

# **Sugar Protection in Switzerland**

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## ***Summary***

Switzerland started to grow beet for sugar production in 1898, within the framework of safeguarding its provision of basic foodstuffs. Protection has secured production ever since. Starting in the late 1980s, Swiss agricultural policies have undergone profound changes. Internal reforms culminated in the Swiss “Agricultural Policy 2002” and the “Agricultural Policy 2007”. The General Agreement on Tariffs and Trade / World Trade Organisation (GATT/WTO) agreements of 1995 imposed cuts to the internal support of sugar beet cultivation and a reduction of import duties. Despite these reforms, self-sufficiency in sugar increased during the past decade from 55% to 85%. In parallel, the quantity of imports grew as well, due to increased exports of manufactured products containing sugar. The present protection of the Swiss sugar market is threefold: (1) The two sugar factories receive an annual compensation for sugar processing which includes a subsidy component; (2) Custom duties are the key import barrier; (3) An additional compulsory storage fee is levied on all imports. Free trade agreements so far do hardly cover sugar. In relation to the European Union, the sugar content of manufactured traded goods is supposed to be duty-free in future. For developing countries to export sugar to Switzerland today means challenging EU export subsidies, quality, sales and market power. Switzerland includes sugar in its unilateral system of preferences for developing countries and for least developed countries. The preferences offered, however, seem to be insufficient to compensate even economically competitive sugar-producing developing countries for the trade barriers. Under present circumstances, the preferential tariff is very much an alibi exercise.

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## **1 Introduction**

At the root of Swiss sugar protection is the struggle of the country for political and economic independence. In cases of emergency, such as war, covering part of sugar consumption through local production contributed to secure provision of basic necessities. This is the political rationale behind sugar protection in Switzerland.

At the end of 19<sup>th</sup> and the beginning of the 20<sup>th</sup> century Swiss farmers organised themselves and succeeded in constituting a powerful lobby, matching their group interests to the country's myths like independence. The institutional strength of the farmers made it possible to maintain protection even during times when the substance of the political rationale eroded and despite growing international pressure to liberalise agricultural markets in Switzerland.

## **2 Sugar Production**

### ***2.1 Sugar beet agriculture***

In 2001, Switzerland counted 7320 sugar beet farmers, cultivating an area of 17'685 hectares. Over the longer term, the number of sugar beet farmers is declining, while the area of sugar beet production as well as the quantity of production are increasing. In 2002, a record quantity of 1'425'000 tonnes of sugar beet is expected. These figures compare with 8113 sugar beet farmers, an area of 14'296 hectares and a sugar beet quantity of 897'275 t in 1991.

Due to WTO/GATT agreements, there has been a steady decrease in the beet price paid by sugar factories to the sugar farmers, down to a level of CHF<sup>2</sup> 11.20<sup>3</sup> in 2001 from CHF 15 in 1994. As compensation to the Swiss farmers, the government agreed to raise the limits of beet production, in terms of quantity and area under production. Despite the Swiss pledge to liberalise agriculture in the GATT/WTO framework, parliament decided<sup>4</sup> in 1995 to increase the upper ceiling of subsidised sugar beet production from 850'000 t to 1'100'000 t a year, with an approximate sugar content of 16% (basis)<sup>5</sup>. That is the reason why after the implementation of the WTO/GATT agreements, the agricultural sugar sector in Switzerland made a big leap forward from 1995 to 1996 in terms of the harvested beet quantity, the cultivated area and even the number of farmers.

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<sup>2</sup> CHF 1.46 = 1 USD; 1 CHF = 0.68 USD (mid December 2002)

<sup>3</sup> CHF 11.20 up to 160'000 t; CHF 8.- for the next 25'000 t. In addition there are different payments (sugar content, handing-in time, transport) of CHF 2.09 in average for 2000

<sup>4</sup> It has to be emphasised that the Swiss reform of sugar protection did not violate WTO rules.

<sup>5</sup> Guidelines are set by the government, but further conditions figure in the agreement between the ZAF and beet farmers ("*Branchenvereinbarung 2002*"). The entire harvest of sugar beet, even above 1'100'000 t, is used for sugar production, but at lower prices.

## 2.2 White sugar production

Switzerland produced 163'578 t of sugar in 2001/2002. In 2000/2001, it had been 218'511 t. For the current year 2002/2003 a record production of 228'000 t is expected, due to the record beet harvest and the high sugar content.

The current performance mandate of the government with the sugar factories (two sites united in one company "Zuckerfabriken Aarberg und Frauenfeld AG", ZAF<sup>6</sup>) stipulates a production between 120'000 t and 185'000 t per production year. In addition, there is a production quota of 2000 t of organic sugar (see below, chapter 4.2). During the period 1 October 1999 – 30 September 2003, ZAF receives annual payments of CHF 45 million<sup>7</sup> from the government. In October 2002 the Federal Government decided to revise the performance mandate. It plans to decrease its annual allocation for the period from 1 October 2003 to 30 September 2007 to CHF 35 million on average. As a concession to the sugar farmers, it is expected to increase the quantity to 200'000 t.

If there is overproduction (*Ueberquotenzucker*) exceeding the performance mandate, the option is given to transfer another 10'000 t forward to the next year. This was the case in 2000 and it might be the case again in 2002. The remaining surplus of sugar (in 2000 it was 24'000 t) has to be sold at world market at prices, which reached between CHF 39 and 46 per 100 kg in 2000.

## 3 Sugar Consumption

**Gross sugar consumption** amounted to 367'959 t in 2000 (in 2001: 392'657 t). This figure is composed of import, inland-production and reduction of storage (voluntary and compulsory storage)<sup>8</sup>. The **net sugar consumption** indicates the sugar consumed during one year in Switzerland. This figure represents the gross sugar consumption minus exports of sugar (syrup and value-added products included). It reached 226'000 t (or approx. 32 kg per person) in 2000 and 242'000 t in 2001.<sup>9</sup>

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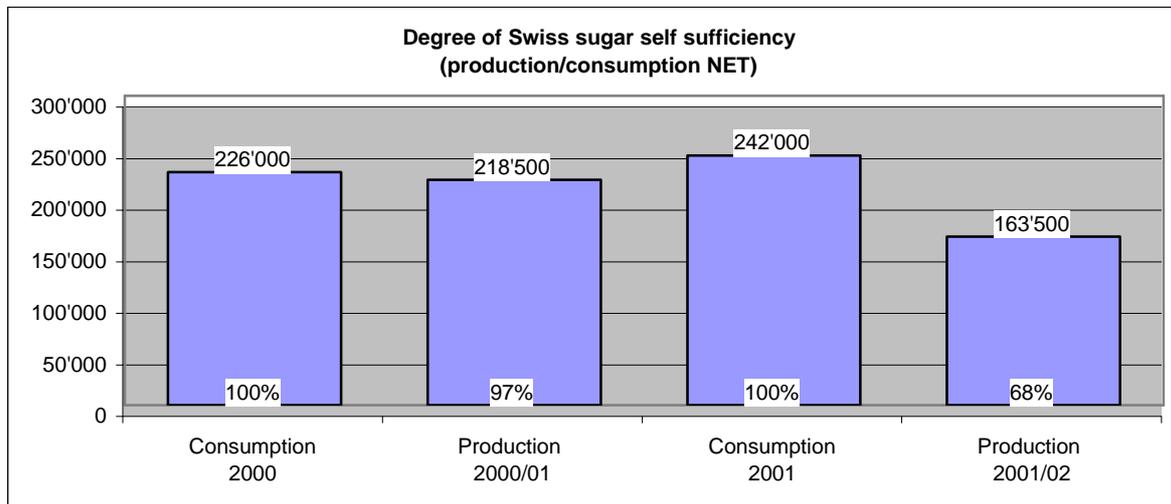
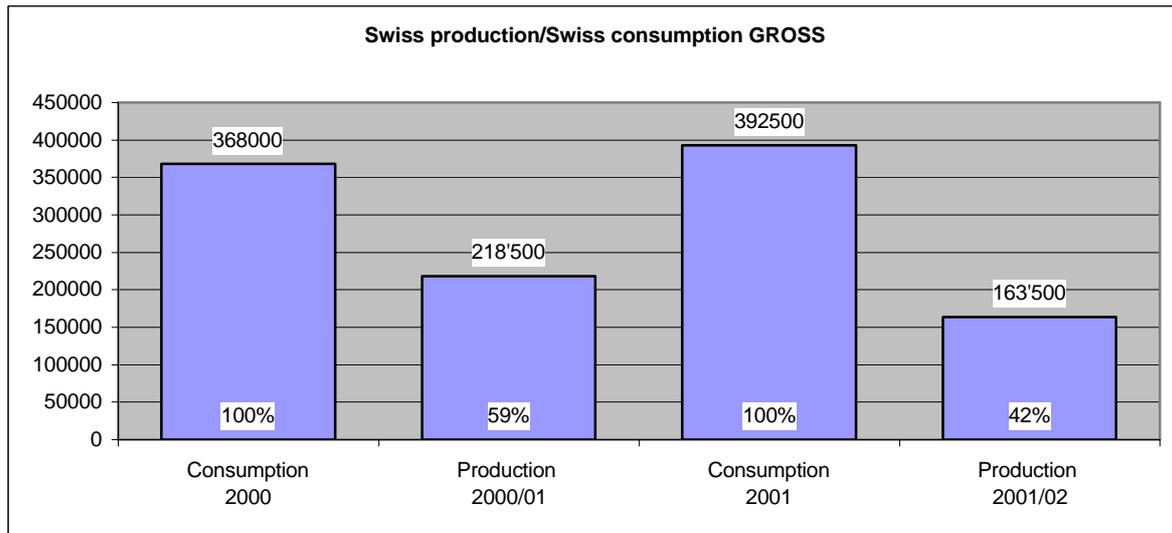
<sup>6</sup> Merger in 1997

<sup>7</sup> Package fixed for four years in advance

<sup>8</sup> Gross sugar consumption 392'657 t in 2001 = imports 177'200 t + inland production 163'500 t + reduction of compulsory storage 14'000 t + reduction of voluntary storage 38'000 t.

<sup>9</sup> Net sugar consumption: 242'000 t in 2001 = gross sugar consumption 392'657 t – exports 150'648 t

**Graph 1: Gross and Net Sugar Consumption in Switzerland (2001/2002)**



In 2000, 97% and in 2001, 68% of the Swiss net sugar consumption (226'000 t) had been produced locally. For 2002, the sugar beet harvest is up again, with a prospective coverage of consumption of up to 100%. **Self-sufficiency** in sugar dramatically increased from 55% in 1990/92 to above 85% (2000/02) a decade later.

The government decides every four years on the **storage of sugar** to secure a smooth provision in the country, as it does on the amount of payments. In 1999, the Swiss government decided to reduce the stocks from a six to a four months' coverage of demand (the net demand or consumption). Therefore, during the last three years the Swiss market had to absorb additional quantities of sugar due to stock reduction.

## **4 Sugar Quality**

### **4.1 Quality rating**

The sugar production process is certified according to norms ISO 9002 and 14001. This, however, does not relate directly to the quality of the sugar. A quality rating by the European Union is applied to qualify Swiss sugar as well. The EU rating is based on a scale from 1 to 40. Switzerland only produces first grade sugar (rating 1-6) but is importing mostly second grade sugar (between 80-90 %), although only up to a maximum rating of 10.

Quality is of strategic importance for the Swiss sugar factories<sup>10</sup> as there is almost no room to compete on prices. First grade sugar – and even highest quality within the first grade – is not enough to be competitive in the Swiss market. Other components of quality, especially “just in time”, a high degree of faultless production (99,4%), reliable logistics and effective complaints handling, open up markets within Switzerland. For some of the value added Swiss products (also for export), especially chocolate, a very high quality is required.

### **4.2 Organic sugar**

‘Organic’ concerns essentially the sugar beet itself and some of the substances used in the chemical process, such as formaldehyde (antibacterial), which are not authorised in ‘organic sugar production’. Chemically no difference can be recognised between organic and ordinary refined sugar (99,8 % saccharose). But the whole production must be certified by an inspection agency accredited by the Federal Office of Agriculture (FOAG).

According to the sugar official of the FOAG, organic sugar production is quite a problem in Switzerland. Organic cultivation of the sugar beet calls for an additional effort – actually returning to old and labour intensive methods of preparing the field and sowing – which is very expensive. Pest control is far less a problem in sugar cane production, which gives a competitive advantage to the sugar cane producers in organic production. Like Switzerland, the EU is hardly competitive in organic sugar production because of this disadvantage with sugar beet.

The Swiss government allocated an additional subsidized quota of 2000 t for organic sugar production. This organic quota is not entirely used yet. Organic sugar is produced in Frauenfeld. Last year’s production amounted to about 800 t and for this production a proportion of the sugar beet was imported from Southern Germany. The FOAG points out that Switzerland is not yet ready for organic production and that it will remain difficult because sugar beet seems unsuitable for such production.

Not only the production but also the consumption of organic sugar is at a low level. There are no official statistics available but experts<sup>11</sup> estimate the annual imports of organic sugar at 500 – 1’000 t. One of the reasons may be that the consumers cannot taste the difference between conventional and organic refined sugar.

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<sup>10</sup> M. Fankhauser of the *Zuckerfabriken Aarberg und Frauenfeld AG*’s quality management.

<sup>11</sup> Zuckermühle Ruppertswil

However, many consumers wish to support organic alternatives in general and might be interested in alternative organic products. Specialists<sup>12</sup> believe that organic sugar has an unexploited market potential and a future in Switzerland despite its higher price.

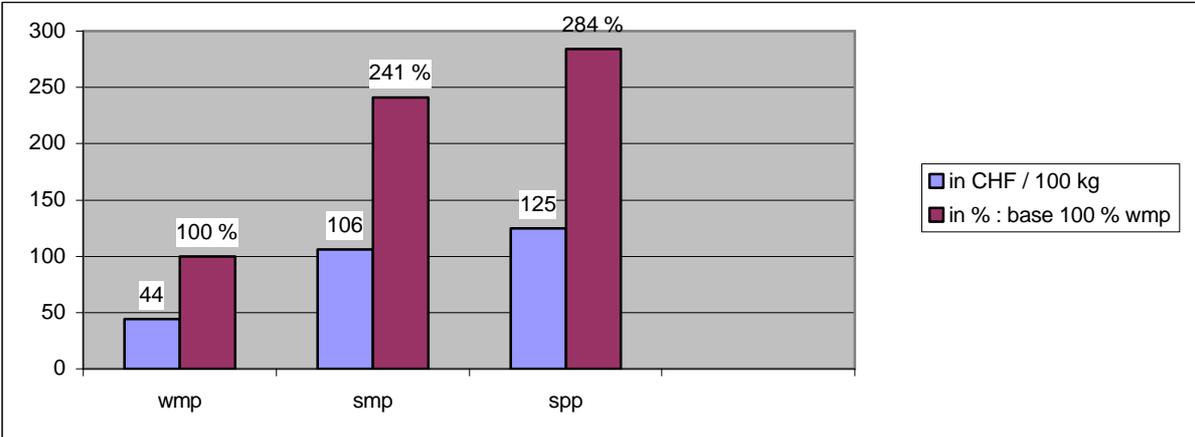
**5 The price of sugar**

The import price depends on the world market price plus transport. In 2000, the import sugar price (CIF Swiss border, without duties) averaged between CHF 35 and 51.

The Swiss market price, calculated at the average world market price plus total border taxation of CHF 61<sup>13</sup> (+ CHF 1.25 handling expenses), amounted to an average of CHF 113.25 in 2000<sup>14</sup> (106.25 in 2001). The consumer price including the retail margin may be around CHF 1.50 per kg (CHF 2.70 for organic sugar).

The Swiss production price<sup>15</sup> of sugar is calculated at CHF 125/100 kg. Summing up, the Swiss production price (spp) and Swiss market price (smp) compare to world market prices (wmp) as follows:

**Graph 2: Swiss Sugar and World Market Prices Compared**



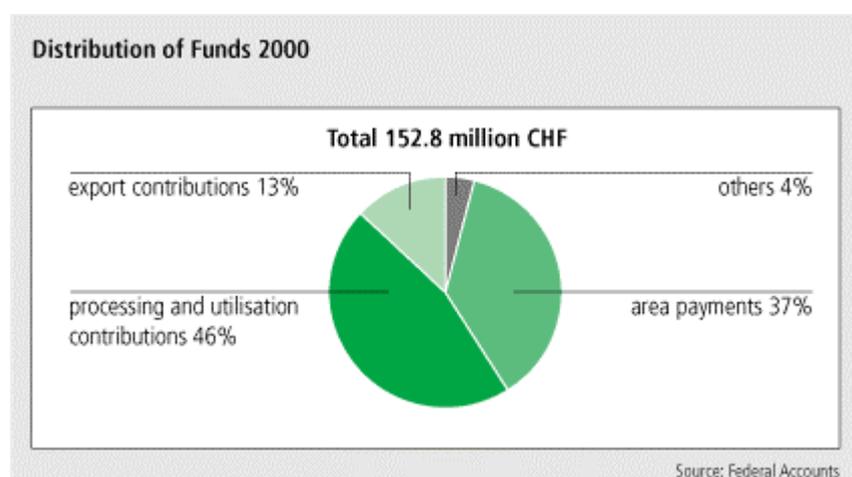
This graph clearly shows that Switzerland’s sugar industry is only able to compete because of a very highly protected Swiss sugar market.

<sup>12</sup> E.g. Mr. Schweizer (COOP)  
<sup>13</sup> See below chapter 6 on protection: Swiss market price = world market price + duties (47.—/100kg) + storage fees (14.—/100kg), new since 01.10.02, before SFR 40.- duties + 21.- storage fee)  
<sup>14</sup> The high level is partly due to a strong dollar  
<sup>15</sup> ZAF, Annual Report 2000/2001

## 6 Protection

### 6.1 Production support

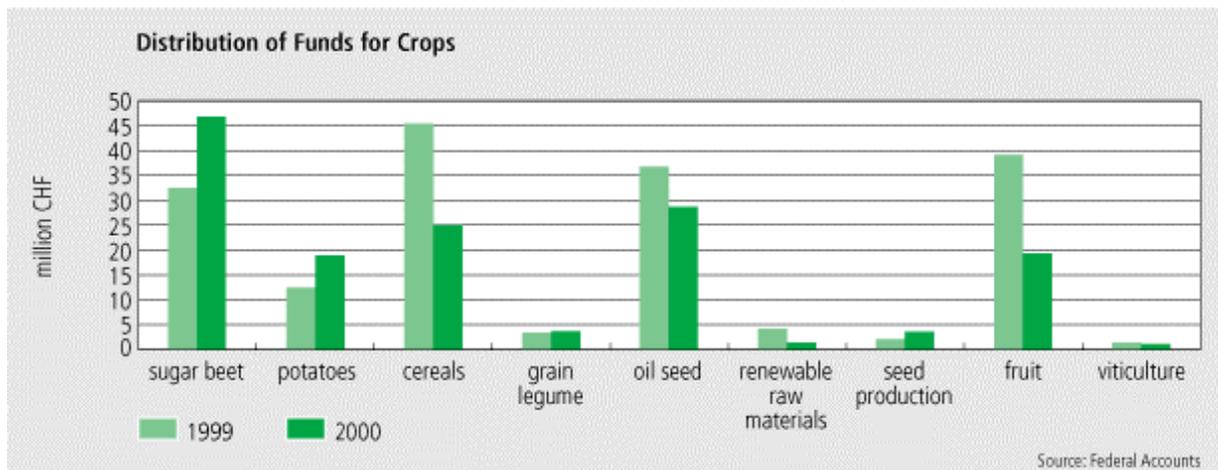
The compensation payments in the framework of the government's performance mandate ("*Leistungsauftrag*") amount to CHF 45 million per year (fixed for four years, 1999 - 2003)<sup>16</sup>, which translated into a subsidy of CHF 27.50 per 100 kg in 2001/2002. This amount equals to 26% of the Swiss market price or 22% of production price. If the average price after deducting duties + storage fee<sup>17</sup> in a sugar year period leaves the spread of CHF 35-45/100 kg, the government will take this into consideration when programming the support of the sugar sector for the next four-year period.



The biggest proportion of distribution of funds to agriculture concerns the "processing and utilisation contributions" (46%) and these payments are almost three times as high as export contributions (13%), which shows on one hand that the sugar (and potato) sector is very highly protected and on the other hand that the agricultural strategy is focused very clearly on the Swiss market and its protection.

<sup>16</sup> For the period 2003 – 2007 see chapter 2.2

<sup>17</sup> See chapter 6.2 below ("*nach Abzug der Grenzbelastung*")



Further on, compared to 1999 when expenditure, for sugar beet processing was CHF 32'589'784, the increase in payments by the fixed 45 million package represents a growth in subsidies for sugar beet processing of 38 %. As the above graph shows, among the various crops sugar beet absorbs the highest amount of public funds.

## 6.2 Border protection

Since the GATT/WTO agreement border taxation amounts to CHF 61 per 100 kg. This has been the consolidated Swiss tariff rate at the WTO since 1 January, 2000. It is composed of two kinds of taxes, to be distinguished especially in regard of LDCs. There is a reduction and special treatment for those countries only on part of it:

### Custom Duties

Refined sugar<sup>18</sup> as well as raw sugar<sup>19</sup> are taxed at CHF 47 per 100 kg. Nevertheless, there are two exceptions for the benefit of developing countries.

Firstly, there is a zero tariff quota of 7000 t raw cane sugar per year<sup>20</sup> allocated to all developing countries. This quota is not entirely used. In 2001, the total raw cane sugar import from developing countries reached approximately 5'500 t per year. The reason of this under-utilisation probably is that this preferentially imported raw sugar must not be refined but has to be sold on the Swiss market as raw sugar. Absorption capacity for raw sugar consumption is limited.

Secondly, LDCs benefit from a 50% tariff reduction on all kinds of sugar imports, which means duties of CHF 23.50 per 100 kg on refined sugar and raw cane sugar

<sup>18</sup> 1701.9999 in custom statistics

<sup>19</sup> Raw cane sugar from EU/US amounts to approx. 45 t and is in this sense irrelevant

<sup>20</sup> Applications for imports under this quote should arrive not later than 30 November of the previous year at Customs Directorate, Section Custom Procedures, CH-3003 Berne.

beyond the quota of 7000 t. This LDC preference is likely to further increase by 1 January 2004.

The Swiss preferential market order for developing countries will formally come to an end in 2005, and parliament will have to decide how the Swiss General System Of Preferences (GSP), including for sugar, will develop in future, taking into account the "Everything but Arms" Initiative of the European Union and the planned liberalised access for LDCs to the EU sugar market from 2009 onwards<sup>21</sup>.

In the bilateral free trade agreement between Switzerland and Mexico, there is a provision for a reduction of CHF 22 per 100kg (no quota) on raw cane sugar, but refined sugar is taxed normally. For the time being, there are no further bilateral free trade agreements between Switzerland and other countries which include raw or refined sugar trade at preferential, let alone free trade terms. There is no bilateral agreement with the European Union providing a special tariff for any kind of sugar. The tariff rate of CHF 47.- per 100 kg is also applied to EU imports.

Nevertheless, in the on-going second round of bilateral negotiations between the European Union and Switzerland, for finished products containing sugar, a zero-duty principle is envisaged, replacing the internal compensation mechanism provided by Swiss legislation ("*Schoggigesetz*"), which ensures the competitiveness of Swiss food industries in exports.

### **Storage fee**

The Federation of Swiss Food Importers ("*Treuhandstelle der Schweizerischen Lebensmittelimporteure*", TSL) is committed to maintain sugar stocks for emergency use, which are financed by a special additional compulsory storage fee ("*Pflichtlagerhaltungsbeitrag*") on all imports of sugar. Since 1 October 2002 the storage fee has been reduced from CHF 21 to CHF 14 per 100 kg. The reduction by one third mirrors the reduced volume of stocks required to cover four months of imports instead of six months, hence also a reduction by one third. On the whole, border protection has not been reduced and stays at CHF 61, which is the WTO Bound Rate, as custom duties were raised from CHF 40 to 47 to compensate for the lower storage fees.

It is worth mentioning that LDCs have to pay the full amount of the storage fee and do not enjoy any preferential treatment as it is the case with the 50% reduction of custom duties. The CHF 14 storage fees also have to be paid on the zero tariff quota of 7000 t raw sugar from developing countries..

As indicated above, in relation to the WTO the storage fee is part of Switzerland's notified and consolidated tariff rates.

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<sup>21</sup> Even in 2009 liberalisation of sugar trade is not fully ensured. A clause is part of the Everything But Arms Initiative which will make it possible to block imports if the EU sugar price starts to fall.

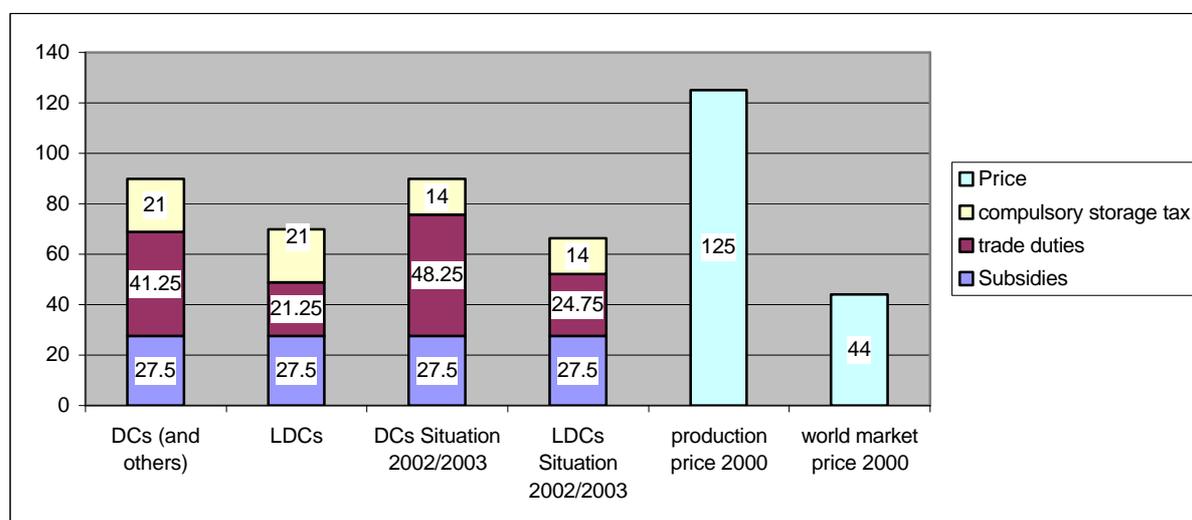
### 6.3 Degree of protection

To get a complete picture of the degree of protection, the storage fee, custom duties and the internal subsidies (CHF 27.50/100kg<sup>22</sup> 2001) have to be added. This leads to the following figures of total protection<sup>23</sup>:

	2001/2002 in CHF/100 kg		2002/2003	
	DCs (and others)	LDCs	DCs	LDCs
Subsidies	27.5	27.5	27.5	27.5
Trade Duties	41.25	21.25	48.25	24.75
Compulsory Storage Tax	21	21	14	14
<b>Total Protection</b>	<b>89.75</b>	<b>69.75</b>	<b>89.75</b>	<b>66.25</b>

This total protection in relation to the world market price (at CHF 44 on average during 2001<sup>24</sup>) or compared to the Swiss production price illustrates the following situation:

**Graph 4: Degree of Sugar Protection<sup>25</sup>**



<sup>22</sup> 45'000'000 / 163'578 t = 27.50 CHF/ 100 kg

<sup>23</sup> DCs (and others): 41.25+21+27.50 = CHF 89.75/100 kg; LDCs: 20.65+21.---+27.50 = CHF 69.15/100 kg

<sup>24</sup> According to the Swiss source calculation: 106.25– 41.25–21 = wmp = 44 on average 2001

<sup>25</sup> Situation after 01.10.2002 (assumption: same production as in 2000/2001)

## 7 Trade

These are the latest available figures on the Swiss sugar trade<sup>26</sup>:

Market shares in 2001:

### **Import**

177'225 t

### **Export**

150'648 t

It is crucial that the import figure does not contain value-added sugar products, regardless of whether the export figure represents exactly this sort of goods (manufactured products and sugar liquid or lemonades). Some interesting and significant figures:

#### Refined sugar

European Union	162'000 t
Paraguay	648 t

#### Refined sugar exports

European Union	7'000 t
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#### Raw cane sugar

Mauritius	3'392 t
Brazil	1'409 t
Paraguay	384 t

#### Value-added sugar product exports

Approx. between 60'000-70'000 t

#### « Fruit juice »

Approx. between 70'000-80'000 t

There are rather small quantities of refined sugar exports by Switzerland. Indirect exports as contents of manufactured products are considerable, however, and have been growing over time. In addition to traditional manufactured products such as chocolates, the export increase in recent years was mainly due imports of cheap EU sugar, production of sweet<sup>27</sup> fruit juices in Switzerland, and re-exports to the European Union. For such trade Switzerland applies a draw-back system with respect to sugar, i.e. the import duties, including the storage fee (!), are reimbursed when the sugar is re-exported in form of a processed agricultural product. Indirectly, this trade may be to the detriment of sugar exporting developing countries as there could be a crowding out of fruit juice producers like Brazil<sup>28</sup>. Due to these exports, the imported quantities of sugar increased despite a higher degree of self-sufficiency in net sugar consumption in Switzerland. This rather artificial trade<sup>29</sup> might be stopped in the new round of bilateral negotiations between Switzerland and the EU but so far the EU did not ask for it.

<sup>26</sup> There is no viable figure for the import of value-added sugar-containing products. Clearly declared are 30'500 t of sugar (standard declaration in today's protocol). Concerning the export, the main value-added sugar products are Chocolate (23'400 t) and Limonades (14'300 t), "fruit juice" contains a high percentage of sugar.

<sup>27</sup> Swiss re-exports are used in fruit juice industries and have a multiple sugar content than what is consumable (consumable only up to 12-13 percent of sugar content).

<sup>28</sup> These development policy aspects merit a thorough analysis.

<sup>29</sup> No jobs in Switzerland depend on that trade, there is no Swiss advantage whatsoever. On the other hand, it undermines the market order for sugar of the EU as this kind of trade gives EU fruit processing industries access to sugar at world market prices which would be blocked otherwise.

Swiss agricultural policies and the Swiss sugar regime intend to protect Swiss sugar production and ensure its competitiveness in view of the Swiss market but – unlike the EU – not for export.

Theoretically, to be competitive with Swiss sugar production, foreign production costs have to compensate for the amount of total protection, which means foreign production costs have to be proportionately lower than the Swiss production costs.

Beyond these financial constraints, foreign competitors face further barriers in practice. Locally produced sugar enjoys a number of market advantages, such as transportation, quality and quality related customer services. Swiss sugar does not encounter any sales problems on the Swiss market. Consequently, developing countries, including LDCs, remain in direct competition with EU sugar. The bargaining power behind the competitors reminds us of David and Goliath despite the much lower production costs in developing countries. Not surprisingly most sugar imported to Switzerland originates from the European Union for the following reasons:

- EU sugar is highly subsidised (domestic support, export subsidies and border protection);
- Switzerland imports from the EU production surplus, the so-called “intervention stocks”, at even lower prices;
- transport costs are lower for the European Union than for LDCs and DCs from overseas;
- Bulk supplies, railroad shipments, proximity and quality are additional reasons.

In 2001, Myanmar was the only LDC to benefit from the preferential tariff of 50% reduction on its small quantity of 40 t refined sugar. Under present circumstances, the preferential tariff is very much an alibi for continued protection and remains largely ineffective.

## Sources

In addition to the support received from the various collaborators (see footnote 1) of the Federal Office for Agriculture, the State Secretariat for Economic Affairs, the Customs directorate, the sugar factories and from other experts, we consulted the following documents:

## **Bibliography :**

- Federal Office of Agriculture (BLW), Agricultural Report 2001 (and 2000)
- Federal Office of Agriculture (BLW), "Importe von biologischen Erzeugnissen – Uebersicht", 21.02.2002
- Federal Office of Agriculture (BLW), "Agrarpolitik 2007 – Die Weiterentwicklung der Agrarpolitik, 2002
- Federal Administration of Customs (EVZ), International Trade Statistics 2001
- Swiss Government, "Verordnung über den Anbau und die Verarbeitung von Zuckerrüben" (sugar decree), 07.12.1998 (update 20.02.2001)
- Bundesgesetz, Art. 54 (910.1)
- Uebersicht Agrarpolitik 2007
- Vernehmlassung Agrarpolitik 2007
- Federal Departement of Economics (EVD), "Schrittweise Einführung der Nullzollpräferenz zugunsten der ärmsten Entwicklungsländer (PMA)", 05.06.01
- Federal Departement of Economics (EVD), "Verordnung über die Präferenz-Zollansätze zugunsten der Entwicklungsländer" (preferential tariffs decree), 2001
- Federal Departement of Economics (EVD), "Pressemitteilung: Ergebnisse der Vernehmlassung zur Agrarpolitik 2007", 27.03.2002
  
- ZAF, "Von der Rübe zum Zucker", 2002
- ZAF, Annual Report 1994/95; 1995/96; 2000/2001
- Zuckermühle Rapperswil, "Zucker", 2001
- Schweizerische Fachstelle für Zuckerrübenbau, "Tätigkeitsbericht 2001"
- Schweizerische Fachstelle für Zuckerrübenbau, "Grundlagen zum Erfolg im Rübenbau: Einführung für Neupflanzer", 1996
- ZAF/SVZ, "Branchenvereinbarung", 2002 ([www.zucker.ch](http://www.zucker.ch))
- Treuhandstelle der Schweizerischen Lebensmittelimporteure, "Nettoverbrauch Zucker"
- World Bank, "Commodity Price Risk Management in Developing Countries: Bridging the Gap with a Market Based Approach", internet
- WTO "Agreement on Subsidies and Countervailing Measures", internet
- Oxfam Briefing Paper, "The Great EU Sugar Scam", August 2002, internet