

Prospects for Ukraine's agrifood sector

Implications for Dutch trade relations



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Preface

Ukraine is a country with high agricultural potentials which are still largely untapped. Ukraine is increasingly orienting towards the EU. This is illustrated by the deep and comprehensive free trade agreement (DCFTA), a draft of which is currently under review for ratification. If the agreement is signed trade relations between the EU and Ukraine are expected to further intensify, as it would imply reducing tariffs and non-tariff barriers, as well as Ukraine adopting EU laws and quality and food safety standards. Ukraine, however, also keeps the option open to accept the invitation to join the customs union of Russia, Belarus and Kazakhstan. If Ukraine joins the customs union, EU's trade opportunities with Ukraine might seriously decline.

This study looks into Ukraine's general economic and agricultural developments in the recent past and points out the key challenges for the country's agri-food sector development. Next, this report discusses the sector's prospects under the trade scenario of associating with the EU versus with former Soviet republics in a Customs Union. Ukraine's choice for one of the two blocs will have important consequences for future trade relations with the EU and, hence, the Netherlands.

This report has been commissioned by the Dutch Ministry of Economic Affairs, represented by the Dutch agricultural counsellor in Kiev, Evert Jan Krajnenbrink, and by Pieter Vaandrager, policy officer in The Hague's headquarters. The authors very much appreciated their guidance, kind support and useful feedback during the project. Talks with business people, representatives from international and Ukrainian organisations have given useful insights into interpreting and evaluating literature and data. Their support is gratefully acknowledged.

A handwritten signature in black ink, appearing to read "Laan van Staalduinen". The signature is fluid and cursive, with some loops and variations in letter height.

Laan van Staalduinen
Director General LEI Wageningen UR

Summary

S.1 Important outcomes

A DCFTA between the EU and Ukraine would help accelerate institutional improvements that are needed in Ukraine to better use the agri-food sector's potential. An improved business environment would support Dutch companies to explore the many opportunities offered by the present state and development potential of Ukraine's agri-food supply chain.

Ukraine is increasingly orienting towards the EU. A deep and comprehensive free trade agreement between the two is currently under review for ratification. If the agreement is signed, trade between the EU and Ukraine is expected to intensify, to the benefit of both, yet in particular to Ukraine as the country will have improved access to the EU and to third countries' markets as a consequence of Ukrainian standards being harmonised with those of the EU. The latter, however, needs persistent efforts in institutional investments. Ukraine's agricultural development is highly dependent on further reforms improving the overall business environment, on lifting the land market regulatory restrictions, on aligning food safety and quality standards with international standards, on improving access to credits, on increasing labour skills and knowledge. If these reforms and investments in institutional improvements are not implied, Dutch agri-food trade and investment relations with Ukraine are expected to show little dynamics.

S.2 Complementary outcomes

- Ukraine is a net exporter of agricultural products, mainly of cereals, vegetable oils, oilseeds and dairy products, while importing meat, fruit and vegetables.
- The EU is Ukraine's major trading partner; Russia is second. Agri-food trade has grown between Ukraine and the EU; the trade balance is positive for the EU.
- In Dutch exports to Ukraine (€250m) cocoa paste/butter and cut flowers/other live plants dominate. Rapeseeds and sunflower seeds oil are major Dutch imports from Ukraine (total imports: €325m).

- Average yields of Ukraine's major crops are low compared to EU averages; cow milk yields are increasing but total milk production continues to decline, while pork and poultry meat production is expanding. Quality and productivity-increasing investments are needed to improve the sector's performance and competitiveness.
- The global crisis has had a significant impact on Ukraine's economy in recent years. Growth prospects for 2013 are very modest. For the medium term, economic growth may resume, but this is highly dependent on policy and institutional reforms, and the global economic recovery.
- The DCFTA with the EU implies (the need for) food supply chain investments in order to improve efficiency and quality, by complying with EU food safety standards. Next to (short-term) costs this will result in significant benefits as it will open up markets in and beyond the EU.
- Joining the CU with Russia, Belarus and Kazakhstan (RBK) could be a strategic decision securing cheap energy imports from Russia. However, the CU market for Ukraine's agricultural products is much smaller than the EU and would offer little opportunities in markets beyond the EU as institutional reforms to improve competitiveness would fail to occur.
- Ukraine could benefit from a combination of DCFTA with the EU and a free trade agreement with RBK CU since it reduces trade barriers with both blocs; trade and welfare impacts depend on the specifications of such a scenario.
- The Dutch government, business community and knowledge organisations could provide valuable assistance to Ukraine's efforts to improve its institutional business environment. Such assistance would benefit the Dutch agri-business too, as it improves the business investment climate that would encourage Dutch companies to explore the many opportunities offered by the present state and development potential of Ukraine's agri-food supply chain.
- A DCFTA reduces import tariffs in bilateral trade. As a result more exports of cereals and oilseeds from Ukraine to the EU are expected, to the benefit of the Dutch livestock and bioenergy producing sector.
- In case of a DCFTA EU meat import tariffs will decline significantly, which leads to more competition with Ukraine meat suppliers only when they can offer quality that is demanded in the EU and the Netherlands. Dutch producers and exporters should withstand Ukraine's competition in the meat sector by offering quality produce.
- In case of a DCFTA, Dutch export opportunities in Ukraine increase for all its traditional export products (e.g. dairy, potatoes, horticultural products), input supplies and services including knowledge transfers. However, the use of these will be highly dependent on Ukraine resuming economic growth and

the speed of institutional improvements that are key for improving the current business environment.

S.3 Methodology

This report was commissioned by the Ministry of Economic Affairs. The study is based on a broad-ranging literature review and made use of several databases from both Ukraine statistical sources and from international organisations. Talks with Dutch business people, and oral information provided by representatives from international and Ukraine organisations were used to add to and qualify own analyses and conclusions.

Samenvatting

S.1 Belangrijkste uitkomsten

Een DCFTA tussen de EU en Oekraïne zou helpen bij het versnellen van de institutionele verbeteringen die in Oekraïne nodig zijn om het potentieel van zijn landbouwsector beter te benutten. Een beter ondernemingsklimaat zou Nederlandse bedrijven stimuleren om niet alleen de vele mogelijkheden van de huidige situatie, maar ook het ontwikkelingspotentieel van de landbouwvoedselketen te onderzoeken.

Oekraïne richt zich in steeds grotere mate op de EU. Op dit moment wordt een diepe en brede vrijhandelsovereenkomst tussen beide beoordeeld ter ratificatie. Indien deze overeenkomst wordt ondertekend, zal naar verwachting de handel tussen de EU en Oekraïne toenemen. Beide zullen daarvan profiteren, maar met name Oekraïne, omdat dit land als gevolg van het harmoniseren van de Oekraïense normen met die van de EU makkelijker toegang zal krijgen tot de EU en tot de markten van derde landen. De EU zal echter aanhoudende inspanningen moeten leveren op het gebied van institutionele investeringen. De ontwikkeling van de Oekraïense landbouwsector is in hoge mate afhankelijk van verdere hervormingen die het algemene ondernemingsklimaat verbeteren, van het opheffen van reglementaire beperkingen met betrekking tot de grondmarkt, van het afstemmen van de normen voor voedselveiligheid en -kwaliteit op internationale normen, van een betere toegang tot kredieten en van het verbeteren van vak-kennis en -kunde. Als deze hervormingen en investeringen in institutionele verbeteringen niet worden gerealiseerd, zullen de Nederlandse handel in landbouwproducten en investeringsrelaties met Oekraïne naar verwachting slechts weinig dynamiek vertonen.

S.2 Overige uitkomsten

- Oekraïne is netto-exporteur van landbouwproducten, voornamelijk granen, plantaardige oliën, oliezaden en zuivelproducten, en importeert daarentegen vlees, fruit en groenten.

- De EU is de belangrijkste handelspartner voor Oekraïne; Rusland komt op de tweede plaats. De handel in landbouwproducten tussen Oekraïne en de EU is gegroeid; de handelsbalans is positief voor de EU.
- De Nederlandse export naar Oekraïne (€ 250 miljoen) betreft hoofdzakelijk cacaopasta/-boter en snijbloemen/overige levende planten. Koolzaad- en zonnebloemolie zijn producten die Nederland veel importeert vanuit Oekraïne (totale import: € 325 miljoen).
- De gemiddelde opbrengst van de belangrijkste Oekraïense gewassen is laag vergeleken met EU-gemiddelden; de koemelkopbrengst stijgt, maar de totale melkproductie blijft afnemen, terwijl de productie van varkens- en pluimveevlees toeneemt. Kwaliteit- en productiviteitsverhogende investeringen zijn nodig om de prestaties en het concurrentievermogen van de sector te verbeteren.
- De wereldwijde crisis heeft de afgelopen jaren een aanzienlijke impact gehad op de Oekraïense economie. De groeperspectieven voor 2013 zijn zeer bescheiden. Op de middellange termijn kan de economische groei mogelijk weer aantrekken, maar dat is in hoge mate afhankelijk van beleids- en institutionele hervormingen en van het wereldwijde economisch herstel.
- De DCFTA met de EU impliceert (de noodzaak van) investeringen in de voedselproductieketen om de efficiency en kwaliteit ervan te verbeteren door te voldoen aan Europese voedselveiligheidsnormen. Naast (kortetermijn-)kosten zal dit tot aanzienlijke voordelen leiden, omdat markten binnen en buiten de EU hierdoor toegankelijk worden.
- Aansluiting bij de douane-unie met Rusland, Belarus en Kazachstan (RBK) zou een strategisch besluit kunnen zijn om goedkope energie-import vanuit Rusland veilig te stellen. De markt binnen een douane-unie is voor Oekraïense landbouwproducten echter veel kleiner dan de EU en zou weinig mogelijkheden bieden op markten buiten de EU, omdat institutionele hervormingen ter verbetering van het concurrentievermogen dan zouden uitblijven.
- Oekraïne zou kunnen profiteren van een combinatie tussen een DCFTA met de EU en een vrijhandelsovereenkomst met RBK CU, aangezien daarmee handelsbarrières met beide blokken zouden worden weggenomen; de invloed op de handel en het welzijn is echter afhankelijk van de specifieke bepalingen van een dergelijk scenario.
- De Nederlandse regering, het bedrijfsleven en kennisorganisaties zouden een waardevolle rol kunnen spelen bij de inspanningen van Oekraïne om zijn institutionele ondernemingsklimaat te verbeteren. Van een dergelijke ondersteuning zou ook de Nederlandse landbouwsector kunnen profiteren, omdat dat het klimaat voor bedrijfsinvesteringen zou versterken en Nederlandse onderne-

mingen gestimuleerd zouden worden om de vele mogelijkheden van de huidige situatie en het ontwikkelingspotentieel van de Oekraïense landbouwvoedselketen te onderzoeken.

- Een DCFTA verlaagt de invoerheffingen in de bilaterale handel. Als gevolg daarvan wordt een stijging in de export van granen en oliezaden van Oekraïne naar de EU verwacht en dat is gunstig voor de Nederlandse veeteelt- en bio-energie producerende sector.
- In geval van een DCFTA zullen de Europese importheffingen voor vlees aanzienlijk dalen, wat alleen zal leiden tot meer concurrentie van Oekraïense vleesleveranciers als zij de kwaliteit kunnen bieden die in de EU en Nederland vereist is. Nederlandse producenten en exporteurs zouden concurrentie vanuit Oekraïne in de vleessector het hoofd moeten kunnen bieden door kwaliteitsproducten te leveren.
- In geval van een DCFTA krijgt Nederland meer mogelijkheden om alle traditionele exportproducten (bijv. zuivel, aardappelen, tuinbouwproducten) en de daarvoor benodigde inputs en diensten, inclusief kennisoverdracht, naar Oekraïne te exporteren. Of deze mogelijkheden daadwerkelijk worden benut, zal echter in hoge mate afhangen van een herstel van de Oekraïense economie en de snelheid van institutionele hervormingen die cruciaal zijn voor het verbeteren van het huidige bedrijfsmilieu.

S.3 Methode

Deze rapportage is opgesteld in opdracht van het ministerie van Economische Zaken. Het huidige onderzoek is gebaseerd op een breed opgezet literatuuronderzoek en er is gebruikgemaakt van diverse databases van Oekraïense statistische bronnen en internationale organisaties. Gesprekken met Nederlandse zakenmensen en mondelinge informatie van vertegenwoordigers van internationale en Oekraïense organisaties zijn gebruikt om eigen analyses en conclusies aan te vullen en te kwalificeren.

1 Introduction

Dutch agri-food trade relations with Ukraine have grown over the last decade and an increased number of companies from both countries have established close cooperation and partnerships. In summer 2010, the Dutch Ministry of Economic Affairs, Agriculture and Innovation and the Ukrainian Ministry of Agrarian Policy and Food initiated a bilateral working group on agriculture. This group identified the greenhouse vegetable sector, the potato and the dairy sector as priority sectors in which both governments could enhance further agribusiness developments through intensified bilateral cooperation (AgentschapNL, 2012b).

Ukraine is increasingly orienting towards the EU, which is illustrated by the establishment of a Deep and Comprehensive Free Trade Agreement (DCFTA) between the two. Negotiations started in 2008 and were concluded in a draft text on an Association Agreement by mid-2012 which is now in a ratification process by EU member states. Such an agreement is likely to imply important market access improvements for the Dutch agribusiness. At the same time, an FTA may offer Ukraine increasing export possibilities to the EU. However, Ukraine is also invited to join the Customs Union (CU) of Russia, Belarus and Kazakhstan. If the country becomes a member of the CU, trade with the EU might be expected to decline.

The main objective of this study is to provide an overview of the general economic and policy context that is important for Ukraine's agricultural development. Furthermore, this research provides insights into future prospects on Ukraine's agricultural markets, and gives an analysis of major drivers of these market developments. In doing so, this report indicates present perspectives for sustainable agribusiness relations of Dutch agribusiness in Ukraine, and analyses how those opportunities might evolve in the medium term, considering general economic and sector specific developments, and the changes in market access conditions as result of a close alignment with the EU versus a scenario in which Ukraine joins the CU with former Soviet republics.

The outline of the report is as follows. Chapter 2 describes Ukraine's general economic developments during the last decade, focusing on key indicators as GDP growth, inflation, trade relations, foreign investment inflows and the country's business environment. Next, Chapter 3 presents Ukraine's agri-food sector, showing major production trends in the sector's major commodities and evaluating key features of the sector's structure and performance. This chapter concludes with listing key challenges for Ukraine's agri-food sector develop-

ment. Chapter 4 continues analysing major drivers of agri-food developments in Ukraine, referring to general economic growth and consumer demand, to agricultural and policy reforms and the overall economic growth in the country's major trading partners. Chapter 5 discusses prospects for developments in the context of different trade scenarios between Ukraine and the EU. Conclusions on how these prospects affect Dutch agribusiness opportunities are drawn in Chapter 6.

2 Economic developments, trade and foreign investment

Key findings

- The country's economic performance in past years has been very volatile: the global crisis has had a significant impact on economic growth in 2008/2009, which has rebounded to positive figures in most recent years, yet economic recovery remains vulnerable.
- Ukraine is a net-importing country, importing energy resources (oil and gas) and exporting industrial goods and agricultural products.
- Ukraine is a net exporter of agricultural products, mainly cereals, vegetable oils, oilseeds and dairy products, while importing meat, fruit and vegetables.
- The EU is Ukraine's major trading partner in agricultural products, Russia is second. Agri-food trade has grown between Ukraine and the EU; the trade balance is positive for the EU.
- Dutch agricultural exports to Ukraine (total USD350m or €250m in 2011) are mainly cocoa paste/butter and cut flowers/other live plants. Rapeseeds and sunflower seeds oil are major imports of the Netherlands from Ukraine (total agri-imports USD435m or €325m).
- EU is the most important source of FDI in Ukraine, with the Netherlands as a significant investor (13% of all inflows).
- Ukraine's score in the World Bank's 'ease of doing business' index is poor, in particular in comparison with countries in the region. Registering property, the tax system, cross-border trading and dealing with construction permits are particularly complicated, time-consuming and costly when doing business in Ukraine.

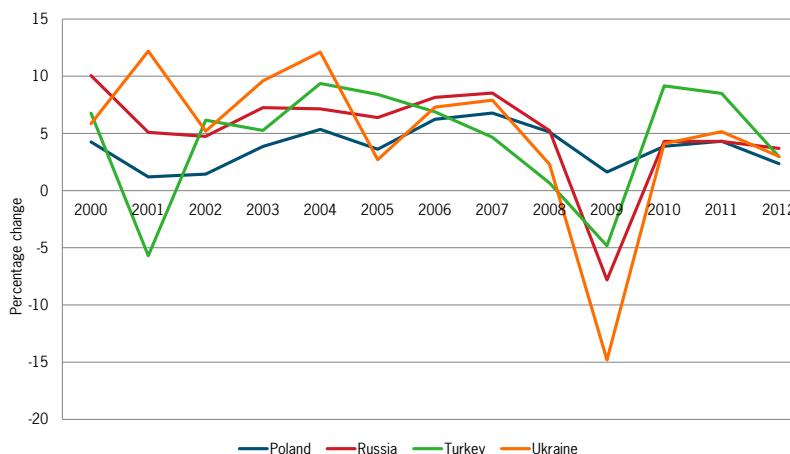
2.1 Economic developments

Ukraine is a lower middle income country with an average per capita income of almost USD4,000 (or USD7,500 based on purchasing power parity). This average income is equal to the average income in Albania, and about half the average income in Romania or Bulgaria. Compared with other former Soviet republics, Ukraine's average income per capita is slightly higher than in neigh-

bouring countries Moldova, Armenia and Georgia, yet significantly lower than in Belarus, Russia and Kazakhstan. Yet, with a grey economy that is estimated at 35% to 50% of the country's GDP (Kyiv Post, 2012) the purchasing power of Ukraine's population is significantly higher than official figures suggest.

Before its independence in 1991, Ukraine was the most important economic component of the former Soviet Union after Russia, producing about four times the output of the next-ranking republic. Its fertile black soil generated more than one-fourth of Soviet agricultural output, and its farms provided substantial quantities of meat, milk, grain and vegetables to other republics (Matabadal, 2013). In the years following independence, the country's GDP fell to less than 40% of its 1991 level by 1999. In the early 2000s the economy showed strong export-based growth, mainly due to a recovery of its industrial sector and benefitting from global economic upturn. Also agriculture recovered from huge contractions in production levels in the crop and (especially) the livestock sector in the 1990s, although it took until the mid-2000s before production levels of major crops resumed their pre-independence levels, while dairy and meat production are still far below levels achieved before 1991.

The country's economic performance in past years has been very volatile. Ukraine's economic activity contracted by 14.8% in 2009, as it was heavily affected by the global financial crisis (see Figure 1, indicating that Ukraine's GDP decline has been much more extreme than in other neighbouring economies). Besides the fall in gross fixed investments and private consumption, steel prices fell markedly and external demand for the country's exports waned. While the economy has rebounded in the following years, it is estimated to have only grown by 0.5% in 2012. The main reason is falling external demand for the country's steel and grain exports but domestic demand also slowed (Matabadal, 2013).

Figure 1**GDP, constant prices (% change)**

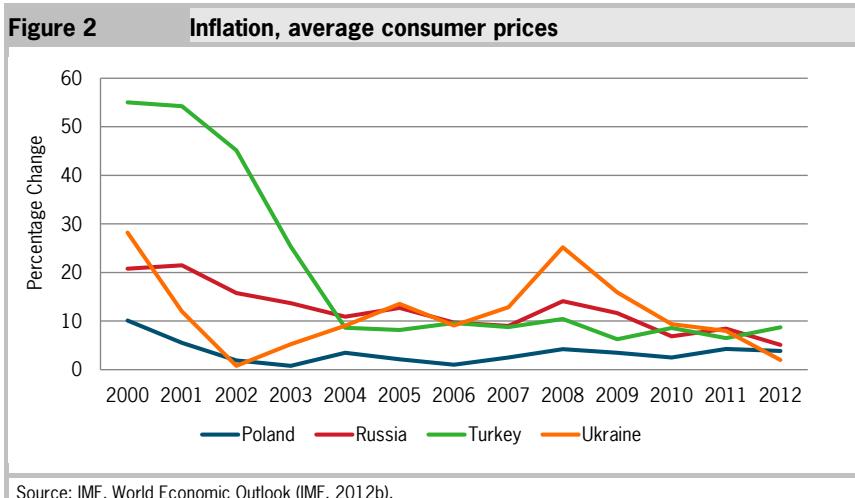
Source: IMF, World Economic Outlook (IMF, 2012b).

According to Matabadal (2013), the government finances of Ukraine are in bad shape. Fiscal flexibility is limited; expenditure on wages and social benefits absorbs more than 70% of general government spending. The budget deficit recorded 3.5% of GDP in 2012 and is estimated at 3.3% of GDP in 2013. According to the International Monetary Fund (IMF, 2012a), the energy sector remains the drain to the national budget. The government has set energy independence as a longer term national objective. Key elements of their strategy to achieve this are investment in domestic gas exploration and production, energy efficiency measures, and, if necessary, domestic tariff increases.¹

Inflation is expected to reaccelerate as food costs are growing again as recent consumer spending exceeds domestic supply considerably. To secure the domestic food supply and stem rising domestic prices, the government banned wheat exports in October 2012. The monetary policy of the National bank of

¹ The Ukrainian authorities have failed to increase gas tariffs paid by households, leading to a continued large energy sector deficit. While import prices for gas are above USD400 per 1,000 m³, the tariffs paid by households are below USD120 and below USD60 for heating per 1,000 m³, respectively (IMF, 2012a. Ukraine: Staff Report for the 2012 Article IV Consultation. International Monetary Fund, p. 96. The issue of raising gas tariffs for domestic consumers is among the key elements in the talks between Ukraine and the IMF, to which Ukraine must repay USD5.7bn in 2013. The government has also other repayments due in 2013 that feature the government's difficult financial position. In addition, Gazprom, the Russian gas and oil company, is demanding USD7bn for Ukraine's failure to take contracted volumes of the fuel in 2012 (<http://www.bloomberg.com/news/2013-01-28/ukraine-kicks-off-imf-loan-push-as-reserves-dip-below-key-level.html>).

Ukraine (NBU) is weak, as it has not been able to control the very volatile inflation in the country. Inflation is expected to average 7.9% in 2013, markedly higher than the 0.8% estimated for 2012, and rebounding to levels shown in the second half of the 2000s (Figure 2).



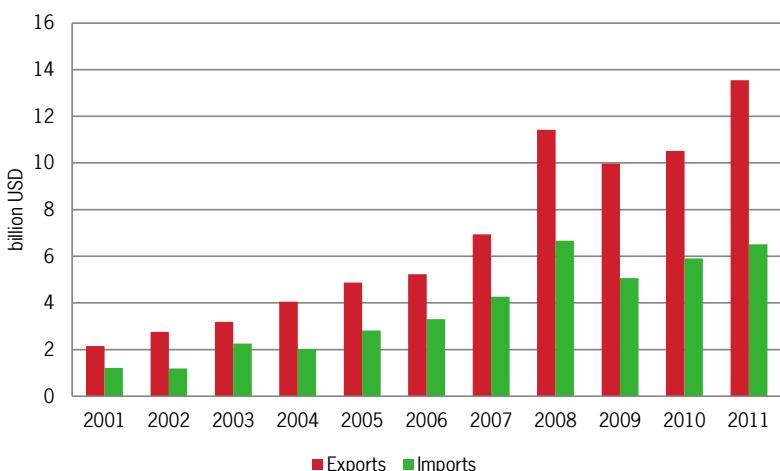
2.2 Trade

2.2.1 Ukraine's overall trade position and trade relation with the EU

Ukraine is a net importing country, importing energy resources (oil and gas) and exporting industrial goods and agricultural products. The country has a diversified heavy industry, producing unique equipment such as large diameter pipes and vertical drilling apparatus used in other industrial sectors and mining sites. A very important sector is the highly cyclical steel industry, since steel and other non-precious metals are Ukraine's largest export products. Fuel and energy are Ukraine's largest import product, since the industrial sector is heavily dependent on imported gas to meet its energy needs (Matabadal, 2013). Figure 3 presents Ukrainian exports and imports of agri-food products in 2001-2011. As shown, Ukrainian exports increased considerably, and more than the increase in imports. With regard to agri-food products, Ukraine takes the position of a net exporter. Cereals, vegetable oils, oil seeds and dairy products are the main export products for Ukraine. The most important product groups for agri-

food imports are meat, fish, citrus fruits, bananas, apples and grapes, primary palm oil and beverages (primarily alcohols and wine). Concerning agri-food products in general, Ukraine's main trading partners for exports are the EU27, Russia, Egypt and Turkey, with India and Korea emerging as important buyers of Ukrainian products.

Figure 3 **Ukraine exports and imports of agri-food products, 2001-2011, billion USD**



Source: United Nations Commodity Trade Statistics Database (COMTRADE, 2013).

2.2.2 Trade relations with the EU and with the RBK Customs Union

Overall, the EU is Ukraine's largest trading partner, with around 25-30% of export and 30-35% of imports in recent years, whereas Russia is Ukraine's second largest trading partner (Movchan and Giucci, 2011). For the EU27, Ukraine has only been a small trading partner. Focusing on trade with third countries (extra-EU27 trade), Ukraine ranked 19th on the list of major export destinations of EU products and 25th on the list of major imports to the EU27 in 2012 (EU DG Trade factsheet). Overall, trade with the EU27 has been much more important for Ukraine. After Russia, the EU27 was the second most important trade partner of Ukraine in 2012.

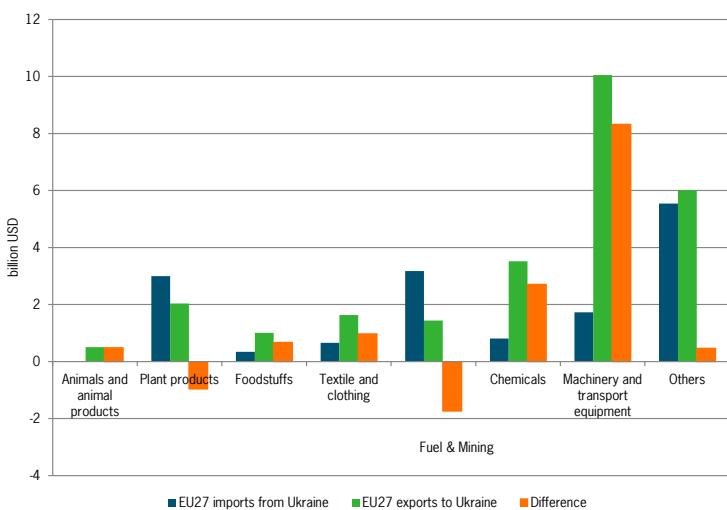
Figure 4¹ presents the average value of EU27-Ukraine trade in 2008-2011. As shown, the main EU27 export products to Ukraine were machinery & transport equipment, chemicals, and other products. Ukraine mainly exported plant products, fuel & mining material and others. In Figure 4, the difference between the EU27 imports from Ukraine and the EU27 exports from Ukraine indicates the net trade situation of the EU27 with regard to Ukraine (EU27-Ukraine trade balance). A positive value refers to the situation where the EU27 is a net exporter to Ukraine and a negative value refers to the situation where the EU27 is a net importer of the respective products from Ukraine.

With a positive trade balance, the EU27 is a net exporter of animal products and processed food stuff to Ukraine, and with a negative trade balance, the EU27 is a net importer of plant products from Ukraine (see Figure 4). Agri-food trade in general has grown between the EU27 and Ukraine during the last years. Between 2008 and 2011, agri-food exports from Ukraine to the EU27 increased from 10% to about 15% of total Ukrainian exports to the EU27. Similarly, EU27 agri-food exports to Ukraine increased from 5.3% to 9.3% of total EU27 exports to Ukraine (not shown).

As shown in Figure 5, the EU27 is an important destination for Ukrainian agri-food exports, and since 2006 has become more important than the CU countries (Russia, Belarus and Kazakhstan; RBK). Overall, Ukraine exports of plant products dominate, with an enormous increase in exports from Ukraine to the EU27 during 2001-2011. For Ukrainian exports of food stuff, the CU countries have however remained more important than the EU27. The same holds for exports of animal products; the value of Ukrainian exports of animal products to the EU27 is very small. Figure 6 illustrates the situation for Ukraine imports from CU countries and the EU27, respectively. From 2001 to 2011, Ukraine imported much more agri-food products from the EU27 than from CU countries.

¹ HS codes are aggregated as follows: Animal & Animal Products: HS01, 02, 03, 04, 05 and 1501-1506; Plant products: 06-14 and 1507-1522, 44-49 Wood & Wood Products; Foodstuffs: 16-24: Textile and clothing: 50-63 Textiles, 64-67 Footwear/Headgear; Fuel and mining: 25-27; Chemicals: 28-38 Chemicals & Allied Industries; Machinery & transport equipment: 86-89 Transportation, 84-85 Machinery/Electrical; Others: 41-43 Raw Hides, Skins, Leather, & Furs, 39-40 Plastics/Rubbers, 98-99 Service, 90-97 Miscellaneous, 68-71 Stone/Glass, 72-83 Metals.

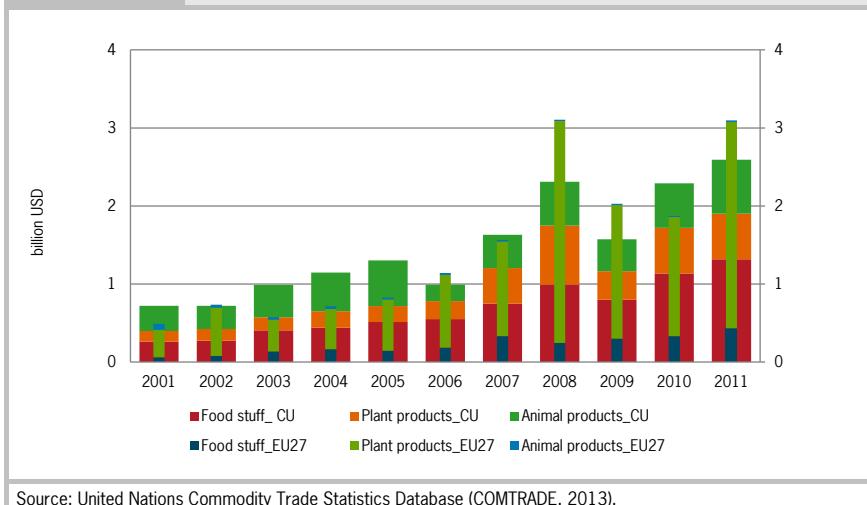
Figure 4 EU27 trade with Ukraine, average 2008-2011, billion USD



Source: United Nations Commodity Trade Statistics Database (COMTRADE, 2013).

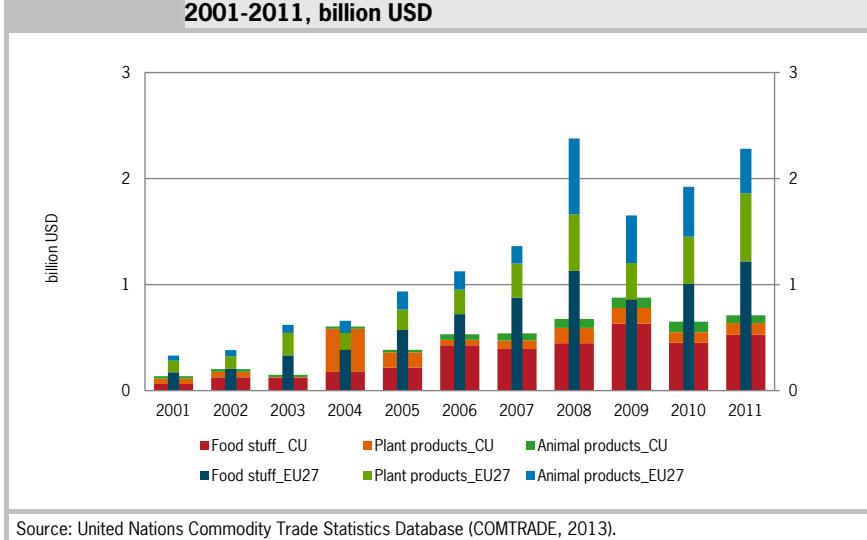
When the Ukraine trade situation is compared with the CU and the EU27, the trade data clearly point out the importance of the EU27, both as export destination for Ukraine exporters and as a provider of imports to the Ukraine market.

Figure 5 Ukraine agri-food exports to the CU and EU27, 2001-2011, billion USD



Source: United Nations Commodity Trade Statistics Database (COMTRADE, 2013).

Figure 6 Ukraine agri-food imports from the CU and EU27, 2001-2011, billion USD

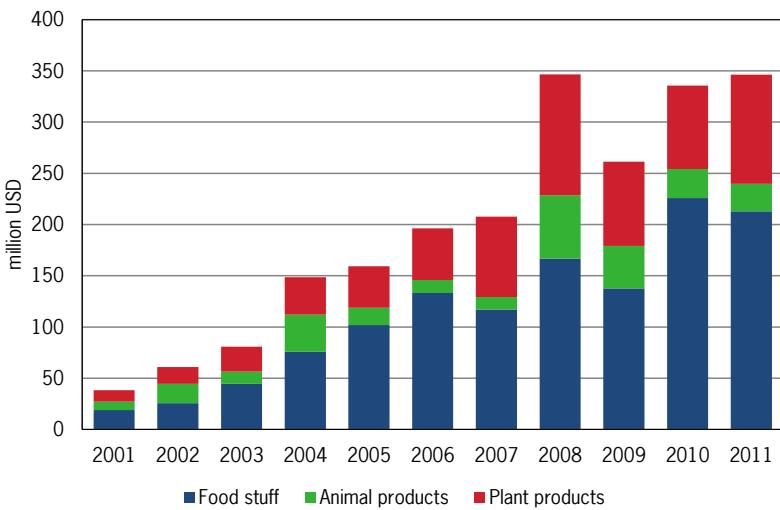


Source: United Nations Commodity Trade Statistics Database (COMTRADE, 2013).

2.2.3 Agri-food trade between the Netherlands and Ukraine

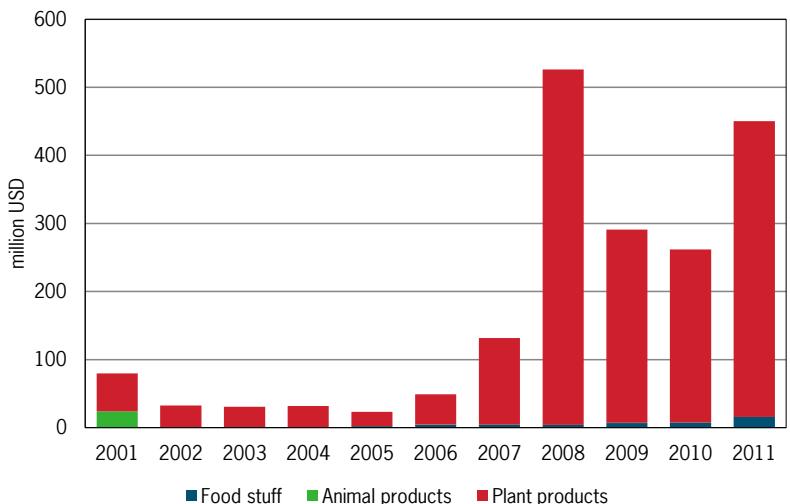
Figure 7 and Figure 8 give an overview of agri-food trade between the Netherlands and Ukraine from 2001 to 2011.

Figure 7 Dutch agri-food exports to Ukraine, 2001-2011, million USD



Source: United Nations Commodity Trade Statistics Database (COMTRADE, 2013).

Figure 8 Dutch agri-food imports from Ukraine, 2001-2011, million USD



Source: United Nations Commodity Trade Statistics Database (COMTRADE, 2013).

Overall, the figures show that since 2008 Dutch imports from Ukraine have been more important (in terms of trade value) than Dutch exports to Ukraine. Differentiating between plant products, animal products and processed food stuff, Figure 7 shows an overall upward trend for the three types of exports from the Netherlands to Ukraine. Processed food stuff (HS 16-24) clearly dominated. While exports of animal products have considerably increased, the increase of Dutch exports of plant products was comparatively small; in fact a decrease was observed in 2009 and 2010 but growth resumed in 2011 (see Figure 7). Figure 8 illustrates the development of Dutch imports of the aforementioned product types from Ukraine. The Netherlands first and foremost imported plant products (over 90% of Dutch total agricultural imports), specifically oil seeds. There are no imports of animal products, but the Netherlands has started to import processed food stuff, of which the trend is increasing.

Table 1 provides a detailed overview of the agri-food products traded (HS codes) and shares, using the average 2008-2011 trade data information from UNCOMTRADE. The main exports of Ukraine to the Netherlands were plant products, specifically oilseeds (rapeseed and sunflower seeds and oil). Ukrainian exports of plant products for animal feed (HS2306) are generally important but comparatively small from 2008 to 2011, as is the case for maize. However, these average figures hide the fact that Dutch imports from Ukraine of these

commodities differ from year to year, and therefore its share in Dutch total imports of these commodities. For example, oilseeds from Ukraine had a share of 8 and 6% in 2008 and 2009, but only 3.5% of all Dutch oilseeds imports in 2010 and 2011. At the same time, The Netherlands hardly imported maize from Ukraine in the period 2007 to 2011 (only an average 3.5m per year - see Table 1), but in 2012 about 13% of all Dutch imports of maize came from Ukraine (Eurostat trade figures, 2013). With regard to export value and share in total exports of the product, export of cocoa products (HS1804 & 1803) is most important for the Netherlands. However, live plants including cut flowers (HS6) are main Dutch products and in value terms such plant exports to Ukraine are more important than the exports of cocoa. Note that the Netherlands also exports meat offal products, including animal fats.

Table 1 Top 5 agri-food products in trade between the Netherlands and Ukraine

Dutch agri-food imports from Ukraine, average 2008-2011					
Most important product with regard to value	Value in 1,000 USD	% in relation to total Dutch imports of the product	Most important product with regard to share in Dutch imports of the respective product	Value in 1,000 USD	% in relation to total Dutch imports of the product
1205 - Rape or colza seeds, whether or not broken	228,751	25.6%	1512 - Sunflower-seed, safflower or cotton-seed oil and fractions, whether or not refined, not chemically modified	97,040	24.0%
1512 - Sunflower-seed, safflower or cotton-seed oil and fractions, whether or not refined, but not chemically modified	97,040	24.0%	1205 - Rape or colza seeds, whether or not broken	228,751	25.6%
1206 - Sunflower seeds, whether or not broken	12,213	4.3%	1007 - Grain sorghum	901	1.8%

2306 - Oil-cake and other solid residues, w/h ground or in the form of pellets, resulting from the extraction of vegetable fats or oils	3,998	0.8%	1401 - Vegetable materials of a kind used primarily for plaiting (for example, bamboos, rattans, reeds, rushes)	1,294	5.9%
1005 - Maize (corn)	3,408	0.4%	2102 - Yeasts (active or inactive)	1,293	5.3%

Dutch agri-food exports to Ukraine, average 2008-2011

Most important product with regard to value	Value in 1,000 USD	% in relation to total Dutch exports of the product	Most important product with regard to share in Dutch exports of the respective product	Value in 1,000 USD	% in relation to total Dutch exports of the product
1804 - Cocoa butter, fat and oil	33,906	2.5%	2205 - Vermouth and other wine	407	8.8%
0602 - Other live plants (including their roots), cuttings and slips; mushroom spawn	26,184	0.8%	0410 - Edible products of animal origin, n.e.s.	68	10.5%
1803 - Cocoa paste, whether or not defatted	16,859	3.3%	1803 - Cocoa paste, whether or not defatted	16,859	3.2%
0603 - Cut flowers and flower buds of a kind suitable for bouquets or for ornamental purposes, fresh, dried, dye	16,052	0.4%	0209 - Pig fat, free of lean meat, and poultry fat, not rendered or otherwise extracted, fresh, chilled, frozen, salt	1,584	2.2%
1209 - Seeds, fruit and spores,	14,206	1.2%	1804 - Cocoa butter, fat and oil	33,906	2.5%
0207 - Meat and edible offal, of the poultry of heading 01.05, fresh, chilled or frozen	14,112	0.7%	1207 - Other oil seeds	2,358	2.5%

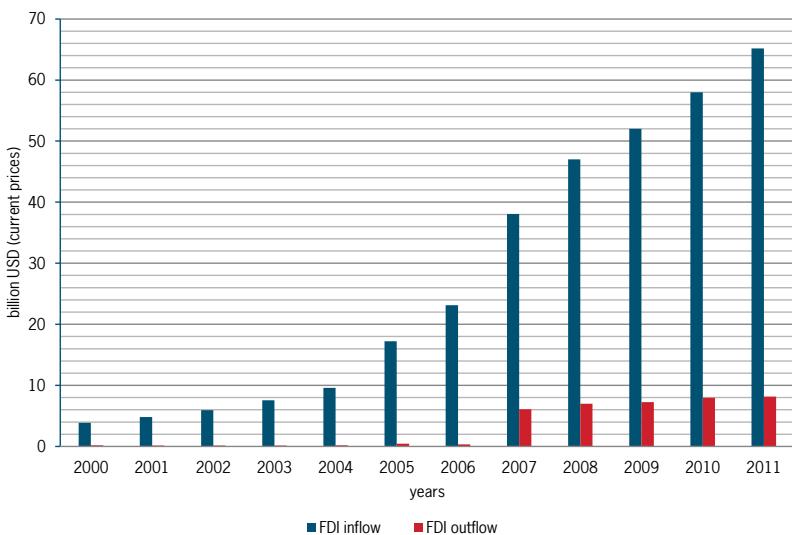
Source: United Nations Commodity Trade Statistics Database (COMTRADE, 2013).

2.3 Foreign investments

Foreign direct investment provides capital from non-domestic sources that helps to invest in modernisation and restructuring of Ukraine's economy. The inflow of capital from abroad also brings in up-to-date technology and management input, both contributing importantly to increased productivity and efficiency.

In the 1990s and in the first half of the 2000s, Ukraine, like most other countries in the former USSR, lagged behind Central Europe and Baltic countries in attracting FDI. This was caused by a lack of sufficient macroeconomic stability, a delay in market-oriented reforms and a generally poor business and investment climate. The situation started to change after the Orange Revolution in 2004 (Dabrowski and Taran, 2012). In 2005, FDI almost doubled due to the reselling of Kryvorizhstal to Mittal Steel (Germany) (FDI inflow) and acquisitions of Ukrainian banks by EU banks (FDI outflow). In subsequent years, more foreign investments came to industry and services, especially financial services in the form of acquisitions of Ukrainian banks by foreign financial groups. Fortunately, unlike in some other countries, the global financial crisis in 2008 and 2009 did not reverse this positive trend.

Figure 9 shows the development of Ukraine FDI inflow and outflow in 2000-2011. As shown, FDI inflows considerably increased in recent years, while FDI outflows remained comparatively stable since 2007. Apparently, foreign investors earned money by investing in targeted sectors and industries, as profitability is the key attractiveness indicator for FDI.

Figure 9**Ukraine FDI inflow and outflow, 2000-2011**

Source: United Nations Conference on Trade and Development (UNCTADStat, 2012).

FDI inflows are most important for financial services and manufacturing, making up for almost 60% of the total Ukrainian FDI inflow. Ukrainian FDI inflows for primary agriculture amounted to USD814m (1.6% of total Ukraine FDI inflows) and Ukrainian FDI inflows for the food processing industry (agri-food products including tobacco and beverages) were USD2,066m (about 4% of total Ukraine FDI inflows) in 2011 (SSSU, 2012a). An increase of 49% in FDI into primary agriculture and of 32% into food processing is observed for both FDI inflows in the period 2007-2011 (SSSU, 2012, 2008).

Overall, the EU is the most important investor for Ukrainian FDI inflow. The EU investment stock in Ukraine as of beginning of 2011 amounted to USD35.2bn, which accounted for 78.8% of total Ukraine FDI inflow. The three major EU countries investing in Ukraine are Cyprus (28.1%), Germany (20.1%) and the Netherlands (13.4%). The high share of Cyprus indicates, most likely, the substantial role of Russian, Ukrainian and other CIS capital domiciled in this country (Dabrowski and Taran, 2012; UCAB, 2012c). The largest share of the FDI outflow (85-90% in 2007-2011) are registered under real estate transactions, renting, engineering and provision of services to businessmen (SSSU, 2012a, 2012, 2008).

2.4 Doing business in Ukraine: the investment and business climate

Table 2 presents the 'Ease of Doing Business' Index 2013 for Ukraine and other countries that are relevant in the region and can serve as a benchmark for comparison. The index is calculated using 2012 data. For further information on the methodology see World Bank (World Bank, 2013a).

The overall index about the ease of doing business is derived as an aggregate of indicators that cover different aspects relevant in the business environment, which will be looked at in details further below.

Out of 185 economies included in the World Bank Doing Business Survey, Ukraine ranks 137 for the overall indicator 'Ease of Doing Business' and thus scores rather poorly. According to the World Bank calculations, doing business in Ukraine seems to be difficult, in particularly in comparison with other countries in the region that reach considerably better positions in the ranking. It should be mentioned however that the result of Ukraine's indicators of doing business 2012 (referring to 2011 data) was worse, with Ukraine ranking 152nd worldwide. Still, the regional average value of the 'Ease of Doing Business' Index for Eastern Europe and Central Asia was 77, and hence the environment for doing business in Ukraine can generally be considered to be far below average of the region.

Table 2 'Ease of Doing Business' Index 2013 - Ukraine and other relevant countries

Eastern Europe and Central Asia	Ukraine	Turkey	Romania	Poland	Russia
77	137	71	72	55	112

Source: World Bank (2013a).

Table 3 presents the different indicators that in aggregation make up for the overall 'Ease of Doing Business' Index. For Ukraine, the value of the 'Starting a Business' indicator is comparatively low, indicating a friendly environment for starting up business (see #1 in Table 3). Similarly, businesses seem to obtain credits relatively easily (#5), but note that the value of the 'Getting Credit' indicator shows that Romania and Poland score even better than Ukraine. Looking at the components of these two indicators, their low values for Ukraine result from rather low costs of official fees and fees for legal or professional services as well as from the fact that deposits are not required before business registration. In contrast with the relatively favourable conditions for starting business, Ukraine scores poorly in other areas reflected by the other indicators. In com-

parison with the other countries in the region, registering property (#4) and the protection of investors (#6) seem to be particularly difficult in Ukraine. Furthermore, Ukraine ranks on one of the last positions for dealing with construction permits (#2), whereby the main issues are the official costs as well as the time necessary for completing a building. Only with regard to contract enforcement, Ukraine scores better than the other countries (#10).

Table 3		Index of Doing Business 2013, Ukraine and other relevant countries				
	Components of Index	Ukraine	Turkey	Romania	Poland	Russia
1	Starting a Business	50	72	68	124	137
2	Dealing with Construction Permits	183	142	129	161	62
3	Getting Electricity	166	68	168	137	4
4	Registering Property	149	42	72	62	49
5	Getting Credit	23	83	12	4	114
6	Protecting Investors	117	70	49	49	50
7	Paying Taxes	165	80	136	114	56
8	Trading Across Borders	145	78	72	50	37
9	Enforcing Contracts	42	40	60	56	0
10	Resolving Insolvency	157	124	102	37	0

Source: World Bank (2013a).

3 Ukraine's agriculture: structure and performance

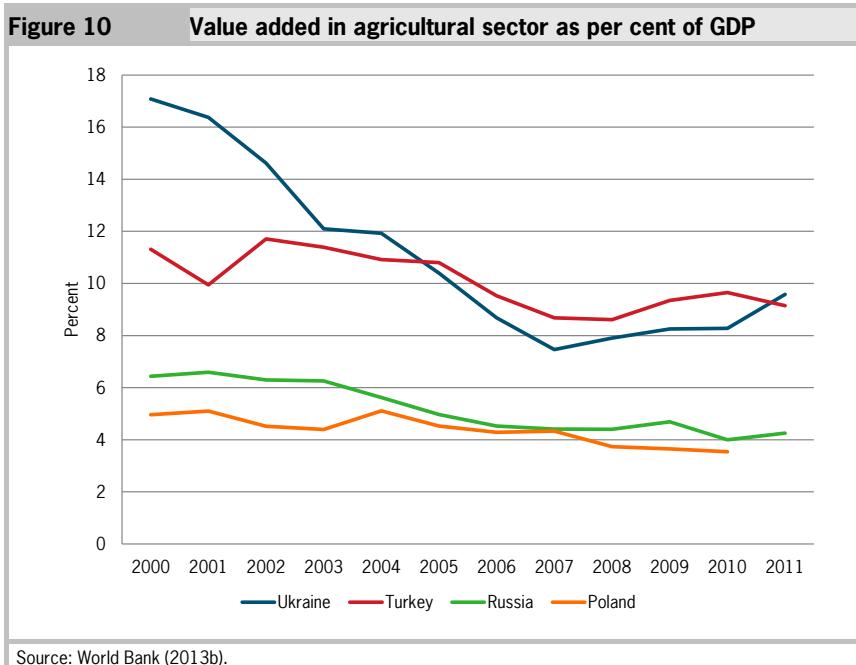
Key findings

- Agriculture plays an important role in the Ukrainian economy. By 2011, the sector accounted for over 8% of GDP and 5.5% of employment in Ukraine.
- Food processing turnover and food consumption (especially of livestock products) significantly increased in the years 2000-2008, but stagnated since then due to the general economic downturn.
- Cereals are Ukraine's main crop (15.5m ha) followed by sunflower seeds (4.5m ha). For both crops Ukraine is an important exporter. Cereal yields are half of the EU's average. For other major crops like potato and vegetables (tomato, cucumber) yields are far below the Dutch average, while low energy efficiency in greenhouses, lack of storage and modern post-harvest technology results in high costs and low quality of production.
- Although yields per cow increase (to about 50% of the EU average), the overall milk production continues to decline, but as consumption fell, the country is still a net exporter of dairy products. Pork and poultry production have increased due to recent investments in expanding and upgrading the sector's production capacity.
- Overall competitiveness of the sector is weak due to the generally low quality of the produce.
- Key challenges for the further development of Ukraine's agri-food sector are related to the improvement of the overall business environment, regulatory restrictions on land ownership, inconsistent food safety standards (with international standards), limited access to credits and poorly qualified labour.

3.1 Role of the agri-food sector in the national economy

There is consensus that today Ukraine is one of the potential rising stars of Eastern Europe (BE Berlin Economics, 2011; EC, 2009; Leeuwen et al., 2012; TEBODIN, 2013a). The sheer size of the country, its key geographical position, combined with its fertile soils, are features that contribute to its huge agricultural potential. Untapping the agricultural potential could give an significant boost

to the overall economy as the sector still plays an important role in the Ukrainian economy. By 2011, it accounted for over 8% of GDP and 5.5% of employment in Ukraine. Since 2000, agriculture has been growing at an average of about 3.2% annually. As other sectors grew faster, the agricultural sector's contribution to GDP declined for quite a number of years. Since 2008, though, growth in agriculture's value added exceeded growth in other sectors, resulting in an increasing share in the country's GDP (Figure 10).

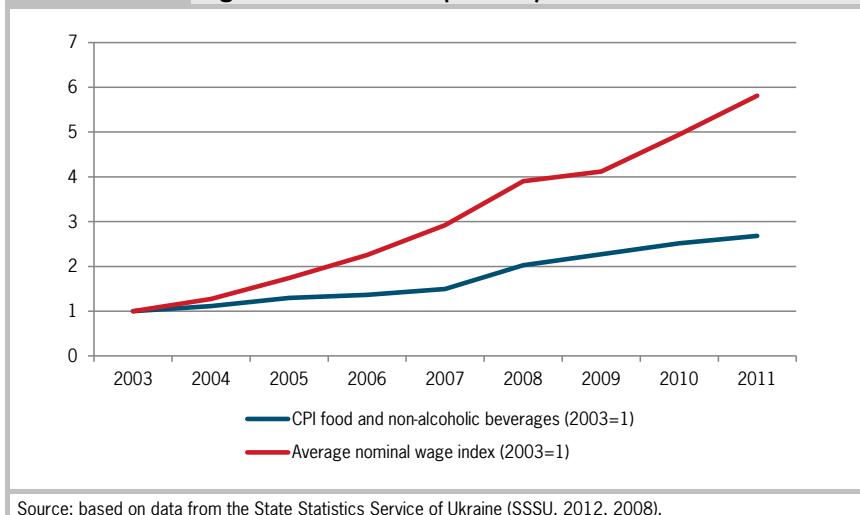


Agriculture is an important and increasing source of foreign earnings. Most recent years indicate the sector's exports (see Figure 3) add to almost 10% of the country's total exports. The share of agricultural imports in total imports has been at a rather low level throughout the years, yet shows a considerable increase from 1.7% in 2008 to 4.6% in 2011.

A major policy goal in Ukraine is to keep domestic food prices low. With almost 50% of the Ukrainian population considered to be living below the poverty line up to 2006 (substantially diminished to 7.8% in 2011) and as food accounts for more than 50% of total Ukrainian household expenditures during the last decade (SSSU, 2012, 2008), the social and political cost of elevated food prices is rather high in Ukraine. Even though Ukraine experienced a rapid increase

in inflation (see also Figure 2), with the underlying cause being mainly the overheating of the Ukrainian economy from 2000 to 2008, average real incomes were rising at a faster rate than food prices and thus the average poverty impact of food price inflation has been negligible (Leeuwen et al., 2012). The development of average nominal wages and food price indices as presented in Figure 11, shows that the increase of wages has been more than twice as fast as food price increases in Ukraine.¹

Figure 11 Consumer price index for food products and average nominal wage index for Ukraine (2003=1)



3.2 Food industry and food consumption

Food processing has an annual turnover of USD19.5bn (in 2011), making up 15% of total industrial output. It generates direct employment for 13% of working population. Food processing has been less affected by the economic crisis than other manufacturing sectors in Ukraine even registering, on average, a positive growth of 5% during 2008-2011.

¹ However, the World Bank points out that in Ukraine higher agricultural commodity prices have not translated into higher agricultural wages in Ukraine's rural areas. Thus, as a larger share of Ukraine's rural population is below or close to the poverty line compared to the urban population, the rural population in Ukraine might be more negatively affected by rising food prices (World Bank, 2008).

The Ukraine agro-industrial complex is one of the most attractive sectors for investment, despite the difficult operating environment, the absence of a land market, legal regulations and dependence on natural conditions (TEBODIN, 2013a). This attractiveness is primarily due to increasing agricultural product prices and relatively low cost of land and labour, as well as the business value increase potential in case of legislation change (including the lifting of the moratorium on sales of agricultural land).

Ukraine's most important food industries are the beverages (soft drinks and alcohol-containing drinks), meat, dairy and vegetable oil industry (Figure 9). The poultry and dairy industry are rather concentrated, as well as the sugar and confectionary industry. Details on the concentration rates in the other industries are not known, but might be expected to be rather fragmented. BMI evaluates the fragmented structure is a major weakness of the industry's competitiveness, which is due to a lack of good quality of raw materials from the primary agricultural sector and the rudimentary distribution of food (BMI, 2013a).

Table 4 Ukraine's most important food processing industries		
	Share in total food processing output value, 2012, in %	Concentration of the sub-industry
Meat and meat products	17.2	Top 20 companies' share is almost 10% of cattle livestock, almost 27.5% of pig livestock, and 57.6% of poultry livestock a)
Milk and milk products	15.6	quite consolidated (seven major players), however it is still far below the European numbers a)
Cereal and starch products	3.6	
Processed fruits and vegetables	5.2	
Vegetable oils and oil products	12.3	
Sugar, confectionary	5.6	70% is controlled by 8 companies*
Beverages	21.5	prevailing number of local producers and moderate concentration a)
Others	18.9	Unknown
Total	100	

Source: State Statistics Service of Ukraine (<http://ukrstat.gov.ua/>); a) from Deloitte (2012).

Ukraine's economic development has been rather successful in the early 2000s, which may have had a structural effect on the food consumption in the country. Indeed, figures show that domestic consumption per capita for live-stock products increased strongly since early 2000s for meat (pork and especially for poultry), eggs, fruit and vegetables, and fish (see Table 5).

Consumption of dairy products showed an upward move in the first part of the 2000s during the last few years the consumption increase in dairy products has stagnated and even decreased after food price surges in 2008. Consumption of cheese in recent years is about 4 kg per capita, which is only one sixth of the average in the Netherlands and one third of the cheese consumption in Poland (Eurostat). In 1998, beef and pork were the most consumed meat types per capita (each with about 13.5 kg per capita per year). While beef consumption declined almost constantly until 2010 (to 9.8 kg per capita), consumption of pork increased to about 18 kg per capita. The most remarkable development could be observed in poultry consumption, which increased from 5 kg in 1998 to about 23.5 kg per capita in 2010. At these levels, poultry consumption in Ukraine is similar to that in Poland, where consumers prefer pork over poultry (Leeuwen et al., 2012).

Table 5		Consumption of food products in Ukraine in 1990-2011, in kg per capita per year							
		1990	1995	2000	2005	2008	2009	2010	2011
Meat and meat products	68	39	33	39	51	50	52	51	
Milk and milk products	373	244	199	226	214	212	206	205	
Bread and cereal products	141	128	125	124	115	112	111	110	
Eggs (pieces)	272	171	166	238	260	272	290	310	
Potatoes	131	124	135	136	132	133	129	139	
Vegetables	103	97	102	120	129	137	144	163	
Fruits and berries	47	33	29	37	44	46	48	53	
Fish and fish products	18	4	8	14	18	15	15	13	
Sugar	50	32	37	38	41	38	37	39	
Oil	12	8	9	14	15	15	15	14	

Source: based on data from the State Statistics Service of Ukraine (<http://ukrstat.gov.ua/>).

Consumption of cereal products (bread, pasta) are relatively stable in Ukraine as these are mature markets, and economic developments (increasing/decreasing income) do not affect the consumption pattern much. Sugar consumption has increased, mainly through increasing consumption of processed food that contains sweeteners and of confectionary products. The canned prepared food market (sausages, bacon/ham, etc.) is declining as consumers develop a preference for ready-made meals. For further historical (and forecast) details of food consumption patterns, see Ukraine Food and Drinks report (BMI, 2013b).

3.3 Regional structure and farming types

3.3.1 Regional structure

Ukraine comprises 25 regions (24 oblasts plus Crimea autonomy republic). The agricultural area, comprising 41.6m hectares, which is about 69% of the total territory of Ukraine, is distributed quite equally across the country. However, the main agricultural regions are located in the Eastern part of Ukraine where land productivity is generally higher than the country's average. 7.1% of agricultural land is drained, and 5.2% is irrigated. In 2010 Vinnytsya, Dnipropetrovsk, Donetsk, Kyiv, Poltava and Cherkasy regions (the darkest in Figure 12) produced 36% of the gross agricultural production value. Kirovograd (in Central Ukraine) is also an important crop-producing region, whereas Lviv (in Western Ukraine) is important with regard to livestock production. With only few specific exceptions (e.g. poultry production in Crimea), Southern Oblasts (low precipitation) and most Northern and Western Oblasts (less suited soils) are less important for Ukraine's agricultural production (World Bank, 2008). About 5m ha of non-utilised agricultural area and additional 1,5m ha of arable land available for use, offer large potential for scale increase in agricultural production through area expansion (see Table 6). Improvements on the land market (now only long-term lease of agricultural land is allowed), and new investments may facilitate such area expansion.

Figure 12 Gross agricultural production by regions in Ukraine, 2010



Source: Leeuwen et al. (2012).

3.3.2 Land ownership and land reform

In the Soviet Union, most of the land was property of the state, and also in Ukraine agricultural land was state-owned and distributed between collective farms (*kolkhozes*) and state farms (*sovkhozes*). The first Law on Peasant Farms passed in 1991, enabling the transfer of land from state ownership into the ownership of collective agricultural enterprises or other agricultural corporations. As the land reforms implemented in the 1990s did not bring the expected improvements in agricultural productivity, the second stage of land reform in Ukraine was launched at the end of 1999 by a Decree of the President. This decree established a rule that land certificates should be converted into land titles with physical allocation and land demarcation. Following this requirement, some fundamental steps in land reform were made and almost 7m rural residents became owners of physical land plots, with an average land share seize of 4.2 hectares (Leeuwen et al., 2012).

The land reform measures in Ukraine allowed to achieve ownership of agricultural land and its transfer, and thus enabled a farm restructuring process. However, since 2001 there is a moratorium on alienation of land shares (pa)

imposed in Ukraine. Under the moratorium, the sale, purchase and other forms of alienation of most types of agricultural land (as well as changes in 'zoning', i.e. designation of use, of agricultural land plots) are prohibited in Ukraine by law. The land moratorium was actually imposed for a transitional period (until January 1, 2005). However, it was extended several times and in 2007 the moratorium expiry term was made dependent on the readiness of the relevant regulatory-legal framework (and has at least been extended until the end of 2012).

Regarding the lease of land shares in Ukraine, there were about 17.3m ha of rented farmland in Ukraine (under registered contracts for lease of land shares) in the first quarter of 2012. The fee for rented land varies across the country, with the average rent fee in the first quarter of 2012 being about 443 UAH per ha and year. Regarding duration of the lease contracts, the bulk (42.2%) of the rent agreements have a duration of 4-5 years, while 5.5% are rented for 1-3 years, 39.1% for 6-10 years and only about 13.2% for a period longer than 10 years (State Agency of Land Resources of Ukraine, 2012). According to a Dutch farmer operating 14,000 ha in Ukraine (Huizinga, 2013), he changed lease contracts from 5 to 10 years to ensure the commitments of landlords. Renewal of land rent contracts is a large administrative burden that his farming business has to carry, also in prospects of doubling the existing farming area.

Stable rules for both private property and long-term rent of land are generally considered as prerequisites for enhancing agricultural output in Ukraine and attracting investments in agriculture. Therefore it seems to be necessary that the land market in Ukraine is activated; however, experts state that it is imperative that Ukraine establishes a proper legal framework for regulating the land market and an official and functioning land cadastre before the land moratorium is lifted (Fellmann and Nekhay, 2012). With the introduction of an operational land cadastre in 2012, restrictions on land sales may be lifted soon. Latest information on the state of play regarding the land market in Ukraine can be obtained e.g. from the websites of the State Agency of Land Resources of Ukraine (www.dazru.gov.ua) and the Center for Land Reform Policy in Ukraine (www.myland.org.ua).

3.3.3 Farm types and land use

The agricultural sector structure comprises three groups of producers: agricultural enterprises, family farms and individual rural households. There are more than 4.3m small households (averaging 1.7 ha of land each) producing food primarily for subsistence purposes but managing almost 30% of Ukraine's total

agricultural land (Table 6) and generating 48.2% of the country's Gross Agricultural Output (GAO) in 2011. The rest of GAO was generated by 56,807 agricultural enterprises, which are mainly the successors of former collective and state farms, and by 42,101 much smaller family farms (accounting for 5% of GAO) with an average of 106 ha of arable land each (Table 6).

Privately-owned agricultural enterprises (including family farms) play the leading role in cultivating mainly export-oriented crops (cereals, oil seeds). Rural households with generally small plots have been dominating the production of the entire range of livestock products (79.7% in raw milk, 43.3% in meat), potato (96.9%), and vegetables (84.3%) (SSSU, 2012b). Given high labour requirements in fruits and vegetable production, this sector secures about a quarter of rural employment in agriculture.

Table 6		Land use by farm type, 2011		
	Number of units	Agricultural land (1,000 ha)	Arable land (1,000 ha)	Average area of arable land (ha)
Ukraine, Total		41,557.6	32,498.5	
Agricultural organisations	56,133	20,499.3	19,203.0	365
Family farms	40,965	4,345.9	4,221.9	106
Rural households	4,359,000	11,638.1	7,556.0	1.7
Other land users		5,074.3	1,517.6	

Source: based on the State Statistics Service of Ukraine (SSSU, 2012b).

Official statistics do not separately provide data on a new type of operators in agriculture called agroholdings. According to survey data, 85 agroholdings together operate more than 6m ha of agricultural land, which is about 14.4% of the total agricultural area (Lissitsa, 2010). According to the ranking of Focus (Focus, 2012), the top 20 producers in Ukraine are agroholdings with land area ranging from 20,000 to 500,000 ha. The strong upcoming of agroholdings of this size is in a way remarkable as there are large restrictions on land sales According to the law (Land Code) '...citizens and legal entities may acquire ownership to agricultural land with total area of 100 hectares ...' The land market in Ukraine is subject to a moratorium on sale. Therefore, agroholdings lease land from private persons (see also next section).

The strong increase of the number of large agroholdings is explained by a number of reasons (Lissitsa, 2010). First, large scale enterprises receive preferential taxation terms. Second, agriculture has attracted investment from non-

agricultural sources as profitability of crop production has increased in recent years, especially in 2007/2008 and 2011/2012 with high cereal and oilseeds prices. Next, land rents are relatively low, so in a situation that returns of agricultural production increase, the comparatively low expenses of land accumulation induce increasing scale of production. Moreover, in the expectation that a farmland market will be introduced in the nearest future, agroholdings took positions to be first on the list to become owner of the rented land.¹ A last issue mentioned to explain the increasing scale of production through agroholdings is that size is considered a necessity of reliable supply of the processing industry, and provides companies with better access to the financial resources. (Lissitsa, 2010) states that in the next decade about 150 largest farm operators in Ukraine will produce about 40% of wheat, 60% of corn, 55% of sunflower seed, 85% of sunflower oil, 80% of rapeseed, 40% of total meat output and 20% of milk, however without explaining the base for these estimations.

3.4 Trends within the crop and livestock sector

3.4.1 Crop sector

Over half of Ukraine's arable land is composed of the agriculturally rich 'black soil' (chernozem), which is ideally suited for crop production. In fact, about one-third of the worldwide stock of chernozem soil is located in Ukraine (von Cramon-Taubadel et al., 2008). Non-surprisingly, Ukraine was traditionally considered as being the 'bread basket' of the Soviet Union, producing about 60% of its maize, 50% of its sugar beet, and more than 40% of its wheat and sunflower seed, all this on about only 15% of the total Soviet Union's arable land (World Bank, 1995).

Cereals (primarily wheat, corn and barley), oilseeds (primarily sunflower, recently also rapeseed and soy bean) and potatoes dominate Ukrainian crop production. Wheat, barley and sunflower seeds together cover about 70% of Ukraine's total arable land. The sugar beet, fodder crops and fruit and berries areas strongly reduced in the last 10 years (Table 7). Grains have been traditionally the leading crops in Ukraine, occupying more than 50% of all sown area

¹ With the introduction of an operational land cadastre in 2012, restrictions on land sales may be lifted soon. Latest information on the state of play regarding the land market in Ukraine can be obtained e.g. from the websites of the State Agency of Land Resources of Ukraine (www.dazru.gov.ua) and the Center for Land Reform Policy in Ukraine (www.myland.org.ua).

a decade ago and nowadays. The most impressive expansion is observed in oilseeds crops (Table 7), as a result of the high demand for rapeseed in the EU (mainly for biodiesel production).

Table 7 Changes in cropping area 1990-2011, Ukraine				
Crops	Average crop-ping area 1990-1992 (1,000 ha)	Average crop-ping area 2009-2011 (1,000 ha)	Change (%)	Production in 2011 (m t)
Grain and leguminous crops	14,386	15,550	8.1	56,747
Sugar beet (factory)	1,554	452	-70.9	18,740
Sunflower	1,626	4,514	177.6	8,671
Potatoes	1,555	1,419	-8.7	24,248
Vegetables open ground	478	470	-1.5	9,833
Fruits and berries	669	257	-61.6	1,926
Fodder crops	1,1754	2,578	-78.1	1,896

Source: based on the State Statistics Service of Ukraine (SSSU, 2012, 2008).

Yields in Ukraine of the main grains (wheat, barley and corn) have been around 2.7 tonnes per hectare in the most recent years, showing a downward trend over the last decade (World Bank data). At these levels Ukraine's cereal sector is performing at similar level as Turkey, yet yields are slightly less compared to those in Poland (3.2 t/ha) and Romania (3.3 t/ha). Ukraine's yields of wheat and barley are about 50% of an EU average, and far below yields in France, UK and Germany. For oilseeds (mainly sunflower seeds) yields achieved were 1.7-1.9 t/hectare in most recent harvest years (FAS USDA, 2012), which is close to yields in Poland and Romania. In recent years the trend in Ukraine's sunflower seed yields is upwards.

Ukraine traditionally exports cereals and oilseeds. Due to the good harvests exports of wheat, barley and maize, the country's exports for the year 2012/2013 are expected to amount to more than 6m tonnes of wheat, almost 2m tonnes of barley and 13m tonnes of maize (Tarassevych, 2012a). With these volumes the country is an important supplier of cereals at international markets. Next, Ukraine is also a significant exporter of oilseeds, mainly sunflower oil and meal (3m tonnes in 2011/2012) and rapeseed oil (1m tonnes in 2011/2012) the latter especially to the EU for biofuel purposes. Ukraine is in-

creasingly exporting soybeans: in 2011 already 1.1m tonnes and in 2012 1.3m tonnes, largely sold to Middle East countries and Italy.

With its fertile soil, Ukraine's grain sector is in principle well-positioned to consolidate its important position at the world markets for cereals and oilseeds. While Ukraine's wheat productivity is much below EU's major producers, the country's production costs are estimated to be about 50% lower than those of other well-established European cereal exporters. Furthermore, the country's geographical position between West-Europe, Middle east and North-Africa guarantees low cost of exports to these cereal net-importing regions. At the same time, OECD (2012) points at several challenges the sector should tackle to improve its international competitiveness and use its market opportunities. Investments in better quality inputs, modern machinery and better storage facilities could enhance current productivity levels importantly, while investments in quality improvements would increase the ability to process the commodities importantly, and therefore improve the sector's overall competitiveness.

Potato is the most significant crop among all vegetable crops cultivated in Ukraine; the country is the fifth world producer of potatoes following China, Russia, India and USA. According to Vozhegova and Balashova (2012), southern regions of Ukraine are more competitive compared to the Northern and Central territories in potato cultivation. This is because they already have irrigation systems and can better cope with changing climate conditions resulting in frequent draughts, observed in all territories of Ukraine. Southern regions focus on cultivation of early varieties of potatoes, as well as ware potato production for consumption in winter season. Imported seed potatoes are stored, yet with high percentage of loss (up to 30%) and the quality of seed material is often degraded due to potato disease; the sector generally experiences a high level of virus pressure.

Table 8 Potato and vegetables production in Ukraine (1990-2011)								
	1990	2005	2006	2007	2008	2009	2010	2011
Potato production total, m t	16.7	19.5	19.5	19.1	19.5	19.7	18.7	24.1
Potato production by households, %	71.4	98.6	98.4	98.0	98.0	97.2	97.4	97.5
Yield ware potatoes (Dutch), 1000 kg/ha	45.0	43.1	41.2	44.5	46.3	46.9	45.3	47.0
Yield starch potatoes (Dutch), 1000 kg/ha	44.0	44.5	37.6	42.0	45.5	45.1	39.5	44.0
Yield potatoes (Ukraine), 1000 kg/ha	11.7	12.8	13.3	13.1	13.9	13.9	13.2	16.8
Vegetables production, m t	6.7	7.3	8.1	6.8	8	8.3	8.1	9.8
Vegetables production by households, %	26.9	89.3	87.9	89.6	86.1	86.6	88.1	84.3

Source: based on the State Statistics Service of Ukraine (SSSU, 2012, 2008) and Binternet of LEI (BINternet, 2013).

Potato production has been relatively stable over the last years, with 2011 showing a very good harvest. Average yields during the last decade amounted to 13-14 tonnes/ha, which is substantially lower than in the Netherlands (see Table 8), Germany and some other EU countries (DUCATT, 2011), although some of the best (commercially-oriented) farms may reach yields over 40 tonnes/ha. About 97% of potatoes are produced by households, thus resulting in easy spread of diseases and low quality. Seed potatoes are not bought but the harvest of last year is used for planting. According to DUCATT (2011), gradual increase of yields in Ukraine is associated with the introduction of modern technologies, use of more productive varieties, and systems of irrigation. Furthermore, lack of appropriate storage facilities and quality control systems lead to discrepancies between Ukraine's and international standards on potato quality and food safety. Investments in better seed quality, in warehouses and in technical skills is necessary to improve the sector's productivity performances. For being able to invest in productivity and quality improvements the sector's accessibility to credits has to improve (DUCATT, 2011).

Table 9		Production of vegetables in greenhouses and open area, 2000-2011							
		1990	2000	2005	2007	2008	2009	2010	2011
Vegetables area total,	1000 ha	447	519	464	449	458	456	468	504
Vegetables, open area									
Vegetables open area, % to total		99.5	99.5	99.4	99.4	99.4	99.4	99.4	99.4
cucumbers, 1000 t		144	586	557	599	606	703	678	770
tomatoes, 1000 t		1,466	1,020	1,338	1,270	1,357	1,864	1,651	1,933
cucumbers, 1000 ha		55	61	53	49	48	50	50	55
tomatoes, 1000 ha		101	106	93	84	80	83	82	85
cucumbers yield, 100 kg/ha		26	95	106	122	126	140	135	140
tomatoes yield, 100 kg/ha		145	96	144	151	170	226	200	229
Vegetables, protected area									
cucumbers, 1000 t		163	123	131	144	146	180	182	196
tomatoes, 1000 t		76	107	134	136	141	177	173	179
cucumbers, ha		1,168	1,285	1,284	1,298	185	1,384	1,389	1,481
tomatoes, ha		728	1,060	1,008	1,127	1,101	1,212	1,196	1,332
cucumbers yield, 100 kg/ha		1,393	958	1,023	1,112	1,134	1,299	1,308	1,326
tomatoes yield, 100 kg/ha		1,045	1,005	1,330	1,205	1,280	1,462	1,450	1,340
NL cucumbers yield, 100 kg/ha			6,184	6,973	6,969	6,833	6,949	6,551	
NL tomatoes yield, 100 kg/ha		40,63	4,727	4,714	4,567	4,563	5,000	4,794	4,794

Source: State Statistics Service of Ukraine (SSSU, 2012b), The Netherlands Central Bureau of Statistics (CBS, 2012).

Vegetable production comprises a wide range of products, of which tomatoes, cabbages and cucumbers are major types accounting for about 50% of Ukraine's total vegetable production volume (UCAB, 2012c). This total vegetable production shows an increasing trend over the last decade, from some 7m tonnes from 2004 to 2007 to 8-10m tonnes in the years since then (Table 9). Overall, yields are generally low, also because production takes place on many small plots. Dutch yields for vegetables produced in greenhouses are 3-6 times higher than in Ukraine or other main producing countries as seen in Table 9 and Van Galen (2010).

In the greenhouse sector, energy consumption constitutes the biggest part of production costs. For example, in the Netherlands, this is about 27% of the total cost of greenhouse vegetables, in Ukraine where energy efficiency is lower than in the Netherlands, it is about 47% (Van Winden, 2013). According to experts, Ukrainian growers need Dutch energy efficient technology (NCH, 2013). Overall, the energy efficiency in agriculture in Ukraine is three times lower than the EU average, even for the best scoring regions in energy efficiency, like Zapоріжжя, Dnipropetrovsk, and Kherson (Gladkiy et al., 2012). Given double increase of gas prices in 2011 (from USD285/1,000m³ to USD575/1,000m³), the price of locally produced greenhouse vegetables is higher than that of imported vegetables from Turkey, Spain, Morocco. Russian imports of Ukrainian vegetables are expected to continue playing an important role for the coming medium term and thus strengthening of the sector competitiveness is on the agenda (Kucherenko, 2013).

Similar deficiencies are observed in potato and vegetables production. There is a shortage of qualified labour, storage facilities and modern production and harvesting technologies, while insufficient capacities to implement postharvest handling of products (sorting, packaging etc.) and a lack of laboratories to assure up-to-date quality control services reduces the volume and quality of the produce marketed (UCAB, 2012c). There is an increasing trend in vegetable consumption in Ukraine, especially tomatoes (Wijnands et al., 2012), that might further grow with income growth. There is a growing demand for high quality vegetables from modern retailer and there is insufficient production to meet this demand (Rozendaal, 2013). Yet, in order to use these opportunities the sector needs access to finance for investments in operational activities and in fixed assets. While the official data (Table 9) estimates the area under glasshouses of about 310 ha in 2011, experts estimate the total area of about 8500 ha of greenhouses under plastic and glass, and about 6000 ha of tunnels (Tenduis and Streljok, 2011). According to the estimates of (UCAB, 2012c), only about 60 ha of greenhouses in 2011 are modern. The Ukrainian government plea for an increase in the area under modern protected agriculture up to 450 ha by year 2020 (APK-Inform, 2013). In 2013, about 53 ha of modern greenhouses will be built, as voiced by the agriculture Minister Nikolai Prysyazhnyuk (Rozendaal, 2013). To meet this demand for construction of greenhouses and their successful operation, a transfer of knowledge and skills to this growing and highly intensive sector is to be followed. During the trade mission of greenhouse sector representatives from Ukraine to the Netherlands, Ukrainian companies showed much interest in switching to alternative energy sources for their greenhouses (NUSECO, 2012). Emphasis was made on the energy efficiency in

the greenhouses, as this question became a burning issue of today's Ukrainian greenhouse business, with the constantly growing gas prices.¹ Establishing so called Centers of Excellence where Dutch know-how is demonstrated, accompanied with regular trainings, could be a channel for technology and knowledge transfer (see also under Section 3.4.2 and an example of Indo-Dutch collaboration (EZ, 2013). Further details on the horticulture sector perspectives and challenges can be found in available studies (Tenduis and Streljok, 2011; UCAB, 2012c). Ongoing activities on for example training in potatoes production and post-harvesting, organized through collaborative Dutch projects, are listed in Appendix 3.

3.4.2 Livestock sector

The livestock sector underwent significant changes during the economic and political transition period between 1990 and 2000. Livestock production decreased by about one-half to one-third of the total value of agricultural output during that decade. The main reason for this decrease was a strong drop in demand for animal products, caused by a decline in Ukrainian real per capita income of more than 60% during the transition period (World Bank and OECD, 2004). The effects of the decline in real per capita income on demand for animal products were particularly pronounced because animal products have higher income elasticity than other food products (World Bank and OECD, 2004).

Milk production takes mainly place on small household plots (80%, see Table 9). Thus, the supply side is characterised by an underdeveloped infrastructure for the provision and distribution of milk. It is difficult for households to capture economies of scale in production due to a lack of capital and investments, low productivity and low marketing ratios. In the early 1990s, the milk processing capacity in Ukraine amounted to 18m tonnes of milk, but only around 6m tonnes of milk have been processed during the last years of the 2000s, leaving a big part of the processing capacity unused. According to Leeuwen et al. (2012) and OECD (2012), there seems to be great export potential for the Ukrainian dairy sector, however most production facilities of the dairy

¹ In this context it is also interesting to point at possible synergy effects of large agricultural companies investing in greenhouses next to livestock production where conventional energy resources can be substituted by biogas UCAB, 2012c. The greenghouse sector in Ukraine. Association 'Ukrainian Agribusiness Club', Kiev, p. 78. Since 80% of milk is produced by households, there could be opportunities for biogas installations in villages with no gas supply. Successful projects are financed via SNV in e.g. Vietnam, resulting in improved energy efficiency and delivering gas for cooking. These examples may be applied in Ukraine too.

industry are outdated and investments in modern facilities would be needed. Apart from this, the key issues to realise the Ukrainian export potential in the dairy sector would be higher efficiency and productivity of dairy cows (Table 10) and also improved quality of the milk produced. It is observed that lately investments in more productive dairy cows are taking place. Furthermore, dairy farmers are supported by the government with coupled premium payments for milk (Leeuwen et al., 2012).

Table 10 Milk and meat production in Ukraine (1990-2011)								
	1990	2005	2006	2007	2008	2009	2010	2011
Milk production total, m t	24.5	13.8	13.3	12.3	11.8	11.6	11.3	11.1
Milk production by households, %	23.9	80.4	81.4	82.0	81.9	80.8	79.9	79.6
Number of dairy cows, 1,000 heads	8,528	3,635	3,346	3,096	2,856	2,737	2,631	2,582
Dairy productivity, kg/cow								
Ukraine	2,874	3,796	3,975	3,973	4,132	4,238	4,295	4,299
The Netherlands	6,897	8,267	8,429	8,538	8,574	8,542	8,603	8,710
Meat production total, 1,000 t	4,358	1,597	1,723	1,912	1,906	1,917	2,059	2,144
Meat production by households, %	28.9	63.2	57.3	51.9	48.6	46.1	44.9	43.3

Source: based on (CBS, 2012; SSSU, 2011, 2012, 2008).

To date, the Ukrainian dairy industry is suffering from a permanent deficit of raw milk supplied for processing. A shortage of cows, lack of organized livestock breeding and bureaucratic barriers have caused dairy prices to surge, the head of a leading Ukrainian dairy company Milkiland shared in an interview to the Kyiv Post (Kyiv Post, 2011). On average, in 2007-2011 over half of the produced raw milk did not reach the processors. Literature review presented in (Puchko, 2011) signals that the technical efficiency of Ukrainian dairy farms on average could be 60% higher than currently achieved, without attracting additional resources. Puchko also shows the excellence of the Dutch dairy farms over Ukrainian ones with regard to all managerial and financial aspects. Farms in the Netherlands are more productive with respect to growing feed and milk yield per cow is twice the average yield in Ukraine (8,000 kg/cow versus 4,000 kg/cow; see Table 10). With regard to labour and land use, Dutch dairy

farms produce six times more kilograms of milk per hectare of cultivated area and almost six times more milk per labour hour.

The quality of raw milk is one of the major problems in the Ukrainian dairy sector, as signaled by various studies. Regarding the EU as export destination, Ukraine faces problems as the domestically produced raw milk and dairy products are of such low quality that even the highest quality milk from Ukraine is not exportable to the EU ((OECD, 2012) The issues of raw milk quality and harmonisation of existing Ukrainian milk quality standards with the EU ones are of the core priority in Ukraine under the ongoing free trade area establishing negotiation with the EU. In light of strengths and weaknesses of the Ukrainian dairy sector as presented above and in the literature (Kulyk, 2011; Puchko, 2011; TEBODIN, 2013b; UCAB, 2012b), the following opportunities for Dutch business are outlined. For Dutch technology providers and input suppliers, opportunities exist in delivering technology and equipment for dairy processing (like cheese, baby food), packaging and storage. Advisory services can be provided in the area of production technology, but also marketing and distribution, both at the governmental level and to private businesses. Quality of the produce is high on the agenda when addressing adoption of EU standards. Thus, training towards quality improvements, assistance in quality tests and overall guidance towards product certification would deliver long-term benefits to the sector. Import of high quality dairy products (deserts, ice-cream, baby-food) is expected to remain stable. Since the lack of qualified personnel is mentioned as one of the key threats, organisation of Centers of Excellence, possibly linked to facilities of the Dutch farmers already active in Ukraine, with demo fields and trainings to either university graduates or to farm specialists, can be a sustainable solution for co-operation.

Ukrainian beef production is mostly based on dual purpose cattle, with milk being the determining output. Production fell from 700,000 tonnes by the mid-2000s to 400,000 tonnes in recent years (FAO). Low yields and semi-subsistence farming affected beef production in the past. Investments are needed to bring a turnaround to improve feeding and management practices that should lead to rising slaughter weights.

Pork and poultry meat production trends are up, especially since the mid-2000s, with poultry showing the strongest annual growth. In recent years, attractive prices (the country is a net-importer of pork) and relatively cheap feeds has attracted investment from domestic and foreign sources in the pork industry (Tarassevych, 2012a). The Ukrainian poultry industry is now very concentrated, with the three biggest producers having a market share of about 75%, and about 50% of the Ukrainian domestic poultry production is concentrated in

the two biggest companies. The biggest producers are vertically integrated companies. In the last years, the big companies invested in building-up significant resources for further integration, e.g. into arable land acquisitions to produce company-owned fodder crops and into bigger production facilities and slaughterhouses (Tarassevych, 2012b). These investment will contribute to the sector's ability to compete both at domestic and international markets. With regard to the EU market, access depends very much on complying with EU standards on food safety and quality. To date, ongoing upgrade of the Ukrainian veterinary-sanitary control system together with multiple deficiencies found by EU inspections suggest technical ability to export in 2-4 years for pork and 4-9 years for beef (Tarassevych, 2012a).

3.5 Key challenges for Ukraine's agri-food sector

Referring to its fertile land, low labour cost and pre-1991 performances, Ukraine is considered to have huge agricultural potential (EC, 2009; Leeuwen et al., 2012; OECD, 2012). However, the potential has not been used in the last two decades because of several severe institutional bottlenecks. Estimates of what is achievable indicate that the agri-food sector (primary and processing) operates far below its capacity and could produce up to five times as much compared to current levels (IFC, 2011). In order to unlock the potential, the sector faces major challenges of which a few are emphasised below.

First, Ukraine's business and investment climate is rated as very poor by numerous international comparative research and indices, and the same is the dominant feeling of domestic business community (DG for External Policies, 2012). This poor performance is largely due to weak institutional arrangements and a lack of enforcement of laws and regulations (see also Section 2.4). According to IFC (2011), agribusiness is underdeveloped in Ukraine, largely because of failures in regulatory issues. An over-regulated permit process, excessive and ineffective inspections, and overly prescriptive and costly technical regulations systems are among the main barriers to business development in Ukraine. Moreover, government policies (taxes, subsidies) change frequently and business continues to respond negatively to such changes as it creates uncertainty about current and future profitability, the latter being especially important for encouraging producers to make long-term investments in production capacity and quality improvements. According to the survey results polled over

a wide variety of sectors across Ukraine (Boyko et al., 2012) the agriculture sector perceives policy instability as its priority problem (Figure 13).

Second, lack of adequate policies on land ownership pose a serious constraint to further sector development. Land ownership is limited and constrained by a moratorium on land sales, while land ownership registration is incomplete. Hence, there is no efficiently operating land market, while deficiencies in land registration limits access to credits as land cannot act as collateral. Access to finance is an overall problem and should be improved (Boyko et al., 2012). According to (BE Berlin Economics, 2011), the provision of loans to agriculture in Ukraine is low compared with several benchmark countries, despite the very lucrative investment opportunities that are available.

Next, standards on food safety, health and hygiene play a vital role in the present agri-food system. Following the findings of IFC (IFC, 2011), outdated food safety regulations, inconsistent with (and in some instances, in breach of) international standards, limit the export potential of Ukrainian food products and impose additional and unnecessary costs of compliance with Ukrainian state regulations in the food sector amounting to 7% of total product costs.

Fourth, poor infrastructure and marketing systems inflate agricultural commodities' costs. Farmers receive much less than world market prices due to export taxes. Certification requirements and other trade procedures are complicated and add costs to trade across borders. Furthermore, there is a serious lack of modern equipped storage facilities, putting pressure on producers to quickly sell their produce after harvest (Millns, 2010). Lack of pricing according to grading does not encourage producers to improve quality of their products as quality improving investments are not rewarding.

Fifth, there is a huge gap between the skills of Ukrainian graduates and the needs of Ukrainian employers (BE Berlin Economics, 2011; Boyko et al., 2012). According to Executive Opinion Survey 2011 (Boyko et al., 2012), one in five employers considers poorly qualified employees a problem for their business; 6% of executives believe it is the biggest problem. In terms of sectors, food processing and agriculture suffer the most difficulties as a result of poorly qualified employees. In these sectors, 29% of (food processing) and 26% of (agriculture) business executives noted that poorly qualified employees hinder the operation of their business. According to the Association 'Ukrainian Agribusiness Club' (UCAB, 2012d), the importance of training of young professionals of working specialties for the needs of modern agricultural enterprises is one of the major factors, hindering the development of agricultural production. The most wanted specialists are agronomist, veterinarian, livestock specialist, machinery

operator. Only 6% of agricultural companies need accountants, economists and analysts.

The above mentioned list of challenges is surely not complete, but covers most of the issues mentioned in Figure 13. The main features of the challenges listed point at deficiencies in Ukraine's regulatory framework and in the country's institutional infrastructure, which is underdeveloped compared to what a market-driven agricultural system needs. The European Bank for Reconstruction and Development (EBRD, 2012) points at the difficult transition period Ukraine finds itself in, also because the country experienced a significant worsening in the external environment (with economic growth slowing down in many countries). Further reforms are necessary to improve the ease of doing business, to enhance competition between firms and build institutions that will increase the sector's efficiency and productivity. Transition from a planned to a market economy is a long-term process that needs persistent investments in consistent reforms, something which is underlined by the experiences of (at least some of) the countries in the region that became member of the EU. Yet, these examples also point at the importance of being integrated with and connected to other economies. Ukraine's future trade policy is therefore of great importance in determining its speed and pathway of institutional reform, which is necessary to enhance its international competitive position. In the next chapters the prospects for development of Ukraine's agri-food sector are evaluated in the context of the country's process of further regional integration, whether this is (closest) with its western or (closest) with its eastern neighbors.

Figure 13 **Most problematic factors for business by industry - by the share of respondents who picked a factor as a problematic, 2011**

	Ukraine	Agriculture	Construction	Electricity, water and gas supply	Extractive industry	Hotels and restaurants	Manufacturing	Other services
Tax regulations	61	53	65	57	66	72	61	62
Corruption	57	50	66	54	55	56	56	57
Policy instability	46	53	48	37	37	33	45	48
Tax rates	33	35	29	36	22	39	32	34
Inflation	32	28	36	28	30	50	32	34
Inefficient government bureaucracy	29	22	22	27	39	39	29	27
Local and national government instability	29	31	30	33	24	33	29	30
Permit and licensing system for doing business	24	18	28	30	32	22	24	28
Access to financing	24	29	28	30	20	11	23	22
Inadequately educated workforce	22	26	18	21	18	11	29	20
Regional customs policy	17	10	4	3	10	17	26	11
Inadequate supply of infrastructure	16	21	11	18	13	22	16	17
Crime and theft	11	15	10	13	9	17	9	14
Restrictive labour regulations	10	10	9	13	4	22	10	13
Poor public health	10	14	3	15	9	11	10	10
Access to land plots	10	16	11	5	22	17	8	10
Poor work ethic in the national labour force	8	8	6	5	13	6	7	9
Foreign currency regulations	5	3	3	6	4	0	6	3

Source: Executive Opinion Survey 2011 (Boyko et al., 2012).

4 Main drivers of agri-food developments in Ukraine

Key findings

- Recent economic growth performance has been modest, and short term prospects are pessimistic. Growth may resume, but is highly depended on policy and institutional reforms, and the global economic recovery.
- Overall consumer demand for food is depending on economic growth and population growth; population is declining and GDP growth will be slow, at least in the short term.
- Modern food retail increases its market share and increasingly determines product and process standards.
- Agricultural support varied over time and has an ad-hoc nature. A much more stable agricultural policy environment aiming at productivity and quality enhancements would contribute to improvements of the sector's competitiveness.
- Ukraine is member of the WTO. The EU applies the Generalised System of Preferences to imports from Ukraine. EU protection is highest for cereals and meat, via tariffs and restrictive tariff rate quota.
- Present exchange rate policy, now part of an overall macro-economic stability policy, is not favourable to exporters.
- The EU is already an important market for Ukrainian agri-food exports; the size of the market offers Ukraine high opportunities to expand if its agri-food sector can comply with EU standards. In case of a DCFTA, access to the EU market may improve especially for cereals and meat.

4.1 Economic growth

The prospects for the Ukrainian agri-food sector are strongly influenced by the economic growth rate and the growth rate of consumer demand. In October 2012, the IMF predicted an annual GDP growth of around 3.5% for the coming 5 years (2013-2017) (see Table 11 and IMF(2012a)). However, early 2013, economic forecasts were revised downwards for the short run: Erste Group Bank AG, for instance, cut its forecast for Ukraine's 2013 economic growth from 3 to

1.5% as steel exports fell and domestic consumption stagnated (Choursina, 2013). Moreover, this bank expects inflation to reach 14% in 2013, which is far above the 2% in 2012 and much more than IMF projected in October 2012. Also other analysts forecast relatively modest and prudent economic growth figures for 2013, referring among others to the difficult situation the banking sector is in, the fiscal deficits and the high interest rates that negatively affect investments. Center for Social and Economic Research, for instance, states that smooth economic growth in 2013 will hang on two critical assumptions: 1) that the IMF stand-by programme that was introduced in July 2010 to help stabilise the financial sector will continue, or at least that the Fund will offer some positive signal, and 2) that the National Bank will finally manage to devalue the hryvnia by 5% to 10%, without triggering catastrophic chain reactions. If those challenges are accomplished, CASE estimates a gradual revival of growth in 2013, with 1.4% expansion of GDP (Dubrovskiy and Boyarchuk, 2012). Yet, in its April 2013 Outlook, IMF became less positive about Ukraine's growth perspectives in the short run, followed by estimates of the EBRD projecting an 0.2% and 1% GDP growth respectively for 2013. BMI (2013) also downgraded its overall economic outlook for the country, from a previous forecast of 1% to projecting a minus 0.5% growth for 2013 and an average economic growth not reaching an annual 2% growth from 2012 to 2017.

Ukraine's economic growth is closely connected to price developments of natural resources, mainly mineral deposits such as iron ore and manganese ore, and to developments in its heavy industry and the energy sector. Next to domestically produced nuclear power and hydroelectricity, Ukraine has to import 80-90% of its oil and natural gas needs, mainly from Russia. Disputes over prices have led to several economic conflicts with Russia, which makes the country's economic development vulnerable to energy prices set by its neighbor. And Ukraine's main industries, especially its metallurgy and chemical sector, are very energy-intensive.

Following a decade of robust growth, the Ukraine economy slowed down in 2008 and came to an abrupt halt in 2009. The general economic decline in the world and its subsequent fall in the demand for steel, metallurgic and chemical products led to a 15% drop in the country's aggregate output. Investments, export and imports fell drastically, affecting overall output significantly. Also private consumption fell sharply already in 2008 due to poor income performance, reduced credit supplies, and rising unemployment (OECD, 2012).

Economic growth resumed in 2010 to a positive 4% growth; a robust recovery, compared to the relatively low performance in 2009. In 2011 Ukraine recorded 5% economic growth, which however slowed down again in 2012 as a

consequence of plummeting demand for Ukraine major export products. Ukraine export performance deteriorated in 2009 due to the slow restoration of the global economy, while an overvalued exchange rate affected Ukraine's competitive position at world markets negatively (see Section 4.5 for explanation of the country's exchange rate policy).

The projections for the medium term are highly uncertain, and depend very much on government's reform policies that should enhance overall economic efficiency. In this context it is worth to refer to a 2012 OECD report (OECD, 2012) that addresses major bottlenecks for further development and formulates sector competitiveness strategies to overcome these bottlenecks. Strengths are identified in the abundance of the country's natural resources (huge areas of fertile agricultural land and a wide variety of mineral resources), a strategic location between Russia and Central and Western Europe, and a well-qualified labour force. However, the industry - major part of the economy - is highly energy-intensive and inefficient, while the country's specialisation in commoditised sectors such as steel and reliance on external demand makes the country highly vulnerable to price volatility. Moreover, the country's business environment is qualified as poor: corruption, lack of implementation of investment policy legislation and weak contract enforcement discourage foreign investments. OECD's major recommendations emphasize the need to remove barriers to investment and to adapt and apply a legal and regulatory framework that is attractive to both domestic and foreign investors.

Turning to agriculture - a sector wherein Ukraine has many opportunities to become internationally competitive according to the OECD - the main challenges are to enhance the sector's productivity and increase value added production. To achieve results, improved access to financial resources, reform of land market, and the further development of institutional services, such as credit information services, collateral registration, and market information services are recommended. Also, quality standards (for milk and for grain) should be raised to EU or international benchmarks, which can be improved, among others, with better aligning human capital with the sector needs. Specific interventions include, for example, human capacity building programs in the fields of veterinary medicine, feeding efficiency, animal husbandry skills and management.

	Economic outlook for Ukraine: main indicators						
	2009	2010	2011	2012e	2013e	2014e	2018e
GDP (% change) growth	-14.8	4.1	5.2	0.2	0.0	2.8	3.5
Consumer prices (% change)	15.9	9.4	8.0	0.6	0.5	4.7	5.0

Note: Estimates for years 2012-2018.
Source: IMF (2012b), IMF (2013).

4.2 Consumer demand and retail development

The population of Ukraine is estimated to be 45.6m, making it the second largest consumer market in Central and Eastern Europe after Russia. Ukraine's population is characterised by the increasing number of elderly and a slowly decreasing population. Average income was about USD4,000 per capita (IMF, 2012b) which is below the levels in neighbouring countries Belarus, Russia, Poland and Rumania. Note, however, that this is the official number, that will not capture the size of the shadow economy which is estimated to be 40-50% (Tarassevych, 2012a). Food accounts for around half of household expenditure.

Generally, increasing income levels are the driver to changing consumer preferences from cereal-based food items to a food basket more filled with dairy, meat (pork and poultry meat), fish, fruit and vegetables, and more demand for processed (prepared, pre-packed, convenience) food. These tendencies were noticed in Ukraine, but most dynamics took place in the period 2000-2008 when income levels grew strongly. Then, with a significant decline in incomes food sales per capita stagnated, even fell, until household expenditure went up again in the course of 2011. In 2012, per capita food expenditure was estimated an almost 8% increase, while the five-year forecast to 2016 is 50% (BMI, 2013a).

Also during the years 2000-2008 the structure of the food retail sector changed tremendously, with modern supermarket formats taking over market shares of the tradition outlets as small private shops 'around the corner' and direct sales on open-air markets (Tarassevych, 2012a). The rise of the supermarkets in the country - of which several foreign retail chains - is particularly crucial for the development of the rest of the food supply chain, as they require timely and stable supply of good quality food, complying with international food safety, packaging and quality standards. Supermarkets carry a larger product assort-

ment than traditional groceries and offer their products generally against very competitive prices due to benefits of their scale. However, in Ukraine the growth of the retail sector is mainly confined to the major cities where supermarkets account for an increasing part of all food sales. In the more remote areas, food is still largely sold via markets and roadside stands. Yet, supermarket chains spread their wings and penetrate the smaller cities too, with investments picking up again in 2012 after a few years of being on hold. Experts estimate their current market share at 43%, which is expected to grow in future (Tarassevych, 2012a). This implies that supermarkets determine increasingly the standards products have to comply with, and to which the domestic food industry and its suppliers (farmers) have to respond in order to maintain their competitive position against foreign supply.

The sheer scale of Ukraine, its poor transport infrastructure, and an absence of experienced third-party logistics operators make the supply chain and distribution problem a key element in the further development of the grocery chains and the food retail sector as a whole.

4.3 Agricultural policy developments

Ukraine agricultural policy objectives refer to increased food security and enhanced efficiency and international competitiveness of the sector, next to a rural development programme (OECD, 2011). Ukraine's government applies a variety of support measures to its agricultural sector, such as price support, per tonne payments, sugar quota, input subsidies, concessional credits and investment grants, next to trade policy measures like tariffs and tariff rate quota (OECD, 2011). In a OECD comparable analysis (based on the producers support estimate methodology) support levels are modest on aggregate, but variable over the years (between 5 and 10% of farmers total revenues; in the EU this share has been reduced from 30% in 2005 to around 20% in 2010). Also, there are significant differences between sectors and the aggregate numbers disguise taxation of export sectors (wheat, maize, sunflower seeds) and protection of import sectors (sugar, pig meat, poultry and beef are most protected sectors).

Agricultural budget over the past years have been subject to budget austerity provisions and fell by around 20% in real terms in 2010-2012. Moreover, Government interventions have been criticised for their ad-hoc nature and their negative impacts on farmers revenues as a complex taxing system, post-harvest regulations and ad-hoc trade restrictions ultimately reduce farm-gate prices (Nivievsyki, 2012). Agriculture sector development would benefit from a

more stable policy environment, with a focus on productivity and quality enhancing instruments and less ad-hoc interventions that have a negative effect on the sector's export performance.

Since 2001, agricultural land in Ukraine is not allowed to be sold or purchased. The non-functioning farm land market is hindering structural change and reducing finance and investments, leading to reduced growth and development prospects for the agriculture and food sectors. The government has repeatedly declared its commitment to lift the moratorium on farmland trade by 2012 (SALR, 2011), but it is not yet there.

4.4 Trade policy developments

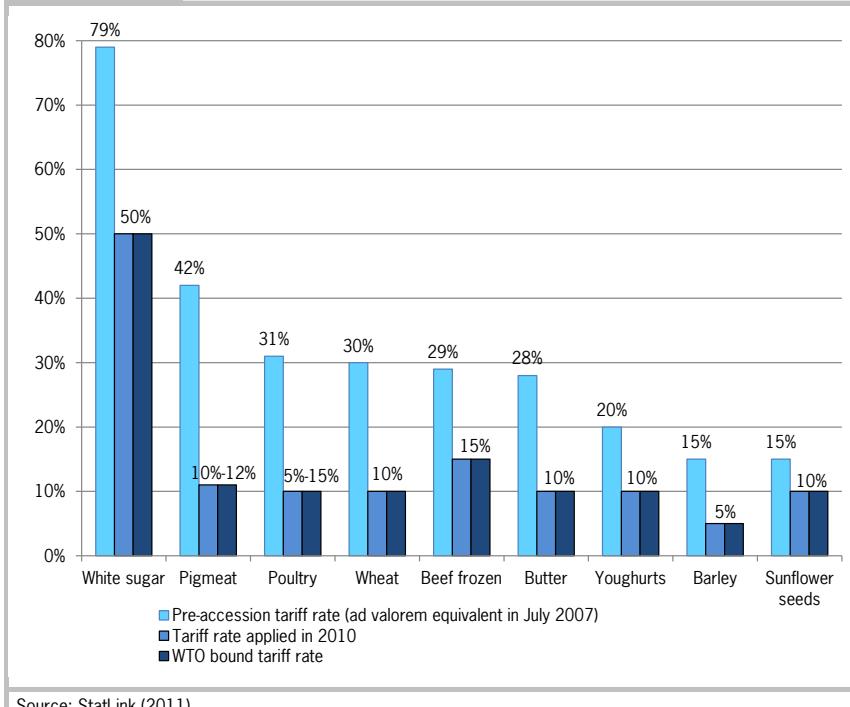
On 16 May 2008, Ukraine became a member of the world trade organisation (WTO). With membership, Ukraine brought down its tariff regime to the WTO requirements. The tariffs that Ukraine imposes have been complying with the WTO bound tariff rates since 2010; for the adjustment to the WTO bound tariffs for key agri-food products see Figure 14. In general, the Ukraine's WTO membership, as well as joining the International Convention on Simplification and Harmonisation of Customs Procedures and the Convention on the Temporary Import, can be considered as crucial steps towards the development of a transparent and efficient trade regime in the country, which benefits export-oriented and domestic businesses alike. However, according to a OECD review of Ukrainian policies, considerable work remains in order to bring the regulatory base to conformity with the WTO commitments (OECD, 2011). In particular, the national laws on standards and certification and on the protection of consumer rights require amendments in Ukraine, and new technical regulations for a list of products must be developed (see Section 3.5).

Following Ukraine WTO membership, Ukraine considerably reduced tariffs on its agri-food imports in general, and the applied tariffs imposed on EU27 plant and animal products have been small. However, Ukraine has implemented trade policy measures beyond tariffs, in particular export restrictions on grains. Export restrictions are not compatible with the WTO, and Ukraine will thus need to address them at the multilateral level of trade agreements.

With regard to Ukraine's access to the EU27 market, the EU27 has been applying a Generalised System of Preferences (GSP) (unilateral preferential treatment) to exports from Ukraine since 1993. In 2010, the GSP utilisation rate reached a level of 72% of the eligible products, which are covered as preferential imports under the GSP. Preferential imports include machinery and mechanical appli-

ances, plants, oils, base metals, chemicals and textiles. However, other products such as grain, seeds, fruits and plants products as well as fish have not been granted GSP benefits and are restricted by tariffs and quotas. In particular, the tariff rate quota system the EU applies on grains is likely to be liberalised within the DCFTA, with Ukraine being increasingly granted more duty free quota. Similarly, Ukraine is likely to request the opening of the EU27 markets for meat products, which the EU has well protected by quotas and tariffs due to the EU27 (and Dutch) defensive interest towards meat and meat products. See Appendix 2 for the detailed information on Ukraine and EU27 tariffs in bilateral trade on selected agri-food products.

Figure 14 Ukraine's import tariff rates on key agricultural products before and after WTO accession



Source: StatLink (2011).

4.5 Real exchange rates and agricultural trade

The sector's position against foreign competition is not only affected by trade policy measures like import tariffs and quota, but also by the exchange rate. A change in the real value of a currency takes into account not only movements in the currency's nominal exchange rate, but also the difference in price inflation between the country in question and its trading partners. The real exchange rate thereby captures all the main variables that affect the price competitiveness of a country's domestically produced tradable goods vis-à-vis foreign products. As part of the country's efforts to combat the severe effects of the global economic and financial crisis, Ukraine's currency the hryvnia devaluated nearly 60% in the years 2008-2010. This improved the sector's price competitiveness at international markets relative to competitors significantly. However, since 2010 further depreciations have been modest as part of the government's decisions to keep hryvnia exchange rate fixed in a continually effort against speculation to further devaluations and to reduce capital outflows. Yet, inflation has been relatively high in 2010 and 2011 (see Table 11) and the country's exchange rate policy resulted in an exchange rate that is generally considered overvalued in dollar and/or euro terms, implying that Ukraine products are relatively expensive at international markets while imports are cheap. Overall, the recent exchange rate policy of the financial authorities in Ukraine did not foster the agricultural sector's competitiveness. A transition towards a more flexible exchange rate policy seems possible only when policy reforms to reduce the fiscal deficit and the trade deficit have been successfully implemented and confidence in the banking sector has been restored.

4.6 Developments in Ukraine's trade partners

Ukraine's agricultural prospects also depend on the developments in countries that are now of major importance to Ukraine's export performances. 2010 Trade figures indicate that the EU is Ukraine's most important market for agricultural products, exporting 22% of Ukraine's total agricultural export of €10.5bn to the Union (COMTRADE, 2013). Russia is ranked second followed at some distance by Egypt and Turkey (Table 12).

Table 12 Economic growth prospects in Ukraine's major markets for its food products: EU, Russia and several other countries

Country	Share of destination in Ukraine's total agricultural exports (%)	Annual economic growth projected by IMF 2012-2017 (%)	Market size (in million inhabitants)	GDP per capita (USD, 2012, estimated by IMF)
EU	22	1-1.5	500	35,000
Russia	18	3.5-4.0	140	13,700
Egypt	7	2-6	82	3,100
Turkey	6	3.5-4.5	75	10,450
Kazakhstan	3	5.5-6.5	16	12,000

Source: United Nations Commodity Trade Statistics Database (COMTRADE, 2013).

Economic growth in the EU is sluggish, already for several years and IMF projections (IMF, 2012b) are showing a continuation of slow growth. However, the size of EU's market is huge and affluent, making this an interesting sales market for Ukraine products, if they can comply with EU's product and process standards. The Russian market might show more dynamics in the years to come, as the Egyptian, Turkish and Kazakhstani market, yet these are all countries with much less purchasing power than the EU citizens.

5 Prospect for Ukraine agribusiness: possible scenarios EU DCFTA or RBK CU

Key findings

- DCFTA accelerates the deepening of economic relations between Ukraine and the EU. A DCFTA implies investments in the whole food supply chain aiming at improved efficiency, better quality and complying with international standards of food safety. Next to (short-term) costs this will result in significant benefits as it will open up markets in and beyond the EU.
- Ukraine's agricultural development opportunities also dependent on policy reforms - see Chapter 4 on Drivers.
- Joining the CU could be strategic choice securing energy imports from Russia. However, the CU market for Ukraine's agricultural products is much smaller than the EU and would offer little opportunities in markets beyond the EU as institutional reforms to improve competitiveness would be delayed or fail to occur.
- A free trade agreement between Ukraine and the EU is not feasible when Ukraine joins the RBK CU, as the EU will not conclude FTA's with non-WTO members.
- Ukraine could benefit from a combination of DCFTA with the EU and a free trade agreement with RBK CU since it reduces trade barriers with both blocs. It is however, highly uncertain whether current CU members would allow the EU preferential access to their market through its agreement with Ukraine.

5.1 Ukraine's integration into the international economy

Ukraine is in the process of further regional integration with its neighbours. The country is intensifying its relations with the EU, negotiating about an association agreement of which a draft text of an agreed (yet not ratified) deep and comprehensive free trade agreement is part of. At the same time the country is considering the invitation to join the customs union formed by Russia, Belarus and Kazakhstan (RBK CU). This chapter is to discuss the two sets of regional integration in terms of how it will contribute to Ukraine's overall economic growth

and prosperity, and more specifically to the competitiveness of the country's agri-food sector.

Box 1 Signing the EU-Ukraine DCFTA

The European Union and Ukraine initialled the Deep and Comprehensive Free Trade Area Agreement (DCFTA) on 19 July 2012. The next step is that EU member states and Ukraine sign and ratify the agreement. Whether the DCFTA agreement will be signed and implemented is still an open question and depends on the existing political conditions. Sadowski (2012) comments that on the one hand, the repression imposed by the government in Kyiv on its political opponents (including the detention of the former prime minister, Yulia Tymoshenko) has provoked criticism from the EU, which refuses to sign the agreement if the government in Kyiv continues to violate democratic principles. On the other hand, Russia is increasingly active in its efforts to involve Ukraine in the integration projects it has initiated (the Customs Union and the Eurasian Economic Community). It should be noted that Moscow has effective instruments to exert its will, such as the dependence of the Ukrainian economy on supplies of Russian oil and gas and on exports to the Russian market. Besides, Moscow also has political instruments at its disposal.

Before the agreement comes into effect, it must be signed and then ratified. Some member states are pressing the Commission to enable temporary implementation of the DCFTA after it has been signed (which is possible within a timeframe of between one and two years) but before its ratification (which can take place within three or four years at the earliest). However, EU-Ukraine relations are deadlocked now due to the detention of Yulia Tymoshenko. If the Ukrainian government continues to violate democratic standards, the European Union's consent to the implementation of the DCFTA will be very unlikely.

Source: Sadowski (2012).

5.2 Scenario 1: Quick ratification of the DCFTA

The idea of a Deep and Comprehensive Free Trade Agreement goes beyond the traditional concept of trade liberalisation and, apart from the elimination of tariffs in trade of goods, it also includes the reduction/ removal of non-tariff barriers (regulatory harmonisation of product and process standards), investment rules, competition policy alignment, regulation of service provision, a dispute settlement mechanism and institutions to monitor the implementation of the agreement (Dabrowski and Taran, 2012).

The DCFTA between the EU and Ukraine is based on two key elements. Firstly, it envisages a liberalisation of trade through lifting customs tariffs, import quotas and other barriers (legal, technical and procedural) to trade. The agree-

ment also states that Ukraine will liberalise regulations on investments and services. Secondly, Ukraine undertakes to adopt EU laws, norms and standards concerning trade under the agreement. The agreement includes a schedule for adopting individual EU regulations, including those concerning sanitary and phytosanitary measures, technical regulations, customs procedures, investment law and the rules for operation of foreign companies, competition rules, state aid to business entities, principles which regulate the operation of some branches of the service sector, including financial services, telecommunication, maritime transport, postal services, etc. The agreement also includes a guideline on equal conditions for doing business for business entities (important concerning public procurement) and on protection of intellectual property rights and geographical indication (see for further details, Appendix 1).

Ratification of the DCFTA would imply: general economic gains, especially for Ukraine.

Model simulations report positive net welfare gains for Ukraine in case of a DCFTA between Ukraine and the EU (Dabrowski and Taran, 2012; Movchan and Shportyuk, 2011; Nekhay et al., 2011).¹ These economic gains are generated by improved access to a large market, lower non-tariff barriers, better business and investment climate, which will prompt the inflow of investments and technologies, and improved access to markets of third countries by harmonizing Ukrainian standards with the EU's.

From the economic point of view, the implementation of the DCFTA agreement will primarily be significant for Ukraine (Movchan and Shportyuk, 2011). This is due to the huge disproportion existing between these two markets - the EU with 500m consumers and a GDP of €13 trillion, the world's largest market, and the Ukrainian market, which is less than one-tenth times the size in terms of the number of consumers, and which placed the 54th in the world regarding its GDP level. Economic co-operation is much more important for Ukraine than it is for the EU. While for Ukraine the EU is the second largest trade partner after Russia (in 2010, the EU accounted for 28.6% of the trade), Ukraine is of secondary importance for the EU (being only the 22nd largest trade partner, with a

¹ A study by the Eurasian Development Bank (a regional bank founded by Russia and Kazakhstan to promote economic integration) reports a 1.5% GDP loss for Ukraine if it signs the DCFTA EABR, 2012. Comprehensive assessment of the macroeconomic effects of various forms of deep economic integration of Ukraine and the member states of the Customs Union and the Common Economic Space (http://www.eabr.org/general/upload/reports/Ukraina_doklad_eng.pdf). Eurasian Development Bank, Centre for Integration Studies, Saint Petersburg, p. 44. This outcome is, however, difficult to evaluate as the specifications of the economic model applied and assumptions underlying the scenarios are not transparently presented.

share of 1.1% in trade) The implementation of this agreement, which provides for part of the *acquis communautaire* to be adopted by Ukraine and the liberalisation of trade and investment regulations, will not bring any changes into EU legislation. The agreement will have an impact not only on the trade co-operation between Ukraine and the EU, but also on the operation of Ukraine's entire internal market (Dreyer, 2012).

The estimates published so far, based on the calculations made with computable general equilibrium models, point to a potential increase in cumulative welfare gains (producers, consumers, government) for Ukraine in the long term at a rate between 4% and 11%. While, in turn, in the case of the EU, this indicator will not exceed 1% (Dabrowski and Taran, 2012; Movchan and Shportyuk, 2011). The establishment of a DCFTA with the EU would clearly be in the economic interest of the country. Ukraine's exporters would have a better access to a large and stable market and, at the same time, Ukrainian companies would be able to import advanced capital goods at relatively lower prices, thus improving their competitive position.

DCFTA ratification may have positive effects on the food industry, but negative effects for several agrifood commodities.

There is no comprehensive, nor an unambiguous evaluation yet of the impact of the implementation of the DCFTA agreement on individual sectors of the economy. According to Sadowski (2012), the branches of the Ukrainian economy which could benefit from the agreement in the long term include the clothing, wood, metallurgical, food (food production) and machine-building industries. In turn, the agriculture, service and light manufacturing sectors may face a decrease in income, according to this author. However, the evaluations in this context vary. For example, agriculture is mentioned among the sectors which will lose (Emerson, 2012), while some simulations indicate that food manufacturers could increase their incomes by €393m in Ukraine and €860m in the EU (Nekhay et al., 2011).

In case of a DCFTA, Movchan (2011) forecasts an additional growth of real GDP in Ukraine by 6.2% in the long run. However, long-term economic impact will be accompanied by short-term costs as the study shows: about 1% of skilled workers and 3.5% of unskilled workers will probably have to find a new job due to changes in the economy that are the result of new conditions of competition. For business, FTA will mean the creation of new opportunities through duty-free access of Ukrainian goods to the largest market in the region and improved access to markets of third countries by harmonizing Ukrainian standards with the EU's. Business will benefit from an improved internal regula-

tory climate. Simultaneously, business expenses are likely to be associated with adaptation to the new regulatory environment and standards. Increased competition in the domestic market will have painful consequences for the weakest companies, Movchan and Giucci predict (Movchan and Giucci, 2011).

A study by Nekhay et al. (2011) provides a model-based quantitative assessment of the potential impacts of a FTA on agricultural commodity markets in the EU and Ukraine. In this study results indicate a positive change in agri-food producers' revenue of €393m in Ukraine and of €860m in the EU. Thus, this FTA entails opportunities for the agricultural sectors of both trading partners. However, gains from a FTA are not distributed equally and vary significantly among commodities. The authors show that some agricultural commodities (for example wheat in the EU and Ukraine, SMP, WMP, butter in Ukraine, etc.) would lose in case a full liberalisation of trade between Ukraine and the EU would occur. Depending on the commodity the economic loss can be explained by decreases in producer prices (e.g. for wheat and coarse grains) or decreases in the quantity produced (e.g. SMP, WMP and pork). The changes in exports of Ukraine to the EU are negative for wheat, coarse grains, butter, SMP, pork and poultry; and positive for rice, cheese and beef & veal. At the same time, consumers benefit from better quality and more diversified products and services against lower prices. The presumption made by this study is that Ukraine's standards (on food safety, animal welfare, quality etc.) are harmonised with those of the EU, something which needs investments and reforms, as indicated by other studies (like those referred to above).

Ratification of the DCFTA would imply: Investments in the agri-food chain to comply with EU standards on quality and food safety.

Ukraine food and agricultural sector needs to apply the trade *acquis communautaire*, meaning that EU standards on quality and food safety would apply to all food companies and farms. The food processing sector in Ukraine has developed rapidly (again mainly in the period up until late 2008) but its further development is currently impeded by inadequate domestic raw agricultural products and limited export possibilities. Only a few food processors comply with the EU quality requirements and packaging standards (some in dairy, others in meat).

Hence, adopting the trade *acquis* would require major investments in the whole agri-food supply chain; at primary and processing level. Also, increased competition on the domestic market will result in food chain restructuring. The EU could assist with money and technical assistance both in encouraging investments in compliance with EU standards as well as with rural development programs to

help reallocate factors of production. EU has also indicated its willingness to assist Ukraine with solutions to reduce its energy dependency from Russia.

The current draft document of the DCFTA (EU, 2012) does not provide information about concrete EU support programmes, but enhanced co-operation in terms of information exchange, knowledge transfer and financial assistance (EU funds) is mentioned. Such co-operation shall particularly focus on small and medium enterprises and shall improve on the situation in rural areas. The draft DCFTA states that Ukraine will be able to participate in EU programmes under the plans for European Neighbourhood and Partnership Instrument as well as EU external assistance but specifically mentions the Ukraine obligation of a financial contribution to the EU funds made available (possible payable in terms of some kind of co-financing) as well as requirement of strict reporting and evaluation procedures. It can thus be expected that the EU will provide financial assistance to Ukraine in the context of the DCFTA, building upon the experience gained with the EU support to help the new member states in Middle and Eastern Europe adjust to EU standards. An example of such support provided to restructuring of the energy sector in 2013-2016 with the total assistance fund of €45m can be found on the website of the European Commission (EC, 2012).

5.3 Scenario 2: Ukraine is joining Russia, Belarus and Kazakhstan

Instead of ratifying the agreement with the EU, Ukraine could align with the former Soviet republics Russian, Belarus and Kazakhstan (RBK) and become a full member of the Customs Union with these three countries.

Key elements of the RBK Customs union are:

- A common Customs Code; the Union was built on 92% of Russian custom tariffs, effectively doubling the external average tariff of Kazakhstan (Russia's recently-approved membership in the WTO will lead to the revision of customs duties within the Customs Union).
- The Customs Union covers trade in goods, leaving aside trade in services and the free movement of capital and persons.
- Standards on sanitary and phyto-sanitary (SPS) conditions on food and agricultural products and technical barriers to trade (TBTs) on goods are based on the Soviet system of standards regulation (GOST) using mandatory technical regulations. Technical regulations are decided at the level of the Customs Union (where mandatory technical regulations are being harmonised, no mutual recognition agreement exists).

Joining the CU could have a number of implications discussed below.

CU membership implies: Trade focus on CU members, a 165m consumers' market with a common GDP of €1.7 trillion.

A CU (common border and common import tariffs) with three CIS countries would strengthen Ukraine's trade relations, especially with Russia. The Eurasian Development Bank Center for Integration studies projects significant positive effects for all four member states in case Ukraine joins the CU; Ukraine's GDP could be 6-7% higher in 2030 than its GDP under the baseline scenario (EABR, 2012).¹ In the agricultural domain both Russia and Ukraine are complementary at some (especially livestock products) markets as Russia needs imports of dairy and meat products. Belarus, though, is also a net exporter of dairy products and hence a big competitor for Ukraine at the Russian market. Next to dairy products Ukraine's major agricultural exports are fresh and processed fruits and vegetables, vegetable oils, cocoa (products) and beverages.

CU membership implies: Regulatory convergence with Russia, the dominant player in the CU

Given that RBK does not have a reputation as leading economic reformers (see also 'EBRD, 2012), regulatory convergence could result in investment climate deterioration (unless all partners converge to best international practices). Indeed, the CU requests institutional reforms that are in line with what the CU members decide upon, which is not necessarily the same as international standards; up to now the Russian laws (e.g. on certification procedures, on quality and product registration) and interpretations of those laws have been taken as the CU rule for trade procedures. These procedures may divert significantly from international standards; an example is the way Russian authorities grant export access to foreign companies, not only the exported product should meet Russian standards but also the production site of the exporting company (for some examples of trade practice where Russian requirements diverting from international standards hamper trade, see Van Berkum and Dvortsin (2011)). Next, as a rule Russia's external tariff is taken as CU's external import tariff. Russia's external tariffs of agricultural products are generally higher than those of Ukraine, implying an increased protection rate with regard to trade with third countries.

The trade relations with the EU would be negatively affected as trade preferences will be granted to neighboring countries, namely the members of the CU,

¹ See footnote 6.

and Ukraine's import tariffs would effectively increase towards Russian levels. This also has to be negotiated within the WTO, a possibly costly affair as other member countries might request compensation or impose additional duties on Ukrainian goods.

Further orientation on RBK could have an impact on the energy market.

Increased regional integration could lead to lower import prices of oil and gas from Russia. However, energy is a highly strategic good, oil and natural gas are Russia's major foreign exchange earning commodities and, hence, Russia may not be inclined to offer favorable terms on oil and gas deliverances to CU members. Yet, if Russia does, the import price reduction may even increase the dependency on Russia as a source of energy as it provides dis-incentives to develop domestic energy extraction and/or investments in energy-saving techniques.

With joining the CU Ukraine aligns with partners which are not fully integrated into the global economy. Belarus and Kazakhstan are not a member of the WTO and they do not adhere to internationally accepted standards of food quality and food safety. Furthermore, Ukraine would increase agricultural protection rates against imports from third countries, giving preferential treatment to CU suppliers. Advantage is that competition at the CU market might be easier than at the demanding, saturated EU food market, and hence requires less structural reforms both in the supply chain as well as in policies than would be necessary to fully comply with international standards. Yet the latter would imply the Ukrainian agricultural sector would have difficulties to compete at the non-CU market which is of much importance to Ukraine's economy and the agricultural sector too.

There is a limited number of general studies on the benefits and costs of Ukraine's possible membership in the Customs Union. Yet, while the costs and benefits of the EU-Ukraine DCFTA have been calculated and are publicly discussed, similar estimates are lacking concerning the Customs Union (Shumylo-Tapiola, 2012). As concluded under scenario 1 (in the previous section), a deeper integration with the EU will cost Ukraine - both the state and businesses - in the short run, as it implies costs of compliance to EU standards, a possible closing down of companies in some sectors and job losses). However, it promises to have clear welfare benefits in five to ten years (Movchan and Shportyuk, 2011). It may also send a positive signal to foreign investors and create new possibilities for Ukrainian goods and services on EU markets through the improvement of norms and standards. The Ukrainian economy is supposed to become more transparent and the rules of the game for businesses are likely to improve significantly.

5.4 Scenario 3: Alternative 'in-between' scenarios

5.4.1 EU-Ukraine bilateral trade agreement while Ukraine joins RBK CU

This scenario combines Ukraine's membership of the CU with Russia, Belarus and Kazakhstan with a free trade agreement with the EU. Such a trade agreement between Ukraine and the EU is much less ambitious than a DCFTA, and would be narrowly focusing on reducing tariffs and/or non-tariff barriers to a limited degree. Yet, should Ukraine be a member of the CU, a free trade agreement with the EU will be an agreement with the CU, not with Ukraine only. The EU, however, does not establish a free trade agreement with a region that includes non-members of the WTO, which is the case with Belarus and Kazakhstan. Therefore, in this context a free trade agreement between Ukraine and the EU is not feasible. Trade between the two blocs - EU and CU - could for instance be enhanced by further agreements on trade facilitation. In practice this could imply agreements on non-tariff measures and investments, reducing certain bottlenecks to trade and investment between the two regional blocks. Supposedly that Russia would accept being involved in such a scenario, it may result into improved access for the EU to the Russian market, a huge and important market for the European Union, while Russian products would be offered improved market entry conditions to the EU. However, the assumed (mutual) benefits in the trade relations with Ukraine under the DCFTA will not be achieved.

5.4.2 DCFTA between Ukraine and EU, plus a free trade agreement with RBK CU

An alternative scenario has been proposed by premier Yanukovych, which has declined all invitations by the Russian leadership and has instead insisted on the '3+1' formula of simple free trade between Ukraine and the Customs Union. A European choice remains the main declared direction for the country.

This option would imply the following:

- Due to a simple free trade agreement Ukraine-CU trade will increase because of reduced tariffs and non-tariff barriers.
- Increased trade may imply structural adjustment in Ukrainian agri-food sector as increased competition from CU may affect some sectors negatively.
- EU exports to Ukraine may benefit from improved market access to CU, using Ukraine as transit country; rules of origin procedures could avoid such an effect.

Ukraine-EU DCFTA continues to be implemented (with assumed [short-term] costs and [long-term] benefits as indicated under scenario 1) while Ukraine's trade relations with CU member states are enhanced. This option would be feasible in the context of WTO membership, without leading Ukraine to have to renegotiate WTO commitments. It would offer Ukraine the possibility to remain closely connected to the CU countries and benefit from the current trade opportunities that will be enhanced, while at the same time it will gain from aligning with EU standards and the subsequent commercial benefits such an alignment may have at EU markets and beyond. There are no studies investigating possible effects of this scenario. Impacts on trade flows and welfare effects will depend on the specifications of such a scenario, or, in other words, one would have to know how comprehensive a 'free' trade agreement between Ukraine and the CU members would be.

These 'in-between' scenarios are rather wishful by the Ukrainian government. Ukraine hopes to create a free trade area (FTA) with both the European Union and the Customs Union in 2013 (INTERFAX, 2013) Statement by president Yanukovych regarding the willingness of Ukraine to accede to all the provisions of the Customs Union, which are not inconsistent with its international obligations and rules of the World Trade Organization ((UKRINFORM, 2013a) on the one hand and the fact that two weeks later the president has vested National Security and Defense Council Secretary with the authority to coordinate activities in the field of Ukraine's European integration (UKRINFORM, 2013b) illustrates the country's wish to elaborate a workable 'in-between' option. However, political leaders at both side Russia and the EU emphasize that the CU and the European Union are mutually exclusive for Ukraine, in an attempt to force Ukraine to make a choice for either the 'eastern' or the 'western' Union membership (Bespalova, 2013)

6 Impact of DCFTA on the Dutch trade opportunities with Ukraine

Key findings

- For both the EU and Ukraine holds that average duties on agricultural imports are not high, and maximum duties significant in only a few product categories. Therefore, impacts of import tariff reduction on bilateral trade flows are most probably modest.
- Next to prices EU (and Dutch) imports from Ukraine will be driven by quality and other product attributes than prices. To date Ukraine's agrifood sector needs further quality improving investments in order to use the opportunities that improved market access to the EU offers.
- In case of a DCFTA Dutch export opportunities in Ukraine increase for all its traditional export products (dairy, potatoes, horticultural products), input supplies and services including knowledge transfers. Yet, the use of these will be highly dependent on Ukraine's resuming economic growth and the speed of institutional improvements that are key for improving the current business environment.

6.1 Introduction

As said in Chapter 5, a DCFTA implies a regulatory harmonisation, which entails much more than only a reduction of import tariffs. Besides that, as bilateral (EU and Ukrainian) import tariffs on agricultural products are generally not that high, main effects on trade will occur because of a reduction of non-tariff trade barriers. This chapter summarises the main effects for the Dutch agribusiness from the two perspectives: an improved market access for Ukraine to the EU and for the EU to Ukraine.

6.2 Dutch defensive interests

A DCFTA will (eventually) imply an abolishment of all EU import tariffs on agricultural and food products. Currently Ukraine's exports to the EU are already liber-

alised to a large extent thanks to the Generalised System of Preferences (GSP), which the EU granted to Ukraine in 1993. In agriculture, preferential imports under the GSP include for instance plants and vegetable oils. Furthermore, about a quarter of all agricultural products can be sold duty-free by Ukraine exporters on the EU market as part of the most favoured nation (MFN) clause, since in 2008 Ukraine became member of the WTO. Ukraine's agricultural exports to the EU (and to the Netherlands) are not significant: around USD450m (€325m) in 2008 and 2011, and much less in 2009 and 2010 (see Chapter 2), in which oilseeds dominate - in some years Ukraine supplies 20-25% of Dutch imports on rapeseed and of sunflower seed. Apparently current trade conditions imply that Dutch imports from Ukraine trade relations are little except for specific types of oilseeds.

The question is how this will change if tariffs are being reduced or eliminated under the DCFTA. Table 13 shows EU's 2012 average ad valorem import tariffs (as % of the export value) of agricultural products (on a 2 digit level for HS01-24); these are the tariffs Ukraine's agricultural exports face when entering the EU. Although some specific tariff lines (most detailed at the 8-digit level - see for additional information Appendix 2) may be quite high, generally the average EU applied import tariff is relatively low, with the highest protection registered for the milling industry products (HS11), preparations of meat (HS16) and vegetable and fruits (HS 20), and tobacco (HS24) (see Table 13).

The Netherlands may have a defensive interest in the product categories with the highest tariff protection, such as meat preparations and preparations of vegetables and fruits, or tobacco. A reduction of import tariffs for these categories to eventually zero could imply that imports from Ukraine increase significantly because they become more price competitive. Current imports of these products from Ukraine have a particular low share in total Dutch (and EU) imports of these products. However, other factors than prices are also important in international competition, such as quality and taste. Key is to what extent Ukraine's exporters would be able offering the quality levels (standards) requested in the Netherlands and/or the EU to become really a competitor of the Dutch agrifood sector on its main markets. To date, Ukraine's agri-food sector is not ready to outperform competitors on quality.

As reported in Chapter 3, key weaknesses of Ukraine's agricultural sector are its low productivity and poor quality of the raw material produced. Therefore, the sector is in need of further investments. In order to attract investors - domestic and foreign - institutional and economic reforms are necessary to improve the overall business environment. However, such reforms are highly unlikely in the short term given the political and economic outlook in early 2013.

Reform of agricultural land ownership remains incomplete, with an effective moratorium on land sales in effect until some political compromise is achieved. On a positive note, the government is beginning to aim for higher FDI involvement in agriculture and other industries, recently lowering corporate taxes (BMI, 2013a). A perspective of a signing of a DCFTA will increase the pressure for institutional reforms. Yet, effects of such reforms will not occur overnight, meaning that Ukraine's use of promising market opportunities that a DCFTA might offer its agricultural sector will take quite a while to be realised.

Table 13 EU and Ukraine most-favoured nations import tariffs on agricultural products

HS code (1)	EU MFN applied tariffs a), b)						Ukraine - MFN applied tariffs a), b)					
	Number of TL (2)	Number of AV duties (3)	Average of AV Duties (4)	Minimum AV Duty (5)	Maximum AV Duty (6)	Duty Free TL (%) (7)	Number of TL (8)	Number of AV duties (9)	Average of AV Duties (10)	Minimum AV Duty (11)	Maximum AV Duty (12)	Duty Free TL (%) (13)
01 Live animals	65	33	1.2	0	11.5	55.6	64	64	4.1	0	15	37.1
02 Meat	248	62	5.1	0	15.4	19.1	231	231	13.1	5	20	0.0
04 Dairy products	172	11	5.8	0	17.3	5.7	170	170	10.5	5	20	0.0
05 Products of animal origin, etc.	20	20	0.1	0	5.1	98.3	22	22	14.0	0	20	20.0
06 Live trees and other plants	55	55	7.1	0	12	13.3	48	48	8.0	5	20	0.0
07 Vegetables	122	94	8.5	0	15.2	14.4	107	107	14.2	0	20	4.0
08 Fruits	136	112	5.9	0	20.8	20.1	132	132	6.9	0	20	34.7
09 Coffee, tea etc.	50	50	2.3	0	12.5	68.2	48	48	1.8	0	20	79.0
10 Cereals	62	7	5.4	0	12.8	6.7	57	57	8.3	0	20	11.5
11 Milling	71	6	12.2	7.7	19.2	0.0	80	80	17.7	10	20	0.0

industry												
12 Oilseeds	74	71	1.2	0	8.3	73.1	73	73	4.9	0	20	48.2
13 Lacs, gums etc.	14	14	2.3	0	19.2	66.7	13	13	1.0	0	10	90.0
14 Veg. planting mat.	5	5	0.0	0	0	100	5	5	2.0	2	2	0.0
15 Fats and oils	120	113	5.0	0	16	20.0	33	33	10.0	0	30	0.0
16 Meat prep.	38	19	15.0	10.2	15.4	0.0	45	45	15.0	10	20	0.0
17 Sugars etc.	44	3	11.4	8	13.4	0.0	47	47	17.5	5	50	0.0
18 Cocoa and cocoa prep.	27	7	6.1	0	9.6	18.2	29	29	4.5	0	15	45.5
19 Prep of cereals	51	2	10.7	8.5	12.8	0.0	51	51	11.9	0	20	5.3
20 Prep. Veg. & fruits	304	229	17.5	0	33.6	0.7	339	339	10.1	0	20	1.3
21 Misc. ed. Preparations	39	23	9.3	0	14.7	9.4	45	45	10.5	0	20	0.7
22 Beverag- es	303	58	3.9	0	32	41.9	181	181	2.8	0	10	54.5
23 Residues etc.	63	28	0.0	0	0	100.0	65	65	15.0	0	20	100
24 Tobacco	21	10	44.7	10	74.9	0.0	31	31	8.8	1	20	0.0

Source: WTO 2012 Integrated Database notifications. Notes: a) TL = Tariff line; AV = ad valorem; b) next to ad valorem tariffs (in % of the export value), the EU has quite a number of specific tariffs in €/tonne (difference in TL in column 2 and 3), while Ukraine applies no specific tariffs (TL in column 8 is equal to TL in column 9).

Next to full tariff reduction up to zero the EU and Ukraine have offered each other a number of tariff rate quotas (TRQs) (See EU Ukraine AA, pp.261-268). These TRQ's refer to maximum annual volumes that can be imported duty-free. Major products under the EU TRQ offer are meat (beef: 12kt; pork: 40kt; poultry: 40kt), dairy products (milk powder: 5kt; butter 3kt), sugars (40kt) and cereals (common wheat: 1,000kt; maize: 650kt; barley:350kt). Ukraine on its turn has offered TRQs for imports into Ukraine from the EU on pork meat (20kt),

poultry (20kt) and sugars (20kt). Ukraine's offer is modest, where the EU allows a significant volume of Ukraine's cereals to come in duty-free. For the Dutch livestock sector, the latter may have favourable effects, as cheap imports of cereals for animal fodder purposes may reduce their feed costs. EU's TRQs offered to Ukraine on meat is not that significant as the EU27 imports 15 to 20m tonnes of meat on an annual basis (see Eurostat COMEXT data of recent years). However, Ukraine is presently exporting only very little meat to the Union. If Ukraine can comply with EU standards, the TRQs on meat may imply a significant increase of meat exports from Ukraine to the EU, seen from the Ukraine perspective. For the EU market and seen from the Dutch meat sector perspective, expected inflow of Ukraine meat and therefore competition from Ukraine is minor.

6.3 Dutch offensive interests

A DCFTA with Ukraine would open up the Ukrainian market for Dutch exports. Ukraine's agricultural sector is protected against imports with generally low tariffs: the overall simple average applied tariff rate is 11% while a simple average MFN applied tariff is 9.5% (WTO country website at wto.org, data 2010). In line with these averages Ukraine's applied tariffs on imports from the Netherlands (the EU) are relatively low too. For instance, average import tariffs on meat or ornamental plants - the two major Dutch export products to Ukraine - are around 10% (ranging between 5 and 20%). Import tariffs on sugar and confectionery and on beverages are much higher than the averages mentioned, indicating that the elimination of tariffs as a consequence of the DCFTA may mostly affect these two product groups, while the Dutch current major export products to Ukraine may face only relatively small reductions of trade costs due to lower tariffs. Dutch offensive interests in a DCFTA are most obvious in the commitment to apply EU trade-related rules included in the *acquis communautaire* and its related regulations and directives. The alignment of Ukrainian and EU standards will reduce trade costs between the two countries, which will provide incentives for the Dutch agribusiness across the board to export to Ukraine.

Interests in improved market access to Ukraine are particularly high for those Dutch agribusiness sectors who are traditionally export-oriented, such as the dairy sector, potato and a wide range of horticultural subsectors (vegetables, cut flowers, ornamental plants, etc). Next, input supplying companies from the Netherlands are also keen in exploring new export markets and, given the need for breeding stock, plant propagation material, greenhouses and livestock

stable interiors in accelerating Ukraine's agricultural development, reducing tariffs and non-tariff barriers may contribute importantly to increased exports from the Netherlands to Ukraine in these areas.

Yet, the use of these opportunities will be highly dependent on Ukraine's resuming economic growth and the speed of institutional enhancements that are key for improving the current business environment in Ukraine. The signing of the DCFTA document by the EU and Ukraine is therefore pivotal as it will encourage Ukraine to undertake the necessary reforms. In addition, a DCFTA will convince those in the Dutch agribusiness interested in doing business in Ukraine that there is political support to enhancing the bilateral trade and investment relations. A DCFTA provides the necessary level playing field to further explore the bilateral business opportunities.

7 Conclusions

Ukraine's agricultural potential only used with policy reforms and institutional development

The agricultural sector in Ukraine is generally credited with high potential, becoming a 'breadbasket' for Europe and the world. This potential is largely based on its favourable natural conditions, most specifically the black soils that cover about half of the country's surface. Yet, presently the sector's main challenges are to enhance the sector's productivity and to increase value added and quality production. To achieve results, improved access to financial resources, reform of its land market, and the further development of institutional services, such as credit information services, collateral registration, and market information services are strongly recommended in analyses on the sector's international competitiveness. Also, quality standards (for milk and for grain - these are agricultural commodities the country is expected to play a significant role at international markets) should be raised to EU or international benchmarks, in order to improve the industry's ability to process it. Quality can be improved, among others, with better aligning human capital with the sector needs. Specific interventions include, for example, human capacity building programs in the fields of veterinary medicine, feeding efficiency, animal husbandry skills and management. Ukraine is being supported by international organisations (like IFC, EBRD) and by activities supported via bilateral government-to-government programmes, among other by the Netherlands (see Appendix 3 for some examples).

Ukraine's agri-food sector development is strongly affected by the country's general economic situation. The global economic downturn in 2008/09 had a major impact in Ukraine. The agri-food sector is benefitting from the slowly resuming economic growth in the country (that has a positive effect on domestic food consumption) yet its main bottlenecks for increasing performance are not being tackled without reforms with regard to land markets, credit availability and agricultural policy support. Further agricultural development requires an institutional infrastructure that enables business investments aimed at increasing efficiency and quality improvements.

A DCFTA with the EU will accelerate institutional improvements in Ukraine

Different from joining the CU which does not require institutional reforms, Ukraine's institutional improvements will be accelerated by a DCFTA with the EU. Indeed, ratification of the DCFTA implies Ukraine accepts the DCFTA commit-

ment to adopt the EU trade acquis, which entails the implementation and application of EU norms, standards and practices through institution building. These applications are expected to result in increased efficiencies in Ukraine's agri-food sector. The EU will have to remain engaged in the implementation process, as Ukraine's institutional capacity might be expected to be too low for a smooth implementation process. Here is where the Netherlands can provide assistance on a government-to-government basis.

Such assistance is beneficial not only to the recipient country, but also to the Dutch agribusiness companies interested to export and/or invest in the country. The DCFTA will allow improved market access to Ukraine for Dutch products, whether these are supplies (machinery, greenhouses etc), agricultural commodities or food products. Both trade and investment relations need a stable business environment, in which among others contract enforcement is assured and business risks can be surveyed. The DCFTA is expected to improve the investment climate, making the agricultural sector also more attractive to domestic and foreign investors.

Ample Dutch opportunities in Ukraine's agri-food sector

Given the need for investments in order to increase efficiency and improve quality in Ukraine's agri-food supply chain the Dutch agribusiness has ample opportunities to benefit from the DCFTA either by exporting required inputs, commodities or food products, or by producing these locally. Typically, there is a need for up to date farm interior equipment, such as milking equipment, storage and cooling facilities. In the animal sector there is strong demand for expanding stocks with a genetic mark-up. Improvements in yields need investments in better quality of seeds, semen, animal feed, agricultural machinery, etc. The Dutch potato and vegetable growing performances are highly recognised world-wide. These are typically sectors in which Dutch products and inputs, next to services such as management assistance, training, advice, and knowledge exchange can make an important contribution in helping the Ukrainian sector perform better. The Ukrainian agri-food supply chain needs technical, economic and management information in order to become more efficient and competitive, surely when markets become more saturated and competitors more aggressive. This offers many opportunities for the Dutch knowledge system of education, extension and research, to offer its services to the (larger) companies and farms, and/or to the (regional) government(s). Whether these opportunities are used, will very much depend on the combination of resumed economic growth and an attractive business environment. Both the current eco-

nomic situation and the business environment in Ukraine need improvements in order to foster Dutch companies to start and/or expand business in Ukraine.

Ukraine a competitor at the EU market?

Will Ukraine become a serious competitor for Dutch agribusiness on the EU market in case the DCFTA is ratified? This is highly unlikely. Ukraine is a major producer of the commodities wheat, barley and rapeseed and produces sunflower oil from sunflower seed. Ukraine exports cereals to the EU, and large volumes of rapeseed and sunflower oil to the Union. These are products that do not compete with Dutch interest in the EU market; conversely, the Dutch agribusiness (livestock, vegetable oil processors, bio-fuel sector) may benefit from increased supply from Ukraine of the above mentioned commodities. In this context the increase of Ukraine's tariff free quota to export to the EU as part of the DCFTA would be welcomed by Dutch livestock producers. Generally speaking, the DCFTA is not expected to change the structure of Ukraine's exports to the EU significantly. Dutch exporters may face some more competition for dairy and meat products, so these product categories may also have some concerns about and defensive interests in the trade talks between the EU and Ukraine. Yet, for these products quality is an important attribute on which Dutch products should be expected to be able to stand competition from Ukrainian suppliers.

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Appendix 1

The DCFTA Guidelines

Sadowski (2012) summarises the main principles of the DCFTA and provides some clarification for each of them in the following way:

- lifting customs tariffs (import and export) on goods manufactured in the EU and Ukraine

In the case of some goods, tariff reduction is to be carried out gradually within a timeframe of up to ten years. Ukraine has maintained the option to use protection mechanisms on certain conditions within fifteen years of the beginning of the agreement's implementation, including imposing export duty on certain goods or keeping higher import duty on selected goods (for example, cars).

- removal of technical barriers to trade and import restrictions (with the exceptions admissible under the GATT rules)

The EU has maintained quotas in the case of some agricultural and food products imported from Ukraine (for example, meat and dairy products), and Ukraine has done likewise for those imported from the EU (for example, pork, poultry and sugar).

- Ukraine's adopting EU regulations, standards and laws in the area of trade
The agreement includes a schedule for adopting individual EU regulations, including those concerning sanitary and phytosanitary measures, technical regulations, customs procedures, investment law and the rules for operation of foreign companies, competition rules, state aid to business entities, principles which regulate the operation of some branches of the service sector, including financial services, telecommunication, maritime transport, postal services, etc.
- introducing the same rules for trade between the EU and Ukraine as those existing between the EU member states

These issues are to be regulated under the Agreement on Conformity Assessment and Acceptance of Industrial Products (ACAA), which is to be attached to the DCFTA as an additional protocol. In the case of Ukraine, the ACAA is intended to cover selected branches of the industry (but not the entire economy), and

envisages the adjustment of Ukrainian technical and infrastructural regulations and standards to EU legislation.

- equal conditions for doing business for business entities

Each party is to ensure the freedom to do business for companies from the other party operating in its area on the same terms as enjoyed by its own companies, and to refrain from discriminatory practices, with the exception of certain sectors (including mining, the arms industry, and maritime and air transport). This also concerns public procurement, where both parties are expected to treat business entities as their own, and Ukraine is supposed to gradually adjust its regulations to those applicable in the EU. At the same time, Ukrainian regulations concerning the flow of capital and investments are to be liberalised.

- protection of intellectual property rights and geographical indication

The list of protected names of goods includes approximately 3000 products from the EU (for example, cognac and champagne) and approximately 100 from Ukraine.

- dispute settlement procedures

These should have a greater influence than before on the other party in cases where provisions of the agreement are breached, and also in cases when the rights of entrepreneurs operating on the other party's market are violated. This is a serious problem now, especially with regard to securing the rights of firms from EU member states operating on the Ukrainian market.

- the energy sector

The free trade agreement refers to a smaller extent to energy co-operation, the basis for which is the agreements concluded as part of Energy Community. The DCFTA is primarily focused on issues concerning trade in energy and raw energy materials (setting prices, customs duties, infrastructural co-operation, and the transit and transport of energy). It is assumed that Ukraine will liberalise its energy prices. The provision-setting guarantees for the secure transit of energy raw materials are vital for the EU. Ukraine has undertaken to improve its own gas transit regulations. However, the provision on safe transit will have limited consequences, since none of the parties is able to influence the actions taken by third parties - in this case Russia, which is the key supplier of the oil and gas which are transported to the EU through Ukraine.

- the dialogue instruments

The agreement provides for the establishment of export committees and dialogue forums to handle individual areas of co-operation covered by the DCFTA.

Appendix 2

Import tariffs and TRQ in EU-Ukraine bilateral agricultural trade relations

Table 14 and Table 15 respectively provide an overview of the import tariffs imposed on EU27 exports to Ukraine and the ones imposed on Ukraine exports to the EU27. The tariffs are presented in terms of applied tariff rates for aggregates of HS product groups (using the standard aggregation method of import weighting according to tariff line). With the applied tariff rates, the actual tariff protection is revealed. The latest information available (year 2009) is presented with the focus on those agri-food products that have been identified as being important for trade between the EU27 (more specifically the Netherlands) and Ukraine (compare Section 2.2.2), and for which data are available that indicate the use of tariff-free import quota. The latter information, showing how much imports is coming in under a TRQ regime, is provided by WITS-Trains, yet its most recent year of registration is 2009.

The Ukraine average applied import tariffs on EU27 exports of live plants, including flowers, and meat products are mainly between 5 and 10%, with the largest number of tariff lines affected (see Table 14). While Ukraine tariff protection seems limited, it is important to note that Ukraine has applied both export restrictions and export duties on grains and oil crops in case of critical shortage of food products in the country (for instance in 2011 and 2012). There have been regular discussions on abolishing these trade barriers at international multilateral level, but they may also be addressed in the foreseen EU-Ukraine DCFTA.¹

Overall, the EU grants preferential market access to Ukraine but the lower preferential tariff rates are not always applied for agri-food products. For grains, the EU for example implements a system of tariff rate quota (TRQs), whereby the Ukrainian quota has generally been filled and thus, as described by the Europe-

¹ Note that the Ukraine government has been thinking on further export restrictions, in particular an export ban on wheat in order to keep prices in Ukraine under control, given the poor harvest and shortages of crops. Exports are expected to be limited to 5m tonnes for 2012; by November 2012 4m tonnes have already been exported (FAO, 2012. Monthly News Report on Grains. MNR Issue 87 - October 2012

(http://www.fao.org/fileadmin/templates/est/COMM_MARKETS_MONITORING/Grains/Documents/MNR_1210.pdf).

an Bank for Reconstruction and Development & FAO (2009), Ukraine is expected to ask for additional quota in the DCFTA negotiations.

As shown in Table 15, EU27 applied tariffs and preferential tariffs for cereals (HS10) and residues from food industries (HS23), in particular oil cake and other solid residues for animal feed, are rather low. For these products, about 90% of trade is free trade. Furthermore, oil seed exports (HS12) from Ukraine to the EU are also traded under the free trade condition. In contrast, meat products (HS2 and HS16) are not traded freely, but there are EU27 preferential tariffs. Tariff reductions would open-up the EU27 market for Ukraine, especially the EU27 meat market. In conclusion, meat can be considered to be a defensive interest for the EU27 and the Netherlands.

Table 14 Ukraine import tariffs on exports from the Netherlands, focus on relevant Dutch products (according to trade value and share), 2009					
Product group	Import value affected in 1000 USD	Ad valorem tariff equivalent in % (simple average)	Min	Max	Number of tariff lines affected
HS2: Meat and edible meat offal	25,726.2	11.1	10	15	30
HS6: Live tree & other plant; bulb, root; cut flowers	29,779.4	8.5	5	20	49

Source: United Nations Commodity Trade Statistics Database (COMTRADE, 2013) and (WITS-TRAINS, 2013).

Table 15 EU27 tariffs on exports from Ukraine, focus on relevant Dutch products (according to trade value and share), 2009

Product group	Import value affected in 1000 USD	Ad valorem tariff equivalent in % (simple average)	Min	Max	Number of tariff lines affected
HS2: Meat and edible meat offal	12.7	Applied tariff: 31.1	0	90.6	21
	12.2	Preferential tariff: 2.9	0	15.4	65
	0	Free imports			
HS16: Prep of meat, fish or crustaceans, molluscs etc	18.5	Applied tariff: 19.4	16. 9	33.3	4
	18.5	Preferential tariff: 9.4	0	21.5	28
	0	Free imports			
HS23: Residues from food industries, animal feed	14,513.1	Applied tariff: 11.36	0	151.2	63
	2,707.1	Preferential tariff: 0.94	0	4.2	6
	124,845.4	Free imports			
2306: Oil- cake and other solid residues, whether or not	116.95	Applied tariff: 2.32	0	46.5	8
	109,247.6	Free imports			
HS10: Cereals	1,139,521	Applied tariff: 14.1	0	48.2	62
	56.9	Free imports			
HS11: milling industry	3,333.2	Applied tariff: 38.5	3.6	68.9	38
	3,333.2	Preferential tariff: 8.6	4.2	15.7	6
	0	Free imports			
HS12: Oil seeds, misc. grains	4,593.8	Applied tariff: 0.25	0	4.8	49
	8,138.4	Preferential tariff: 0.83	0	4.8	6
	1,271,157.4	Free imports			

Source: United Nations Commodity Trade Statistics Database (COMTRADE, 2013) and (WITS-TRAINS, 2013).

Appendix 3

Addressing business opportunities in Ukraine

Table 16 Examples of current initiatives towards addressing business opportunities in Ukraine				
Issues addressed	Description	Level	Foreign countries involved	Reference
Food safety	The Ukrainian Ministry of Economic Development and Trade developed a draft law On Standardisation. HACCP quality control system will be introduced at all domestic enterprises.	Policy, multiple sectors		RBC-Ukraine (2012); ICP (2012c)
	Various companies work towards being HACCP certified. For example, the Frozen Group in Ukraine believes that retail networks will eventually refuse cooperating with non-certified companies.	Company		UCCA (2012)
	The Swiss Research Institute of Organic Agriculture (FiBL) will facilitate the integration of Ukrainian small and medium-sized enterprises into international trade through certified organic produce (until 2016).	Organic farming sector	Switzerland	Eisenring (2012)
Market infrastructure	The State actively supports service cooperatives in rural areas and is willing to allocate UAH 100m to support service cooperatives. The Government provides, for example, subsidies for young cattle. It is planned to create 1,500 agricultural service cooperatives.	Policy, Dairy sector		ICP (2012c)
	The number of investment projects increases due to the Memorandum of Cooperation between the Government and Business Community of Ukraine. It is planned to construct and renovate 91 agri-industrial facilities total UAH470m in Sumy oblast.	Sumy region, Policy and Business		ICP (2012b)
	Cold storage capacity in various places by Dutch business (for fruits and vegetables,	Kiev region, Kharkov	The Netherlands	Agentschap NL (2012b)

	dairy and meat products).	region		
Productivity and efficiency	The Danish project 2010-2013 'Providing Services to Manage Two Value-Added Chains of Agricultural Products in Ukraine' (Agro-Lviv) aims at increasing the productivity and profitability in the agricultural and processing sectors (milk, fruit and vegetables)	Lviv region	Denmark	ICP (2012a)
	The International Financial Corporation is expecting the new investments into the development of large scale milk production sector. IFC finances several projects of large agricultural operators	Agroholdings/ Business		Various, e.g. IFC (2012)
	For big and financially healthy market players in Ukraine the Dutch insurance company Atradius offers possibilities to get investment flows from the Netherlands. Exposure under the foreign investment insurance scheme totalled €195m at the end of 2011, of which €59m are for Ukraine.	Agroholdings	The Netherlands	Atradius (2011)
	Dutch farmers successfully operate in Ukraine. The UA Minister of agrarian policy and food, Mr. Prisyazhnyuk announced that there is a wish to have five Dutch farmers operating in each of the 24 regions in Ukraine	Farms	The Netherlands	Rozendaal (2012)
	The Ukrainian government offers 50% cost compensation for greenhouse construction if modern energy-saving technologies are introduced.	Greenhouse sector		UCAB (2012c)
Knowledge gaps and trainings	AgriSchool project has been started by the Association 'Ukrainian Agribusiness Club'. Modular trainings of AgriSchool consist of: Soils, Seeding, Plant and Soil Protection, Field Mechanisation, Post-Harvesting, Management and Finance in agri-business, and Field Trip (Ukraine and Europe).	Various, but mainly crop sector	Germany, The Netherlands	UCAB (2012a)
	Project 'Plus for Progress in Ukraine (2012-2014) on precision farming techniques along the complete production chain offers various	Crop sector	The Netherlands	Agentschap NL (2012b); PlusForPro-

	trainings in Ukraine and in the Netherlands.			gres (2012)
	Energy of the Future programme 2012 is one of the projects under the umbrella of the Factory-of-the-Future concept, promoted by the Saxion University of Applied Sciences. Exchange of students and professionals.	Energy	The Netherlands	Popovych (2012)
	Within the Netherlands Sustainable Biomass Program, Dutch experts provide trainings on Sustainability Certification and NTA8080 certificate (bio-mass).	Agro-sector	The Netherlands	Agentschap NL (2012a)

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