# Chapter 10.E

# Agricultural Export Subsidies



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## 10.E.1 Source of Export Subsidies Data

The treatment of agricultural export subsidies in the GTAP 7 Data Base is the same as in the GTAP 6 Data Base. Export taxes/subsidies for agricultural commodities are based on country submissions to the WTO of export subsidy expenditures, except for EU25, where we use the "Financial report on the European Agricultural Guidance and Guarantee Fund" (FREAGGF). Under the Uruguay Round Agreement on Agriculture, twenty-five members of the WTO committed to reduce their export subsidies. Each year, starting in 1995, WTO members are required to notify the WTO Secretariat about the volume of and expenditures on export subsidies, by commodity, as specified in their country schedules.

At the time that the export subsidies for GTAP 6 were calculated, 2002 was the latest year with notification data available for Morocco, Tunisia and USA, 2001 for Norway, 2003 for Israel and 2004 for Canada. Country notifications to the WTO Secretariat continue to be the best and most comprehensive data source for agricultural export subsidies. For EU25, we incorporated the data for 2004 from FREAGGF, as the latest year for which WTO notifications were available was 2002.

Table 10.E.1 shows the rates of country export subsidies by commodity for 2000/2001 (data used in GTAP 6), while Table 10.E.2 shows that for 2004 (data used in GTAP 7). For 2001, the table lists Eastern European countries separately from the EU15 even though they have since joined the EU. For some commodities such as processed rice and grains, export subsidies continue to be offered solely by the EU25, even in GTAP 7 Data Base. For Sugar, Panama is the only other country subsidizing, but EU25 subsidy rate for this sector is enormous. Dairy is subsidized by the Norway, Canada, Switzerland, EU25 and the United States. Fruits and vegetables are subsidized heavily by Switzerland and slightly by Tunisia, EU25, Israel, Morocco and Panama.

## 10.E.2 Export Subsidy Calculations

In the GTAP 7 Data Base, agricultural export subsidies are reported as effective export subsidy rates using the value of export subsidy expenditures, as reported to the WTO or FREAGGF, and the *f.o.b.* value of exports for 2004 using UNCTAD trade data. For each of the reporting countries, export subsidy expenditures were converted to a common currency, the US dollar, and were aggregated up to the GTAP commodity classification.

In the context of multilateral reforms, treating the subsidy reductions in terms of reductions in export subsidy rates could be used as an approximation of the effects of the WTO commitments. This is because reductions in export subsidies are expected to raise world prices, offsetting the reduction in export volume implied by the reduction in export subsidies. The per-unit export subsidy rate for sector *i* is calculated as follows:

$$S_i = XR_i \ / \ (XT_i \ * \ T_i)$$

where *S* is the subsidy rate, *XR* is value of export refund in 2004 $US millions, *XT* is the total value of exports (excluding intra-EU trade in the case of the European Union), and *T* is the share of exports that is subsidized. In order to be consistent across commodities and regions, a simplifying assumption of setting $T = 1$ for all commodities and regions in the model was employed.

As stated above, WTO notifications may not be inclusive of all export subsidies. A country's notifications reflect its delegation's understanding of its government policies at the time. The WTO has identified some omissions. In one case, the WTO identified that the European Union under-report export subsidies for sugar. The EU's WTO notifications do not include additional export subsidies on imported preferential sugar from ACP countries and India which are re-exported by the EU. To remedy such discrepancies and to incorporate more recent (2004) data, we use FREAGGF data instead of WTO notifications, with inputs from David Laborde from IFPRI, Christophe Gouel from CEPII, France and Hans G. Jensen from the Food and Resource Economics Institute, (FOI), Denmark.

In FREAGGF, the total payments for all grains had to be split between "wht" and "gro". David Laborde, based on an in-depth analysis of the weekly reports of the European Commission's Cereal Management Committee (in French), concluded that "wht" has had no subsidies in 2004 and hence, all these subsidies should go to "gro". All cereals subsidies went to "other grains" in GTAP, namely barley (average = 16euro/ton for eligible shipments) and oat (average = 29euro/ton for eligible shipments). Further, it was decided to use 2004-05 as the reference marketing year for this purpose because 2003-04 was a bad and atypical crop year, resulting in lower exports (-20% compared to 2004-05) and hence lower subsidies, which were also due to better exchange rates that supported exports until late 2004 and restrictions on 10 new EU members to provide subsidies. Moreover, the 2003-04 notification only includes the EU15 before 1 May 2004.

## *10.E.3 Concluding Remarks*

The treatment of agricultural export subsidies in GTAP 6 is derived from WTO notifications which represent the best available and comprehensive source of export subsidies data particularly for agricultural and food products. Nevertheless, there may be cases where the analyst should take into account other export subsidies/taxes not covered by the data before embarking on trade policy analysis.

Table 10.E.1 Export Subsidy Rates: Ratio of Export Subsidy Outlays as Notified to WTO over FOB Value Exports: GTAP 6 Data Base

| Region | Year | Wheat | Grains | Fruit & Vegetables | Oilseeds | Fiber | Other Crops | Cattle | Other Livestock |
|---|---|---|---|---|---|---|---|---|---|
| | | WHT | GRO | V_F | OSD | PFB | OCR | CTL | OAP |
| European Union* | 2001 | 8.63 | 33.39 | 2.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.69 |
| Canada | 2000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Switzerland | 2000 | 0.00 | 0.00 | 162.44 | 0.00 | 0.00 | 0.00 | 37.17 | 0.00 |
| Czech Republic | 2000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hungary | 2001 | 0.00 | 0.01 | 0.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Israel | 2001 | 0.00 | 0.00 | 0.69 | 0.00 | 5.21 | 0.86 | 0.00 | 0.00 |
| Korea | 2000 | 0.00 | 0.00 | 7.39 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Norway | 2001 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Poland | 2001 | 0.00 | 3.69 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Slovakia | 2001 | 0.00 | 0.00 | 0.97 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Turkey | 2000 | 0.00 | 0.00 | 0.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.23 |
| United States | 2001 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

NOTE: Country notifications are reported by the WTO Secretariat on the basis of GATT year.

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*: for EU export subsidy rates, into-EU trade is excluded; for EU sugar, used FEOGA data not WTO notifications

Table 10.E.1 Export Subsidy Rates: Ratio of Export Subsidy Outlays as Notified to WTO over FOB Value Exports: GTAP 6 Data Base (Contd)

| Region | Year | Bovine Meat | Non-Bovine Meat | Vegetable Oils | Dairy | Rice | Sugar | Other Food | Beverages & Tobacco |
|---|---|---|---|---|---|---|---|---|---|
| | | CMT | OMT | VOL | MIL | PCR | SGR | OFD | B_T |
| European Union* | 2001 | 84.62 | 5.68 | 0.00 | 30.78 | 45.94 | 60.22 | 3.24 | 0.93 |
| Canada | 2000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Switzerland | 2000 | 0.00 | 0.00 | 0.00 | 30.19 | 0.00 | 0.00 | 5.55 | 0.00 |
| Czech Republic | 2000 | 0.00 | 0.16 | 0.00 | 11.63 | 0.00 | 0.00 | 0.99 | 0.00 |
| Hungary | 2001 | 0.00 | 0.92 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Israel | 2001 | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Korea | 2000 | 0.00 | 0.35 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Norway | 2001 | 5.24 | 14.39 | 0.00 | 32.25 | 0.00 | 0.00 | 0.12 | 0.00 |
| Poland | 2001 | 0.00 | 0.00 | 0.00 | 1.20 | 0.00 | 12.62 | 0.25 | 0.00 |
| Slovakia | 2001 | 0.61 | 0.00 | 0.00 | 6.56 | 0.00 | 0.00 | 1.06 | 0.00 |
| Turkey | 2000 | 0.00 | 0.93 | 2.12 | 0.00 | 0.00 | 1.44 | 1.96 | 0.00 |
| United States | 2001 | 0.00 | 0.00 | 0.00 | 7.83 | 0.00 | 0.00 | 0.00 | 0.00 |

NOTE: Country notifications are reported by the WTO Secretariat on the basis of GATT year.

*: for EU export subsidy rates, intro-EU trade is excluded; for EU sugar, used FEOGA data not WTO notifications

Table 10.E.2 Export Subsidy Rates: Ratio of Export Subsidy Outlays as Notified to WTO over FOB Value Exports: GTAP 7 Data Base

| Region | Year | Paddy Rice | wheat | grains | Fruit & Vegetables | Oilseeds | Cane & Beet | Fiber | Other crops |
|---|---|---|---|---|---|---|---|---|---|
| | | PDR | WHT | GRO | V_F | OSD | C_B | PFB | OCR |
| EU25 | 2004* | 0.000 | 0.000 | 2.160 | 0.126 | 0.000 | 0.000 | 0.000 | 0.000 |
| Canada | 2004* | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Israel | 2003* | 0.000 | 0.000 | 0.000 | 0.057 | 0.000 | 0.000 | 0.000 | 0.000 |
| Morocco | 2002# | 0.000 | 0.000 | 0.000 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 |
| Norway | 2001# | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Panama | 2003# | 0.000 | 0.000 | 0.000 | 0.063 | 0.000 | 0.000 | 0.000 | 0.000 |
| Switzerland | 2004# | 0.000 | 0.000 | 0.000 | 237.591 | 0.000 | 0.000 | 0.000 | 0.000 |
| Tunisia | 2002# | 0.000 | 0.000 | 0.000 | 3.895 | 0.000 | 0.000 | 0.000 | 0.000 |
| USA | 2002* | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

Note: ‘*’ stands for Calendar Year and ‘#’ stands for Marketing Year.

Source: for EU25, FREAGGF Report, for all others: WTO subsidy notifications

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Table 10.E.2 Export Subsidy Rates: Ratio of Export Subsidy Outlays as Notified to WTO over FOB Value Exports: GTAP 7 Data Base

| Region | Year | Cattle | Other Livestock | Wool | Bovine Meat | Non-bovine meat | Vegetable Oils | Dairy | Processed rice | Sugar | Other food | Beverages & tobacco |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CTL | OAP | WOL | CMT | OMT | VOL | MIL | PCR | SGR | OFD | B_T |
| EU25 | 2004* | 0.000 | 0.000 | 0.000 | 2.356 | 0.652 | 0.000 | 5.973 | 3.773 | 35.073 | 0.518 | 0.032 |
| Canada | 2004* | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 22.945 | 0.000 | 0.000 | 0.199 | 0.000 |
| Israel | 2003* | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.085 | 0.000 |
| Morocco | 2002# | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Norway | 2001# | 0.000 | 0.000 | 0.000 | 53.834 | 9.474 | 0.000 | 31.232 | 0.000 | 0.000 | 0.117 | 0.000 |
| Panama | 2003# | 15.915 | 0.000 | 0.000 | 14.433 | 9.537 | 0.000 | 0.000 | 0.000 | 2.560 | 1.076 | 0.233 |
| Switzerland | 2004# | 99.150 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 16.168 | 0.000 | 0.000 | 9.554 | 0.000 |
| Tunisia | 2002# | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.160 |
| USA | 2002* | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 5.325 | 0.000 | 0.000 | 0.000 | 0.000 |

Note: ‘*’ stands for Calendar Year and ‘#’ stands for Marketing Year.
Source: for EU25, FREAGGF Report, for all others: WTO subsidy notifications