



# *Conference Paper*

*Thematic Network on Trade Agreements  
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## **Introduction and Issues: General Trade Agreements**

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# 1 Introduction and Issues on General Trade Agreements

In the current discussion on trade liberalisation, a focus is put on the multilateral negotiations of the Doha Development Round (DDA) within the WTO. But at the same time the European Union like other major trading partners and particularly the USA runs a wide variety of preferential trade agreements (PTAs)<sup>1</sup> whose features are bounded by the WTO agreements and, in the case of agriculture, by the Common Agricultural Policy (CAP). These agreements are meant to progressively dismantle trade protections with countries involved in the enlargement of the Community, but also to facilitate trade with many other developing and transitional economies, which are willing to deepen their integration into the world economy and improve trade relationships with the Union (Kurzweil et al., 2003; dell'Aquila et al., 2003).

As far as the multilateral trading system is concerned, specific provisions guarantee the compatibility between PTAs and the MFN clause, namely to allow for a subset of WTO member countries to increase mutual trade through discriminatory measures<sup>2</sup>. In the first place, under GATT Article XXIV, WTO members can form trading blocks discriminating non-members if the agreements: (i) involve free trade (i.e. the elimination of all tariffs) within the block for substantially all products; and (ii) there is no increase in external trade barriers against non-member countries. The EEC itself, but also various association agreements of the EU with candidate and non-candidate countries, as well as the new partnership agreements with ACP countries, are all concluded under Article XXIV, which offers the only avenue to PTAs where developed countries are also recipients of trade preferences.

In the following section a small overview on the multilateral and preferential trade agreements are described and based on their features, some areas are highlighted in which the political dimension and their specific requirements for impact analysis are addressed. Furthermore, a short overview concerning the sugar sector will allow for a deeper understanding of the underlying problems. In the last section of this chapter some general scenarios catching one of the issues raised will be put forward. Depicted regulations will occasionally be highlighted by examples based on the EU sugar regime to emphasize certain impacts or interactions. Details concerning EU's PTAs and sugar can be found in Huan-Niemi and Niemi (2003).

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<sup>1</sup> The term PTAs is used in this paper to refer to custom unions or free trade areas (which imply full tariff liberalisation between members), or other arrangements with limited tariff preferences.

<sup>2</sup> The Most Favoured Nation (MFN) principle, enunciated in Article I of the WTO, provides for each WTO member to grant to all members the same advantage, privilege and favour that it grants to any other country. PTAs, providing for lower tariffs on goods produced in the member countries than on goods produced outside, would violate the non-discriminatory approach stated by Art. I.

## 1.1 EU and Multilateral Trade Agreements of the WTO

### 1.1.1 General layout of the WTO

The WTO is an organization for liberalizing trade, a forum for governments to negotiate trade issues and to settle trade disputes as well as to operate a system of trade rules. Thus the WTO functions as an umbrella for the PTAs, as they induce new topics to be included in the WTO agreements, and the WTO provides the framework for rules laid down in the specific PTAs. The WTO was established on 1 January 1995, as the successor to the General Agreement on Tariffs and Trade (GATT). The GATT had provided rules for the international trading system since 1948, and was followed by an unofficial international organization, also known as GATT. Over time, the GATT evolved through several rounds of negotiations on trade liberalization (Table 1.1). Starting in 1986 and ending in 1994, the last GATT round (Uruguay Round) led to the creation of the WTO (WTO 2004).

**Table 1.1: Overview on GATT-Agreements**

Place or name	Year	Main Subjects	Member countries
Geneva	1947	Tariffs	23
Annecy	1949	Tariffs	13
Torquay	1951	Tariffs	38
Geneva	1956	Tariffs	26
Geneva (Dillon Round)	1960–1961	Tariffs	26
Geneva (Kennedy Round)	1964–1967	Tariffs and anti-dumping measures	62
Geneva (Tokyo Round)	1973–1979	Tariffs, non-tariff measures, “framework” agreements	102
Geneva (Uruguay Round)	1986–1994	Tariffs, non-tariff measures, rules, services, intellectual property, dispute settlement, textiles, agriculture, creation of WTO, etc	123

Source: WTO 2004.

The WTO focuses on trade in goods and services, traded inventions, and intellectual properties. In this respect, three different basic agreements are relevant. The General Agreement on Tariffs and Trade (GATT) governs trade in goods, the General Agreement on Trade in Services (GATS) deals with trade in services, and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) covers trading in inventions, designs, and creations. A number of fundamental principles serve as foundation of the multilateral trading system:

- **Non-discrimination by the concepts of most-favoured-nations (MFN) and national treatment** implies that countries cannot normally discriminate between their trading

partners<sup>3</sup>, and also imported and locally-produced products and other items should be treated equally once they have entered the domestic market<sup>4</sup>.

- **Lowering trade barriers by negotiations** that results in reduced customs duties (or tariffs), removing import bans or quotas that restrict quantities selectively and in addition lowering non-tariff barriers. The WTO allows countries to liberalize their trade gradually and longer phasing-in periods are given to developing countries.
- **Binding countries' commitments for market access** provides ceilings on customs tariff rates (**bound rates**), even though countries<sup>5</sup> may tax imports at rates that are lower than the bound rates (**applied rates**) which can be changed only after negotiating with its trading partners. Furthermore, the use of tariff rate quotas and other import limiting measures is discouraged while countries' trading rules are supposed to be as **publicly transparent** which is evaluated by the Trade Policy Review Mechanism.
- **Promoting fair competition** is done by rules for open and undistorted competition based on the principle of non-discrimination such as those on dumping (exporting prices that are below cost to gain market share) and subsidies and a counter measure of charging additional import duties to compensate for losses accrued.
- **Development and economic reform** allows for special assistance and trade concessions for developing countries.

From the perspective of the WTO, regional PTAs can actually support the multilateral trading system. Issues like services, intellectual property, environmental standards, investment and competition policies were originally induced by regional PTAs and later brought up as topics within the WTO. Of special importance have been groups which abolish or reduce trade barriers among their members. On the other hand, regional PTAs might violate the trade interests of third countries by encroaching on the WTO's principle of equal treatment for all trading partners ("most-favoured-nation") as has been shown in the example of sugar. Thus, the EU sugar trade policy has deviated widely from the non-discrimination principle of the WTO, and it

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<sup>3</sup> If someone grants a special favour (such as a lower customs duty rate for one of their products) to one country, and this has to be done for all other WTO members. But in each agreement this principle is handled in a slightly differently way. Some exceptions exist concerning goods: Countries can set up an FTA that applies only to trade within the group, can give developing countries special access to their markets, or a country can raise barriers against products traded unfairly from a specific country. Exceptions in the trade of services also are allowed.

<sup>4</sup> Therefore, charging customs duty on an import is not a violation of national treatment, even if locally-produced products are not charged an equivalent tax.

<sup>5</sup> Mostly are developing countries.

applies different policies to different regions and trading blocs (Huan-Niemi and Niemi, 2003, p.3).

So far Article 24 of the GATT Agreement provides for a special exception concerning regional PTAs, when certain criteria are met. In particular, freer trade flows should be enabled among partners initiating also trade with third countries. Article 24 states if a free trade area or customs union is created, duties and other trade barriers should be reduced or removed substantially within the group implying a not more restrictive trade flow concerning third countries than before. Similar provisions can be found in Article 5 of the GATS. To monitor the Janus-faced regional PTAs, the WTO General Council created the Regional Trade Agreements Committee in 1996 which thought to assess whether PTAs are consistent with the WTO agreements or not.

**Table 1.2: Areas covered by the WTO**

Umbrella	AGREEMENT ESTABLISHING THE WTO		
	Goods	Services	Intellectual property
Basic principles	GATT	GATS	TRIPS
Additional details	Other goods agreements and annexes	Services annexes	
Market access commitments	Countries' schedules of commitments	Countries' schedules of commitments (and MFN exemptions)	
Dispute settlement	DISPUTE SETTLEMENT		
Transparency	TRADE POLICY REVIEWS		

Source: WTO 2004.

The two largest agreements on goods and services comprise broad principles, extra agreements and annexes dealing with the special requirements as well as detailed and lengthy schedules (or lists) of commitments made by individual countries providing access to their markets. For GATT, these take the form of binding commitments on tariffs for goods in general, and combinations of tariffs and quotas for some agricultural goods. Underpinning these agreements are the dispute settlement and the trade policy review. Important achievements of the Uruguay Round have been commitments to “bind” customs duty rates on imports of goods. Concerning tariff cuts, there is no legally binding agreement that sets out the targets for tariff reductions. Instead, individual countries listed their legally binding commitments in schedules annexed to the Marrakesh Protocol to the General Agreement on Tariffs and Trade 1994. Some particularities concerning agriculture and agricultural goods are discussed below.

### 1.1.2 Achievements in Agriculture

During the Uruguay round, tariffs on all agricultural products were bound. Although the original GATT did apply to agricultural trade, it contained loopholes allowing countries to use some

non-tariff measures such as import quotas, and to subsidize agriculture. The Uruguay Round was the first multilateral agreement dedicated to agriculture and aimed that all import restrictions should be converted into tariffs. This process is known as “tariffication”, replacing other restrictions by tariffs with the same level of protection. Then these tariffs were gradually reduced. Most provisions concerning agri-food trade were put down in the Agreement on Agriculture (AoA) which covers the commitments on tariffs, tariff quotas, domestic supports, export subsidies in schedules annexed to the Marrakesh Protocol to the General Agreement on Tariffs and Trade 1994. The new rules and commitments applied to:

- **market access** and various trade restrictions confronting imports,
- **domestic support** based on subsidies and other programmes, including those that raise or guarantee farm-gate prices and farmers’ incomes,
- **export subsidies** and other methods used to make exports artificially competitive.

The agreement did allow governments to support their rural economies, but preferably through policies that cause less distortion of trade. The “Peace” provisions within the agreement aimed to reduce the likelihood of disputes or challenges on agricultural subsidies over a period of nine years, until the end of 2003.

Required reduction for export subsidies in the volume of exports and budgetary outlays did not cause any difficulties in the case of sugar for the EU at the beginning of the implementation period, but at the end export subsidy commitments became very binding and a ‘temporary cut’ of 498,800 tonnes in the total A and B-sugar quotas was needed (Huan-Niemi and Niemi, 2003, p.3).

**Table 1.3: The reductions in agricultural subsidies and protection agreed in the Uruguay Round**

	<b>Developed countries</b> 6 years: 1995–2000	<b>Developing countries</b> 10 years: 1995–2004
<b>Tariffs</b>		
Average cut for all agricultural products	–36%	–24%
Minimum cut per product	–15%	–10%
<b>Domestic support</b>		
Total AMS cuts for sector (base period: 1986–88)	–20%	–13%
<b>Exports</b>		
Value of subsidies	–36%	–24%
Subsidized quantities (base period: 1986–90)	–21%	–14%

Remarks: Only the figures for cutting export subsidies appear in the agreement. Least developed countries do not have to make commitments to reduce tariffs or subsidies. The base level for tariff cuts was the bound rate before 1 January 1995; or, for unbound tariffs, the actual rate charged in September 1986 when the Uruguay Round began. The other figures were targets used to calculate countries’ legally-binding “schedules” of commitments.

Source: WTO 2004.

The tariffication package also aimed to guarantee some new access quantities with non-prohibitive duty rates, which was to be achieved by tariff-rate quotas. For products ruled by tariffication, governments were allowed to take special emergency actions (special safeguards) in order to prevent swiftly falling prices. For sugar, the Special Safeguard Provisions have remained in constant operation since 1995, because of the low world market prices for sugar. The fixed standard tariffs and the additional import duties under the safeguard measures have made the import of non-preferential sugar uneconomic in comparison with the price of the EU quota-sugar in the internal market ((Huan-Niemi and Niemi, 2003, p.4). Additionally countries used special treatment provisions to restrict imports of particularly sensitive products (mainly rice) during the implementation period.

Domestic policies affecting production and trade had to be cut back. These domestic support measures called total aggregate measurement of support (Total AMS) were calculated for the agricultural sector and subject to reductions with the exception of least-developed countries. That category of domestic support is called the “amber box” and includes for example price support. Other measures with minimal impact on trade are comprised in the “green box” and are to be used freely. Here are included government services, infrastructure measures and food security, but also payments directly made to farmers if they do not stimulate production as direct income support and direct payments under environmental and regional assistance programmes. Other direct payments coupled to production belong into the “blue box”. Those also covered assistance programmes to encourage agricultural and rural development in developing countries. Furthermore, support on a small scale (“de minimis”) compared with the total value of the product or products supported<sup>6</sup> is part of this category.

The EU was not required to reduce its internal price support specifically for sugar under the Uruguay Round Agreement on Agriculture (URAA), because domestic support is measured as the Aggregate Measurement of Support (AMS), aggregated across all commodities and policy instruments. Subsequently, the total reduction of 20% over a period of six years for domestic support commitments refer to the total levels of support, but not to individual commodities. Overall, the sector-wide domestic support for sugar has been high compared with the other agricultural commodities in the EU, because of the high intervention price for sugar (Huan-Niemi and Niemi, 2003, p. 4).

The Agriculture Agreement prohibited export subsidies on agricultural products unless these subsidies were specified in a member’s lists of commitments. When listed, the agreement

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<sup>6</sup> 5% or less support in the case of developed countries and 10% or less for developing countries.

required cutting both the amount of money spent on export subsidies and the quantities of exports that received subsidies. Taking averages for 1986–90 as the base level, developed countries agreed to cut the value of export subsidies by 36% over the six years starting in 1995<sup>7</sup> and to reduce the quantities of subsidized exports by 21%. Implementation periods are longer and rates were lower for developing countries<sup>8</sup>. Least-developed countries were exempted.

Creating binding tariffs and applying them equally are the general rule, but the WTO also allows exceptions when actions are taken against dumping (selling at an unfairly low price), subsidies and special “countervailing” duties are granted to offset the subsidies, and emergency measures are given to limit imports temporarily, designed to “safeguard” domestic industries. A number of agreements deal with various bureaucratic or legal issues that could involve hindrances to trade like import licensing, rules for the valuation of goods at customs, further checks on imports, rules of origin, investment measures and licensing: procedures.

### **1.1.3 Doha Development Agenda (DDA)**

In November 2001, the Fourth Ministerial Conference in Doha launched new negotiations called the Doha Development Agenda (DDA). Negotiations on agriculture began in early 2000, and by November 2001, a large number of proposals had been submitted. The negotiations continued under the mandate of the Doha Declaration, agriculture being now part of the single undertaking which was supposed to end by 1 January 2005. Governments commit themselves to a substantial increase in market access, to a possible phasing out of exports, and a cut of trade distorting domestic support. Special and differential treatment for developing countries was made as an integral part of the negotiations. The ministers also accepted non-trade concerns (such as environmental protection, food security, rural development, etc.) as an issue.

Within agriculture, suggestions were summarized by the Agricultural Committee of the WTO in the so-called Harbinson (modality) paper, on February 12, 2003, and being revised on March 18, 2003. Here, a further increase of market access, duties put into three or four different categories for developed countries or developing countries respectively with rates to be reduced differently were to be found. Tariff rate quotas should increase to an average of 10 % of domestic consumption. The Special Safeguard Provisions for industrial countries were supposed to be eliminated. Export subsidies should be eliminated within 5 years for a share of at least 50 % of the aggregate final bound level and the remaining subsidies within nine years. Longer implementation periods of 10 to 13 years were proposed for developing countries. Similarly,

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<sup>7</sup> 24% resp. 14% over 10 years for developing countries.

export credits and food aid were part of the negotiations. For domestic support, the Harbinson Paper recommended a 60 (40) % reduction of the AMS for developed countries (developing countries). For the “blue box” a reduction of 50 % was conceptualised. The “Minimis Rule” was proposed to be reduced annually by 0.5% for developed countries.

While the US and the Cairns Group were considering the proposed tariff reductions as too low and preferring the Swiss formula,<sup>9</sup> the EU was heading for a repetition of the Uruguay round (Brockmeier and Salamon, 2004). A number of controversial issues should be negotiated to form a framework agreement at the Ministerial Conference in Cancún on 11-14 September 2003. But six alternative drafts only led to an annex in the draft Ministerial Declaration (WTO, 2003d) and were revised by Luis Ernesto Derbez (WTO, 2003e). After Cancún, the chairman of the Agricultural Committee, Tim Grosser, presented a new proposal on modalities for negotiations (WTO, 2004b). Amendments were adopted by the WTO General Council on 31 July 2004 as part of the Doha Work Programme text (WTO, 2004d). Although it seems as if the disputing parties had reached an agreement in Hong Kong, the actual quantitative outcome of the negotiations especially concerning agriculture is still highly uncertain. Several options are being discussed and will be presented in Chapter 2 as they will form the base of scenarios carried out and depict the impact of certain proposals.

## 1.2 EU Preferential Trade Agreements and agriculture

The EU is one of the major players in the global agricultural and food market. European agri-food production as well as trade and trade patterns are governed by the Common Agricultural Policy (CAP) and the related trade regimes. In 1995, adjustments initiated by the GATT Uruguay Round made EU export and import regimes subject to multilateral bindings for the very first time. Within this overall framework, the EU deals with numerous preferential trade agreements (PTAs) with third countries (Table 1.4). More details on these can be found in ENARPRI WP 1 (Huan-Niemi and Niemi, 2003) and ENARPRI WP 3 (Kurzweil et al. 2003)..

In principle, these PTAs were originally initiated by different sources:

- In the Treaty of Rome, provisions were granted for the **Association of the Colonies (African, Caribbean and Pacific countries - ACP) and the Overseas Countries and**

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<sup>9</sup> According to this formula the new tariff rate is determined by the base rate (T0) and a coefficient (a):  $T1 = (T0 * a) / (T0 + a)$ . In the current agricultural negotiations of the Doha round, the US proposed applying a coefficient value of 25 to this formula. Under these conditions, all tariff rates on agricultural products will be harmonised at a level below 25% within a five-year period through a non-linear reduction process. Since tariff cuts based on the Swiss formula are dependent on the level of the base rate, it brings about larger reductions in the highest tariff rates

**Territories (OCT)** of the Member States with the emerging European Community. Mutual trade preferences were established in a series of consecutive conventions starting with the Lomé Conventions which were replaced by the Cotonou Conventions. Whereas previous trade relations have been primarily based on non-reciprocal trade preferences granted by the EU to ACP exports, both parties have agreed now to enter into economic integration agreements (new WTO compatible trading arrangements), progressively remove barriers and enhance cooperation in all areas related to trade. To this end, the Economic Partnership Agreements (EPAs) will be negotiated with the ACPs and applied in a regional economic integration process. Formal negotiations of the EPAs started in September 2002 and the EPAs will enter into force by 1 January 2008 at the latest. The unilateral trade preferences will continue to be applied during the interim period of 2000 to 2007. Separately, the OCTs have to be regarded whose Association Agreement was accepted by the GATT in 1971. The new OCTs association arrangements<sup>10</sup> are designed to promote the economic and social development of the OCTs, to develop economic relations between the OCTs and the EU, to take account of specific characteristics, and finally, to improve effectiveness of financial instruments. The OCTs benefit from preferential market access to the EU market. Products originating from the OCTs imported into the EU are not subject to import duties or quantitative restrictions. These arrangements are nonreciprocal, in other words, products originating from the EU are subject to the import duties established by the OCTs.

- **European integration** has been started by the EU and essential candidate countries. This process gradually implements a customs union by means of a partial reduction of tariffs and/or by establishing tariff rate quotas, especially in the area of agriculture. Prominent examples in this respect are the Europe Agreements and Association Agreements with Central and Eastern European Countries, Malta, Cyprus, and Turkey. Most countries subject to these agreements are now fully integrated into the EU as new Member States. These are now complemented by agreements with the Balkan States, granted as autonomous trade concessions to five countries of them Balkans or South Eastern Europe (Albania, Bosnia-Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, Serbia and Montenegro), in the year 2000. The EU has offered the possibility of full integration into the EU structures; so these countries are potential

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<sup>10</sup> European Council Decision 2001/822/EC of 27 November 2001 on the association of the overseas countries and territories with the European Community, *Official Journal of the European Communities* (2001), L314, 11 November and L324, 7 December. This Council Decision will remain in force until 2011.

accession candidates were offered tailor-made Stabilisation and Association Agreements. The agreements, over a transitory period, render these trade concessions reciprocal, thereby gradually opening up the markets of the region to EU products.

**Table 1.4: Overview on Preferential Trade Agreements of the EU affecting agriculture**

Trade Agreement	Countries or Regions covered
Europe Agreements	Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia → EU-CEEC forming EU-25 (1.5.2004)
Association Agreements	Cyprus, Malta, → EU-CEEC Turkey → EU-RASS
Stabilization and Association Agreements	Former Yugoslav Republic of Macedonia (FYROM), Croatia
Euro-Mediterranean Association Agreements	Israel, Morocco, the Palestinian Authority, Tunisia → EUROMED
Cooperation Agreements (Euro-Med Association Agreements concluded, but not in effect)	Algeria, Egypt, Jordan, Lebanon, Syria → EUROMED
Other Free-Trade Agreements	(Denmark) Faroe Islands, Iceland, Liechtenstein, Norway, Switzerland → EU-EEA South Africa
Other Customs Unions	Andorra, San Marino → EU-OCU
Association of Overseas Countries and Territories	<i>Anguilla, Antarctica, Aruba, British Antarctic Territory, British Indian Ocean Territory, British Virgin Islands, Cayman Islands, Falkland Islands, French Polynesia, French Southern and Antarctic Territories, Greenland, Mayotte, Montserrat, Netherlands Antilles, New Caledonia, Pitcairn, Saint Helena, Ascension Island, Tristan da Cunha, South Georgia and the South Sandwich Islands, St. Pierre and Miquelon, Turks and Caicos Islands, Wallis</i>
EU-African, Caribbean and Pacific (ACP) Partnership	Angola, Antigua and Barbuda, Bahamas, Barbados, Belize, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cap Verde, Central African Republic, Chad, Comoros, Congo, Cook Islands, Dem. Rep. of Congo, Cote d'Ivoire, Djibouti, Dominica, Dominican Republic, Equatorial Guinea, Eritrea, Ethiopia, Federated States of Micronesia, Fiji, <i>Gabon, Gambia, Ghana, Grenada, Guinea, Guinea-Bissau, Guyana, Haiti, Jamaica, Kenya, Kiribati, Lesotho</i>
Autonomous Trade Measures for the Western Balkans	Albania, Bosnia-Herzegovina, the Federal Republic of Yugoslavia, Kosovo (→ EU-ATM-Western Balkan)
Generalized System of Preferences (GSP) only	<i>Afghanistan, Argentina, Armenia, Azerbaijan, Bahrain, Bangladesh, Belarus, Bhutan, Bolivia, Brazil, Brunei Darussalam, Cambodia, Chile, People's Republic of China, Colombia, Costa Rica, Cuba, East Timor, Ecuador, El Salvador, Georgia, Guatemala, Honduras, India, Indonesia, Iran, Iraq, Kazakhstan, Kyrgyzstan, Kuwait, Lao People's Dem. Rep., Libyan Arab Jamahiriyah, Malaysia, Maldives, Moldova, Mongolia, Myanmar, Nepal,</i>
Everything but Arms (EBA)	The ACP LDCs are: <i>Sudan, Mauritania, Mali, Burkina Faso, Niger, Chad, Cape Verde, Gambia, Guinea-Bissau, Guinea, Sierra Leone, Liberia, Togo, Benin, Central African Republic, Equatorial Guinea, Sao Tomé and Príncipe, Democratic Republic of Congo, Rwanda, Burundi, Angola, Ethiopia, Eritrea, Djibouti, Somalia, Uganda, Tanzania, Mozambique, Madagascar, Comoros, Zambia, Malawi, Lesotho, Haiti, Solomon Islands, Tuvalu, Kiribati, Vanuatu</i>
Other preferential access	New Zealand, Australia, USA, Canada
Cooperative Agreement	MERCOSUR (under negotiation), Chile, Mexico.
Note: Least-developed countries (LDCs) in italics.	

Source: Kurzweil, von Ledebur, Salamon (2003).

- Agreements were also negotiated with some non-European trading partners to improve relations with developing, emerging and transitional countries in order to further integrate them into the world economy, but also to **facilitate trade relations** in both directions. This group comprises the negotiations or signed agreements with MERCOSUR, Chile, Mexico, and South Africa.
- Broader framework for different preferential regimes is provided by the Generalized System of Preferences (GSP) and therewith the EBA initiative. These were established with a **dual purpose as trade and development instruments**. But the pertinence of preferential trade agreements as development measures is still debated. The ‘Everything but Arms’ (EBA) unilateral trade concession<sup>11</sup> is intended to further improve trading opportunities for the LDCs. All agricultural products are included in the concession, which is in contrast with the original Generalised System of Preferences (GSP) concession focused on manufactured products. Although a widely ranging market access of LDCs existed before concession, nearly all agricultural products are freed from ad valorem or specific duties and import quotas.

As a result of these processes, the EU has preferential arrangements with numerous countries world-wide. The aims and the degree of preferences included in the different PTAs may vary a great deal. Whereas the Europe Agreements have induced a more intensive integration with Eastern European countries, the New Transatlantic Agenda (NTA) signed by the EU and the USA in 1995 has had more general aims like promoting peace and stability, democracy and development around the world, responding to global challenges, contributing to the expansion of world trade and closer economic relations, and building bridges across the Atlantic. Both partners have concluded several agreements. Among those are trade related topics like an agreement to remove technical barriers to trade by mutual recognition of conformity assessment, and to work together on customs procedures. But those agreements are not primarily aimed to grant trade preferences and for this reason are not included in Table 1.4.

Within the listed agreements, the EU grants numerous preferences which vary according to date of signature, aim or regional coverage as well as to the kind of goods targeted. The **goal** to be achieved by the EU is often more than a provision of economic gains from facilitated trade so

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<sup>11</sup> The provisions of the EBA Regulation (European Council Regulation (EC) No 416/2001 of 28 February 2001) have been incorporated into the GSP Regulation (European Council Regulation (EC) No 2501/2001). The EBA regulation foresees that the special arrangements for LDCs should be maintained for an unlimited period of time and not be subject to the periodic renewal of the EU’s scheme of generalised preferences. Therefore, the date of expiry of European Council Regulation (EC) No

targets like European integration, stabilization, improved conditions for developing or transitional countries are mentioned. Moreover, while following these political aims, the adherence to **European super-ordinated preferences for domestic goods**, especially in the agri-food sector, is apparent for example by the introduction of safeguard provisions and the definition of sensitive products like sugar, beef, dairy products, bananas and other fruits and vegetables. When for example the EBA is regarded, the full liberalisation of sugar, rice and bananas will be phased in during a transition period. During this period raw sugar can be exported duty-free within the limits of a tariff quota, which will be increased each year by 15% from 74,185 tonnes (white-sugar equivalent) in 2001/02 to 197,355 tonnes in 2008/09.

Characteristic features of most treaties are the following issues:

- Most agreements are negotiated **bilaterally** allowing for better adjustment of the convergence process, but at the same time implying a greater bargaining power for the EU<sup>12</sup>.
- Nearly all agreements cover **general trade**. A step-wise implementation is usually combined with a gradual removal of tariffs and duties, quantitative import restrictions, export restrictions and export subsidies. Partly these preferences are then converted into custom unions or free trade areas which sometimes will be transformed into New Member States and will become part of the EU by also applying the “*aquis communautaire*”.
- Comparably swift adjustments are characteristics for most non-agricultural sectors, but the importance of the CAP implies a much **slower implementation in the agri-food sectors**. Here, tariff reductions are not always assigned in a reciprocal way. Sensitive products of one preference partner are often subject to lower preferences, e.g. CAP products like sugar, beef and veal, dairy products and certain fruits and vegetables.
- Quite often the preferences are implemented as **tariff rate quotas (TRQs)** with a fixed import quantity for which a zero tariff or reduced tariff is applied. Higher import quantities are charged an out-of-quota tariff (normally: MFN rates). These quotas can be established for all countries under a certain scheme (e.g. wheat), but are often allocated to individual countries so that unfilled quotas cannot be used by other preferential suppliers (e.g. dairy products). Both systems may be applied to certain goods at the same time (e.g. beef, bananas). For example, in January 1998, an annual import quota for 3,000 tonnes of sugar was imposed on sugar coming from the OCTs. Imports of sugar from the OCTs within this

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2501/2001 does not apply to its EBA provisions.

<sup>12</sup> Exceptions in this respect are the Cotonou Convention, GSP and the EBA-Protocol.

import quota will be considered duty-free. Imports outside this quota will be under the normal border protection for sugar (no duty-free access), unless the sugar is heavily processed into a product that is not under the tariff heading for sugar.

- Tariff reductions and tariff rate quotas are always **fixed for specific tariff lines**, and are mostly based on an 8-digit level or even higher digit level. Some of the tariff preferences are actually temporarily limited to some seasons when production is low in the EU, especially for fruits and vegetables. When the EBA concession is regarded, the additional access to the EU comprise 919 agricultural tariff lines at the Harmonised System [HS] 8-digit level.
- The **import licenses** providing the preferences are distributed in various ways (e.g. “first come, first served”, to historical suppliers and quotas for new comers, or tenders). Different allocation systems may imply different economic outcomes depending on who receives the quota rent.
- EU-duties are often defined as an absolute value in € per ton or 100 kg (specific tariff). Therefore, the exporter is subject to impacts of varying **exchange rates**.
- From the very beginning, the EU agreements were equipped with **safeguard clauses** as a further measure to protect domestic markets. These safeguard clauses allow for countervailing actions in the case of a domestic price decline if a precise consultation process is applied. Even when the safe guard provisions had not been applied in the beginning, they were added later on. An example provided the OCTs with the new OCTs regulation now including a safeguard clause that may be used if the EU markets are disrupted excessively. In 1999, the OCTs tried to circumvent the import quotas imposed on sugar, but the EU Commission applied safeguard measures to prevent the import of sugar and cocoa mixtures from the OCTs.
- A second qualitative restriction is the **“rule of origin”** which ensures that a preference is only granted when the product originates in the country to which the preference is provided. The importance of the RoR is to be seen for example in the case of the Balkan agreements, in which the trade in sugar is fully liberalised. Currently, fears are mounting that the Balkan sugar being imported duty-free into the EU may not be genuinely home-grown, as required by the rules of the Balkan accord. The major concern is that Serbia and Montenegro could be involved in ‘carousel’ trade: EU sugar exported to Serbia and Montenegro, was fraudulently declared to be of Serbian-Montenegrin origin, and then re-imported into the EU at a zero tariff. Moreover, the EU sugar was exported from the EU with the support of export refund. Suspicions have been strengthened by the fact that sugar imports into the EU

from the western Balkans – primarily Croatia and Serbia & Montenegro – have climbed significantly since the beginning of 2001, while sugar flows in the opposite direction have also sped up.

- **Sanitary and Phytosanitary (SPS) Measures** may be set up in the context of PTAs as long as they are applied to protect human, animal and plant health. Additionally, these SPS measures have to follow the WTO rules.
- Among other aspects, the PTAs refer to **property rights, institutional frameworks**, acceptance of **common standards** and **settings for foreign investments**. Regulations and measurements prove necessary to generate stable economic growth and income. Nevertheless, under certain circumstances they can turn into obstacles when, for example, common standards prevent some or all imports.

Looking at the issues raised in the different PTAs one realises that there is a similar scope of policies included as in the case of WTO. Both types of TAs are aimed at lowering trade barriers between their member states; at least governments try to overcome the most important hindrances to improved trade flows. But a main difference between the PTAs and the WTO is to be seen that at least from the angle of the EU that PTAs only affect trade measures, whereas within the last WTO agreements and probably even more with the likely outcome of the DDA also domestic policies are concerned.

### **1.3 Policy dimensions**

#### **1.3.1 Policy measures affected**

Although domestic policies are not directly affected by PTAs, two important issues for possible policy re-definition remain. First, many existing domestic policies are likely to be challenged due to inconsistency with a PTA which might be the real core of the negotiations for agriculture liberalization in many PTAs. But nevertheless, lower border protection has an impact on the domestic market and welfare situation. In this case, changes in domestic markets and the economic situation of different economic agents can induce adjustments in domestic policies. Thus impacts will be over-proportionally increase if trading partners are economically more important or tariff reductions compared to domestic protection are higher. A second question also did not directly involve the negotiation process itself as the interaction of domestic policies with a PTA and vice versa are regarded. In this context, the CAP plays a prominent role, nearly always dominating the policy formation process. Due to the guaranteed preference for products originated in the EU, the trade liberalization in agri-food sectors is watered down. Whereas

domestic policies of the trading partners are often subordinate, negotiations have only rarely led to adjustments of the CAP.

Within the multilateral framework of the WTO, domestic policies and their handling are a completely different matter compared to the situation under a PTA. Here domestic policies are put on test whether they are consistent with the WTO rules or hinder the increase in fair trade. Mostly, domestic policies are also included in their multilateral bindings and subject to a reduction as described in the previous chapter. Furthermore, domestic policies like CAP have been forced to undergo reforms like the Mid-Term Review of the EU for a better concordance with the WTO rules. So the impact on domestic policies of any member state, and especially on bigger member states, is much more pronounced under a multilateral than under a bilateral system. Table 1.5 presents an overview on policy measures affected by the different European PTAs. As most important quantitative trade policy measures are regarded import tariffs, tariff rate quotas, export subsidies, and the EU entry price system. Also to be mentioned are voluntary export restrictions and other non-tariff barriers which play only a minor part.

Tariffs on industrial goods have mostly been removed or have been reduced considerably over a period of transition within the framework of all different PTAs. Tariffs have been cut for some agricultural goods, but for sensitive agricultural products that are mostly regulated by the CAP, TRQs have been implemented. This concerns all PTAs, even the EBA agreement. Cattle, beef and veal, sugar, dairy products, poultry, some fruits and vegetables are especially to be mentioned in this context, but the actual lists are much longer (Kurzweil et al. 2003). Varying by the agreement, the quantities subject to a tariff reduction have been increased in the course of time. In-quota tariffs have often been reduced to zero or at least considerably. Tariff reductions are often applied in an asymmetric manner with greater concessions granted by the EU, which applies more or less for all PTAs. But the EU is also demanding concessions to an increasing degree (Double-Profits Agreement, Association Agreements). Among TRQs set on an annual basis, "seasonal" TRQs also exist which are only applied for a certain season, or the in-quota tariffs can vary due to the season. The WTO led to the process of tariffication. As part of the tariffication, TRQs were allowed to enable easier access for existing trade relations. With this measure, the WTO aimed to safeguard existing trade relationships based on preferences. The tariffs were subject to a uniform gradual reduction to be implemented over a period of 6 or 10 years, differing only between developed and developing countries. The new DDA considered bigger cuts in tariffs with progressive reductions for higher levels. Also the sum of quantities within TRQs was proposed to increase to a certain level of human consumption. The entry price system is a remnant of the EU trading system from the pre-implementation period of the WTO

agreement and guarantees that EU imports may not fall short of a fixed import price. Primarily, it is applied to certain fruit and vegetables. In the case of an EU PTA, some adjustments in the entry price system are to be implemented, thus in course of the DDA negotiations further changes concerning entry price system can be expected.

An important issue is the import licences required in all cases. The form of distribution of the licences varies according to the agricultural product. The implementation of a PTA does not change this requirement. Only in the case of an EU enlargement are import licences no longer needed, due to the fact that the extra-trade between the trading partners becomes intra-trade. The Agreement on Import Licensing Procedures established by the WTO requires import licensing to be simple, transparent and predictable.

Export subsidies are granted to promote exports when world market prices are lower than domestic prices. Whereas tariffs are more or less fixed, export subsidies are evaluated at regular intervals and often adjusted to reflect changes in world market prices, exchange rates, domestic and foreign availabilities, demand, domestic price fluctuations and other changes. For this reason, the EU's desire to bind or restrict export subsidies in a PTA is not prominent. In exchange for an abolition of export refunds, the EU has often required a reciprocal act by the trading partner. A non-reciprocal abolition occurred, for example, in the EBA-Agreement. Under the WTO agreement, the export subsidies were for the first time multilaterally bound and characterized by upper limits in budgetary expenses for export subsidies as well as in subsidized export quantities, both of which were to be reduced. For the DDA negotiations a complete abolition for developed countries within 9 years is foreseen.

When quotas were banned during the implementation of the WTO, some members got similar results by negotiating Voluntary Export Restrictions (VER) without technically imposing quotas. This means that foreign companies were persuaded to voluntarily restrict the quantities of goods they export into a particular country. Foreign companies agreed because the government threatened to impose tariffs if the foreign companies did not agree to VERs. So voluntary export restrictions (VER) do not represent a common trade measure<sup>13</sup>, but often they are regarded as a non-tariff barrier to trade (NTB). Within the WTO, the Technical Barriers to Trade (TBT) are regulated in a separate agreement and will be subject to further discussion in the WTO negotiations.

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<sup>13</sup> Theoretically derived impacts of VERs can be found in Bouet (2001) and Wauthy (2002).



**Table 1.5: Changes in EU trade policy measures due to EU TAs**

	<b>EU-CEECs</b>	<b>EU-RASS</b>	<b>Euro-med</b>	<b>EU-EEA</b>	<b>EU-ACP</b>	<b>EU-GSP</b>	<b>EU-EBA</b>	<b>EU-Chile</b>	<b>EU-Mexico</b>	<b>EU-South Africa</b>	<b>WTO</b>
<b>Tariffs</b>	Yes	Yes	yes	yes	yes	yes	Yes	Yes	yes	yes	yes
<b>Tariff rate quotas</b>	Yes	Yes	yes	yes	yes	yes	Yes	Yes	yes	yes	yes
<b>Import licenses<sup>14</sup></b>	Yes	No	no	no	no	no	No	No	no	no	no
<b>Entry prices</b>	Yes	yes	yes	yes	yes	yes	Yes	Yes	yes	yes	yes
<b>Export subsidies</b>	Yes	yes	no	yes	no	no	Yes	No	no	no	yes
<b>VER/NTB</b>	No	yes	yes	no	no	no	No	No	no	no	(yes)

<sup>14</sup> Import licenses are required in general. Trade with the CEECs will eventually become internal trade, therefore no further import licenses will be required.

**Table 1.6: Interactions between EU domestic policy measures and EU TAs**

	<b>EU- CEECs / Enlarge- ment</b>	<b>EU- RASS</b>	<b>Euro- med</b>	<b>EU- EEA</b>	<b>EU- ACP</b>	<b>EU- GSP</b>	<b>EU- EBA</b>	<b>EU- Chile</b>	<b>EU- Mexico</b>	<b>EU- South Africa</b>	<b>WTO</b>
<b>Production quotas</b>	Yes	(yes)	(yes)	yes	yes	(yes)	yes	No	no	(yes)	yes
<b>Intervention / basic price</b>	Yes	(yes)	(yes)	(yes)	yes	(yes)	yes	(no)	(no)	(no)	yes
<b>Set-aside</b>	Yes	(yes)	(yes)	(yes)	(yes)	(yes)	(yes)	(no)	(no)	(no)	(yes)
<b>Consumption / processing subsidies</b>	(yes)	no	no	no	no	No	no	No	no	no	yes
<b>Premiums</b>	Yes	yes	yes	yes	yes	Yes	yes	Yes	yes	yes	yes
<b>Budget</b>	Yes	(yes)	(yes)	(yes)	(yes)	(yes)	(yes)	(yes)	(yes)	(yes)	yes
<b>Production density</b>	(yes)	no	no	no	no	No	no	No	no	no	(yes)

Information between brackets indicates every small effect.

Table 1.6 presents the interaction between the CAP on one hand and the PTAs as well as the WTO agreements on the other hand. In general, policy interaction concerning the CAP and PTAs are only indirectly related, but to be mentioned are production quotas (e.g. sugar, raw milk, starch) and maximum guaranteed quantities (e.g. olive oil, cotton, dried fodder), intervention price systems or equivalent regulations (e.g. basic price, target price) in different sectors (e.g. cereals, beef, dairy products, sugar, pork), set-aside regulations (e.g. cereals, oilseeds) and consumption or processing aids (e.g. butter, skimmed milk powder, cotton). These measures are only weakly affected by the PTAs design due to the much more pronounced economic power of the EU compared to most trading partners. Only in some very special cases are feedback effects from the PTAs considered to be conceivable, e.g. the EBA and the EU sugar sector. Even in the case of the EU enlargement, the economic needs for adjustment of the listed CAP instruments have been minor so far if the EU budget restrictions are neglected here.

As the mentioned domestic policy instruments are mostly associated with the “amber box” or the “blue box” of the domestic support under the WTO agreement, they have been subject to cuts e.g. in the total AMS. As a result, these WTO bindings, and anticipated future cuts, in combination with the budget issue of the EU enlargement, induced a policy reform as in principle, domestic support elements have been shifted from the “amber box” (market support measures) to the “blue box” (direct payments) or the “green box” (income transfers) within the the Mid-Term Review (MTR).

As part of the CAP, decoupled premiums represent a further group of policy instruments which might be affected by PTAs and vice versa. Whereas the impact of a PTA on the amount of premiums and the formal design of direct payments is probably negligible, the effect of premiums on PTAs might be much more distinct. Granting premiums enables the EU to lower tariffs and other trade barriers with a limited impact on production. When premiums are decoupled as scheduled by the MTR, the direct support of certain sectors might be lower than by partly coupled direct payments, but nevertheless production costs will also be reduced by a single farm payment allowing presumably higher production that is higher than in a situation where no payments are granted. So endowed, the EU has a greater potential to lower its tariffs when TAs are established. But the process of decoupling was actually induced by the advent of the present DDA negotiations, which in all circumstances will require the EU to reduce its level of protection with respect to import tariffs, export subsidies and domestic support. Under the present system, the shift towards decoupled domestic support would be regarded as least devastating compared to other protection measures.

All discussed instruments have impacts on the EU-budget, so any change in border measures like tariffs and export refunds, as well as adjustments in the domestic policy instruments, directly affect the EU-budget. On the other hand, dramatic changes in the EU-budget lead to the necessity of policy adjustments, concerning primarily domestic, but also indirect trade policy measures.

### **1.3.2 Policy representation in models**

As stated above, an adequate representation of policy measures in models for trade analysis is needed covering both trade policies as well as domestic agricultural policies. Due to the wide range of instruments, often standard approaches are used for a stylized introduction like the so-called “tariff equivalents” or “price wedges.” A tariff equivalent of a policy measure is calculated as the difference between a world market price and the comparable domestic price. A disadvantage of this simple concept is the fact that most of the goods are not homogenous (non-comparable), and undistorted world market prices are seldom obtainable. A common method to derive tariff equivalents is to use Producer Support Estimates (PSE), comprising price distortions, market price supports (transfer from consumers to producers) and transfers from government to producers. A similar concept exists for Consumer Subsidy Equivalents (CSE). Drawbacks of these concepts are their relevant fluctuations due to changes in world market prices, exchange rates, and values of domestic production (van Tongeren and van Meijl, 1999).

Representing quantitative restrictions by tariff equivalents is mostly an inadequate approach. Quantitative restrictions are as frequently used in agricultural markets and trade policies as price support instruments. They range from production quotas (e.g. sugar, milk), bounds in intervention buying (e.g. beef, milk), restrictions in livestock production per area, limitations in emissions, over limitations in premiums (most agricultural products), to import quotas, tariff rate quotas, and limitations in export subsidies. To represent these measures is more complicated whenever they pose no real restriction on production or demand. Quotas are then “non-binding” and the tariff equivalent would be zero or lower. But policy changes may cause adjustments leading to a situation where quotas are restrictive (binding). Because the tariff equivalents are still zero or fixed, this development would not be indicated in the model results. Such policy measures can be directly introduced into models, but they require more information and more details.

In all cases, a database is needed providing information on the policy measures in the regions under surveillance, as well as quantitative data concerning these instruments. With trade policy measures like import tariffs, import quotas, tariff rate quotas, entry price systems, seasonal

import restrictions, export subsidies, restrictions on subsidized exports, export subsidy commitments, and non-tariff barriers, a requirement of a more direct approach very often exists.

In Table 1.7, a brief overview is shown covering the approaches to introduce policy changes explicitly in models. As the trade policy instruments often comprise quantitative restrictions, the modelling process requires a complementarity approach. Depending on the model used, also a fixation of upper bounds can be appropriate, but a complementarity approach allows a more detailed representation. Implementation of these different approaches in models will draw on quantitative country-wise information for:

- actual bilateral applied tariff rates as well as bound rates,
- bilateral tariff rate quotas, in-quota tariff rates, actual imports or fill rates, seasonal restrictions and actual imports, price differentiation between in-season and off-season demand, estimation of actual quota rents, distribution of quota rents;
- (bilateral) export subsidies, quantitative value restrictions of export subsidies, restrictions on subsidised exports, and fill rates or actual subsidised exports, voluntary export restraints, estimation of actual quota rents, distribution of quota rents;
- entry prices and “undistorted world market prices” or variable levies; and
- non-tariff barriers, product standards, rules of origin, and Sanitary and Phytosanitary measures (SPS).

Data is partly already available in the new Agricultural Market Access Database (AMAD) established by a joint initiative of UDSA/ERS, Agriculture and Agrifood Canada, the European Commission, UNCTAD and FAO. When this database is completed, it should contain most information on market access commitments on a tariff line basis and their usage which are needed to model TRQs.

Domestic policies are also widely displayed in the price wedge approach. Nevertheless, direct implementation of policy instruments which are subject to limitations may provide better insights, so that the same arguments are valid as in the case of trade instruments. If a quantitative limit is administered which is non-binding, the respective tariff equivalent is zero or a fixed value even when, due to policy changes or other causes, a quota becomes binding. Production quotas, animal and land premiums as well as their plafonds, other governmental transfers are to be mentioned in this context. Policy instruments like limitations on emissions or production density may have only a small impact on trade. An implementation of the EU-budget requires a Social Accounting Matrix (SAM) and an introduction of additional equations

(Brockmeier 2003). Concerning prices and price formation, intervention price systems need a different approach based on equations on price transmission (Surry 1997).

**Table: 1.7: Requirements of explicit policy representation in modelling PTAs**

Policy measure	Changing profile or effectiveness due to PTAs	Modelling of policy instrument	Additional information
<b>Border measures</b>			
<b>Tariffs</b>	reduced or abolished	tax rates	aggregation of tariff lines
<b>Tariff rate quotas quantities</b>	either newly introduced or increased	complementarity	aggregation of tariff lines,
<b>Import licenses</b>	generate or change distribution of rents	implementation of rents as income of groups e.g.	distribution of rents
<b>Export subsidies, limitation in subsidised</b>	reduced or abolished	complementarity	aggregation of tariff lines,
<b>Entry prices (variable levies)</b>	reduced or abolished	closure swap	aggregation of variable levies
<b>VER</b>	introduced or abolished	complementarity	aggregation of tariff lines,
<b>Domestic policy measures</b>			
<b>Production quotas</b>	reduce rents	complementarity or upper bounds	establishing binding and non-binding quotas, fill
<b>Intervention / basic price</b>	change price wedge	introduction of additional equations intervention price	price transmission between intervention
<b>Set-aside</b>	become less effective (probably small)	adjustment of rates	
<b>Consumption / processing subsidies</b>	become less effective (probably small)	adjustment of rate or closure swap	
<b>Premiums (animal and hectare)</b>	affect production levels	equal or non-equal distribution to land or other	coupled to factors full or partial decoupling
<b>Budget</b>	change expenditures	introduction of EU-budget	SAM and additional equations,

Likewise with trade instruments, a database is required which should provide general information on the domestic policy instruments adopted as well as quantitative data on the policy measures. To introduce policy measures to quantitative methods it will require data (on a country and product base) such as:

- production quotas, actual production or fill rates, estimation of actual quota rents, distribution of quota rents;
- export subsidies, import subsidies, input subsidies, factor subsidies, output subsidies, income subsidies, net-transfers, restrictions, distribution of subsidies;

- land premiums, animal premiums, quota premiums, plafonds, decoupled payments, implementation of mechanism of premiums, degree of decoupling, distribution of premiums among factors;
- limitations in production density, actual production density, distribution of land use, estimations of efficiency change;
- other transfers;
- set-aside; and
- administrated prices, price transmission to market prices, additionally influencing factors (e.g. net export).

For OECD countries, components of these data have already been introduced in the PSE database of the OECD and are updated on a yearly basis. The database particularly covers data on market price support and the amounts of governmental transfers in agricultural sectors.

In addition to agri-food and trade policies, other policy measures, notably those affecting production factors may have an impact on trade flows, but are not listed in the table. Here policies like allocation of land rights, allocation of water rights, distribution of emission permits, labour policies (minimum wages, union rights, and collective labour agreement), migration policy, money supply and interest rates, investment policy, fair trade law, competition laws, tax policy, monetary policy and others especially play a non-negligible role. Such instruments can only seldom be found implemented in quantitative (trade) models (Brockmeier and Kurzweil 2003), but nevertheless, their importance increases when the integration process deepens. A further obstacle in quantitative modelling proves the fact that those policies have not been established on a long-term basis, and policy adjustments occur very regularly.

### **1.3.3 Analytical requirements posed by European PTAs**

Based on the review of the existing PTAs (Kurzweil et al. 2003), some insights in additional core elements needed to be analyzed have been gained. Table 1.8 tries to summarize these together with some recommendations for handling if available.

- Bilateral and multilateral agreements of the EU cover general trade. This implies a general approach, to represent also other non-agricultural sectors which can greatly affect market situation and price formation in factor and input markets. A dynamic model approach allowing for a gradual implementation would be helpful. Some endogenous and some exogenous factor adjustments along the time line might be necessary. The interaction between non-preferential third countries, preferential third

countries and the EU (trade creating effects, trade diverting effects) represents the need for a global approach.

- Due to their nature, bilateral trade flows should be observed, especially when more than one trading partner of the EU is integrated. But concerning the representation of goods and trade flows two principle approaches exist: homogeneous and heterogeneous goods. Homogeneous goods do not show distinguished characteristics and prices of those goods can be pooled. With homogeneous trade modelling is easier because there is no need to track bilateral trade flows. Only a single trade flow for each actor will be mapped, either imports or exports. The so-called pooled approach aggregates imports and exports, so that only a mechanism to balance imports and exports on a market wide basis and a mechanism to distribute trade shares to the different suppliers as well as to the different demanding agents is needed. The models only explain inter-industry trade and not intra-industry trade. The bilateral approach, however, requires a complete set of interactions between each buyer and seller of each commodity and needs therefore much more data and parameters. Heterogeneous products can be differentiated and there is no need for equalizing prices among suppliers. If goods are heterogeneous, then different buyers are willing to pay different prices to obtain the same quantity of a good. Each actor may be both a buyer and a seller at the same time. Product differentiation can be introduced exogenously by assuming that products are differentiated by country of origin. This method was introduced by Armington (1969) by simply assuming that imports of a certain good and domestically produced goods are imperfect substitutes in demand. Combined with a preference function that is separable in domestic and foreign products that results in (manageable) import functions. This implies an exogenously introduced product differentiation on the demand side. Furthermore, the Armington approach would also allow the implementation of qualitative issues like product quality and consumer preferences (as represented in e.g. SPS and common standards). In this context, products would not only be differentiated by origin, but also by product quality. But also some constraints like small or zero trade flows may hinder impact analysis of any trade liberalisation in Armington approach. If prohibitively high tariffs induce negligible trade flows trade liberalisation will lead only to limit changes due to its trade share. But there exists possibilities to overcome the problem by exogenous gravity estimation of possible trade share (Kuiper and van Tongeren, 2006).
- Preferences are granted for distinct tariff lines and not for product groups. They are often defined as source-specific and are nearly always limited in quantity. An analysis

of these measures would require an implementation of tariff lines or the establishment of a sound method of aggregation.

- Several other aspects which are not directly related to the Preferential Trade Agreements are required to be addressed: free movement of labour, institutional frameworks and settings for improving foreign investments require an approach reflecting migration, capital accumulation and factor diversity. Furthermore, changes in factor availability (due to changes in land use, irrigation, increased mobility of labour induced by better education, changes in unemployment rates, regulations concerning influx of labour, adjusted rates of population, and helpful environment for investments especially of foreign investments) need to be addressed.
- Different topics within the context of competition also deserve a more detailed analysis. A major item might be the integration of imperfect competition, in cases in which huge international firms or quasi state trade firms dominate trade and special trade flows<sup>15</sup>. An approach would be to introduce product differentiation endogenously at firm level on the supply side. Krugman (1991, 1993), Ethier (1996), Ethier and Horn (1984) implemented the concept of monopolistic competition into international trade theory. Traditional gains from trade will be supplemented by “non-comparative advantage” gains from trade in the presence of scale economies and imperfect competition. The increase of firms’ output namely leads to positive scale effects and gains from trade in form of increased variety. Scale economies normally imply that only the support of a limited number of firms is possible. These are consequently imperfectly competitive. Therefore, trade creation supports a larger number of firms, but also a greater level of competition. An advantage of this concept is that it locates product differentiation on the supply side. A disadvantage is the need of firm data to derive elasticities.

**Table 1.8: Requirements of core elements of PTAs**

<b>Requirement</b>	<b>Analytical needs</b>	<b>Modelling</b>
<b>Economy-wide</b>	general approach	AGE model
<b>Bilateral preferences</b>	bilateral trade flows	muti-region AGE model
<b>Phasing in</b>	dynamic approach (projections)	dynamic AGE model, model with projections
<b>Other trading partners</b>	global approach	muti-region AGE model
<b>Tariff line representation</b>	tariff line aggregation	satelite data base ???

<sup>15</sup> Additionally, public procurements might also be of importance in this area.

<b>Deep integration process</b>	adjust for Armington in full enlargement	introduction of new nests
<b>Product quality (standards)</b>	Armington	multi-region AGE model
<b>Imperfect competition</b>	scale economies from fixed costs	introduce product differentiation at the supply side (need for firm level data)
<b>Migration</b>	model structure adjustment	adjustment of standard equations, introduction of new nest in labor
<b>Unemployment</b>	model structure adjustment	adjustment of standard equations
<b>FDI flows</b>	introduce FDI flows	

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