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Benefits and Costs of DCFTA:

Evaluation of the Impact on Georgia, Moldova and Ukraine

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by

the Vienna Institute for International Economic Studies (wiiw)[1]
and
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Abstract

The study provides an impact evaluation of the DCFTA implementation in Georgia, Moldova and Ukraine. We analyse benefits and costs that have already materialised or are yet expected to manifest themselves in the longer run in the public and private sectors. While there is little doubt that in the long run the DCFTA will help the beneficiary economies to modernise and transform to a more competitive state, the analysis suggests that the net benefits are highly asymmetric along the time dimension (high costs in the short and medium run – benefits accruing mostly in the longer run), as well as across regions and economic sectors (less competitive sectors and regions will face particularly onerous adjustment costs). In the light of the macroeconomic and geopolitical challenges the DCFTA countries have been facing, this may jeopardise progress of reforms. Based on the analysis we propose several policy recommendations, including careful sequencing of reforms along the approximation to the EU acquis prioritising competitiveness of export-oriented sectors and access to the EU market, attractiveness for FDI and integration into global value chains; focused 'how-to' training of businesses; higher financial support from the EU with strict conditionality along with both need-based and competitive performance-based elements, as well as programmes to alleviate social costs in the vulnerable sectors and regions.

Keywords: DCFTA; Association Agreement; EU Neighbourhood Policy; Georgia, Moldova, Ukraine; economic integration; policy impact evaluation

JEL classification: F13, F14, F15

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Introduction

The European Union concluded Association Agreements (AAs) with Georgia, the Republic of Moldova (hereafter 'Moldova') and Ukraine in 2014. The Deep and Comprehensive Free Trade Area (DCFTA), an integral part of the AAs, constitutes the economic core of the agreements governing the implementation of a wide range of reforms aimed not only at enhancing trade relations between the EU and the signatory nations (trade-related aspects analogous to a conventional free trade area format), but also at facilitating convergence to the EU standards in various business-related regulations in the areas of food safety, technical standards, public procurement, competition policy, intellectual and property rights, etc. ('deep' and 'comprehensive' aspects).

There is little doubt that, conditional on the successful implementation of the envisioned reforms, the long-run economic effects on the DCFTA countries – Georgia, Moldova, Ukraine – are likely to be positive due to the ultimate convergence of the beneficiary economies to a more competitive state underpinned by better institutions, a more predictable and transparent legal setting, improved investment climate, as well as improvements along other dimensions (see Chapter 3 of the report). The expected positive outcomes are suggested not only by economic theory on trade openness, integration and catch-up growth, but also by empirical evidence, in particular, the experience of the Central and Eastern European countries and other new Member States (NMS) of the EU, many of which faced challenges rather similar to those that the DCFTA countries will be addressing.

Yet, the costs, challenges and risks associated with the implementation of DCFTAs may also be significant and should be well understood. The costs are manifold and include, to mention but a few, fiscal costs of the legal approximation to the EU *acquis communautaire,* losses of traditional export markets and reorientation to new EU markets, challenges of finding a market niche in the already highly competitive European markets, adjustment costs related to industrial restructuring leading to contraction of less efficient industries with potentially painful concurrent labour market repercussions, investment needs by the public and the private sector to finance the implementation of reforms and bridging the 'gaps' in infrastructure and productivity (detailed discussion of costs and challenges is in Chapter 4).

A sober assessment of challenges is particularly important for the three signatory countries under consideration given the composition of their production and exports, largely concentrated in commodities and the agri-food sector (which tends to be highly protected by the EU), while technology-intensive sectors are not globally competitive and require modernisation. In addition, economic linkages with the Russian market, which are still strong in all three economies and remain potentially important, and the existence of 'frozen conflicts' amid elevated geopolitical pressures in the EU Neighbourhood region, represent another common challenge that needs to be addressed.

In the present study we review the benefits and elaborate on the costs of the DCFTA implementation along multiple dimensions, focusing not only on aggregate long-run effects, as is often done in the literature, but also on the short- and medium-run impacts at aggregate, industry and regional dimensions. Based on the impact evaluation we devise policy recommendations for the beneficiary

countries, as well as for the revised EU Neighbourhood Policy, which could complement relevant policy debates. The rest of the study is structured as follows: Chapter 1 reviews economic background conditions and recent trade developments in the DCFTA countries; Chapter 2 examines the main features of the DCFTA framework; Chapters 3 and 4 focus, respectively, on the analysis of the benefits and costs; finally, Chapter 5 discusses policy implications.

1. Background conditions and trade developments

Summary: The DCFTA countries belong to the lower-middle-income level group with Moldova being the poorest country in Europe. The three countries have been facing serious macroeconomic and geopolitical challenges recently, including 'frozen conflicts'. The DCFTA countries are characterised by a relatively weak manufacturing sector, which is also reflected in the industrial composition of their exports – concentrated mostly in commodities (metals, fuels), agricultural and food products. Georgia's and Ukraine's exports to the EU currently represent about one third of their total exports, while in Moldova the share of the EU is much higher (62% of total exports in 2015).

1.1. MACROECONOMIC CONDITIONS AND GEOPOLITICAL ENVIRONMENT

All three DCFTA countries are characterised by rather low income levels and belong to the lower-middle-income level group according to the World Bank's classification. Moldova, being the poorest country in Europe, had an estimated per capita GDP (at PPP) of some EUR 3000 in 2015, slightly more than 10% of the EU average, while Georgia and Ukraine – about twice as high as Moldova's (see Table 1.1, for details on selected characteristics relative to regional peers refer to Table A1 in the Appendix).

Table 1.1 / Key economic characteristics of the DCFTA economies, 2015

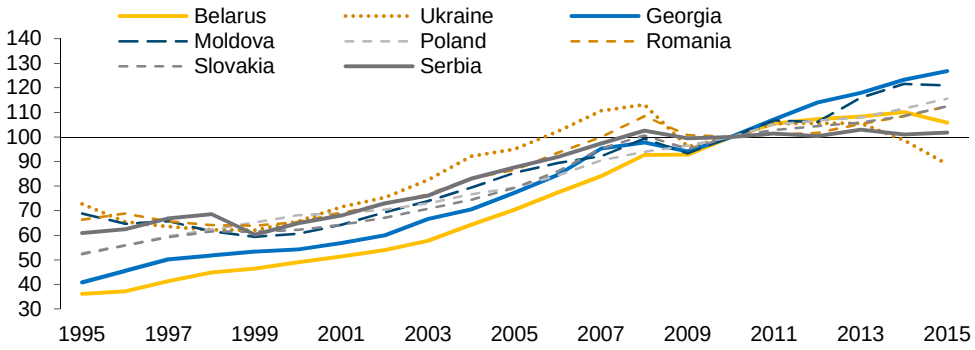
	Moldova	Georgia	Ukraine[1)]	EU-28[2)]	EU-CEE[3)]
GDP in EUR at exchange rates, bn EUR	5.8	12.6	81.7	14,699	1,152
GDP in EUR at PPP, bn EUR	13.7	27.1	257.7	14,699	2,000
GDP in EUR at PPP, EU-28 = 100	0.1	0.2	1.8	100.0	13.6
GDP in EUR at PPP, per capita	3,900	7300	6,000	28,800	19,300
GDP in EUR at PPP per capita, EU-28 = 100	14	25	21	100	67
Exports, fob, in % of GDP	30.3	15.8	42.1	.	
Imports, cif, in % of GDP	61.4	55.3	41.4	.	
Population, thousands, average	3,554	3,717	42,845	509,608	103,733
Employed persons, LFS, thousands, average	1,204	1,780	16,443	220,845	44,706
Unemployment rate, LFS, in %	4.9	12.0	9.1	9.4	7.8
FDI stock per capita in EUR	911	2,715	1,323	11,411	5,535
Ease of Doing Business ranking, 2016	52	24	83	.	
Trading Across Borders ranking, 2016	33	78	109	.	

1) Data for Ukraine excluding the occupied territories of Crimea and Sevastopol and (except for population) parts of the anti-terrorist operation zone (Donbas). 2) wiiw estimate and Eurostat. 3) EU-CEE: Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia.
Sources: wiiw Annual Database, Eurostat, World Bank, UN Comtrade, national statistics, own estimates.

Putting the DCFTA countries in a comparative perspective with selected regional peers[1] shows that the latter are much more affluent. The growth over the long-run after the initial transformation recession following the collapse of the Soviet Union has not been particularly impressive for Moldova and Ukraine: average annual growth of 2.9% in the period 1995-2015 in Moldova and just 1% in Ukraine. Georgia did much better with 5.8%. GDP per capita growth, however, has been much higher owing to significant outward migration from the three countries, mostly to Russia and the EU. Employment in Ukraine and Moldova fell by about one third in the course of the past two decades, and it stayed more or less stable in Georgia.

Structural changes in the DCFTA economies proceed in a similar direction as in their Eastern European peers: shares of agriculture in GDP rapidly declined (except for Ukraine where agriculture served as a buffer in the recent crisis), yet still remain higher than in new EU Member States. Shares of industry declined as well and shares of services are still relatively low, reflecting gaps in the level of economic development.

Figure 1.1 / Real GDP index, 2010 = 100



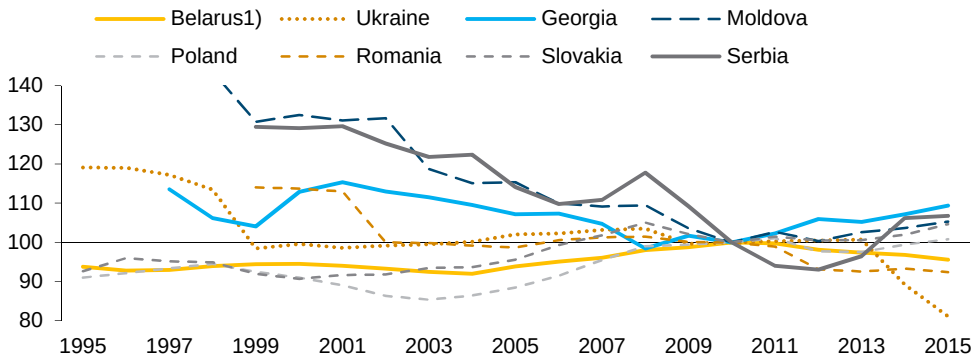
Source: wiiw Annual Database, CIS Statcommittee Database, National Statistics Office of Georgia, National Bureau of Statistics of Moldova.

In the recent years the three DCFTA countries have been facing serious macroeconomic challenges. Geopolitical issues in the region, generally weak external environment, poor export performance, decline in remittances along with domestic issues like drought, fiscal austerity, weak investor confidence resulted in feeble economic performance: Ukraine's economy took a deep dive dropping from 6.6% real growth in 2014 to -9.9% in 2015, Moldova was also hit by a recession (-0.5% in 2015, down from 4.8% in 2014), and Georgia's GDP growth decelerated over the two years from 4.6% to 2.8%. The flexible exchange rate regimes adopted by the three economies allowed to smooth external shocks; however, pass-through to inflation was significant and price levels accelerated sharply. In response, the monetary authorities reacted by hiking interest rates, making borrowing and investment yet more problematic[2].

[1] Throughout the study we make comparisons of performance of the DCFTA countries with that of selected benchmark economies, which include either economies at the 'frontier' (e.g. Germany, the EU-28) or regional peers: neighbouring transition countries with comparable institutional or economic characteristics, similar initial conditions or historical experiences, including former Soviet republics, new members of the EU, candidates for the EU membership.

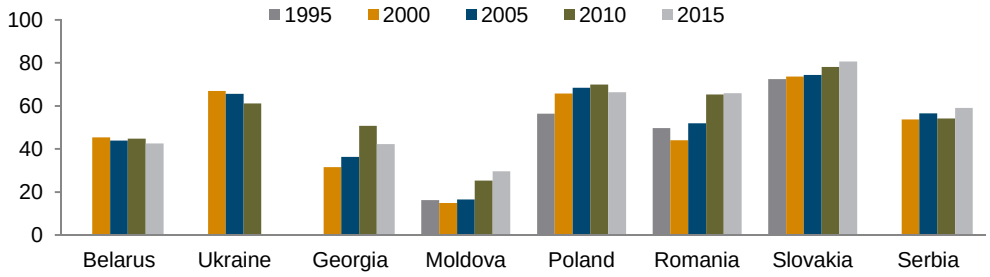
[2] In 2015 the policy rate in Moldova was maintained at record high levels at 19.5%, in Ukraine at 22% (in contrast to the policy rate of 8% in Georgia).

Figure 1.2 / Employment LFS, index 2010 = 100, corrected for breaks



1) Registered employment.
Source: wiiw Annual Database, CIS Statcommittee Database, National Statistics Office of Georgia, National Bureau of Statistics of Moldova.

Figure 1.3 / Share of manufacturing (SITC 5,6,7) in total exports, in %



Source: wiiw Annual Database, UN Comtrade.

The countries have also been rather unstable politically. Most importantly, an essential factor for the success of the DCFTA is the evolution of the situation around the 'frozen conflicts', from which all three countries suffer[3]. In Georgia, the two separatist regions of South Ossetia and Abkhazia, both seeking more independence and closer ties with Russia, have been de facto lost to the central government in Tbilisi after the military conflict with Russia in August 2008[4]. Both regions used to have about 600 thousand inhabitants in total before the conflict; since then nearly two thirds of the population has left[5]. In Moldova, the separatist (mostly Russian-speaking) Transnistria with currently about 500 thousand inhabitants, has been an industrial core of the country seeking closer links with Russia. Last but not least, a 'frozen conflict' has emerged in Ukraine in 2014 after the Russian annexation of Crimea (an autonomous region within Ukraine previously) and an outburst of separatist movements and a military conflict in Donetsk and Luhansk, both being heavy-industry 'pro-Russian' regions of Eastern Ukraine (Donbas). According to various estimates, about 4 million people live in Eastern Ukraine separatist regions, apart from Crimea with about 2 million inhabitants. It is estimated that about 10-15% of the

[3] See more at: http://www.euractiv.com/section/europe-s-east/linksdossier/post-soviet-frozen-conflicts/

[4] Both regions had been separated from Georgian government control, declaring independence already after violent clashes occurred there during 1991-1992.

[5] See Astrov and Havlik (2008) for details. In Abkhazia, the population was some 240 th in 2014 according to official statistics.

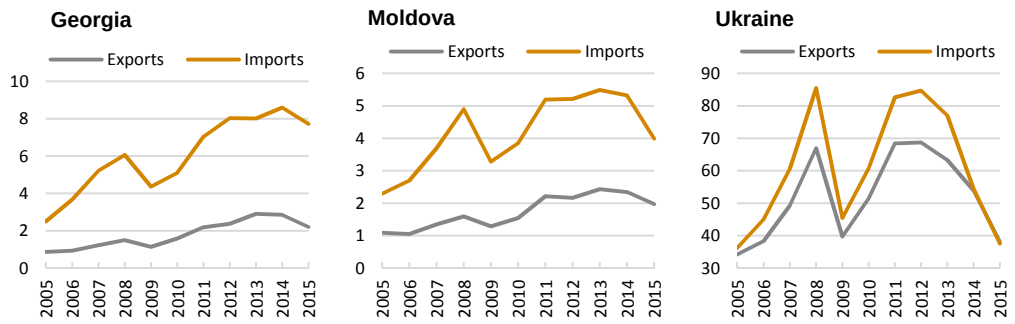
indigenous population and significant parts of industry have been affected in the DCFTA countries due to 'frozen conflicts'.

1.2. RECENT TRADE DEVELOPMENTS IN THE DCFTA COUNTRIES

The DCFTA countries, being small open economies, are critically dependent on foreign trade for their economic growth and development[6]. Both exports and imports have been following an increasing trend with a downturn in the late 2000s associated with the global economic crisis and the pace of trade growth decelerating in the post-crisis period, which is however characteristic of the global trade slowdown in general (Figure 1.4). Ukraine, stricken by the geopolitical crisis that ignited in 2014 and is still ongoing, along with a deep recession, has suffered massive losses in trade recently. Total trade turnover amounted in 2015 to EUR 9 billion for Georgia (exports = EUR 2 bn, imports = EUR 7 bn), EUR 5.4 billion for Moldova (exports = EUR 1.8 bn, imports = EUR 3.6 bn), EUR 68.2 billion for Ukraine (exports = EUR 34.4 bn, imports = EUR 33.8 bn).[7]

Historically, the DCFTA countries have been running large trade deficits that widened in the post-crisis period (Ukraine is an exception, as deep recession along with sharp devaluation of hryvna resulted in purchasing power losses and import contractions). As a result, the current account balances were also persistently in the negative zone since 2006, deficits as a percentage of GDP reaching in 2014 10.5%, 7.1% and 3.5% in Georgia, Moldova and Ukraine, respectively[8].

Figure 1.4 / Exports and imports of Georgia, Moldova and Ukraine, 2005-2015, billion USD



Source: UN Comtrade.

The geographic orientation of trade of the DCFTA countries has been largely shaped by proximity to the markets and historical economic linkages stemming from the Soviet legacy (Figures 1.5 and 1.9). In terms of the key trading partners over the past decade (on individual country basis), trade of Georgia has been dominated by Azerbaijan and Turkey; Moldova – by Russia, Ukraine and Romania; Ukraine – by Russia. The relative importance of trading partners, however, has been evolving considerably over time, especially in the recent years. In particular, there has been a noticeable reorientation of Ukraine's

6 The average ratio of foreign trade (exports and imports) to GDP over the period 2011-2014 was 98% for Georgia, 126% for Moldova, and 102% for Ukraine, according to the World Bank's World Development Indicators (WDI). In 2015, this ratio amounted to 71%, 92% and 84%, respectively.

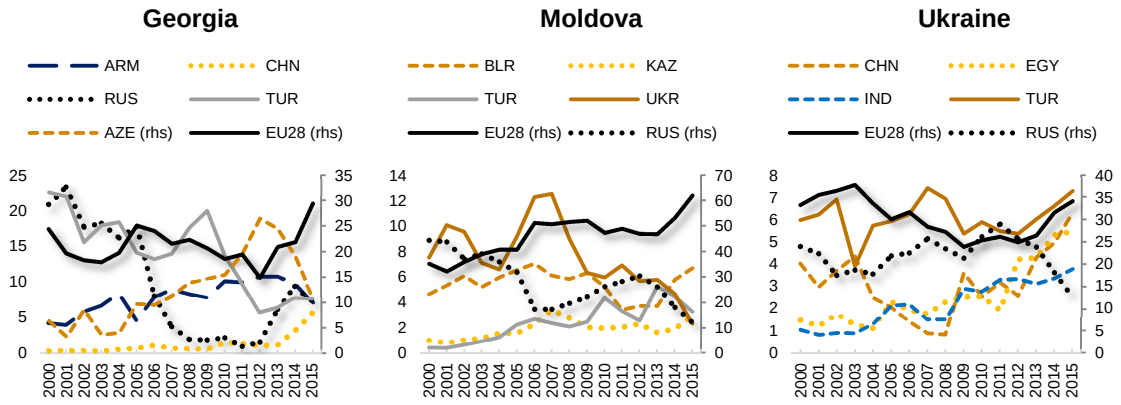
7 Source: National Statistics of Georgia, National Bureau of Statistics of the Republic of Moldova.

8 Source: World Bank WDI.

exports away from Russia to other destinations over the last several years on account of the conflict and recession in both countries[9]. Earlier, in the mid-2000s, Georgia and Moldova, both suffering from embargo imposed by Russia on wine and other sensitive food products from these countries[10], have also undergone a transition away from the Russian market. Nevertheless, Russia still remains an important trading partner for all three countries (Figure 1.5).

As a result of these shifts, the relative importance of other trading partners has increased. Thus, the share of Azerbaijan in Georgia's exports increased since 2000 by 12.7 pp to 19% in 2014, making it the largest single-country export destination. In the case of Moldova, the export share of Romania has increased from 8% in 2000 to 18.6% in 2014. Notably, the export share of the EU has increased also and in 2015 amounted to 29% for Georgia, 34% for Ukraine, and 62% for Moldova, making it the most prominent market for all three DCFTA countries. The gains have been particularly dramatic for Moldova: the share of the EU in Moldova's exports increased by over 12 pp over the last decade reaching an all-time high in 2015, in contrast to Ukraine and Georgia, characterised by a more modest and stable share of the EU in exports. Relative to the peers in Central and Eastern Europe (CEE), EU export shares are much lower for the DCFTA countries, whereas trade with the CIS is still relatively important (see Tables A20 and A22 in the Appendix). Given that Europe is still recovering from the double-dip recession and Russia has submerged into a recession on account of oil prices collapsing, along with the geopolitical stress and Western sanctions, the trade of the DCFTA countries has been subdued recently and should eventually pick up after external conditions improve.

Figure 1.5 / Share of EU-28 in exports of Georgia, Moldova and Ukraine, 2000-2015, %



Note: The share of EU is plotted along with the share of Russia, a prominent trading partner for all three countries, and two other most important markets.
Source: Own calculations based on UN Comtrade data.

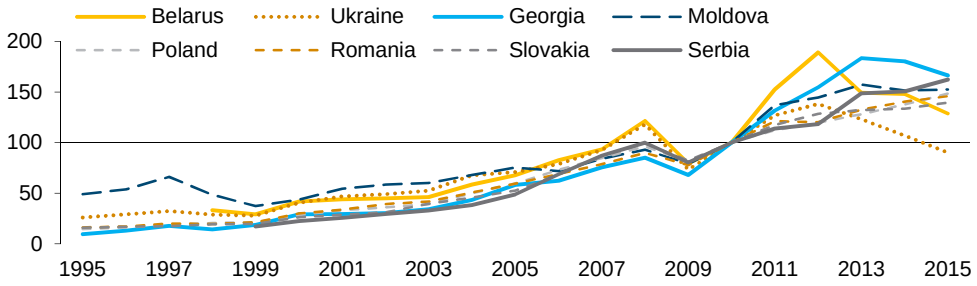
The three signatory countries are characterised by a relatively weak manufacturing sector, which is also reflected in the industrial composition of their exports – concentrated mostly in commodities (metals, fuels), agricultural and food products (Figure 1.12). Exports of vehicles, prominent in Georgia, de facto

[9] The share of Russia in total exports of Ukraine has been declining after 2011, and the drop accelerated sharply after the Russia-Ukraine geopolitical conflict and mutual embargos along with the impact of economic recessions in both countries. See also Adarov et al. (2015).

[10] See also Cenusa et al. (2014).

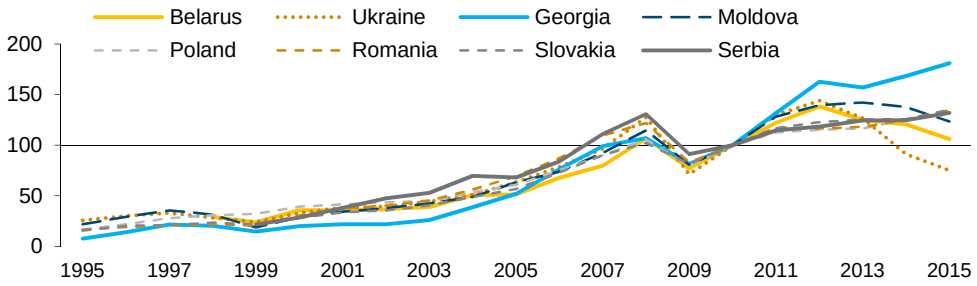
are re-exports over 2/3 of which are targeted at neighbouring Azerbaijan and Armenia[11]. As regards imports, mineral fuels dominate imports of all three economies: the share of HS industry 27 constitutes 15% in Moldova, over 17% in Georgia and over 30% in Ukraine. Imports of machinery (HS industries 84 and 85) are also prominent amounting to 15-16% of total imports.

Figure 1.6 / Export growth, nominal index 2010 = 100



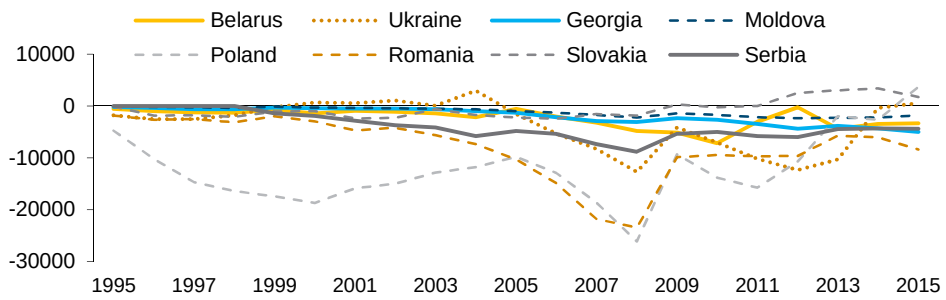
Note: Based on trade data denominated in EUR. Serbia, break – from 2010 general trade, special trade before.
Source: wiiw Annual Database, CIS Statcommittee, UN Comtrade.

Figure 1.7 / Import growth, nominal index 2010 = 100



Note: Based on trade data denominated in EUR. Serbia, break – from 2010 general trade, special trade before.
Source: wiiw Annual Database, CIS Statcommittee, UN Comtrade.

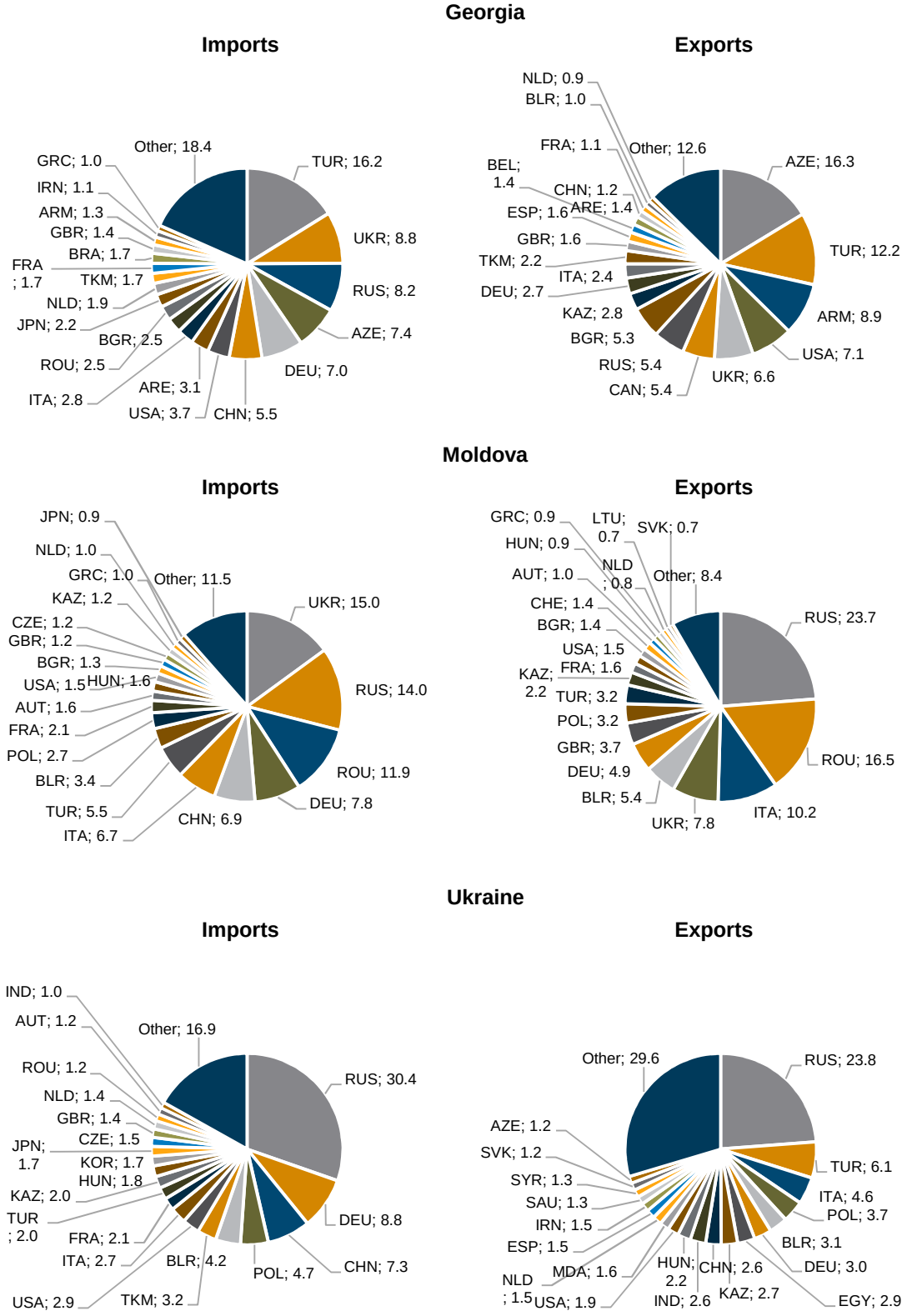
Figure 1.8 / Trade balances, million EUR



Note: Serbia, break – from 2010 general trade, special trade before.
Source: wiiw Annual Database, CIS Statcommittee, UN Comtrade.

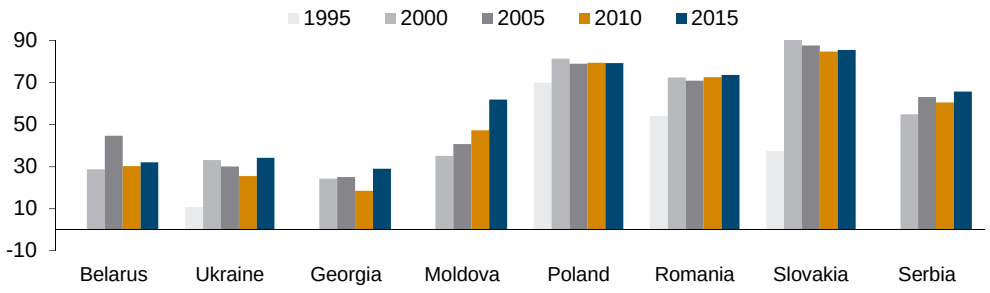
[11] The car re-exports from Georgia have recently been under pressure as Armenia joined the Eurasian Economic Union and Azerbaijan introduced a Euro-4 environmental standard with stricter regulation on emissions squeezing used car imports

Figure 1.9 / Top 20 trading partners of Georgia, Moldova and Ukraine, average share 2005-2014, %



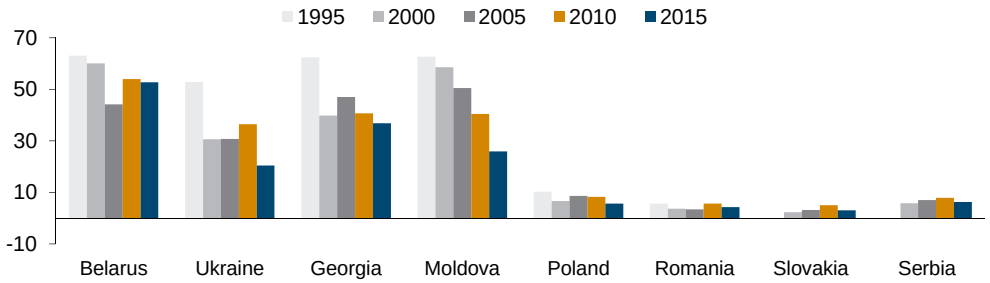
Source: Own calculations based on UN Comtrade data.

Figure 1.10 / Share of exports to the EU in total exports, %



Note: 1995 exports to EU-15, from 2000 exports to EU-28.
Source: wiiw Annual Database, CIS Statcommittee Database, UN Comtrade.

Figure 1.11 / Share of exports to the CIS in total exports, %



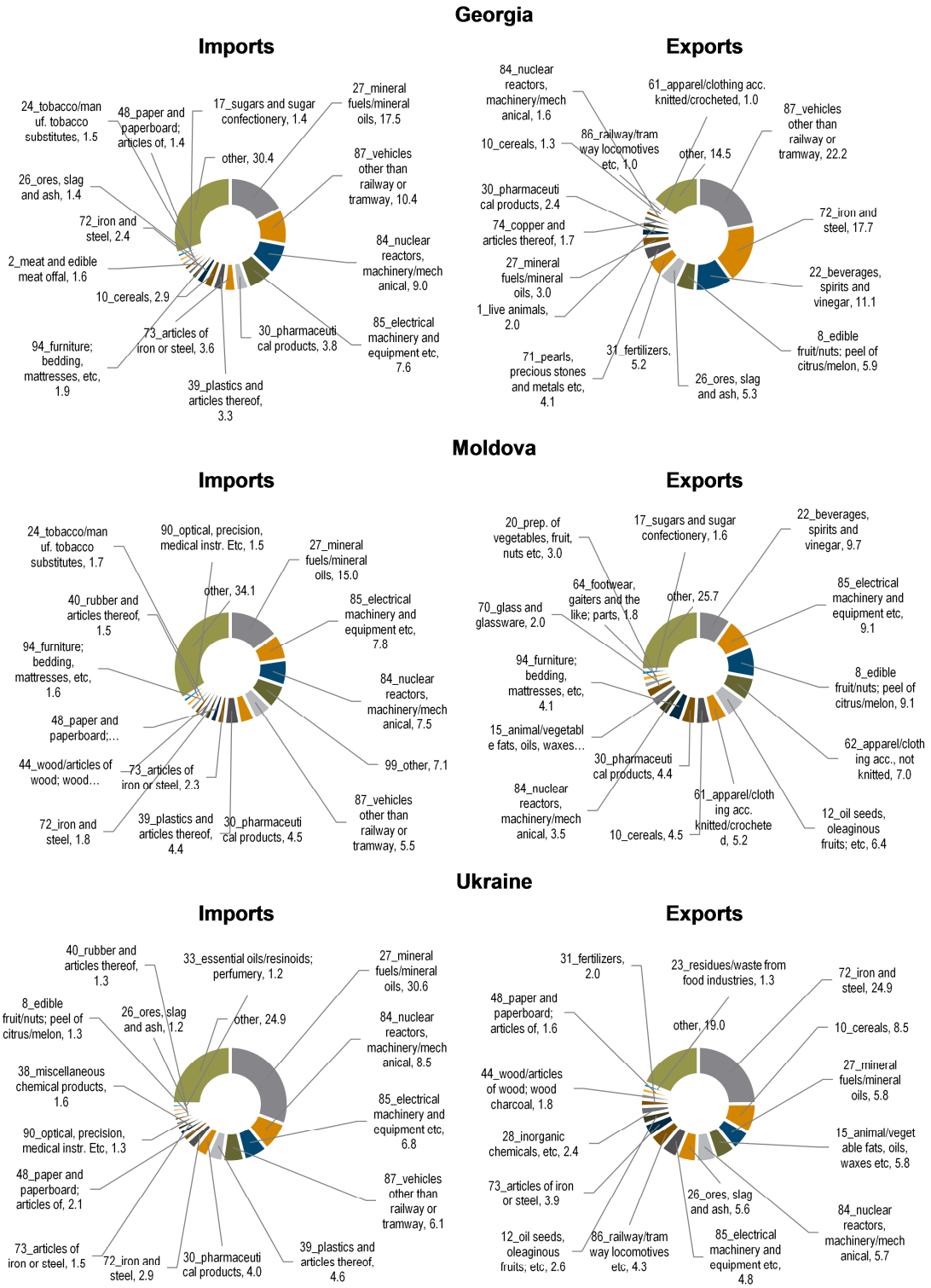
Source: wiiw Annual Database, CIS Statcommittee Database, UN Comtrade.

Both Georgia and Moldova have undergone a shift in the sectoral composition of exports accompanying the reorientation of trade. Moldova has experienced a particularly notable transformation with wine, formerly its largest exports product, yielding way to cables and wires recently: the share of *Beverages* (HS 2-digit code 22) contracted from about 30% of exports in the early 2000s to less than 10% in the recent years. At the same time, the share of *Electrical machinery* industry to which cable production belongs (HS 2-digit code 85) increased from less than 1% to over 10% of exports over the course of the recent decade. In the case of Georgia, a Russian ban on imports of wine and mineral water in 2006 resulted in the relative share of beverages industry receding as Russia was by far the most notable market. However, in the late 2013, as the ban was lifted, along with gradual expansion to other markets (Ukraine, the Baltics), the industry of beverages has been regaining its export share amounting to 15.5% in 2014.

It appears that Ukraine is only at the start of its journey in a similar transition with the industries oriented predominantly towards the Russian market shrinking and restructuring. However, in contrast to the experience of Moldova and Georgia, those industries are more sophisticated (machinery and transport equipment) and mostly located in eastern Ukraine, which will likely make the transformation more difficult[12].

[12] See Chapter 4 for additional discussion. Additional analysis is also available in Adarov et al., 2015.

Figure 1.12 / Industrial composition of foreign trade of Georgia, Moldova and Ukraine, % of total, average 2010-2014.

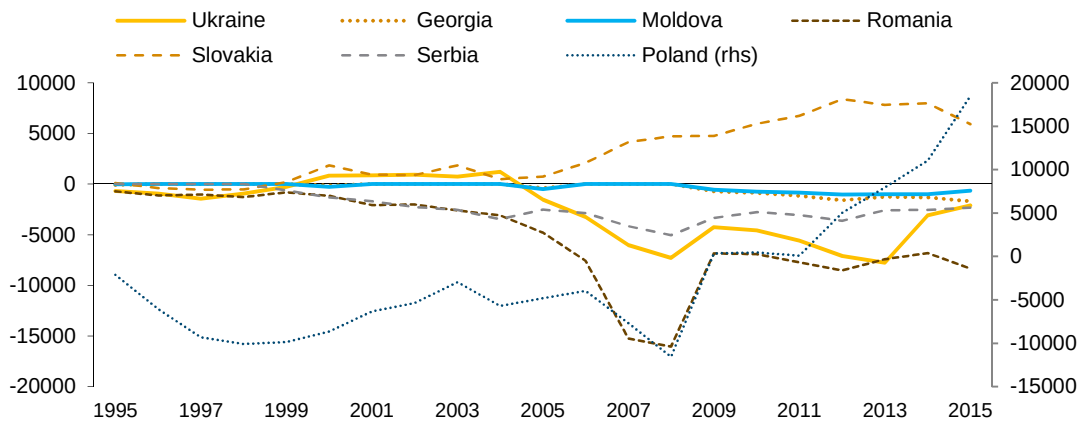


Note: The labels indicate the corresponding HS 2-digit industry code and short name.
Source: Own calculations based on UN Comtrade data.

1.3. A CLOSER LOOK AT TRADE WITH THE EU

Georgia's and Ukraine's exports to the EU currently represent about 1/3 of their total exports. In Moldova, the share of the EU is much higher (62% of total exports in 2015) – largely thanks to intensive trade links with Romania and Italy, each accounting for 40% and 17% of Moldova's exports to the EU, respectively. In comparison, in the new EU Member States, the share of the EU in exports is much higher on account of much more intensive economic integration. Notably, imports from the EU have been high also and a number of peer economies have been struggling with large trade deficits (Figure 1.13). Owing to the low competitiveness of export-oriented sectors, the trade deficits in the DCFTA countries have been already high and will likely increase in magnitude with the economic recovery.

Figure 1.13 / Trade balances with the EU, million EUR



Source: wiiw Annual Database, CIS Statcommittee Database, UN Comtrade.

Exports from the DCFTA countries to the EU are highly concentrated in just a few sectors (Figures 1.14-1.16). Top 10 HS 2-digit level export positions accounted for 92% of Georgian total exports to the EU in 2015, 74% in Moldova and 78% in Ukraine. In Georgia, edible fruits, fertilisers, organic chemicals as well as preparations of vegetables and fruits have recorded the highest export increases after implementing the DCFTA agreement (mineral fuels – the most important export position, as well as copper and aluminium suffered from the collapse of global commodity prices). Moldova's top export position to the EU, as already noted, is electrical machinery and specifically ignition wiring sets exported predominantly (75%) to Romania to be fitted into Dacia passenger cars. Surprisingly, iron and steel exports from Moldova to the EU more than doubled – despite the fall in global prices.[13]

In Ukraine, notably, exports of cereals and electrical machinery (the latter mostly also ignition wiring sets – SITC 77313 – exported predominantly to Germany, Slovakia and Poland) have increased. Apart from wood, furniture and plastics, exports of animal/vegetable fats, edible fruit, nuts and especially meat expanded sizeably – in some cases exhausting tariff rate quotas fixed by the EU (see more in Chapter 4). Yet, an aggregate trade summary on recent trade developments with the EU provides a mixed picture, suggesting that a disappointing performance of Ukraine is related largely to the conflict in Donbas, whereas Georgia's and Moldova's trade with the EU has been much more dynamic (Table 1.2).

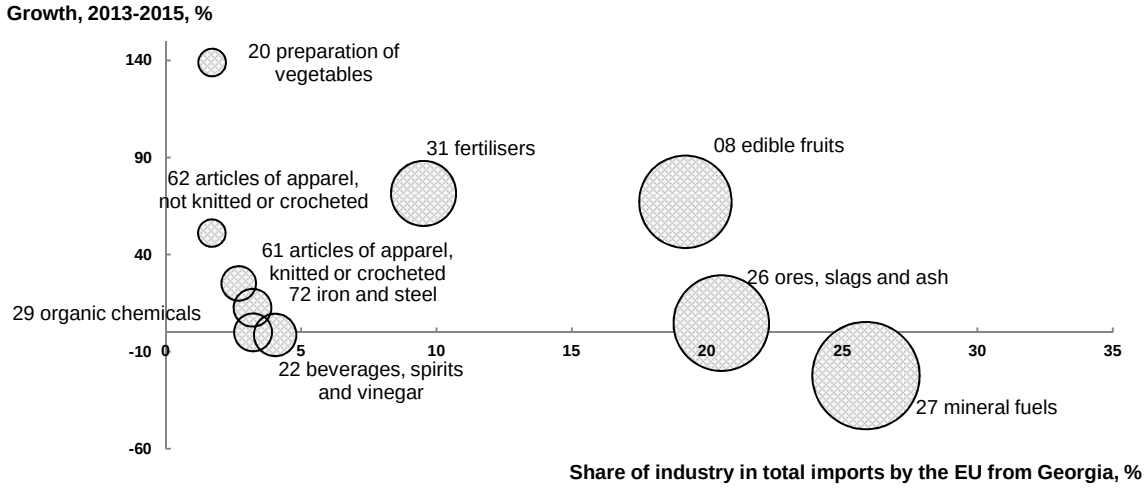
[13] Here, the specific arrangements with Transnistria might have played a role as well (see Secrieru, 2016).

Table 1.2 / Trade of the DCFTA countries with the EU, 2015

	Georgia	Moldova	Ukraine
Exports	up by 9% since 2013	up by 27% since 2013	down by 8% since 2013
Imports	down by 8% since 2013	down by 9% since 2013	down by 40% since 2013
Trade deficit	EUR 1.1 bn in 2015 after 1.4 bn in 2013	EUR 0.9 bn in 2015 after 1.3 bn in 2013	EUR 1.5 bn in 2015 after EUR 10 bn in 2013

Source: Own calculations based on Eurostat Comext database.

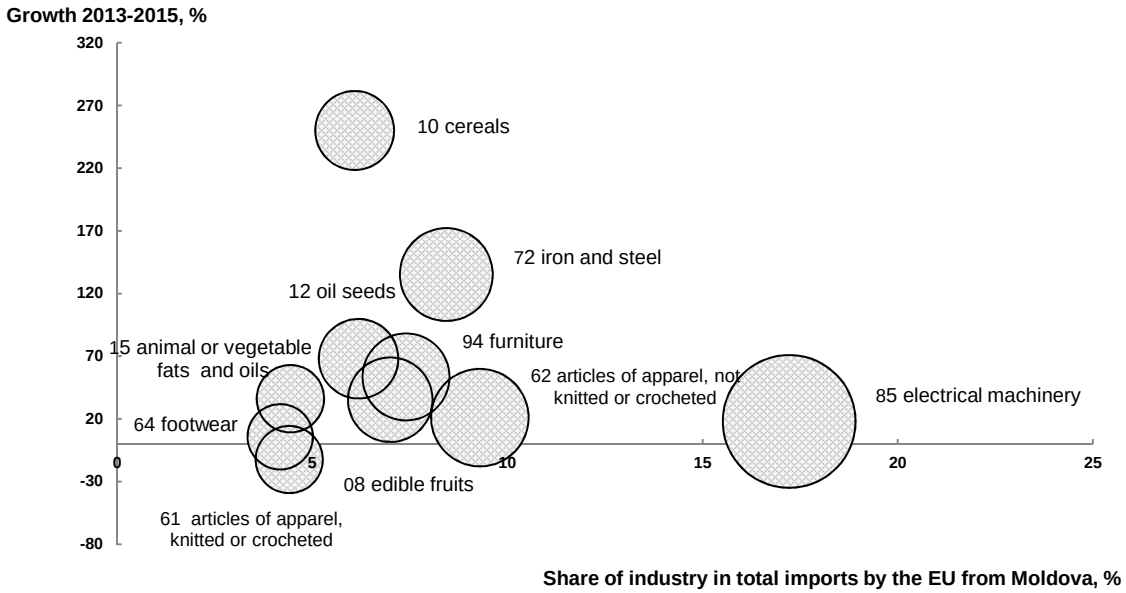
Figure 1.14 / Top 10 products imported by the EU from Georgia in 2015



HS 2-digit industry code	Description	Imports, mn EUR	Growth 2013-2015, %	Share of industry in total imports, in %
27	mineral fuels, mineral oils and products of their distillation, bituminous substances, mineral waxes	187	-22.2	25.9
26	ores, slag and ash	148	4.8	20.5
08	edible fruit and nuts, peel of citrus fruits or melons	139	67.2	19.2
31	fertilisers	69	71.5	9.5
22	beverages, spirits and vinegar	29	-1.2	4.0
29	organic chemicals	23	.	3.2
72	iron and steel	23	12.7	3.2
61	articles of apparel and clothing accessories, knitted or crocheted	19	25.2	2.7
20	preparations of vegetables, fruit, nuts or other parts of plants	12	139.0	1.7
62	articles of apparel and clothing accessories, not knitted or crocheted	12	51.1	1.7

Note: Bubble size is proportional to the value of imports in 2015.
Source: Own calculations based on Eurostat Comext database.

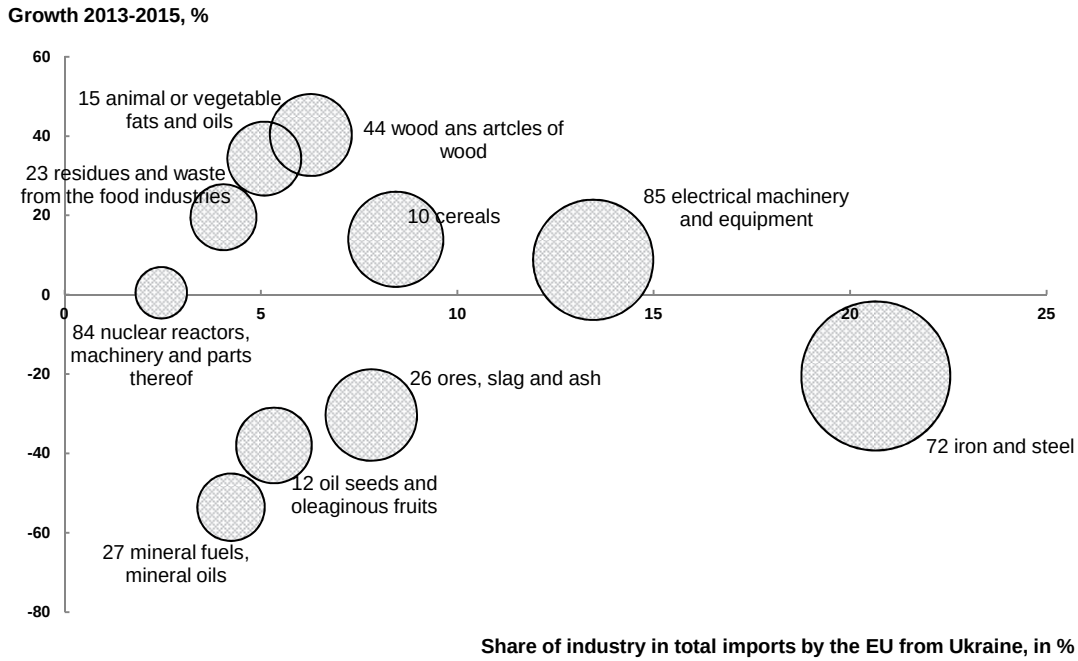
Figure 1.15 / Top 10 products imported by the EU from Moldova in 2015



HS 2-digit industry code	Description	Imports, mn EUR	Growth 2013-2015, %	Share of industry in total imports, in %
85	electrical machinery and equipment and parts thereof, sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles	210	18.1	17.2
62	articles of apparel and clothing accessories, not knitted or crocheted	114	21.2	9.3
72	iron and steel	103	135.1	8.4
94	furniture, bedding, mattresses, mattress supports, cushions and similar stuffed furnishings, lamps and lighting fittings, not elsewhere specified or included, illuminated signs, illuminated name-plates and the like, prefabricated buildings	90	53.4	7.4
08	edible fruit and nuts, peel of citrus fruits or melons	85	35.3	7.0
12	oil seeds and oleaginous fruits, miscellaneous grains, seeds and fruit, industrial or medicinal plants, straw and fodder	76	68.0	6.2
10	cereals	74	250.1	6.1
15	animal or vegetable fats and oils and their cleavage products, prepared edible fats, animal or vegetable waxes	54	36.2	4.4
61	articles of apparel and clothing accessories, knitted or crocheted	54	-12.3	4.4
64	footwear, gaiters and the like, parts of such articles	51	5.7	4.2

Note: Bubble size is proportional to the value of imports in 2015.
Source: Own calculations based on Eurostat Comext database.

Figure 1.16 / Top 10 products imported by the EU from Ukraine in 2015



HS 2-digit industry code	*Description*	Imports, *mn EUR*	Growth 2013-2015, %	Share of industry in total imports, in %
72	iron and steel	2532	-20.4	20.7
10	cereals	1650	8.8	13.5
85	electrical machinery and equipment and parts thereof, sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles	1034	14.0	8.4
26	ores, slag and ash	957	-30.3	7.8
44	wood and articles of wood, wood charcoal	768	40.3	6.3
12	oil seeds and oleaginous fruits, miscellaneous grains, seeds and fruit, industrial or medicinal plants, straw and fodder	653	-38.0	5.3
15	animal or vegetable fats and oils and their cleavage products, prepared edible fats, animal or vegetable waxes	623	34.3	5.1
27	mineral fuels, mineral oils and products of their distillation, bituminous substances, mineral waxes	519	-53.6	4.2
23	residues and waste from the food industries, prepared animal fodder	496	19.5	4.0
84	nuclear reactors, boilers, machinery and mechanical appliances, parts thereof	302	0.5	2.5

Note: Bubble size is proportional to the value of imports in 2015.
Source: Own calculations based on Eurostat Comext database.

2. Key features of the DCFTA agreements

Summary: The DCFTA integration format extends beyond a mere liberalisation of trade between the participating countries since it envisions a closer integration via legal approximation to the EU acquis. Non-tariff barriers in the EU have been among the highest in the world and for countries specialising in agri-food production represent a particularly significant obstacle to trade, which are to be effectively tackled by the DCFTA. While trade liberalisation is broad in scope, the three DCFTA countries are subject to certain restrictions, including tariff rate quotas (TRQs), anti-circumvention mechanism and entry-price regulation. On the other hand, the DCFTA countries also enjoy transition periods of up to 10 years in some cases allowing for a gradual liberalisation of imports in sectors deemed 'sensitive' from their perspective.

2.1. DCFTA AS AN INSTRUMENT OF THE EUROPEAN NEIGHBOURHOOD POLICY

The Deep and Comprehensive Free Trade Area[14] constitutes an economic core of the AAs, which are much broader in scope and govern integration endeavour between the EU, on the one hand, and Georgia, Moldova and Ukraine, on the other, along multiple social, political and economic dimensions. AAs represent a relatively new instrument utilised by the EU in the context of the European Neighbourhood Policy (ENP)[15] launched in 2004 with the key objective to facilitate closer political association and economic integration with the countries in the EU 'Neighbourhood' and thereby promote stability and security in the region. The Eastern Partnership initiative launched in 2009, a strand of the ENP, focuses on strengthening EU cooperation with the six Eastern European countries – Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine.

Trade relations, being the cornerstone of economic integration, constitute a major part of the AA and are embodied in the format of DCFTA (regulated by Title IV of the AAs of Georgia and Ukraine, and Title V of the EU-Moldova AA). The DCFTA, in contrast to conventional free trade area arrangements, extends beyond a mere liberalisation of trade regime between the participating countries by lowering or abolishing import tariffs, and rather envisions much closer integration via legal approximation to the EU body of law – the so-called *acquis communautaire*[16] (hereafter, *acquis*) – in a number of areas related to business regulations and foreign trade. The implementation of the DCFTA is thus not only expected to bring benefits via granting access to the large EU market, but also by inducing deep changes to the business environment in the beneficiary countries, making their economies more competitive and efficient.

So far the DCFTA agreements have been applied to Georgia, Moldova and Ukraine. Armenia, which also held DCFTA negotiations, in the end opted out in favour of the Russia-led Eurasian Economic

[14] Sometimes also referenced as 'Deep and Comprehensive Free Trade Agreement'.

[15] See more about the initiative at the EU External Action website http://eeas.europa.eu/enp/.

[16] http://ec.europa.eu/enlargement/policy/glossary/terms/acquis_en.htm.

Union (EAEU)[17] and currently negotiates a separate deal with the EU. The turn towards European integration was also particularly complicated for the three DCFTA countries, burdened by the geopolitical issues associated with 'pro-Russian' split regions and related 'frozen conflicts' (more on this in Chapter 4). Besides the former USSR countries in Eastern Neighbourhood, DCFTA talks were initiated or attempted with Egypt, Jordan, Morocco and Tunisia.

The three DCFTA countries signed and applied the respective AAs, replacing the previous Partnership and Cooperation Agreements, as follows:

- ***Georgia***: signed the AA on 27 June 2014, provisional application started from 1 September 2014, full entry into force – in July 2016. Georgia has enjoyed the EU Generalised System of Preferences (GSP) since 1995 and, since 2014, GSP+, granting advantageous access to the EU market.

- ***Moldova***: signed the AA on 27 June 2014, provisional application started from 1 September 2014, fully entered into force in July 2016. Autonomous Trade Preferences were applied by the EU since 2008 to selected industrial and agri-food products.

- ***Ukraine***: signed the AA on 21 March 2014 (political provisions) and 27 June 2014 (economic provisions). Some provisions have been applied from 1 November 2014; the DCFTA is provisionally applied from 1 January 2016. The ratification in the EU was blocked by the Dutch referendum in April 2016.

Certain complications are related to the breakaway regions – Abkhazia and South Ossetia in Georgia, Donbas and Crimea in Ukraine, Transnistria in Moldova. The DCFTA does not apply to the breakaway regions of Ukraine and Georgia as the regions do not fulfil the prerequisite conditions, according to the EC (yet, as soon as the conditions are met, the application is possible). However, Transnistria joined the DCFTA in January 2016 with the promise to carry out the necessary reforms, often viewed as a concession from the EU (more discussion of the related challenges in Chapter 4).

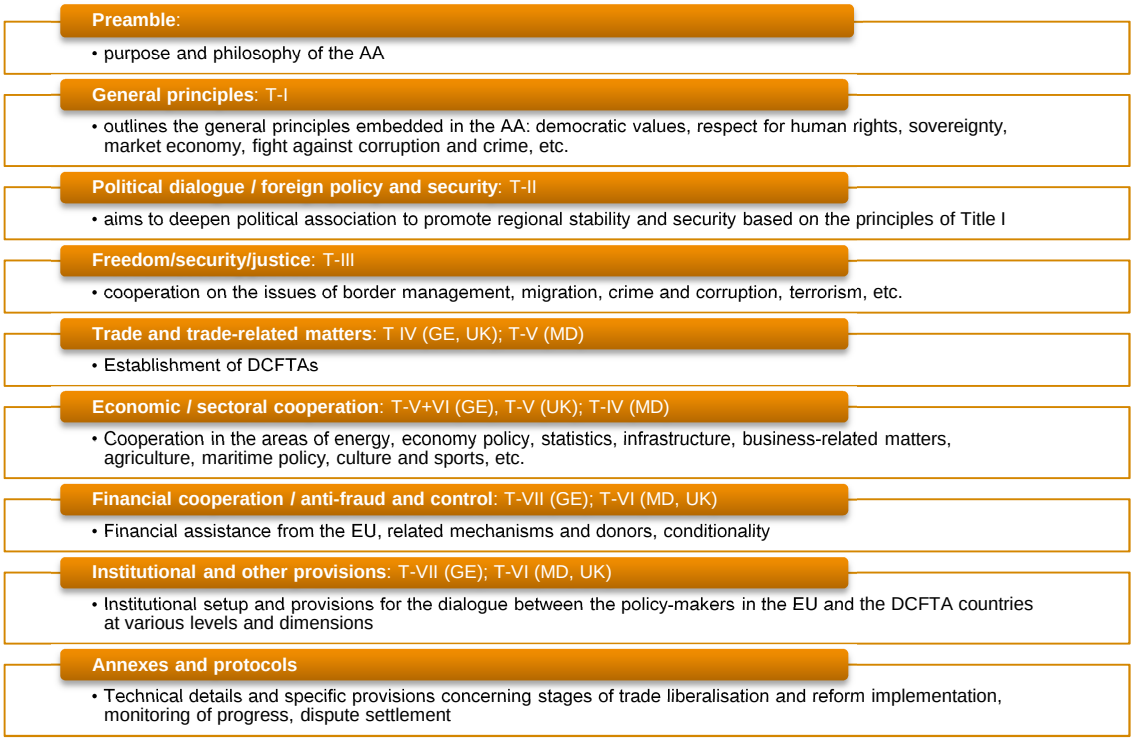
2.2. CONTENT OF THE DCFTA

As discussed in Chapter 1, Georgia, Moldova and Ukraine share a number of similar social and economic characteristics being small open economies with relatively low income levels and suffering from institutional bottlenecks that stem from the sluggish post-Soviet transition. The AA/DCFTA framework was devised as a general framework to address these development issues by promoting cooperation between the EU and signatory states, liberalising trade and facilitating improvements in the institutional setup and business regulations. Therefore, the association agreements negotiated and signed by the three DCFTA countries have a rather similar structure (Figure 2.1). Regulations pertaining to various spheres of cooperation are grouped accordingly into titles, chapters and articles, and are complemented by annexes containing technical details on implementation schedules, product lines affected by regulations, etc. Detailed discussion of specific regulations is beyond the scope of the study

[17] See more on Armenia in the context of the Eurasian Economic Union in Adarov (2015a, 2015b).

and can be assessed by addressing the full texts of the AAs[18] or comprehensive reading guides[19]. Yet, a number of essential aspects are summarised below.

Figure 2.1 / Structure of the Association Agreements of Georgia, Moldova and Ukraine



Source: Own elaboration based on Association Agreements.

The DCFTA governs the implementation of a wide range of reforms aimed not only at enhancing trade relations between the EU and the signatory countries, but also regulations facilitating the convergence to the EU standards in various business-related regulations. It is common to distinguish the following DCFTA components:

› **Trade-related aspects**: relate to conventional aspects of a free trade area arrangement focusing on reduction of import and export tariff duties (with certain negotiated exclusions and transition periods, mostly related to agricultural products), adoption of the rules of origin practices along the lines of the pan-Euro-Mediterranean Convention.

[18] The full texts of the Association Agreements are accessible at the EUR-Lex repository of the EU legal documents:
Georgia: http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:22014A0830(02)&from=EN
Moldova: http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:22014A0830(01)&from=EN
Ukraine: http://eeas.europa.eu/ukraine/docs/association_agreement_ukraine_2014_en.pdf.
A condensed non-technical version is also available at the 'Reading guides' compiled by the EC for each country (e.g. http://trade.ec.europa.eu/doclib/docs/2014/february/tradoc_152194.pdf for Moldova).

[19] See also Emerson and Kovziridze (2016a and 2016b), Emerson and Cenusa (2016a and 2016b), Emerson and Movchan (2016a and 2016b) for detailed reviews of the content of the DCFTA agreements.

- **'Deep' aspects**: relate to non-tariff barriers (NTBs)[20], including food safety, sanitary and phytosanitary (SPS) measures, technical standards for industrial products, approximation to the EU law on national treatment, public procurement, services and customs administration.

- **'Comprehensive' aspects**: convey the broad scope of areas along which approximation will take place: national treatment and market access for goods, trade remedies, SPS and TBTs, customs and trade facilitation, trade in services, intellectual property, electronic commerce, capital movement, public procurement, anti-trust and competition, energy issues, transparency, sustainable development, dispute settlement and mediation.

The principal idea behind the provisions is to align the corresponding regulations in the signatory nations to EU practices, thereby facilitating modernisation of their economies and arriving at a more transparent and competitive business environment, while also easing access to mutual markets. The alignment process is not abrupt, but rather foresees staged liberalisation of trade regimes (immediate for most products and with the transition periods of 3-10 years for selected product categories – see the following sections of the chapter) and gradual implementation of the outlined reforms with time horizons to be defined jointly by local and EU authorities. While the overall DCFTA philosophy and implementation strategy are similar across the three countries, the pace of reforms and the selection of industries that enjoy a prolonged protectionist regime, varies significantly: on the one hand, Georgia is undertaking a much faster route of liberalisation; on the other, Ukraine has negotiated a much wider scope of exclusions from preferential treatment and milder pace of reform implementation.

Regarding trade-related aspects, both tariff and non-tariff barriers to trade will be gradually removed along the course of the DCFTA implementation. Tariffs on imports, a most common barrier to trade, constitutes a tax imposed on imported goods and services either as a percentage of the nominal value of imports (*ad valorem* tariffs), applied to the physical volume of imports (*specific* tariffs) or a combination of both (*mixed* and *compound* tariffs). In all cases, the levy results in additional price mark-ups and hence erodes price competitiveness of imported goods vis-à-vis equivalent domestic products. Among the most important NTBs regulated by the DCFTA agreements are technical barriers to trade (TBTs) – technical regulations, product standards, certification requirements, conformity assessment procedures, geographical indications – along with sanitary and phytosanitary (SPS) measures related to agricultural and food products. The spectrum of NTBs constitutes a major impediment to trade with the EU in general and is particularly binding and costly for the DCFTA countries (see Chapters 3 and 4).

Each of the DCFTA countries enjoyed asymmetric liberalisation of trade with respect to the EU as the latter granted duty-free access to its market (with certain restrictions imposed on the agri-food trade), at the same time permitting the three countries to maintain import duties for a negotiated transitory period of time. In particular, Moldova has been enjoying the Autonomous Trade Preferences (ATP) regime since 2008, Ukraine – throughout 2015, while Georgia has been benefiting from the GSP+ regime (set to expire by the end of 2016). In addition, as mentioned already, while for the majority of product lines the DCFTA agreements envision full elimination of barriers to trade, for certain sectors, primarily agriculture and food, liberalisation is only partial and trade in both directions is subject to constraints in the form of staged removal of duties, tariff rate quotas, anti-circumvention mechanism, etc. – discussed further.

[20] Also called non-tariff measures.

2.3. TRADE RESTRICTIONS APPLIED BY THE EU TO THE DCFTA COUNTRIES

Most import tariffs by the EU have been lifted by the EU upon the signature of the AA/DCFTA. However, the non-tariff barriers in the EU have been among the highest in the world and for the DCFTA countries specialising in agri-food production represent a particularly significant obstacle to trade. In addition to the requirements to comply with the EU food safety and SPS regulations (and abolish conflicting national standards based on GOST, where applicable), the three signatory countries are subject to the following restrictions stipulated in the AA/DCFTA agreements:

- **Tariff rate quotas (TRQs).** Tariff rate quotas are limits on the volume of products which can be exported to the EU duty-free; for exports exceeding the quota MFN rates are applied. The DCFTA countries are subject to rather strict TRQs applied by the EU to their agricultural and food products, including many of the traditional trade flows to the EU. Although TRQs do not restrict the overall volume that can be exported to the EU, de facto trade beyond the designated quotas is notably hampered as price competitiveness is severely undermined. Whereas in the case of Georgia's exports, TRQs are applied only to garlic, for Moldova and Ukraine the list of affected products is much longer, including meats, fruits, cereals and vegetables (see Table 2.1 for summary and Table A2 in the Appendix for details on TRQs and their utilisation)

- **Anti-circumvention mechanism** pertains to the monitoring of import dynamics from the DCFTA countries by the EU authorities to control for possible re-exports. If import volumes of a product subject to the regulation exceed 70% of a pre-specified threshold – 'trigger volume' set in tonnes – the exporting country will need to prove that the product was indeed produced in the country and respective production capacity exists. Otherwise, upon reaching 100% of the trigger volume the duty-free regime is suspended for an up to half-year period. In cases when the productive capacity of an industry subject to the regulation expands the figures can be revised.

- **Entry-price regulation and exemption of ad valorem component of import duty.** The regulation implies that exporters to the EU are obliged to pay only the specific component of a compound tariff rate applied to selected products categories if their import price exceeds a pre-determined price threshold, whereas below the price ceiling the full rate is applied.

Table 2.1 / Summary of restrictions applied by the EU to imports from the DCFTA countries

	Georgia	Moldova	Ukraine
Tariff rate quotas	garlic	tomatoes, garlic, grapes, applies, plums, grape juice	beef, pork, sheep, poultry, milk and dairy products, eggs, honey, garlic, sugars and syrups, wheat, barley, oats, maize, malt, starches, bran, mushrooms, tomatoes, grape and apple juice, corn, cereal products, ethanol, food preps, cigarettes
Anti-circumvention mechanism	meat, dairy products, eggs, cereals, malt, starches, sugars, bran, sweet corn, sugar, cigarettes	meat, dairy products, eggs, cereals, sugars, sweet corn, sugar, cigarettes	No anti-circumvention mechanism
Entry price regulation	tomatoes, cucumbers, artichokes, courgettes, citric fruit, grapes, apples, pears, apricots, cherries, peaches, plums, nectarines, grape juice and must	cucumbers, artichokes, courgettes, citric fruit, pears, apricots, cherries, peaches, nectarines, grape juice	citric fruit, grapes, apples, pears, apricots, cherries, peaches, plums, nectarines, grape juice and must

Source: Own elaboration.

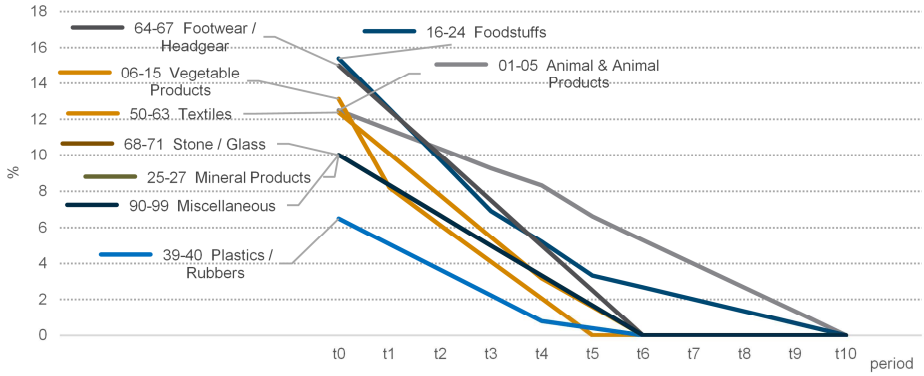
2.4. TRADE RESTRICTIONS APPLIED BY THE DCFTA COUNTRIES TO THE EU

The DCFTA countries were permitted to negotiate transition periods within the DCFTA framework allowing for a gradual liberalisation of trade in selected sectors deemed ‘sensitive’ from their perspective. Notably, Georgia has already liberalised its trade radically not only with respect to the EU, but also with regard to imports from the rest of the world in the mid-2000s and thus its DCFTA regulations do not foresee protective clauses for imports. By contrast, Moldova and Ukraine requested asymmetric regime for certain product categories with the transition periods set up to 10-15 years with generally longer protection horizon for their agri-food sectors, while tariffs are to be lifted within 4-6 years after entry into force of the DCFTA in other sectors (see Figure 2.1). In particular, Moldova opted for staged tariff liberalisation of its meats, dairy products, vegetables, fruit and berries, cereals, wines, textile products, plastic articles, as well as imposed TRQs on certain meat products, dairy products and sugars. Ukraine imposed TRQs on sugar and pork/poultry meat products, rough wood and scrap iron, and negotiated special safeguard measure applied to worn clothes and cars shielding the sectors for up to 15 years.

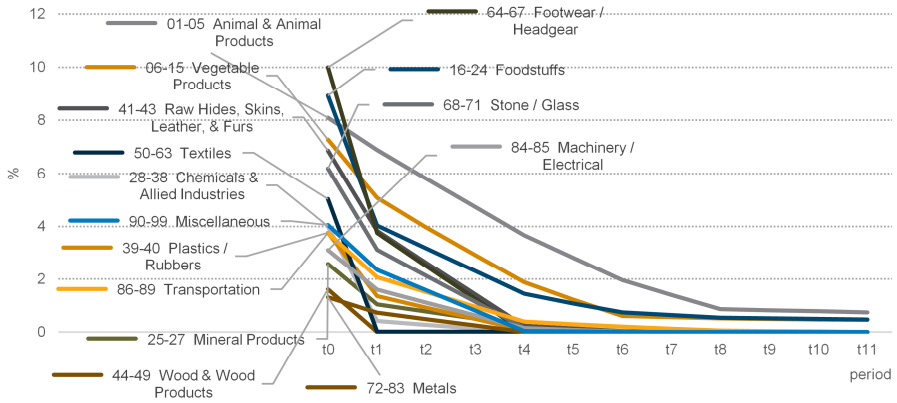
Export duties are prohibited by Moldova from the inception of the AA. Export duties applied by Ukraine on agri-food, animal products and metal scrap (base rates ranging from 9% to 23%) are to be completely eliminated within ten years after the entry into force of the DCFTA. In addition, Ukraine applies so-called safeguard measures in the form of a surcharge to the export duty on certain goods (sunflower seeds and raw hides) in case total exports to the EU exceed a pre-specified threshold level. Over time, that threshold level is set to gradually increase, and the export duty surcharge to decrease (Appendix I-D to Chapter 1 of the AA).

Figure 2.2 / Import tariff liberalisation schedules of Moldova and Ukraine

Moldova



Ukraine



Note: Import tariff rates are computed for the respective industry group (respective HS 2-digit codes incorporated in each group are labelled) as simple averages of ad-valorem rates of product lines, staging categories and tariff liberalisation schedules outlined in the AAs. t1 - t11 denote the years of the DCFTA implementation, thus t0 reflects the base rates.
Source: Own elaboration.

2.5. OTHER RELEVANT ASPECTS OF THE AA/DCFTA AGREEMENTS

Besides protectionist measures that are directly intended to shield certain industries from foreign competition outlined above, non-tariff measures in the form of TBT and SPS regulations constrain exports from the DCFTA countries to the EU. All three DCFTA countries are rather similar as regards the regulations of the AAs governing legal approximation to the EU standards, including TBTs and SPS measures. In particular, the AAs envision approximation to the EU law with the application of the principles of transparency, regionalisation, and the mechanism for establishing equivalence of SPS measures. Approximation to technical regulations should take place according to a negotiated timetable. The regulation envisions adoption of the relevant EU *acquis* and reforms (administrative and institutional) necessary to conform to the AAs and the Agreement on Conformity Assessment and Acceptance of Industrial Products. EU standards will be gradually adopted as national standards in the

DCFTA countries, while conflicting standards (GOST) should be withdrawn. Technical regulations are to be adopted along the 'horizontal' legislation, establishing the overall framework for industrial product safety, and the 'vertical' legislation, pertaining to the staged approximation of particular sectors. SPS subcommittees are to be established as organisations responsible for implementation of SPS measures.

Besides the DCFTA chapters, the AAs also contain other provisions relevant for the economic transformation of the DCFTA countries, specifically, in the titles and chapters concerning economic and sectoral cooperation in agriculture and energy sectors, as well as a range of other fields (financial, legal, environmental, education, etc.). Altogether the regulations are also aimed at liberalisation, approximation to the standards of the EU under monitoring of the joint committees with the final objective to arrive at a more Europe-like regulatory environment in the DCFTA countries.

All three countries are members of the WTO (a prerequisite for DCFTA), and hence the access to these markets was already liberalised to a certain extent prior to the AA/DCFTA provisional application. Comparing the AAs of the three DCFTA countries, Georgia represents a case with a much faster pace of liberalisation with immediate establishment of an (almost) free trade regime with respect to trade with the EU in both directions, while Ukraine and Moldova negotiated a much smoother transition and protection periods. Likewise, the EU also has significantly more restrictions applied to Ukraine and Moldova in comparison with Georgia.

Given the de facto trade specialisation of the DCFTA countries dominated by agri-food sector and commodities (see Chapter 1), TRQs appear to be the most limiting tool in general, while in the short- to medium-run SPS and TBT will be an important factor constraining exports from the DCFTA countries until they fully align them with the EU regulations. At the same time, there is asymmetry as the EU producers and exporters will not see any obstacles (besides some discussed above) in exporting to the DCFTA markets as they already abide by the rules of the EU and, in addition, are more competitive globally. Finally, the implementation of the AA is also asymmetric in the sense that the DCFTA countries do not have any control over the EU law, while at the same time have to accept most of its regulations as envisioned in the AAs (over 90% of the EU *acquis* is to be adopted).

3. Benefits and opportunities of DCFTA

Summary: The DCFTA will bring benefits to the signatory countries along multiple channels. The 'trade-only' and 'deep' aspects focusing, respectively, on the elimination or reduction of tariff and non-tariff barriers to bilateral trade will ease access to the EU market and boost exports. Liberalisation of imports will lead to higher efficiency of domestic industries and lower prices of intermediate and final goods. The imposition of stricter EU requirements will lead to higher quality of products. Regulatory approximation is expected to result in a more supportive and stable business environment, facilitating FDI inflows. In the longer run, this will lead to accelerated economic growth and will foster sustainable development.

The economic effects of the implementation of the DCFTA – costs and benefits – are multifaceted and need to be assessed along several dimensions: by groups of countries affected (the beneficiary countries, the EU, Russia and the Eurasian Economic Union, the rest of the world), by economic agents affected (the public sector, businesses, consumers), as well as by the time horizon over which the effects are likely to manifest (short-, medium- and long-run). Our impact assessment focuses on the implications for the DCFTA signatory countries, and looks into the effects across the public and the private sectors, identifying, where possible, the time horizon over which the effects will likely manifest themselves. As materialisation of certain costs and benefits is highly conditional upon a range of factors, e.g. de facto implementation efforts, conditionality, geopolitical reaction, macroeconomic stabilisation, it is best to refer to those as challenges and opportunities rather than costs and benefits per se. In the context of the study, by the *'short run'* we mean the effects that could already be observed shortly after the provisional and full implementation of the AA/DCFTA (as well as prior to intervention as expectations of the AA implementation internalised by the businesses and households also played a role); by *'medium run'* – effects that are expected to be pronounced during the transition period while the reforms are implemented and the DCFTA economies adjust; by the *'long run'* – the possible outcomes after the transition is mostly complete (that is, after 10-15 years, depending on the specific clauses of the agreements and the speed of implementation).

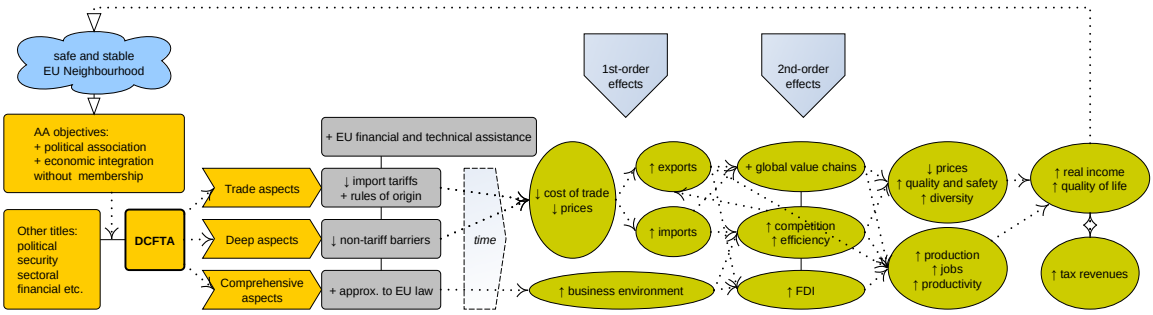
While most evaluations of the AAs focus almost exclusively on the benefits that will accrue in the long run, we also discuss the costs and benefits that will accumulate during the transition period and those that can be observed already in 2015-2016 after the autonomous trade preferences were granted and provisional application of the DCFTA initiated. Although the focus of the study is on the DCFTA itself, certain aspects of other chapters of the AAs with direct relevance for the DCFTA arrangement are also taken into account, in particular, regulations concerning economic and sectoral cooperation.

3.1. LOGIC OF THE DCFTA POLICY INTERVENTION AND TRANSMISSION CHANNELS

The AA/DCFTA is a complex policy intervention spanning a wide range of areas from trade-related matters to institutional framework, labour markets, infrastructure and other aspects of the economy, which presents a particular challenge for impact evaluation as direct and indirect impacts are also intertwined. The specific quantitative outcomes and targets pertaining to the DCFTA are mostly not

specified, while costs of implementation of specific reforms are either not estimated or not communicated publicly. In general, there is hardly any discussion of the costs of transition, although that is critical to assess the net effects of the DCFTA as well as the cost effectiveness of specific reforms.

Figure 3.1 / Causal chain analysis of the DCFTA impact channels



Source: Own elaboration.

As a starting step, we reconstruct the logic of the DCFTA intervention based on the official public communications regarding the AAs and European Neighbourhood Policy (ENP) presented in a 'causal chain' format with the channels via which the DCFTA arrangement is expected to bring benefits to the signatory countries outlined as elements in the flow chart (Figure 3.1). In particular, the 'trade-only' and 'deep' aspects focusing, respectively, on the elimination or reduction of tariff and non-tariff barriers to bilateral trade are expected to boost exports of the signatory countries to the EU, as well as to the rest of the world due to widespread international recognition of the EU standards. Liberalisation of imports will stimulate competition across domestic industries, leading to higher efficiency and provoking accelerated modernisation, also resulting in lower prices for the end consumers, thereby improving their purchasing power. The imposition of stricter requirements on production via food safety, SPS and technical standards will lead to higher quality and safety of products. Regulatory approximation is expected to result in a more supportive and stable business environment, thereby reducing costs of conducting business and boosting the inflow of FDI. The latter, along with the expansion of tradable sectors, will aid job creation and stimulate modernisation and competitiveness of the economy. The adoption of the EU standards will also lead to more environmentally friendly business practices and to sustainable growth and development. The prosperity that this policy will ultimately bring is a precondition for safety in the region, which is an overarching theme of the EU Neighbourhood Policy agenda.

The benefits of the AA/DCFTA were widely popularised by the EC and the communication was supported by the analysis commissioned by the EC to research institutions in the form of 'Trade Sustainability Impact Assessments' (TSIA)[21], conducted for each of the signatory countries to quantify the impact of the agreement. The assessments portray a rather rosy picture. Thus, according to the TSIA for Georgia, exports to the EU are expected to increase by 12% in the long run (including 9% already in the short run). In terms of sectoral composition, the TSIA envisions a 62% – the greatest gain – for the chemicals, rubber and plastics sectors of Georgia. Some sectors (livestock and meat products, electronics), however, are expected to contract. The increase in national income is expected to reach about EUR 292 million (4.3% of GDP). In the case of Moldova, national income is expected to grow by

[21] For the DCFTA countries see the TSIA reports by Ecorys and CASE (2007 and 2012, respectively).

EUR 75 million in the short run and EUR 142 million in the long run, thereby yielding an increase in GDP by 5.4% (3.2% in the short run). In terms of sectoral effects, the greatest gains (above 10%) in output are expected for crop, textiles, clothing and air transport industries. Sectors that will see a contraction of output (8-22%) are livestock and meat products, motor vehicles, and electronics. Finally, in the case of Ukraine, in the long run, economic growth is expected to increase by 0.5% per annum and welfare gains will reach 1.2% per annum; exports will rise by 6.3% and average wages by 5.5%. The TSIA exercises are an ex-ante analysis based largely on computable general equilibrium (CGE) model simulations and characterise the long-run equilibrium effects to be reached if all the AA/DCFTA conditions are implemented successfully. Yet, owing to the nature of the model, the results are typically highly sensitive to the simplifying assumptions incorporated and do not account for costs of reforms with the exception of a few that can be communicated to the model via ad-valorem equivalents and a limited set of model variables. In fact, the models are often agnostic about most social and economic costs involved in the transition process. This, however, does not reduce the value of the exercise and the CGE approach, being among the few general equilibrium multi-sectoral ex-ante modelling frameworks mastered to date, but rather brings about the necessity to complement the analysis by focusing on aspects that are difficult to model or quantify.[22]

Overall, the DCFTA approach makes perfect sense and offers a particularly attractive mode of bringing countries that do not face membership prospects closer to the EU. The 'deep and comprehensive' aspects of the DCFTA are expected to act as multipliers of the positive impacts of conventional free-trade area arrangement between the signatory countries. Nowadays, due to globalisation processes and the achievements of multilateral and bilateral trade agreements, frictions to cross-border movement of goods and factors of production have been reduced significantly already. Yet, as regards the cornerstone of economic integration – trade in goods – which is also at the heart of the DCFTA arrangement, the main obstacles are associated with non-tariff barriers rather than import duties and quotas.[23] In this regard, the 'deep and comprehensive' aspects of the AA/DCFTA represent a very relevant and powerful tool that the EC offers as a 'carrot' to facilitate institutional changes in the signatory countries. This is indeed a significant progress for the European Neighbourhood Policy in general, which has been undergoing difficult times recently (see more on the policy implications in Chapter 5 of the report).

3.2. BENEFITS FOR THE EU

It is clear that the benefits associated with the DCFTA implementation are highly asymmetric owing to the vast economic and institutional disproportions between the EU and the DCFTA countries. Focusing on the EU, economic benefits due to the access to new markets, an additional labour pool, etc. are expected to be minimal given the small size of the DCFTA economies (Figure 3.2). The aggregate GDP of the DCFTA countries is tiny at 2.3% of the EU-28 in PPP-adjusted terms (the estimated potential post-convergence market size is at most 10%, assuming convergence to the EU-28 average per capita income by all three DCFTA countries[24]). The TSIA reports also suggest that the economic impact on the

[22] The recent Bertelsmann Stiftung study conducted by Felbermayr et al. (2016) identifies positive effects of a broader Pan-European integration between the EU and EAEU.

[23] For a detailed discussion of tariff and non-tariff measures and their implications in the recent global trade developments see, e.g., Cadot and Malouche (2012); Cadot et al. (2012); Fugazza (2013).

[24] GDP per capita in PPP-adjusted terms constitutes only 25% of the EU-28 average level for Georgia, 13% for Moldova and 21% for Ukraine based on the IMF WEO data.

EU is negligible. Likewise, labour force is not sizeable and skill composition is comparable to the peer economies, including the new Member States and candidate/potential EU candidate countries. Access to the DCFTA markets, however, may be relatively more important for the NMS countries due to geographic proximity, historical economic linkages, comparable size of economies and high competitive pressures in the EU market.

Indeed, economic rationale has not played a critical role in the decision to develop closer ties with the signatory countries, as well as for the EU expansion to the neighbourhood region in general. Rather, the intentions of the EU along the lines of the ENP are aimed at turning 'neighbours' into 'friends' by stimulating deep institutional changes in the beneficiary countries. Developing such a circle of friends is especially important for the NMS countries given their closer social and economic ties with the DCFTA countries. Thus, the benefits for the EU are mostly political rather than economic. Besides that, Georgia, Moldova and Ukraine are important from the perspective of further development of cross-border infrastructure and transcontinental routes particularly relevant in the context of bridging Europe with Asian markets, as well as important for energy security – one of the sensitive issues for Europe. However, it is worth noting that in part it is the expansion of the EU to the 'East' that triggered an acute reaction by Russia, which has led already to vastly negative consequences in the neighbourhood, quite the opposite of what the ENP has been striving to achieve.

Figure 3.2 / GDP at PPP of the DCFTA economies, average 2010-2015

Panel A: GDP, % of the world GDP **Panel B: GDP, % of the EU-28 GDP**

Note: EAEU-5 includes the five members of the Eurasian Economic Union (Armenia, Belarus, Kazakhstan, Russia and the Kyrgyz Republic).
Source: IMF WEO.

The rest of the chapter deals with the benefits for the DCFTA countries. While many of those have been elaborated already by the EC as well as the expert community, they are often discussed in a rather vague manner with no clear guidance on the timeline over which the positive effects can materialise, as well as the added value of the DCFTA, and thus we analyse those aspects in greater detail.

3.3. LIBERALISATION OF TRADE AND EXPORT GROWTH

There is a well-established literature on regional trade integration and trade agreements, pointing to the multiple benefits that economic integration can bring.[25] The export-oriented economic growth model is the most viable option to accelerate growth for the DCFTA countries characterised as small open economies. Given that the EU market is considerably larger than the joint market of the DCFTA countries[26], the potential gains from exports are significant, which is especially important for tiny Georgia and Moldova (Figure 3.2). The positive experience of gradual enlargement of the EU and especially the accession outcomes for peer countries comparable to the DCFTA countries (e.g. the Central European and the Baltic countries) are indicative of the success of trade integration with the EU. As discussed in Chapter 1, the EU has been historically a prominent export destination for the DCFTA countries and thus represents a natural choice to further improve economic ties. Besides that, due to the especially high social, economic and cultural heterogeneity of European countries, the EU market is also very deep in terms of segmentation, offering multiple market niches for aspiring businesses.[27] Finally, another important aspect is the stability of the EU market from the regulatory perspective, in contrast, for instance, to the Russian market – another important destination for the DCFTA countries – in which the application of non-tariff measures has been rather volatile and political even within respect to the its partners in the Eurasian Economic Union (EAEU)[28].

As noted above, the liberalisation of global trade that has occurred over the course of the recent decades has eliminated many barriers to trade, while transport infrastructure and communication have developed tremendously giving rise to cross-border trade. As a result of the WTO commitments (all DCFTA countries are WTO members, which was among the preconditions for the AA signature), the import duty rates have already been greatly reduced (Figure 3.3), and Georgia has taken an especially extreme liberalisation path in the mid-2000s by unilaterally opening its market not only with respect to the EU, but also to all trading partners.

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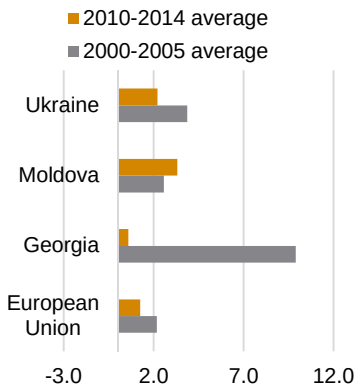
25 For instance, Balassa (1961); Bhagwati, and Panagariya (1996); Frankel and Romer (1999); Panagariya (2000); Samuelson (1939) to name but a few.

26 Spanning 28 countries, the EU is the world's largest market, accounting for about a fifth of the world's total trade.

27 More formally the trade potential and the effects of barriers on trade can be accessed via a gravity model of trade (see Appendix D for some estimates) and the degree to which the export structure of the DCFTA countries matches the import structure of the EU can be measured by the trade complementarity index (TCI): $\mathrm{TCI}_{iEU} = 100 - \sum_{\mathrm{k}} \left[\frac{m_{jk}}{M_j} - \frac{x_{jk}}{X_i} \right]$, where x is the value of exports of product k from reporter country i, and X is country i's total exports. Partner country j's value of imports of product k is given by m, and its total imports value is denoted by M, with TCI = 100 indicating ideal trading partners. According to the World Bank's WITS data, the value of the TCI in 2015 for Georgia was 47.4, for Moldova 43.3, for Ukraine lower at 37.4 (dropped on account of the economic crisis down from 42.2 in 2013), indicating trade complementarity much lower than that of peer economies (e.g. Czech Republic scored 66.8 and Latvia 65.1 in 2015).

28 See also Adarov (2015a, 2015b).

Figure 3.3 / Applied import tariff rate, weighted mean, all products, %



2015 (2014 for Ukraine)	Georgia	Moldova	Ukraine
Maximum tariff rate, all products (%)	12	75	50
Simple average tariff, all products (%)	0.42	5.1	4.28
Weighted average tariff, all products (%)	0.3	3.58	2.06
Capital goods, weighted average tariff (%)	0.02	2.69	1.74
Consumer goods, weighted average tariff (%)	0.32	3.57	2.59
Intermediate goods, weighted average tariff (%)	0.15	3.57	1.32
Raw materials, weighted average tariff (%)	1.1	7.75	1.43

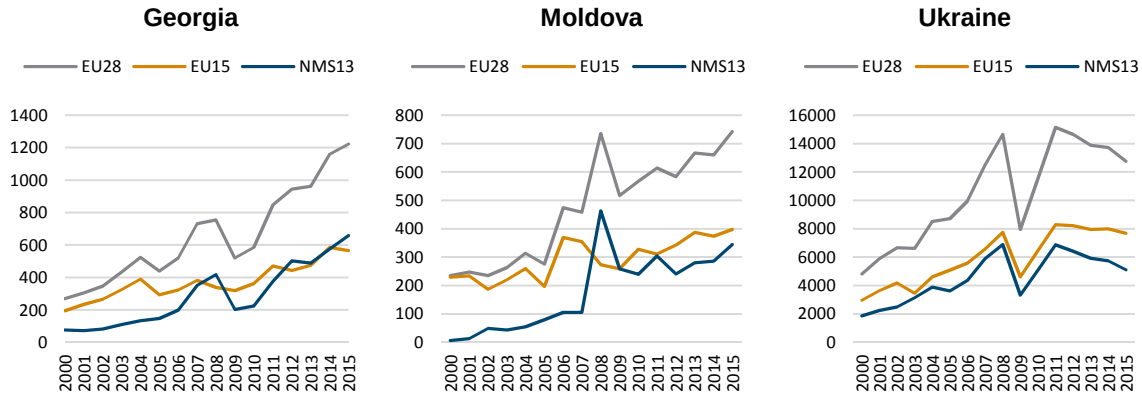
Source: World Bank, World Development Indicators (WDI) and World Integrated Trade Solution (WITS) data.

In that respect, the key obstacles to trade that remain are related to non-tariff barriers, and the EU market is notorious for being well-protected by high food safety requirements and technical standards pertaining to the safety of industrial goods. The greatest added value of the DCFTA in this respect is associated with the legally binding framework it establishes to deal with the NTBs in a multifaceted way with the financial and technical support from the EU institutions.

A relevant question then is to what extent the DCFTA can further boost exports to the EU. As indicated in Figure 3.4, the DCFTA-EU trade has been on a generally increasing trend throughout the 2000s, interrupted only by economic crisis episodes. The short-run aggregate trade effect of the provisional implementation of DCFTA (2014-2015) does not seem to be particularly significant as trade evolved very much in line with the past trends in Georgia and Moldova (although exports to the EU continued to increase). In part the modest developments are related to the economic challenges encountered on both the demand and the supply sides: still subdued aggregate demand conditions in Europe and economic growth deceleration in all three DCFTA countries, on the one hand, and, on the other, the inability to comply with the EU SPS and TBT regulations and the overall low competitiveness of the DCFTA countries. In the case of Ukraine, despite devaluation of the hryvnia and autonomous trade preferences granted in 2014 (unilateral access to the EU market with certain restrictions applied to the agri-food sector) trade collapsed.

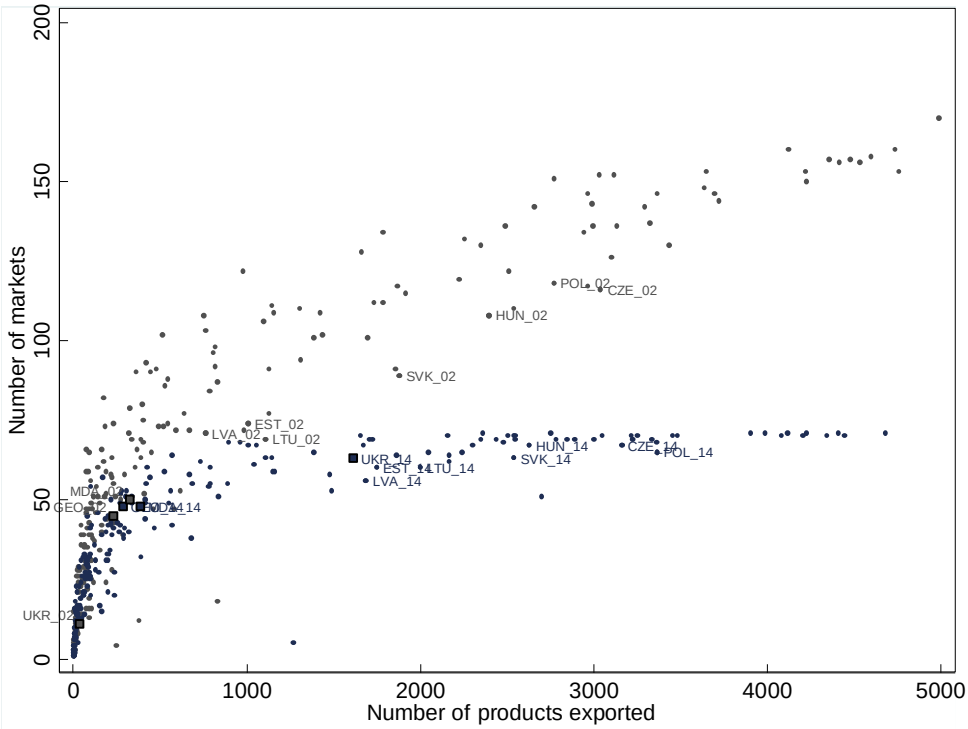
Nevertheless, in terms of market share the EU has become a leading export destination for all three economies, while the share of other traditional destinations (CIS market) has declined, indicating the relative success of the DCFTA implementation for trade diversion towards the EU. As discussed already in Chapter 1, in part, reorientation has also taken place due to embargo imposed by Russia on imports of certain foods and drinks from each of the three DCFTA countries (2006 for Georgia and Moldova; 2014 for Ukraine). Reorientation was also accompanied by transformations in the industrial composition of exports. For instance, in the case of Moldova, in 2003 almost 40% of its exports went to Russia, with a particularly high share of wine, popular in the CIS countries since Soviet times. Nowadays, as trade with Russia has contracted, exports of the electrical machinery equipment sector (wires and cables) have gained prominence in Moldova's exports, becoming its leading export product to the EU.

Figure 3.4 / Imports to the EU-28 from the DCFTA countries, million EUR



Source: Eurostat Comext.

Figure 3.5 / Diversification by export products and destination markets, 2002 and 2014



Note: Global sample; light grey dots denote exporting countries in year 2002, dark blue dots denote exporting countries for year 2014. The DCFTA countries and selected peers are labelled; horizontal axis: number of HS 6-digit product categories exported by a reporting country in a given year; vertical axis: number of countries to which a reporting country exports in a given year.
Source: Own elaboration based on the World Banks' WITS data.

The dynamics of exports to the EU-15 and the NMS-13 groups also differs across the three countries (Figure 3.4). Exports from Moldova to the NMS countries have increased in recent years and are comparable to exports to the EU-15, which dominated in the early 2000s. Similarly, in the case of Georgia, exports to the NMS countries have accelerated faster relative to the EU-15 and the gap in nominal trade value between the two groups has narrowed. Imports to the EU-15 from Ukraine, however, historically exceed those to the NMS and the recent crisis has led to faster contraction of the latter.

The access granted to the EU market under the DCFTA arrangements also somewhat differs across the three signatory countries, as trade openness of the EU with respect to Georgia is also much higher (e.g., a TRQ is set only for garlic as opposed to TRQs for multiple product lines in Moldova and Ukraine). Prior to the DCFTA, under the GSP (since 1999) and GSP+ (since 2005) regimes over 90% of Georgia's exports to the EU was already liberalised according to preference utilisation data, thus the added impact of the DCFTA may be more modest relative to the other two countries, although the DCFTA covers the agri-food sector more prominently than the GSP+ (the scope of trade access has expanded from 7 thousand products under GSP+ to 11 thousand under DCFTA). Many goods that saw an increase in exports to the EU, particularly, hazelnuts (the HS 2-digit sector 20 has grown by 139% over 2013-2015, see Figure 1.14), already had free access to the EU under GSP+. Similarly, Moldova has enjoyed preferential treatment under GSP since 2006 and GSP+ since 2007, further replaced by an ATP regime in 2008, which resulted in the share of the EU expanding dramatically to 50-60% in the last decade. Thus, the general immediate additional effects on exports to the EU are still modest, while the major benefits in terms of market access will come with the broader implementation of EU standards.

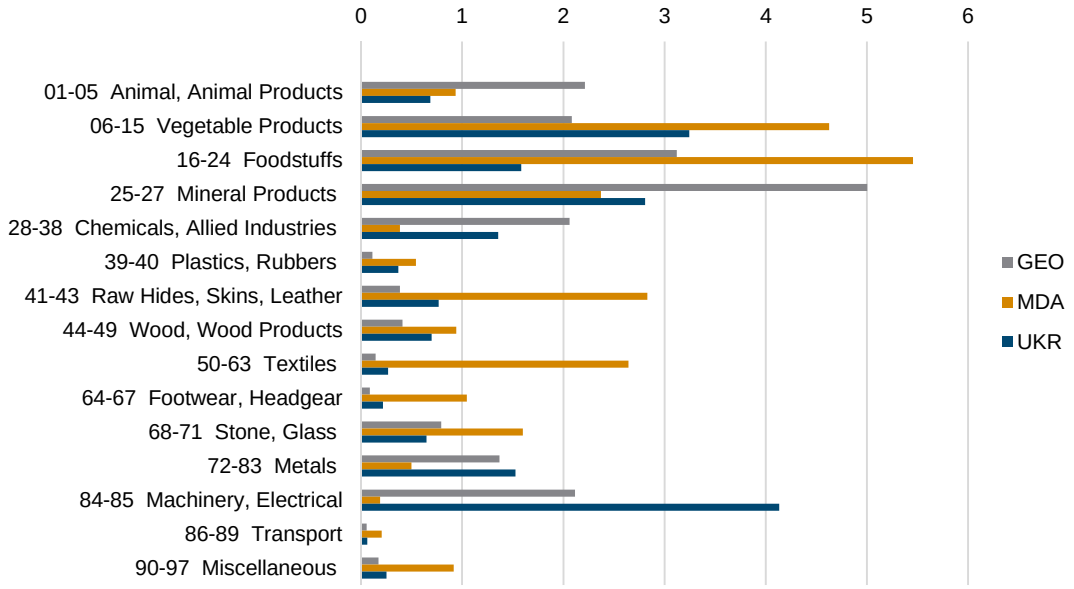
Importantly, the adoption of the DCFTA will enable producers in the beneficiary countries to expand export to non-EU markets also, since EU standards are widely accepted internationally, as well as to potentially diversify the product composition of exports. The latter is certainly conditional on the export specialisation strategy the countries will pursue and the ability to address competitiveness issues by their industries. Diversification is terms of export product scope and markets is an important benefit the DCFTA may bring indirectly as reliance on a single market even as diverse and deep as the EU's poses risks (the double-dip recession in Europe is an illustration of such spillover risks). In this regard the diversification of the DCFTA countries was very low in contrast to peer economies (Figure 3.5). As global trade has contracted recently, this has also manifested in the compression of the scope of trade as the number of export destinations visibly dropped at the global level as seen in the figure. The NMS countries improved over the period 2002-2014 in terms of the export product mix in absolute terms and in *relative* terms with respect to the number of markets to which they export.

It is likely that the benefits of trade liberalisation will first accrue to industries that have already been competitive at the global scale. To measure the competitiveness of industries we resort to the index of revealed comparative advantage (RCA)[29]. The RCA index computed for the HS 2-digit industries and averaged over 15 broader industry categories for better readability (Figure 3.6 depicts a 10-year average value to smoothen the business cycle effects and show long-run competitiveness) indicates that

[29] The RCA index is based on Balassa (1986) and measures the comparative advantage of country c in industry i in year t as follows: $RCA_i = \frac{x(i)_c/X_c}{x(i)_W/X_W}$, where x(i) is the value of exports of industry i, X is the total value of exports from country c or from the world (W). According to this approach a country reveals a comparative advantage in a particular industry i if its RCA index in that industry is greater than unity, indicating a greater concentration of exports in a particular sector relative to an average country in the world.

competitiveness of the DCFTA countries is mostly concentrated in the agri-food sector and commodities (mineral products, metals). In addition, Moldova has a competitive edge in the production of textile and leather products, Georgia and Ukraine in more advanced sectors – chemicals and machinery. As noted earlier, however, the latter reflects re-exports of vehicles targeted at neighbouring Azerbaijan and Armenia and is certainly not indicative of the true competitiveness. As another concern, the high value-added exports of Ukraine (*Machinery and equipment* sector group) prominent in terms of relative market share are mostly directed to Russia and are mostly not competitive elsewhere.

Figure 3.6 / Industrial competitiveness of Georgia, Moldova and Ukraine, revealed comparative advantage index, average 2005-2014



Source: Own calculations based on UN Comtrade data.

As regards the impact of the DCFTA on imports, benefits will also accrue to both consumers and businesses already in the short and medium run. Trade liberalisation will bring immediate benefits in the form of lower prices and greater product variety in most categories of goods (particularly, high-price/high value-added products) as a result of the elimination of price mark-ups due to tariffs and higher competition induced by foreign producers in the domestic market. Liberalisation of imports will be more gradual for certain products lines in the case of Moldova and Ukraine, which will be shielded by tariff protection maintained over transition periods of up to 10 years, and thus the benefits due to lower import costs will also depend on the pace of liberalisation (see Section 2.4). Conditional on proper implementation and monitoring of EU industrial and food safety standards, the quality of products will increase as the EU standards are among the highest in the world. Likewise, lower import prices will reduce costs of production and facilitate modernisation as the DCFTA countries are critically dependent on foreign capital goods, particularly high-technology equipment. The effects attributed to the DCFTA should not be overemphasized however, as much import liberalisation has already taken place earlier and the impact of tariff reductions can easily be outweighed by exchange rate fluctuations, as was the case recently (floating exchange rate regimes have been adopted by the DCFTA countries; all three countries suffered from currency depreciations).

3.4. REGULATORY APPROXIMATION TO THE EU ACQUIS

Approximation to the EU *acquis* induced by the AA/DCFTA is one of the strongest factors that will induce positive changes in the beneficiary countries along many dimensions. The adoption of the EU *acquis* that is to be undertaken is broad as some 80-90% of the EU legislation is to be 'approximated' and 'harmonised'. Clearly, the AA/DCFTA is not a prerequisite *per se* for either trade liberalisation or the facilitation of institutional changes much needed by the DCFTA countries: trade liberalisation can be initiated on a bilateral or multilateral basis along the lines of the WTO, while structural reforms could be undertaken by the officials at their own initiative with possibly greater flexibility and relevance to the country. The approximation to the EU legislation is unilateral for the DCFTA countries: they have to adopt the European law entirely and there are no flexibilities as regards its application (either take it or leave it), whereas the DCFTA countries do not have any control over the content of the *acquis*, unlike the EU Member States.

However, there are significant additional benefits of approximation to the EU body of law via AA/DCFTA. Importantly, the strength lies in the internal consistency of the EU legislation that has been tested along many fronts in the European context, reflecting the multilateral concerns of the EU members; it thus suits well the purpose of legal harmonisation for countries seeking closer ties with Europe and eliminates the need to develop own legislation and thereby 'reinvent the wheel'. The European law has been continuously evolving to incorporate the changing economic realities and strives to be supportive of sustainable economic development along multiple dimensions; thus, alignment with the modern legal system would serve well the purpose of arriving at a competitive state of economies (related caveats are discussed in Chapter 4).

The most important from the trade perspective are the 'deep aspects' of the regulatory alignment related to SPS, food safety standards and technical regulations that are necessary to gain access to European markets. Technical regulations and standards should be adopted along overarching 'horizontal' and 'vertical' – sector-specific – legislation. The standards that prevailed in the DCFTA countries were based on the GOST standards that had compatibility issues with the EU standards. These standards were inherited from the Soviet quality control system and hinder access to foreign markets, including the EU, which do not recognise the standards. Besides this, the GOST standards are costly to maintain and focus on end-product mandatory certification; nevertheless, they have been serving well the purpose of controlling production quality and food safety. As non-tariff barriers are the most binding trade constraints, while the significance of tariffs and quotas has decreased over the recent decades, convergence to the EU standards will be of paramount importance to unlock the EU market for the DCFTA countries. European standards are accepted by many non-EU countries, which further expands the export potential.

The reforms along the 'comprehensive' aspect of the DCFTA as well as a range of regulatory improvements in line with other chapters of the AAs will lead to the gradual adoption of European standards, better practices across a wide range of regulatory fields and higher transparency in the areas of public procurement and customs, traditionally among the most corrupt areas in the DCFTA countries. The AA also includes provisions enabling access to public procurement and companies in the DCFTA countries will be able to compete for government contracts and receive national treatment in the EU. Streamlining business regulation procedures will help reduce costs of operation for domestic and foreign businesses, thereby attracting investment and stimulating growth and employment in the longer run. The

scope of institutional improvements certainly depends on the existing gaps and on the speed and success in the implementation of reforms.

At a more general level, the AA/DCFTA envisions a truly comprehensive reform of legislation that will result in an improved business environment. Overall, as well-elaborated in the economic literature, strong institutions are a key ingredient for achieving sustainable economic development. A particularly significant benefit for the DCFTA countries is expected to accrue from anti-corruption reforms as well as better governance and other institutional improvements. Corruption has been one of the most onerous and persistent issues throughout the countries of the former Soviet Union and the DCFTA countries were no exception. Ukraine and Moldova are still struggling with slow progress, while Georgia has largely overcome the issue thanks to radical reforms implemented in the post-2004 period. According to the corruption perception index, in 2015 Georgia occupied 48th place (out of 168), Moldova 103rd and Ukraine 130.[30] The AA/DCFTA could serve as an important vehicle for pursuing the much-needed reforms tackling corrupt practices and facilitating institutional improvements in the case of Moldova and Ukraine, as well as helping Georgia to sustain the progress it has achieved to date. The relative success of the institutional reforms induced by the EU integration processes could be judged by the progress made by the NMS countries (see Appendix C). In the case of the DCFTA countries, the implementation of reforms is more challenging as the countries do not face membership prospects – an important factor for a sustained reform impulse. However, the reform effort in the DCFTA countries will be supported by financial and technical assistance from the EU institutions, which considerably improves the chances of successful implementation, which is essential particularly for Moldova and Ukraine in light of their generally poor track record in improving the institutional setup. In this respect, strict conditionality of financial aid with benchmarking and monitoring is essential and should be prioritised despite difficult political circumstances.

As another principal factor, the EU-induced legal approximation process, while certainly very costly, already successfully passed the test of time as other countries managed to undergo the process to a varying extent (new EU Member States, candidate and potential candidate countries). The experience of peer countries in the region that have endured the transition process and faced challenges similar to those the DCFTA countries are facing now will be also instrumental for avoiding mistakes and making the transition more efficient. Thus, the past success should help dampen perceived risks of implementation and help to ‘anchor’ positive expectations to facilitate investors’ confidence necessary to generate private investments, as well as gain widespread public support of reforms. Moreover, the adoption of EU laws will de facto bring Georgia, Moldova and Ukraine closer to becoming more similar to EU members and, although the prospects of EU membership are not discussed now and not likely in the near future, much of the gap towards becoming a member will have been bridged already as a result of the AA implementation when the dialogue concerning possible membership re-emerges.

Finally, in the medium and long run the EU-like regulatory environment will help attract foreign direct investors, which is critical for successful industrial transformation and modernisation of the DCFTA economies due to limited own capacities – further discussed in the next section.

[30] The Transparency International Corruption Perception Index is available at http://www.transparency.org.

3.5. STIMULUS FOR FOREIGN DIRECT INVESTMENT

Among the key determinants of FDI as identified in the empirical literature are economic factors (sound macroeconomic environment, market size, income levels and the size of the middle-income class, growth prospects, labour costs and availability of skilled labour, tax regime, as well as the quality of infrastructure and institutions.[31] While the DCFTA countries have been lacking many of these elements, the AA/DCFTA will help bridge many important gaps in attractiveness to foreign investors.

More predictable and familiar (to the EU investors) regulatory environment that the EU approximation is expected to bring will facilitate foreign direct investment, the major benefits of which have been widely discussed in the literature, including addressing financial constraints (particularly long-term funding), job creation, technology spillovers, investment in human capital, better managerial practices, logistics improvements, etc. Importantly, this will also help integrating the domestic businesses in global value chains, something that could be difficult to accomplish by the domestic firms on their own (see next section).

Inflows of FDI, both greenfield and via mergers and acquisitions, are expected to be the main vehicle of industrial modernisation in the DCFTA countries akin to many of the peer economies in Europe. Owing to the commercial acumen of foreign firms, investment will target the most promising areas for cooperation and result in positive spillovers for both upstream and downstream industries in the recipient DCFTA economies. As evidenced in the case of CEE countries, integration with the EU indeed resulted in a boost to FDI inflows even prior to membership (rather, when a membership perspective became apparent, see Avery et al., 2009; Hunya and Richter, 2011). The inflow of foreign investment to the financial sector could also be particularly beneficial. Scarcity of financial resources is noted as one of the key constraints on modernisation by the private sector in general and is particularly binding in transition economies; foreign banks could be part of the solution, similar to the situation in the NMS countries where the financial sector has become predominantly foreign-owned.

At the same time, it should be noted that the benefits of FDI inflows heavily depend on the progress in covering the gap in the regulatory environment. DCFTA countries that have already advanced in terms of reforms will thus see less additional gains due to a smaller gap. The case in point is Georgia, which has already made significant progress in business-related reforms over the course of the 2000s and as a result attracted much FDI – accelerating to 15-20% of GDP over 2006-2007 (see also Figure 3.7 and Appendix A). According to official data, over the period 2006-2015 FDI in Georgia amounted to over USD 10 billion in total, mostly coming from Azerbaijan and targeting the transport and communications sector.[32] By 2015, FDI stocks reached almost 90% of GDP (the highest share not only among the DCFTA peers but also in comparison with CESEE, though in per capita terms FDI stocks are still lagging behind – see Table 1.1 above).[33]

Moldova was relatively less successful on aggregate in attracting FDI, despite the Special Economic Zone arrangements designed to improve business environment and attract FDI in selected areas. The acceleration of FDI inflows that the economy saw in 2007-2008 came to an abrupt end owing to the

[31] See, for example, wiiw FDI Report, June 2016; Hunya (2008).

[32] Source: Ministry of Economy and Sustainable Development of Georgia. http://www.economy.ge/en/economic-review/foreign-direct-investments and National Statistics Office of Georgia.

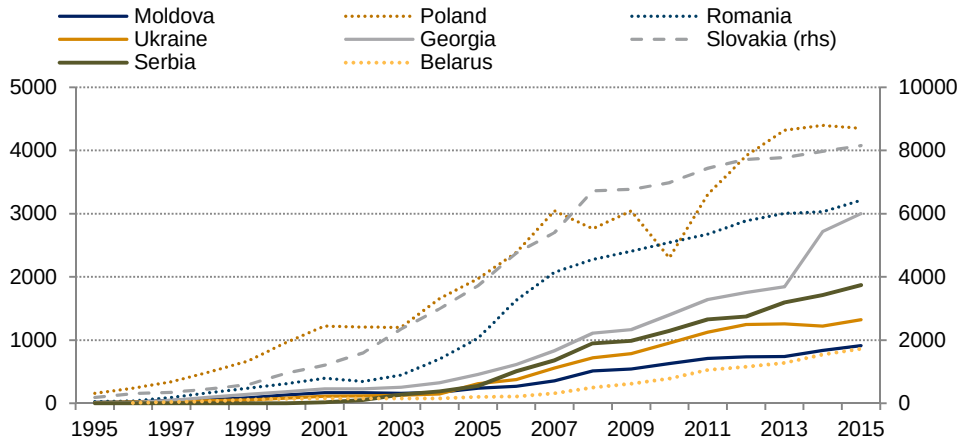
[33] See also wiiw FDI Report 2016.

global economic crisis (see more in Giucci and Radeke, 2012). In per capita terms, FDI stocks in Moldova are the lowest among the CESEE peers.

The experience of the NMS countries indicates that FDI inflows have significantly contributed to the modernisation and economic restructuring of these economies, especially FDI in the manufacturing industry, business services such as IT, software development and logistics. Such investments have been particularly welcome as they helped to establish competitive export-oriented industries (the German-CEE automotive cluster is a case in point).[34] On the other hand, FDI in the non-tradable sectors (retail and wholesale trade, real estate) were more problematic owing to the risks of widening of trade and current account deficits. Such problematic developments have been observed in several Western Balkan countries such as in Albania, Bosnia and Herzegovina, Kosovo and Montenegro (see Gabrisch et al., 2016). Foreign investments have been promoted and supported by state-sponsored Investment Promotion Agencies such as CzechInvest in the Czech Republic, Sario in Slovakia, PAIIZ in Poland, etc. Similar institutions should be established and revitalised, respectively, in the DCFTA countries as well.[35] That is yet particularly important as the regional competition for foreign investments among the CESEE peers has been intense, while the DCFTA countries are generally lagging behind in terms of business environment, according, e.g. to the World Bank's Ease of Doing Business indicator with Ukraine and Moldova lagging very much behind the CEE peers. Georgia has markedly improved its overall investment ranking recently – now on par with Poland and Slovakia – yet still ranks low in Trading Across Borders (see Table A4 in the Appendix).

Cumulative FDI stocks per capita have been much lower in the DCFTA countries than in the regional peer economies and in the recent years there has not been a noticeable increase in FDI flows yet – with the possible exception of Georgia. Higher FDI inflows to Georgia during 2014-2015 focused on construction and transport (non-tradable) sectors. In Ukraine, the reported increase in FDI inflows during 2015 was related to the recapitalisation of banks with EBRD participation.

Figure 3.7 / FDI stocks in selected countries, per capita, in EUR



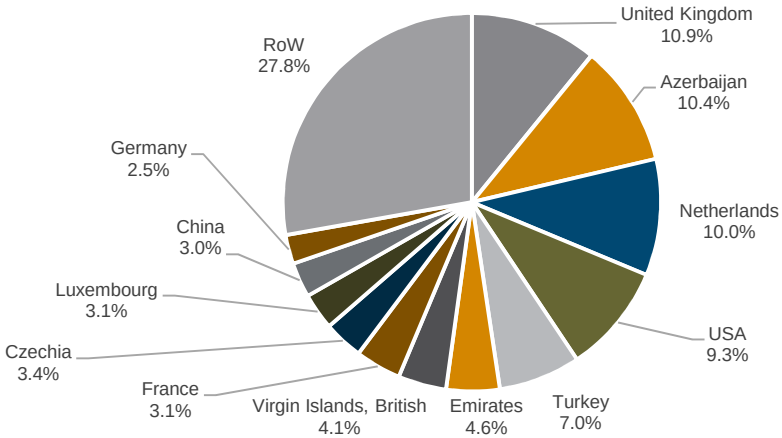
Source: wiiw FDI Database, national statistics.

[34] See IMF Multi-Country Report, no. 13/263, August 2013; Stöllinger and Stehrer (2015).

[35] This was one of the policy recommendations for Ukraine (see Adarov et al., 2015). The Ukrainian Investment Promotion Agency was liquidated in 2014 after a corruption scandal and has not been revitalised yet (http://voxukraine.org/2015/09/22/problems-of-investment-promotion-in-ukraine-eng/).

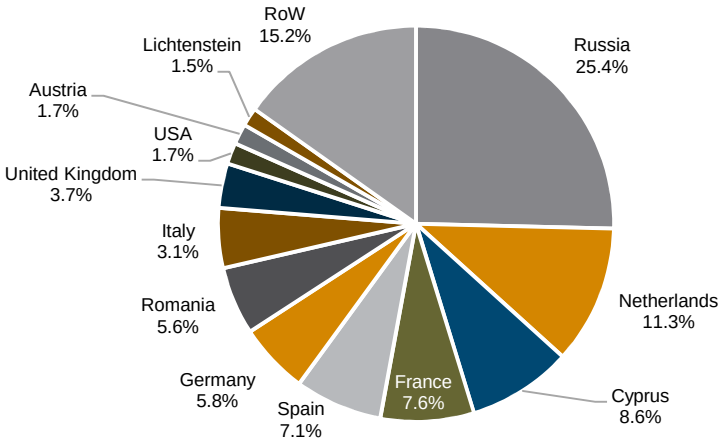
Figure 3.8 / Inward FDI stock by main investors, 2015

Panel A / Georgia. Total inward FDI stock = EUR 12.9 billion



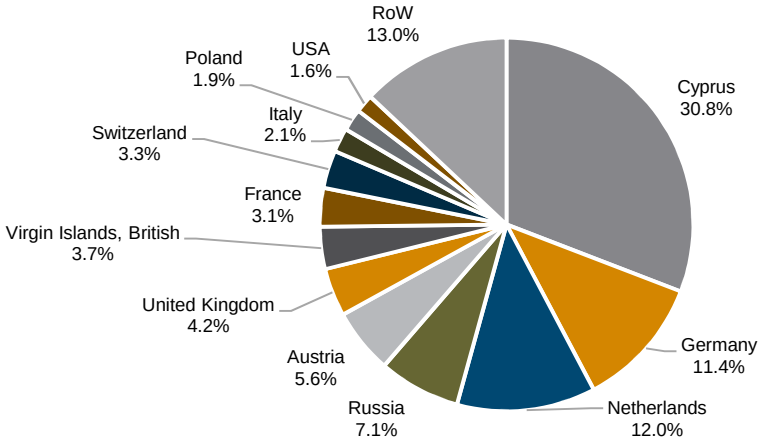
Source: wiiw estimates based on GeoStat.

Panel B / Moldova. Inward FDI stock = EUR 3.2 billion



Source: wiiw estimate based on National Bank of Moldova.

Panel C / Ukraine. Total inward FDI stock = EUR 46.9 billion



Source: wiiw FDI Database.

However, it is not just the volume of registered FDI *per se*, but also its sectoral structure, investors' motives (e.g. domestic market penetration vs exports) and other FDI structural and 'quality' characteristics that matter. As regards sectoral composition of FDI in the DCFTA and peer countries, the bulk of FDI has been concentrated in manufacturing, trade, and financial services, each of these three broader sectors accounting for about 20-30% of total FDI stocks (Table 3.1). In this respect, the DCFTA countries have thus not been much different from Poland, Romania, Slovakia or Serbia.

An important distinct feature of FDI in the DCFTA countries has been the geographic origin of investors. In Ukraine, for example, more than 30% of FDI stocks came from Cyprus; the share of FDI from Western Europe (EU-15) was just 42% of total FDI stocks in 2015 (Figure 3.8). In Georgia, a lot of FDI originates from Azerbaijan, Turkey, the United Arab Emirates and the Virgin Islands. In Moldova, the biggest investing country is Russia (30% of FDI stocks); Cyprus accounts for another 10%. The extremely high shares of Cyprus in both Ukraine and Moldova indicate that this kind of FDI most likely represent just a recycling of domestic flight capital and possibly tax evasion and one can probably safely assume that this kind of FDI is not particularly conducive to an upgrading and modernisation of the economy towards EU standards and successful restructuring. Progress in DCFTA implementation should thus rather result in diminishing the shares of offshore-originating FDI.[36]

Table 3.1 / FDI stocks structure, 2014/2015

	Georgia	*Moldova*	*Ukraine*	*Romania*	*Poland*	*Slovakia*	*Serbia*
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
of which:							
Agriculture, fishing	1.2	1.3	1.7	2.5	0.5	0.3	3
Mining	3.1	.	3.1	5.6	0.3	0.5	1
Manufacturing	13.3	22.5	26.7	32	29.4	32.4	34.1
Energy sector	14.2	6.9	1.7	11.1	3.4	14.6	1.4
Construction	8.3	2.2	3.1	4.2	4.6	1.0	12.5
Hotels and restaurants	6.2	15.1	14.9	12.6	13.8	10.0	10.2
Transports and communications	22.6	9.4	8.3	7.7	6.8	6.8	8.3
Health and social work	0.8	1.4	0.4	0.5	0.5	0.6	0
Real estate[1]	9.7	14.4	7.8	5.6	6.8	6.2	2.7
Financial sector[2]	10.1	25.1	24.6	13	23.1	24.4	22.9
Other sectors[3]	10.2	1.7	10.8	10.8	11.1	3.7	4.9

Source: wiiw FDI Database, National Banks of Georgia and Moldova; own estimates.

3.6. INTEGRATION INTO GLOBAL VALUE CHAINS AND CONNECTIVITY GAINS

Global production and trade activity nowadays is increasingly organised along international production networks (global value chains), with stages of the production process distributed across countries to utilise location-specific advantages, e.g. cheap labour costs, availability of raw materials, proximity to final markets, etc. Global competitiveness largely depends on the ability of a company to take advantage of the global value chains (GVC), and it is of critical importance for the DCFTA countries to integrate successfully into relevant cross-border production and distribution networks. In this respect the DCFTA will facilitate the participation in global value chains via the following major routes: (1) trade liberalisation

[36] For comparison, 86% of FDI stocks in Poland originate from the EU-15, in Romania it is 80%, in Slovakia 70% (another 16% come from the Czech Republic and Korea), in Serbia 64%, etc. – see wiiw FDI Report 2016.

resulting in improved cost effectiveness of intermediate import-dependent production; (2) the regulatory environment of the DCFTA countries as a result of legal approximation becoming more similar to that of the EU, stimulating foreign investment; (3) implementation of the EU rules of origin and diagonal cumulation practices broadening the base for preferential treatment.

As noted above, all three signatory countries are heavily dependent on imports of intermediate products, especially in the high value-added segment, and the DCFTA will help satisfy these needs by lowering import costs and facilitating higher compatibility due to mandatory alignment of all production processes to the EU standards (not only export-oriented industries). By itself, however, this will not be sufficient as manufacturing industries in the DCFTA countries are lagging behind in terms of productivity and largely are not competitive in external markets, including the EU, which is aggravated by limited knowledge of European distribution networks and difficulties in finding partners in the EU (see Chapter 4). As a remedy, the expected acceleration of FDI inflows as a result of a better regulatory environment will help address this issue and facilitate access to established production and distribution networks in Europe and globally.

In this regard an important element of the access to EU market concerns the rules of origin used by the EU to protect domestic markets from potential duty-free imports of goods from third countries (that do not have preferential access) via the DCFTA countries. The rules of origin specify criteria for judging whether an imported product is produced in the partner country (wholly produced or mostly produced, i.e. substantial transformation and value was added on the territory of the exporter)[37]. The application of the European rules of origin along the lines of the DCFTA will allow the signatory countries to join the PanEuroMed (PEM) Convention, which allows for the cumulation of value added processes with other members of the agreement and thus will further facilitate the development of cross-border production chains. In brief, the cumulation of origin allows to treat intermediate inputs along the value added chain from certain third countries as inputs originating domestically, which effectively widens the spectrum of goods that can be exported by the DCFTA countries to the EU duty-free. In the case of the PEM cumulation framework, the DCFTA countries will be able to use materials from the EU countries and selected Mediterranean countries as if they originated domestically for the purposes of preferential treatment in exports to the EU. Diagonal cumulation extends the principle across multiple countries participating in the production along the value added chain.

The potential benefits of cumulation can extend further the benefits from already established cross-border cooperation linkages. The textile and apparel industry in Georgia may serve as an example in this respect: the largest textile companies in Georgia with Turkish investment (Adjara Textile, Batumi Tex, and BTM Textile) import raw materials from Turkey to be used for further processing in Georgia (taking advantage of lower labour costs) and then export the final products back to Turkey to be further sold in EU markets[38]. Under the cumulation rules, Georgia will be able to export directly to the EU the processed products as if they were fully produced locally, thereby taking advantage of the preferential treatment.

In the case of Moldova, as noted earlier, coaxial cables and wires (HS code 85) have emerged recently as the top product category exported to the EU, linked to the production of cars in Romania (see

[37] For details on the rules of origin in the EU, including specific criteria for preferential and non-preferential treatment, see the dedicated EU web portal: http://ec.europa.eu/taxation_customs/business/calculation-customs-duties/rules-origin_en

[38] http://eugeorgia.info/en/article/213/-negotiations-with-turkey-in-the-final-stage/

Chapter 1). That shift was not accidental, but was rather underpinned by industrial polices initiated by Moldova to promote FDI focusing on the automotive and electrical machinery sector via Special Economic Zones[39]. While these zones in general were characterised by a rather mixed performance, a particular success of the integration in the automotive sector is certainly indicative of the potential to participate in global value chains that will further expanded via the DCFTA implementation.

As a related matter, cross-border infrastructure is critical for the development of cross-border production cooperation. The DCFTA countries are well positioned to serve as important transport hubs bridging Europe and Asia, which could be instrumental in facilitating pan-Eurasian-European integration endeavours. Cooperation and assistance on cross-border infrastructure along with the infrastructure within the countries are not directly regulated by the DCFTA, but rather by the AA titles outlining economic and infrastructure cooperation, yet it is highly complementary to the success of the DCFTA in terms of supporting deeper production integration. The EU will help achieve greater cross-border connectivity and integration of the beneficiary countries to the pan-European transportation networks thereby enhancing bilateral trade and production linkages. In a similar vein, enhancing energy infrastructure across the borders will help reduce risks associated with potential supply disruptions as energy security remains one of the vulnerabilities of the EU and the DCFTA countries.

3.7. FINANCIAL AID TO SUPPORT DCFTA IMPLEMENTATION

Among the direct benefits of the EU association stemming from the AA agreements is the financial support which the EU has been providing or committed to provide to the DCFTA countries (see Box 3.1). While the EU has been supporting other countries and regions in various forms in general (humanitarian aid, development assistance, etc.), in the case of the DCFTA countries, financial assistance will go beyond the 'traditional' development assistance, though staying below the pre-accession assistance offered to candidate countries or the EU transfers provided to NMS in the form of structural funds and agricultural subsidies in order to foster competitiveness and growth, support cohesion and the preservation of natural resources (mainly agriculture and fisheries).[40] During the first decade of EU membership (2004-2014), Poland received almost EUR 80 billion net from EU transfers (more than 3% of its GDP in 2011-2014); Slovakia more than EUR 9 billion (less than 2% of GDP). Romania received more than EUR 17 billion during the first eight years of its EU membership (2007-2014).[41] On a per capita basis and cumulated over the whole EU membership period, this represented EUR 2,080 per head in Poland, EUR 1,670 in Slovakia and EUR 860 in Romania. Extrapolating these per capita transfers to the population in DCFTA countries, the estimates would add up to EUR 37-89 billion for Ukraine over a ten-year period (the lower boundary represents the Romanian scale of transfers, the upper boundary the Polish one), and about EUR 3-8 billion for Georgia and Moldova – a vast difference compared to the de facto EU financial support earmarked for the DCFTA countries (which is only in part in the form of grants rather than loans).[42]

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[39] The Special Economic Zones offered a stimulating investment climate via special tax and customs regimes and were particularly well geared for value added chain activities in the automotive sector; see more in World Bank (2015). However, not all of the seven SEZs established worked well.

[40] For instance, from 2007 to 2014, EU financial assistance to the Western Balkan countries through the Instrument for Pre-accession Assistance (IPA) amounted to EUR 5.1 billion (European Court of Auditors, 2016).

[41] See http://ec.europa.eu/budget/figures/2007-2013/index_en.cfm.

[42] See also Grinberg, Havlik and Havrylyshyn, 2008 and Messerlin et al., 2011.

Box 3.1 / Financial aid to the DCFTA countries from the EU

Georgia[43]. The EU supports Georgia's reform agenda through financial and technical cooperation. More than 100 EU-supported projects are currently being carried out in Georgia. On 18 July 2014, Georgia signed a Memorandum of Understanding fixing the priorities for EU cooperation for the period 2014-2017 with an indicative financial allocation in the range of EUR 335-410 million. Georgia is also benefiting from EU macro-financial assistance (MFA) of EUR 46 million, half of which is in grants.

Moldova[44]. For the years 2014 to 2017, the European Neighbourhood Instrument alone has set aside between EUR 335 million and EUR 410 million for Moldova. Additional funds are made available to Moldova through regional programmes. The EU supports several infrastructure projects in the transport, energy, water and SME development sectors in and around Moldova, with over EUR 400 million loans mobilised, through the Neighbourhood Investment Facility.

Ukraine[45]. The EU has committed a EUR 12.8 billion financial package for the next few years in order to support the reform process in Ukraine. Commitments have so far included, inter alia:

- EUR 3.4 billion in loans as EU macro-financial assistance, of which EUR 2.21 billion has already been provided. Another EUR 1.2 billion could be made available in the near future, depending on progress in implementing agreed reforms.
- EUR 8.9 billion by the European Investment Bank and the European Bank for Reconstruction and Development to help develop and reform, inter alia, the transport, energy, agriculture, SMEs, municipal, environment, banking and natural resource sectors. The EIB and EBRD also facilitated the purchase of gas for the 2015-2016 heating season.
- EUR 500 million in grants including
    - A EUR 355 million state building contract supporting the fight against corruption as well as the reforms of the public administration, the judiciary, the constitution and the electoral framework.
    - A EUR 10 million civil society programme to reinforce its capacity to support and monitor the reform process.
    - A EUR 110 million programme aimed at developing the private sector and fostering Ukraine's economic recovery. Technical assistance will be given to improve the legislative framework for SMEs, while the EU will support the setting up of business advisory centres in the regions and facilitate the access of SMEs to finance.
    - A EUR 90 million programme aimed at fostering decentralisation and re-enforcement of local governance. Advice will be given to build the capacity of local authorities to improve their transparency, accountability and responsiveness to the needs of the population. Support will be given to improve the delivery of local administrative services throughout Ukraine.[46]

Source: European External Action Services (EEAS).

[43] See http://eeas.europa.eu/factsheets/news/eu-georgia_factsheet_en.htm

[44] See http://eeas.europa.eu/factsheets/news/eu-moldova_factsheet_en.htm

[45] The EU and its Member States have also provided financial support for both humanitarian and early recovery operations for a total of EUR 242 million. See http://eeas.europa.eu/factsheets/news/eu-ukraine_factsheet_en.htm. For a recent evaluation of the efficiency of EU assistance to Ukraine see European Court of Auditors (2016b).

[46] Interestingly, prior to the Vilnius Summit in November 2013, EU Enlargement Commissioner Mr S. Füle at that time announced in September 2013 a 'post-Vilnius agenda' for Ukraine which would have included financial assistance to support the implementation of the Association Agreement amounting to EUR 186 million and to move ahead with a macro-financial assistance of EUR 610 million 'once the conditions are in place' (quoted in Havlik, 2013).

While not directly associated with the AA/DCFTA agreements, other macroeconomic adjustment programmes and related funding provided by the IMF and the EC have been crucial not only for macroeconomic stabilisation, but also for carrying out reforms and ensuring their progress due to conditionality associated with disbursement. The timing of the DCFTA implementation has been rather unfortunate as both Ukraine and Moldova face particularly high macroeconomic challenges that need to be addressed in the first place as a necessary condition for further reform implementation. In this respect the funding under the IMF EFF and EC MFA are helpful in stimulating structural reforms and should be further encouraged.

Besides financial assistance by the international organisations, there are also loans provided by friendly governments (e.g. Ukraine received a USD 100 million credit line from the government of Poland for the development of infrastructure along the Ukraine-Poland border), as well as cross-border cooperation (CBC) programmes targeting the improvement of connectivity across the region (e.g. 'CBC Poland-Belarus-Ukraine', 'CBC Hungary-Slovakia-Romania-Ukraine', 'CBC Romania-Ukraine').

Financing SMEs in the DCFTA countries is a particularly important aspect of financial support targeting the private sector directly given that SMEs constitute the majority of business establishments in the DCFTA countries. To help address concerns regarding SMEs' financing needs associated with the DCFTA, the EC jointly with the EIB and EBRD has established the DCFTA Facility for SMEs (a part of the SME Flagship Initiative). The DCFTA Facility for SMEs is expected to be worth approximately EUR 200 million financed by the EBRD and EIB via direct lending and lending through domestic financial institutions. Estimates by the donors are hopeful that this will help unlock at least EUR 2 billion of investments by SMEs. Overall, the facility will help address important challenges SMEs are facing by supporting, via risk sharing instruments and currency hedging, improved access to finance, investment incentives focusing on modernisation and the adoption of EU standards, and technical assistance.

3.8. SECOND-ORDER MACROECONOMIC EFFECTS

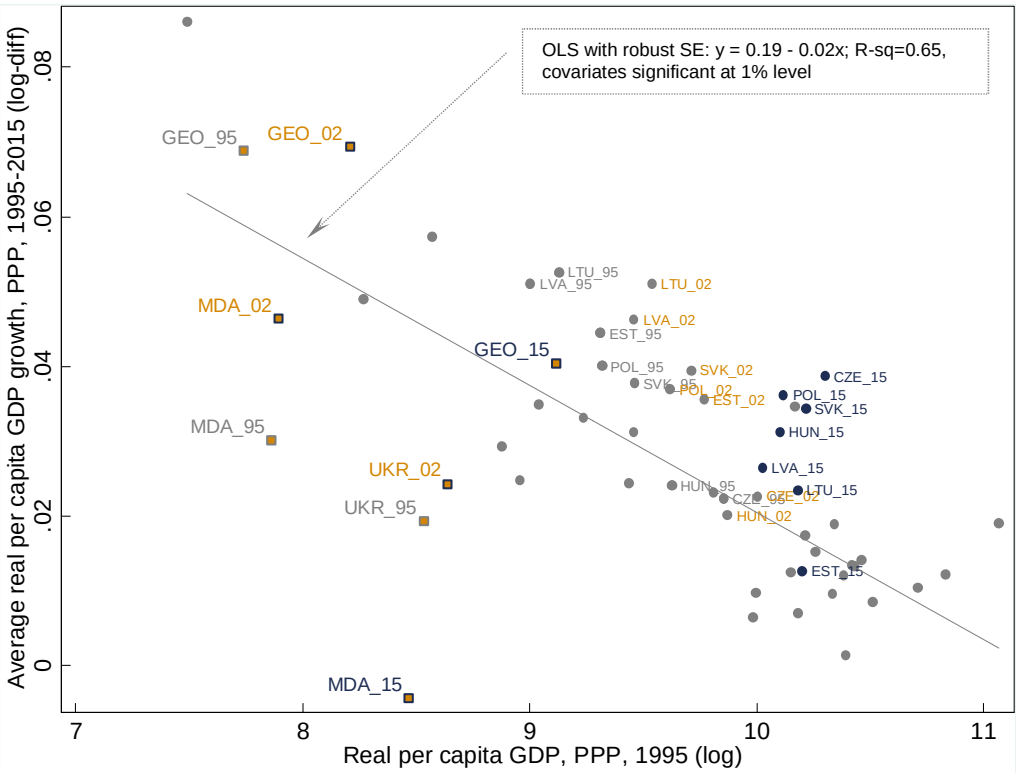
The first-order effects associated with export growth, FDI inflows and improved business environment will lead in the long run to overall production capacity gains and broad-based economic growth, rising incomes and overall improvements in the quality of life. The extent of such second-order effects is expected to be significant given the experience of peer NMS economies, which have been quickly catching-up to the more advanced economies of Europe throughout 2000s. The convergence experience of the CESEE countries in that respect is illustrative of the potential long-run growth and development gains, although membership in the EU may only be partially relevant for establishing historical analogies. Nevertheless, the deep and comprehensive nature of the AA/DCFTA will certainly speed up the 'catch-up growth'. The experience of the Baltic countries, which in the early transition period shared similar Soviet historical legacies and issues as the DCFTA countries have been facing, is particularly illustrative of the significant gains in incomes during the post-accession period as shown in Figure 3.9.

The mechanisms of growth and development induced by the DCFTA in the longer run have already been discussed earlier in the chapter. In brief, conditional on successful modernisation and growth of export-oriented sectors, along with FDI inflows, new job opportunities will be generated and labour

markets will gain efficiency with wages increase conditional on productivity gains. The expansion of production and income gains will result in a broader tax base in the longer run.

The latter depends, besides the speed of institutional reforms and structural adjustment, on the distance to the frontier to be bridged. All three DCFTA countries belong to the category of low-middle-income economies well below the level of the EU in terms of per capita incomes at PPP and in 2015 were still behind most regional peers and thus the potential for convergence growth is significant. Ukraine and Moldova have made very slow progress in catching up over the transition period. On the other hand, Georgia has been able to bridge much of the gap since the early 2000s, which is very illustrative of the positive effects of progressive reforms *per se*, regardless of EU integration.

Figure 3.9 / Convergence of per capita real GDP in Europe, 1995-2015



Note: horizontal axis (x-variable): initial (1995) GDP per capita, PPP (constant 2005 international $); vertical axis (y-variable): average real GDP growth per capita over the period 1995-2015. For comparison, average annual growth rates over 2002-2015 are also plotted against per capita GDP in 2002 (labelled 'country_02') and the last available year (growth rate in 2015 against per capita GDP in 2015, labelled 'country_15'). Ukraine observation for 2015 is dropped for clarity of presentation (y-value = -0.1; x-value = 8.9).
Source: Own calculations based on WB WDI data.

4. Costs and challenges of DCFTA

Summary: The implementation of the DCFTA will require a complete overhaul of many practices in the countries concerned as well as significant costs of implementation on the part of the state. Investment costs by the private sector to conform to the EU technical standards for industrial products and SPS regulations in the agri-food sector are likely to be significant and particularly challenging at the early stages of DCFTA implementation on account of difficult macroeconomic conditions, geopolitical tensions, poor awareness in the domestic private sector of the DCFTA content and EU markets, lack of access to finance and generally weak competitiveness. Social costs associated with sectoral transformations induced by DCFTA and dislocated workers in less efficient sectors, particularly painful in poor regions, will also be significant over the medium run, potentially jeopardising implementation of the AAs.

One of the major weaknesses of the AA/DCFTA implementation strategy is the lack of assessment of the costs involved. It is apparent that the adoption of the EU *acquis* and trade liberalisation will bring multiple benefits in the longer run; however, the costs of implementation and economic adjustment are not yet well understood. While detailed sector-specific analysis for each country concerned is needed for an in-depth assessment of costs, in this chapter we discuss the major overall costs and challenges that are likely to be encountered or have already emerged along the DCFTA implementation route. These include direct costs associated with the regulatory burden of implementation and enforcement for the public sector, costs to adjust to the new regulations for the private sector, as well as indirect costs and risks associated with job losses, higher competitive pressures, awareness of businesses, availability of funding, institutional bottlenecks.

4.1. FISCAL COSTS OF DCFTA IMPLEMENTATION

The legislative frameworks of the DCFTA countries differ considerably from the EU law and thus the legal approximation to be undertaken is rather burdensome. The AAs are very demanding in this respect and require harmonisation across a broad range of areas, from product safety standards to environmental regulations and cultural affairs. The approximation process involves transposition of relevant EU laws, implementation and enforcement, which will require, respectively, the adoption of new laws or amendment of existing legislation, the development of implementation capacity by reforming existing monitoring and enforcement institutions or establishing new institutions along with setting up their budgetary provisions, establishing an effective enforcement and compliance system and related infrastructure, and adequate training of the staff.

Whereas the first element is straightforward as the AA/DCFTA does not envision flexibility and most of the *acquis* is to be unconditionally adopted (yet, challenges emerge from the transposition of the European law to the national frameworks), the other elements will involve significant financing needs and administrative effort to establish the necessary institutions and functionality. Apparently, the costs of legal approximation are proportional to the existing gaps in the regulatory framework and supporting infrastructure. According to Emerson (2014), over 300 EU legal acts are to be adopted by Ukraine and

Georgia, and over 400 by Moldova, mostly in the area of agriculture, technical standards, labour law, and financial services. While the actual costs associated with the adoption of the legislation are very difficult to estimate, the experience of peer economies that have undergone a similar implementation process suggests that the scale is significant; for instance, in the case of SPS implementation the administrative costs for Lithuania were rather high (1800 employed persons in the State Food and Veterinary Service). Georgia would allegedly require 800 staff to enforce EU regulations (Messerlin et al., 2011).

The implementation of institutional reforms along the lines of the AA/DCFTA will require a complete overhaul of many practices, and the mind-set of government officials and the population in general will need to change dramatically, in particular in Moldova and Ukraine, where corruption and poor governance are still a serious issue (see Section 4.5). The budgetary effort needed to implement reforms seems particularly onerous in light of the macroeconomic difficulties the countries have been running into recently.

4.2. ADJUSTMENT BURDEN FOR BUSINESSES

The investment costs that domestic businesses will incur to adjust production processes to conform to the EU technical standards for industrial products and SPS and food safety regulations in the agri-food sector are likely to be significant for all three countries. The standards are to be applied not only to products exported to Europe, but also to those targeting domestic markets. Simultaneously, the previously used standards based on GOST will have to be phased out. The highest costs will be related to the approximation of technical regulations and standards, conformity assessment and labelling requirements, SPS and animal welfare regulations.

Moreover, trade liberalisation and the gradually increasing presence of foreign firms will lead to elevated competitive pressures across all economic sectors (less in those temporarily shielded via transition arrangements, as outlined in Chapter 2). Therefore, adjustment efforts by domestic businesses will have to extend beyond mere compliance with the EU standards, but will also require continued investments in cutting-edge production technologies in order to remain competitive. Not all enterprises in the DCFTA countries will be able to endure the costs of such transformation. The challenge will be especially burdensome for SMEs, dominating the economies of the DCFTA countries, which will likely face market losses and profit margins squeezing. Besides this, adjustment to the new regulatory requirements and additional investments in productive capacity does not guarantee either access to the EU markets or success in withstanding competitive pressures from foreign firms, already fully compliant and comfortable with the EU regulations and more competitive in general. Large enterprises will face higher costs and investment needs; particularly those with diversified production lines will need to adjust along multiple dimensions simultaneously.

It is difficult to estimate the investment ‘gap’ to be bridged by the private sector as often the businesses themselves are not aware of the DCFTA content and even less so of the scale of adjustment efforts and related investments needed to adapt to the new regulatory environment (see Section 4.4). It is however clear that lack of funding opportunities will be among the key constraints. According to the survey results reported in DAI Europe (2014) and the World Bank’s Enterprise Surveys, in all three DCFTA countries most SMEs indicated financing constraints as one of the critical problems. Lack of access to finance is

linked to multiple factors, including complex procedures to apply for credit, high collateral requirements and bottlenecks associated with the realisation of collateral, prohibitive interest rates, as well as issues with financial literacy and capacity for quality business planning to support borrowing. Therefore, in carrying out investment projects SMEs rely heavily on internal funds, rather than external financing, whereas securing loans for longer maturity is particularly difficult. Thus, in addition to the deepening of the financial markets in the DCFTA countries via foreign investment in the banking sector, extensive technical training of businesses to increase their borrowing capacity and business acumen in general is needed in the DCFTA countries, particularly in the rural less developed regions (see also Section 4.9).

Besides access to finance, according to the World Bank's Enterprise Surveys (latest available results are listed in Table 4.1[47]), the main obstacles across the three countries are related to political instability and high taxes. Interestingly, corruption – listed as one of the top three challenges for Moldova and Ukraine – is no longer a problem in Georgia. In Moldova, human capital constraints are also reported as an important challenge.

Table 4.1 / Biggest obstacles to firms in the DCFTA countries, 2013

Country	Size	N	Access to finance	Access to land	Business licensing and permits	Corruption	Courts	Crime, theft and disorder	Customs and trade regulations	Electricity	Inadequately educated workforce	Labor regulations	Political instability	Practices of the informal sector	Tax administration	Tax rates	Transportation
Georgia	S	203	21.3	0.7	0.0	0.3	1.7	0.0	0.5	2.3	1.6	0.6	44.2	8.1	3.7	13.9	1.0
			(4.3)	*(0.3)*	*(0)*	*(0.3)*	*(1.6)*	*(0)*	*(0.5)*	*(1.7)*	*(1.6)*	*(0.7)*	*(5.2)*	*(2.2)*	*(2.1)*	*(3.8)*	*(0.9)*
	M	83	17.9	0.0	0.1	3.4	0.0	0.0	4.1	2.3	3.2	1.4	32.5	7.1	0.3	20.5	7.2
			(6.6)	*(0)*	*(0.1)*	*(4.1)*	*(0)*	*(0)*	*(3.9)*	*(1.8)*	*(3.7)*	*(1.7)*	*(9)*	*(3.4)*	*(0.2)*	*(8.1)*	*(5.1)*
	L	22	30.1	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.7	0.0	60.8	1.8	0.0	5.8	0.0
			(11.4)	*(0)*	*(0.9)*	*(0)*	*(0)*	*(0)*	*(0)*	*(0)*	*(0.2)*	*(0)*	*(12.6)*	*(2.2)*	*(0)*	*(6.8)*	*(0)*
Moldova	S	199	9.4	2.0	6.0	25.4	0.0	0.8	0.7	9.4	12.6	3.7	12.6	6.1	0.7	7.4	3.1
			(6)	*(1.1)*	*(5.8)*	*(8.9)*	*(0)*	*(0.6)*	*(0.7)*	*(6)*	*(6.1)*	*(1.6)*	*(6.1)*	*(5.8)*	*(0.6)*	*(2.3)*	*(1.9)*
	M	106	11.3	0.1	0.8	20.5	0.2	0.7	3.8	1.8	21.7	0.1	28.7	1.3	2.2	1.5	5.5
			(6.4)	*(0.1)*	*(0.2)*	*(8.6)*	*(0.2)*	*(0.9)*	*(3.1)*	*(1.6)*	*(8.2)*	*(0.1)*	*(13.4)*	*(0.9)*	*(2.6)*	*(1.1)*	*(5.1)*
	L	31	20.1	0.0	0.0	12.5	0.0	0.0	0.4	0.0	2.5	0.0	49.7	0.0	0.0	0.3	14.4
			(11.9)	*(0)*	*(0)*	*(2.8)*	*(0)*	*(0)*	*(0.4)*	*(0)*	*(1.4)*	*(0)*	*(12.1)*	*(0)*	*(0)*	*(0.4)*	*(0.5)*
Ukraine	S	412	15.1	4.8	2.7	17.9	2.2	1.7	4.1	1.8	0.7	1.3	14.0	10.1	8.2	13.7	1.7
			(3.5)	*(2.5)*	*(1.5)*	*(5.5)*	*(1.8)*	*(1.6)*	*(4.6)*	*(1.4)*	*(0.4)*	*(1.3)*	*(3.5)*	*(3)*	*(5)*	*(3.6)*	*(1.4)*
	M	286	32.9	3.2	0.7	20.5	0.2	0.2	0.8	1.8	4.0	2.6	7.3	5.2	1.7	18.7	0.2
			(8.1)	*(3.1)*	*(0.4)*	*(5)*	*(0.2)*	*(0.2)*	*(0.5)*	*(1.1)*	*(3.2)*	*(2.3)*	*(2.9)*	*(2.8)*	*(1.1)*	*(5.6)*	*(0.1)*
	L	109	17.5	0.2	3.2	22.4	0.0	0.4	2.7	2.2	9.3	2.7	16.4	0.5	6.8	15.6	0.0
			(5.8)	*(0.3)*	*(2.4)*	*(10.7)*	*(0)*	*(0.5)*	*(2.1)*	*(2)*	*(5)*	*(2.9)*	*(6.6)*	*(0.5)*	*(4.5)*	*(6.5)*	*(0)*

Note: Firms were asked to consider which element out of a list of 15 is the biggest obstacle to their establishment. The table indicates the share of respondents (%) who chose a particular element as the biggest obstacle.
N indicates sample size, standard errors are in parentheses, S,M,L denote enterprise size group based on employment: small (5-19), medium (20-99), large (100+).
Source: World Bank Enterprise Surveys.

Competitiveness of the DCFTA countries is rather low overall for Ukraine and Moldova, while Georgia has improved notably thanks to its far-reaching institutional reforms of the mid-2000s, which is reflected, e.g., in the Global Competitiveness Report. In particular, in the 2016-2017 edition of the report, Georgia

[47] For a regional review of the survey results see Section 4.9.

ranked 59th, while Moldova 100th and Ukraine 85th (out of 138), the latter sliding down the rating over the last several years (see also Doing Business results in the Appendix).

On account of low competitiveness of the DCFTA industries, imposing the requirements to adopt advanced EU standards on local enterprises too quickly may have detrimental effects, provoking abrupt restructuring. In the medium run, however, the necessary improvements in production techniques will ensure higher quality output and thereby make the industries increasingly competitive. Looking at the industrial structure of the DCFTA countries (Table 4.2), several sectors that will be seriously affected by the alignment to the EU standards play an important role in both industrial output and exports. Agriculture, food processing and basic metals are important in all three DCFTA countries. Food processing accounts for 38% of industrial output in Georgia, 30% in Moldova and 21% in Ukraine. The shares of industry (including mining, electricity, gas and water supply) in aggregate economic output are rather low: 14% of GDP in Georgia and Moldova, 23% of GDP in Ukraine in 2015 (see Appendix for details). Manufacturing industry accounts for just about 10-14% of GDP in all three DCFTA countries – much less than in most CEE countries, where manufacturing shares are close to or exceed 20% of GDP (Havlik, 2013).

Table 4.2 / Structure of industry in Georgia, Moldova and Ukraine in 2014, %

	Georgia	Moldova	Ukraine
Industry – total	**100.0**	**100.0**	**100,0**
of which:			
Mining and quarrying	**4.9**	**1.8**	**10,8**
Manufacturing	80.6	81.4	63,3
of which:			
Manufacture of food products, beverages and tobacco products	38.5	30.1	21,2
Manufacture of textiles and textile goods	1.3	8.7	3.9
Manufacture of leather, leather products and footwear	0.2	1.0	
Manufacture of wood and products wood and cork	0.9	1.2	3.1
Manufacture of paper and publishing	2.8	0.9	
Manufacture of oil products	0.1		
Manufacture of chemical products	5.8	3.2	4.5
Manufacture of rubber and plastic products	2.7	3.8	4.5
Manufacture of other non-metallic mineral products	9.6	3.0	
Manufacture of basic metals and fabricated metal products	13.7	3.8	16.6
manufacture of machinery and equipment	1.2	2.4	7.2
Manufacture of electrical machinery and optical instruments	0.7	5.2	2.1
Manufacture of transport equipment	1.3		2.8
Electricity, gas and water supply	14.5	11.1	24.6

Source: wiiw compilation from national statistics.

The recently published comprehensive assessment of challenges related to the implementation of the AA/DCFTA by Ukraine identifies substantial investment needs for the modernisation of industry and advocates the 'development of industrial policies agreed with the goals of the EU' (NASU, 2016, p. 24). For instance, only the costs of modernisation of the steel industry required to meet the environmental provisions of the *acquis* are estimated at about USD 11.5 billion (ibid, p. 25).[48] The experience of NMS

[48] Earlier experience of CEE countries suggests that, apart from the environmental *acquis*, the compliance with EU rules on state aid will pose additional challenges.

also shows that trade liberalisation coupled with SPS requirements leads to a decline in the number of companies in the food sector – e.g. from 5000 to 500 in Poland, from 2000 to 400 in Hungary and from 11000 to 700 in Romania (Jandieri, 2011, quoted in Messerlin, 2011).

As regards exploiting opportunities to export to European markets, unlike large companies, SMEs will find it much more difficult to take advantage of the DCFTA-related liberalisation and, similar to the experience of the NMS countries, are more likely to only partially exploit the advantages of integration by focusing rather on domestic markets or traditional markets in proximity (NMS countries). SMEs in general are not competitive relative to large multi-national corporations due to a less diversified base and their inability to benefit as much from global value chains which would require high investments.

As already discussed in Chapter 3, sectoral competitiveness of the DCFTA countries (based on the RCA index) is rather narrow, with the competitive export base concentrated mostly in commodities and the agri-food sector; this will pose a challenge as DCFTA exporters will still face harsh competition in the EU even after their compliance with the food safety and SPS standards. At the same time, the share of high-technology exports is very low even in comparison to regional peers (Table 4.3).

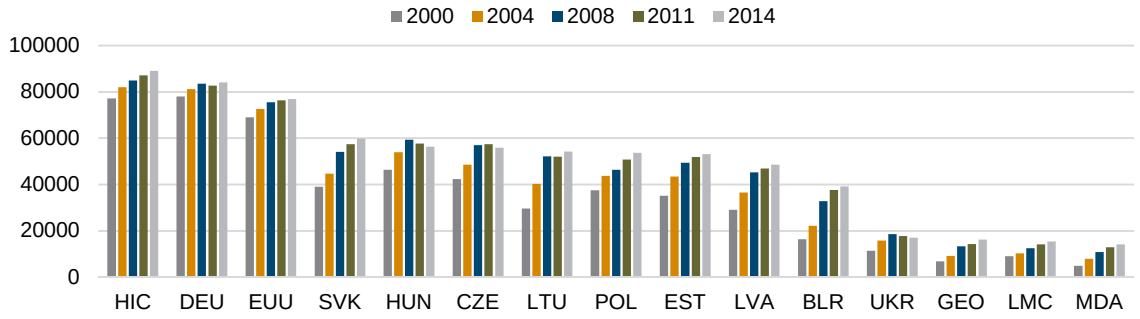
Table 4.3 / High-technology exports (% of manufactured exports)

	Change, 2006-2015, pp	Average 2006-2015, %	2015
Georgia	-10.9	**4.7**	**5.6**
Moldova	-0.8	**4.9**	**6.4**
Ukraine	3.1	**4.8**	**6.5**
Euro area	-0.6	15.0	16.2
European Union	-2.4	15.5	16.2
High income	-4.7	17.7	6.4
Lower middle income	0.2	10.2	11.5
Upper middle income	-1.1	19.0	19.4
Belarus	1.5	3.2	4.3
Estonia	-1.2	9.6	11.4
Hungary	-10.4	20.5	6.4
Latvia	8.1	9.7	14.9
Lithuania	3.8	10.4	11.9
Poland	5.0	6.2	8.8
Romania	2.7	7.1	7.5
Slovak Republic	3.3	7.7	10.0
Slovenia	0.9	5.9	6.4

Source: World Bank WDI.

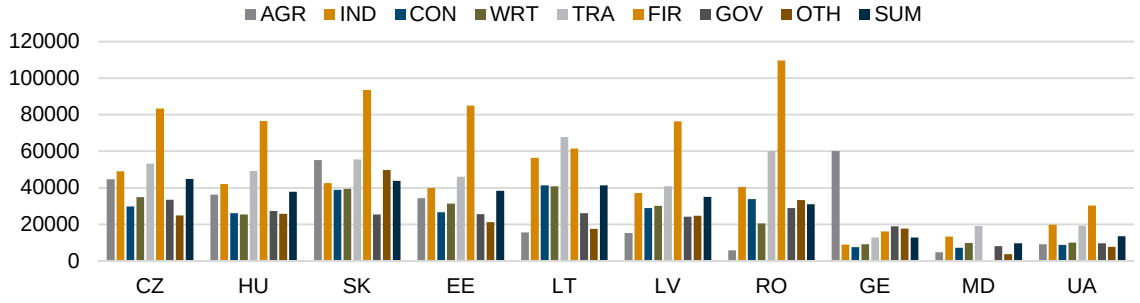
As a related matter, labour productivity in general (Figures 4.1 and 4.2) is very low, with no particular sector standing out (the reported high labour productivity in the agricultural sector of Georgia is rather associated with poor statistics on registered employment – failing to reflect actual employment in agriculture in the poor rural areas).

Figure 4.1 / GDP per person employed (constant 2011 PPP $), 2000-2014



Source: World Bank WDI.

Figure 4.2 / Labour productivity by sectors, 2014



Note: Productivity is measures as the ratio of sector value added to employment (registered employment for Georgia, LFS employment for other countries), chain-linked 2014, EUR. The legend indicates the following sectors: Agriculture (AGR); Industry (IND); Construction (CON); Trade, restaurants and hotels (WRT); Transport, storage and communication (TRA); Finance, insurance, real estate and business services (FIR); Government services (GOV); Community, social and personal services, other (OTH); Aggregate across sectors (SUM).
Source: Own calculations based on national statistics and Eurostat data.

Another problem, related to the above, is the issue associated with the state financial support that certain sectors have been relying on in the DCFTA countries. Along the lines of the DCFTA agreement, the scope of state aid to support particular sectors will be limited. Significantly more control and transparency will be involved in the provision of state financial aid in the form of budget financing, subsidies, guarantees, and quasi-fiscal support, e.g. reduced tax regime. While a reduction of direct government involvement in business is certainly desirable and will help reduce corruption and stimulate private sector efficiency, sizeable and strategically important enterprises or industries of the DCFTA countries (e.g. less efficient enterprises in energy, transport and communications infrastructure) may suffer should fast-paced transformation be induced. An important part of the DCFTA is trade-related energy regulations, which rule that energy prices to industrial consumers are to be determined solely by the market, prohibiting dual pricing (for the domestic market and for exports). Privatisation and frontloaded liberalisation may also result in elevated costs for the population and businesses (higher utility tariffs, pass-through to consumer prices, eroding purchasing power of an already low-income population).

Vast efforts are needed by the EU and local policy-makers in the beneficiary countries to establish financial support to the private sector in order to aid the transformation and modernisation of businesses.

EU financial support focusing on co-funding from the private sector will be instrumental in this regard. Yet, the lending standards of European banks are rather strict and by itself that is not sufficient to address the funding issues, particularly for SMEs. Overall, certain industries and sectors should be allowed increased assistance in the form of financial support and longer transition periods: this refers to industries that are significant (in terms of value added and employment), to those most vulnerable to modernisation and convergence to the EU standards, as well as to the sectors that have been traditionally oriented to the Russian market and experience difficulties in reorienting. Under the best-case scenario, asymmetric liberalisation under the DCFTA (with the EU granting unilateral access to its market for a longer period of time) would have been more desirable at least until the governments could establish well-functioning institutional units to support the implementation of EU standards by businesses and adequate funding routes. Thus, there is still a threat that domestic markets of the DCFTA countries are lost to foreign competition, while access to traditional markets (Russia) is hindered and access to the EU markets is still beyond reach owing to difficulties in the adoption of EU standards and competitiveness issues.

4.3. CHALLENGES FOR THE LABOUR MARKETS

Closely related to the issues discussed above are the significant social costs that will arise as industrial restructuring and modernisation of industries will inevitably result in workers being dislocated as inefficient industries shrink. Especially vulnerable are low-skilled labour categories as well as workers in less competitive industries. Government and NGO efforts to retrain workers are therefore needed to help offset the negative consequences of labour market adjustments.

Another potential risk comes from the enhanced mobility of labour that will follow greater liberalisation and integration with the EU of the DCFTA countries given the generally lower income levels in the latter relative even to the NMS countries. The EU has traditionally been an important destination for migrants from Georgia, Moldova and Ukraine, on account of differences in per capita income and better opportunities for both skilled and unskilled workers in more advanced countries of Europe. Enhanced openness to labour migration may lead to an accelerated outflow of labour force, particularly in the higher skill category and the young age bracket which may negatively affect human capital capacity in the DCFTA countries and hurt business prospects, as well as affect the sustainability of the social security system. A related challenge in this regard concerns the consequences of training government officials and private sector employees. In the presence of higher labour mobility, it is very likely that after receiving training the staff will leave for better opportunities in the private sector or abroad, as has been the case in many former Soviet economies.

Empirical evidence on the impacts of EU enlargement suggests that NMS countries did experience a significant outflow of labour force to more advanced European states when labour market liberalisation took place; this was particularly worrying as the outmigration was mostly young and high-skilled labour, thus resulting in damage to the long-run growth capacity in the NMS, to demography and, as a result, to the fiscal system. In particular, at the end of 2005, Lithuania experienced a lack of labour supply (some 12 thousand vacancies remained unfilled, as reported in Kadziauskas, 2007); similarly, shortages of workers in Poland were reported in Kaczmarczyk and Okólski (2008). Poland suffered a massive outflow of labour after its accession to the EU in 2004. Likewise, Romania has experienced large labour outflows

since its accession in 2007. Hungary and Slovenia, by contrast, did not encounter problems with migration processes (see more in Fic et al., 2011 and Kahanec et al., 2010).

Kravchuk and Popovych (2016) put forward a number of critical arguments against DCFTAs concerning labour market effects which cannot be completely dismissed as irrelevant either.[49] In particular, the study claims that the SME sector is likely to be harmed by DCFTA-induced competition and costly regulations with two thirds of Ukrainian employment affected, while the opening-up of the services market will lead 'to mass layoffs that will not immediately be compensated'.

Figures 4.3-4.5 below provide an overview of the broad sectoral structures of value added and employment; they indicate that the shares of agriculture are particularly high in the DCFTA countries, especially with regards to employment (in Georgia only registered employment is available, which explains the low share of agriculture in that country). Some 1 million persons were self-employed – 60% of total employment in 2015 according to LFS statistics, the majority of them presumably in agriculture.[50] Experience of the CEE countries suggests that along with closer EU integration and related structural changes the shares of agriculture declined (e.g. in Bulgaria and Romania); given the scarcity of other employment opportunities outside agriculture, a substantial part of redundant workers in these countries became either unemployed or chose to emigrate. In Romania, for example, employment dropped by more than 20% between 2000 and 2015 (by more than 2 million persons), with most of the decline attributed to agriculture. In Poland, total employment increased by more than 11% during the same period (by about 1.5 million persons), but the share of agriculture declined by nearly 10pp and agricultural employment dropped by more than 1 million persons as well. A similar pattern of structural change (de-agrarisation and tertiarisation) has been observed in other CEE countries as well. Employment shares of services in Central Europe are still lower and those of industry higher than in Western Europe (World Bank, 2016). With respect to agriculture, the DCFTA countries still have much higher shares in both value added and especially employment than are observed in CESEE.

As far as industry is concerned, another structural peculiarity of the DCFTA countries is represented by the low (and declining) shares of manufacturing in both value added and employment (Figure 4.4). Together with Latvia, Lithuania, Bulgaria and Romania, the DCFTA countries record the lowest manufacturing shares in Europe (more advanced EU Member States from Central Europe have much higher manufacturing shares – see Havlik, Leitner and Stehrer, 2012; Havlik, 2013).

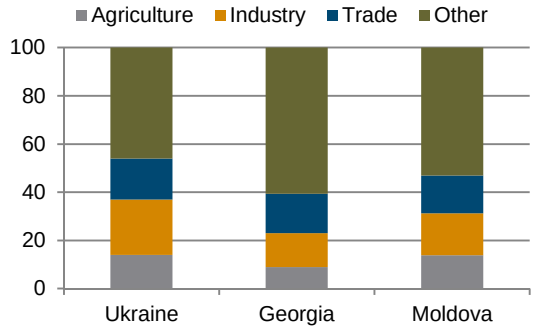
Summing up, the main burden of structural adjustment in DCFTA countries' labour markets will fall on the low productive self-subsistence agriculture and on small-scale trade and other low-skilled services (trade). Both groups of workers – up to 60% of LFS employment and about 1 million of persons in Georgia – will be vulnerable. A similar employment challenge – albeit at a greater scale – is facing Ukraine where about half of the total LFS employment (more than 8 million persons in 2015) were self-employed, predominantly also mainly in agriculture and trade. While not all these adjustment pressures can be directly related to the implementation of the DCFTA, it is clear that the latter will definitely increase adjustment pressures. As a consequence, small-scale agriculture and trade activities will be forced to consolidate, with many jobs likely to be lost in the process.

[49] The study recommended the Dutch electorate to vote against the EU-Ukraine Association Agreement in April 2016.

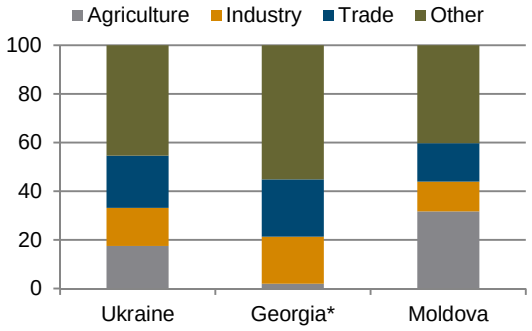
[50] Similarly high shares of agricultural employment are recorded in Albania (43%), Bulgaria (19%), Romania (30%) and Serbia (21%) – see wiiw Handbook of Statistics 2015.

Figure 4.3 / Shares of the main sectors in gross value added and employment, 2015

Panel A / Shares of the main sectors in gross value added, 2015



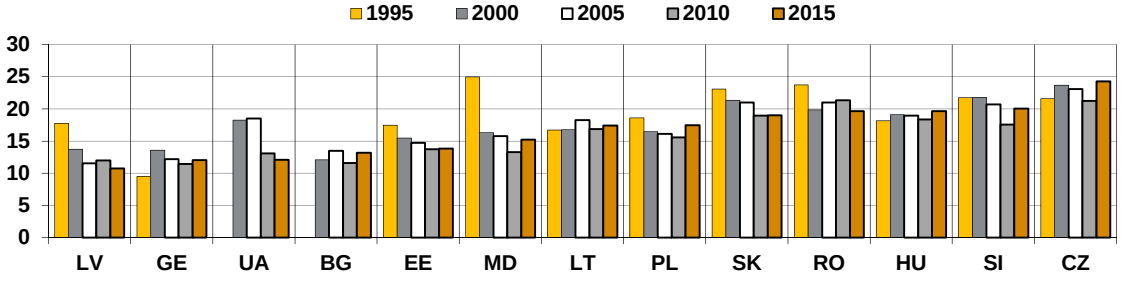
Panel B / Shares of the main sectors in employment, 2015



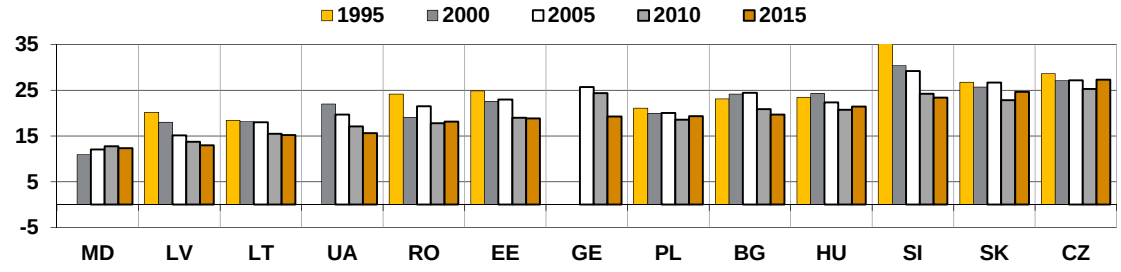
*) Registered employment only (42% of total employment).
Source: Own calculations based on national statistics.

Figure 4.4 / Manufacturing value added and employment of the DCFTA countries

Panel A / Manufacturing value added in % of GDP



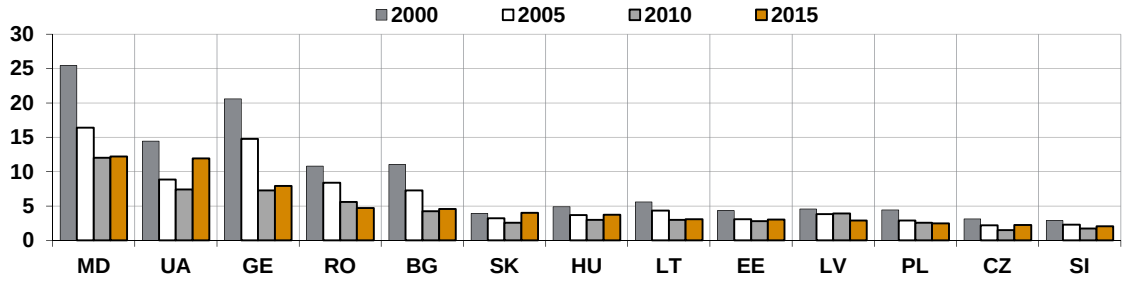
Panel B / Manufacturing employment (LFS) in % of total



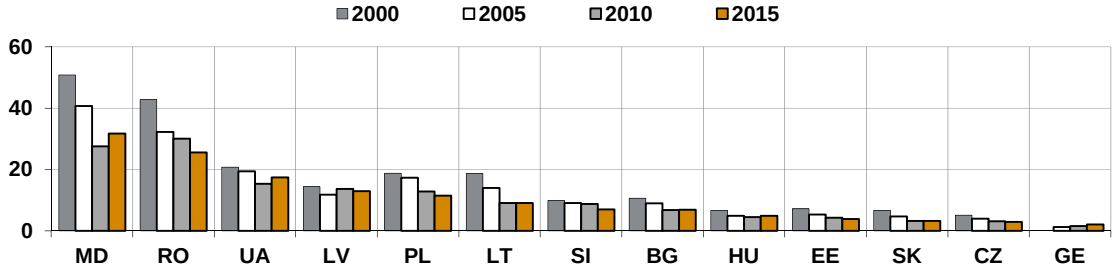
Note: Sorted by the relative size of manufacturing in 2015. For Moldova employment (LFS), for Georgia registered employees in total industry.
Source: Own calculations based on wiiw Database and Eurostat.

Figure 4.5 / Value added and employment in agriculture of the DCFTA countries

Panel A / Value added in agriculture, forestry and fishing in % of GDP



Panel B / Agricultural employment (LFS) in % of total



Note: Sorted by the relative size of agriculture in 2015. For Georgia registered employees only.
Source: Own calculations based on wiiw Database and Eurostat.

4.4. LACK OF AWARENESS OF THE DCFTA CONTENT

An issue closely related to the adjustment costs for businesses discussed above is low awareness of the AA/DCFTA regulations in the beneficiary countries. It is important for public officials and critical for businesses in the signatory countries to be well-informed of the content of the agreements in general and equipped with technical knowledge to be able to take full advantage of the DCFTA. The DCFTA negotiations were not very transparent with regard to the specifics (e.g. which industries are to be shielded by longer transition periods, the determination of TRQs, and other 'technical' aspects), and the costs associated with the DCFTA implementation were not communicated to the public, whereas not only aggregate-level, but sector-specific analysis of costs and benefits would have been needed in order to arrive at a cost-effective implementation strategy rather than leaving these sensitive issues to the bargaining power of the negotiating parties.[51]

While there are certainly also needs to train public officials in the intricate details of the EU regulatory framework, the key immediate challenge is related to the poor awareness of businesses concerning the content of the DCFTA and the specific new requirements they must meet. Surveys conducted in the DCFTA countries (e.g. EBA, 2016) suggest that the business community sees forthcoming improvements in the business climate as the key contribution of the DCFTA, but actual awareness of

[51] As noted by Emerson (2014), 'The Commission side could say that it was for the partner state to work out its own impact assessments, but its approach was more of a "take it or leave it" character. The "negotiations" were totally non-transparent for the outsider, and too complex for even the insiders such as foreign ministry officials in either the EU or the partner states to comprehend at a general level. For those in doubt, try studying the 1000 page texts'.

any specific details of the DCFTA arrangements is very low. DAI Europe (2014) reports that among the 902 SMEs surveyed in the three countries, there is lack of awareness of the DCFTA agreements (79% in Ukraine, 72% in Georgia and 32% in Moldova 'heard of the agreement'), and most believe that the regulations will affect only exporters rather than all domestic producers. According to surveys of SMEs conducted for the rural regions of the DCFTA countries (reported by Vengerovych et al., 2015), SMEs share generally positive expectations of the DCFTA implementation, namely, anticipate improvements in the business environment and in the quality of domestic products (> 90% of respondents in Georgia, >60% in Moldova and Ukraine); yet, such optimism is not well-grounded as most respondents do not exhibit awareness of the actual content of the DCFTA, while many also point to insufficient efforts by public institutions to provide satisfactory information.

Adequate understanding of the challenges and needs to reform is a prerequisite for the successful transition of businesses to a more competitive state and critical for the survival of the industries most affected by the EU regulations in the near term. Lack of such understanding is an aggravating factor that will increase the costs of adjustment, and related issues – partly associated with language constraints, lack of legal capacity to investigate the regulatory documents, and poor business culture in general – should be addressed.

The generic DCFTA awareness initiatives, rarely practical and lacking technical detail, should yield way to very applied 'how-to' training of businesses and public officials in the signatory countries (especially in the rural regions more prone to the awareness risks) via a joint effort of public authorities and NGOs in specific business-related areas. Besides that, open public communication of the benefits and costs, as well as the progress of reform implementation, is needed to ensure that entrepreneurs understand better the specifics of working in a new environment. Greater public awareness will also help ensure that the population in general forms realistic expectations of both benefits and costs associated with the DCFTA and remains supportive of the pro-European reform vector, which is important to ensure continued reform implementation despite short-run challenges.

4.5. INSTITUTIONAL CONSTRAINTS AND THREAT OF REFORMS STALLING

The three countries under consideration are characterised by political risks stemming from both internal political cycles moving between pro-Western and pro-Russian sentiments and external geopolitical influences aggravated by 'frozen conflicts'. Besides the negative influences on investors' sentiment, this creates potential risks of reforms stalling or even reversing. It is thus important to ensure that the policy-makers establish mechanisms that facilitate sustained progress of reforms and their irreversibility regardless of political circumstances, as well as devote additional effort to promoting popularity of reforms among the public. It is important to defuse social stress and to strike the right balance between government, businesses and the population in the pace of reforms and the burden. With rising unpopularity of reforms along with the issues the EU integration has been facing recently, the political configuration may quickly change towards greater populism and Euroscepticism possibly ruining the progress of AA/DCFTA implementation[52].

[52] This has already partially materialised: in Moldova, presidential elections in November 2016 forwarded the 'pro-Russian' candidate I. Dodon who is critical to AA/DCFTA; in Ukraine the pro-EU government has been quickly losing popularity.

A related issue pertains to the membership perspective. While still willing to bring the neighbourhood countries closer to Europe, the EU followed a rather reserved approach avoiding discussions of possible membership prospects for the DCFTA countries. The AA/DCFTA format was developed as a substitute for facilitating closer linkages to the EU along multiple dimensions for countries without membership prospects. While the approximation process associated with the AA implementation brings the beneficiary nations de facto much closer to EU membership, the lack of the membership perspective bears certain risks for the perception of the population in the DCFTA countries.[53] The power of the *acquis communautaire* as a sufficient reform anchor for countries which do not have an EU accession perspective was also questioned already in Grinberg et al. (2008). Messerlin et al. (2011) came to the conclusion that EU policy towards Georgia prior to the start of DCFTA talks was in several respects flawed. They argue that the required adoption of the *acquis* represents a 'bad development policy for Georgia' as the related obligatory and costly regulatory changes are equivalent to taxing Georgian production. It is also a 'bad commercial policy' since it would divert Georgian exports to markets that do not require EU norms. Finally, they see it as a 'bad foreign policy' as well since the EU is 'hegemonic towards its very much smaller neighbour'. DCFTA partners appear 'like EU Member States clones', but without EU aid (note that transfers to NMS have been much bigger, up to 3-5% of their respective GDP) and without a voice in future EU decisions. The authors warn that such EU policies could backfire as the domestic support for the EU orientation could suffer.[54]

Strong institutions are needed to support political competition and prevent incumbents from resorting to administrative resources in an attempt to direct the political landscape to less democratic principles. A case in point is Georgia, where the initial liberal reforms in the mid-2000s after the 'Rose Revolution' stagnated later on; the government was more often accused of turning to more authoritarian practices, which eventually led to the defeat of the Saakashvili bloc by the Georgian Dream coalition. In general, political elites influenced by corporate interests of business elites are reluctant to induce institutional changes and see liberalisation as a bargaining process. In this respect the AA serves as an anchor in the implementation of reforms, but the end benefits should be made clearer to the stakeholders, outlining the timeline and with a sober account of costs involved in order to form realistic expectations.

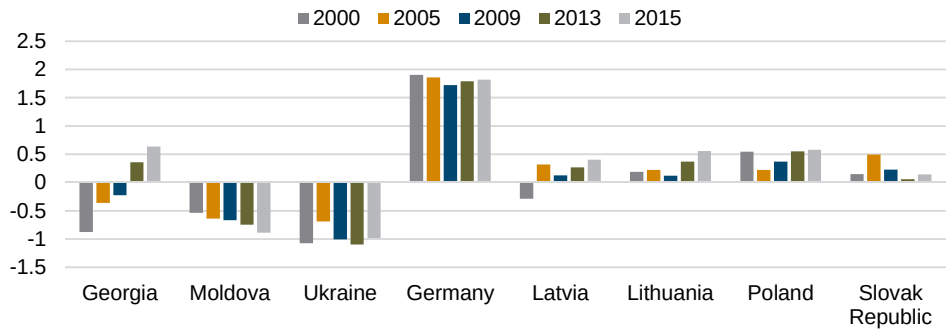
One of the key challenges as regards approximation to the EU legislation is associated with the enforcement of law, rather than its formal adoption. There is a risk that the regulations are adopted in the DCFTA countries, but not properly applied in practice as the countries have been stricken by law enforcement and compliance issues. Strong impartial monitoring of reform implementation and the use of financial aid at national and regional levels, and the establishment of related institutions are required given persistent issues with corruption and governance reforms, particularly in Moldova and Ukraine, while Georgia has made marked improvements in the quality of institutions (Figure 4.6 and Appendix C).

[53] These issues have been elaborated in the literature, e.g. Minarik (2013).

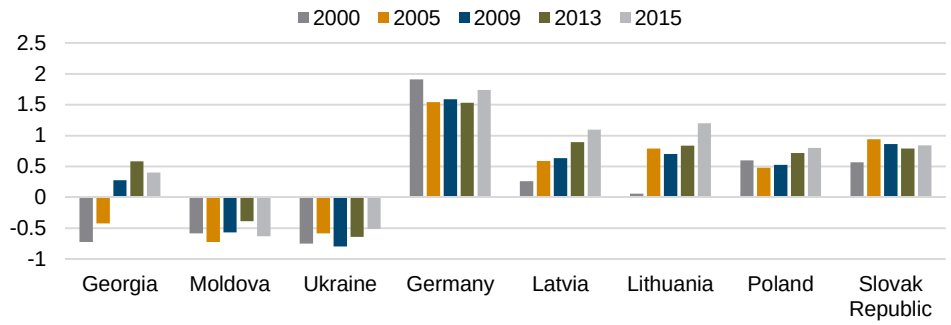
[54] Authors quote the example of Turkey, but the recent reservations towards the EU cannot be ignored either (Brexit, Hungary, Italy, Poland, Greece, etc.).

Figure 4.6 / Institutional development of the DCFTA countries

Panel A. Control of corruption



Panel B. Government effectiveness



Note: Each of the indices is measured in units ranging from approximately -2.5 to 2.5, with higher values corresponding to better governance outcomes. Control of corruption measures the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as 'capture' of the state by elites and private interests. Government effectiveness measures the quality of public services, the capacity of the civil service and its independence from political pressures, and the quality of policy formulation. See Appendix C for other institutional indices.

During the privatisation process, which was common across the CIS countries, state assets were passed to the hands of a few, forming a class of oligarchs usually affiliated with the incumbents. This in itself is an obstacle to the implementation of reforms in the institutional sphere – in contrast to the Central European countries, which had an early start in implementing institutional reforms along with macroeconomic transformation given the prospects of EU membership. The DCFTA countries also had embarked on institutional reforms before DCFTA implementation; however, progress was not satisfactory with the exception of Georgia. In the case of Moldova, after the 'Twitter revolution' in 2009, attempts at institutional reforms failed with the government shaken by corruption scandals. The elections in 2014 in Moldova ended up with yet another political crisis, further delaying the implementation of reforms and financial support and culminating in the scandal of the banking sector fraud[55]. In the case of Ukraine, difficulties in taming corruption in the new government (besides the corruption issues

[55] About USD 1 billion disappeared from three Moldovan banks in 2014, resulting in the estimated loss of 12-15% of the country's GDP.

associated with the previous governments) have been a widely discussed in the media and also gained increasing attention from international donor institutions.[56]

4.6. REMAINING BARRIERS TO TRADE

Particularly important from the perspective of export-led growth are restrictions facing exports from the DCFTA countries to the EU in the agri-food sector, which is traditionally heavily protected in the EU. Besides high SPS and food safety standards that need to be met, certain product categories are shielded by tariff rate quotas (TRQs) as discussed in Chapter 2. This is particularly binding for the DCFTA countries given that the agri-food sector is of high importance for all three DCFTA countries (see RCA and export structures) in general in terms of value added and employments, and is among the few most important sectors exporting successfully to the EU. Much of the future productive capacity of the DCFTA countries is also associated with the agricultural sector as the countries are characterised by fertile land and have been among the global leaders in the production of certain agricultural products. A case in point is Ukraine, which has been among the top global producers of cereals, sunflower seeds and honey (also exporting to the EU); yet, these particular product categories now face the most binding restrictions in the EU in the form of TRQs.

Indeed, looking at the short-run effects pertaining to exports to the EU, despite substantial depreciation of the Ukrainian hryvna, the Moldovan leu and the Georgian lari in 2015, in addition to the autonomous trade preferences granted by the EU, that did not result in any significant boost to exports to the EU in either of the three countries (as reported in Chapter 4). Several factors are behind poor short-run export performance, including recession in the DCFTA countries, the stagnant recovery in the EU, and the inability to comply with the SPS and food safety standards for some products, in addition to the binding constraints in the form of TRQs and entry price regulations. As already noted, even after full compliance with the EU standards, it will be particularly difficult for the domestic firms of the DCFTA countries to access the EU market unless they become a part of an already functioning foreign-owned supply network, which might be challenging in the highly competitive European business environment.

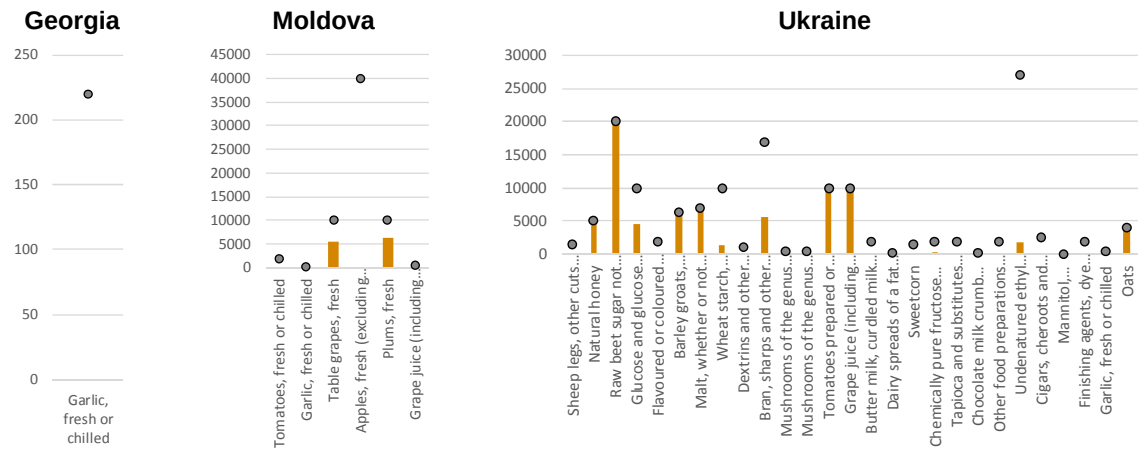
SPS and TBT measures still prove to be barriers to entry. As can be seen from the use of TRQs imposed by the EU on certain ‘sensitive’ categories of products (Figure 4.7; for a detailed table see Appendix Table A2), in most cases the quotas have been either not used at all or barely used in all three countries, owing to non-compliance with the food safety/SPS standards of the EU, lack of experience in the EU markets and other factors.[57] At the same time, on the other extreme, annual quotas for products which managed to comply with the EU safety requirements were often exhausted already in the first 2-3 months of the respective year. For instance, in Ukraine that was the case with honey and grains in 2015, when the ATP regime was granted, and is still the case in 2016 for quotas on tomato products, grape juice and sugar, all exhausted already in the first quarter of the year (in addition to honey and grains). The EU should thus consider relaxing tight constraints on trade for the DCFTA countries (traditionally

[56] The recurring corruption-related scandals are multiple. In addition to reports on bribery and cronyism by the media, former public officials Mikheil Saakashvili and Aivaras Abromavicius directly accused the present government of corrupt practices, statements highlighting corruption issues were released by the IMF and other international institutions providing financial aid to Ukraine. Overall, Ukraine is reportedly the most corrupt country in Europe at the moment.

[57] For discussion see, e.g. Emerson and Movchan (2016b).

specialising in the agri-food sector with generally weakly developed industries), at least over the initial stages of implementation of EU standards.[58]

Figure 4.7 / Utilisation of tariff rate quotas by the DCFTA countries in 2016



Note: Data as of October 2016 for the 'first-come first-served' basis TRQs. For 2015 and 2016 data see Appendix. Y-axis indicates volume of quota/imports in kg except for birds' eggs, which are in units. Dots indicate the level of TRQ set for the year, bars indicate the actual volume of imports to the EU under the TRQ regime from the respective DCFTA country.
Source: Own elaboration based on data from the European Commission.

4.7. OPPORTUNITY COST OF ALTERNATIVE INTEGRATION ROUTES AND EXTERNAL SUSTAINABILITY CHALLENGES

Reorientation of export markets is another potentially painful adjustment that the countries will need to endure. It will be particularly costly for Ukraine as both Georgia and Moldova have already undergone a reorientation following the embargo imposed by Russia (see Chapter 1). In Ukraine, partial reorientation in relative terms (export shares) away from Russia and towards the EU has also taken place already as exports to Russia were squeezed as a result of embargo imposed by Russia on selected agri-food products from Ukraine, recession in both countries and sharp depreciation of the Russian rouble. However, permanently severing the trade linkages to a once major trading partner will add to the costs. Prior to the escalation of the conflict, the Russian market had been important for Ukraine (24% of total exports in 2013) and in a number of technologically sophisticated machinery and equipment sectors (HS 84, HS 85, HS 86, HS 87) it accounted for a major share of exports. It will be a costly and challenging endeavour to find new markets for these products even in the medium run (see also Adarov et al., 2015; Dragneva and Wolczuk, 2016).

Despite the EC public communication, integration with the EU in line with the AA/DCFTA framework does complicate the economic relations of the DCFTA countries with alternative integration blocs to a varying extent, depending on the industries concerned. In particular, the EAEU, owing to its customs union arrangements, is not compatible with the DCFTA. At the same time, the CIS FTA at least

[58] Some progress has been attempted along these lines as the EU is considering to introduce new autonomous trade measures for Ukraine 'in order to increase the existing trade flows concerning the import of certain agricultural products from Ukraine into the Union' (Regulation of the European Parliament and the Council, COM(2016) 631 final 2016/0308 (COD), September 2016.

technically remains a feasible option with bilaterally negotiated preferential regimes for selected product lines and enforcement of the rules of origin. However, for the same reasons that the EU would not be willing to change its legislation to satisfy Russian concerns, Russia is not eager to initiate regulatory changes to make the EAEU more compatible with the EU standards (see also Van der Loo, 2015 for an in-depth legal analysis of the issues in the case of Ukraine). Russia has been generally strongly opposing integration of the DCFTA countries with the EU and expressed a range of concerns, some of which were valid, yet many irrelevant. In theory, it is possible that businesses in the DCFTA countries produce for the domestic and the European markets using EU standards, and for the Russian and EAEU market using GOST standards. De facto, however, it will be difficult to maintain both standards, especially given that most of the businesses in the DCFTA countries are small and medium-sized enterprises with limited scales of operation. As a related matter, if both standards are allowed in the DCFTA markets, domestic producers will face the challenge of having to compete with Russian exporters producing under less strict GOST standards. Thus, it is also true that some Russian (and other CIS) exporters not complying with the EU standards will be squeezed from the DCFTA markets upon imposition of the EU standards, which may lead to disappearance of certain products from these countries in the DCFTA markets. This may somewhat hurt certain consumer categories (particularly those relying on products in the low-price segment and/or with strong preferences to particular product brands), more importantly, the DCFTA businesses integrated with Russian producers along value added chains relying on GOST standards will find it more difficult to adjust (e.g. heavy industries in the East of Ukraine oriented towards the Russian market). In order to minimise the transition costs, the signatory countries could take advantage of the 'flexibilities' embedded in the AA and opt for a longer transition period in removing the GOST standards, where justified.

Figure 4.8 / Share of exports to the EU-28 and Russia by industry, 2015

Panel A. Georgia

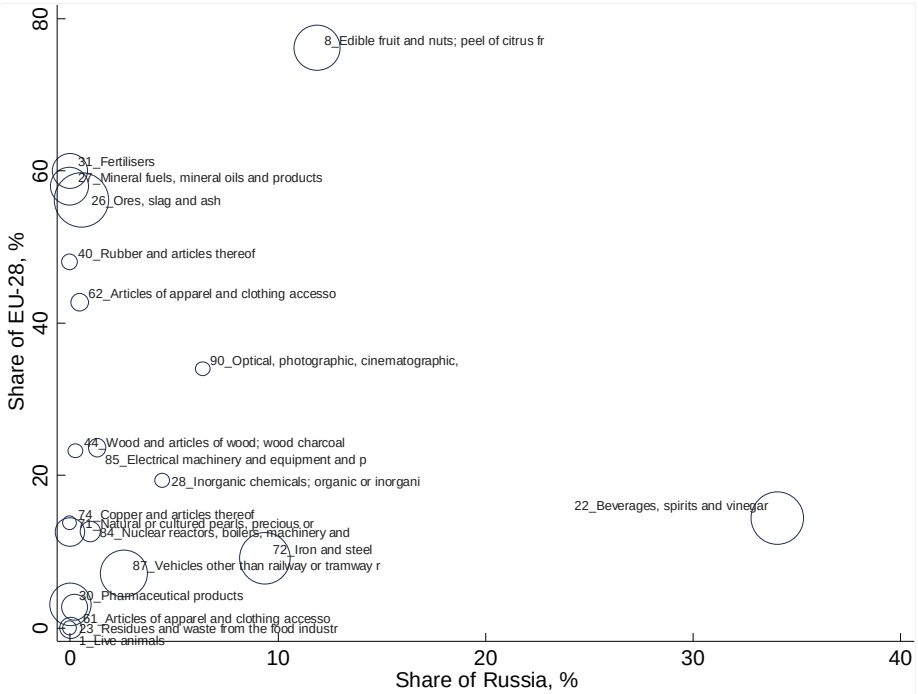


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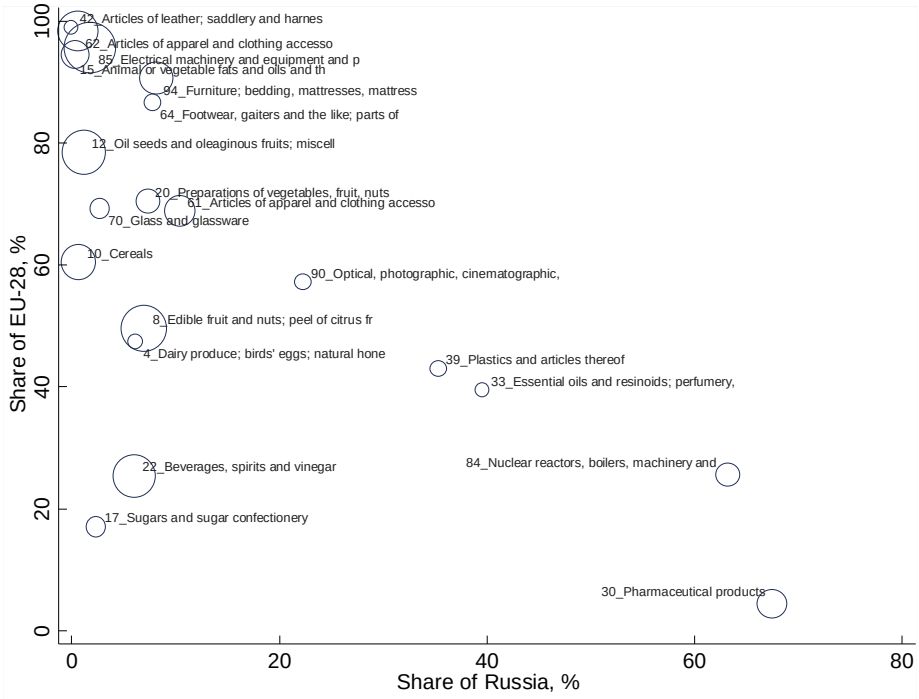
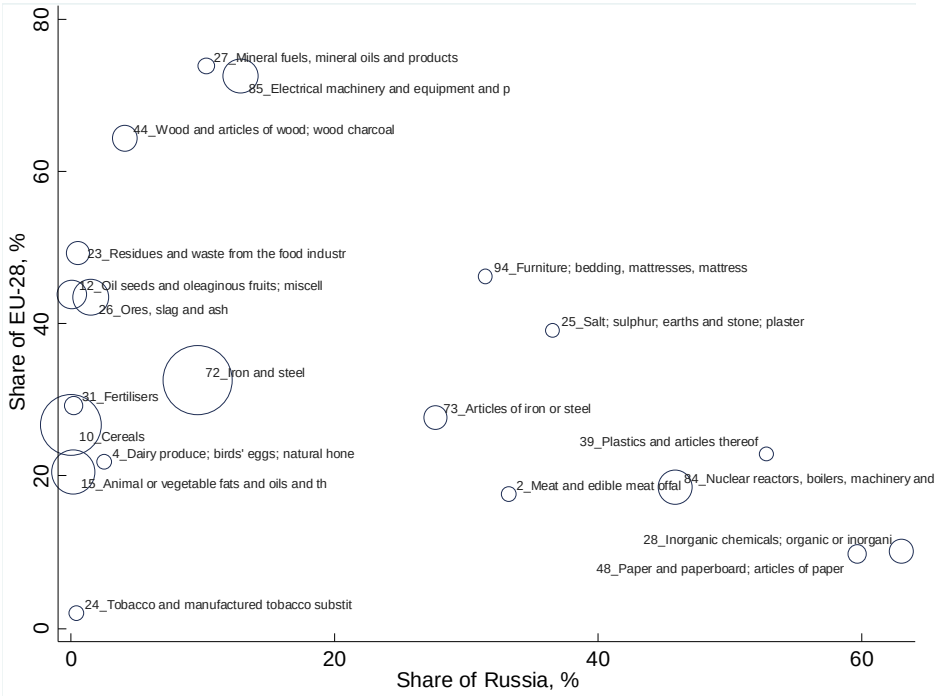
Figure 4.8 / (ctd.)

Panel B. Moldova



Panel C. Ukraine



Note: Bubble size is proportional to the value of exports. Source: UN Comtrade.

Whereas indeed the EAEU market has been much less stable recently owing to geopolitical circumstances and macroeconomic issues, it would be pragmatic to preserve economic relations with Russia and the EAEU countries: the latter still represent a sizeable market, which is less competitive than the EU markets, while many of the products of the DCFTA countries have been popular across the former Soviet nations. In general, estimates of the outcomes of alternative integration scenarios in the literature (e.g. World Bank, 2015) typically argue strongly in favour of integration with the EU as opposed to the EAEU, which is not surprising as the comprehensive approach to integration along the lines of the DCFTA offers significantly more scope for modernising the economies along with market access to a much larger EU market. Overreliance on a single market, even one as deep and diverse as the EU's, is also potentially risky and diversification of products and market destinations are both important for resilience to cross-country macroeconomic spillovers. However, as noted already, the DCFTA does stimulate diversification across the globe as the EU standards are accepted internationally.

A separate concern is related to external sustainability issues that might emerge from increased trade liberalisation. As demonstrated in Chapter 1, the DCFTA countries have been running trade deficits and complementary current account deficits. Further liberalisation of trade may result in deepening of the deficits if import growth outpaces that of exports, which is likely owing to various constraints facing exporters from the DCFTA discussed above. Running persistent current account deficits per se is not an issue if they are financed by capital inflows to the tradable sector. However, attracting significant FDI still remains a challenge, while investment in the signatory countries recently has been focusing largely on the non-tradable sector (construction). As a contributing factor, remittances from Russia, which historically have been of importance for the three countries, have been on a declining trend owing to recession (the average share of remittances in GDP over 2013-2014 was as high as 8.2% in Moldova, 7.3% in Georgia and 2.9% in Ukraine).

4.8. COMPLEXITY OF THE ASSOCIATION AGREEMENTS AND RELEVANCE FOR THE DCFTA COUNTRIES

A steep learning and adoption curve is likely to be a challenge in the approximation process undertaken by the DCFTA countries. The EU *acquis* represents a rather complex legislation, demanding thorough knowledge of technicalities and experience in reading and interpreting the 'legal language', which will make its transposition and further application in the signatory countries a difficult endeavour.

Navigating across the dense and sizeable texts of the association agreements is itself a non-trivial task, which is however not always sufficient for a full understanding of the regulations; often, cross-referencing the relevant chapters of the *acquis*, and seeking implementation roadmaps and other documents outlining further details is needed. For instance, in the case of Ukraine, the Annex dedicated to TBT approximation (Annex III) is lacking specific EU legislation that needs to be approximated as well as details on its timeline. Similarly, in the case of SPS measures, it is stated that Ukraine 'shall approximate its SPS legislation as set out in Annex V'; however, the annex does not set out any further particulars. The staging categories that are used to set timeline of tariff liberalisation are not clarified in the documents, while relevant publicly available information is lacking. Inconsistency and vagueness of terminology in some parts of the AAs is also a nuisance (e.g., the recurrent use of the terms 'approximation', 'alignment', 'convergence' and others in seemingly similar connotation is left open to

interpretation). An essential quality of effective regulatory acts – precision of legal formulations – seems to have fallen victim of catchy phrasing, rather plentiful in EC communications.

While the design and application of a single business regulation requires much time and efforts, the AA/DCFTA implementation foresees frontloaded approximation across multiple fields, most very sensitive to the private sector, and therefore risks to be overwhelming for businesses and policy-makers alike. As discussed above, these challenges are aggravated by poor awareness by the private sector of the content of the DCFTA arrangements, the relevance for their activity and of the adjustment needs. Thus, again, it is imperative that much more effort is devoted to training the policy-makers in the beneficiary countries and providing capacity to educate entrepreneurs concerning the details of the AAs and relevant EU regulations with an emphasis on practical issues and applications.

The risk of overregulation associated with the adoption of the AA/DCFTA and related EU legislation is another aspect that needs to be taken into account, although it is certainly not an issue of serious concern in the context of the DCFTA countries. The expansion of the regulatory burden on the private sector comes at a cost for the economy in the form of reduced efficiency of markets and risks of bureaucracy, red tape and corruption. As regards the AA and the adoption of the EU *acquis*, compliance costs are especially stressful nowadays as the three countries are facing severe fiscal constraints, and may not always be justified in the case of the DCFTA countries that have limited administrative capacity. For instance, as discussed by Messerlin et al. (2011), the adoption of technical norms for some product categories may not be of immediate relevance if the imposing country does not produce them (e.g. cable cars and lifts in the case of Georgia).

The negotiations on the DCFTA in the case of Georgia raised particular concerns related to potential overregulation as it was feared that the agreement would bring back red tape and bureaucracy to an economy that has already become very open and deregulated[59]. Notably, at the other extreme, the fully-fledged deregulation undertaken by Georgia in the mid-2000s is also seen by some experts as undesirable and 'chaotic', noting that Georgia disassembled the Soviet standards but did not develop its own replacement standards in some cases (see also Delcour and Wolczuk, 2013).

As another matter, the EU *acquis* was developed for the mature economies of Europe and is the result of a consensus between competing interests of the Member States, institutions and business groups; it has not been designed to address the issues of growth and integration of developing economies. In that respect it truly requires closer scrutiny over which parts are more critical for relatively low-income transition economies and a proper sequencing and gradualism of approximation as some parts of it may carry an unnecessary burden for the DCFTA economies, given that they do not face membership prospects at the moment. The texts of the AA/DCFTA agreements are not clear on the sequencing of the reforms; yet, it has been communicated that the framework allows for certain flexibilities as regards the implementation schedule, and the countries should certainly prioritise the reforms that are more closely related to their production structure and opportunities to export to the EU, while the EC should help identify these areas (see also Chapter 5).

[59] As noted in Messerlin et al. (2011), Georgia was obliged to implement 'an enormous amount of imprecisely defined EU internal market regulations going way beyond strictly trade-related matters, with no attempt to justify those which make sound economic sense for Georgia'.

Besides that, the signatory states have to comply with an ever-evolving EU law while not having control over it (unlike Member States) and have taken the obligation to carry the costs of approximation. This also poses certain challenges due to a loss of control of the public authorities over certain important aspects of economic regulation and owing to constraints on extending targeted financial support to the private sector, which could be needed, e.g. for some 'strategically important' enterprises, for employment in certain less developed localities or for providing public goods.

4.9. REGIONAL DIMENSION

Discussions of the benefits and costs of DCFTA are often agnostic about the regional dimension of the implementation issues. In the case of the DCFTA countries, particularly high risks emanate from the vast regional inequalities in terms of economic development and capacity to adjust to the requirements of the AA/DCFTA. As can be seen in Figure 4.9, in Moldova economic activity and income is heavily concentrated in the capital of Chisinau (disposable income exceeds that of other regions, e.g. Central and South Moldova, by over 30%). In Ukraine, income per capita (PPP-adjusted) in Kyiv exceeds that of the low-income regions (Chernivitsy, Luhansk) over 8 times. In Georgia, the least developed regions (Samtskhe-Javakheti, Shida Kartli and Mtskheta-Mtianeti) have income levels that are only a third of that in Tbilisi.

Table 4.4 / Biggest obstacles to firms in the DCFTA countries by regions, 2013

Country	Region	Access to finance	Access to land	Business licensing and permits	Corruption	Courts	Crime, theft and disorder	Customs and trade regulations	Electricity	Inadequately educated workforce	Labor regulations	Political instability	Practices of the informal sector	Tax administration	Tax rates	Transportation
Georgia	Coastline	31.5	1.3	0.0	1.3	0.0	0.0	4.4	4.8	1.3	0.0	25.5	15.4	2.2	9.9	2.2
	Kakheti	15.5	19.0	0.0	0.0	1.9	1.6	0.0	13.9	2.8	0.0	12.6	10.2	1.6	20.7	0.0
	Kvemo Kartli	61.7	0.0	0.0	0.0	6.2	0.0	0.0	0.0	1.3	0.0	18.5	0.0	0.0	12.3	0.0
	Mtskheta-Mtianeti And Shida Kartli	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.5	0.0	74.3	12.2	0.0	0.4	0.0
	Tbilisi	19.8	0.0	0.1	1.4	1.3	0.0	1.3	1.9	2.6	0.0	46.8	1.4	2.9	16.8	3.6
	West	4.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3	8.1	27.4	36.1	3.0	20.5	0.0
Moldova	Central	8.7	0.0	4.5	29.7	0.1	0.4	0.6	6.9	14.6	0.0	21.9	5.3	0.4	3.3	3.5
	North	18.1	4.6	6.4	2.8	0.0	1.4	4.0	7.3	17.7	17.6	1.4	0.4	3.7	6.0	8.6
	South	12.9	10.8	0.4	3.1	0.0	0.0	5.5	8.6	5.3	0.0	13.8	7.5	2.9	26.2	3.1
	South East	1.8	0.0	0.0	4.6	0.0	16.8	1.2	13.1	15.5	0.0	4.6	0.0	0.0	41.3	1.1
Ukraine	East	28.1	7.8	0.8	15.3	2.8	0.4	0.1	1.2	5.1	0.0	6.9	11.0	0.6	19.8	0.0
	Kyiv	11.0	0.9	3.6	20.2	1.0	0.1	1.3	4.8	0.9	2.6	13.4	8.2	10.0	19.0	2.9
	North	13.0	7.6	2.4	20.2	0.1	7.6	0.3	0.0	3.2	7.6	18.2	5.8	0.1	11.8	2.1
	South	5.5	0.1	2.5	2.5	0.6	0.5	21.2	0.4	0.5	0.3	27.8	1.3	22.8	14.1	0.0
	West	43.9	0.1	1.6	39.3	0.0	0.0	0.8	0.0	0.0	1.3	3.8	4.7	2.4	2.0	0.0
Eastern Europe and Central Asia		13.5	2.5	2.0	7.9	1.4	1.3	3.4	5.7	5.8	1.8	13.5	15.9	5.2	17.8	2.2

Note: Firms were asked to consider which element out of a list of 15 is the biggest obstacle to their establishment. The table indicates the share of respondents (%) who chose a particular element as the biggest obstacle.
Source: World Bank Enterprise Surveys.

The individual regions of Georgia, Moldova and Ukraine are not expected to benefit equally either, and costs will be distributed disproportionately; those with higher shares of agriculture and deeper poverty issues will certainly see more difficulties in terms of adjustment to the EU standards and are particularly vulnerable. Often, business practices in less developed regions are based on a 'rule of thumb' approach rather than elaborate strategic business planning, which also explains in part the inability to borrow funds from commercial banks and donor organisations requiring quality business project plans and clear-cut projections of costs and revenues to keep investment risks contained. Importantly, small-scale farmers will face particular difficulties in addressing the mandatory food safety and agricultural standards, which puts them in a rather disadvantageous position as they are also close to the poverty line. As a related issue, the implementation of stricter food and agriculture standards, although improving the quality of products, will result in higher costs of compliance passed on to the final consumers in the form of price mark-ups or even elimination of certain low-price products, which may be particularly painful for low-income groups in the less developed regions.

The results of the World Bank Enterprise Surveys[60] at the regional level (Table 4.4) also reveal important differences across regions, with clear divergence in terms of obstacles reported across regions. For instance, access to finance appears to be a significantly more binding constraint in the West of Ukraine or in Kverno Kartli in Georgia, in contrast to other regions within the countries. Similarly, in some regions other impediments stand out as more important, e.g. corruption in Central Moldova and in Western Ukraine, or access to land in the Kakheti region in Eastern Georgia. It has already been discussed that the existence of 'frozen conflicts' jeopardises the implementation of the DCFTA and hinders the business environment in general. As regards the former, no clear strategy has been proposed by the EC and local authorities as the issue remains politically charged and sensitive. At a grander scale, the pro-European vector is not unanimously supported by the population, and the countries are split internally beyond the frozen conflict regions. It is not yet clear how the DCFTA implementation will proceed for the frozen conflict regions; it is clear, however, that their effective resolution is imperative for economic stabilisation and should be addressed in the first place.

Figure 4.9 / Regional distribution of income and economic activity, relative specialisation of regions

'Industry' includes 'C Mining and quarrying', 'D Manufacturing', 'E Electricity, gas and water supply' (NACE Rev. 1). *'Market services'* includes 'G Wholesale, retail trade, repair of motor vehicles etc.', 'H Hotels and restaurants', 'I Transport, storage and communication', 'J Financial intermediation', 'K Real estate, renting and business activities', 'O Other community, social and personal services' (NACE Rev. 1). *'Non-market services'* includes 'L Public administration, defence, compuls. soc. security', 'M Education', 'N Health and social work' (NACE Rev. 1).

Relative specialisation of regions of Moldova to country specialisation, measured by value added by economic activities in 2012. Share of a particular economic activity in a region's value added divided by the share of that economic activity in the whole economy of Ukraine minus one.

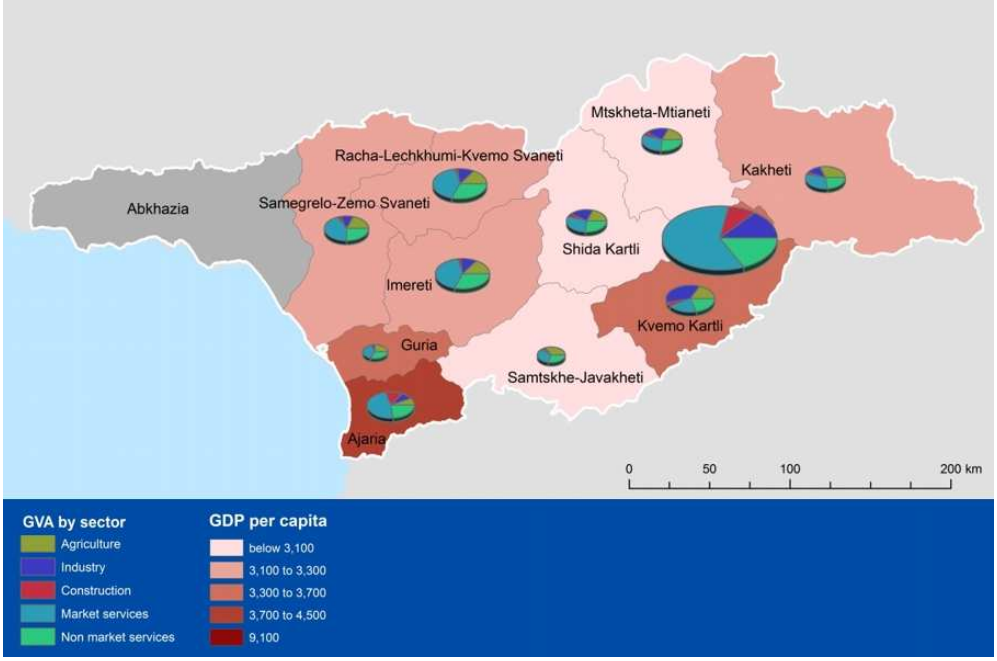
ctd.

[60] The surveys are based on information from business owners and managers on a range of topics regarding the business environment, and are asked to consider which element (out of a list of 15) is the Biggest Obstacle to their establishment.

Figure 4.9 / (ctd.)

Panel A / Georgia

Top panel: distribution of income and activity; bottom panel: relative specialisation.
GVA by sector: gross value added, % of total (pie size is proportional to the value of regional GVA);
GDP per capita: 2014, EUR, PPP



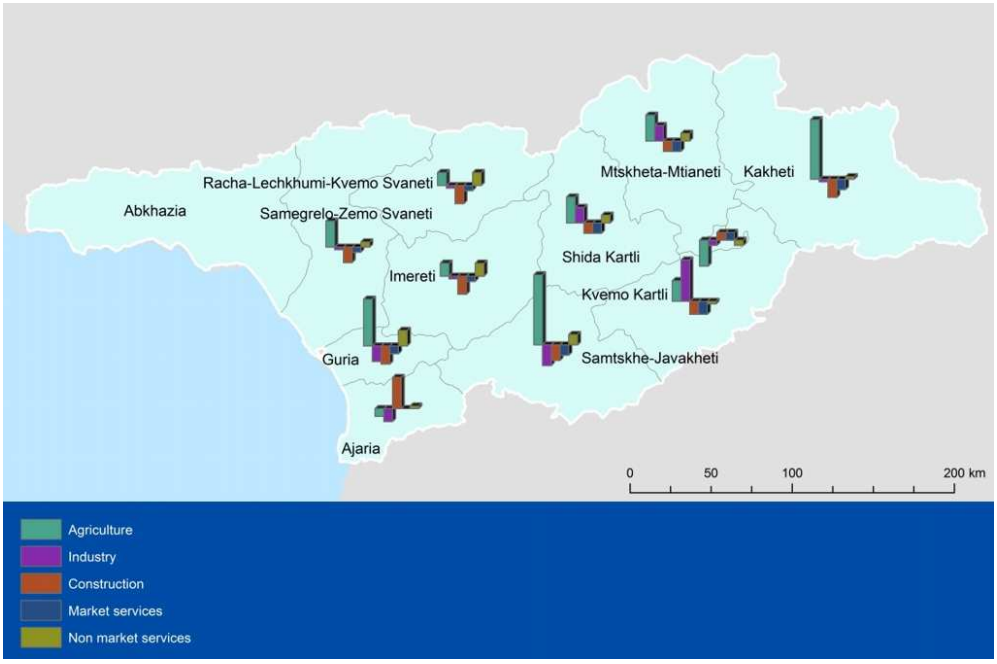


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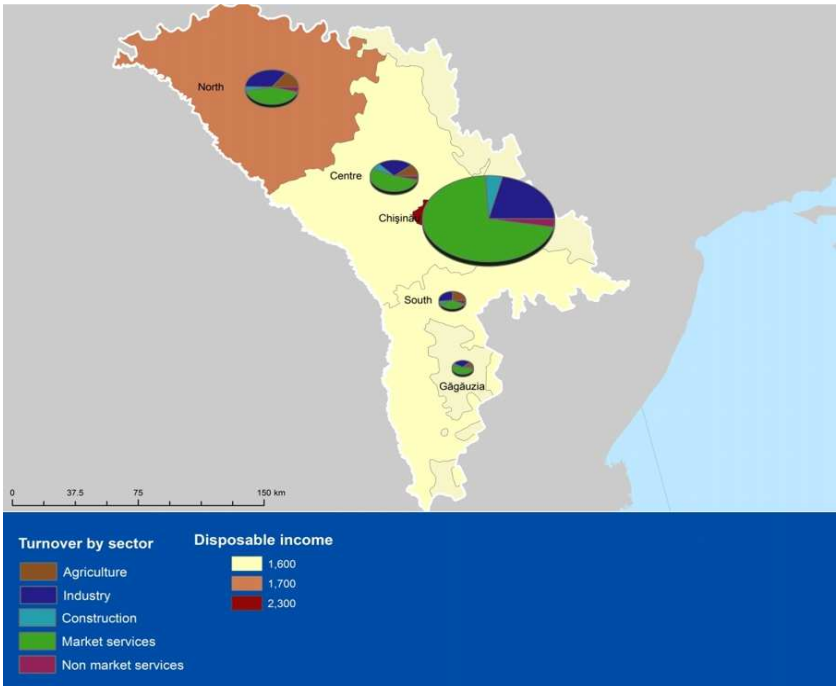
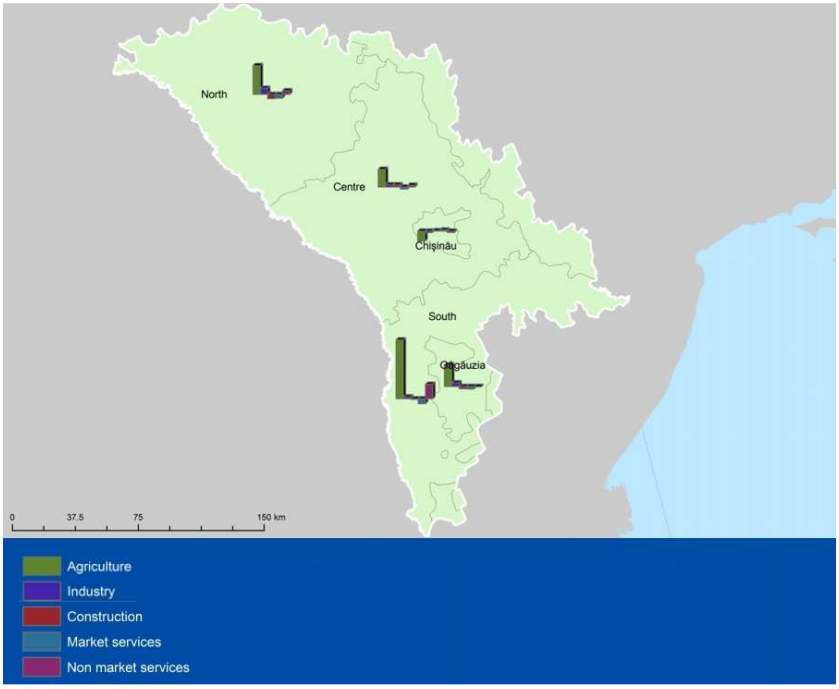
Figure 4.9 / (ctd.)

Panel B / Moldova

Top panel: distribution of income and activity; bottom panel: relative specialisation.
Turnover by sector: turnover, % of total turnover (pie size is proportional to the value of regional turnover); disposable income: monthly average disposable income, MDL





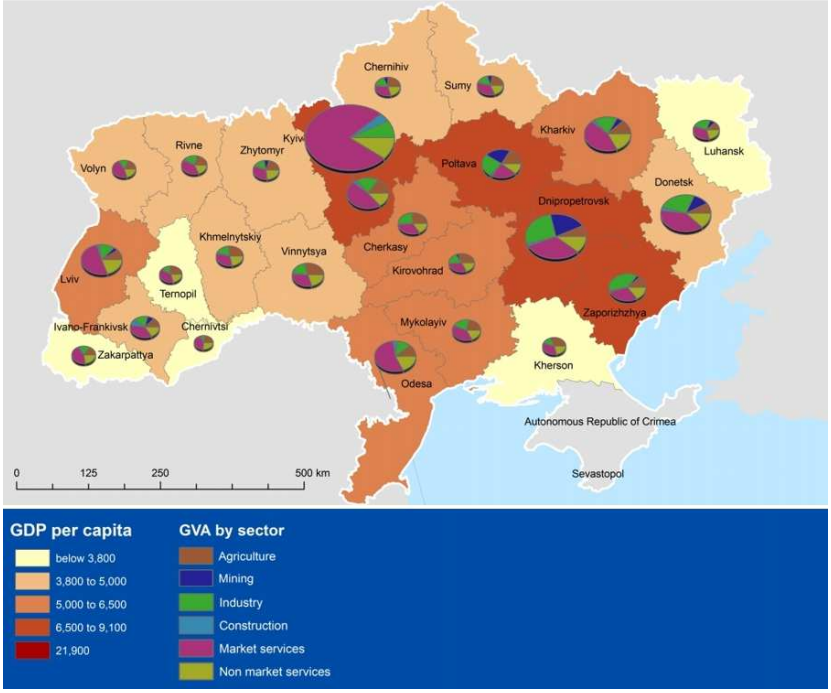
Source: National Statistics Office of Moldova.

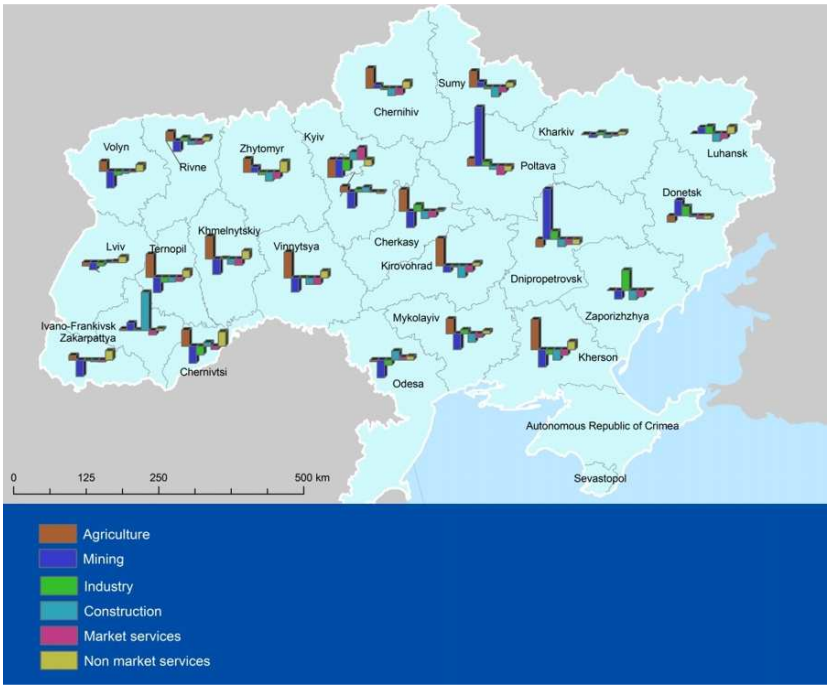
ctd.

Figure 4.9 / (ctd.)

Panel C / Ukraine

Top panel: distribution of income and activity; bottom panel: relative specialisation.
GVA by sector: gross value added and GDP per capita, 2014, % of total GVA (pie size is proportional to the value of regional GVA); GDP per capita: 2014, EUR, PPP





4.10. CHALLENGES OF THE 'FROZEN CONFLICTS'

As discussed in Chapter 1, the three signatory countries share the common problem of separatist movements, especially heated in Ukraine and 'frozen' in Georgia and Moldova. Apart from the severe humanitarian and economic costs, which extend beyond the immediately affected regions, the 'frozen conflicts' have also important consequences for the implementation of the AA/DCFTA agreements. Formally, since the EU does not recognise self-declared independence in either conflict region and 'respects the territorial integrity' of the signatory countries, the agreements apply to the whole territory. In practice, however, the separatist regions have not been implementing the agreements and, moreover, have been opposing the AA/DCFTA. Beside this, a large part of remaining economic contacts between the separatists and the central authorities remains in the shadow. The EU itself has not been very explicit on the issue. Thus, with respect to Georgia it states: 'The EU continues to support Georgia's efforts to overcome the consequences of internal conflicts in Georgia's breakaway regions of Abkhazia and South Ossetia dating back to the early 1990s as well as to stabilise the situation following the outbreak of hostilities in August 2008. It remains firmly committed to its policy of supporting Georgia's territorial integrity within its internationally-recognised borders as well as engagement with the breakaway regions of Abkhazia and South Ossetia in support of longer-term conflict resolution.'

Regarding Transnistria, the EU states: 'The EU participates as an observer in the 5+2 negotiation process on the settlement of the Transnistrian conflict, and it continues to support a comprehensive, peaceful settlement based on the sovereignty and territorial integrity of the Republic of Moldova with a special status for Transnistria.' With respect to Ukraine, the EU adopted sanctions related to Crimea and Sevastopol, as well as to support 'Ukraine's territorial integrity, condemning the clear violations of Ukrainian sovereignty and territorial integrity by acts of aggression by the Russian armed forces. It has fully supported all initiatives aimed at bringing political solution to the conflict in eastern Ukraine, using all the means available to push for that. The EU's approach has been to combine pressure through restrictive measures with diplomatic efforts and continuing dialogue.'

In this context, the DCFTA implementation framework with respect to Moldova can serve as a good example:[61] Transnistria joined the DCFTA negotiations as an observer in 2012, initially being opposed to a deal with the EU. With the provisional application of DCFTA in Moldova since 2014, the EU cancelled the previous Autonomous Trade Preferences regime which applied to Transnistria. After protracted negotiations during 2015, the EU-Moldova Association Council adopted the decision 'to apply provisions of the AA covering trade-related issues (the DCFTA) to the entire territory of Moldova from 1 January 2016'. The details of the agreement that the separatist enclave has to meet in exchange for a facilitated access to the EU market have not been revealed. However, the EU has in fact few instruments to monitor the fulfilment of conditions. The imposition of import tariffs by Transnistria would represent the most obvious violation of the DCFTA, while the implementation of EU standards and regulations will likely be delayed. In addition, there are grave concerns regarding corruption spreading to political circles in both Transnistria and Moldova, frequently tolerated by the West because of political considerations (Chayes, 2016). Despite all these drawbacks and taking into account the existing internal political split with respect to the EU and the Russia-led Eurasian integration vectors in Moldova, the 'flexible' approach adopted by the EU to the DCFTA implementation in Moldova and Transnistria, if successful, could serve as a roadmap for other countries (the recently elected Moldovan President Mr. Dodon

[61] See Secrieru (2016) for a more detailed account. His paper relies largely on interviews and media reports in Moldova and other 'soft' sources since there has been no official EU information on specifics.

allegedly intends to pursue more ‘pro-Russian’ policies). At a more general level, the tensions between the EU and Russia over the integration orientation of DCFTA countries should be defused (if not completely avoided) since the aggravated geopolitical strains across the continent and within the DCFTA countries themselves would further destabilise the socio-economic and political situation in Europe.

5. Policy implications

Summary: As a pre-condition for successful AA/DCFTA implementation, it is important to establish a stable and supportive macroeconomic and political environment and address DCFTA awareness issues in the private sector. In the light of the vast asymmetries in the net effects of the DCFTA (high costs in the short-medium run / benefits accruing mostly in the longer run; significant regional and sectoral disproportions), it is essential to sequence reforms carefully to avoid excessive adjustment pressures on businesses and the population and to prioritise reforms focusing on access to the EU market, industrial competitiveness and attractiveness for FDI inflows, and integration into global value networks. Costs associated with inefficient sectors contracting and related labour market adjustments should be dealt with by the government at the national and regional levels to minimise social stress. Increased financial support from the EU with strict conditionality and monitoring, incorporating need-based and merit-based elements, is also paramount for successful DCFTA implementation in the current socio-economic circumstances.

5.1. BALANCING COSTS AND BENEFITS OVER TIME

A comparative summary of costs/challenges and benefits/opportunities suggests that the net effects of the DCFTA implementation are distributed rather unequally over the implementation horizon, and vast asymmetries in positive and negative effects across stakeholders are likely (Table 5.1). Benefits will largely accrue in the longer run and are heavily conditional on the effective implementation of multiple reforms, which is a challenge per se, as well as on the ability of the businesses in the DCFTA countries to adapt successfully to the changing regulatory environment and higher competition. At the same time, the reforms are frontloaded and will incur heavy costs over a short-to-medium term for the state to implement the regulations and establish relevant institutions and for the businesses to comply with the new requirements and to modernise.

Given these asymmetries, it is thus essential to stage reforms carefully to minimise costs and maximise benefits in the short and medium run, in order to avoid excessive stress on businesses and the population. This is particularly important in the light of the challenges elaborated in Chapter 4: the limited administrative and financial capacity to implement reforms in the current difficult macroeconomic and geopolitical conditions; absence of an EU membership perspective for the DCFTA countries; and a ‘cold start’ for businesses who will have to embark on modernisation, being yet largely unaware of the DCFTA specifics and in general not much experienced in western business practices of operating in a competitive environment (or even having vested interests in maintaining the status quo for own benefits), especially – but not solely – in the less developed regions that lack access to finance. As a related matter, low familiarity with the European markets and distribution networks and poor competitiveness of DCFTA businesses with the resulting inadequate access to the sophisticated EU market, on the one hand, and, on the other hand, the concurrent loss of preferential access to some traditional markets (Russia and the EAEU) are also a particularly perilous combination, which will manifest in the short to medium run already.

Table 5.1 / Summary of benefits and costs of DCFTA implementation

	Benefits and opportunities	*t*	Costs and challenges	*t*
Businesses	↑ access to larger markets (EU via DCFTA and indirectly the rest of the world)	(S)M	↑ compliance costs for businesses	SM
	↑ investment confidence and FDI inflows	ML	↑ income inequality and poverty in less competitive regions	M
	↓ cost of capital and ↑ access to finance	(M)L	↑competition from EU producers	S
	↓ costs of imports => ↓ cost of inputs and ↑ modernisation efficiency	S	- contraction of less competitive industries => ↑ unemployment in those sectors	SM
	↑ efficiency and external competitiveness of exporters in the EU markets and globally	ML	↓ access to targeted state aid for some enterprises	SM
	↑ financial and technical support from EU institutions and other donors	SM	- opportunity cost of participation in alternative trade arrangements	S
	↑ domestic market efficiency due to competition from imports and stricter standards	SM	- elimination/reduction of imports from countries not complying with EU standards	SM
	↑ potential access to the EU public procurement	L	- low awareness of the AA/DCFTA content	S
	↑ quality and stability of business environment due to adoption of EU law	L	- lack of access to finance	SM
	↑ opportunities to participate in global value chains	(M)L	- trade restrictions on some exports to the EU	SM
	↑ adoption of business regulations facilitating sustainable development	L		
	↑ employment in efficient sectors ↑ opportunities for the labour markets	L		
Consumers	↓ costs of imports => ↓ prices on final products	S	↑ price for some low-price products due to greater regulatory burden, stricter standards, removal of subsidies	SM
	↑ quality of products due to higher standards	S	↓ elimination of some products from the market due to non-compliance with the new standards	SM
	↑ variety of products	S		
Government	↑ better regulatory practices consistent with EU legislation	ML	↑ costs of implementing reforms and supporting infrastructure	SM
	↑ financial and technical assistance of EU agencies in the implementation of reforms	SM	↓ import tariff revenues	S(M)
	↑ opportunities to effectively fight corruption	M	↑ loss of independence in certain policy areas due to adoption of the EU *acquis*	M
	↑ tax revenues due to broader tax base as economy expands	L	↑ costs of training and maintaining public sector experts	SM
	↑ internal consistency of legislation, modern law, anchoring of reform commitments	M		

Note: S, M, L, indicate, respectively, short-, medium- and long-run time horizons (t) over which the effects are likely to manifest themselves. Short-run signifies the period within a year after the inception of DCFTA provisional implementation, medium-run indicates the period of phasing-in of trade liberalisation and other DCFTA reforms (10-15 years), long-run signifies the period after DCFTA implementation is complete.
Source: Own elaboration.

Overall, the imbalance between the reform costs in the short run and benefits accruing in the long run may lower public support if too stressful. Macroeconomic challenges, scandals involving political incumbents in charge of the pro-EU reforms, rising Euroscepticism and anti-globalisation sentiment across Europe (among others, controversies surrounding the TTIP and CETA negotiations), as well as the prospects of alternative integration routes, may further escalate negative sentiment and jeopardise the pro-EU impulse, and political incentives to proceed with AA/DCFTA implementation will also diminish, giving rise to populist political forces, threatening the progress of reforms or possibly even reversing them.

On the other hand, the challenge also stems from the complementarities of the reforms, as many of the envisioned regulations are only effective when implemented in combination, while slow progress in enforcing a particular legislation may render the joint outcome ineffective, which also explains why the

reform effort needs to be relatively swift and comprehensive. Nevertheless, we do not share the view that a *laissez-faire* policy is sufficient for the success of the DCFTA in the three countries concerned in the current circumstances and letting the private sector adjust on its own is akin to dropping an inexperienced swimmer in deep waters during a storm and arguing this will help learning to swim faster. On the contrary, such a 'sink or swim' approach is rather hazardous at the moment as there are many fault lines mentioned above along which the AA/DCFTA implementation may fail. In this respect the current situation is rather different from the relatively tranquil and 'healthy' 2000s, when the transition experience of the peer CEE economies and even radical liberalisation in Georgia were feasible and the odds of success were indeed higher.

In order to stay afloat, the less mature businesses in the DCFTA countries need a supportive environment already in operation in the form of industrial, regional and FDI-promotion policies to facilitate adjustment and ease access to finance. However, much of the required supportive infrastructure is only planned, in the early stages of development or not functioning adequately, as evidenced by surveys. Pro-growth reform efforts should be prioritised, starting with regulations that are directly linked to facilitating a conducive business environment, the inflow of FDI and access to the EU market, while provisions with less clear prospects of positive growth effects in the short-to-medium run and less applicable to transition economies should be given less priority and possibly postponed (for instance, certain cooperation endeavours related to environmental, cultural and other areas are important, but not critical for export-led growth).

It is certainly in the power of the EU institutions to bring the expected benefits closer and increase the odds of success of reforms, while making them less socially and economically costly, specifically by increasing financial support and allowing for more flexibility in the implementation of particularly sensitive regulations. Needless to say, that should be accompanied by measures to address possible moral hazard issues associated with deep-rooted corruption and oligarchic interests resisting reforms, should such opportunities arise. In general, several ingredients need to be in place for the DCFTA to be a success: political will and capacity to reform at both central and regional levels (broader 'ownership of reforms'); awareness and public support of businesses and households alike; macroeconomic and political stability; international financial and technical support. The DCFTA constitutes an important and viable development vehicle offered by the EU, and full implementation should definitely continue, yet the costs and risks should be monitored closely and mitigated to ensure a smooth and sustained transition. The following 12-bullet list of general policy recommendations, formulated on the basis of our analysis, may help address these challenges.

5.2. POLICY RECOMMENDATIONS FOR THE DCFTA COUNTRIES

Background conditions and public awareness

1. **Establish supportive macroeconomic and political background conditions.** The timing of reforms is rather unfortunate as the DCFTA countries face macroeconomic challenges, while external economic conditions are not supportive and the geopolitical environment is detrimental. A prerequisite for successful institutional and economic transformations is macroeconomic stabilisation, which boils down to dealing with the 'frozen conflicts' and addressing the challenges of economic and political crises. Otherwise the effectiveness of DCFTA reforms will be jeopardised

and the excessive burden put on the population and businesses may exhaust their reform support. While the discussion of political aspects and a resolution of the 'frozen conflicts' is beyond the scope of the study, it can be maintained that 'deep freezing' the conflicts, i.e. defusing possible escalation routes and preventing open military aggression (Ukraine) is of paramount importance. Concerted efforts by the global community, EU institutions and local stakeholders are needed to facilitate a resolution of the macroeconomic and regional security issues in all three DCFTA countries in a transparent and unbiased manner.

2. **Institutional reforms directly relevant for the business environment should be prioritised and accelerated.** Anti-corruption reforms, public procurement reforms and other regulations embedded in the AAs to help address the issue of deep-rooted corruption need to be accelerated and progress monitored by independent bodies. Corruption is the major impediment to the reforms along most other dimensions and must be urgently tackled, particularly in Moldova and Ukraine. In general, this should be part of a broader effort to establish a supportive business environment with a particular focus on attractiveness for FDI, actively promoted along the 'horizontal' (national and regional) and 'vertical' (industry-specific) dimensions.

3. **More effort should be devoted to increasing specific rather than generic awareness of the AA/DCFTA by stakeholders.** Most of the public communication extended so far is rather generic and rarely practical, silent on the costs, exaggerating the benefits of the DCFTAs and, more importantly, lacking detail on specific steps businesses need to undertake to conform to the new regulations. The AA document itself is written in complex legal language and abounds with technicalities, while also containing vague formulations; therefore, referring stakeholders to the original documents is certainly not an option. Better communication of the AA/DCFTA content should be implemented via a joint effort of public authorities and NGOs in specific business-related areas, which will help address the limited administrative capacity. Open public communication of the benefits and costs, as well as the progress of reforms, is needed to ensure that businesses understand better the specifics of working in a new environment. It is particularly important for lagging regions of the DCFTA countries which are more prone to the risks associated with poor access to information and outdated business practices. Besides that, greater awareness will also help ensure that the population in general is supportive of the pro-European reform vector, which is needed to facilitate long-run support of reforms and their irreversibility. In this regard, while there will be losers from the DCFTA implementation, it is nevertheless important that transparency is encouraged and the public forms realistic expectations of the impacts of the DCFTA.

4. **Cross-border dialogues between the business communities of the EU and the DCFTA countries should be enhanced** to facilitate the incorporation of the DCFTA industries in the European and global value chains and alleviate the problem of matching the production and cooperation potential of the firms in the DCFTA countries with that of partners abroad. Limited knowledge of the EU markets as well as difficulties of integrating in the production and supply networks well-established in the EU are a challenge domestic businesses face to fully utilise the potential of the DCFTA. The approach should be comprehensive, involving not only private sector representatives but also public authorities at the national and regional levels in the signatory countries, their peers in the EU and in neighbouring states to identify, discuss and tackle specific cross-border cooperation bottlenecks. The AAs incorporate broad economic cooperation guidelines in the dedicated titles (see Chapter 2), yet practical implementation at high-level, sectoral and

technical expert levels should be prioritised and the establishment of dedicated institutional units should be encouraged. In this respect, visa liberalisation is also a welcome supplementary element for facilitating cross-border dialogue.

Strategic sequencing of reforms and gradualism

5. **Careful sequencing of reforms to target competitiveness and market access challenges.** Given the limits of the administrative and financial capacity, the DCFTA countries should not overburden themselves with the simultaneous implementation of reforms, but rather focus first on those that are directly related to export-driven growth, access to the EU market, competitiveness gains and attractiveness for FDI inflows. Sequencing of reforms is important and accelerated reform implementation should be achieved first in the sectors that are already relatively more competitive in the EU markets and globally (agri-food sector), sectors with already established cross-country vertical and horizontal linkages, and those that have a significant long-run potential in line with the industrial development strategies of national authorities (which should be reviewed in the light of the DCFTA and related FDI/GVC strategies, if needed). Related to the above, priority should be given to the creation of a proper business environment conducive to FDI and to the adoption of EU technical and SPS standards, starting with the priority sectors. In this regard, while a nation-wide approach is certainly more desirable, in the case of limited capacity a second-best solution is to focus on fostering a supportive regulatory environment and relevant public infrastructure in selected sectors and localities with the greatest potential to be integrated in global value chains / attract FDI (i.e. via industrial clusters, special economic zones, regional development policies). As a supplementary measure aiding access to the EU market, existing tariff rate quotas and other limits to duty-free access to the EU market (embedded in the AAs) should be expanded to support export-driven growth in the sectors concerned, at least during the medium-run transition period.

6. **Better accounting of adjustment costs and pragmatic gradualism of implementation is needed to balance costs and benefits over time.** As discussed earlier, there is much asymmetry between costs and benefits along the time dimension and across stakeholders in various sectors and regions, and therefore proper sequencing of reforms is necessary to alleviate social and economic costs over the DCFTA phasing-in period. Adjustment costs need to be assessed for each policy intervention along the lines of the AA/DCFTA, with a particular focus on sensitive industries and regions (see Chapter 4). In particular, longer transitory periods could be considered for small local producers in the less developed regions (particularly when selling to the domestic market and subsistence farming), as well as longer adjustment timelines for the adoption of technical regulations for industries that relied heavily on old standards and face particularly high investment needs. Costs associated with labour market adjustments, poverty and income inequality induced by structural transformations should be estimated and strategies to deal with those developed at the sectoral and regional levels, including appropriate social programmes and active labour market policies.

7. **A long-run economic strategy should be developed or adjusted with the medium-run and long-run impacts of AA/DCFTA in mind**. The *laissez-faire* approach is not optimal given the tight fiscal constraints and the multiple challenges the DCFTA countries are facing. Rather, it is important to prioritise certain areas of public infrastructure and institutions to support industries with

the most promising long-run economic potential, the areas that can breed regional and global champion companies; for instance, public infrastructure needed to support research-intensive activities in the IT sector differs vastly from that needed to support agriculture. For the relatively small and uncompetitive DCFTA economies it will be difficult to arrive at a broadly diversified economic structure, and specialisation in potentially tradable sectors is desirable. The historically important agriculture and the food sector in the three DCFTA countries (with fertile land and a rich agricultural potential) should be further developed and deeper forms of food processing should be targeted. However, besides maintaining competitiveness in these sectors, the development strategy should focus on routes to achieve competitive export capacity in high value added manufacturing sectors. In this regard, the DCFTA economies, given that they are dominated by small and medium-sized enterprises, should prioritise integration in regional and global value chains (thereby also taking advantage of the benefits the DCFTA offers, including adoption of EU standards, duty-free regime and diagonal cumulation rules). Development strategies should incorporate national and regional sector-specific programmes to establish or improve relevant infrastructure and institutions that facilitate the engagement of firms in global production networks, also taking into account their possible evolution over the longer time horizon. Related to this, coordinated efforts by regional and international institutions (EC, EIB, EBRD, World Bank), focusing on cross-border economic cooperation and infrastructure development, and providing technical and financial assistance to support relevant investment projects, are most welcome.

8. **Diversify export markets and attempt to normalise relations with Russia.** While rarely noted for political reasons, in general, the DCFTA countries should not be locked in solely to the EU market now and in the longer run, but rather try to diversify their exports by geographic destination (in addition to export product diversification) to mitigate possible macroeconomic spillover risks and current account problems that may arise – both issues already encountered by the NMS countries in the past. In part, the adoption of EU standards, widely accepted globally, along the lines of the DCFTA, will help to access non-EU markets also. In addition, however difficult it may seem at the moment, in the longer run the linkages to the Russian and the EAEU markets should be kept in view, given the proximity of Russia and its regional importance in geopolitical and economic issues. Normalising relations with neighbours is an important ingredient of sustainable development and regional security, which should also aid the resolution of the ‘frozen conflicts’, and pragmatism should dominate over the immediate political momentum. Needless to say, however, this should not come at the expense of the reform progress and AA/DCFTA implementation.

Increased financial and technical support from the EU with strict conditionality

9. **More financial and technical assistance should be provided to the private and the public sectors in the DCFTA countries.** Financing constraints are among the most severe problems that both the governments and the private sector face in the signatory countries, and additional financing is needed to facilitate reforms, especially during the initial phases of implementation when the funding needs are peaking. In particular, long-run funding needed for modernisation is lacking and dedicated investment facilities are highly demanded to address the financing bottlenecks aggravated by recent macroeconomic challenges. The EBRD along with the EIB are particularly well geared towards supporting investment projects in the private sector, and small and medium-sized enterprises particularly. Technical support by organisations focusing on development and transition economies (World Bank, EBRD) will also be instrumental in bridging gaps in the often

backward business practices of domestic companies. More engagement of local public administrations and NGOs is needed to raise awareness among the businesses of available aid programmes. As noted already, emphasis should be put on highly applied 'how-to' training focusing on adjustment to the DCFTA-induced requirements, finding investment opportunities locally and abroad, access to the EU market and integration in global value chains. Complementary in addressing the funding gaps are policies aimed at supporting FDI inflow to the financial sectors of the DCFTA countries.

10. **Strict conditionality of financial assistance should be enforced.** Owing to the imperfect track record of the reform implementation in the DCFTA countries, deep-rooted issues of corruption (which applies more to Ukraine and Moldova) as well as political instability, strict conditionality with clear communication of quantitative or identifiable qualitative benchmarks, objectives and expectations is paramount to facilitate an accelerated and result-driven (as opposed to formal) implementation in priority areas. The design of conditionality itself is also important and preference should be given to positive conditionality rather than negative (providing 'more for more', rather than reducing aid in the case of non-compliance, i.e. 'less for less'), as the latter is difficult to enforce credibly, especially in the current geopolitically strained situation. Conditionality should be institutionalised to anchor expectations of the beneficiaries in the private and public sectors and should not yield way to political bargaining and concessions driven by geopolitical considerations to avoid moral hazard issues. As regards technical assistance, besides the cooperation guidelines already envisioned in the AAs, the DCFTA countries should internalise the experience of the NMS countries, which faced similar approximation challenges along their EU integration route.

11. **Effective monitoring should be enforced and a functional scoreboard system developed to systematically track progress of reforms along multiple dimensions.** Conditionality of financial assistance should be complemented by comprehensive top-down independent monitoring of the use of funding that should be administered at national, regional and sectoral levels with continuous evaluation (at least during the initial transition period) against the conditionality benchmarks and objectives. At a more general level, AA/DCFTA implementation monitoring is needed at both national and regional levels to track progress, benefits and costs encountered by affected stakeholders in order to enable greater awareness of the issues that can be then tackled by coordinated efforts of the EU institutions, local governments, bilateral donors, NGOs and businesses. As the government agencies may be too overburdened to effectively track such information due to limited capacity or reluctant to reveal information in the case of poor performance, the scoreboard should be maintained by independent institutions. The evaluation scoreboard should be functional (i.e. used as a benchmarking and evaluation tool by the EC and other donors) rather than merely informative, comprehensive (spanning nation-wide, regional and sectoral dimensions), and allow for meaningful performance comparisons across the three DCFTA countries.

12. **Related to the above, a competition element for EU funding needs to be introduced and a mix of merit-based and need-based financial aid opportunities should be further developed**. In addition to strict conditionality of need-based funding, policy-makers should consider introducing also a competition element for the EU funding (performance-based in addition to need-based funding). In part, the success of the NMS, including the former Soviet republics of Estonia, Latvia and Lithuania, was based on the implicit competition for greater financial support from the EU

between the potential recipients of funding. Elements of competition for funding should also be incorporated in the distribution of financial aid in the case of the DCFTA countries so that countries with greater demonstrated progress and willingness to reform are entitled to a greater share of funding. At the same time it is important to strike the right balance in evaluating efforts by different groups of stakeholders to avoid situations in which, e.g., businesses suffer as a result of a lax government not being active enough in reform implementation. The scoreboard discussed above, allowing for comparisons between the DCFTA countries, should be integrated in the merit-based aid evaluations.

5.3. IMPLICATIONS FOR THE EU NEIGHBOURHOOD POLICY

The European Neighbourhood Policy was established with the ultimate objective to foster a safe and prosperous neighbourhood. However, the outcomes of the policy to date have been rather mixed and critics particularly point to miscalculated consequences of the strategy in the Middle East, to the failure to engage countries such as Russia or Belarus, lack of flexibility in addressing country-specific challenges, as well as the dramatic outcome in the case of Ukraine and the inability of the EU to defuse the conflict effectively. EU law and practices have indeed been imperfect in many respects and the rising Euroscepticism, triggered by heightened migration waves and the inability of the EU institutions to deal effectively with the economic crisis in Europe, highlights the boundaries of the EU's perceived attractiveness to potential members and partners. The term 'Europeanisation' per se, which has frequently been used to refer to the integration of the transition economies in the context of the EU Neighbourhood Policy, bears a negative connotation depicting the Neighbourhood countries as sharing values and practices inferior to European ones, while the division into 'members' and 'neighbours' emphasises the 'non-club' status of the latter and is somewhat discouraging for the countries aspiring to become equal partners in the shared European space.

The DCFTA in that respect was devised as a trade-related instrument that could bring clear economic benefits and practical tools to achieve closer integration, in contrast to earlier, more abstract declarations of shared values and norms to be achieved via vague cooperation guidelines. While the AA format is rather similar in structure and philosophy to its predecessor agreements, e.g. the Partnership and Cooperation Agreement, and in many respects merely repackages the 'spaghetti bowl' of intertwined political and cooperation commitments that were developed in the past, it is the DCFTA element that represents the novelty and a well-defined economic cornerstone of the new format of integration agreements for countries that are not offered EU membership. As opposed to the full economic integration to the EU (membership), the DCFTA format has its limits: it grants limited access to the EU agri-food market, limited access to EU funding, no participation in designing the common rules, but rather unconditional acceptance of the EU *acquis*. Yet, it does serve well the purpose of offering something more 'tangible' and attractive to potential beneficiary countries, which is especially important in light of the rising concerns about the EU facing an existential crisis in recent years. At the same time, most firms in the beneficiary countries demonstrate low awareness of the actual content of the DCFTA and its relevance for their businesses, as public communication has been focusing almost exclusively on the broad benefits of AAs while downplaying the costs and challenges. In this regard the practical relevance of the TSIA exercises, commissioned by the EC to evaluate the potential effects of the AA/DCFTA, could be enhanced by offering a greater exposure and analysis of the costs of adjustment and the challenges for the public and private sectors. So far, in many cases evaluations were based

predominantly on theoretical models, which, although useful, tend to abstract from many relevant real-world aspects due to technical constraints, while the analysis of challenges and costs should rather be very pragmatic and rich in details.

Nevertheless, although the DCFTA format still needs to pass the test of time, as a template to be further applied to other countries in the Neighbourhood and to increase economic connectivity to the EU, it seems to be suited much better than earlier formats. While being legally binding rather than prescriptive, it allows at the same time for sufficient flexibilities (although communicated in a rather vague manner) to address the specific demands and challenges of a signatory country during the negotiations regarding the sequencing of specific reforms and transition periods for trade liberalisation.

Concluding remarks

Improved access to the large EU market along with institutional improvements induced by the approximation to the EU *acquis* will bring multiple economic benefits to the DCFTA countries, largely accruing in the medium and long run, conditional on the successful implementation of a wide range of reforms. Securing access to a larger market is thus essential for sustained economic growth and development of Georgia, Moldova and Ukraine given that these countries are small open economies, whereas geographic proximity makes the EU a natural trading partner to facilitate deeper forms of economic integration. As the DCFTA was only signed in 2014, no sufficient time has elapsed yet for a meaningful ex-post analysis of the effects, most of which are likely to manifest themselves in the medium run at the earliest, following the implementation of the agreements. Yet, the immediate short-run effects can already be observed in the adjustments of trade flows and their commodity composition, indicating reorientation of trade towards the EU markets in terms of export market shares. However, in terms of export values, the results have not been particularly impressive recently as compliance with EU standards, competitiveness issues and macroeconomic challenges hindered trade expansion.

Our analysis suggests that in light of the recent macroeconomic and political hardships experienced by the DCFTA economies, as well as poor preparedness of the private sector to embark on modernisation, frontloaded implementation of the DCFTA will be rather costly, and social stress for the less developed regions will be particularly arduous. The approximation process therefore should be gradual and sequencing of reforms should prioritise measures focusing on boosting the business environment in general and competitiveness of export-oriented industries in particular, attracting FDI and gaining access to the EU markets via adoption of relevant EU standards. As financial constraints are particularly binding, an increased EU financial support would be helpful as well, albeit strict conditionality and monitoring should be enforced as the countries still struggle from corruption and political issues. DCFTA implementation should be accompanied by national and regional policies to alleviate labour market adjustments triggered by contraction of less efficient businesses (industries), loss of domestic and traditional export markets.

As most benefits will accrue only in the long run, the heavy costs in the short and medium run may jeopardise progress of reforms in an already socially strained environment aggravated by geopolitical issues. Gradualism is thus important not only to reduce the costs of transition, but also to avoid risks of reforms stalling or reversing amid rising Euroscepticism and political populism.

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Appendix A

Table A1 / Overview of economic fundamentals of the DCFTA and selected economies, 2015

	Poland	Romania	Slovakia	Serbia	Belarus	Moldova	Georgia	Ukraine [1]	EU-CEE [2]	EU-28 [3]
GDP in EUR at exchange rates, bn EUR	427.7	160.4	78.1	33.5	48.8	5.8	12.6	81.7	1,152	14,699
GDP in EUR at PPP, bn EUR	756.9	323.5	119.4	74.2	128.4	13.7	27.1	257.7	2,000	14,699
GDP in EUR at PPP, EU-28 = 100	5.1	2.2	0.8	0.5	0.9	0.1	0.2	1.8	13.6	100.0
GDP in EUR at PPP, per capita	19,700	16,300	22,000	10,500	13,500	3,900	7,300	6,000	19,300	28,800
GDP in EUR at PPP per capita, EU-28 = 100	68	57	76	36	47	14	25	21	67	100
GDP at constant prices, 1990 = 100	216.5 [4]	152.3	186.0	.	191.3	69.4	87.6	58.4	177.8	152.8
Industrial production real, 2007 = 100	131.5	132.4	143.5	95.9	126.0	113.5	159.5 [5]	66.2	115.0	95.8 [6]
Exports, fob, in % of GDP	41.8	34.0	86.4	36.0	49.9	30.3	15.8	42.1	.	.
Imports, cif, in % of GDP	40.9	39.4	84.3	48.9	56.6	61.4	55.3	41.4	.	.
Population, thousands, average	38,458	19,815	5,424	7,095	9,490	3,554	3,717	42,845	103,733	509,608
Employed persons, LFS, thousands, average	16,084	8,535	2,424	2,574	4,496 [7]	1,204	1,780	16,443	44,706	220,845
Unemployment rate, LFS, in %	7.5	6.8	11.5	17.7	1.0 [7]	4.9	12.0	9.1	7.8	9.4
FDI stock per capita in EUR	4,350	3,213	8,153	3,742	1,731	911	2,715	1,323	5,535	11,411
Ease of Doing Business ranking, 2016	25	37	29	59	44	52	24	83	.	.
Trading Across Borders ranking, 2016	1	1	1	23	25	33	78	109	.	.

Note: EU-CEE: Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia. PPP: purchasing power parity. wiiw estimates for Belarus, Georgia, Moldova and Ukraine. 1) Excluding the occupied territories of Crimea and Sevastopol and (except for population) parts of the anti-terrorist operation zone. - 2) wiiw estimates. - 3) wiiw estimates and Eurostat. - 4) 1989 = 100, which in the Polish case is the appropriate reference year. - 5) Data for 2014. - 6) Working-day adjusted. - 7) Data by registration.

Sources: wiiw Annual Database, Eurostat, World Bank, UN Comtrade, national statistics, own estimates.

Table A2 / Utilisation of the EU tariff rate quotas by the DCFTA countries, 2015-2016

Importer	Product description*	2015						2016 (as of 10/2016)					
		TRQ vol. th. kg*	Vol. imported	EOP balance	Last import date	Filled early	Unused	TRQ vol. th. kg*	Vol. imported	EOP balance	Last import date	Filled early	Unused
Georgia	Garlic, fresh or chilled	220.0	0.0	220.0			1	220.0	0.0	220.0			1
	Fresh, chilled and frozen meat of bovi	4000.0	0.0	4000.0			1						
	Meat and edible offal of the poultry of h	500.0	0.0	500.0			1						
	Meat and edible meat offal of swine a	500.0	0.0	500.0			1						
	Bird's eggs, in shell	120000.0	0.0	120000.0			1						
	Bird's eggs, not in shell and egg yolks	300.0	0.0	300.0			1						
	Common wheat	65000.0	41943.2	23056.8	15/12/2015								
	Barley	60000.0	0.0	60000.0			1						
	Maize	55000.0	18585.5	36414.5	26/04/2015								
	Sausages and similar products, of m	600.0	0.0	600.0			1						
Moldova	White sugar	34000.0	7874.9	26125.1	29/07/2015								
	Fresh table grapes	10000.0	1099.3	8900.7	17/12/2015								
	Fresh apples (at the exception of cide	40000.0	142.8	39857.2	02/12/2015		1						
	Fresh plums	10000.0	2228.4	7771.6	14/12/2015								
	Tomatoes, fresh or chilled	2000.0	0.0	2000.0			1	2000.0	0.0	2000.0			1
	Garlic, fresh or chilled	220.0	0.0	220.0			1	220.0	0.0	220.0			1
	Table grapes, fresh	10000.0	40.2	9959.8	02/11/2015		1	10000.0	5375.3	4624.7	12/10/2016		
	Apples, fresh (excluding cider apples,	40000.0	293.5	39706.5	09/03/2015		1	40000.0	0.0	40000.0			1
	Plums, fresh	10000.0	708.5	9291.5	23/11/2015		1	10000.0	6286.8	3713.2	12/10/2016		
	Grape juice (including grape must), u	500.0	0.0	500.0			1	500.0	0.0	500.0			1
	Sheep legs, other cuts with bone in (e	1500.0	0.0	1500.0			1	1500.0	0.0	1500.0			1
	Natural honey	5000.0	5000.0	0.0	04/01/2015	1		5000.0	5000.0	0.0	04/01/2016	1	
	Raw beet sugar not containing added	20070.0	19851.0	219.0	27/11/2015			20070.0	20070.0	0.0	17/02/2016	1	
	Glucose and glucose syrup, not conta	10000.0	591.7	9408.3	16/12/2015		1	10000.0	4640.3	5359.7	12/10/2016		
	Flavoured or coloured isoglucose syr	2000.0	0.0	2000.0			1	2000.0	0.0	2000.0			1
	Groats and meals of cereals (excl.	6300.0	6300.0	0.0	08/04/2015	1		6300.0	6300.0	0.0	29/02/2016	1	
	Malt, whether or not roastedWheat glu	7000.0	5104.0	1896.0	06/11/2015			7000.0	7000.0	0.0	23/05/2016		
	Maize starch,	10000.0	919.6	9080.4	07/12/2015		1	10000.0	1472.2	8527.8	10/10/2016		
	Dextrins and other modified starches	1000.0	0.0	1000.0			1	1000.0	0.0	1000.0			1
	Bran, sharps and other residues, whe	16000.0	3436.4	12563.6	16/12/2015			17000.0	5670.6	11329.5	12/10/2016		
	provisionally preserved (for example,	500.0	0.0	500.0			1	500.0	0.0	500.0			1
	Mushrooms of the genus Agaricus pr	500.0	0.0	500.0			1	500.0	0.0	500.0			1
	Tomatoes prepared or preserved othe	10000.0	10000.0	0.0	25/09/2015			10000.0	10000.0	0.0	16/03/2016	1	
Ukraine	Grape juice (including grape must), o	10000.0	10000.0	0.0	05/10/2015			10000.0	10000.0	0.0	04/01/2016	1	
	Butter milk, curdled milk and cream, y	2000.0	0.0	2000.0			1	2000.0	0.0	2000.0			1
	Dairy spreads of a fat content, by weig	250.0	0.0	250.0			1	250.0	0.0	250.0			1
	Sweetcorn	1500.0	6.1	1493.9	16/11/2015		1	1500.0	2.9	1497.1	01/08/2016		1
	Chemically pure maltose	2000.0	319.7	1680.3	15/12/2015			2000.0	255.8	1744.2	11/10/2016		
	Tapioca and substitutes therefor prep	2000.0	0.0	2000.0			1	2000.0	54.7	1945.3	18/07/2016		1
	Other protein concentrates and	300.0	0.0	300.0			1	300.0	73.3	226.7	16/09/2016		
	Other food preparations not elsewher	2000.0	7.2	1992.8	14/12/2015		1	2000.0	4.8	1995.2	21/09/2016		1
	Ethyl alcohol and other spirits,	27000.0	1149.7	25850.3	17/12/2015		1	27000.0	1799.3	25200.7	27/09/2016		1
	Cigars, cheroots and cigarillos, conta	2500.0	0.0	2500.0			1	2500.0	0.0	2500.0			1
	D-glucitol (sorbitol),	100.0	0.0	100.0			1	100.0	0.0	100.0			1
	Finishing agents, dye carriers to acce	2000.0	0.0	2000.0			1	2000.0	0.0	2000.0			1
	Garlic, fresh or chilled	500.0	44.0	456.0	16/09/2015		1	500.0	49.2	450.8	11/10/2016		1
	Oats	4000.0	4000.0	0.0	04/11/2015			4000.0	4000.0	0.0	11/04/2016	1	

Note: Data as of October 2016 for the 'first-come first-served' basis TRQs. 'filled early' = 1 if the quota is exhausted in the first 4 months of a year; 'unused' = 1 if <10% of the quota is used by the end of the period. * - except for 'Bird's eggs in shell', measured in units rather than kilograms. 'Vol. imported' indicates imports under the TRQ regime (not total imports).
Source: Own elaboration based on data from the European Commission.

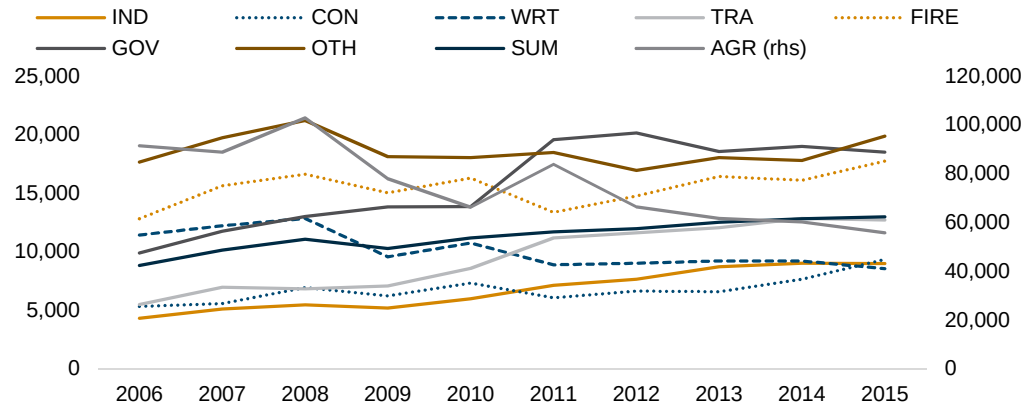
Table A3 / Business environment across regions of the DCFTA countries, 2013

Country	Region	Bribery incidence (percent of firms experiencing at least one bribe payment request)	Senior management time spent dealing with the requirements of government regulation (%)	Percent of firms with an internationally-recognized quality certification	Percent of firms using technology licensed from foreign companies	Percent of firms exporting directly or indirectly (at least 1% of sales)	Proportion of total sales that are exported (%)	Percent of firms using material inputs and/or supplies of foreign origin	Proportion of total inputs that are of foreign origin (%)	Percent of firms offering formal training	Proportion of unskilled workers (out of all production workers) (%)
Georgia	Coastline	0.6	1.9	7	8.1	9	3.8	51.1	23.9	7.7	36.4
	Kakheti	0	2.5	6	22.3	10.4	4.6	19.6	17.6	20.5	26.3
	Kvemo Kartli	8.4	1.3	6.1	11.6	5.5	2.8	14.4	12.9	1.9	19.6
	Mtskheta-M., Shida K.	0	0.1	3.4	35.8	6.3	3.5	51.9	16.8	10.2	32.2
	Tbilisi	0	0.3	8.7	26.6	7.7	2	56.9	36.4	12.7	24.6
	West	14.4	3.2	6.3	1.3	3.9	0.3	88.4	45.4	3.6	17.9
Moldova	Central	37.8	2.6	12	15.3	4.2	1.9	44.8	31.4	21.8	8.2
	North	13.5	25.5	52.1	40.8	47.6	18.3	68.5	48	76.5	1.5
	South	14.9	8.9	9.2	2.3	9.4	6.4	53.1	46.3	34.5	0
	South East	5.6	9.5	2.7	45	5.5	2.8	16.1	8.1	62.2	0
Ukraine	East	49.7	16.7	7.3	12.4	11.9	4.9	34.6	17.7	30.1	9.5
	Kyiv	72.4	17.8	29.6	15.1	17.3	6.1	62.4	36.6	26.4	34
	North	44	20.7	27.3	22.4	33.9	10.2	54.4	28.1	24.5	27.7
	South	40.3	20	20.3	5	20.4	8.5	42.6	13.9	21.5	9.1
	West	13.2	23.6	6.3	15.7	13.7	6.3	52.2	24.2	3.4	9.4
		Institutions		Innovation		Trade and value chains				Workforce	

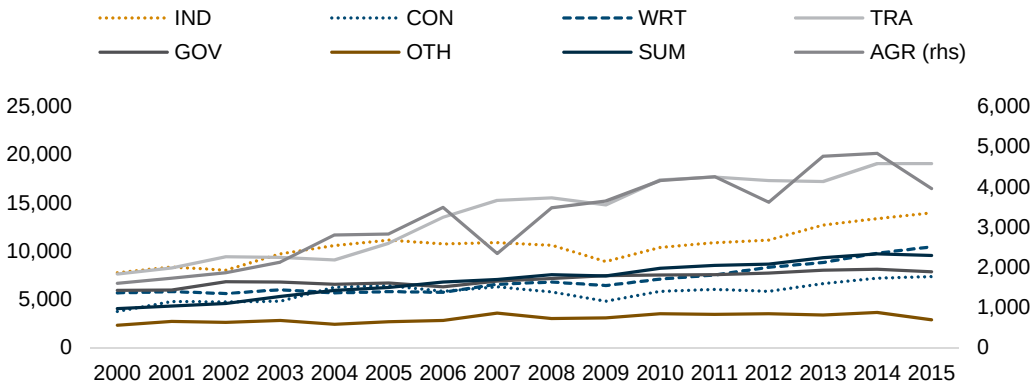
Source: World Bank Enterprise Survey

Figure A1 / Sectoral labour productivity in the DCFTA countries

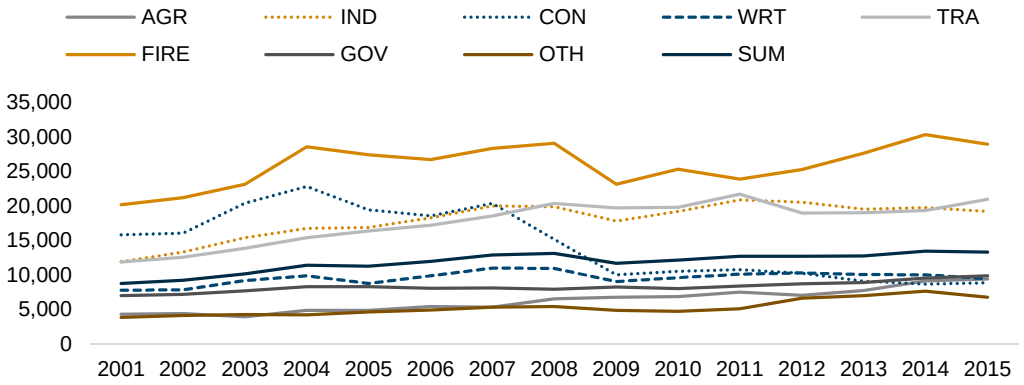
Panel A / Georgia



Panel B / Moldova



Panel C / Ukraine



Note: Productivity is measures as the ratio of sector value added to employment (registered employment for Georgia, LFS employment for other countries), chain-linked 2014 EUR. The legend indicates the following sectors: Agriculture (AGR), Industry (IND), Construction (CON); Trade, restaurants and hotels (WRT); Transport, storage and communication (TRA); Finance, insurance, real estate and business services (FIRE); Government services (GOV); Community, social and personal services, other (OTH); Aggregate across sectors (SUM).
Source: Own calculations based on national statistics.

Table A4 / Doing Business 2016, selected indicators

Country	Overall rank	Overall DTF	Starting a Business				Dealing with Construction Permits				Getting Electricity					Registering Property				Paying Taxes				Enforcing Contracts		
			Rank	Procedures (number)	Time (days)	Cost (% of income per capita)	Rank	Procedures (number)	Time (days)	Cost (% of warehouse value)	Rank	Procedures (number)	Time (days)	Cost (% of income per capita)	Price of electricity (US cents per kWh)	Rank	Procedures (number)	Time (days)	Cost (% of property value)	Rank	Payments (number per year)	Time (hours per year)	Total tax rate (% of profit)	Rank	Time (days)	Cost (% of claim)
Georgia	24	77.5	6	2	2	3.1	11	7	48	0.2	62	4	71	462	7.9	3	1	1	0.1	40	5	362	16.4	13	285	29.9
Moldova	52	71	26	4	4	4.3	170	27	276	0.7	104	7	113	778	10.3	21	5	5.5	0.9	78	21	186	40.2	67	585	28.6
Ukraine	83	63	30	4	7	0.6	140	10	67	15.2	137	5	263	795	13.6	61	7	23	2	107	5	350	52.2	98	378	46.3
Czech Republic	36	74	93	8	15	6.7	127	21	247	0.3	42	5	110	27.6	15.3	37	4	31	4	122	8	405	50.4	72	611	33
Estonia	16	79.5	15	3	3.5	1.3	16	10	102	0.2	34	5	91	157	11.4	4	3	17.5	0.5	30	8	81	49.4	11	425	21.9
Hungary	42	72.6	55	4	5	7.3	88	23	179	0.2	117	5	252	98.4	16.3	29	4	16.5	5	95	11	277	48.4	23	395	15
Latvia	22	78.1	27	4	5.5	1.5	30	12	165	0.3	65	4	107	297	19.9	23	4	16.5	2	27	7	193	35.9	25	469	23.1
Lithuania	20	78.9	8	2	3.5	0.6	18	12	103	0.3	54	6	95	52.8	12.3	2	3	2.5	0.8	49	11	171	42.6	3	300	23.6
Poland	25	76.5	85	4	30	12.2	52	16	156	0.3	49	4	133	19.5	15.2	41	6	33	0.3	58	7	271	40.3	55	685	19.4
Slovak Republic	29	75.6	68	6	11.5	1.5	84	10	286	0.1	48	5	121	54.8	15.5	5	3	16.5	0	73	10	188	51.2	63	705	30
Germany	15	79.9	107	9	10.5	1.8	13	8	96	1.1	3	3	28	42	28.5	62	5	39	6.7	72	9	218	48.8	12	429	14.4

(ctd.)

Table A4 / (ctd.)

Country	*Overall rank*	*Overall DTF*	*Trading Across Borders*									
			Rank	**DTF**	**Time to export: Border compliance (hours)**	**Cost to export: Border compliance (USD)**	**Time to export: Documentary compliance (hours)**	**Cost to export: Documentary compliance (USD)**	**Time to import: Border compliance (hours)**	**Cost to import: Border compliance (USD)**	**Time to import: Documentary compliance (hours)**	**Cost to import: Documentary compliance (USD)**
Georgia	24	77.5	78	75.3	14	383	48	200	14	396	24	200
Moldova	52	71	33	92.4	3	76	48	44	3	83	2	41
Ukraine	83	63	109	63.7	26	75	96	292	52	100	168	292
Czech Republic	36	74	1	100	0	0	1	0	0	0	1	0
Estonia	16	79.5	24	94.9	4	280	1	50	0	0	1	0
Hungary	42	72.6	1	100	0	0	1	0	0	0	1	0
Latvia	22	78.1	22	95.3	24	150	2	35	0	0	1	0
Lithuania	20	78.9	19	97.7	9	58	3	28	0	0	1	0
Poland	25	76.5	1	100	0	0	1	0	0	0	1	0
Slovak Republic	29	75.6	1	100	0	0	1	0	0	0	1	0
Germany	15	79.9	35	91.8	36	345	1	45	0	0	1	0

Source: World Bank's Doing Business 2016.

Table A5 / GDP real, index 2010 = 100

	1995	1996	1997	1998	1999	2000	2005	2010	2011	2012	2013	2014	2015
Belarus	36.16	37.17	41.41	44.88	46.41	49.10	70.39	100.00	105.50	107.29	108.37	110.21	105.92
Ukraine	72.71	65.44	63.46	62.24	62.09	65.75	95.08	100.00	105.40	105.61	105.61	98.64	88.87
Georgia	40.89	45.47	50.24	51.80	53.30	54.26	77.37	100.00	107.2	114.1	117.9	123.4	126.8
Moldova	68.78	64.73	65.76	61.49	59.39	60.64	85.36	100.00	106.80	106.05	116.02	121.58	120.99
Poland	52.74	55.95	59.57	62.32	65.21	68.18	79.42	100.00	105.01	106.65	108.00	111.54	115.61
Romania	66.31	68.88	65.56	64.19	63.94	65.47	86.61	100.00	101.06	101.70	105.30	108.41	112.48
Slovakia	52.26	55.79	59.18	61.55	61.43	62.17	79.26	100.00	102.84	104.41	105.90	108.57	112.47
Serbia	60.94	62.41	66.90	68.53	60.20	64.87	87.67	100.00	101.40	100.37	102.97	101.07	101.82

Source: wiiw Annual Database, Eurostat, CIS Statcommittee Database, National Statistics Office of Georgia, National Bureau of Statistics of Moldova.

Table A6 / Employment LFS, thousand persons

	1995	1996	1997	1998	1999	2000	2005	2010	2011	2012	2013	2014	2015
Belarus	4410	4365	4370	4417	4442	4444	4414	4703	4691	4612	4578	4551	4494
Ukraine	24125	24114	23756	22998	19948	20175	20680	20266	20324	20354	20404	18073	16443
Georgia	1730	1800	1848	1729	1694	1837	1745	1628	1664	1724	1712	1745	1780
Moldova	1673	1660	1646	1642	1495	1515	1319	1143	1174	1147	1173	1185	1204
Poland	14791	14969	15177	15354	14757	14526	14116	15961	16131	15591	15568	15862	16083
Romania	10700	10673	10807	10596	10535	10508	9115	9239	9138	8605	8549	8614	8535
Slovakia	2147	2225	2206	2199	2132	2102	2215	2318	2351	2329	2329	2363	2424
Serbia	.	.	.	.	3103	3094	2733	2396	2253	2228	2311	2544	2558

1) Registered.

Table A7 / Employment LFS, pervious period = 100

	1995	1996	1997	1998	1999	2000	2005	2010	2011	2012	2013	2014	2015
Belarus	93.80	98.98	100.12	101.07	100.58	100.04	102.04	101.27	99.75	98.31	99.27	99.39	98.75
Ukraine	.	99.95	98.51	96.81	.	101.14	101.89	100.37	100.29	100.15	100.24	93.58	99.60
Moldova	.	.	.	.	.	.	100.21	96.54	102.63	97.72	102.27	101.03	101.58
Poland	100.91	101.20	101.39	101.17	96.11	98.43	102.33	100.58	101.07	100.18	99.85	101.89	101.40
Romania	.	.	101.26	98.05	99.42	99.74	100.10	99.96	98.90	100.90	99.35	100.76	99.09
Slovakia	101.73	103.64	99.15	99.67	96.98	98.57	102.06	97.94	101.46	100.59	100.01	101.46	102.58
Serbia	.	.	.	.	.	99.71	93.26	91.58	94.03	98.90	103.70	110.10	100.56

1) Registered.

Table A8 / Employment LFS, index 2010 = 100 without breaks, calculated

	1995	1996	1997	1998	1999	2000	2005	2010	2011	2012	2013	2014	2015
Belarus	93.76	92.81	92.92	93.91	94.45	94.48	93.86	100.00	99.75	98.07	97.35	96.76	95.55
Ukraine	119.04	118.99	117.22	113.48	98.43	99.55	102.04	100.00	100.29	100.44	100.68	89.18	81.14
Georgia	106.26	110.56	113.50	106.17	104.07	112.84	107.16	100.00	102.22	105.89	105.16	107.19	109.32
Moldova	146.32	145.18	143.96	143.61	130.75	132.46	115.33	100.00	102.63	100.30	102.57	103.63	105.26
Poland	92.67	93.79	95.09	96.20	92.46	91.01	88.44	100.00	101.07	97.68	97.54	99.38	100.77
Romania	115.81	115.52	116.97	114.68	114.02	113.73	98.65	100.00	98.90	93.13	92.53	93.23	92.38
Slovakia	92.63	96.00	95.18	94.87	92.00	90.69	95.59	100.00	101.46	100.50	100.50	101.97	104.60
Serbia	.	.	.	.	129.48	129.11	114.07	100.00	94.03	92.99	96.43	106.17	106.77

1) Registered.

Table A9 / Employment LFS, index 2010 = 100, corrected for breaks

	1995	1996	1997	1998	1999	2000	2005	2010	2011	2012	2013	2014	2015
Belarus [1)]	93.76	92.81	92.92	93.91	94.45	94.48	93.86	100.00	99.75	98.07	97.35	96.76	95.55
Ukraine						99.55	102.04	100.00	100.29	100.44	100.68	94.22	93.84
Georgia	.	.	113.50	106.17	104.07	112.84	107.16	100.00	102.2	105.9	105.2	107.2	109.3
Moldova	146.32	145.18	143.96	143.61	130.75	132.46	115.33	100.00	102.63	100.30	102.57	103.63	105.26
Poland	91.02	92.11	93.39	94.48	90.81	89.38	88.44	100.00	101.07	101.25	101.10	103.01	104.44
Romania							98.65	100.00	98.90	99.79	99.14	99.89	98.98
Slovakia	92.63	96.00	95.18	94.87	92.00	90.69	95.59	100.00	101.46	102.06	102.07	103.56	106.22
Serbia							121.93	100.00	94.03	92.99	96.43	106.17	106.77

1) Registered.
Source: wiiw Annual Database, Eurostat, CIS Statcommittee Database, National Statistics Office of Georgia, National Bureau of Statistics of Moldova.

Table A10 / Share of agriculture, in % of GDP

	1995	1996	1997	1998	1999	2000	2005	2010	2011	2012	2013	2014	2015
Belarus	15.07	14.42	12.76	11.46	12.18	12.15	8.41	9.16	8.24	8.50	7.04	7.53	6.69
Ukraine	13.8	12.2	12.5	12.1	11.9	14.5	8.88	7.40	8.15	7.76	8.75	10.15	11.92
Georgia	41.78	33.15	27.51	26.24	24.72	20.60	14.77	7.28	7.62	7.39	8.18	7.99	7.95
Moldova	29.22	27.46	25.93	25.75	24.85	25.38	16.36	12.01	12.23	11.18	12.27	13.00	.
Poland	6.87	6.47	5.74	5.21	4.52	4.37	2.91	2.57	2.83	2.66	2.87	2.61	.
Romania	18.05	17.42	17.38	14.28	12.57	10.80	8.38	5.60	6.43	4.67	5.40	4.71	.
Slovakia	5.06	4.78	4.62	4.69	4.02	3.95	3.23	2.56	3.07	3.25	3.62	3.99	.
Serbia	19.70	19.85	19.01	16.89	19.29	18.34	9.98	8.53	9.00	7.53	7.88	7.73	.

Source: wiiw Annual Database, Eurostat, National Statistics.

Table A11 / Share of agriculture, in % of GVA

	1995	1996	1997	1998	1999	2000	2005	2010	2011	2012	2013	2014	2015
Belarus	16.1	16.0	14.4	13.0	13.7	13.93	9.65	10.13	9.06	9.47	7.83	8.33	7.50
Ukraine	15.0	13.6	14.2	14.1	14.1	16.8	10.04	8.36	9.42	8.97	9.99	11.65	14.04
Georgia	44.25	33.98	29.10	27.32	25.98	21.72	16.48	8.27	8.74	8.48	9.28	9.13	9.04
Moldova	32.965	31.365	30.162	30.433	27.84	29	19.48	14.41	14.72	13.39	14.74	15.42	.
Poland	7.96	7.51	6.58	5.92	5.19	4.93	3.31	2.91	3.22	3.00	3.24	2.94	.
Romania	19.15	18.43	18.72	15.94	14.11	12.02	9.48	6.27	7.33	5.32	6.13	5.33	.
Slovakia	5.63	5.30	5.10	5.22	4.47	4.42	3.63	2.81	3.38	3.54	3.97	4.40	.
Serbia	20.92	21.34	20.46	18.42	20.99	19.94	11.96	10.23	10.69	8.99	9.36	9.28	.

Source: wiiw Annual Database, Eurostat, National Statistics.

Table A12 / Share of industry, in % of GDP

	1995	1996	1997	1998	1999	2000	2005	2010	2011	2012	2013	2014	2015
Belarus	27.56	29.11	29.94	29.01	27.64	30.10	31.15	27.30	30.89	30.07	26.64	25.82	26.33
Ukraine	30.95	27.45	24.63	25.26	27.23	26.65	25.47	21.65	21.23	21.01	19.76	20.04	19.60
Georgia	9.52	14.47	13.50	12.38	12.99	13.58	12.19	11.43	12.03	12.06	12.58	12.28	12.05
Moldova	24.98	23.07	20.22	16.68	16.99	16.32	15.77	13.26	13.99	13.96	14.25	14.54	.
Poland	24.52	23.04	22.80	21.95	21.41	21.25	21.15	20.78	21.23	21.72	21.01	21.07	.
Romania	29.38	30.55	29.35	25.82	24.37	24.26	24.44	26.57	27.02	24.11	24.22	24.06	.
Slovakia	27.44	26.24	23.97	23.90	23.56	24.84	25.41	23.12	23.33	23.23	22.01	22.24	.
Serbia	26.28	22.85	21.47	23.11	22.63	25.28	18.48	17.79	18.61	19.66	21.18	19.69	.

Source: wiiw Annual Database, Eurostat, National Statistics.

Table A13 / Share of industry, in % of GVA

	1995	1996	1997	1998	1999	2000	2005	2010	2011	2012	2013	2014	2015
Belarus	29.42	32.25	33.76	32.81	31.12	34.49	35.76	30.19	33.96	33.51	29.63	28.56	29.54
Ukraine	33.76	30.59	28.01	29.45	32.40	31.04	28.80	24.45	24.54	24.29	22.56	23.00	23.08
Georgia	10.08	14.83	14.28	12.89	13.65	14.32	13.60	12.99	13.79	13.85	14.28	14.04	13.70
Moldova	28.18	26.35	23.53	19.72	19.03	18.64	18.77	15.91	16.84	16.71	17.11	17.24	.
Poland	28.43	26.74	26.15	24.92	24.57	23.97	24.08	23.58	24.13	24.49	23.65	23.75	.
Romania	31.17	32.31	31.62	28.82	27.35	27.00	27.65	29.73	30.80	27.48	27.51	27.23	.
Slovakia	30.54	29.09	26.48	26.62	26.16	27.82	28.54	25.37	25.73	25.36	24.12	24.50	.
Serbia	27.90	24.56	23.10	25.20	24.62	27.49	22.15	21.34	22.10	23.45	25.16	23.62	.

Source: wiiw Annual Database, Eurostat, National Statistics.

Table A14 / Exports, million EUR

	1995	1996	1997	1998	1999	2000	2005	2010	2011	2012	2013	2014	2015
Belarus	3671.8	4457.0	6438.1	6312	5544	7932	12829	18892	28841	35768	28203	28002	24329
Ukraine	10031	11347	12540	11185	10889	15765	27455	38729	49130	53553	47693	40768	34382
Georgia	116	156.8	211.5	171.8	223.5	349.5	695.7	1194	1571	1849	2191	2153	1986
Moldova	569.9	627	770.8	564.1	434.8	510.5	877.2	1163	1593	1683	1828	1761	1773
Poland	17710	19488	22798	25145	25729	34373	71889	120483	135558	144282	154344	165715	178671
Romania	6117	6454	7469	7400	7977	11273	22255	37398	45284	45019	49571	52493	54609
Slovakia	6634	7048	7299	9541	9602	12811	25632	48777	57349	62742	64566	65081	68036
Serbia	.	.	.	.	1270	1674	3614	7404	8436	8758	11001	11149	12026

Source: wiiw Annual Database, UN Comtrade.

Table A15 / Imports, million EUR

	1995	1996	1997	1998	1999	2000	2005	2010	2011	2012	2013	2014	2015
Belarus	4253.1	5472.8	7661.7	7633	6262	9361	13414	26065	31864	36036	32615	31434	27635
Ukraine	11831	13870	15092	12989	11137	15098	28985	45764	59340	65914	57986	41167	33812
Georgia	302.9	541.7	832	789.5	564.7	768.1	2001	3843	5056	6253	6032	6468	6962
Moldova	642.7	845.7	1032.7	913.9	550.2	840.6	1843	2908	3729	4057	4136	4002	3593
Poland	22491	29677	37484	41539	43151	53085	81697	134306	151291	154934	156319	168366	174990
Romania	7949	9129	9991	10529	9927	14235	32569	46850	54943	54644	55328	58555	62976
Slovakia	6783	8878	9119	11635	10628	13815	27851	49050	57358	60241	61543	61689	66339
Serbia	.	.	.	.	2694	3559	8457	12429	14244	14718	15468	15487	16391

Source: wiiw Annual Database, UN Comtrade.

Table A16 / Exports growth, nominal index 2010 = 100

	1995	1996	1997	1998	1999	2000	2005	2010	2011	2012	2013	2014	2015
Belarus	.	.	.	33.41	29.35	41.99	67.91	100.00	152.67	189.33	149.29	148.22	128.78
Ukraine	25.90	29.30	32.38	28.88	28.11	40.70	70.89	100.00	126.85	138.27	123.14	107.01	90.25
Georgia	9.71	13.12	17.7	14.38	18.71	29.26	58.25	100	131.5	154.9	183.4	180.3	166.3
Moldova	49.01	53.92	66.29	48.51	37.39	43.9	75.43	100	137	144.7	157.2	151.4	152.5
Poland	14.67	16.14	18.88	20.82	21.31	28.53	59.67	100.00	112.51	119.75	128.10	137.54	148.30
Romania	16.39	17.29	20.01	19.82	21.37	30.14	59.51	100.00	121.09	120.38	132.55	140.36	146.02
Slovakia	15.85	16.84	17.44	19.52	19.64	26.26	52.55	100.00	117.58	128.63	132.37	133.43	139.48
Serbia	.	.	.	.	17.15	22.60	48.81	100.00	113.94	118.28	148.58	150.57	162.41

Source: wiiw Annual Database, CIS Statcommittee Database, UN Comtrade.

Table A17 / Imports growth, nominal index 2010 = 100

	1995	1996	1997	1998	1999	2000	2005	2010	2011	2012	2013	2014	2015
Belarus	.	.	.	29.28	24.02	35.91	51.46	100.00	122.24	138.25	125.13	120.60	106.02
Ukraine	25.85	30.31	32.98	28.38	24.34	32.99	63.34	100.00	129.67	144.03	126.71	91.36	75.03
Georgia	7.88	14.1	21.65	20.54	14.69	19.98	52.07	100	131.6	162.7	157	168.3	181.1
Moldova	22.11	29.1	35.53	31.44	18.93	28.92	63.36	100	128.2	139.5	142.2	137.6	123.6
Poland	16.71	22.05	27.84	30.86	32.05	39.53	60.83	100.00	112.65	115.36	116.39	125.36	130.29
Romania	16.70	19.18	21.00	22.13	20.86	30.39	69.52	100.00	117.27	116.64	118.10	124.98	134.42
Slovakia	15.70	20.55	21.11	23.70	21.65	28.17	56.78	100.00	116.94	122.82	125.47	125.77	135.25
Serbia	.	.	.	.	21.67	28.64	68.05	100.00	114.60	118.42	124.45	124.61	131.88

Source: wiiw Annual Database, CIS Statcommittee Database, UN Comtrade.

Table A18 / Exports to EU (until 1999 EU-15, from 2000 EU-28), million EUR

					EU-15	EU-28							
	1995	1996	1997	1998	1999	2000	2005	2010	2011	2012	2013	2014	2015
Belarus	.	.	.	430	494	2273	5741	5708	10956	13632	7931	8279	7799
Ukraine	1074	1258	1548	1876	1991	5215	8257	9859	12945	13323	12622	12860	11737
Georgia	53.0					85.1	174	221.5	304.9	274.7	457.1	469.8	578.0
Moldova	65.7					179.4	356.9	549.9	778.1	789.2	856.3	937.9	1097.5
Poland	12398	12908	14600	17173	18127	27993	56745	95580	106014	109962	115755	128290	141561
Romania	3313	3646	4222	4774	5224	8158	15785	27111	32284	31705	34506	37311	40240
Slovakia	2481	2909	3045	5309	5701	11568	22450	41329	48810	52790	53557	54909	58163
Serbia	. .	.	.		491	919	2278	4477	5203	5370	6901	7205	7896

Source: wiiw Annual Database, UN Comtrade.

Table A19 / Imports from EU (until 1999 EU-15, from 2000 EU-28), million EUR

					EU-15	EU-28							
	1995	1996	1997	1998	1999	2000	2005	2010	2011	2012	2013	2014	2015
Belarus	.	.	.	1332	1240	2010	2902	5660	6064	7225	7966	7333	5298
Ukraine	1767	2182	2978	2806	2255	4379	9795	14429	18536	20413	20371	15936	13834
Georgia	122.9					235.8	581.5	1085	1474	1888	1704	1784	2259
Moldova	80.8					448.1	836.6	1287	1623	1806	1861	1933	1761
Poland	14540	18970	23911	27268	28016	36632	61577	95137	105935	104926	107822	117267	123113
Romania	4010	4778	5250	6070	6024	9298	20574	34027	40018	40240	41914	44126	48584
Slovakia	2358	3310	3597	5833	5493	9719	21718	35363	42066	44413	45727	46920	52227
Serbia	.	.	.	.	1113	2230	4801	7252	8250	8983	9480	9766	10230

Source: wiiw Annual Database, UN Comtrade.

Table A20 / Share of exports to EU in total exports, in %

					EU-15	EU-28							
	1995	1996	1997	1998	1999	2000	2005	2010	2011	2012	2013	2014	2015
Belarus	.	.	.	6.8	8.9	28.7	44.7	30.2	38.0	38.1	28.1	29.6	32.1
Ukraine	10.7	11.1	12.3	16.8	18.3	33.1	30.1	25.5	26.3	24.9	26.5	31.5	34.1
Georgia	45.7					24.3	25.0	18.5	19.4	14.9	20.9	21.8	29.1
Moldova	11.5					35.1	40.7	47.3	48.9	46.9	46.8	53.3	61.9
Poland	70.0	66.2	64.0	68.3	70.5	81.4	78.9	79.3	78.2	76.2	75.0	77.4	79.2
Romania	54.2	56.5	56.5	64.5	65.5	72.4	70.9	72.5	71.3	70.4	69.6	71.1	73.7
Slovakia	37.4	41.3	41.7	55.7	59.4	90.3	87.6	84.7	85.1	84.1	82.9	84.4	85.5
Serbia	.				38.7	54.9	63.0	60.5	61.7	61.3	62.7	64.6	65.7

Source: wiiw Annual Database, CIS Statcommittee Database, UN Comtrade.

Table A21 / Share of imports to EU in total imports, in %

	EU-15				EU-15	EU-28							
	1995	**1996**	**1997**	**1998**	**1999**	**2000**	**2005**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Belarus	.	.	.	17.5	19.8	21.5	21.6	21.7	19.0	20.1	24.4	23.3	19.2
Ukraine	14.9	15.7	19.7	21.6	20.2	29.0	33.8	31.5	31.2	31.0	35.1	38.7	40.9
Georgia	40.6					30.7	29.1	28.2	29.2	30.2	28.3	27.6	32.5
Moldova	12.6					53.3	45.4	44.3	43.5	44.5	45.0	48.3	49.0
Poland	64.6	63.9	63.8	65.6	64.9	69.0	75.4	70.8	70.0	67.7	69.0	69.6	70.4
Romania	50.5	52.3	52.5	57.7	60.7	65.3	63.2	72.6	72.8	73.6	75.8	75.4	77.1
Slovakia	34.8	37.3	39.4	50.1	51.7	70.3	78.0	72.1	73.3	73.7	74.3	76.1	78.7
Serbia	.				41.3	62.7	56.8	58.4	57.9	61.0	61.3	63.1	62.4

Source: wiiw Annual Database, CIS Statcommittee Database, UN Comtrade.

Table A22 / Share of exports to CIS in total exports, in %

	1995	**1996**	**1997**	**1998**	**1999**	**2000**	**2005**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Belarus	63.02	66.60	73.67	72.96	61.27	60.03	44.14	53.93	49.19	51.44	61.86	58.50	52.74
Ukraine	52.88	50.15	38.90	33.00	27.72	30.60	30.77	36.46	38.27	36.86	34.87	27.61	20.48
Georgia	62.43	64.64	57.42	55.72	45.05	39.81	47.05	40.67	47.20	51.81	55.22	50.78	36.86
Moldova	62.63	68.31	69.59	67.89	54.73	58.56	50.53	40.48	41.47	42.93	38.02	31.44	25.94
Poland	10.23	12.43	15.42	11.31	6.67	6.67	8.71	8.26	8.54	9.97	9.94	7.74	5.72
Romania	5.69	5.33	6.24	4.15	3.22	3.70	3.51	5.72	6.22	6.44	7.08	6.33	4.39
Slovakia	.	.	.	.	2.60	2.40	3.24	5.08	4.87	5.35	5.20	4.23	3.03
Serbia	.	.	.	.	5.35	5.83	7.08	7.92	9.03	9.62	9.09	8.22	6.37
		39.3	36.5	35.8	31.0	28.4	32.0	28.9	32.1	34.1	35.6	33.7	26.9

Source: wiiw Annual Database, UN Comtrade.

Table A23 / Share of imports to CIS in total imports, in %

	1995	**1996**	**1997**	**1998**	**1999**	**2000**	**2005**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Belarus	66.08	65.86	66.95	64.95	64.24	70.19	66.67	58.87	61.40	64.95	58.60	59.72	60.52
Ukraine	64.52	63.47	57.63	53.76	56.87	57.54	47.01	43.95	45.05	40.72	36.29	31.74	27.93
Georgia	40.06	39.37	36.09	30.24	37.4	32.32	40.03	30.41	23.83	21.29	22.95	19.99	19.57
Moldova	67.67	60.87	51.61	43.00	41.27	33.46	39.49	32.60	33.01	31.15	30.45	27.26	25.58
Poland	9.28	9.05	8.19	6.54	7.22	11.04	11.25	11.93	14.18	15.94	13.72	12.35	9.07
Romania	15.73	15.35	14.86	11.52	9.50	13.00	13.86	9.07	10.20	10.38	9.12	9.49	6.84
Slovakia	.	.	.	.	13.62	18.80	12.84	10.64	12.14	11.01	10.94	8.75	6.04
Serbia	.	.	.	.	7.34	8.95	20.06	15.51	16.33	14.60	14.74	13.52	11.64

Source: wiiw Annual Database, UN Comtrade.

Table A24 / Share of manufacturing (SITC 5,6,7) in total exports, in %

	1995	**1996**	**1997**	**1998**	**1999**	**2000**	**2005**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Belarus				65.39	63.29	54.98	45.31	46.82	44.20	44.36	40.81	40.55	43.28
Ukraine	.	64.27	67.25	66.59	62.96	66.92	65.63	61.11	54.07	50.50	47.70	50.22	.
Georgia	.	33.48	41.31	42.53	40.72	31.60	36.29	50.79	55.62	60.37	56.37	51.32	42.33
Moldova	16.31	16.92	27.01	14.05	15.34	14.92	16.58	25.26	30.05	33.01	32.50	29.36	29.58
Poland	56.40	56.93	55.96	60.34	61.95	65.83	68.42	69.91	69.09	67.59	67.00	66.61	66.29
Romania	49.74	46.22	47.33	45.33	42.11	44.01	51.95	65.29	65.16	64.87	64.28	63.86	65.90
Slovakia	72.45	73.87	73.15	76.23	74.76	73.61	74.45	78.13	76.39	77.12	78.16	79.09	80.59
Serbia	.	.	.	.	50.97	53.73	56.52	54.19	54.71	53.70	59.54	58.94	59.01

Source: wiiw Annual Database, UN Comtrade.

Table A25 / Share of manufacturing (SITC 5,6,7) in total imports, in %

	1995	1996	1997	1998	1999	2000	2005	2010	2011	2012	2013	2014	2015
Belarus					54.15	45.38	43.98	44.79	39.66	43.80	50.00	45.92	42.55
Ukraine	.	35.13	39.37	42.23	37.43	39.10	51.36	48.21	40.94	43.22	43.71	51.19	.
Georgia	.	20.72	35.10	50.15	44.66	46.00	51.37	50.48	52.97	55.17	53.80	54.61	55.94
Moldova	38.79	44.08	62.66	51.51	44.36	44.07	53.95	53.58	54.10	52.43	52.99	54.82	56.66
Poland	66.43	66.86	69.41	72.85	73.27	71.06	70.81	66.36	64.09	63.39	65.21	65.71	67.80
Romania	55.15	56.92	59.36	63.45	66.97	65.91	67.70	70.35	69.70	68.14	69.95	70.33	71.94
Slovakia	60.26	62.03	60.95	68.90	67.30	63.78	65.83	66.68	64.64	64.60	65.72	68.26	70.87
Serbia	.	.	.	.	60.13	58.82	60.47	55.77	57.12	58.59	60.64	59.09	58.35

Source: wiiw Annual Database, UN Comtrade.

Table A26 / FDI inward stocks in EUR per capita

	1995	1996	1997	1998	1999	2000	2005	2010	2011	2012	2013	2014	2015
Belarus	.	12	45	61	115	141	209	789	1062	1164	1280	1542	1731
Ukraine	12	21	32	45	55	85	310	954	1127	1249	1257	1221	1323
Georgia	5	12	50	98	142	186	457	1398	1641	1756	1844	2715	2700
Moldova	17	23	48	60	87	133	240	628	712	734	740	836	912
Poland	159	239	342	497	671	962	1972	2299	3301	3915	4324	4396	4347
Romania	28	39	94	168	243	311	1029	2545	2673	2890	3006	3030	3203
Slovakia	189	307	350	462	595	954	3716	6985	7434	7722	7768	7974	8153
Serbia	.	.	.	.	.	7	554	2294	2656	2745	3196	3426	3766

Source: wiiw FDI Database, UNCTAD.

Table A27 / FDI inward stocks in % of GDP

	1995	1996	1997	1998	1999	2000	2005	2010	2011	2012	2013	2014	2015
Belarus	.	1.11	3.54	4.23	11.17	11.36	8.31	18.22	27.22	22.38	22.09	24.83	33.70
Ukraine	2.26	2.99	3.62	6.09	9.17	12.31	20.33	41.04	42.29	40.06	40.26	51.89	69.25
Georgia	1.2	2.2	7.0	14.2	22.5	24.9	37.0	71.7	66.2	65.6	70.8	77.3	89.4
Moldova	6.73	7.31	10.41	14.34	28.76	34.68	35.92	51.04	50.28	46.12	43.78	49.40	55.55
Poland	5.57	7.23	9.38	12.45	16.29	19.74	30.73	24.28	33.46	38.75	42.18	41.17	39.09
Romania	2.20	2.98	6.70	10.14	16.00	17.07	27.28	40.56	40.30	43.33	41.56	40.07	39.59
Slovakia	6.57	9.58	9.76	12.27	16.48	22.95	50.91	55.89	57.03	57.69	56.98	57.22	56.67
Serbia	.	.	.	.	.	0.20	19.50	56.07	57.06	62.23	66.69	73.16	80.47

Source: wiiw FDI Database, UNCTAD.

Table A28 / Trade balances, million EUR

	1995	1996	1997	1998	1999	2000	2005	2010	2011	2012	2013	2014	2015
Belarus	-581.3	-1015.8	-1223.6	-1321.0	-717.6	-1429.0	-585.1	-7173.7	-3022.4	-267.5	-4411.8	-3431.8	-3306.0
Ukraine	-1800.2	-2523.4	-2551.8	-1803.9	-248.7	667.0	-1530.3	-7034.6	-10210.4	-12360.9	-10293.2	-398.6	570.3
Georgia	-186.9	-384.9	-620.5	-617.7	-341.2	-418.6	-1305.7	-2649.1	-3485.0	-4404.0	-3841.3	-4315.1	-4975.8
Moldova	-72.8	-218.7	-261.9	-349.8	-115.4	-330.1	-965.3	-1745.3	-2136.9	-2374.7	-2307.1	-2241.3	-1820.5
Poland	-4781.1	-10188.9	-14685.8	-16393.9	-17421.8	-18711.3	-9807.5	-13823.1	-15733.2	-10651.7	-1975.0	-2651.5	3681.1
Romania	-1831.2	-2675.0	-2522.1	-3129.0	-1950.3	-2962.1	-10313.4	-9451.3	-9658.8	-9624.7	-5757.5	-6061.6	-8367.3
Slovakia	-148.1	-1829.7	-1820.0	-2094.2	-1025.5	-1004.7	-2218.5	-273.5	-8.5	2501.0	3023.2	3392.7	1697.3
Serbia	.	.	.	.	-1423.5	-1885.4	-4843.2	-5024.1	-5807.3	-5960.2	-4466.5	-4338.1	-4365.0

Source: wiiw Annual Database, UN Comtrade.

Table A29 / Trade balances with the EU, million EUR

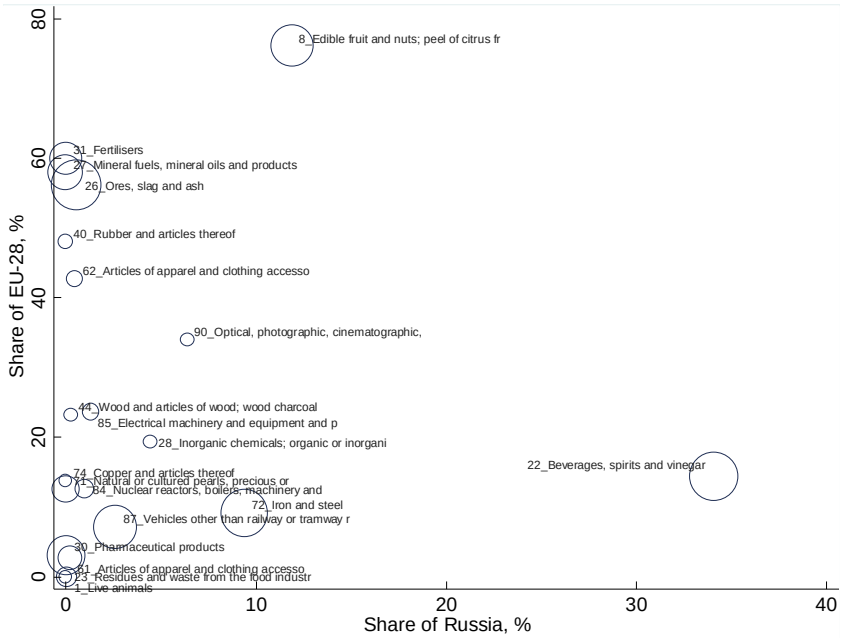
	1995	1996	1997	1998	1999	2000	2005	2010	2011	2012	2013	2014	2015
Belarus	.	.	.	-902	-746	263	2839	48	4892	6406	-35	946	2501
Ukraine	-693	-924	-1429	-930	-264	836	-1538	-4570	-5591	-7090	-7749	-3076	-2097
Georgia	-70	0	0	0	0	-151	-408	-864	-1169	-1614	-1247	-1314	-1681
Moldova	-15	0	0	0	0	-269	-480	-737	-845	-1017	-1005	-995	-664
Poland	-2142	-6061	-9312	-10096	-9889	-8639	-4832	442	79	5036	7933	11024	18447
Romania	-698	-1131	-1028	-1296	-800	-1140	-4789	-6917	-7735	-8535	-7408	-6816	-8345
Slovakia	123	-401	-553	-524	208	1849	732	5966	6743	8377	7830	7989	5936
Serbia	.	.	.	.	-622	-1311	-2523	-2776	-3047	-3613	-2579	-2561	-2334

Source: wiiw Annual Database, UN Comtrade.

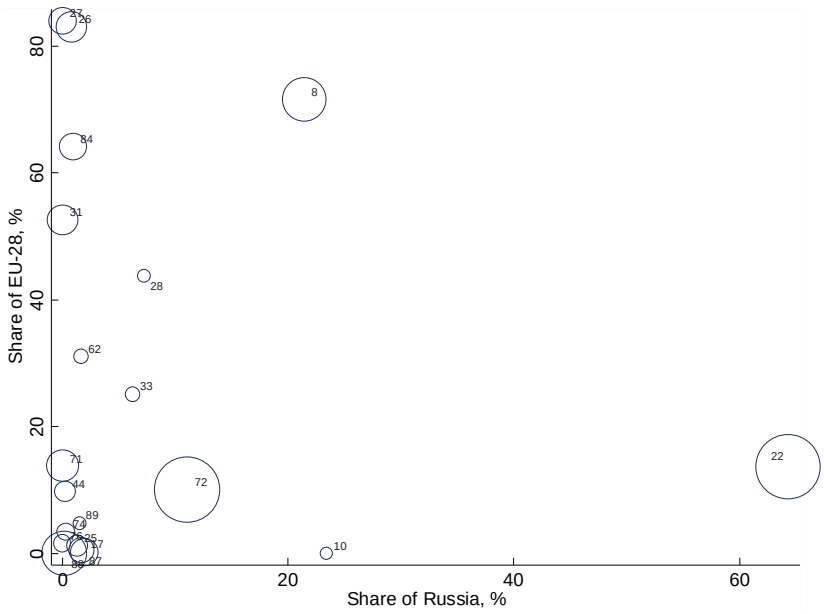
Appendix B

Figure B1 / Share of exports to the EU-28 and Russia by HS 2-digit industry, Georgia

Panel A. 2015



Panel B. 2013



Note: for clarity only HS-2 codes are shown, please refer to the table below for industry descriptions. Bubble size is proportional to the value of exports. (ctd.)

Figure B1 / (ctd.)

Panel C. 2005

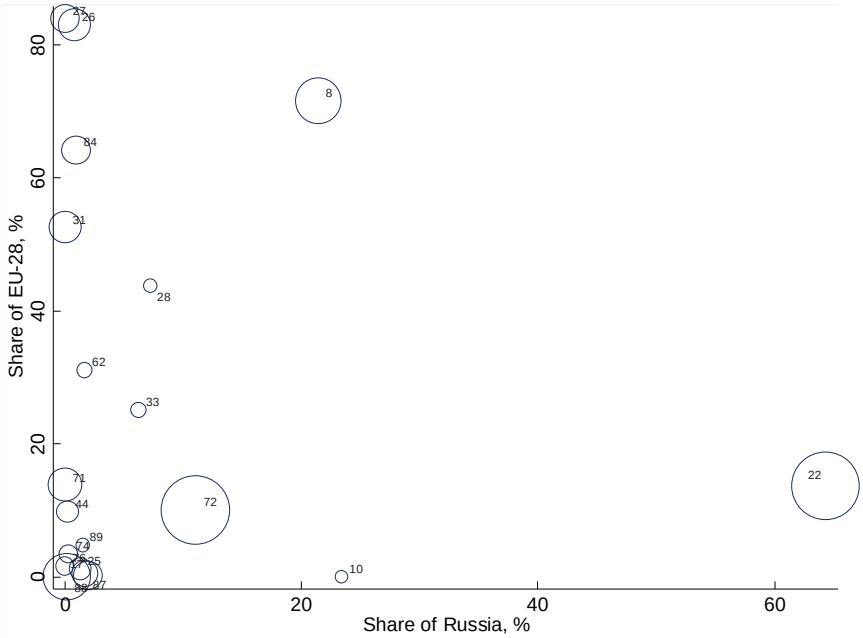
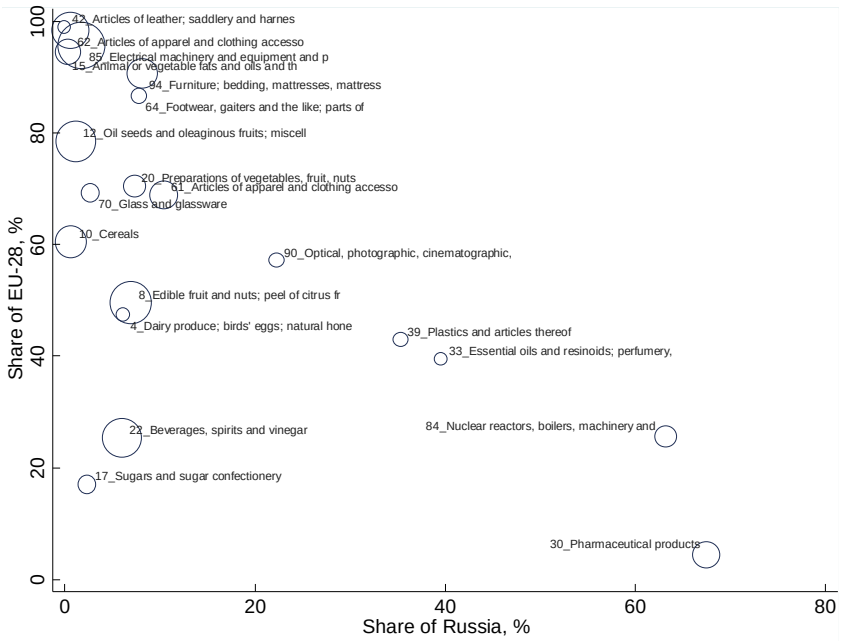


Figure B2 / Share of exports to the EU-28 and Russia by HS 2-digit industry, Moldova

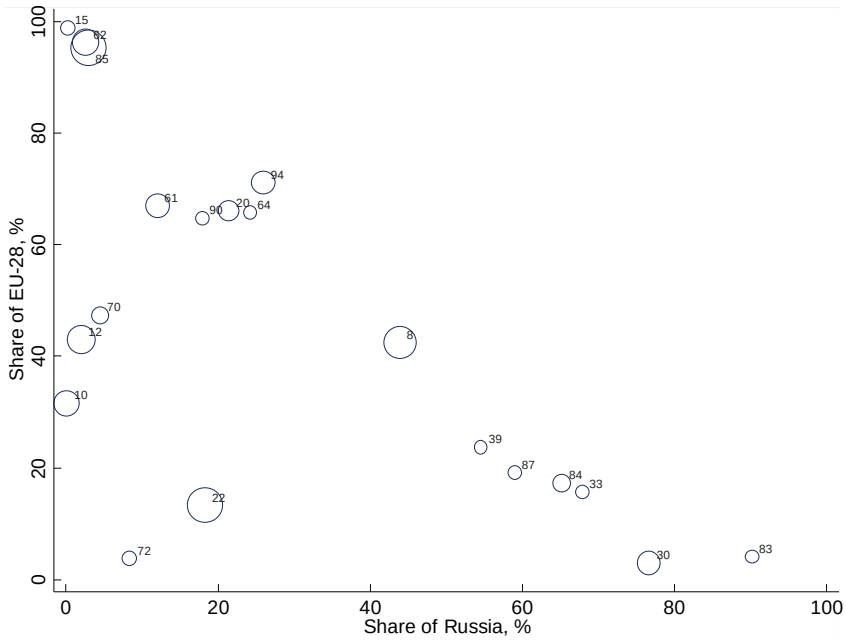
Panel A. 2015



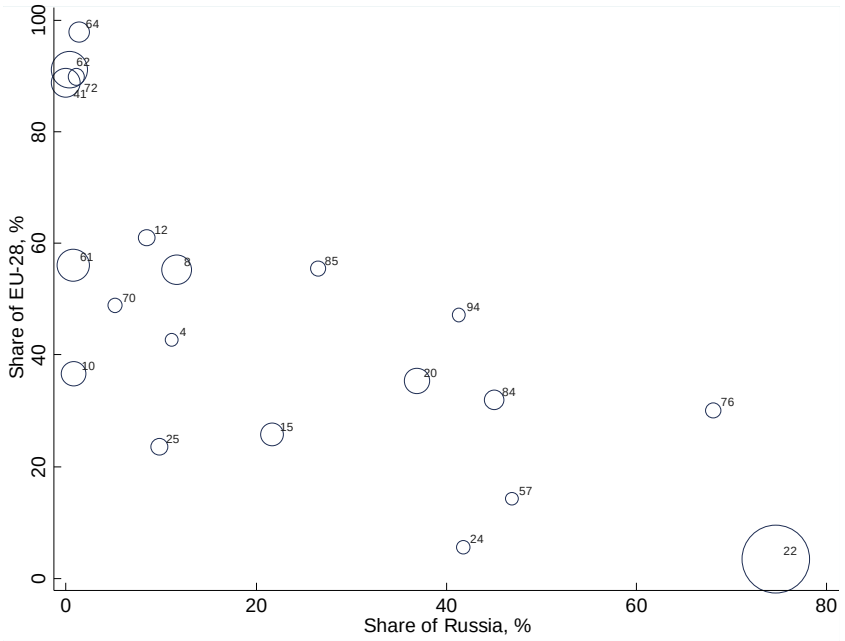
ctd.

Figure B2 / (ctd.)

Panel B. 2013



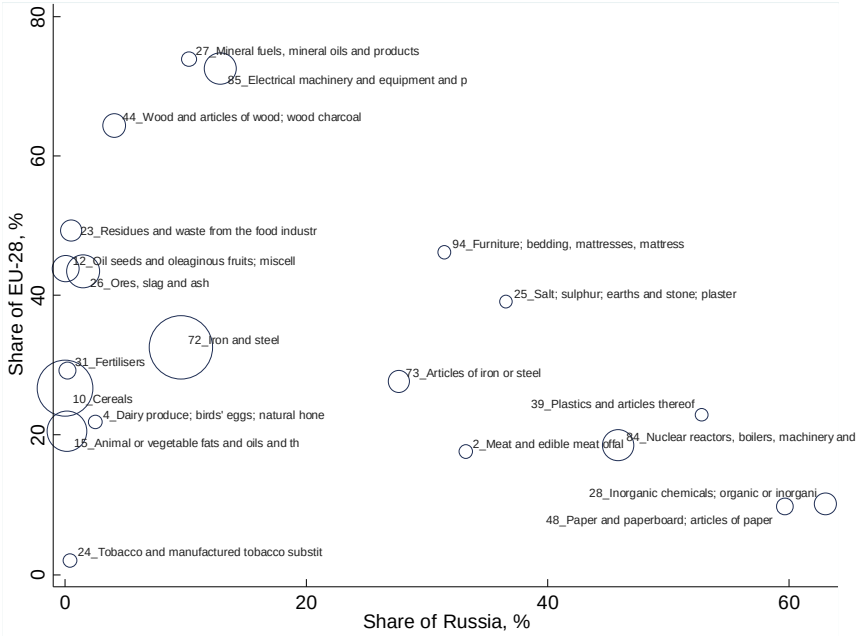
Panel C. 2005



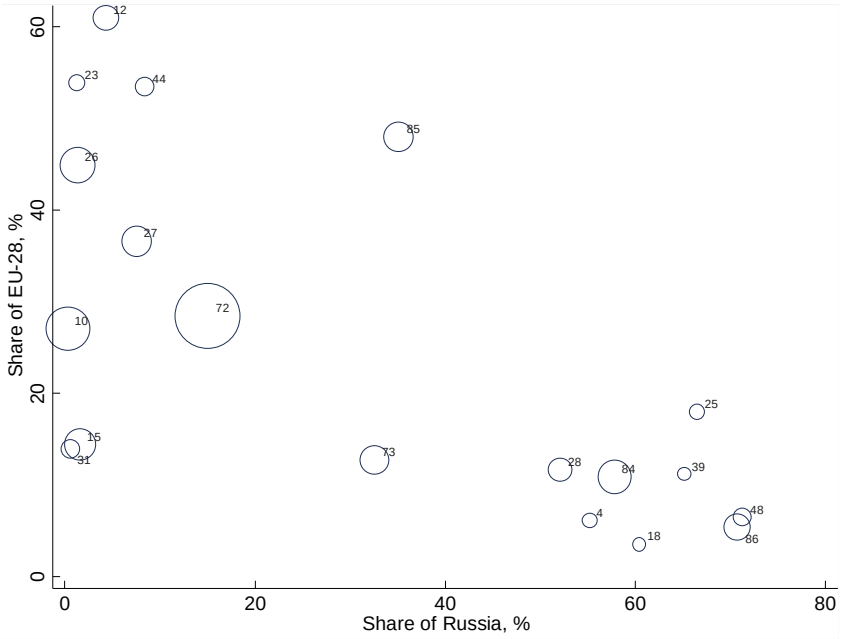
ctd.

Figure B3 / Share of exports to the EU-28 and Russia by HS 2-digit industry, Ukraine

Panel A. 2015



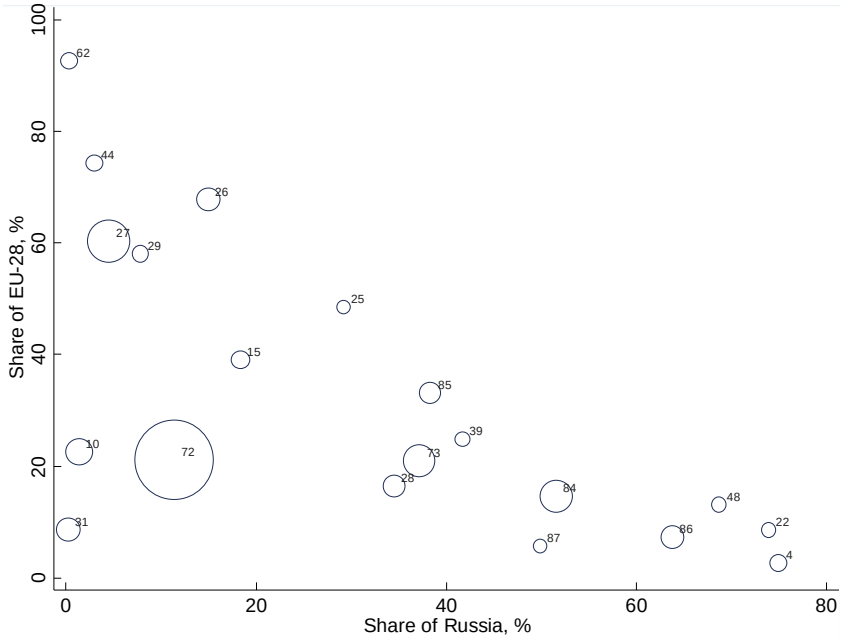
Panel B. 2013



ctd.

Figure B3 / (ctd.)

Panel C. 2005



Source: Own computations based on UN Comtrade.

Table B1 / Classification codes and commodity description for HS 2-digit industries

Code	Commodity description
01	Live animals
02	Meat and edible meat offal
03	Fish and crustaceans, molluscs and other aquatic invertebrates
04	Dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere specified or included
05	Products of animal origin, not elsewhere specified or included
06	Live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage
07	Edible vegetables and certain roots and tubers
08	Edible fruit and nuts; peel of citrus fruit or melons
09	Coffee, tea, maté and spices
10	Cereals
11	Products of the milling industry; malt; starches; inulin; wheat gluten
12	Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal plants; straw and fodder
13	Lac; gums, resins and other vegetable saps and extracts
14	Vegetable plaiting materials; vegetable products not elsewhere specified or included
15	Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes
16	Preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates
17	Sugars and sugar confectionery
18	Cocoa and cocoa preparations
19	Preparations of cereals, flour, starch or milk; pastrycooks' products
20	Preparations of vegetables, fruit, nuts or other parts of plants
21	Miscellaneous edible preparations
22	Beverages, spirits and vinegar
23	Residues and waste from the food industries; prepared animal fodder
24	Tobacco and manufactured tobacco substitutes
25	Salt; sulphur; earths and stone; plastering materials, lime and cement
26	Ores, slag and ash
27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes
28	Inorganic chemicals; organic or inorganic compounds of precious metals, of rare-earth metals, of radioactive elements or of isotopes
29	Organic chemicals
30	Pharmaceutical products
31	Fertilisers
32	Tanning or dyeing extracts; tannins and their derivatives; dyes, pigments and other colouring matter; paints and varnishes; putty and other mastics; inks
33	Essential oils and resinoids; perfumery, cosmetic or toilet preparations

Table B1 / (ctd.)

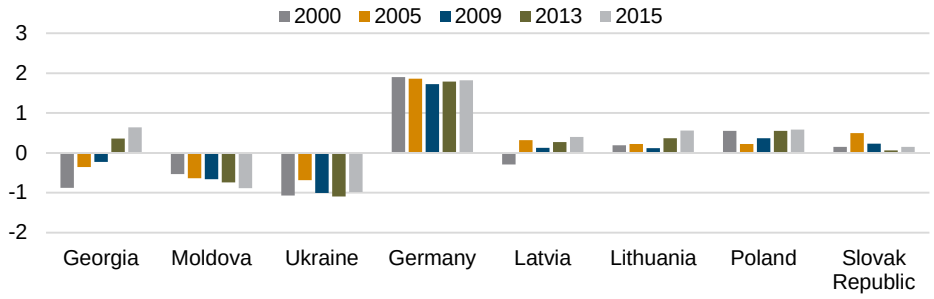
Code	Commodity description
34	Soap, organic surface-active agents, washing preparations, lubricating preparations, artificial waxes, prepared waxes, polishing or scouring preparations, candles and similar articles, modelling pastes, dental waxes and dental preparations with a basis of plaster
35	Albuminoidal substances; modified starches; glues; enzymes
36	Explosives; pyrotechnic products; matches; pyrophoric alloys; certain combustible preparations
37	Photographic or cinematographic goods
38	Miscellaneous chemical products
39	Plastics and articles thereof
40	Rubber and articles thereof
41	Raw hides and skins (other than furskins) and leather
42	Articles of leather; saddlery and harness; travel goods, handbags and similar containers; articles of animal gut (other than silk-worm gut)
43	Furskins and artificial fur; manufactures thereof
44	Wood and articles of wood; wood charcoal
45	Cork and articles of cork
46	Manufactures of straw, of esparto or of other plaiting materials; basketware and wickerwork
47	Pulp of wood or of other fibrous cellulosic material; recovered (waste and scrap) paper or paperboard
48	Paper and paperboard; articles of paper pulp, of paper or of paperboard
49	Printed books, newspapers, pictures and other products of the printing industry; manuscripts, typescripts and plans
50	Silk
51	Wool, fine or coarse animal hair; horsehair yarn and woven fabric
52	Cotton
53	Other vegetable textile fibres; paper yarn and woven fabrics of paper yarn
54	Man-made filaments; strip and the like of man-made textile materials
55	Man-made staple fibres
56	Wadding, felt and nonwovens; special yarns; twine, cordage, ropes and cables and articles thereof
57	Carpets and other textile floor coverings
58	Special woven fabrics; tufted textile fabrics; lace; tapestries; trimmings; embroidery
59	Impregnated, coated, covered or laminated textile fabrics; textile articles of a kind suitable for industrial use
60	Knitted or crocheted fabrics
61	Articles of apparel and clothing accessories, knitted or crocheted
62	Articles of apparel and clothing accessories, not knitted or crocheted
63	Other made up textile articles; sets; worn clothing and worn textile articles; rags
64	Footwear, gaiters and the like; parts of such articles
65	Headgear and parts thereof
66	Umbrellas, sun umbrellas, walking-sticks, seat-sticks, whips, riding-crops and parts thereof
67	Prepared feathers and down and articles made of feathers or of down; artificial flowers; articles of human hair
68	Articles of stone, plaster, cement, asbestos, mica or similar materials
69	Ceramic products
70	Glass and glassware
71	Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad with precious metal, and articles thereof; imitation jewellery; coin
72	Iron and steel
73	Articles of iron or steel
74	Copper and articles thereof
75	Nickel and articles thereof
76	Aluminium and articles thereof
78	Lead and articles thereof
79	Zinc and articles thereof
80	Tin and articles thereof
81	Other base metals; cermets; articles thereof
82	Tools, implements, cutlery, spoons and forks, of base metal; parts thereof of base metal
83	Miscellaneous articles of base metal
84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof
85	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles
86	Railway or tramway locomotives, rolling-stock and parts thereof; railway or tramway track fixtures and fittings and parts thereof; mechanical (including electro-mechanical) traffic signalling equipment of all kinds
87	Vehicles other than railway or tramway rolling-stock, and parts and accessories thereof
88	Aircraft, spacecraft, and parts thereof
89	Ships, boats and floating structures
90	Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; parts and accessories thereof
91	Clocks and watches and parts thereof
92	Musical instruments; parts and accessories of such articles
93	Arms and ammunition; parts and accessories thereof
94	Furniture; bedding, mattresses, mattress supports, cushions and similar stuffed furnishings; lamps and lighting fittings, not elsewhere specified or included; illuminated signs, illuminated name-plates and the like; prefabricated buildings
95	Toys, games and sports requisites; parts and accessories thereof
96	Miscellaneous manufactured articles
97	Works of art, collectors' pieces and antiques
99	Commodities not specified according to kind

Source: UN Comtrade.

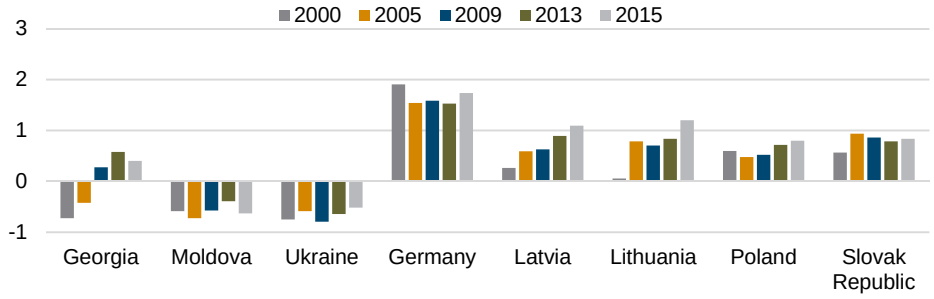
Appendix C

Figure C1 / Institutional quality in the DCFTA countries

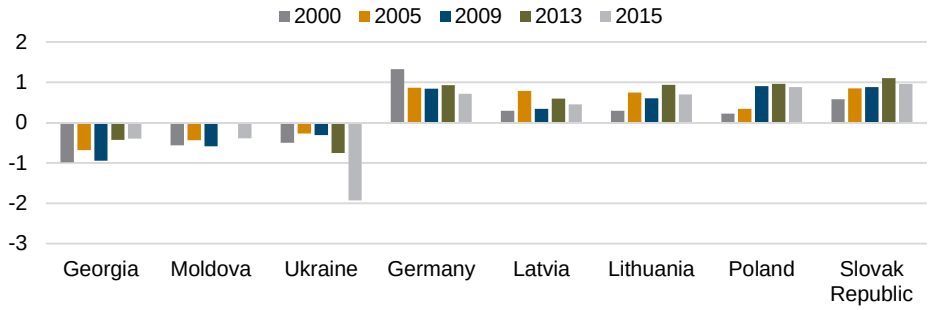
Control of Corruption. The extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as 'capture' of the state by elites and private interests.



Government Effectiveness. The quality of public services, the capacity of the civil service and its independence from political pressures, and the quality of policy formulation.



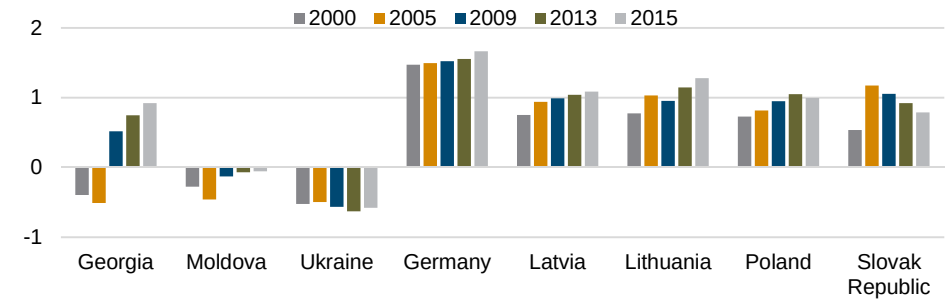
Political Stability and Absence of Violence/Terrorism. The likelihood that the government will be destabilised by unconstitutional or violent means, including terrorism.



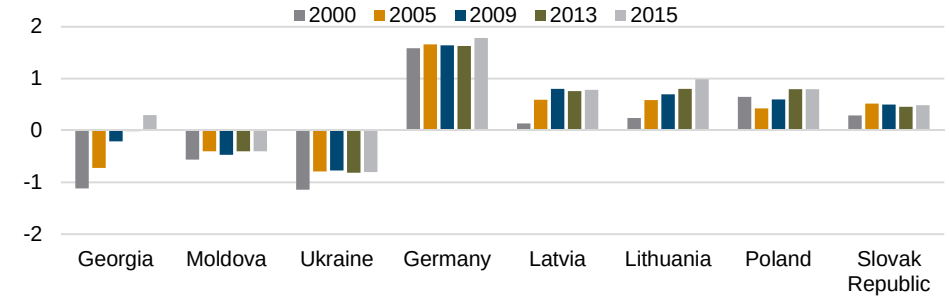
ctd.

Figure C1 / (ctd.)

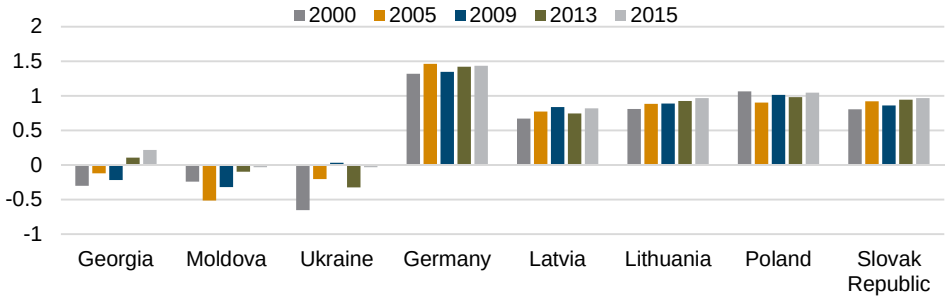
Regulatory Quality. The ability of the government to provide sound policies and regulations that enable and promote private sector development.



Rule of Law. The extent to which agents have confidence in and abide by the rules of society, including the quality of contract enforcement and property rights, the police, and the courts, as well as the likelihood of crime and violence.



Voice and Accountability. The extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.



Note: Each of the indices is measured in units ranging from approximately -2.5 to 2.5, with higher values corresponding to better governance outcomes.

Source: World Bank Worldwide Governance Indicators.

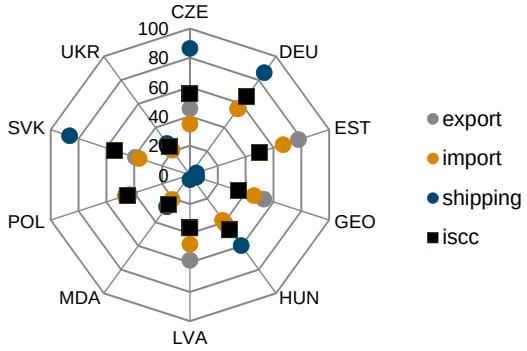
Appendix D

Table D1 / Estimated bilateral trade costs in 2014, %

Benchmark country	Reporter country	Sector	Total	Nontariff	Tariff
Czech Rep.	Georgia	Agriculture, hunting, forestry; fishing (A+B)	260.1	255.2	4.9
		Manufacturing (D)	134.0	128.0	6.0
		Total Goods (GTT)	122.1	116.5	5.6
	Latvia	Agriculture, hunting, forestry; fishing (A+B)	153.5	153.5	0.0
		Manufacturing (D)	31.9	31.9	0.0
		Total Goods (GTT)	48.0	48.0	0.0
	Moldova	Agriculture, hunting, forestry; fishing (A+B)	203.0	193.5	9.5
		Manufacturing (D)	85.9	81.8	4.2
		Total Goods (GTT)	105.2	100.5	4.6
	Poland	Agriculture, hunting, forestry; fishing (A+B)	80.1	80.1	0.0
		Manufacturing (D)	7.9	7.9	0.0
		Total Goods (GTT)	17.6	17.6	0.0
	Ukraine	Agriculture, hunting, forestry; fishing (A+B)	155.5	147.3	8.2
		Manufacturing (D)	40.4	37.3	3.1
		Total Goods (GTT)	59.0	55.4	3.5
France	Georgia	Agriculture, hunting, forestry; fishing (A+B)	245.6	237.0	8.6
		Manufacturing (D)	168.2	160.8	7.4
		Total Goods (GTT)	172.1	164.7	7.4
	Latvia	Agriculture, hunting, forestry; fishing (A+B)	153.1	153.1	0.0
		Manufacturing (D)	82.8	82.8	0.0
		Total Goods (GTT)	91.5	91.5	0.0
	Moldova	Agriculture, hunting, forestry; fishing (A+B)	151.6	142.2	9.3
		Manufacturing (D)	202.6	195.3	7.3
		Total Goods (GTT)	173.8	167.0	6.8
	Poland	Agriculture, hunting, forestry; fishing (A+B)	119.4	119.4	0.0
		Manufacturing (D)	54.9	54.9	0.0
		Total Goods (GTT)	58.0	58.0	0.0
	Ukraine	Agriculture, hunting, forestry; fishing (A+B)	118.0	111.6	6.4
		Manufacturing (D)	101.2	96.2	5.0
		Total Goods (GTT)	107.1	101.9	5.2
Germany	Georgia	Agriculture, hunting, forestry; fishing (A+B)	159.5	151.7	7.8
		Manufacturing (D)	164.5	157.6	6.9
		Total Goods (GTT)	149.6	143.1	6.5
	Latvia	Agriculture, hunting, forestry; fishing (A+B)	90.7	90.7	0.0
		Manufacturing (D)	58.6	58.6	0.0
		Total Goods (GTT)	64.8	64.8	0.0
	Moldova	Agriculture, hunting, forestry; fishing (A+B)	133.4	123.7	9.6
		Manufacturing (D)	130.5	125.1	5.5
		Total Goods (GTT)	133.1	127.4	5.7
	Poland	Agriculture, hunting, forestry; fishing (A+B)	53.6	53.6	0.0
		Manufacturing (D)	31.5	31.5	0.0
		Total Goods (GTT)	33.2	33.2	0.0
	Ukraine	Agriculture, hunting, forestry; fishing (A+B)	99.4	93.9	5.5
		Manufacturing (D)	76.9	72.7	4.1
		Total Goods (GTT)	84.6	80.2	4.3

Note: The table lists bilateral trade costs between a benchmark country and DCFTA countries (along with selected peer economies). The total cost indicates the ad-valorem equivalent of an additional cost (in per cent of the value of goods traded) to bilateral trade between the reporting country and a benchmark country. Non-tariff and tariff components of the total cost also reflect the ad-valorem equivalents. The estimates are based on gravity models of trade (for the data and methodology details see http://artnet.unescap.org/databases.html#first)
Source: Based on UNESCAP-WB Trade Cost Database.

Figure D1 / International supply chain connectivity



Note: The ISCC (international supply chain connectivity) index measures the quality of supply chain connectivity of a country, with higher values corresponding to better connectivity. The index measures two-way connectivity (exports and imports) and the relative contribution of each equally weighted component (import connectivity, export connectivity, integration into global shipping network) is also plotted. See technical details at UNESCAP (http://artnet.unescap.org/databases.html#fourth)
Source: UNESCAP.

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