter-cyclicity to a product's Swiss harvesting season is apparent: products that are out-of-season in Switzerland are imported in larger quantities. Cabbage, for example, is almost exclusively imported when there is no domestic harvest. The overall vegetable trade is very volatile with volumes of up to 100 million CHF in winter months which decrease to 25 million CHF in summer. Fruit import volumes, in contrast, show slight seasonal fluctuations but not of the same magnitude.



Note: The figures show monthly import volumes in million CHF of vegetables (HS-07, left) and fruits (HS-08, right), separated by main product groups. As expected, the pattern of imports of a product is counter-cyclical to its Swiss harvesting period; off-season vegetables and fruits are imported from abroad.

Seasonal variations can be caused by both demand- and supply-side forces. The data, for instance, show high imports of citrus fruits during Swiss winter months. This can be explained by increased demand for products like oranges and mandarins. In addition, the harvest season for these products from Spain and Italy — Switzerland's main source countries — coincides with this time period.

We must, however, distinguish between products with and without a Swiss domestic cultivation. In this regard it is worth comparing imports of tomatoes and bananas. While the former show a pronounced seasonal pattern, we observe steady imports of bananas. It is unlikely that demand-side forces explain this pattern. Instead, the main difference is that bananas are not produced in Switzerland. As a result, the regular tariff on bananas is just 14 Francs per 100kg, no matter when they are imported. In fact, most banana imports are entirely duty-free because they are from countries like Ecuador, Columbia, or Peru. How does this compare to other imports?

What tariffs exist on agricultural products?

The manner in which trade controls are employed in the Swiss agricultural trade sector varies across products. In many instances, they are enforced during the product’s Swiss harvesting season – in an effort to uphold the competitiveness of domestic products. During that time period, imports of a product are subject to a quota with reduced tariffs. This sets a limit on the amount that may be imported under the reduced tariff rate. If imports exceed the quota, much higher tariffs apply.

In general, tariff rates of in-season-in-quota and off-season imports are very similar. We thus distinguish between low tariffs — which apply off-season as well as in-season but within the import quota — and high tariffs applied during the products’ Swiss harvesting season in excess of the applied import quota. The latter are often bounded at the WTO: the highest tariff for carrots, for instance, is 710 CHF per 100kg. For key vegetables and fruits that are grown domestically, the table below presents relevant tariff lines and duties. Note that some products (e.g., potatoes) do not have an off-season regime but are subject to an annual import quota.

Table 1: Tariff Overview of Popular Swiss Vegetables and Fruits

		Tariff-Nr.	Low	High	Harvest season
Vegetables	Potatoes	0701.90	6.0	64.0	Annual Quota
	Cherry Tomatoes	0702.001	5.0	731.0	01.05 – 20.10
	Plum Tomatoes	0702.002	5.0	264.0	01.05 – 20.10
	Beef Tomatoes	0702.003	5.0	264.0	01.05 – 20.10
	Other Tomatoes	0702.009	5.0	264.0	01.05 – 20.10
	Onions	0703.105	2.9	126.0	01.07 – 30.04
	Leek	0703.901	10.0	500.0	01.03 – 15.02
	Broccoli	0704.103	10.0	228.0	01.05 – 30.11
	Carrots	0706.101	4.0	710.0	25.05 – 10.05
	Iceberg Salad	0705.111	7.0	311.0	01.03 – 31.12
	Cucumbers	0707.001	10.0	144.0	15.04 – 20.10
	Peas	0708.101	10.0	364.0	20.05 – 15.08
	Asparagus	0709.201	0.0	734.0	01.05 – 15.06
	Spinach	0709.701	10.0	204.0	15.02 – 15.12
Fruits	Apples	0808.102	2.0	153.0	15.07 – 14.06
	Apricots	0809.101	3.0	204.0	01.07 – 31.08
	Cherries	0809.291	3.0	255.0	20.05 – 31.08
	Strawberries	0810.101	3.0	510.0	15.05 – 31.08
	Raspberries	0810.201	5.0	459.0	01.06 – 14.09

Note: The table lists popular Swiss vegetables and fruits that have seasonality-dependent tariff rates. All duties are from 2022 and expressed in CHF per 100kg. Low tariffs are applied in the product’s off-season or within its admissible import quota. High tariffs apply during the product’s Swiss harvest season in excess of the admissible quota. Harvest season refers to the time period in which trade controls apply for imported goods.

Quotas for reduced tariffs on fresh vegetables and fruits are released annually during the product's harvest season by the Federal Office of Agriculture. The size of quotas depends, above all, on the yield of Swiss producers and their ability to supply the domestic demand. In this way, quotas attempt to limit imports under favourable conditions to the amount required to fill the domestic supply-demand gap. It is worth noting that for many products, the quotas are binding.¹

For the same produce types as in the previous table, import statistics are shown in the table below. Tomatoes, potatoes and berries are some of the most imported produce types subject to trade controls. In addition, Spain and Italy are Switzerland's main trade partners for produce. They represent the top import partner for many vegetable and fruit types.

Table 2: Annual Import Volumes of Popular Produce

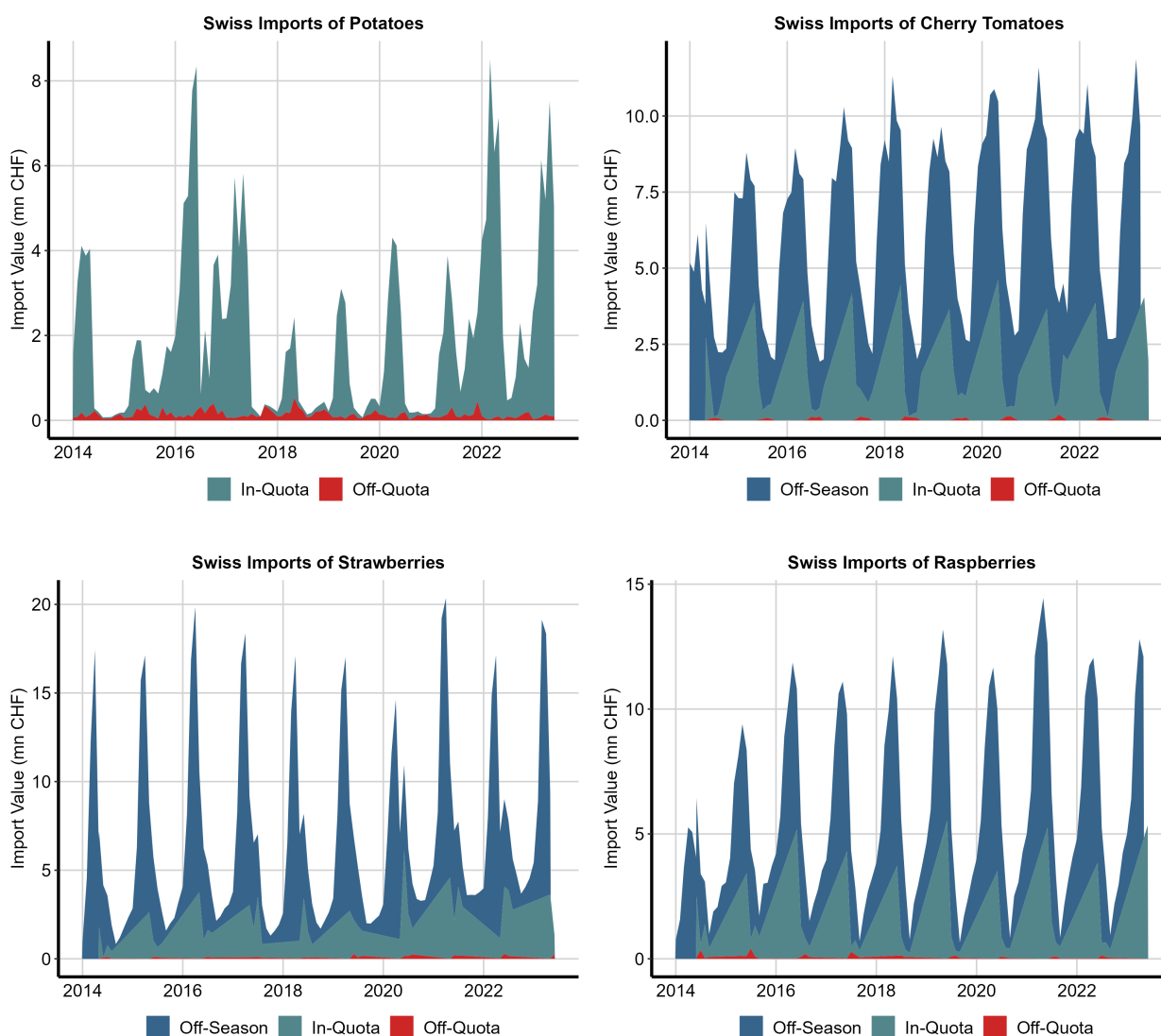
	Tariff Nr.	2018	2019	2020	2021	2022	Top Exporter
Potatoes	0701.90	8.47	11.61	16.17	21.19	39.94	Netherlands
Cherry Tomatoes	0702.001	44.61	45.35	47.79	52.22	45.28	Italy
Plum Tomatoes	0702.002	6.52	6.19	7.48	8.56	8.70	Spain
Beef Tomatoes	0702.003	3.35	3.49	4.37	4.66	4.92	Spain
Other Tomatoes	0702.009	29.46	27.88	30.86	34.01	36.68	Spain
Onions	0703.105	0.89	1.78	0.57	0.69	2.30	Netherlands
Leek	0703.901	1.15	1.49	1.40	2.14	1.75	Türkiye
Broccoli	0704.103	17.02	19.18	21.39	26.13	21.52	Spain
Carrots	0706.101	0.13	0.15	0.08	0.19	0.10	Italy
Iceberg Salad	0705.111	15.43	16.64	15.90	19.23	16.88	Spain
Cucumbers	0707.001	24.58	24.50	28.99	31.56	36.40	Spain
Peas	0708.101	2.24	2.29	2.25	2.33	1.93	Kenya
Asparagus	0709.201	27.03	26.08	26.38	33.98	29.10	Spain
Spinach	0709.701	4.11	4.25	5.12	6.50	6.14	Italy
Apples	0808.102	29.99	3.71	12.76	7.48	5.90	Italy
Apricots	0809.101	14.69	13.61	14.60	22.14	12.86	Spain
Cherries	0809.291	10.01	12.46	14.32	17.62	12.77	Italy
Strawberries	0810.101	52.30	52.20	53.02	62.94	60.14	Spain
Raspberries	0810.201	37.04	38.07	39.45	47.46	43.31	Spain
Total		329.02	310.93	342.90	401.03	386.62	

Note: The table presents annual import volumes (in million CHF) and the top trade partner of popular vegetables and fruits, according to the indicated tariff number, between 2018 and 2022.

¹For more information, refer to the FOAG website (in German) <https://www.blw.admin.ch/blw/de/home/markt/einfuhr-von-agrarprodukten.html>.

What is the effect of trade controls on imports?

As discussed above, some of Switzerland's most popular vegetables and fruits are subject to trade controls in the form of quotas and tariffs. When imports can occur within-quota, reduced tariffs are applied. Thus, it is expected that most produce is imported under this regime. As the figures below show, imports mostly occur either within-quota or off-season. Put differently, we only observe sizable imports of potatoes and cherry tomatoes when low tariffs are applied. Out-of-quota imports are almost non-existent. This is indicative of the prohibitive effects of agricultural tariffs.



Note: The figures show monthly imports separated by clearance regime (off-season, in-season-in-quota, out-of-quota) for some of the most imported produce types with seasonality-dependent tariffs. Source: FOCBS – Foreign Trade Statistics.

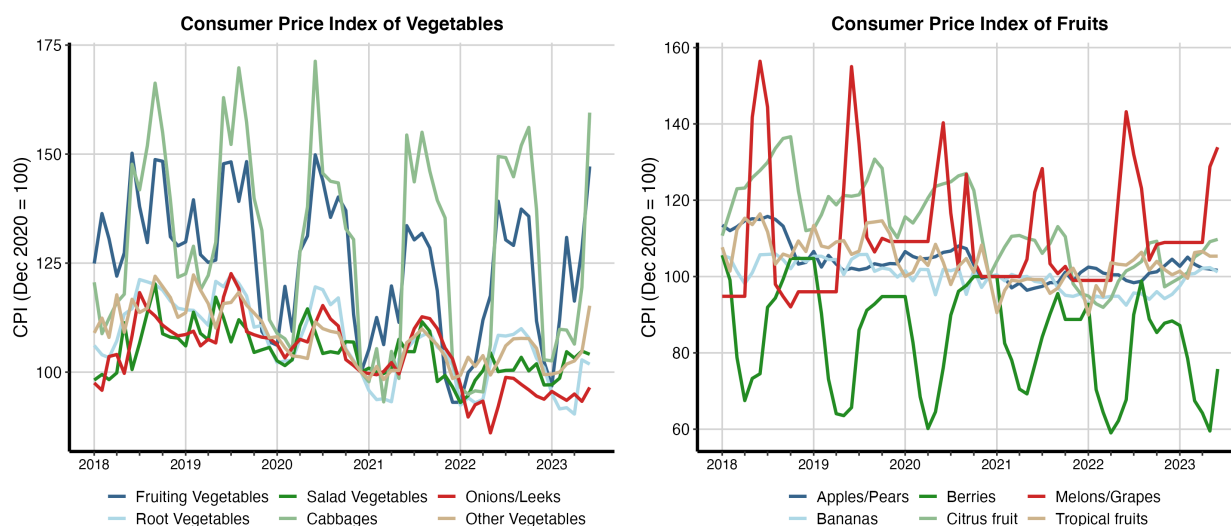
What is the Effect of Trade Controls on Prices?

The primary objective of trade controls, especially tariffs, is to increase the price of imported goods in favor of domestic ones. Higher prices favor domestic producers by improving their relative competitiveness and/or limiting the inflow of imported goods. Thus, two channels affect higher prices of produce: limited supply from abroad due to trade barriers and high duties if produce is still imported under these unfavorable terms.

The Effect on Inflation

The rate of inflation in an economy is typically estimated by a consumer price index — prices of a basket of goods and services that reflect the consumption of an average person. Vegetables and fruits carry a weight of about 2-3% in the country's inflation index. Note, however, that the cost of fruits and vegetables are much more important for low-income households.²

In the figure below, CPIs of different vegetable and fruit categories are illustrated. Domestically-grown products (e.g., berries, grapes, fruiting vegetables and cabbages) show clear signs of seasonality. The highest values are recorded during the products' Swiss harvest period, often in the summer months. By contrast, produce types which are purely imported (e.g., tropical fruits) or without strict harvest periods (e.g., onions, root vegetables) have less cyclical indices.



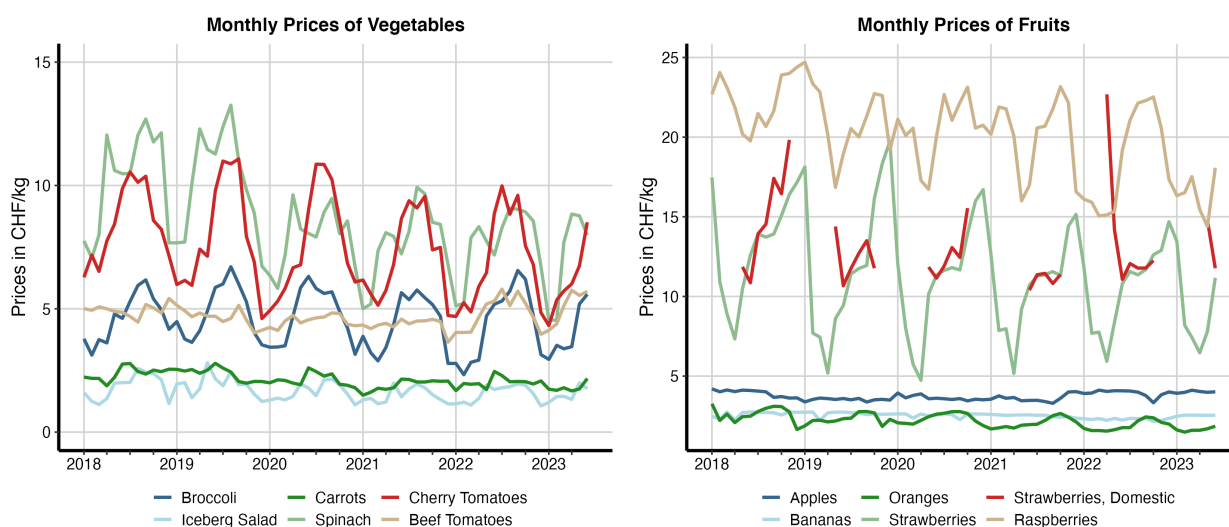
Note: The figures show the Consumer Price Index of vegetable and fruit groups between 2018 and 2023 (December 2020 = 100). Source: FSO – Consumer Price Index.

We can again compare two specific products to illustrate the key point. The price of cabbages increases by more than 50% during Swiss harvest season in summer. In contrast, the price of bananas shows very little variation throughout the year.

²For details please refer to the FSO's publication number 1087-1700.

The Effect on Produce Prices

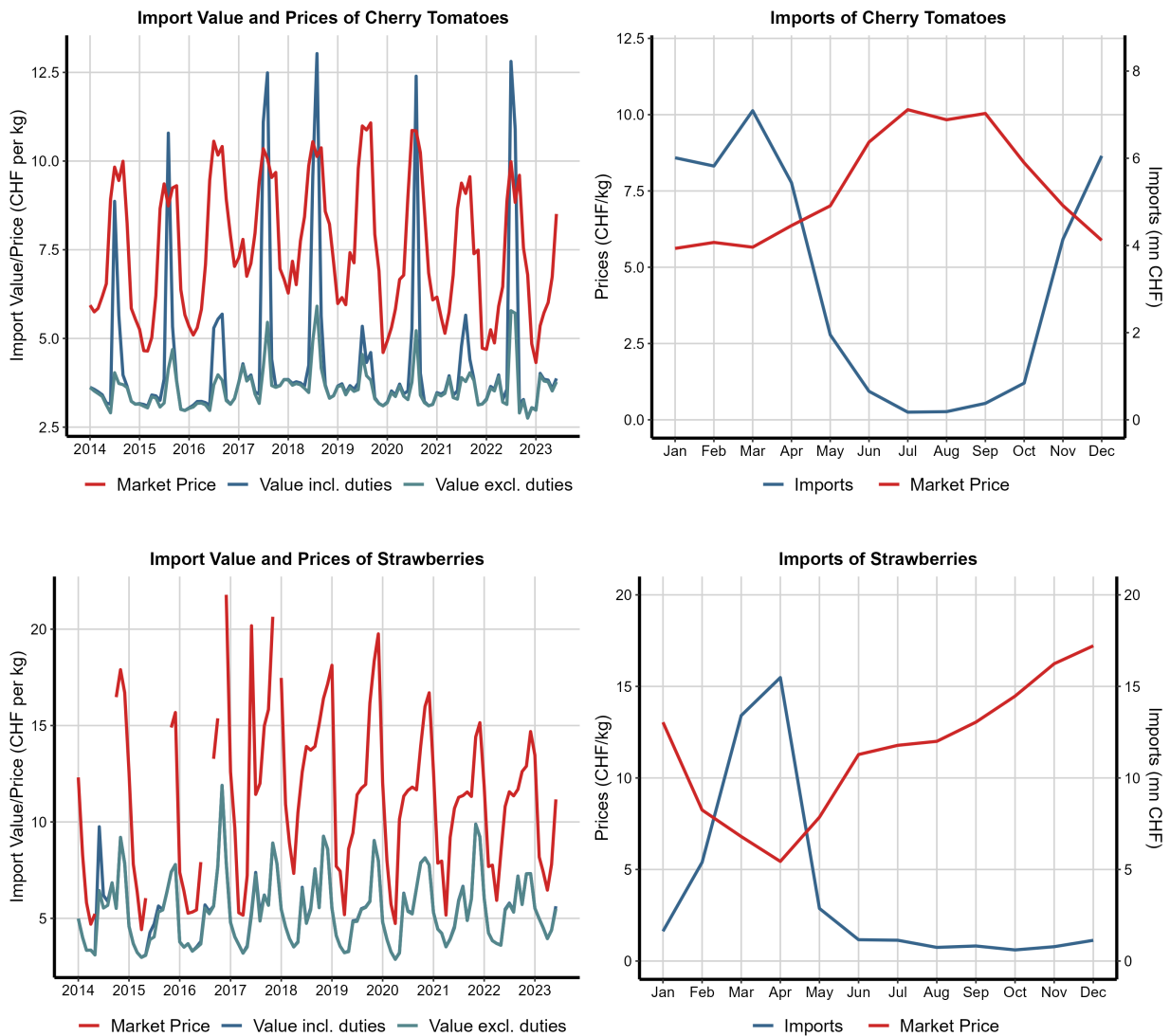
Beyond the phenomenon of seasonality visible in the FSO Consumer Price Index, retail price series of different produce types published by the FOAG reveal further insights. The figures below show the development of prices of selected vegetables and fruits. In general, the larger the role of seasonality in harvesting, the larger the seasonal differences in prices. Swiss cherry tomatoes which are only in season in summer exhibit larger fluctuations compared to, for example, carrots. In the same way, purely imported produce (e.g., bananas) have much more stable prices.



Note: The figures show prices of selected vegetables and fruits in CHF per kilogram, between 2018 and 2023. For some products, prices are only available during domestic harvest periods: if there is no line, no data is available.
Source: FOAG – Market Analysis.

Of note are the price series of imported and domestic strawberries in the right-hand figure. Given that data exists for both imported and domestic strawberries, there is evidence that prices of the former type are inflated during the Swiss harvest period in order to match the latter's prices. Put differently, in months where prices of domestic strawberries are available, there is a high correlation with the prices of their imported counterparts.

The increase in prices of imported produce such as strawberries during main harvest periods is no evidence of price-increasing effects of trade controls per se. For this, we combine market price data with Swiss goods trade data by the FOCBS, which reveal the value and charged duties of imported products. Results for the two most imported vegetable and fruit types – cherry tomatoes and strawberries – are presented in the two left-hand figures below.



Note: The left-hand figures show the trade-weighted average of declared import values including and excluding customs duties in comparison to Swiss market prices, on a monthly basis in CHF per kilogram. The right-hand figures show monthly averages of import volumes (in million CHF) and market prices (CHF per kilogram). Source: FOCBS – Foreign Trade Statistics; FOAG – Market Analysis.

In general, values including duties tend to follow values without duties. Deviations of the two import values are a result of high duties imposed, which occur only if goods subject to out-of-quota tariff rates are imported. As this is rarely the case, fluctuations are similarly infrequent. Cherry tomatoes show the clearest deviations: in summer months their import values rise greatly — even when adjusted for trade volumes.

Of further interest is the empirical relationship between market prices and import values. Market prices are recorded by the FOAG and refer to retail prices.³ Products exhibit a clear gap of approximately 70 to 200 percent between the value of imports and the market price. Clearly, the extent to which imported products affect market prices is small as import volumes are inherently limited to prevent a flooding of cheap products on the Swiss market.

In the two right-hand figures above, average market prices and import volumes are plotted for each month of the year. An inverse relationship exists between the two: increasing prices are observed when import volumes decrease in the summer months.

³For market prices no distinction is made based on the origin of products (imported or domestic). The only exception is strawberries where prices of imported fruits are recorded separately. It is thus expected that these prices follow import values more closely.

Conclusion

The 7th edition of the Swiss Trade Monitor analyzes data on agricultural protectionism. The results paint a clear picture and can be summarized by three points:

- During Switzerland's harvest season, import tariffs often increase by a factor of 50 or more.
- Such tariffs are prohibitively high as they prevent almost all imports.
- Consumers, especially those with lower incomes, pay the price for this form of protectionism as affected vegetables and fruits are much more expensive as a result.

In addition to the high tariff rates, exporters of agricultural products also face other market distortions in Switzerland. As documented by the OECD (2023, doi: 10.1787/6ea85c58-en), producer support in Switzerland amounts to almost 50% of gross farm receipts. Few nations protect their agricultural sector to such an extent: Support to producers as a share of gross farm receipts is almost three times the OECD average.

Finally, it is worth noting that this report only considers fruits and vegetables. Swiss agricultural protectionism covers many other food items, too. Tariffs on eggs, for instance, vary between 50 and 371 CHF per 100kg. The tariff on butter (HS 0405.1019) can be up to 1'642 CHF per 100kg, for boneless veal it is 2'212 CHF per 100kg. Such protectionism comes at a significant cost to the average household.

Appendix: Popular Swiss Vegetables and Fruits — Detailed List

	Tariff Nr.	Off-Season	In-Quota	Low Tariff	Off-Quota	High Tariff	In-Season Date
Vegetables	Potatoes	0701.90	0701.9010	6	0701.9091	64	Annual Quota
	Cherry Tomatoes	0702.001	0702.0010	5	0702.0019	600/731	01.05 – 20.10
	Plum Tomatoes	0702.002	0702.0020	5	0702.0029	150/264	01.05 – 20.10
	Beef Tomatoes	0702.003	0702.0030	5	0702.0039	150/264	01.05 – 20.10
	Other Tomatoes	0702.009	0702.0090	5	0702.0099	150/264	01.05 – 20.10
	Onions	0703.105	0703.1050	2.9	0703.1059	100/126	01.07 – 30.04
	Leek	0703.901	0703.9010	10	0703.9019	130/500	01.03 – 15.02
	Broccoli	0704.103	0704.1030	10	0704.1039	120/228	01.05 – 30.11
	Carrots	0706.101	0706.1010	4	0706.1019	250/710	25.05 – 10.05
	Iceberg Salad	0705.111	0705.1111	7	0705.1119	150/311	01.03 – 31.12
	Cucumbers	0707.001	0707.0010	10	0707.0019	100/144	15.04 – 20.10
	Peas	0708.101	0708.1010	10	0708.1019	364	20.05 – 15.08
	Asparagus	0709.201	0709.2010	0	0709.2019	480/734	01.05 – 15.06
	Spinach	0709.701	0709.7010	10	0709.7019	150/204	15.02 – 15.12
Fruits	Apples	0808.102	0808.1021	2	0808.1029	140/153	15.07 – 14.06
	Apricots	0809.101	0809.1011	3	0809.1019	200/204	01.07 – 31.08
	Cherries	0809.291	0809.2910	3	0809.2919	200/255	20.05 – 31.08
	Strawberries	0810.101	0810.1010	3	0810.1019	450/510	15.05 – 31.08
	Raspberries	0810.201	0810.2010	5	0810.2019	400/459	01.06 – 14.09

Note: The table lists popular Swiss vegetables and fruits that have seasonality-dependent tariff rates. All duties are from 2022 and expressed in CHF per 100kg. The columns 1) *Off-Season*, 2) *In-Quota* and 3) *Off-Quota* refer to the tariff numbers applied 1) outside of Swiss harvest periods, 2) during Swiss harvest periods and within the quota, and 3) during Swiss harvest periods but in excess of admissible quota limits respectively. Low tariff rates may be applied in the off-season period, and the in-season period if within the admissible quota. The in-season tariff rates without quota restrictions (column *High Tariff*) may contain two tariff rates types: reduced and full. Reduced rates may come into effect at the discretion of the Federal Council.

Appendix: HS Sections of Vegetables and Fruits — Descriptions

	HS	Products
Vegetables	0701	Potatoes
	0702	Tomatoes
	0703	Onions, shallots, garlic, leeks
	0704	Cabbages, cauliflowers, kohlrabi, kale
	0705	Lettuce
	0706	Carrots, turnips, salad beetroot, other root vegetables
	0707	Cucumbers and gherkins
	0708	Leguminous vegetables
	0709	Other vegetables
	0710	Frozen Vegetables
	0711	Preserved Vegetables
	0712	Dried vegetables
	0713	Dried leguminous vegetables
	0714	Manioc, sweet potatoes and other root vegetables
Fruits	0801	Coconuts, Brazil nuts and cashew nuts
	0802	Other nuts
	0803	Bananas and plantains
	0804	Dates, figs, pineapples, avocados, guavas, mangoes
	0805	Citrus fruit
	0806	Grapes
	0807	Melons, incl. watermelons, and papayas
	0808	Apples, pears and quinces
	0809	Apricots, cherries, peaches incl. nectarines, plums
	0810	Strawberries, raspberries, blackberries and other edible fruits
	0811	Frozen fruits and nuts
	0812	Preserved fruits and nuts
	0813	Dried apricots, prunes, apples, peaches, pears, papayas and other
	0814	Peel of citrus fruit or melons, incl. watermelons

Appendix: HS Chapters — Descriptions

HS	Products	HS	Products
1	Live Animals	49	Printed Books, Newspapers
2	Meat	50	Silk
3	Fish	51	Wool
4	Dairy Products	52	Cotton
5	Products of Animal Origin	53	Other Textile Fibers
6	Live Trees and Plants	54	Man-made Filan-Made Textile Materials
7	Edible Vegetables	55	Man-made Staple Fibers
8	Edible Fruit and Nuts	56	Wadding
9	Coffee, Tea, Spices	57	Carpets
10	Cereals	58	Special Woven Fabrics
11	Products of the Milling Industry	59	Impregnated, Coated or Laminated Textile Fabrics
12	Oil Seeds	60	Knitted or Crocheted Fabrics
13	Lac, Gums, Resins	61	Articles of Apparel (knitted)
14	Vegetable Plaiting Materials	62	Articles of Apparel (not knitted)
15	Animal and Vegetable Fats and Oils	63	Other Textiles
16	Preparations of Meat or Fish	64	Footwear
17	Sugars and Confectionery	65	Headgear
18	Cocoa	66	Umbrellas, Walking Sticks
19	Preparations of Cereals, Flour	67	Prepared Feathers
20	Preparations of Vegetables	68	Articles of Stone, Plaster, Cement
21	Misc. Edible Preparations	69	Ceramic Products
22	Beverages	70	Glass and Glassware
23	Residues and Waste of Food Industries	71	Natural or Cultured Pearls, Precious Metals
24	Tobacco	72	Iron and Steel
25	Salt, Sulfur, Earths, and Stone	73	Articles of Iron or Steel
26	Ores, Slag, and Ash	74	Copper or Articles Thereof
27	Mineral Fuels and Oils	75	Nickel or Articles Thereof
28	Inorganic Chemicals	76	Aluminum or Articles Thereof
29	Organic Chemicals	78	Lead or Articles Thereof
30	Pharmaceutical Products	79	Zinc or Articles Thereof
31	Fertilizers	80	Tin or Articles Thereof
32	Tanning or Dyeing Extracts	81	Other Base Metals
33	Essential Oils	82	Tools, Cutlery
34	Soap	83	Misc. Articles of Base Metal
35	Albuminoidal Substances	84	Machines
36	Explosives, Pyrotechnicals	85	Specialized Machines
37	Photographic or Cinematographic Goods	86	Railway or Tramway Locomotives
38	Misc. Chemical Products	87	Vehicles other than railway, tramway rolling stock
39	Plastics and Articles Thereof	88	Aircraft, Spacecraft
40	Rubber and Articles Thereof	89	Ships, Boats
41	Raw Hides and Skins	90	Optical, Photographic, Precision Instruments
42	Articles of Leather	91	Clocks and Watches
43	Furskins and Artificial Fur	92	Musical Instruments
44	Wood and Articles of Wood	93	Arms and Ammunition
45	Cork and Articles of Cork	94	Furniture
46	Manufactures of Straw	95	Toys
47	Pulp of Wood	96	Misc. Manufactured Articles
48	Paper and Paperboard	97	Works of Art