

## Appendix

**TABLE A.1**

**Interest Rate Shock and Borrowers at Risk**

Percentage change in share of borrowers at risk, in percent of indebted households

	Interest Rate Shock							
	20% Threshold				30% Threshold			
	Historical	3 pp	5 pp	6 pp	Historical	3 pp	5 pp	6 pp
Estonia	16.80 (0.03)	11.06 (0.03)	17.95 (0.03)	22.35 (0.04)	12.02 (0.03)	6.76 (0.02)	12.45 (0.03)	13.61 (0.03)
Hungary	5.70 (0.04)	7.62 (0.05)	11.82 (0.06)	12.75 (0.06)	3.25 (0.03)	4.93 (0.04)	8.71 (0.05)	10.12 (0.06)
Lithuania	8.39 (0.06)	5.50 (0.04)	11.28 (0.06)	13.34 (0.07)	4.58 (0.04)	3.73 (0.04)	6.95 (0.04)	7.52 (0.05)

*Source:* Staff calculations.

*Note:* Absolute errors in parentheses. "pp" stands for percentage points.

TABLE A.2

**Economic Shocks and Borrowers at Risk**

Percentage change in share of borrowers at risk in percent of indebted households

	Exchange Rate Shock			Unemployment Rate Shock					
	Historical	25%	35%	Probability Assignment			Random Assignment		
				Historical	10 pp	15 pp	Historical	10 pp	15 pp
Estonia	...	5.51	9.02	9.05	11.64	16.40	10.86	14.31	20.98
	...	(0.04)	(0.05)	(0.08)	(0.09)	(0.11)	(0.10)	(0.11)	(0.13)
Hungary	5.40	3.72	6.10	3.31	12.04	17.42	3.30	12.37	18.03
	(0.04)	(0.03)	(0.05)	(0.04)	(0.07)	(0.08)	(0.04)	(0.07)	(0.08)
Lithuania	...	1.89	4.31	5.76	4.29	6.70	8.68	6.64	10.16
	...	(0.05)	(0.10)	(0.14)	(0.12)	(0.15)	(0.17)	(0.15)	(0.18)

Source: Staff calculations.

Note: Absolute errors in parenthesis. 20% threshold is used. "pp" stands for percentage points.

TABLE A.3

**Economic Shocks and Borrowers at Risk**

Percentage change in share of borrowers at risk in percent of indebted households

	Exchange Rate Shock			Unemployment Rate Shock					
	Historical	25%	35%	Probability Assignment			Random Assignment		
				Historical	10 pp	15 pp	Historical	10 pp	15 pp
Belarus (2008)	0.12 (0.00)	0.11 (0.00)	0.19 (0.00)	0.21 (0.00)	2.68 (0.01)	3.81 (0.01)	0.26 (0.00)	3.47 (0.02)	5.39 (0.02)
Kazakhstan (2005)	0.13 (0.00)	0.18 (0.00)	0.36 (0.00)	0.46 (0.00)	2.99 (0.01)	4.56 (0.01)	0.69 (0.00)	4.52 (0.01)	6.97 (0.01)
Serbia (2008)	0.05 (0.00)	0.05 (0.00)	0.05 (0.00)	0.65 (0.01)	2.36 (0.01)	3.70 (0.02)	0.77 (0.01)	2.82 (0.01)	4.43 (0.02)
Ukraine (2007)	0.52 (0.00)	0.20 (0.00)	0.34 (0.00)	1.12 (0.01)	3.86 (0.01)	5.66 (0.01)	1.19 (0.01)	4.09 (0.01)	6.26 (0.02)

Source: Staff calculations.

Note: Absolute errors in parenthesis. "pp" stands for percentage points.

**TABLE A.4**  
**Food Share of Consumption**

In percent of total consumption

Share of Food	Location			Consumption Quintiles				
	All	Rural	Urban	Q1	Q2	Q3	Q4	Q5
<b>EU10 (including Croatia)</b>								
Bulgaria	47	54	44	51	50	47	44	41
Croatia	25	28	22	32	27	25	22	18
Estonia	35	38	34	48	40	35	31	22
Hungary	28	31	26	36	31	28	25	18
Latvia	32	36	29	45	36	32	25	19
Lithuania	41	51	37	57	47	41	36	26
Poland	36	41	32	49	40	35	31	23
<b>Low-income CIS</b>								
Armenia	64	70	61	77	72	66	60	45
Azerbaijan	56	57	55	65	60	56	53	45
Georgia	70	80	61	78	74	73	68	57
Kyrgyz Republic	55	56	54	66	60	56	50	43
Moldova	42	48	33	56	49	42	37	25
Tajikistan	76	78	71	72	79	79	79	74
Uzbekistan	75	79	69	85	84	79	72	56
<b>Middle-income CIS</b>								
Belarus	32	34	30	35	33	32	30	27
Kazakhstan	46	52	42	55	50	47	43	35
Russian Federation	42	51	38	56	49	43	36	24
Ukraine	57	65	53	66	61	57	54	47
<b>Turkey</b>								
Turkey	36	43	32	51	40	35	30	24
<b>Western Balkans</b>								
Albania	52	55	48	59	55	54	49	43
Bosnia and Herzegovina	39	37	41	48	43	40	36	30
Macedonia, FYR	56	59	54	77	64	56	46	36
Montenegro	66	65	69	80	72	67	62	51
Serbia	40	43	37	50	43	39	36	31

Source: Staff calculations.

TABLE A.5

**Utility/Energy Share of Consumption**

In percent of total consumption

Share of Fuel	Location			Consumption Quintiles				
	All	Rural	Urban	Q1	Q2	Q3	Q4	Q5
<b>EU10 (including Croatia)</b>								
Bulgaria	19	18	20	26	20	18	17	16
Croatia	9	10	9	10	10	9	9	8
Estonia	17	13	20	18	20	19	16	15
Hungary	18	18	18	20	20	19	18	15
Latvia	12	9	14	17	14	12	10	8
Lithuania	13	10	15	13	15	15	13	11
Poland	20	17	22	18	20	20	21	21
<b>Low-income CIS</b>								
Armenia	7	6	8	7	7	7	8	7
Azerbaijan	6	7	6	6	6	6	6	7
Georgia	8	4	12	8	9	8	8	8
Kyrgyz Republic	11	11	11	9	10	11	13	10
Moldova	14	13	16	12	13	14	14	17
Tajikistan	2	2	1	3	2	2	2	1
Uzbekistan	1	1	2	2	1	1	1	2
<b>Middle-income CIS</b>								
Belarus	8	8	8	8	8	8	8	7
Kazakhstan	10	10	10	11	11	10	10	9
Russian Federation								
Ukraine	12	8	14	12	12	13	12	12
<b>Turkey</b>								
Turkey	12	11	12	10	12	12	13	12
<b>Western Balkans</b>								
Albania	12	11	14	12	12	12	12	14
Bosnia and Herzegovina	10	11	10	13	11	11	10	8
Macedonia, FYR	8	6	9	2	6	8	10	13
Montenegro	6	7	5	3	6	7	8	9
Serbia	13	11	14	12	13	13	13	12

Source: Staff calculations.

**TABLE A.6**  
**The Welfare Impact of a 10 Percent Food Price Increase**

	Laspeyres Price Index				Geometric Price Index			
	Location		Consumption Quintiles		Location		Consumption Quintiles	
	Rural	Urban	Q1	Q5	Rural	Urban	Q1	Q5
<b>EU10 (including Croatia)</b>								
Bulgaria	5.38	4.37	5.06	4.08	5.26	4.26	4.94	3.97
Croatia	2.80	2.22	3.25	1.81	2.70	2.14	3.14	1.74
Estonia	3.76	3.40	4.83	2.20	3.65	3.29	4.71	2.12
Hungary	3.10	2.58	3.61	1.81	3.00	2.49	3.50	1.74
Latvia	3.65	2.93	4.50	1.91	3.54	2.83	4.38	1.84
Lithuania	5.06	3.68	5.67	2.57	4.94	3.57	5.56	2.48
Poland	4.10	3.22	4.91	2.28	3.99	3.11	4.79	2.20
<b>Low-income CIS</b>								
Armenia	6.98	6.11	7.65	4.49	6.88	6.00	7.57	4.37
Azerbaijan	5.69	5.47	6.48	4.52	5.57	5.35	6.37	4.40
Georgia	7.99	6.13	7.79	5.67	7.92	6.01	7.71	5.55
Kyrgyz Republic	5.59	5.37	6.61	4.32	5.47	5.25	6.51	4.21
Moldova	4.84	3.34	5.64	2.53	4.72	3.23	5.52	2.44
Tajikistan	7.83	7.14	7.19	7.44	7.74	7.04	7.09	7.35
Uzbekistan	7.87	6.92	8.53	5.56	7.79	6.81	8.47	5.44
<b>Middle-income CIS</b>								
Belarus	3.40	3.04	3.54	2.70	3.29	2.94	3.44	2.61
Kazakhstan	5.17	4.18	5.46	3.53	5.05	4.07	5.35	3.42
Russian Federation	5.07	3.82	5.61	2.37	4.95	3.71	5.49	2.29
Ukraine	6.54	5.33	6.62	4.73	6.43	5.21	6.51	4.61
<b>Turkey</b>								
Turkey	4.30	3.18	5.11	2.38	4.18	3.08	4.99	2.29
<b>Western Balkans</b>								
Albania	5.53	4.79	5.89	4.29	5.41	4.67	5.78	4.17
Bosnia and Herzegovina	3.67	4.14	4.76	3.05	3.56	4.02	4.65	2.95
Macedonia, FYR	5.94	5.38	7.69	3.57	5.82	5.26	7.60	3.46
Montenegro	6.47	6.88	7.99	5.06	6.36	6.77	7.91	4.95
Serbia	4.33	3.74	5.03	3.12	4.21	3.63	4.91	3.01

Source: Staff calculations.

**TABLE A.7**  
**The Welfare Impact of a 10 Percent Fuel Price Increase**

	Laspeyres Price Index				Geometric Price Index			
	Location		Consumption Quintiles		Location		Consumption Quintiles	
	Rural	Urban	Q1	Q5	Rural	Urban	Q1	Q5
<b>EU10 (including Croatia)</b>								
Bulgaria	1.8	2.0	2.6	1.6	1.73	1.91	2.47	1.57
Croatia	1.0	0.9	1.0	0.8	0.93	0.85	0.99	0.75
Estonia	1.3	2.0	1.8	1.5	1.28	1.90	1.69	1.42
Hungary	1.8	1.8	2.0	1.5	1.75	1.78	1.90	1.46
Latvia	0.9	1.4	1.7	0.8	0.87	1.33	1.66	0.74
Lithuania	1.0	1.5	1.3	1.1	0.97	1.45	1.22	1.06
Poland	1.7	2.2	1.8	2.1	1.60	2.10	1.73	1.98
<b>Low-income CIS</b>								
Armenia	0.6	0.8	0.7	0.7	0.55	0.77	0.68	0.64
Azerbaijan	0.7	0.6	0.6	0.7	0.63	0.59	0.57	0.65
Georgia	0.4	1.2	0.8	0.8	0.38	1.14	0.81	0.73
Kyrgyz Republic	1.1	1.1	0.9	1.0	1.01	1.06	0.86	0.96
Moldova	1.3	1.6	1.2	1.7	1.22	1.58	1.19	1.62
Tajikistan	0.2	0.1	0.3	0.1	0.21	0.13	0.29	0.14
Uzbekistan	0.1	0.2	0.2	0.2	0.10	0.21	0.15	0.19
<b>Middle-income CIS</b>								
Belarus	0.8	0.8	0.8	0.7	0.72	0.74	0.74	0.71
Kazakhstan	1.0	1.0	1.1	0.9	0.97	0.97	1.05	0.85
Russian Federation	0.0	0.0	0.0	0.0				
Ukraine	0.8	1.4	1.2	1.2	0.80	1.37	1.16	1.18
<b>Turkey</b>								
Turkey	1.1	1.2	1.0	1.2	1.08	1.20	0.99	1.16
<b>Western Balkans</b>								
Albania	1.1	1.4	1.2	1.4	1.07	1.33	1.11	1.31
Bosnia and Herzegovina	1.1	1.0	1.3	0.8	1.07	0.95	1.25	0.75
Macedonia, FYR	0.6	0.9	0.2	1.3	0.59	0.82	0.18	1.22
Montenegro	0.7	0.5	0.3	0.9	0.66	0.51	0.28	0.85
Serbia	1.1	1.4	1.2	1.2	1.08	1.32	1.13	1.19

Source: Staff calculations.

**TABLE A.8**  
**Summary Data: GDP Growth and Poverty Simulations**

Country	Baseline Poverty Headcount <sup>1</sup>		GDP Growth Projection for 2009		Estimated Growth in Per Capita Private Consumption for 2009	
	\$PPP 2.5	\$PPP 5.00	Baseline	Apr 2009	Baseline	Apr 2009
Albania	15.0	60.0	5.6	-0.1	6.0	-0.1
Armenia	30.0	84.0	5.6	-7.1	4.9	-6.2
Azerbaijan	1.0	71.0	14.7	1.7	10.6	1.2
Belarus	1.0	13.0	7.4	-3.4	6.9	-3.1
Bosnia and Herzegovina	1.3	8.0	4.6	-3.3	4.7	-3.3
Bulgaria	3.1	20.0	5.6	-1.3	5.9	-1.4
Croatia	0.0	2.0	4.0	-3.5	3.9	-3.5
Estonia	2.0	18.0	3.9	-10.1	4.0	-10.3
Georgia	39.0	76.0	9.8	1.0	10.8	1.1
Hungary	0.0	7.0	2.7	-3.2	2.8	-3.3
Kazakhstan	7.0	54.0	6.9	-2.1	7.3	-2.2
Kyrgyz Republic	52.1	88.1	6.9	-2.1	7.0	-2.1
Kosovo	38.1	82.0	5.7	-2.0	5.8	-2.0
Latvia	1.0	12.0	0.8	-11.7	0.8	-11.9
Macedonia	10.0	37.1	4.7	-2.3	4.9	-2.4
Moldova	30.0	77.0	8.0	-3.4	10.1	-4.3
Montenegro	10.2	49.2	5.7	-2.0	5.8	-2.0
Poland	2.0	20.0	4.7	-0.7	4.5	-0.7
Romania	7.0	45.0	5.1	-3.8	4.8	-3.6
Russian Federation	3.0	20.0	6.8	-5.6	7.7	-6.3
Serbia	2.0	17.1	5.7	-2.0	5.4	-1.9
Tajikistan	56.0	89.0	6.4	1.4	6.8	1.5
Turkey	15.0	49.0	3.1	-6.1	3.0	-6.0
Ukraine	1.0	18.0	4.9	-7.3	6.0	-8.9
Uzbekistan	19.0	67.0	5.4	4.9	5.5	5.0

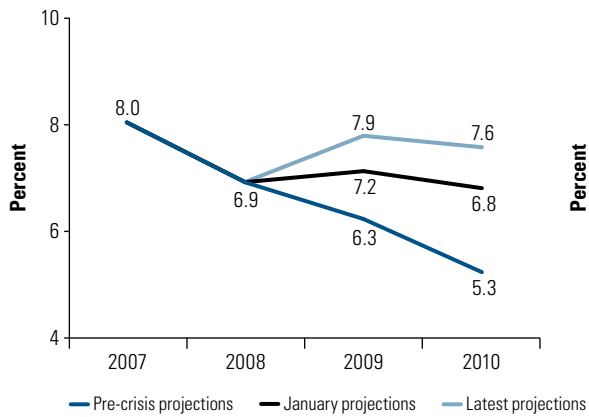
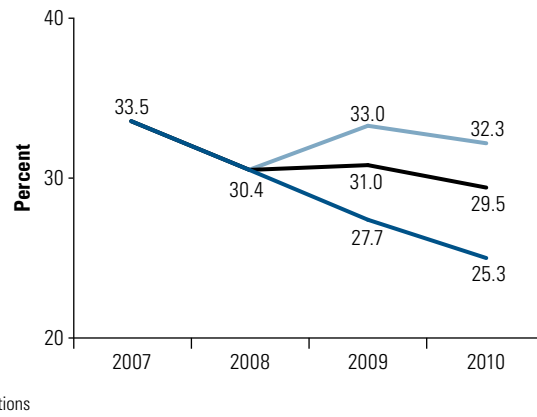
Sources: ECA Regional Household Data Archives, IMF World Economic Outlook database, and staff calculations.

1 Latest year for which data are available.

FIGURE A.1

**The Impact of the Crisis on Poverty and Vulnerability**

Allowing for full pass-through from GDP growth to private consumption growth, in percent of the population

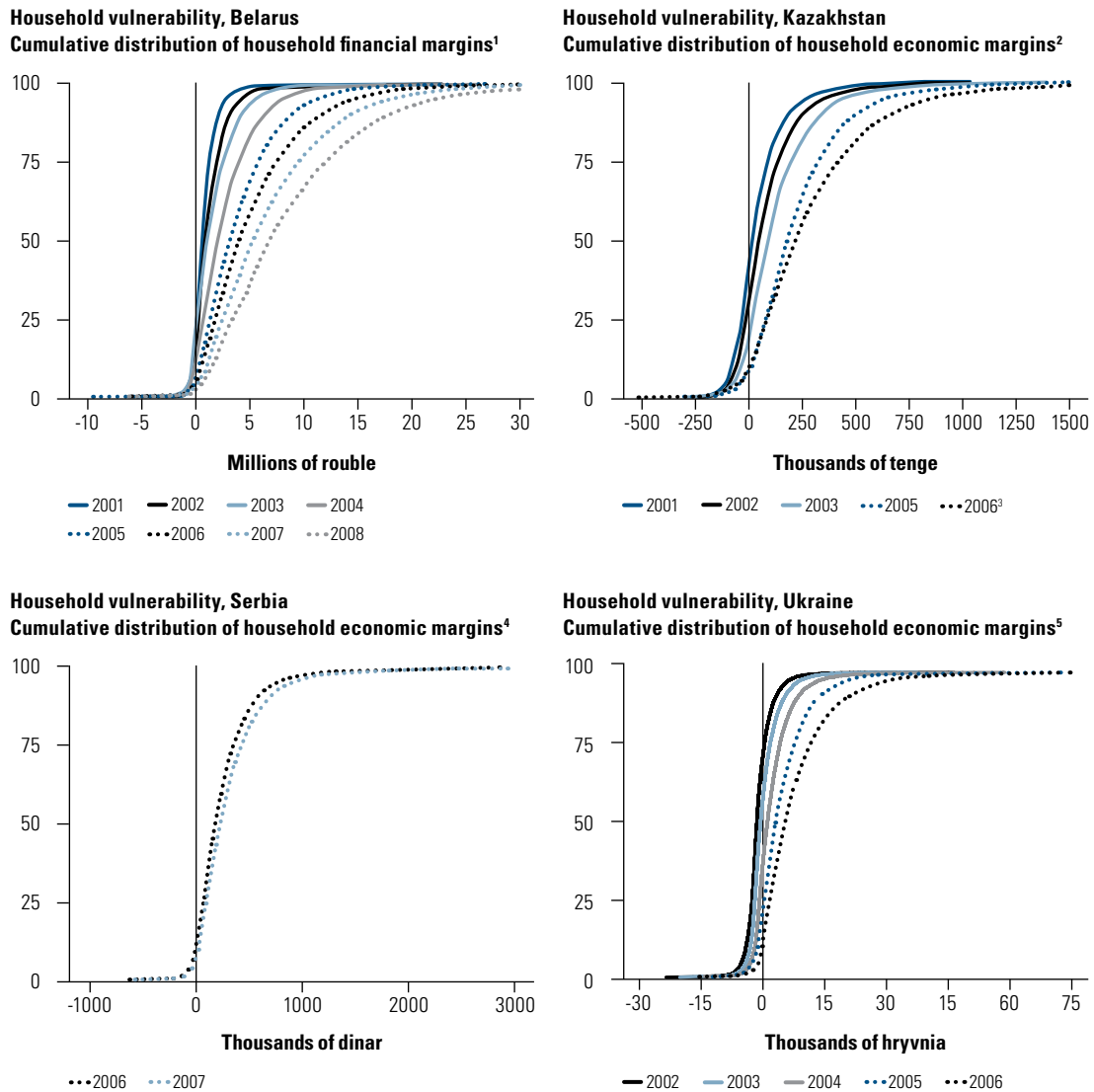
**\$2.5-a-day poverty rates projections 2007–2010****\$5-a-day poverty and vulnerability projections 2007–2010**

Source: Staff calculations.

FIGURE A.2

**Financial Margins in Selected Countries**

Evidence from HBS Data, in local currency and in percent of all households, by years



Source: Staff calculations.

Note: Financial margin is calculated as  $M_i = DI_i - BLC_i - DSE_i$ , where  $I$  = household;  $M_i$  = margin of the  $i$ 'th household;  $DI_i$  = disposable income of the  $i$ 'th household;  $BLC_i$  = basic living costs (defined by country) of the  $i$ 'th household; and  $DSE_i$  = debt service expenditure of the  $i$ 'th household, as explained in the main text.  $BLC$  (basic living costs) is based on the subsistence-level budget/expenditure in Belarus, Kazakhstan, and Ukraine, and on the national poverty line in Serbia.

1. Based on subsistence-level budget.
2. Based on subsistence level.
3. Quarterly data are analyzed.
4. Based on poverty line of \$5.00/person/day in 2005 price.
5. Based on subsistence level of average expenditure.

