Trade effects of the EU-Morocco Association Agreement

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This study investigates the effects of the 2012 amendment of the Protocol on EU imports of horticultural products from Morocco. Currently, Morocco's exports of tomato, oranges and clementines outcompete EU's main producers of these products in months during which Morocco's supply is on the market. Expanded tariff free import quotas (TRQs) for tomatoes and clementines, and complete elimination of the TRQ for sweet oranges will not result in an immediate expansion of Morocco's exports to the EU, but depend on Morocco's ability to expand its production capacity for these products. Next to institutional reform, infrastructural investments and extension, improving water productivity is key in this respect.

Key words: EU Morocco Trade Horticulture Entry price Competitiveness

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Preface

As part of the Euro-Mediterranean partnership, the EU has established bilateral association agreements with most of the countries south and east of the Mediterranean Sea. The Association Agreement with Morocco was enforced in 2000, entailing a gradual liberalisation of trade over a 12-year period. In 2012 the bilateral Association Agreement between the EU and Morocco was renewed. As part of it, both partners agreed to further liberalise bilateral trade.

For horticultural products, Morocco has been granted easier access to the EU: import tariffs will be reduced stepwise and tariff-free import quotas will be enlarged up to 2016. Increased access to the EU may increase Morocco's competitive position in the EU because of Morocco's favourable climatic circumstances and its vicinity to the European market. This study investigates the effects of the trade agreement for a selected set of Moroccan horticultural products that are exported to the EU. The report focuses especially on how further trade liberalisation may affect the Dutch horticultural sector, since this sector is important for the Dutch agricultural income and trade performance.

This study was financed by the Netherlands Ministry of Economic Affairs within the framework of the DLO programme BO-20-007.01-001. The study was executed by Siemen van Berkum and supervised by Gijs Zeestraten of the Directorate General Agriculture, and by Inge Hardenberg, agricultural counsellor for the Ministry in Rabat, Morocco. I would like to thank the supervisors for their constructive comments during the inception and finalisation of the report.

Ir. L.C. van Staalduinen
Director General LEI Wageningen UR

Summary

S.1 Key findings

Morocco's exports of tomato, oranges and clementines oust EU's main producers in months during which Morocco's supply is on the market. The 2012 amendment of the Protocol of the Agreement between the EU and Morocco on EU imports of horticultural products offers Morocco expanded tariff rate quotas (TRQs) for tomatoes and clementines, while the TRQ for sweet oranges is eliminated. The entry price levels of all horticultural products remain unchanged. As TRQs were not binding for the export of the three products to the EU (see S.1 for tomatoes), these changes will not result in an immediate expansion of Morocco's exports to the EU, but depend on Morocco's ability to expand production capacity for these products.

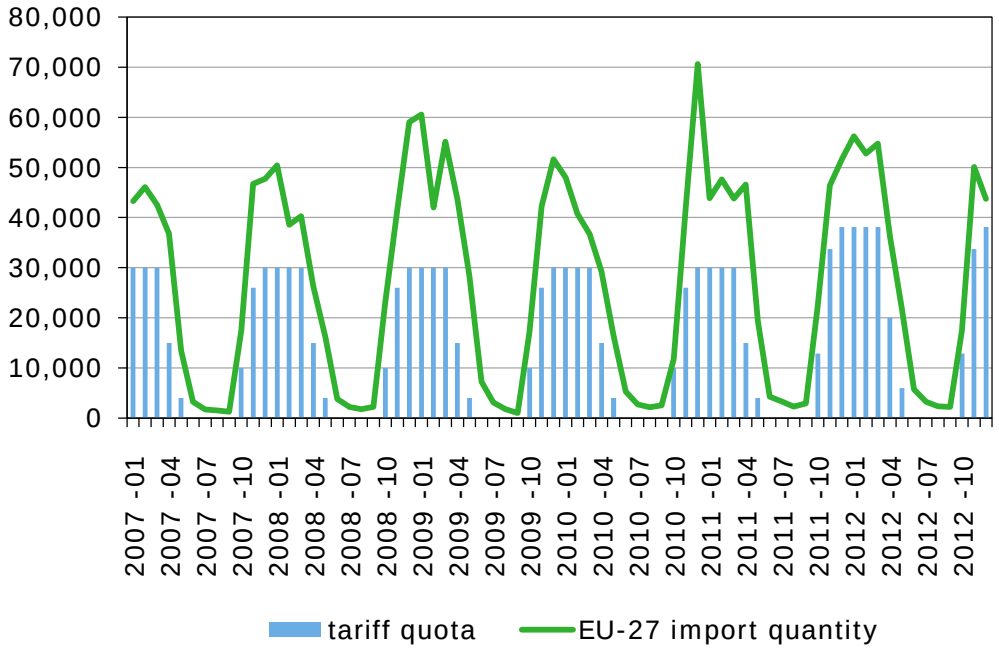


Figure S.1 *Monthly EU import quantities and TRQs for Moroccan tomatoes, in tonnes, 2007-2012.*

S.2 Complementary results

The EU27 is traditionally a net importer of agricultural products from Morocco, especially of fruits and vegetables. The main EU importers of fruits and vegetables from Morocco are France, Spain, the Netherlands, the UK and Germany.

Major fruit and vegetable products imported from Morocco are tomatoes, beans and sweet peppers in the vegetable product category, and fresh sweet oranges, clementines, melons and fresh and frozen strawberries in the fruits product category.

In the case of export to the EU, a number of Moroccan fruit and vegetable products are subject to a minimum entry price, ad valorem tariffs and specific tariffs, while several products are subject to TRQs for a given time of the year.

Key points of change in the new bilateral trade arrangement for horticultural products are expanded TRQs, whereas entry price levels remain unchanged. The expanded TRQs especially concern tomatoes, garlic, cucumbers, courgettes and fresh clementines, while imports of fresh oranges, artichokes and apricots/peaches are no longer subject to a TRQ.

The complex system of seasonal entry prices and monthly quotas is ineffective in restricting Moroccan tomatoes entering EU's market; exports are not impeded by the TRQ levels as Morocco is simply too price competitive to be barred from the EU market during its months of high season of production.

Implications of the expansion of TRQs for the EU market are expected to be small: the quota enlargement for tomatoes (an additional 32,000 tonnes up to 2015/16) is relatively small compared to the overall EU market and Morocco already exports quantities that exceed the newly established TRQ.

TRQs for oranges and clementines were not filled in the past. Apparently, the EU market was not attractive enough to encourage Moroccan growers to produce more for export to the EU. Therefore, changes in or the elimination of TRQs will not affect exports to the EU in due time.

In the medium term, however, Morocco's production capacity could develop in a way that export opportunities offered by the improved market access to the EU will be used to their full extent.

Agricultural development in Morocco requires institutional reform, investment in the country's infrastructure and in education and extension to improve knowledge and skills of the farming community. All these elements are part of the Green Morocco Plan, but its implementation and results will take time.

A major difficulty Morocco has to cope with is the increasing water scarcity: Morocco has a rapidly growing population, and increased urbanisation plus the growth of the industrial and tourism sector, which put additional pressures on water resources. Extending irrigated agriculture will further add to Morocco's water deficit, with potentially more frequent conflicts between users. This implies that increasing water productivity should be a key component of the country's agricultural development strategy, as it determines much of its future.

S.3 Methodology

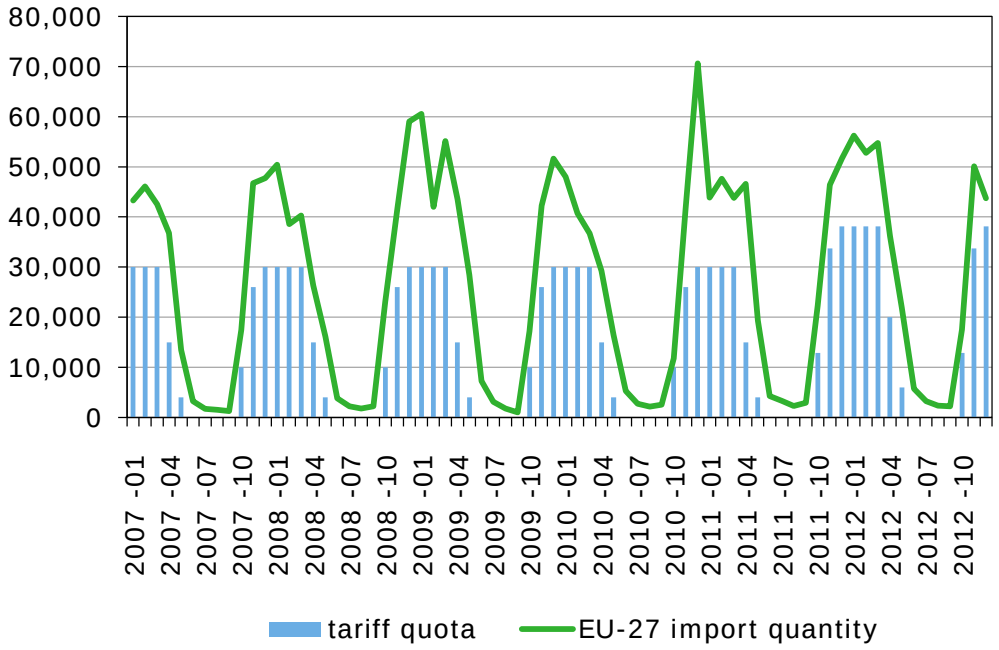
The report is based on a literature review, EU documents and data analyses. In addition, the analyses have gained from interviews with representatives of Dutch horticultural businesses and experts.

Samenvatting

S.1 Belangrijkste uitkomsten

Tomaten, sinaasappelen en clementines uit Marokko verdringen de belangrijkste producenten in de EU gedurende de maanden waarin het aanbod van Marokko op de Europese markt komt. De aanpassingen van het Protocol in het verdrag tussen de EU en Marokko staan Marokko grotere heffingvrije EU-importquota toe voor tomaten en clementines, terwijl het importquotum voor sinaasappelen helemaal verdwijnt. De entreeprijzen blijven onveranderd.

Omdat importquota niet bindend zijn voor de export van de drie tuinbouwproducten naar de EU, (zie S.1 voor tomaten), zullen deze veranderingen niet direct leiden tot groei van de export van Marokko naar de Unie, maar afhankelijk zijn van de mogelijkheden die Marokko heeft om de productie van deze producten uit te kunnen breiden.



Figuur S.1 *Maandelijkse EU-importhoeveelheden en heffingsvrije importquota voor Marokkaanse tomaten, 2007-2012.*

S.2 Aanvullende resultaten

De EU27 is traditioneel een netto-importeur van landbouwproducten uit Marokko, vooral van groente en fruit. De grootste importeurs in de EU zijn Frankrijk, Spanje, Nederland, het VK en Duitsland.

De belangrijkste importproducten uit Marokko zijn tomaten, bonen en zoete paprika, naast (verse) sinaasappels, clementines/mandarijnen meloen, en aardbeien (vers en bevroren).

Bij export naar de EU zijn enkele groente- en fruitproducten uit Marokko onderwerp van een minimum entreeprijs, ad-valoremtarieven en specifieke tarieven, terwijl er voor enkele producten een heffingvrij importquotum geldt.
Kernpunt van verandering in het nieuwe bilaterale handelsakkoord rond tuinbouwproducten is de uitbreiding van de heffingsvrije importquota: entreeprijzen blijven onveranderd. Uitbreiding van de importquota geldt voor tomaten, knoflook, komkommers, courgettes and verse clementines, terwijl het importquotum voor verse sinaasappelen, artichokes en abrikozen/perziken verdwijnt.

Het ingewikkelde systeem van seizoensgebonden entreeprijzen en maandelijkse quota houdt Marokkaanse tomaten niet weg van de Europese markt: export wordt niet beperkt door de omvang van de heffingsvrije importquota omdat Marokko zijn tomaten simpelweg goedkoper kan aanbieden dan de Europese concurrenten tijdens het hoogseizoen in Marokko.

De uitbreiding van de importquota voor de EU-markt heeft waarschijnlijk geringe effecten: het extra quotum voor tomaten (een extra 32.000 ton in 2015/16) is relatief klein vergeleken met de totale EU-markt. Bovendien exporteert Marokko al meer dan het huidige importquotum naar de Unie.

Importquota voor sinaasappelen en clementines zijn niet volledig benut in het verleden. Blijkbaar was de Europese markt niet aantrekkelijk genoeg om Marokkaanse producenten en handelaren te verleiden meer te exporteren naar de EU. Daarom zal een opheffing van het importquotum voor deze producten ook niet aanzetten tot een snelle exportgroei naar de EU.

Op de middellange termijn, echter, kan Marokko's productiecapaciteit zich zodanig ontwikkelen dat exportmogelijkheden die nu worden geboden door verbeterde markttoegang tot de EU wel zullen worden benut.

Landbouwontwikkeling in Marokko vereist institutionele hervormingen, investeringen in infrastructuur en in onderwijs en voorlichting om kennis en vaardigheden in de sector verder te ontwikkelen. Al deze aspecten zijn onderdeel van het Green Morocco Plan, maar de implementatie en resultaten van het Plan hebben tijd nodig.

Een van de grootste uitdagingen waar Marokko voor staat, is de toenemende waterschaarste. Marokko heeft een snel groeiende bevolking, die steeds meer in steden woont; met een groende industrie en toeristische sector neemt de vraag naar water toe. Een uitbreiding van irrigatielandbouw zal verder bijdragen aan het watertekort, waardoor steeds vaker conflicten tussen gebruikers kunnen ontstaan. Dit leidt ertoe dat toename van de waterproductiviteit een zeer belangrijk onderdeel dient te zijn van 's lands landbouwontwikkelingsstrategie, omdat het de toekomst van de landbouwontwikkeling grotendeels zal bepalen.

S.3 Methode

De studie is gebaseerd op literatuur, documenten van de EU en data-analyses. Daarnaast is een aantal interviews gehouden met vertegenwoordigers van het Nederlandse tuinbouwbedrijfsleven en met experts.

1 Introduction

Background and aim of the study

In February 2012 the European Parliament agreed with the Council proposal (of December 2010) to further liberalise trade in agricultural and fishery products between the European Union and Morocco, as part of the Association Agreement between the two partners. The trade agreement entails a step-by-step reduction of import reducing measures at both sides (see OJ L241/4, 7.9.2012). For horticultural products, import tariffs will be reduced and preferential tariff quotas enlarged. Due to its favourable climatic circumstances and vicinity to the European market, increased access to the EU may increase Morocco's competitive position in the EU. On the other hand, improved access to the EU may provide opportunities to trading companies that source fruits and vegetables from foreign countries and may find Morocco a more attractive source than currently is the case. The Netherlands is the base of a significant number of fruit and vegetable trading companies. In case the improved market access to the EU induces a further professionalisation of the Moroccan horticultural sector, Dutch input suppliers may find increasing trade and investment opportunities in the country. Therefore, the deepening of the trade agreement may potentially have important consequences for the business opportunities of the Dutch horticultural supply chain.

The highly technical and detailed nature of the agreement (in terms of tariff lines, tariff quotas, seasonal differentiation of tariffs and quotas, etcetera) makes it difficult to evaluate the economic consequences of the agreement. Besides government authorities who are responsible for monitoring and implementation of the agreement, the horticultural industry (producers, traders, input suppliers) has an interest in knowing these effects, as it will directly affect their business in the short and long term, requiring strategic decisions on investments and sourcing policies.

This research aims to provide insights into the economic (mainly price and trade) effects of the trade agreement and the consequences these trade effects may have for the Dutch horticultural sector in the short and medium term.

The structure of the paper is as follows. Chapter 2 shows the major trends in trade in horticultural products between the EU and Morocco, as well as the positions of EU's major importing member states of these products from Morocco. Previously and newly agreed trade conditions are presented, explained and discussed in Chapter 3. Chapter 4 illustrates Morocco's price competitiveness and export performance on the EU market up to the end of 2012, illustrated by its exports of tomato, oranges and clementines. Based on this evaluation, some tentative conclusions are drawn on the impact of the Association Agreement amendments on export flows to the EU. Chapter 5 follows by discussing the perspectives for expanding horticultural production in Morocco, and whether these may offer trade and investment opportunities to Dutch horticulture businesses. Chapter 6 briefly summarises key findings and concludes.

2 Trade flows between the EU and Morocco

2.1 Key trends in trade in horticultural products between the EU and Morocco

The EU27 is traditionally a net importer of agricultural products from Morocco. Imports in 2012 reached €3.5bn, which is a substantial increase compared to recent years when total imports averaged around €2bn. EU agricultural exports to Morocco amounted €1.5bn in recent years. Dairy, cereal preparations and beverages are among the major EU export products. Vegetables, fruit, fish and preparations of fish are Morocco's most important agricultural products exported to the EU. A more detailed overview of bilateral trade data at 2 digit level is provided in Annex 2 at the end of this report.

Figure 2.1 presents EU27 imports of vegetables (HS07) and fruits (HS08) from Morocco since 1995. Both categories show an increasing trend, yet with different slopes indicating that EU imports of vegetables from Morocco have been much more dynamic than the Union's fruits imports from Morocco.

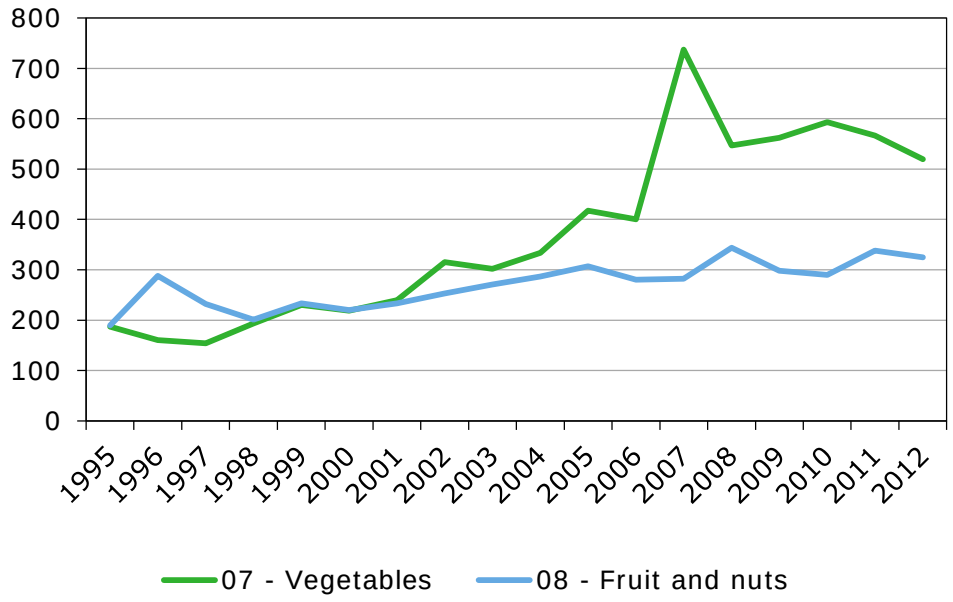


Figure 2.1 *EU imports of vegetables and fruits from Morocco (in €m). Source: Eurostat (COMEXT).*

Major fruit and vegetable products (at 8-digit level) imported from Morocco are only a few: tomatoes, beans and sweet peppers in the vegetable product category, and fresh sweet oranges, clementines, melons and fresh and frozen strawberries in the fruits product category. Altogether these products account for around 90% of EU's overall fruit and vegetable imports from Morocco. Trends in EU's imports from Morocco in these products are depicted in Figure 2.2a and Figure 2.2b. In the vegetable category we see a strong increase of the import value of tomatoes and beans, reaching around €250m and €150m respectively in recent years. Imports of sweet pepper peaked in 2007 and have been relatively stable at €60-70m since then. Imports of each of the five fruit products show significant annual fluctuations. Frozen strawberries and melons both show an increasing trend over the whole

period while import values of oranges, clementines and fresh strawberries go up and down from year to year without showing a real trend over the period presented.

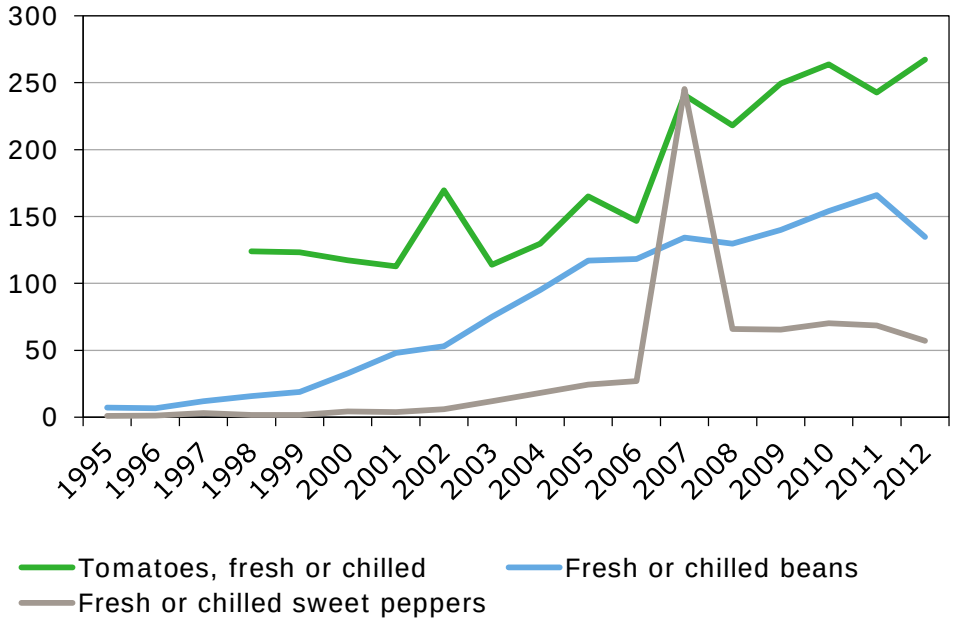


Figure 2.2a *EU imports of major imported vegetable products from Morocco (in €m). Source: Eurostat (COMEXT).*

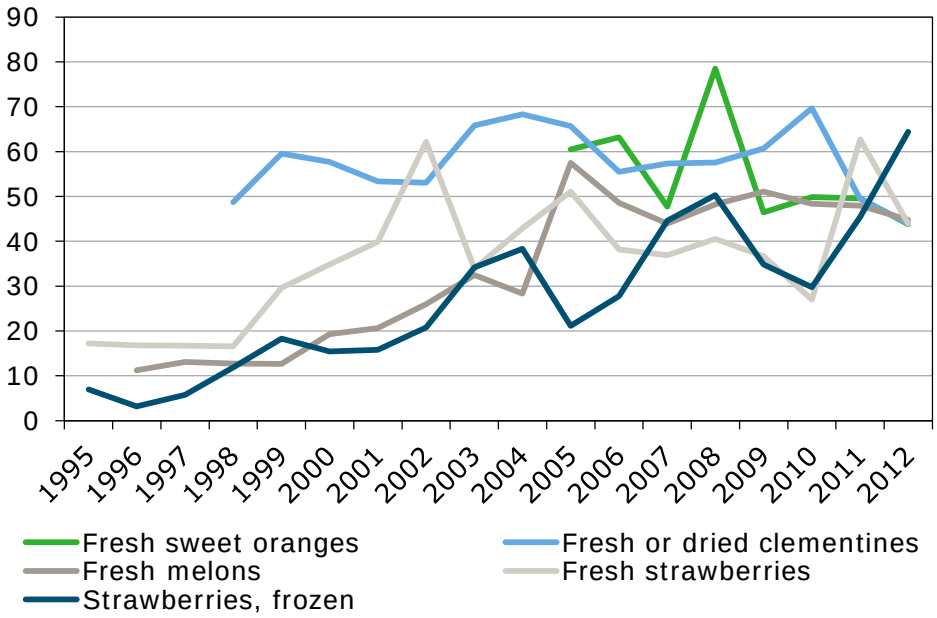


Figure 2.2b *EU imports of major fruit products from Morocco (in €m). Source: Eurostat (COMEXT).*

2.2 Main EU importers of major fruits and vegetables traded with Morocco

Major EU importers of fruits and vegetables from Morocco are France, Spain, Netherlands, UK and Germany (see Table 2.1). France and Spain are by far the main importers of vegetables, accounting together for 80% of imports from Morocco. France is also the main importer of fruits from Morocco, with a share of over 40%, followed by the Netherlands, UK and Spain, of which each country accounts for a significant share (in the range of 12-17% each) of all EU fruits import from Morocco.

Table 2.1

EU imports of fruits and vegetables from Morocco in 2012 (€m) and shares in EU's import of EU's major importing member states (in %).

	EU import value	France	Netherlands	Germany	UK	Spain	Other EU member states
07- vegetables	520	59.2	7.4	3.4	7.7	19.8	2.4
08- fruits	325	41.3	16.8	3.6	17.2	12.1	9.0

Source: Eurostat (COMEXT).

With respect to EU's major imported horticultural products from Morocco it appears that France is (by far) the main EU member state importer of tomatoes, courgettes, sweet peppers and clementines from Morocco (Table 2.2). Spain is the dominant EU importing member state for Moroccan beans. Oranges are largely imported by the Netherlands, while the UK is EU's biggest importer of Morocco's table grapes, just before France.

Table 2.2

EU import value (in €m) of major imported fruit and vegetable products from Morocco, and the share of EU's major importing member states in EU's total import of each product.

	EU27	France	Netherland	Germany	UK	Spain
Tomatoes	267.2	78.5	1.5	0.1	14.5	5.1
Courgettes	23.3	77.9	1.8	0.8	0.2	19.2
Beans	134.6	39.3	12.6	0.3	0.3	47.4
Sweet Peppers	57.1	49.1	8.5	22.8	0.1	17.5
Oranges	43.8	9.4	60.3	3.8	18.9	2.1
Clementines	44.0	28.6	25.5	2.3	22.7	0.0
Grapes	17.3	33.0	2.7	10.4	34.3	19.6
Strawberries	44.0	44.2	3.3	7.5	34.6	9.4

Source: Eurostat (Comext), data 2012, except for courgettes and artichoke for which 2011 data are the most recent data available, and also 2011 data for garlic as imports in 2012 were close to zero.

Above only annual data are used to show the major trends of EU's imports of fruit and vegetable products from Morocco. However, trade in fruit and vegetable products has generally a highly seasonal character. Figure 2.3 shows EU's imports of tomatoes from Morocco on a monthly basis, indicating that imports start around the beginning of October, reaching a peak in December-January and then declining to almost zero in the summer months. This is a typical trade pattern for all EU fruit and vegetable imports from Morocco, which is largely due to the production season in Morocco. To ensure that imports do not destabilise the common market, EU's market access is subject to price, volume and quality conditions. These trade conditions in EU's bilateral relation with Morocco will be discussed in the following chapter, including the changes that are included in the 2012 trade agreement.

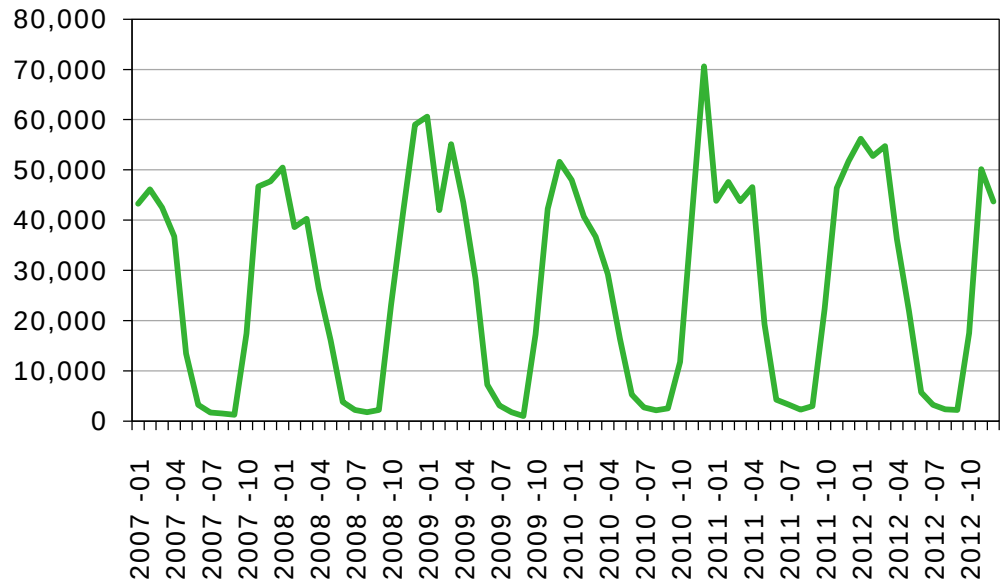


Figure 2.3 *Monthly data on EU27 imports of tomatoes in tonnes (20070-2012). Source: Eurostat (COMEXT).*

3 Trade conditions in bilateral EU-Morocco relations

3.1 Trade conditions up to 2011/2012

In the case of exports to the EU, a number of Moroccan fruit and vegetable products is subject to a minimum entry price, ad valorem tariffs and specific tariffs, while several products are subject to a tariff rate quota (TRQ) for a given time of the year. In Text box 3.1 these products are listed.

Text box 3.1

Moroccan fruit and vegetable products subject to EU's entry price system and to a tariff quota.

Horticultural products subject to agreed entry prices into the EU are:

tomatoes,
fresh or chilled (07020000);
cucumbers,
fresh or chilled (07070005);
fresh or chilled courgettes (07099070);
fresh or chilled globe artichokes (07099080);
fresh sweet oranges (08051020); fresh or dried clementines (08052010);
fresh table grapes (08061010);
fresh apricots (08091000);
fresh nectarines and peaches (080930).

Horticultural products subject to an annual or a certain period tariff quota are:

tomatoes,
garlic,
cucumbers,
courgettes,
clementines and
strawberries.

The entry price of fruit and vegetable products is established to ensure that imports are offered at a price that is not below a minimum threshold. In the current system, products subject to the entry price system enter the EU with an ad valorem duty only if the C.I.F import price[1] of a shipment is above the entry price. In case the C.I.F. import price is offered below the entry price, a specific duty is added in addition to the ad valorem tariff. If the imported good comes in at an import price not more than 8% below the entry price, the additional (specific) tariff will equal the difference between import price and entry price. If the import price is more than 8% below the entry price, the full WTO-bound specific tariff, which is much higher than the ad valorem tariff, will be charged. Table 3.1. shows the seasonal variation of the ad valorem tariffs, entry prices and specific tariffs which the EU applies to Most Favoured Nation (MFN) imports of tomatoes as well as to preferential imports from Morocco.

[1] C.I.F. = costs of insurance and freight. C.I.F. import price means the import price includes the costs of insurance and freight of the load.

Table 3.1

MFN and preferential EU tariffs and entry prices for tomatoes 2011/2012

		Ad valorem tariffs (%)			Entry Prices		Specific tariffs
	TRQ 2011/2012 on tomatoes for Morocco	MFN	Morocco		MFN (€/t)	Morocco €/t	MFN €/t
			In TRQ	Above TRQ			
Oct.[1)]	12,900	14.4	0.0	14.4	626	461	298
Nov.[1)]	33,700	8.8	0.0	8.8	626	461	298
Dec.[1)]	38,100	8.8	0.0	8.8	626	461	298
Jan.[1)]	38,100	8.8	0.0	8.8	846	461	298
Febr.[1)]	38,100	8.8	0.0	8.8	846	461	298
Mar.[1)]	38,100	8.8	0.0	8.8	846	461	298
April[1)]	20,000	8.8	0.0	8.8	1126	461	298
May	6,000	14.4	0.0	14.4	726	461	298
June		14.4		5.76[2)]	526	-	298
July		14.4		5.76[2)]	526	-	298
Aug.		14.4		5.76[2)]	526	-	298
Sept		14.4		5.76[2)]	526	-	298

Note 1) plus an additional quota of 28,000 tonnes which may be used to the amount of 30% each month, from October to May. 2) 60% reduction of MFN ad valorem tariff from June to September.

Sources: OJ L241, 2012: TRQ 2011/2012; OJ L282, 2011 for MFN Ad valorem tariffs, MFN entry prices and MFN Specific tariffs; OJ L345/121, 2003 for Morocco entry prices.

The preference granted to Morocco entails a quota that allows Moroccan suppliers to sell at much lower entry prices than other third countries without customs duties. Table 3.1 shows that Morocco can sell a volume up to the agreed TRQ against a (minimum) entry price of 461 €/t. Also, the specific tariff that can be 298 €/t at a maximum, will not be applied for the TRQ as long as the C.I.F. import price is not below 461 €/t. When import volumes exceed the agreed TRQ, the indicated ad valorem duty is applied upon the MFN entry prices. Again, the specific tariff is only applied in case Morocco offers the tomatoes at lower prices than the entry price valid in the specific period (e.g. 626 €/t in October). A minimum c.i.f. import price of Moroccan tomatoes above the TRQ is therefore 626 + 8.8% = 681 €/t during the period from November to the end of December. As Table 3.1 indicates, the ad valorem rate is 14.4% in October and May, resulting in a minimum import price of 716 €/t.

3.2 Changes in trade conditions on fruit and vegetables agreed in 2012

Changes in the Association Agreement (AA) between the EU and Morocco refer to an elimination of customs duties (ad valorem and specific) on imports into the EU of agricultural products, processed agricultural products, fish and fishery products originating from Morocco, except if otherwise provided for. The latter is relevant for a number of horticultural products, especially for those that are subject to a tariff quota and/or an agreed entry price, and which are the subject of this study.

Provisions of the 2012 EU-Morocco agreement are published in the OJ L241 of 7 September 2012. Table 3.2 presents the provisions with respect to entry price levels as agreed in 2012 and compares these with entry price levels according to the Protocol laid down in the 2003 legislation. This shows that entry price levels remain unchanged, implying that for this issue and for these products the agreement in fact reconfirms the preferences Morocco already had in exporting these products within the boundaries of the tariff quotas, some of which will change (see below).

The legal text continues by stating that in case Morocco exports its products at an up to 8% lower price than the newly agreed entry price, the price gap will be covered by a specific duty. In case the export price is lower than 92% of the entry price, the EU will apply the WTO consolidate specific duty

(article 2, section 3b). This 'eight per cent rule' is also similar to the previous agreement (laid down in OJ L345/121, 2003).

Table 3.2

Entry prices and duties for products subject to the EU entry price system in EU-Morocco bilateral trade.

CN code	Product	Period	Newly agreed entry price (EUR/100 kg)	Agreed entry price in 2003
0702 00 00	Tomatoes, fresh or chilled	01/10 - 31/05	46.1	46.1
0707 00 05	Cucumbers, fresh or chilled	01/11 - 31/05	44.9	44.9
0709 90 70	Courgettes, fresh or chilled	01/10 - 31/01	42.4	42.4
		01/02 - 31/03	41.3	41.3
		01/04 - 20/04	42.4	42.4
0709 90 80	Artichokes, fresh or chilled	01/11 - 31/12	57.1	57.1
0805 10 20	Sweet oranges, fresh	01/12 - 31/05	26.4	26.4
0805 20 10	Clementines, fresh	01.11 - 29/2	48.4	48.4
0806 10 10	Table grapes, fresh	21/07 - 20/11	35.8	
0809 10 00	Apricots, fresh	01/06 - 31/07	64.5	
0809 30	Peaches, incl. nectarines, fresh	11/06 - 30/09	49.1	

Sources: OJ L 241, the EC regulation of the agreement (07.09.2012) for products and agreed entry prices; OJ L345/121) for the Agreed entry price in 2003.

The further liberalisation of trade in horticultural products concentrates on the extension of tariff quotas of certain fruit and vegetable products. These newly agreed tariff quotas are presented below in Table 3.3 for tomatoes and in Table 3.4 for other products. At the same time, as the legal text indicates, for products covered by CN codes 0709 90 80 (artichokes), 0805 10 20 (sweet oranges), 0806 10 10 (table grapes), 0809 10 00 (apricots) and 0809 30 (peaches), unlimited quantities are accepted without Moroccan traders paying ad valorem or specific duties on their export to the EU.[2] From this latter list of products, tariff quotas for artichokes were 500 tonnes from November to December; sweet oranges: 300,000 tonnes from December to May; apricots/peaches: 3,500 tonnes), according to OJ L345 (2003).

For tomatoes the agreement refers to a much more specific preferential treatment that specifies a monthly tariff quota and an additional tariff quota that Moroccan traders may use to export to the EU, benefitting from low or zero duties (Table 3.3). The increase of the overall quotas (including the additional quotas) over the years is 32,000 tonnes (from 253,000 tonnes in 2011/2012 to 285,000 tonnes in 2015/2016).[3] The system of basic monthly quotas remains.

[2] See OJ, L241, Annex I, Title II, Specific provisions, article 2 Tariff provisions, 3b.

[3] The tariff quotas were increased gradually over time since the first quotas were established. For the period 2004-2007, for instance, the overall TRQ amounted to 175,000 tonnes plus a conditional (additional) quota of 15,000 tonnes (Chemnitz and Grethe, 2005).

Table 3.3

Tomatoes provision for the marketing years 2011/2012 to 2015/2016.

Basic monthly tariff quotas	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016 and following years
October	12,900	13,350	13,800	14,250	14,700
November	33,700	34,900	36,100	37,300	38,500
December	38,100	39,450	40,800	42,150	43,500
January	38,100	39,450	40,800	42,150	43,500
February	38,100	39,450	40,800	42,150	43,500
March	38,100	39,450	40,800	42,150	43,500
April	20,000	20,700	21,400	22,100	22,800
May	6,000	6,250	6,500	6,750	7,000
Total	225,000	233,000	241,000	249,000	257,000
Additional tariff quota (from 1 November to 31 May)[1)]	28,000	28,000	28,000	28,000	28,000

Note 1). Morocco undertakes to ensure that no more than 30% of this additional tariff quota is used during any one month.

Source: EN L 241/8 Official Journal of the European Union 7.9.2012.

Table 3.4 presents the MFN ad valorem duty reductions for those products that are subject to a tariff quota. Also, the quota limits are mentioned (annual or for the period indicated, see column 'B'). These are the volumes to which the reduction or abolition of MFN ad valorem tariffs applies. Most reductions are a complete elimination of the tariff (i.c. a 100% reduction of the MFN custom duty), yet with exceptions for the TRQ volume for strawberries (50%) and a 60% MFN ad valorem tariff reduction for tomatoes and courgettes during a period of the year for which there is no tariff quota for these two products. The overview also indicates that when Morocco exports exceed its tariff quotas, the MFN ad valorem and specific duties will be applied again, except for tomatoes and clementines that will benefit from an ad valorem duty reduction by 60% and 80% respectively (column 'C' in table 3.2). The latter was already agreed in the previous agreement. Indeed, when comparing the 2012 arrangements with the 2003 provisions of the Protocol (in OJ L345, 2013), there are only a few changes. With regard to in-quota tariffs (column A), the reductions in fact confirm what was already agreed in the 2003 Protocol, except for fresh strawberries imports in May that will be taxed from 2013 onwards (50% tariff). Compared to the 'old' agreement, tariff quotas (column B) are extended for all products that were subject to a quota, yet for strawberries the 2012 Protocol introduces quotas for April and May.

Table 3.4

Arrangements applicable to the importation into the European Union of agricultural products, processed agricultural products, fish and fishery products originating in the Kingdom of Morocco - L 241/12, 7.9.2012.

CN code	Description	A	B	C
		Reduction of the MFN customs duty applicable to the quota (%)	Tariff quota - annual or for the period indicated - (tonnes net weight)	Reduction of the MFN customs duty beyond the current tariff quotas (%)
0702 00 00	Tomatoes, fresh or chilled, from 1 October to 31 May	100%	See Table 3.3 above	60%
0702 00 00	Tomatoes, fresh or chilled, from 1 June to 30 September	60%	Unlimited	
0703 20 00	Garlic, fresh or chilled	100%	1,500	
0707 00 05	Cucumbers, fresh or chilled, from 1 November to 31 May	100%	15,000	
0707 00 05	Cucumbers, fresh or chilled, from 1 June to 31 October	100%	Unlimited	
0709 90 70	Courgettes, fresh or chilled, from 1 October to 20 April	100%	50,000	
0709 90 70	Courgettes, fresh or chilled, from 21 April to 31 May	60 %	Unlimited	
0805 20 10	Fresh clementines, from 1 November to the end of February	100%	175,000	80%
0805 20 10	Fresh clementines, from 1 March to 31 October	100%	Unlimited	
0810 10 00	Fresh strawberries, from 1 November to 31 March	100%	Unlimited	
0810 10 00	Fresh strawberries, from 1 April to 30 April	100%	3,600	
0810 10 00	Fresh strawberries, from 1 May to 31 May	50%	1,000	
0810 10 00	Fresh strawberries, from 1 June to 31 October 0 %	0%		

Source: OJ L 241, 2012.

3.3 Summarising the key changes in the agreement

Key points of change made in the new bilateral trade arrangement for horticultural products are expanded tariff rate quotas, whereas entry price levels remain unchanged. Table 3.5 summarises the 2012 deviations from the 2003 Protocol. Reductions in in-quota ad valorem tariffs as mentioned in Table 3.4 were already applied since 2003, except for strawberries imported in May. The major consequence of the new Protocol of EU-Morocco bilateral trade in horticultural products is an enlargement of tariff rate quotas for tomatoes, garlic, cucumber, courgette and fresh clementines, while imports of fresh oranges, artichokes and apricots/peaches are no longer subject to a TRQ. In assessing the impacts of quota enlargements on import flows, the question is whether the TRQs have been binding or not. In case of binding TRQs, Morocco shows it has been competitive already under the 2003 Protocol conditions as its exports exceed the preferential quotas granted. In case of binding TRQs, the enlargement most probably will lead to a further increase of exports to the EU. More imports from Morocco will imply more supply and hence a depressing price effect on EU markets, which is favourable for consumers but not for producers of the same crop. The question of a binding TRQ and the implications of extending a binding TRQ will be elaborated for tomatoes in the next chapter, as this is Morocco's main export product to the EU. The impact of changes in trade conditions for fresh oranges and clementines will also be addressed in the following chapter. These are products for which the Netherlands has a relatively high share in EU imports from Morocco (see Table 2.2). Details of changes in trade conditions for these two citrus fruits are presented in two tables in the Annex 1.

Table 3.5

Summary of changes in trade conditions, comparing the 2012 to the 2003 Protocol

CN code	Description	Reduction of the MFN customs duty applicable to the quota (%) - difference compared to 2003 agreement	Changes in TRQ - annual or for the period indicated - (tonnes net weight)
0702 00 00	Tomatoes, fresh or chilled, from 1 October to 31 May		From 253,000 tonnes to 285,000 tonnes. For details see Table 3.3
0703 20 00	Garlic, fresh or chilled		From 1,000 to 1,500
0707 00 05	Cucumbers, fresh or chilled, from 1 November to 31 May		From 5,600 to 15 000
0709 10 00	Artichokes		From 500 to 'unlimited'
0709 90 70	Courgettes, fresh or chilled, from 1 October to 20 April		From 20,000 to 50,000
0805 10 20	Fresh sweet oranges		From a quota of 300,000 tonnes to 'unlimited'
0805 20 10	Fresh clementines, from 1 November to the end of February		From 130,000 to 175,000 tonnes
0809 10 00	Apricots/Peaches/Nectarines		From 3,500 to 'unlimited'
0810 10 00	Fresh strawberries, from 1 April to 30 April		3,600
0810 10 00	Fresh strawberries, from 1 May to 31 May	50% reduction = from 12.4% to 6.2%	1,000

Sources: OJ L345, 2003 and OJ L 241, 2012.

4 Price competitiveness of tomatoes, oranges and clementines

4.1 Tomato prices compared

In order to assess whether the tariff quota is binding, it was determined whether Morocco's preferential entry price allows the country's tomato exports to enter the EU. Figure 4.1 displays MFN entry prices, preferential entry prices, Spain's import unit values of tomatoes imported from Morocco as indicators for the Moroccan import price and Spanish whole prices for tomatoes for 2007 through 2011/2012.

Figure 4.1 depicts the MFN entry price plus the ad valorem tariff for tomatoes, which is higher in winter than in summer and which reaches its peak in April. Next, Figure 4.1 shows that the preferential entry price for Morocco in the winter months is considerable lower than the MFN entry price. The import unit value is the unit value of Moroccan tomatoes imported by Spain (Spain is chosen as it is Morocco's closest EU market where import prices include the lowest transportation margin; import unit values of other importers like France are higher than those of Spain). These import unit values - a proxy for Spain's import prices or Morocco's export price - are higher than the preferential Moroccan entry price, in which situation no additional (specific) import duty has to be paid. Figure 4.1 also shows that in the winter months import prices are lower than wholesale prices in Spain, indicating that Morocco is highly competitive in large parts of the period between October and April, but in some years (e.g. 2012) also during the summer period (green line is below purple line).

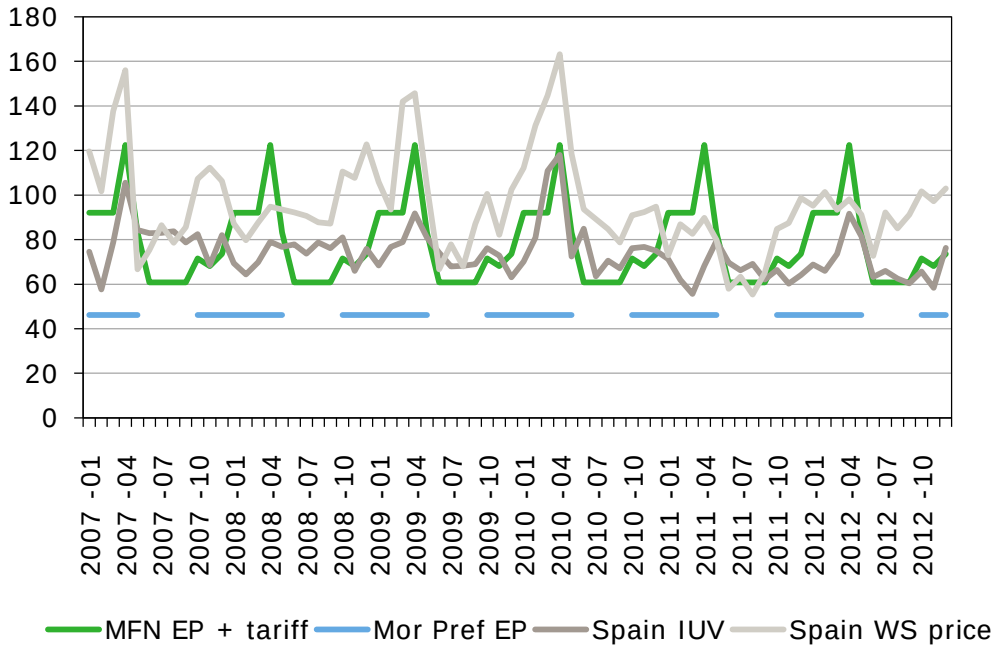


Figure 4.1 *Monthly entry prices, Spanish import unit values and wholesale prices, in euro/100 kg, 2007-2012.*
Note: MFN EP = Most favoured nation entry price; Mor Pref EP = Moroccan Preferential entry price; Spain IUV = Spain import unit value of imports from Morocco; Spain WS price = Spanish wholesale price.
Sources: OJ L345, OJ L282, Eurostat and Mercasa

Based on the price comparison in Figure 4.1 it can be said that for large parts of the high season of Moroccan tomato exports to the EU, it is the preferential price which allows for the imports from Morocco. In order to check to what degree Morocco makes use of the TRQ, Figure 4.2 presents monthly EU import quantities of Moroccan tomatoes compared to the size of TRQs for each month.

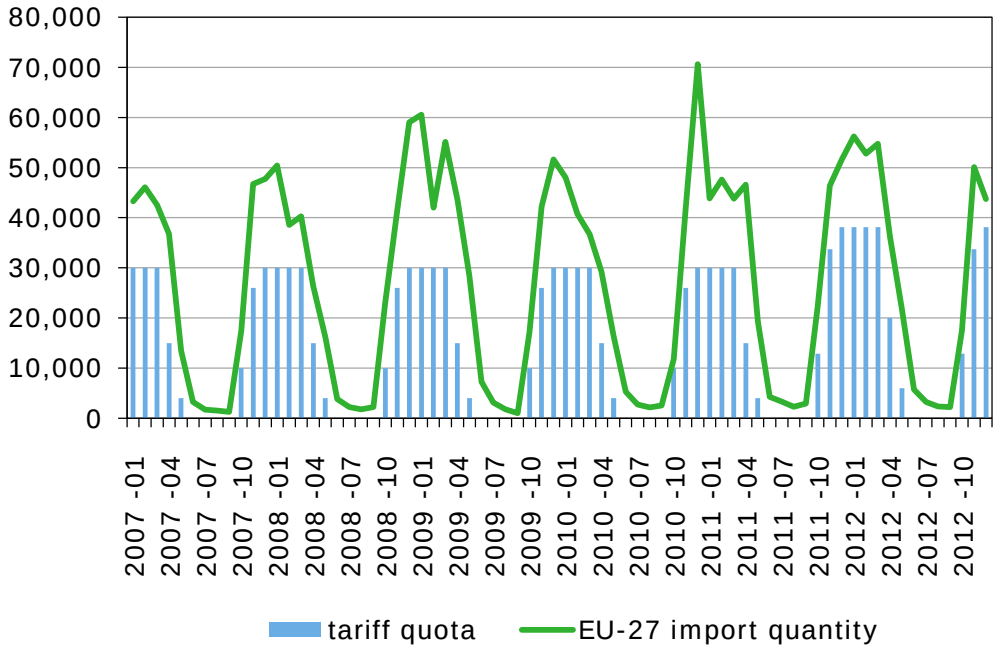


Figure 4.2 *Monthly EU import quantities and TRQs for Moroccan tomatoes, in tonnes, 2007-2012. Source: Eurostat trade data; OJ L345 for tariff quota 2007-2010; OJ L241 for tariff quota 2011/2012*

Figure 4.2 shows that the TRQ is binding: for all months the regime applies a TRQ, Morocco completely fills the quotas and even exported (much) more than its preferential volumes granted. According to the agreement, Morocco may exceed the monthly quantity with 30% of the additional quota without paying MFN duties. However, in all years and for all months presented the actual quantities exported show higher than the monthly quotas plus 30%. Also, annual export totals (which are between 300,000 and 350,000 tonnes in the period 2007-2012) indicate that Moroccan exports have exceeded the annual TRQ quantity (252,000 in 2011/2012) and, hence, was able to export tomatoes to the EU against the higher MFN entry price plus ad valorem tariff. This indication of competitiveness during the Moroccan high season of tomato production is confirmed by the price data presented in Figure 4.1, where in most of the presented years MFN entry price plus tariff levels are lower than Spanish wholesale prices during the months from October up to January, while this was true for even the whole of the 2009, 2010 and 2012 season. The combination of the price level comparison in Figure 4.1 and Figure 4.2 showing that Morocco exports larger than TRQ volumes to the EU, indicate that the complex system of seasonal entry prices and monthly quotas is ineffective in restricting Moroccan tomatoes from entering EU's market; exports are not impeded by the TRQ levels as Morocco is simply too price competitive to be kept out of the EU market during its months of high season of production.

4.2 Implications of 2012 changes for the EU tomato market

According to the 2012 agreement Morocco is granted a tariff rate quota of 257,000 tonnes of tomatoes, with an additional quota of 28,000, in 2015/2016 (see Table 3.3). This means an extra 32,000 tons of tomatoes under the preferential regime compared to 2011/2012 marketing year.

Figures above show that Morocco already exports a quantity that exceeds the overall 285,000 tonnes of TRQ (by 2015/16). Therefore, the quota enlargement will have no impact on trade flows: it will first and foremost enlarge the price margin of those additional tonnes exported under the TRQ regime. Yet, as a consequence this higher price margin may induce traders to try to increase exports outside the preferential period.

Impact of the extra supply on the market depends on the EU import demand elasticity. Simply because of the size of the EU market[4], it is assumed that the EU import elasticity with respect to Moroccan export tomato price is high, and thus the EU price effect of an expansion of Moroccan tomato exports will be low. Yet, there may be a seasonal effect, especially relevant for Spanish tomato producers at the start of their production season in April. Yet, again given the relatively small quantities Morocco supplies during these weeks in addition to Spain's and other EU countries' production, the price impacts are probably little, unless the improved market access to the EU would boost tomato production in Morocco. Opportunities and bottlenecks of such a scenario will be discussed in the next chapter.

4.3 Fresh sweet oranges prices compared

In a similar approach as for tomatoes, we show the price competitiveness of Morocco's fresh oranges and clementines on the EU market. Again, references are the Spanish wholesale prices, as Spain is the major EU producer and exporter of these citrus products. As the Netherlands is the major importer of Moroccan citrus products, we take the Dutch import unit values as the reference import price in our analysis.

For sweet oranges, Figure 4.3 presents both the MFN and preferential entry price for Morocco, the latter being much lower than the first. Prices of sweet oranges imported from Morocco by the Netherlands are significantly lower than the Spanish wholesale prices, indicating that Moroccan oranges are highly competitive all months of the year. Morocco's production season starts in October and lasts up to June/July.

[4] EU tomato production is about 16m tonnes, of this about 7m is for direct sale and 9m for processing.

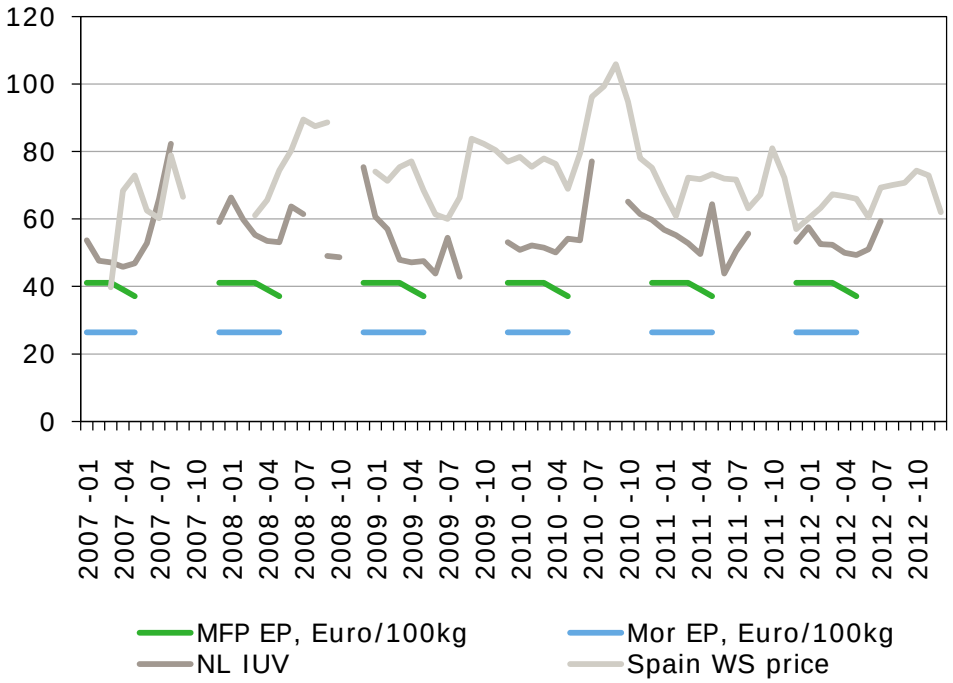


Figure 4.3 *Monthly MFN and Moroccan preferential entry prices, Dutch import unit values and Spanish wholesale prices for sweet oranges, fresh, in €/100 kg.*
Sources: OJ L345, OJ L282, Eurostat and Mercasa

Up to the marketing year 2011/2012 Morocco's export of oranges to the EU has been subject to a TRQ of 300,000 tonnes for the period December to the end of May. Figure 4.4 shows that Morocco was unable to fill the quota despite its price competitive position (see Figure 4.3). This points towards a lack of production capacity in Morocco or, in other words, if Morocco could have produced more oranges in the first six months of the year, the EU would have imported more as Moroccan supply is price competitive on its market.[5] Note that orange production in Morocco amounted between 800-900,000 tonnes in recent years, of which 600-700,000 tonnes are consumed domestically (FAS/GAIN report 5/15/2013). An indication of Morocco's price competitiveness is also provided by the fact that the EU imports oranges outside the TRQ and preferential entry price period. The observation that Morocco is not filling the duty-free quotas granted by the EU may also be caused by the attractiveness of other than the EU markets, including its domestic market. One important outlet for Moroccan oranges and clementines is the Russian market, to which Morocco sells approximately 60% of its citrus exports these days.

[5] EU's orange harvest approximates 5.6m tonnes (FreshPlaza, 2013a), largely produced in Spain and Italy. The EU is a net importer of oranges. Main suppliers outside the EU, shipping from June to October, are South Africa, followed by Egypt, Morocco and Tunisia.

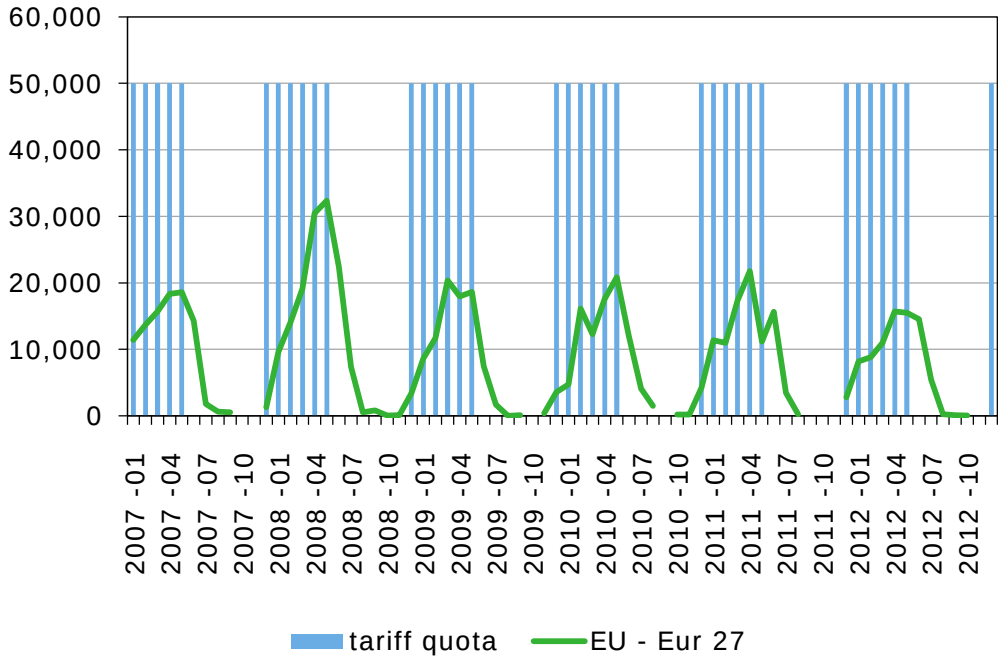


Figure 4.4 *Monthly EU import quantities and TRQs for Moroccan fresh sweet oranges in tonnes, 2007-2012.*
Source: Eurostat trade data; OJ L345 for tariff quota 2007-2010; OJ L241 for tariff quota 2011/2012

4.4 Implications of 2012 changes for the EU oranges market

Further trade liberalisation as agreed in the 2012 Protocol allows Morocco 'unlimited' exports of fresh oranges to the European Union. Given the unbinding nature of the former TRQ, no immediate effect via a suddenly strong increase of fresh oranges coming in from Morocco is expected; if the current TRQ and entry price levels would really be hampering exports to the EU, the utilisation rate of the current TRQ would probably be much higher. Instead, the unfilled quota is because Morocco does not supply the quantities it could possibly sell based on its price competitiveness. Hence, the effects of the 2012 Agreement amendments on EU imports of oranges from Morocco will depend on Morocco's ability to expand production for exports on the medium to long-term. To what extent the improved access towards the EU may encourage production and subsequently exports, will be discussed in the next chapter.

4.5 Clementines prices compared

Figure 4.5. depicts the relevant prices for clementines. The graph shows that the preferential entry price for Morocco is substantial lower than the MFN entry price. In the months the entry price is valid (November - February), clementines are mainly imported by the Netherlands. Figure 4.5 clearly shows that during these months the Dutch import price is close or significantly lower than the Spanish wholesale price. This implies that Morocco is highly competitive on the EU (including the Spanish) market during those months. From March onwards Spanish supply takes over the market and little quantities are imported from Morocco (see also Figure 4.6).

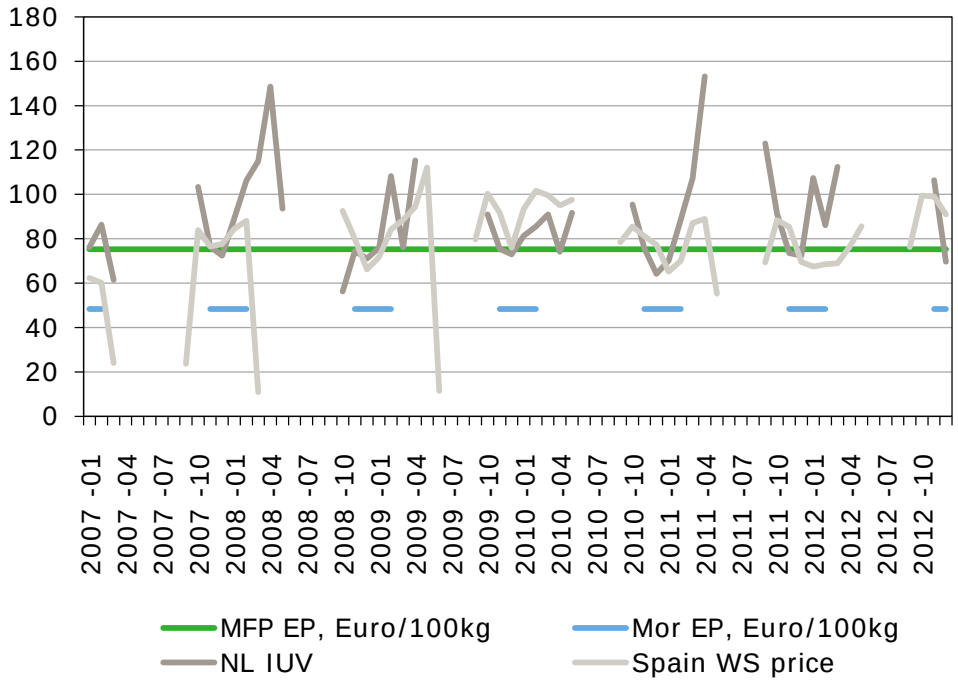


Figure 4.5 *Monthly MFN and Moroccan preferential entry prices, Dutch import unit values and Spanish wholesale prices for clementines.*
Sources: OJ L345, OJ L282, Eurostat and Mercasa

Figure 4.6 compares the actual import of clementines from Morocco with the 130,000 annual TRQ, equally distributed over the 4 months in which it is applied. The figure shows that, except for early 2010, EU imports of clementines from Morocco are far below Morocco's preferential TRQ. This indicates Morocco has not been able to fill the duty-free quotas, despite the country being price competitive on the EU market during the months November-February.

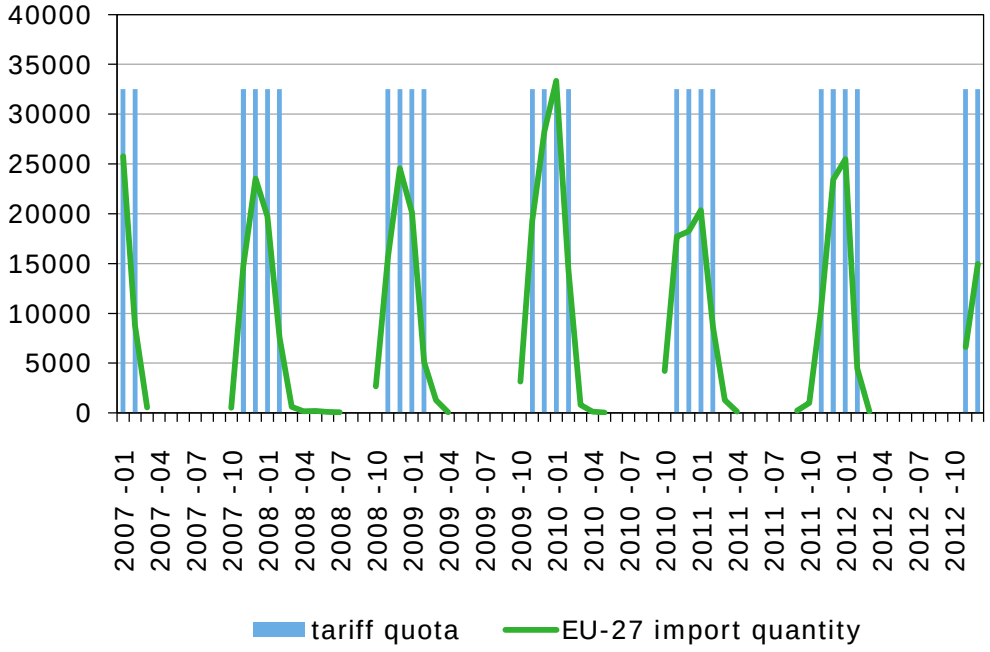


Figure 4.6 *Monthly EU import quantities and TRQs for Moroccan clementines, 2007-2012.*
Source: Eurostat for trade data; OJ L241 for tariff quota 2011/2012)

4.6 Implications of 2012 changes for the EU clementines market

Morocco is granted an enlarged duty-free TRQ, with 45,000 tonnes up to 175,000 tonnes. Given that Morocco was not able to fill the TRQ of 130,000 tonnes, and that the country cannot offer clementines at competitive rates outside the season and given the size of the EU market, the impact of this extra preferential quota allowed on the EU market is expected to be negligible.[6]

4.7 Conclusions

For tomatoes Morocco's export to the EU exceeds current (monthly and annual) duty free import quotas and is price competitive during the country's (high) production season. The extension of the quota up to 275,000 in 2015/16 will not affect this situation: Morocco will be able to supply this quantity at competitive prices. The impact of Morocco's tomato exports on the EU market depends on the country's ability to expand tomato production in order to exploit its competitive position in the EU.

For oranges Morocco does not fill its quotas completely while Dutch import prices of sweet oranges from Morocco are significantly lower than wholesale prices in Spain, EU's main producer. This and the fact that Morocco exports to the EU outside the preferential entry price period indicate that Moroccan oranges are highly competitive during their production season. Further trade liberalisation as agreed in the 2012 Protocol allows Morocco 'unlimited' exports to the Union. Given the unbinding nature of the former TRQ, the effects of this measure will depend on Morocco's ability to expand production for exports.

Import quotas for clementines are not filled either, while Morocco is price competitive during November- February, the period the TRQ and preferential entry price holds. Morocco's clementines do not seem to be competitive outside this period of the year. Morocco is granted an enlarged duty-free TRQ of 45,000 tonnes up to 175,000 tonnes. Given that Morocco was not able to fill the TRQ of 130,000 tonnes, that the country cannot offer clementines at competitive rates outside the season and given the size of the EU market, impacts of this extra preferential quota allowed on the EU market are expected to be negligible, unless the country is able to expand its production of clementines significantly and will offer them at more competitive prices than presently is the case.

[6] Total EU production of mandarins in 2012/2013 is 2.9m tonnes (FreshPlaze, 2013a). Over 90% is from Spain and Italy. Main foreign suppliers on the EU market are Morocco, South Africa and Turkey.

5 Horticultural developments in Morocco

5.1 Introduction

Previous chapters have shown that the 2012 agreement amendments focus on TRQ enlargement, while entry price levels and customs duties (including exemptions granted) remain unchanged. The possible effects on the EU market will be felt through the (potential) increase of imports from Morocco. With more imports from Morocco the result may be a price depressing effect, directly at EU markets where Moroccan products are being sold (such as France) and indirectly at other EU markets because of displacement. The conclusion of the previous chapter is that Morocco is price competitive on the EU market for tomatoes, oranges and clementines during its season of production. Also, it is clear that the improved market access in terms of enlarged TRQs will not instantly lead to an increase of exports from Morocco to the EU, but depend on the extend Morocco would be able to expand domestic production to further exploit its present price competitive position at the EU market. This chapter explores the development opportunities for these three products in Morocco in the short to medium term.

5.2 Scope for agricultural development

Agriculture is one of the main pillars of the Moroccan economy. Its contribution to the GDP lies between 12 to 17% (15.5% in 2011) and can grasp almost 40% of the workforce for employment. The total agricultural area is about 9m ha of which nearly 85% are cultivated in rained production system. Irrigated agriculture is practiced in about 1.4m ha and in average contributes to 45% of the value added of the agricultural sector. Cereals like barley and wheat are the major crops using most of the agricultural area (5m ha). The average area reserved to vegetable crops has been close to 250,000 ha in the last ten years. The potato, onion and tomato are the main species with respectively about 60,000 ha, 30,000 ha and 17,000 ha. The area occupied by citrus trees is about 90,000 ha. The areas under vegetable and fruit crops show a 5% increase over the period 2009-2011 (Ait El Mekki, 2013).

Agricultural development in Morocco faces two challenges: its fragmented structure (excessive parcelling of property, with a complex legal system concerning property) which limits the sector's investment capacity necessary for improving productivity and quality levels, and water availability that is a major factor affecting the level of production in Morocco's agriculture.

To overcome such constraints, successive governments have responded by implementing sector programs that aim to improve the performance of farms, particularly through the launch in 2000 of *the Rural Development Strategy 2020* and, later on, the *Green Morocco Plan* in 2008. Since then, structural policies related to agriculture and food sectors continue their focus on investment incentives in primary production as well as on processing and marketing steps. Such a policy choice has been strengthened during the last three years in the public goal of modernizing production systems capable of competing with foreign markets. The measures taken in this regard are largely funded by the state budget (Ait El Mekki, 2013). In addition to a favourable climate for many citrus crops competitive advantages of the Moroccan agribusiness lie in low labour costs and fiscal advantages in production. Sector development, though, is hindered by insufficient investment (banks show little interest in granting loans) and little professionalism (e.g. lack of farm management expertise and up-to-date technical skills). The government's Green Morocco's Plan aims to tackle these obstacles for development through the implementation of targeted regional plans (see www.ada.gov.ma for more details about the Green Morocco Plan). Together with support from (among others) the World Bank the Moroccan government provides loans and grants to the sector. Up to March 2013 an estimated USD680m has been allocated to more than 200,000 small farmers throughout Morocco

(www.worldbank.org, press release 2013/03/27). In addition to investments in institutions (e.g. wholesale market services), investments in irrigation infrastructure and its management are important uses of the financial means.

5.3 Tomato and citrus production: perspectives for expansion?

5.3.1 Tomatoes

The Morocco tomato sector has a dual structure. Farms either produce for the domestic or the export market: while tomatoes for the export are usually produced in technically highly advanced production systems in plastic greenhouses, tomatoes for the national market mainly stem from the open field production. Open field production for the domestic market takes place all over the country. By contrast, the production of greenhouse tomatoes is mainly located in a regional cluster in the south Atlantic coastal strip of Souse Massa/Agadir. Here is where most of Morocco exports come from and where we find professional growers. Many of those growers producing for exports are part of an integrated value chain, in which production, packaging and export sales are organised in cooperatives or enterprises (Chemnitz and Grethe, 2007). Export growers are well aware of and complying with the EU's food safety, hygiene, traceability social and environmental requirements, while a significant part of them complied with private food quality initiatives such as EUREPGAP already several years ago (see Chemnitz and Grethe, 2007).

Since the early 1990s tomato production has increased significantly (indicated by the trend line in Figure 5.1). However, in more recent years, production levels have been rather constant: at 1.20m and 1.25m tonnes from 2004-2011. This may indicate that no major investments to expand production have occurred in recent years.

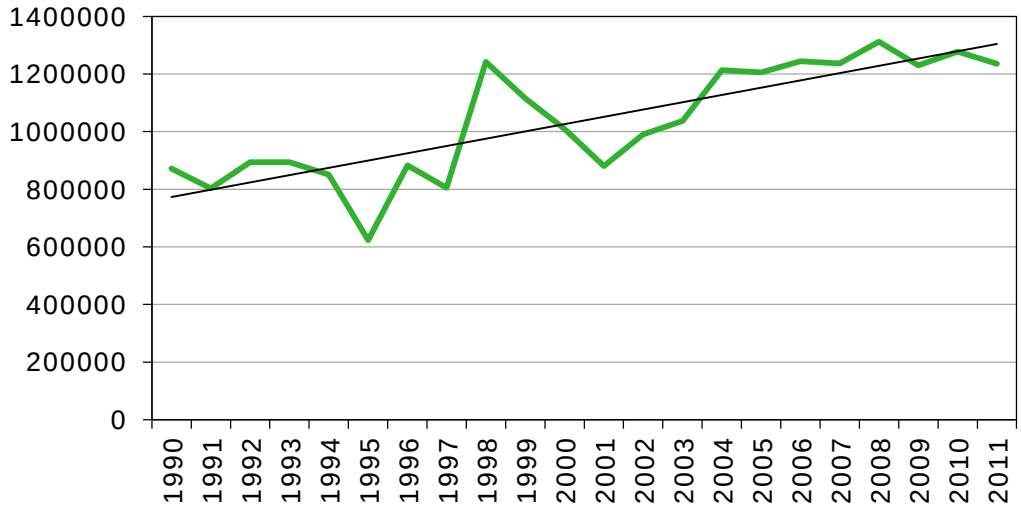


Figure 5.1 *Development of Morocco's tomato production 1990-2011 (in tonnes). Source: FAOStat*

A 2010 presentation by GreenQ, a consultancy for the horticultural industry, depicts the opportunities for tomato production in Morocco. [7] A review of big scale companies with professional organisation and

[7] http://www.slideshare.net/greensmile/production-of-greenhouse-tomatoes-in-morocco.

management shows that the main focus is on low cost, low technology production systems. Tomatoes are grown on soil, production levels are sensitive on climate, weather and nematodes, and use relatively much water, chemicals and fertilisers per produced kg. Production levels at the selected (larger) companies are averaging 250-300 tonnes/ha (25-30 kg/m^2), of which 60-65% is of first quality. GreenQ shows the possible results of different growers' concepts feasible in Morocco. A switch to a (high tech) production model with improved light transmission, use of substrate, irrigation and climate control in greenhouses from glass could lead to an increase of net production by a maximum of 400% (75kg/m^2 and 85% first quality. For comparison: with active crop management and good tools in the Netherlands greenhouses produce 100kg/m^2. Under what conditions such investments might be economically feasible is not reported. Yet, it is assumed that investment in and use of rather simple techniques such as improved light transmission in modern plastic greenhouse and a more efficient use of surface in the plastic tunnels could already give significant more production, up to an estimated 40% extra. This shows that with relatively small investments production could go up significantly.

One aspect not much explicitly dealt with in the GreenQ presentation is the water scarcity in Morocco. The production of tomatoes requires considerable amounts of water; how much depends on the location and other growing conditions. One kg of tomatoes takes about 80-100 litres of water in Morocco; in Spain it might take 60-80 litres and in the Netherlands only 15-17 litres per kg tomato (KWIN, Wageningen for Dutch estimation). Tomato growing in Morocco's major production areas still need additional supply of irrigation water even in the rain season. Morocco already faces serious water availability problems (declining groundwater levels due to intensive use and limited rainfall). As a consequence water prices (currently on a low, only symbolic level) may rise and increase production costs, which may lead to further investments in drip irrigation and other water preservation methods necessary to tackle this potential barrier to tomato production increase.

Putting the above in a wider perspective, however, it has to be noted that even when technical solutions to increase productivity and quality of the product are easily available and in principle economically feasible, there is no guarantee that solutions proposed will be successfully adopted by farmers. Farmers' decision to adopt a new technology depends on many factors, such as the grower's own features (education, age, entrepreneurial attitude, management skills and experiences, etc.), his relation with other actors in the supply chain or the economic policies (taxes, subsidies, stability of the policies), to name just a few. Oral information[8] confirms that growers in Morocco cling to a tradition of a 'low cost/low tech' production model. They also lack the financial capacity to invest in high technological systems under glass (among other because of land ownership limitations) and generally lack the educational background and skills to economically manage modern technology. Moreover, a more intensive production system at growers level could only be implemented successfully if necessary inputs (goods and services) can be adequately supplied and the product can be marketed efficiently. In other words, technology adoption at grower's level depends on its business environment, too. For instance, the success of the Dutch horticultural sector is largely attributed to a strong cluster of firms in the supply chain, facilitated and support by government and knowledge institutions. Such interplay of the three parties and the scale at which this cluster operates, plus the institutional infrastructure that a market-driven system needs (e.g. auctions, contracts, independent quality control authority), does not exist in Morocco. Moreover, such a system might not be copied easily, at least not in a foreseeable future. Given the current traditions and the bottlenecks to development, a quick adoption of modern technologies that could help to increase productivity is not expected to happen shortly in Morocco's tomato sector.

5.3.2 Citrus

As in the tomato culture, water availability or irrigation infrastructure is also important to Morocco's citrus production. The citrus crop was significantly damaged by severe heat waves during May and July 2012, with significant losses occurring to both small citrus and oranges plantations (USDA FAS,

[8] Peter Klapwijk, director Green Q.

2013). Cold weather conditions as in December 2012 seriously deteriorated fruit quality. On the other hand, favorable weather conditions can also boost Morocco's harvest easily. Figure 5.2 shows the production of oranges over the last 20 years. The trend line is even slightly declining.

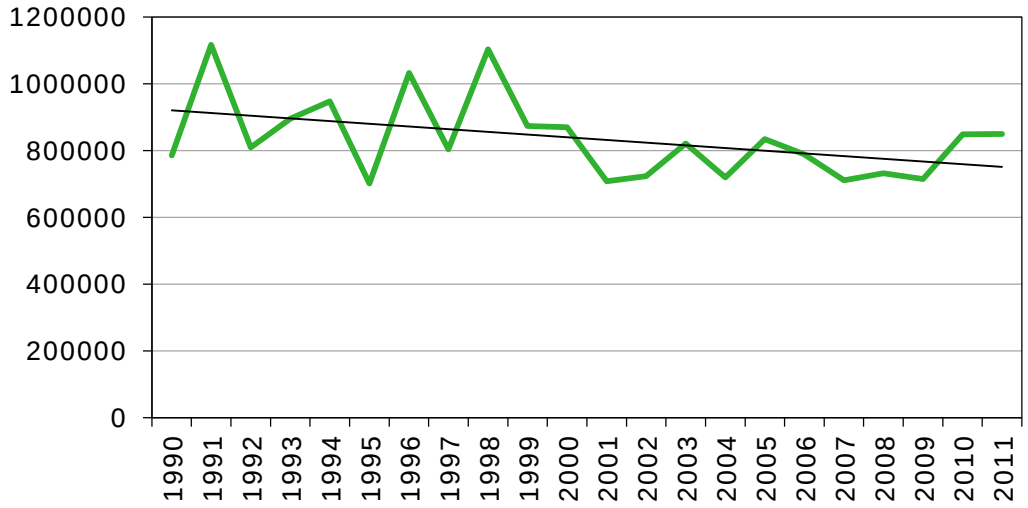


Figure 5.2 *Development of Morocco's orange production 1990-2011 (in tonnes).*
Source: FAOStat

In Morocco the clementines is virtually the only mandarin growing and therefore we use the FAO statistics on the group of tangerines, mandarins and clementines as the one representing the production of clementines. Figure 5.3. shows the trend line over the last 20 years, indicating some increase yet with ups and downs in the annual harvests. Yet, considering the last ten years, no increase of the trend can be discerned.

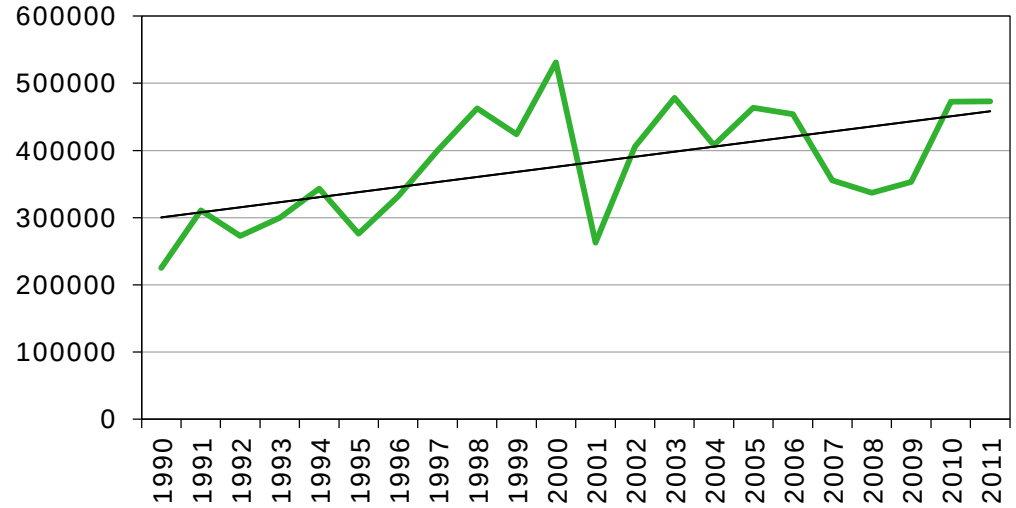


Figure 5.3 *Development of Morocco's clementines production 1990-2011 (in tonnes).*
Source: FAOStat

The conclusion from the above three graphs on production developments of tomatoes, oranges and clementines is that market access conditions to the EU did not trigger a strong and continuous increase of production levels of these three products over the last ten years. This is despite the country being price competitive on the EU market, especially during its high season of production. However, there are indications that there is quite some dynamics going on in the most recent years, especially with regard to citrus production. The dynamics is mainly due to the government development plan Green Morocco.

Morocco has indeed ambitious plans to expand its vegetable and fruit production. As part of the Green Morocco Plan that started in 2008 (discussed above) the country aims to double the production and triple citrus exports by 2018: the plan provides for a 33% expansion of citrus-planted areas to 122,000 ha. Part of this area expansion objective, government-owned land was auctioned for leasing to agricultural investors in order to establish citrus plantations. The opportunity to lease land importantly increases the options to use agricultural land more productively. Oral information[9] indicates that this has already led to significant area expansion for oranges and clementines in several regions in Morocco (an estimated additional 6-7,000 ha in Agadir and in Berkana in about 2-3 year), where growers also have invested in new varieties in order to better respond to changes in consumer preferences and market requirements. Next, further investments in logistics are being made. Indeed, logistics over land and especially over sea prove to be the main bottleneck for Morocco's further expansion of exports of fresh fruit and vegetable products, as without improvements ports are not well connected enough to go far and wide (Fresh Plaza, 2013b).

In this context Morocco's investments in improved shipping lines and expanding port facilities should be seen as an attempt to help increase Morocco's competitive position in other markets than the nearby EU. In 2011 a new shipping line between the port of Agadir (the leading citrus export region) and the port of St. Petersburg in Russia was opened. In addition, a new shipping line between the port of Tanger and port of Jabel-Ali in the United Arab Emirate became operational in early 2012 (USDA FAS, 2013). Next, also trade with the USA (with which Morocco has a free trade agreement since 2006) could be enhanced with improved port facilities to handle fresh fruit products. ASPAM, an industry group, is currently considering, in collaboration with the Ministry of Agriculture and the export agency Maroc Export, the feasibility of investing in citrus storage facilities and distribution platforms in some of the potentially large exports markets (USDA FAS, 2013).

5.4 Dutch interests in the Moroccan horticultural sector

The possibilities offered by the government development plan might attract foreign investors' interests, who would be keen to benefit from the relatively easy access to the EU markets or to export to other markets. However, the opportunities mentioned in the above sections have shown not to be strong enough to attract many foreign investors in the fruit and vegetable sector, except for several growers from Spain, France and Italy. A brief round among experts[10] indicate that Dutch growers have little to no interest to invest in the tomato or citrus production in Morocco, at least up to now. To the authors knowledge, the only Dutch-based horticulture related companies present in Morocco are the seed company Rijk Zwaan and Koppert Biological Systems. Both have sales offices in Morocco. At the same time, over a dozen trading companies are active in Morocco, importing tomato and/or other fruits and vegetables from the country to ship these to The Netherlands and other (largely EU) countries. Investments in production units, though, did not come off.

Dutch growers have not been interested to start a production unit in Morocco, largely because they consider investments in a high-tech production system as they are used to in the Netherlands as being too risky in Morocco. Oral information sources mention three reasons why Dutch growers are reluctant

[9] Hicham Kissami, Maroc Fruit Europe BV, an importer of citrus fruit.

[10] In addition to Kissami (see footnote 9) spoken with Peter Klapwijk (Green Q), Dick Hylkema (Glaskracht), Hans van Es (DPA), Jan van der Voort (Anaco Greeve, vegetable importer).

to invest in Morocco. One is that foreigners can only lease land, and not buy the property. Although lease periods can theoretically be up to 99 year, building on leased land creates uncertainty about the control over the greenhouse and other (fixed) facilities one may need to invest in to run a modern business. Another issue is the often occurring problem of having access to (adequate volume of) water and supply of electricity. Public infrastructure of these essential inputs to growers is generally weak, so private investment may be necessary, implying additional costs. Next, a successful investment in growing fruits and/or vegetables depends on efficient transport to the consumer. Logistics to get the product to the market (i.e. the port in case of export) is generally poor in Morocco. Those Dutch growers who potentially would be interested in investing abroad would rather choose for regions more close to final consumers. This requires less logistic hassle and would also better comply with the 'local for local' philosophy that is increasingly promoted in Europe. In this context, prospects for Dutch investments in Germany, Poland and/or Turkey are said to be much better than in Morocco.

5.5 Conclusions

Over the last decade, production developments of tomatoes, oranges and clementines have been rather constant or even declining (in case of oranges). Morocco's primary production structure is largely small-scale, using low cost technology, while export-oriented tomato producers usually produce in plastic greenhouses. Most growers cling to traditional production systems and lack financial means to invest in more high tech systems. Uncertainty about the availability of inputs and output markets (to whom to sell, at what prices?) are additional barriers to invest in more capital intensive production systems.

However, and although not visible yet in available (FAO) statistics, interviewees indicate that cultivated areas and production of tomatoes and citrus have expanded in most recent years. Main driver of this expansion is the government support provided in the framework of the Green Morocco Plan. Important policy instruments have been the opportunity to lease land and infrastructural investment. The area expansion that is now taking place shows the importance of removing institutional barriers for Morocco's agricultural development. For, Morocco has not been able to fully utilise the preferential conditions in its trade with the EU for citrus in previous years, despite the fact that these products were competitive at the EU market.

Investments in production expansion and logistical improvements both could result in an increasing flow of exports of tomatoes and citrus products to the EU. Whether this will indeed happen, depends on the focus of government plans to speed-up production increases and whether Morocco could sell its products to other markets than to the EU.

First, without discussing the Green Morocco Plan in detail (since that is beyond the scope of this paper), the ambitions of the government are high, stating that the sector shall be a lever of economic growth and should be modernised to become competitive internationally (see www.ada.gov.ma). Regional plans are developed that provide production growth and export targets for each major commodity in the years up to 2020. The fruit and vegetable sector is considered to have much potential to increase its international position. In the regions where tomatoes and citrus fruit production is concentrated, projected production and export growth range between 30-50%. If this is achieved, Morocco will become a much bigger supplier of these products at the world market.

Second, Russia and the US have become attractive markets for Moroccan fruit and vegetable products in recent years. Exports to Russia have rapidly expanded over the last three years, both for citrus and for tomatoes, and are significant: export values range between USD150m and USD200m in 2009-2012. The US market for Moroccan citrus fruits is still modest but is expected to grow with improved transport and logistical services resulting from investments in the country's port facilities. Moreover, domestic demand may also increase due to population and income growth. The EU is viewed as a market with high food safety and quality standards. However, consumers in Russia and on the domestic market are considered less discerning than those in the EU, a reason why Moroccan producers and traders may choose to sell their produce to the former two, rather than to the EU market.

There are several uncertainties around the two aspects mentioned above. What is clear, however, is that in case the ambitious development plan of the government is implemented as proposed, the country's export position for fruit and vegetable products will be enhanced in the years to come. For the EU market this may imply that Morocco will use the scope the Association Agreement offers for exporting to the Union. That scope has been enlarged in the 2012 amendment of the Agreement.

6 Key findings and concluding remarks

The 2012 amendment of the Protocol on EU imports of horticultural products offers Morocco expanded tariff rate quotas for tomatoes and clementines, while the TRQ for sweet oranges is eliminated; entry price levels of all horticultural products remain unchanged. As TRQs were not binding for the export of these three products to the EU, these changes will not result in an immediate expansion of Morocco's exports to the EU. The important question is how Morocco's production will develop in the years to come and how this will impact on export to the EU.

Currently, Morocco's exports of tomato, oranges and clementines outcompete EU's major producers of these products in the months during which Morocco's supply is on the market. Tomatoes from Morocco are price competitive both within the TRQs (when Morocco benefits from reduced MFN tariffs) and beyond, when MFN customs duties have to be paid. In itself the quota enlargement offered in the 2012 amendment (an additional 32,000 tonnes up to 2015/16) will not affect the actual trade flow much: in the past years Morocco already exported a quantity that exceeds the newly established TRQ. TRQs for oranges and clementines were not filled in the past. Apparently, the EU market was not attractive enough to encourage Moroccan growers to produce more for exporting to the Union. Therefore, changes in or the elimination of TRQs will not affect exports to the EU in due time. In the medium term, however, Morocco's production capacity might expand so that export opportunities offered by the improved market access to the EU will be used to their full extent.

Expanding production, however, is a major challenge in Morocco, although the government has ambitious plans to realise this. Further agricultural development requires institutional reform, investment in the country's infrastructure and in education and extension to improve knowledge and skills of the farming community. All these elements are part of the Green Morocco Plan, but the implementation of the plan and its results will take time. One of the main difficulties Morocco will have to cope with is the increasing scarcity of water. Morocco has a rapidly (more than 2% per year) growing population, and increased urbanisation plus the growth of the industrial and tourism sector place additional pressures on water resources. Extending irrigated agriculture and the production of water intensive crops will further add to Morocco's water deficit, with potentially more frequent conflicts between users (see UNEP (2010), in which several suggestions are presented how to relief water stress). This implies that increasing water productivity should be a key component of the country's agricultural development strategy, as it determines much of its future.

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Annex 1 Specification of changes in trade conditions for oranges and clementines

Trade conditions for fresh sweet oranges have not changed except for the TRQ: the earlier granted TRQ for 300,000 tonnes for the period between December and end of May has been abolished and hence EU allows 'unlimited' supplies of fresh oranges from Morocco. The product, though, remains subject to an entry price from 1 December to 31 May, with a discount on the applied MFN ad valorem tariff, yet a specific duty applied if the C.I.F import price is more than 8% below the entry price. The situation before and after the marketing year 2011/2012 is summarised in Table A.1.

Table A.1

MFN and preferential EU tariffs and entry prices for sweet oranges: situation in 2011/2012 and after the 2012 amendment

		Ad valorem tariffs (%)			Entry Prices		Specific tariffs
	TRQ	MFN	Morocco		MFN (€/t)	Morocco	MFN €/t
			In TRQ	Above TRQ		€/t	
SITUATION IN 2011/2012 AND BEFORE							
1 Dec.- 31 March	300,000	16.0	0	3.2	354	264	71
April		10.4			354	264	71
1 -15 May		4.8			354	264	71
16 -31 May		3.2			354	264	71
1 June- 15 Oct	-	3.2	0		-	-	
16 Oct- 30 Nov.	-	16.0	0		-	-	
NEW SITUATION after the amendment of 2012							
1 Dec.- 31 March	No TRQ	16.0	3.2		354	264	71
April		10.4	3.2		354	264	71
1 -15 May		4.8	3.2		354	264	71
16 -31 May		3.2	3.2		354	264	71
1 June- 15 Oct		3.2	0				
16 Oct- 30 Nov.		16.0	0				

Note 2) 60% reduction of MFN ad valorem tariff from June to September

Sources: OJ L241, 2012: TRQ 2011/2012; OJ L282, 2011 for MFN Ad valorem tariffs, MFN entry prices and MFN Specific tariffs; OJ L345/121, 2003 for Morocco entry prices.

With regard to fresh clementines, Morocco has been granted an extension of its TRQ from 130,000 tonnes to 175,000 tonnes for the period November-February. For this volume no ad valorem duty is allied (used to be 16%). Imports are subject to the entry price system, including the 8% rule for applying the specific duty (Table A.2). From March to end of October, imports from Morocco are free of duties.

Table A.2

MFN and preferential EU tariffs and entry prices for clementines: situation in 2011/2012 and after the 2012 amendment

	TRQ	Ad valorem tariffs (%)			Entry Prices		Specific tariffs
		MFN	Morocco		MFN (€/t)	Morocco €/t	MFN €/t
			In TRQ	Above TRQ			
SITUATION IN 2011/2012 AND BEFORE							
1 Nov.- 29 Febr.	130,000	16	0	3.2	649	484	106
1 March-31Oct.	-	16		0	-	-	-
NEW SITUATION after the amendment of 2012							
1 Nov.- 29 Febr.	175,000	16	0	3.2	649	484	106
1 March-31Oct.	-	16		0			

Sources: OJ L241, 2012: TRQ 2011/2012; OJ L282, 2011 for MFN Ad valorem tariffs, MFN entry prices and MFN Specific tariffs; OJ L345/121, 2003 for Morocco entry prices.

Annex 2 Bilateral agricultural trade flows between EU and Morocco, 2012

	Values in €1,000		shares in % of 2012 trade	
2-digit	Export	Import	export	import
01 - Live animals	25790	1119	1.7	0.0
02 - Meat and edible meat offal	16551		1.1	0.0
03 - Fish and crustaceans, molluscs and other aquatic invertebrates	16209	573643	1.0	16.3
04 - Dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere specified or included	144374	188	9.3	0.0
05 - Products of animal origin not elsewhere specified or included	93394	131180	6.0	3.7
06 - Live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage	64350	14726	4.1	0.4
07 - Edible vegetables and certain roots and tubers	39500	1039002	2.5	29.5
08 - Edible fruit and nuts; peel of citrus fruits or melons		649812	0.0	18.4
09 - Coffee, tea, mate and spices		18240	0.0	0.5
10 - Cereals		862	0.0	0.0
11 - Products of the milling industry; malt; starches; inulin; wheat gluten	3610	24	0.2	0.0
12 - Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medical plants; straw and fodder		104296	0.0	3.0
13 - Lacs; gums, resins and other vegetable saps and extracts		37156	0.0	1.1
14 - Vegetable plaiting materials; vegetable products not elsewhere specified or included		390	0.0	0.0
15 - Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes	684	132468	0.0	3.8
16 - Preparations of meat, fish or crustaceans, molluscs or other aquatic invertebrates		485176	0.0	13.8
17 - Sugars and sugar confectionery	9998	4510	0.6	0.1
18 - Cocoa and cocoa preparations	53822	2	3.5	0.0
19 - Preparations of cereals, flour, starch or milk; pastrycooks' products	105012	17820	6.7	0.5
20 - Preparations of vegetables, fruit, nuts or other parts of plants	49321	180615	3.2	5.1
21 - Miscellaneous edible preparations	89178	17680	5.7	0.5
22 - Beverages, spirits and vinegar	101717	12988	6.5	0.4
23 - Residues and waste from the food industries; prepared animal fodder	68516	61608	4.4	1.7
24 - Tobacco and manufactured tobacco substitutes	72760	696	4.7	0.0
29 - Organic chemicals	2590		0.2	0.0
33 - Essential oils and resinoids; perfumery, cosmetic or toilet preparations	86462	25870	5.6	0.7
35 - Albuminous substances; modified starches; glues; enzymes	42325		2.7	0.0
38 - Miscellaneous chemical products	4050	11678	0.3	0.3
40 - Rubber and articles thereof	1274	94	0.1	0.0
41 - Hides and skins (other than furskins) and leather	662	526	0.0	0.0
43 - Furskins and artificial fur; articles thereof	24		0.0	0.0
44 - Wood and articles of wood; wood charcoal	436962	166	28.1	0.0
45 - Cork and articles of cork	324	16	0.0	0.0
50 - Silk	84		0.0	0.0
51 - Wool, fine and coarse animal hair; yarn and fabrics of horsehair	2496	3324	0.2	0.1
52 - Cotton	23328	534	1.5	0.0
53 - Other vegetable textile fibres; paper yarn and woven fabrics of paper yarn	608	24	0.0	0.0
	1555975	3526433	100.0	100.0

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