

# Trade integration in the CIS: Economic effects of alternative options

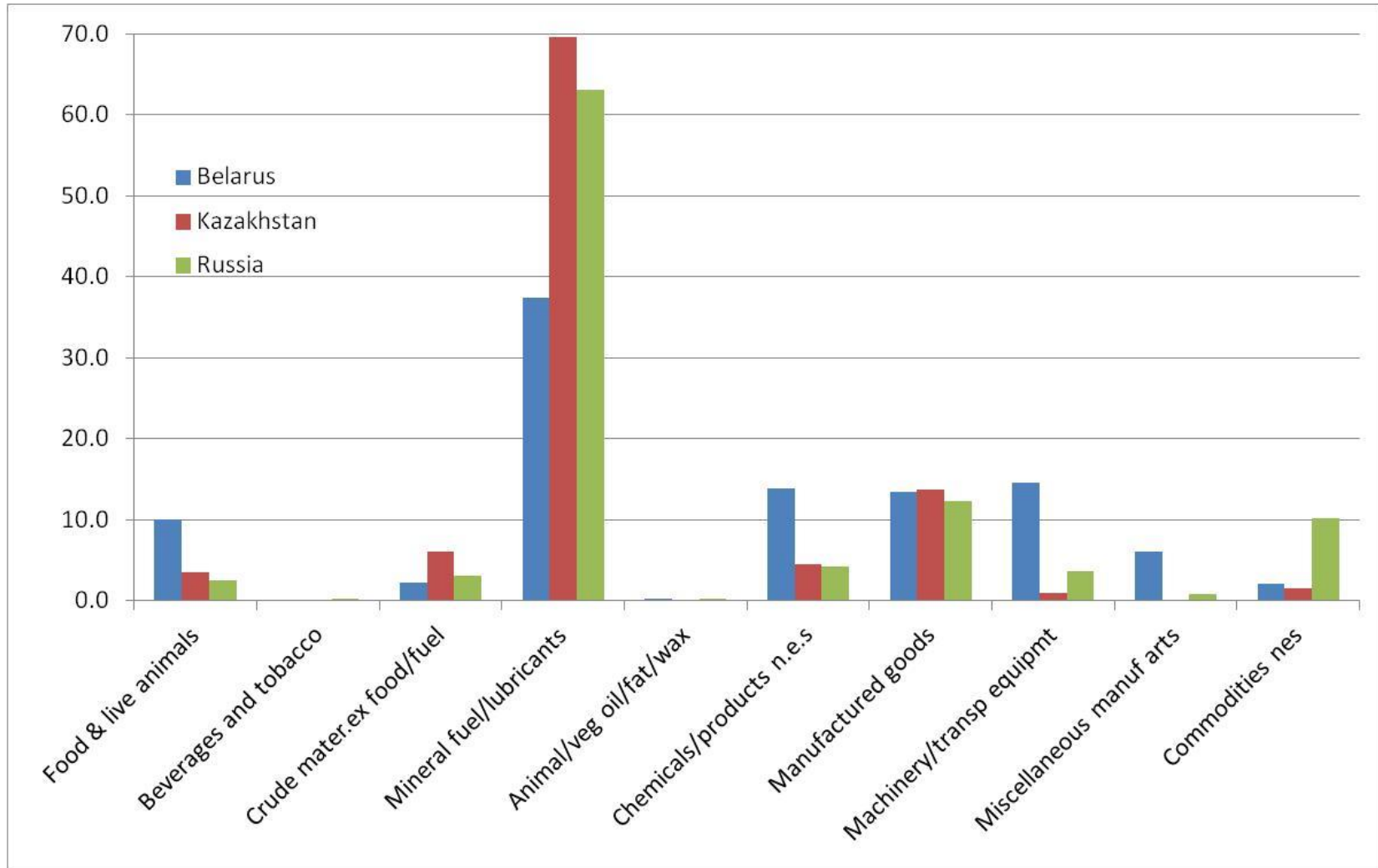
Olga Pindyuk

A large, light gray, curved graphic element resembling a stylized arrow or a thick line that curves from the bottom left towards the top right, ending in a sharp upward-pointing arrowhead.

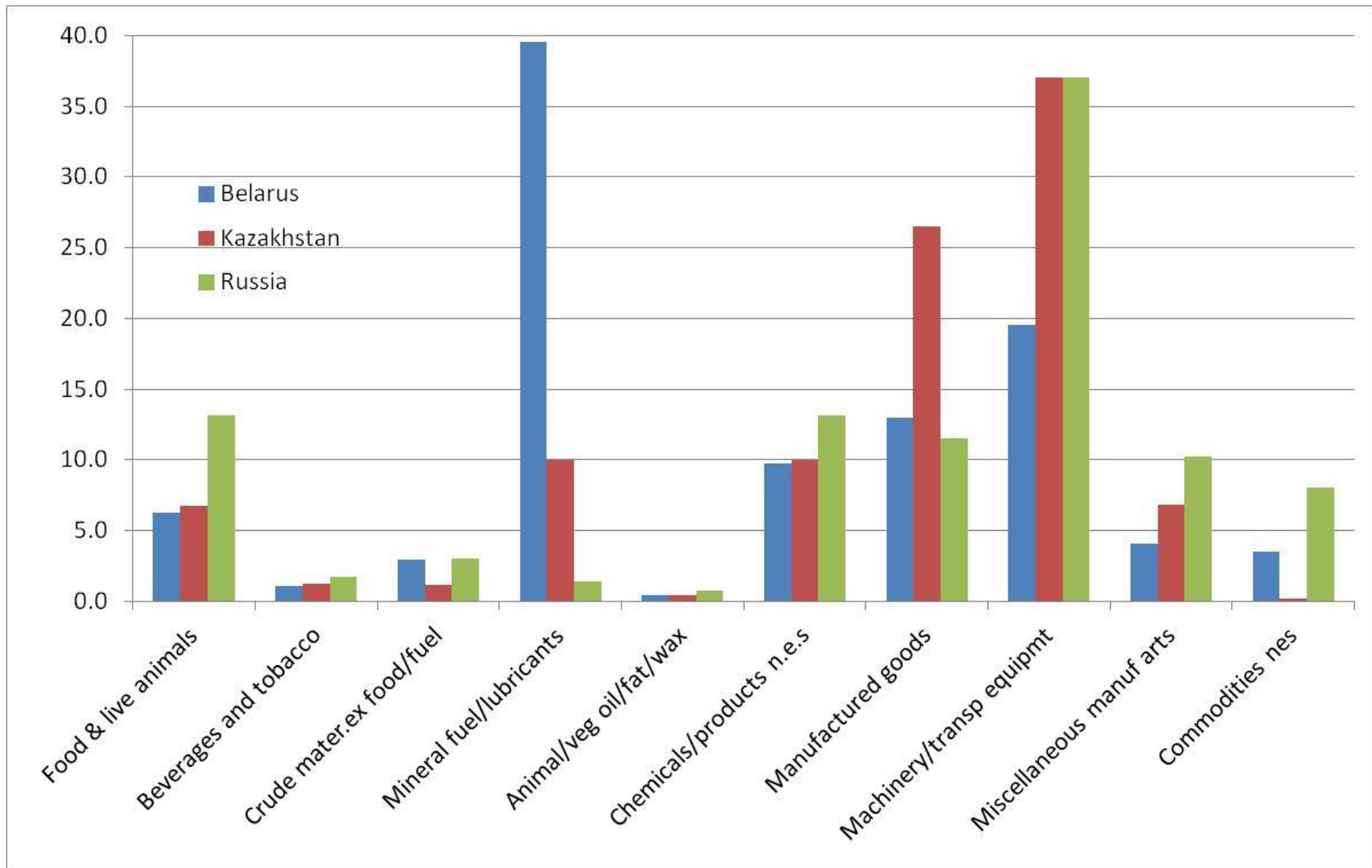
## Theory of RTAs

- WTO rules allow RTAs provided they reduce trade barriers for members of an RTA without raising them in trade with the outside world
- Non-tariff barriers and market access
- RTAs are not only about trade – FDI is an important consideration
- Political economy of RTAs: why they can be welfare-reducing
  - Exceptions are welcome by governments
- Customs union between BLR, KAZ, RUS (CU) increases external import tariffs and is likely to create trade diversion
  - Asymmetry of economies

## Commodity structure of CU members' exports in 2008, %

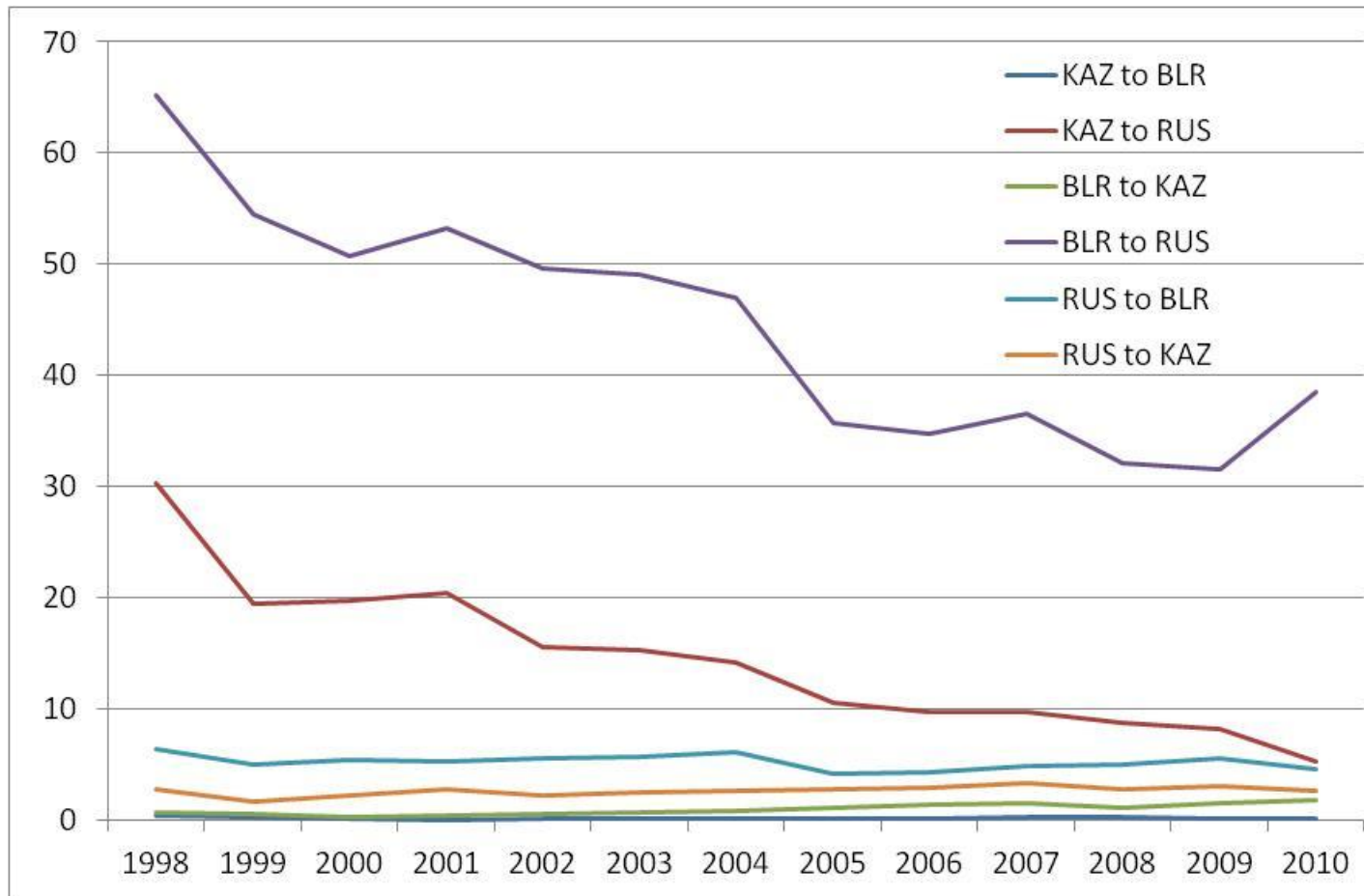


## Commodity structure of CU members' imports in 2008, %



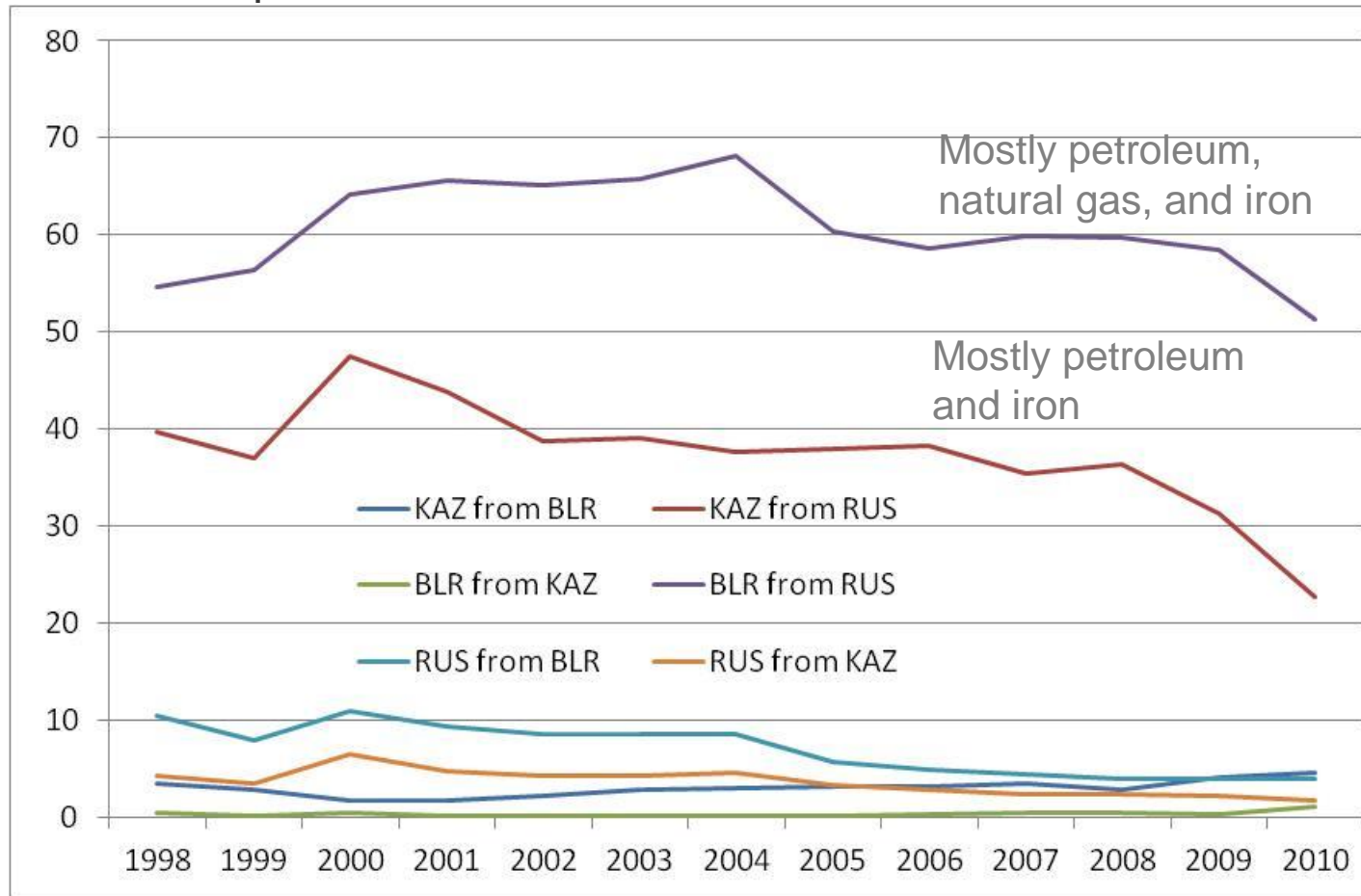
# Mutual exports of BLR, KAZ, and RUS

shares of total exports, %



# Mutual imports of BLR, KAZ, and RUS

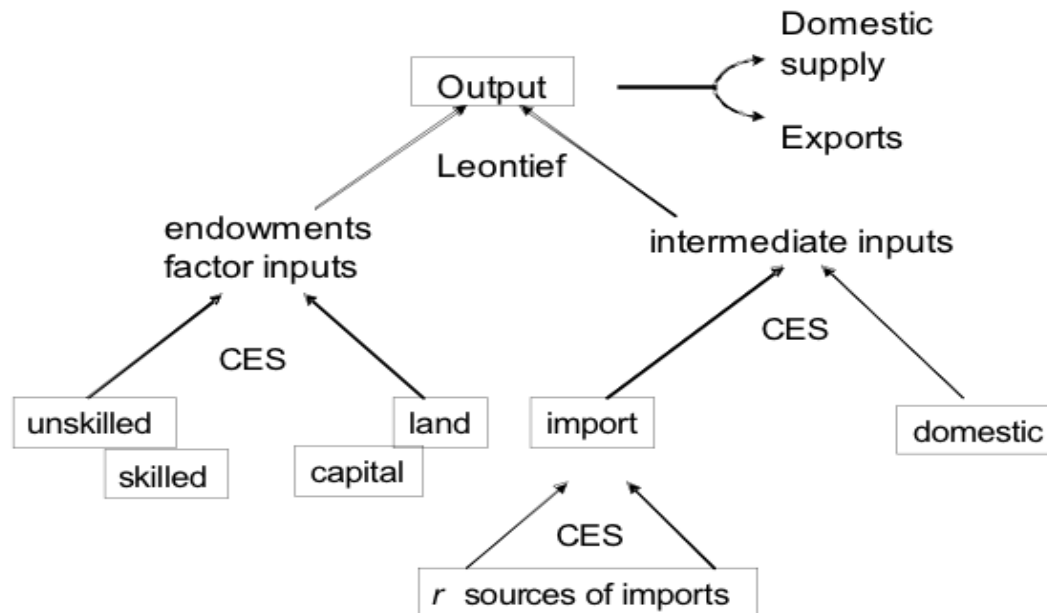
shares of total imports, %



# CGE model

- Consumers maximize utility subject to a budget constraint, and
- Producers maximize profits by combining intermediate inputs and primary factors at least possible cost, for a given technology
- Model is solved as an explicit non-linear system of equations

## Nested production structure



## Modelling of CU effects

- 19 sectors and 14 regions
- Short-run and long-run (endogenous capital accumulation) effects
- Possible participation of Ukraine in the CU vs FTA with EU



## Comparison of tariff rates before and after CU creation

	Belarus		Kazakhstan		Russia		Ukraine	
	CU tariffs	Change to 2008, %	CU tariffs	Change to 2008, %	CU tariffs	Change to 2008, %	2010	Change required to match CU tariffs, %
1 Agriculture, forests, fisheries	5.5	-8.9	4.9	6.2	6.5	-4.2	2.7	111.5
5 Other minerals	5.0	-1.4	2.2	-53.5	3.4	3.4	1.5	117.5
6 Petrochemicals	5.0	0.0	5.0	8.5	4.9	5.4	2.7	83.1
7 Processed foods	10.5	-5.0	13.5	-2.6	10.1	21.1	11.5	-12.1
8 Textiles and clothing	9.8	-7.9	10.1	48.8	10.9	-11.6	6.3	53.1
9 Chemicals rubber plastics	8.1	-9.0	6.0	22.1	8.6	-5.9	2.4	252.9
10 Light manufacturing	10.3	-14.5	11.9	44.3	8.1	-17.2	3.3	193.1
11 Metals	7.3	-10.8	12.4	87.5	8.8	0.7	1.7	378.3
12 Motor vehicles	6.5	-14.8	5.2	450.0	2.8	-54.0	7.3	-61.3
13 Other machinery	3.8	-32.4	3.6	231.1	3.8	-13.8	2.0	81.8

## Simulation scenarios

	Scenario	Short-run	Long-run
1	Creation of Customs Union, Ukraine joins neither CU, nor FTA with EU <b>(CU)</b>	Members of the CU harmonize their external import tariff structures	Endogenous capital accumulation allowed
2	Creation of Customs Union, Ukraine joins CU <b>(CU+)</b>	Scenario 1 + Ukraine harmonizes external import tariff structures with the CU	
3	Creation of Customs Union, Ukraine signs FTA with EU <b>(CU-FTA)</b>	Scenario 1 + Ukraine signs FTA with the EU: <ul style="list-style-type: none"> <li>• Zero EU import tariffs for Ukraine's industrial goods</li> <li>• Increase in quotas for agricultural and metals exports from Ukraine to the EU by 50%</li> <li>• Zero Ukraine's import tariffs on imports from the EU</li> </ul>	

## Simulation results

### Real GDP change, %

	CU-short	CU-long	CU+-short	CU+-long	CU-FTA-short	CU-FTA-long
BLR	0.10	0.65	0.06	0.96	0.11	0.61
KAZ	-0.97	-2.55	-0.87	-2.21	-0.97	-2.60
RUS	0.03	0.62	0.04	0.61	0.02	0.53
UKR	-0.01	-0.03	-0.28	-0.61	0.28	6.32

### Real exports change, %

	CU-short	CU-long	CU+-short	CU+-long	CU-FTA-short	CU-FTA-long
BLR	0.80	0.05	1.93	0.87	0.72	0.01
KAZ	-3.32	1.16	-1.73	1.59	-3.28	1.27
RUS	1.36	-0.29	1.38	-0.11	1.19	-0.17
UKR	-0.30	-0.65	-5.00	0.88	7.20	-6.52

### Real imports change, %

	CU-short	CU-long	CU+-short	CU+-long	CU-FTA-short	CU-FTA-long
BLR	0.61	0.85	1.51	2.15	0.46	0.60
KAZ	-2.97	-11.41	-1.75	-7.94	-2.91	-11.66
RUS	1.36	3.54	1.34	3.54	1.18	2.73
UKR	-0.39	-0.20	-2.11	-4.75	5.36	18.95

\*Short refers to the short-run, long - to the long-run

## Simulation results

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### Real change in income of skilled labor, %

	CU-short	CU-long	CU+-short	CU+-long	CU-FTA-short	CU-FTA-long
BLR	0.01	0.33	0.31	0.91	-0.11	0.12
KAZ	<b>-0.49</b>	<b>-3.48</b>	<b>-0.40</b>	<b>-2.73</b>	<b>-0.48</b>	<b>-3.58</b>
RUS	0.00	0.88	0.02	0.87	-0.02	0.68
UKR	-0.09	0.00	-0.06	<b>-1.77</b>	0.51	<b>9.07</b>

### Real change in income of unskilled labor, %

	CU-short	CU-long	CU+-short	CU+-long	CU-FTA-short	CU-FTA-long
BLR	-0.02	-0.01	0.28	0.36	-0.14	-0.15
KAZ	<b>-0.38</b>	<b>-2.57</b>	<b>-0.29</b>	<b>-2.05</b>	<b>-0.38</b>	<b>-2.64</b>
RUS	0.04	0.58	0.07	0.59	0.01	0.47
UKR	-0.09	-0.07	0.02	<b>-0.56</b>	1.21	<b>6.68</b>

### Change in capital, %

	CU-short	CU-long	CU+-short	CU+-long	CU-FTA-short	CU-FTA-long
BLR	0.16	0.53	0.24	0.89	0.19	0.56
KAZ	<b>-1.40</b>	<b>-6.15</b>	<b>-1.31</b>	<b>-4.96</b>	<b>-1.40</b>	<b>-6.30</b>
RUS	0.16	1.38	0.15	1.33	0.15	1.12
UKR	-0.11	0.04	0.88	<b>-2.11</b>	1.93	<b>16.75</b>

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\*Short refers to the short-run, long - to the long-run

# Real changes in output of Ukraine, %

	CU1-short	CU1-long	CU+ -short	CU+ -long	CU-FTA- short	CU-FTA- long
ag, forests, fisheries	0.09	0.06	0.29	0.42	0.56	1.32
coal	0.13	0.02	-0.73	0.15	0.19	-1.99
oil	0.10	0.02	-0.86	0.01	0.02	-1.80
gas	0.07	0.03	-0.90	0.08	0.00	-1.91
other minerals	0.14	-0.12	-1.30	1.05	2.34	-1.41
petrochemicals	0.12	-0.03	-0.87	0.66	0.90	0.01
processed foods	0.10	0.08	0.85	1.80	-1.81	-2.01
textiles and clothing	0.14	-0.33	-4.17	-1.08	23.22	<b>14.56</b>
chemicals rubber plastics	0.42	-0.06	-0.79	3.87	-0.14	<b>-10.55</b>
light manufacturing	-0.27	-0.32	6.75	10.04	-2.92	<b>-8.58</b>
metals	0.19	-0.33	-3.12	3.16	8.20	<b>-3.76</b>
motor vehicles	-2.89	-2.98	-20.03	-16.62	-17.34	<b>-22.53</b>
other machinery	-0.91	-1.05	2.61	8.47	0.69	<b>-9.87</b>
utilities	0.06	-0.06	-0.29	0.79	1.05	2.52
construction	-0.08	0.05	0.58	-2.31	1.33	<b>16.20</b>
distribution services	-0.04	0.03	0.10	-1.73	0.04	<b>11.83</b>
transport	0.16	0.00	-1.32	-0.35	0.13	<b>1.56</b>
communications	0.00	0.05	-0.10	-1.86	-0.24	<b>10.81</b>
finance	-0.03	-0.03	-0.20	-1.03	-0.02	<b>8.98</b>
insurance	0.12	-0.02	-1.35	-0.98	-0.12	<b>5.84</b>
business and ict services	0.04	0.02	-0.49	-1.53	0.00	<b>9.87</b>
recreational, consumer services	0.10	0.11	-0.88	-2.72	-0.52	<b>11.61</b>
public and other services	0.00	0.12	0.11	-2.90	-0.68	<b>16.68</b>

## Conclusions

- Joining the CU brings net GDP losses to Kazakhstan and potentially to Ukraine
- Belarus and Russia benefit from the CU in terms of GDP and labor income, but these benefits are relatively small
- There is not much additional benefit for Russia from Ukraine joining the CU
- Signing the FTA with the EU yields significant benefits to Ukraine – at the level of up to 6% of GDP in the long run