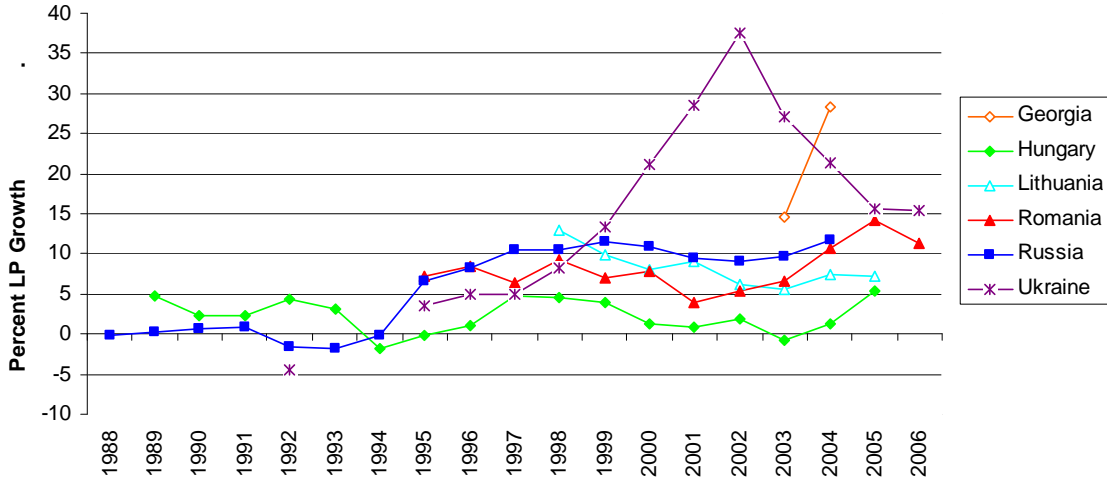


APPENDIX

Appendix Figure 1: Total Reallocation Contribution (Employment >100)



Note: Total reallocation is defined as the sum of between, disproportionate entry, and exit terms. This decomposition is done with samples where employment of 100 or below is set to missing, entry is defined as the first year a firm has more than 100 employees, and exit is defined as the year after the last year the firm has more than 100 employees.

Appendix Table 1a: Job Flows in Georgian Manufacturing

	Job Creation	Job Destruction	Job Reallocation	Excess Job Realloc.	Within-Sector Excess Job Realloc.	Entry Share of Emp.	Exit Share of Emp.
2000-01	14.63	31.71	46.34	29.26	29.02	7.82	9.28
2001-02	12.17	22.76	34.93	24.34	20.93	5.39	6.69
2002-03	12.73	15.73	28.46	25.46	23.36	3.87	6.66
2003-04	18.93	23.35	42.28	37.86	25.57	8.09	10.74

Note: The job flow measures use methods from Davis and Haltiwanger (1992).

Appendix Table 1b: Job Flows in Hungarian Manufacturing

	Job Creation	Job Destruction	Job Reallocation	Excess Job Realloc.	Within-Sector Excess Job Realloc.	Entry Share of Emp.	Exit Share of Emp.
1986-87	2.27	5.02	7.29	4.54	3.82	0.71	0.16
1987-88	4.92	7.94	12.86	9.84	9.61	1.90	0.48
1988-89	1.31	18.31	19.62	2.62	2.61	0.52	0.33
1989-90	25.02	12.06	37.08	24.12	19.69	8.98	1.14
1990-91	16.99	27.27	44.26	33.98	31.78	8.76	4.72
1991-92	23.82	33.96	57.78	47.64	44.69	17.11	11.74
1992-93	18.29	30.42	48.71	36.58	35.87	11.68	12.53
1993-94	11.87	18.01	29.88	23.73	23.16	5.13	6.27
1994-95	11.26	12.24	23.49	22.51	20.76	2.86	4.04
1995-96	10.35	11.43	21.78	20.69	17.20	2.67	3.03
1996-97	12.22	9.63	21.85	19.26	17.38	3.03	2.88
1997-98	11.56	8.05	19.61	16.10	15.12	2.11	2.10
1998-99	9.72	10.49	20.21	19.44	15.34	2.00	2.33
1999-00	12.31	11.34	23.65	22.68	16.51	2.33	3.45
2000-01	9.49	9.07	18.56	18.14	15.73	2.01	2.23
2001-02	8.07	11.77	19.84	16.15	15.39	2.13	2.46
2002-03	9.15	12.34	21.49	18.30	16.53	1.69	3.51
2003-04	11.15	12.48	23.63	22.29	17.20	4.11	3.07
2004-05	8.23	12.43	20.66	16.47	15.98	1.69	4.49

Appendix Table 1c: Job Flows in Lithuanian Manufacturing

	Job Creation	Job Destruction	Job Reallocation	Excess Job Realloc.	Within- Sector Excess Job Realloc.	Entry Share of Emp.	Exit Share of Emp.
1995-96	11.48	15.01	26.49	22.96	18.26	7.52	1.19
1996-97	11.55	14.79	26.34	23.10	18.59	5.35	1.99
1997-98	10.79	12.69	23.48	21.58	17.42	5.14	1.95
1998-99	11.31	11.86	23.17	22.61	18.41	6.79	0.63
1999-00	12.55	12.41	24.95	24.82	19.50	3.09	0.38
2000-01	11.57	12.92	24.49	23.14	20.72	2.69	2.20
2001-02	12.55	9.42	21.97	18.85	16.86	3.08	2.31
2002-03	14.73	8.39	23.12	16.78	16.17	4.02	1.68
2003-04	11.20	12.79	23.99	22.40	15.32	2.24	1.53
2004-05	10.78	10.82	21.60	21.56	17.05	3.53	2.37

Appendix Table 1d: Job Flows in Romanian Manufacturing

	Job Creation	Job Destruction	Job Reallocation	Excess Job Realloc.	Within- Sector Excess Job Realloc.	Entry Share of Emp.	Exit Share of Emp.
1992-93	4.27	11.74	16.01	8.54	8.33	2.13	0.19
1993-94	9.75	13.55	23.30	19.49	19.49	1.45	0.15
1994-95	3.89	9.59	13.48	7.79	7.73	1.03	0.13
1995-96	6.38	6.88	13.25	12.75	9.91	0.70	0.25
1996-97	6.95	9.25	16.21	13.91	11.82	1.04	0.15
1997-98	5.80	18.66	24.46	11.60	10.13	1.19	0.31
1998-99	6.22	17.07	23.30	12.45	11.49	1.41	0.45
1999-00	9.65	15.55	25.20	19.29	16.39	1.48	0.48
2000-01	11.35	10.56	21.91	21.12	17.62	1.90	0.67
2001-02	10.11	12.44	22.55	20.21	18.30	1.99	0.54
2002-03	10.06	12.79	22.86	20.12	17.93	2.13	0.70
2003-04	9.90	13.67	23.57	19.80	18.70	2.04	0.79
2004-05	10.60	14.23	24.84	21.21	18.36	1.99	1.89
2005-06	9.76	13.61	23.37	19.53	18.14	1.92	2.30

Appendix Table 1e: Job Flows in Russian Manufacturing

	Job Creation	Job Destruction	Job Reallocation	Excess Job Realloc.	Within- Sector Excess Job Realloc.	Entry Share of Emp.	Exit Share of Emp.
1985-86	1.57	1.85	3.43	3.15	2.22	0.00	0.00
1986-87	1.36	2.52	3.88	2.73	2.66	0.00	0.00
1987-88	1.40	4.82	6.22	2.79	2.79	0.01	0.00
1988-89	1.31	4.23	5.55	2.63	2.60	0.02	0.00
1989-90	1.11	4.83	5.95	2.23	2.23	0.15	0.00
1990-91	3.06	6.62	9.68	6.12	6.12	0.88	0.00
1991-92	11.83	7.86	19.69	15.72	12.41	3.98	0.00
1992-93	4.10	9.32	13.43	8.21	7.83	1.27	0.02
1993-94	3.63	15.66	19.28	7.25	7.25	1.25	0.53
1994-95	3.71	14.30	18.02	7.43	7.43	0.97	0.90
1995-96	3.82	12.39	16.21	7.65	6.25	0.26	1.63
1996-97	2.33	14.16	16.50	4.66	4.66	0.32	0.79
1997-98	3.29	11.18	14.47	6.58	6.58	0.50	1.51
1998-99	6.79	8.41	15.21	13.59	12.98	0.82	1.06
1999-00	8.67	7.59	16.27	15.19	14.97	1.44	1.31
2000-01	8.46	7.46	15.92	14.92	13.57	1.94	1.49
2001-02	9.90	9.70	19.60	19.39	16.59	3.09	1.57
2002-03	7.63	15.02	22.65	15.27	15.05	3.07	1.48
2003-04	9.62	12.77	22.39	19.24	16.94	2.67	1.48

Appendix Table 1f: Job Flows in Ukrainian Manufacturing

	Job Creation	Job Destruction	Job Reallocation	Excess Job Realloc.	Within- Sector Excess Job Realloc.	Entry Share of Emp.	Exit Share of Emp.
1992-93	5.62	7.83	13.45	11.24	11.24	1.40	
1993-94	4.64	12.60	17.24	9.28	9.28	1.35	0.49
1994-95	3.16	11.61	14.76	6.32	6.32	0.91	0.49
1995-96	5.53	12.77	18.30	11.06	10.43	1.95	0.68
1996-97	11.68	14.62	26.30	23.35	21.29	6.16	0.81
1997-98	7.26	11.61	18.87	14.52	13.60	3.32	0.86
1998-99	4.29	11.93	16.23	8.59	8.59	0.78	1.22
1999-00	11.36	8.18	19.54	16.36	12.78	0.95	0.18
2000-01	7.00	13.87	20.87	14.00	13.43	1.72	1.68
2001-02	7.19	11.78	18.97	14.38	14.34	1.76	0.29
2002-03	7.83	11.59	19.42	15.67	15.28	1.97	1.22
2003-04	8.12	7.89	16.01	15.78	13.69	0.70	0.39
2004-05	11.96	7.77	19.73	15.53	14.55	4.46	0.97
2005-06	6.85	8.73	15.58	13.70	12.37	1.26	0.13

Appendix Table 2: Three-Year Labor Productivity Growth Decompositions

	Total	Within	Between	Cross	Prop. Entry	Disprop. Entry	Exit
Georgia							
2000-2003	87.95	40.75	29.15	-14.56	16.43	0.25	15.92
2001-2004	74.16	31.43	27.30	-2.44	10.65	-2.93	10.14
Hungary							
1986-1989	16.80	20.45	3.94	-8.21	0.48	0.05	0.09
1987-1990	-12.04	-5.43	1.95	-4.80	-2.33	-0.71	-0.72
1988-1991	-34.61	-21.15	1.22	-2.57	-10.20	-0.44	-1.47
1989-1992	-39.00	-30.86	0.81	6.09	-16.53	0.88	0.62
1990-1993	-4.65	-8.76	3.73	2.38	-1.08	-1.82	0.89
1991-1994	39.37	27.50	3.94	-4.19	15.33	-5.16	1.95
1992-1995	36.52	29.99	15.41	-15.46	10.25	-5.61	1.95
1993-1996	19.80	15.93	3.54	-1.88	2.92	-4.10	3.39
1994-1997	5.49	4.64	7.21	-6.48	0.57	-2.93	2.48
1995-1998	5.14	6.61	7.38	-7.90	0.61	-3.56	2.00
1996-1999	9.71	10.61	6.51	-7.74	1.29	-3.15	2.18
1997-2000	14.79	15.33	4.78	-5.63	1.58	-3.48	2.22
1998-2001	18.27	17.71	4.93	-5.08	1.61	-3.00	2.11
1999-2002	23.28	22.28	5.39	-5.54	2.12	-2.81	1.83
2000-2003	19.75	19.31	0.62	-0.78	1.44	-3.30	2.45
2001-2004	14.02	17.72	0.25	-2.61	1.06	-4.80	2.40
2002-2005	10.66	14.43	3.56	-5.03	0.73	-6.09	3.06
Lithuania							
1995-1998	38.95	27.03	9.85	-4.68	5.89	-2.31	3.17
1996-1999	31.94	14.85	7.95	2.62	4.85	-1.38	3.05
1997-2000	20.45	9.83	6.04	4.17	2.59	-4.16	1.98
1998-2001	22.86	12.41	7.51	2.77	3.30	-4.56	1.43
1999-2002	30.94	21.49	8.58	-2.86	3.26	-4.36	4.84
2000-2003	32.93	19.28	8.94	-3.13	4.27	-5.46	9.04
2001-2004	30.24	18.55	3.33	0.93	3.62	-4.27	8.09
2002-2005	30.16	20.97	3.52	-0.53	3.87	-3.98	6.31
Romania							
1992-1995	33.57	25.00	9.01	-2.36	1.76	-0.07	0.23
1993-1996	18.38	9.22	9.73	-3.50	1.94	0.37	0.60
1994-1997	17.35	12.54	7.67	-3.44	1.13	-0.56	0.01
1995-1998	0.94	-4.71	11.21	-4.65	-0.43	-0.65	0.17
1996-1999	-10.29	-14.94	9.37	-0.74	-1.02	-3.32	0.37
1997-2000	5.94	1.83	10.79	-5.89	-0.07	-1.26	0.54
1998-2001	13.01	11.31	10.06	-8.02	1.42	-2.19	0.42
1999-2002	14.84	12.87	9.83	-6.32	1.11	-2.89	0.23
2000-2003	7.89	3.82	9.25	-3.21	0.33	-2.87	0.57
2001-2004	22.03	17.20	11.40	-6.20	1.27	-3.44	1.79
2002-2005	15.17	10.23	12.29	-6.89	0.87	-4.15	2.83
2003-2006	19.57	10.09	11.64	-3.80	1.36	-4.44	4.72

	Total	Within	Between	Cross	Prop. Entry	Disprop. Entry	Exit
Russia							
1985-1988	14.97	15.62	-0.02	-0.68	0.01	0.04	0.00
1986-1989	13.59	14.30	0.30	-1.01	0.00	-0.01	0.00
1987-1990	14.57	14.96	0.74	-1.11	0.02	-0.05	0.00
1988-1991	3.42	4.08	0.45	-1.03	0.07	-0.14	0.00
1989-1992	-6.34	-5.68	1.49	1.28	-1.19	-2.24	0.00
1990-1993	-22.18	-24.00	1.69	6.20	-3.13	-2.95	0.00
1991-1994	-47.23	-52.78	2.03	10.95	-5.22	-2.29	0.07
1992-1995	-53.72	-59.42	5.96	3.05	-2.67	-1.12	0.49
1993-1996	-48.90	-57.63	6.98	2.49	-1.88	-0.64	1.78
1994-1997	-5.99	-17.35	8.14	1.55	-0.36	-0.25	2.28
1995-1998	-7.37	-18.02	7.41	1.42	-0.38	-1.00	3.20
1996-1999	14.83	4.68	7.20	-0.82	0.86	-1.23	4.15
1997-2000	19.34	8.72	7.31	-1.77	1.41	-1.95	5.61
1998-2001	33.81	22.33	6.43	-1.84	2.92	-2.45	6.41
1999-2002	20.28	8.28	8.41	-4.28	2.23	-2.53	8.17
2000-2003	18.05	4.48	7.24	-1.12	1.93	-1.94	7.47
2001-2004	19.07	6.66	8.05	-3.71	2.10	-2.58	8.55
Ukraine							
1989-1992	-9.46	-11.63	0.57	1.60	n.a.	n.a.	n.a.
1992-1995	-74.94	-79.83	3.06	4.38	-2.24	-0.33	0.02
1993-1996	-88.33	-95.34	4.03	7.35	-4.12	-0.57	0.33
1994-1997	-52.10	-61.62	3.73	10.46	-5.24	-0.11	0.68
1995-1998	-17.13	-30.13	10.35	2.76	-1.54	0.11	1.32
1996-1999	2.41	-8.30	5.91	0.85	0.01	2.42	1.51
1997-2000	-14.78	-26.82	14.91	-5.15	-0.99	1.47	1.81
1998-2001	9.66	-8.68	20.11	-7.38	0.47	0.21	4.93
1999-2002	11.81	-7.65	29.63	-14.41	1.00	-1.19	4.43
2000-2003	64.44	40.26	19.93	-4.17	5.61	-2.42	5.23
2001-2004	67.99	46.34	16.47	-2.48	4.55	-1.68	4.78
2002-2005	55.50	34.97	14.91	-3.70	4.81	-1.23	5.75
2003-2006	91.90	75.17	12.65	-6.39	7.99	-1.57	4.05

Note: These are labor productivity growth decompositions weighted by base-year employment. Labor productivity is the log of the ratio of real gross output divided by number of employees. They apply equation (4) in the text. The exit term here is $-\sum_{e \in X} s_{e,t-1} (p_{e,t-1} - P_{it-1})$, so a positive exit term value means a positive contribution to productivity growth.

Appendix Table 3: Three-Year Multifactor Productivity Growth Decompositions

	Total	Within	Between	Cross	Prop. Entry	Disprop. Entry	Exit
Georgia							
2000-2003	69.04	26.80	19.62	-8.09	13.49	1.40	15.81
2001-2004	67.30	27.38	24.18	-0.56	9.36	-0.41	7.36
Hungary							
1986-1989	12.35	13.77	2.38	-4.12	0.29	0.16	-0.13
1987-1990	-6.92	-3.93	0.95	-2.74	-1.57	1.19	-0.82
1988-1991	-28.10	-20.13	1.11	-0.29	-8.15	0.91	-1.54
1989-1992	-46.59	-39.02	0.22	11.23	-19.93	-0.05	0.96
1990-1993	-24.98	-23.07	-0.03	9.34	-10.43	-3.34	2.56
1991-1994	20.42	13.25	0.79	1.64	7.39	-6.01	3.35
1992-1995	27.46	18.55	2.99	-0.27	7.17	-5.09	4.10
1993-1996	24.97	18.56	2.33	0.30	3.47	-2.64	2.95
1994-1997	13.55	9.75	4.07	-1.88	1.39	-1.56	1.77
1995-1998	5.92	4.98	4.49	-3.70	0.67	-1.67	1.14
1996-1999	7.66	5.64	4.99	-3.84	1.00	-1.24	1.12
1997-2000	9.22	7.30	2.98	-1.08	0.96	-1.59	0.65
1998-2001	13.36	10.20	4.07	-1.43	1.06	-1.02	0.48
1999-2002	16.76	13.78	4.11	-2.13	1.35	-0.37	0.03
2000-2003	15.45	12.85	3.26	-1.28	0.91	-0.50	0.22
2001-2004	11.12	10.96	1.74	-1.78	0.84	-0.89	0.24
2002-2005	10.24	9.28	4.15	-3.70	0.76	-1.60	1.35
Lithuania							
1995-1998	31.97	16.09	6.47	0.04	5.17	1.90	2.31
1996-1999	27.77	6.62	9.31	2.37	4.45	2.94	2.08
1997-2000	19.35	3.38	8.53	2.52	2.60	1.43	0.89
1998-2001	25.43	12.05	10.98	-3.07	3.78	1.75	-0.06
1999-2002	31.14	20.47	13.80	-10.30	3.31	1.19	2.68
2000-2003	31.86	16.39	12.05	-7.57	4.07	0.82	6.10
2001-2004	25.73	15.59	8.56	-6.72	2.89	1.43	3.98
2002-2005	29.67	18.94	8.23	-5.67	3.53	1.38	3.27
Romania							
1992-1995	23.84	15.59	6.62	2.09	0.62	-0.68	-0.39
1993-1996	-6.53	-13.40	7.17	0.71	-0.54	-0.04	-0.44
1994-1997	40.44	36.41	4.70	-2.20	2.40	-0.84	-0.02
1995-1998	16.62	10.74	7.99	-2.00	0.52	-0.57	-0.06
1996-1999	0.73	-7.46	8.93	2.37	-0.18	-3.01	0.07
1997-2000	2.56	-6.99	9.25	1.31	-0.28	-0.86	0.12
1998-2001	12.21	6.16	8.10	-1.97	1.13	-1.31	0.10
1999-2002	13.13	7.53	8.51	-2.16	0.95	-1.60	-0.10
2000-2003	4.83	-1.69	7.00	0.44	0.12	-1.13	0.09
2001-2004	13.92	5.38	9.35	-1.29	0.70	-0.89	0.67
2002-2005	9.53	0.82	10.92	-3.33	0.46	-0.63	1.28
2003-2006	13.60	1.68	10.72	-2.03	0.87	-0.31	2.67

	Total	Within	Between	Cross	Prop. Entry	Disprop. Entry	Exit
Russia							
1985-1988	10.73	11.64	0.27	-1.22	0.01	0.04	0.00
1986-1989	10.08	10.98	0.43	-1.32	0.00	0.00	0.00
1987-1990	9.54	9.96	0.51	-0.91	0.01	-0.04	0.00
1988-1991	1.08	0.80	0.87	-0.77	0.05	0.13	0.00
1989-1992	-11.65	-13.10	0.80	2.41	-1.26	-0.50	0.00
1990-1993	-21.46	-25.09	1.05	5.59	-2.41	-0.59	0.00
1991-1994	-60.62	-65.45	2.48	8.03	-5.01	-0.64	-0.03
1992-1995	-47.95	-54.04	5.66	1.99	-1.87	0.14	0.18
1993-1996	-45.20	-50.75	6.51	-0.43	-1.45	0.43	0.51
1994-1997	-4.23	-13.47	8.40	-0.62	-0.23	0.76	0.93
1995-1998	-7.26	-15.63	7.68	-0.97	-0.28	0.49	1.45
1996-1999	15.53	7.76	8.58	-5.04	0.93	1.03	2.26
1997-2000	17.96	10.52	8.17	-5.17	1.38	-0.17	3.23
1998-2001	31.47	23.60	7.40	-5.45	2.41	-0.19	3.70
1999-2002	18.31	7.81	7.24	-4.63	1.70	0.52	5.67
2000-2003	16.80	4.94	7.44	-3.31	1.54	1.32	4.87
2001-2004	15.29	5.62	6.30	-4.12	1.49	1.04	4.96
Ukraine							
1989-1992	10.32	9.07	0.56	0.68	n.a.	n.a.	n.a.
1992-1995	-77.40	-81.95	2.74	3.70	-2.22	0.32	0.02
1993-1996	-90.36	-96.80	3.55	6.23	-4.06	0.71	0.00
1994-1997	-56.34	-65.73	3.33	8.75	-4.18	1.16	0.34
1995-1998	-22.30	-35.15	5.53	6.17	-2.11	2.31	0.95
1996-1999	0.68	-10.80	6.65	0.83	-0.02	2.82	1.20
1997-2000	-19.04	-30.38	14.04	-5.26	-1.32	2.28	1.59
1998-2001	1.93	-14.59	18.15	-6.39	-0.18	1.19	3.76
1999-2002	9.71	-10.93	28.32	-12.33	0.56	0.43	3.67
2000-2003	63.54	37.39	20.12	-3.30	4.55	0.24	4.54
2001-2004	64.82	43.88	17.34	-3.55	3.53	0.30	3.33
2002-2005	50.87	32.43	15.18	-5.43	3.88	1.12	3.69
2003-2006	89.31	72.89	13.93	-8.22	7.00	1.39	2.32

Note: These are multifactor productivity growth decompositions weighted by base-year employment.

Appendix Table 4: Five-Year Labor Productivity Growth Decompositions

	Total	Within	Between	Cross	Prop. Entry	Disprop. Entry	Exit
Hungary							
1986-1991	-29.33	-15.50	2.29	-5.00	-9.54	-0.12	-1.45
1987-1992	-25.23	-18.04	2.21	1.28	-11.28	1.93	-1.34
1988-1993	-17.97	-18.04	1.17	6.95	-9.55	2.72	-1.21
1989-1994	-15.70	-18.67	-0.50	9.78	-9.35	1.04	2.00
1990-1995	17.40	4.89	2.29	0.63	10.65	-2.45	1.40
1991-1996	40.64	26.75	3.64	-6.06	18.73	-4.30	1.88
1992-1997	38.28	29.32	13.32	-14.66	14.38	-5.54	1.45
1993-1998	25.17	21.07	4.17	-5.99	6.49	-4.53	3.96
1994-1999	9.42	8.72	8.33	-9.51	2.25	-4.00	3.62
1995-2000	15.43	16.23	9.09	-11.05	3.45	-5.56	3.27
1996-2001	23.64	22.80	7.47	-9.36	4.61	-5.07	3.19
1997-2002	27.63	24.49	6.02	-7.17	4.76	-4.02	3.56
1998-2003	29.17	27.15	5.22	-6.61	4.79	-4.11	2.73
1999-2004	28.30	29.54	3.96	-8.07	4.94	-4.97	2.90
2000-2005	28.15	29.68	3.10	-5.36	3.55	-6.69	3.87
Lithuania							
1995-2000	52.04	22.90	8.96	4.88	12.28	-4.46	7.48
1996-2001	55.56	26.72	7.90	6.29	13.10	-3.89	5.44
1997-2002	45.77	29.22	6.81	-0.09	10.50	-5.76	5.10
1998-2003	39.59	26.52	7.50	-1.89	9.97	-7.78	5.27
1999-2004	50.01	32.22	8.51	-5.17	10.09	-5.01	9.36
2000-2005	55.79	31.70	9.05	-3.95	11.98	-5.32	12.32
Romania							
1992-1997	39.58	25.74	9.01	-0.48	4.25	0.48	0.57
1993-1998	9.13	-4.08	10.46	-0.19	0.80	1.38	0.76
1994-1999	12.70	4.18	10.55	-1.28	1.96	-2.78	0.08
1995-2000	9.30	2.89	12.79	-6.80	0.93	-0.86	0.35
1996-2001	-0.55	-2.83	12.76	-6.76	-0.41	-3.83	0.52
1997-2002	9.65	3.54	12.88	-4.17	0.65	-3.85	0.60
1998-2003	21.48	9.20	12.39	-1.99	3.80	-2.68	0.76
1999-2004	32.28	25.47	13.64	-8.14	3.99	-4.24	1.57
2000-2005	21.40	13.40	12.55	-5.67	2.36	-4.36	3.12
2001-2006	32.03	19.24	14.30	-5.91	4.07	-4.81	5.12

	Total	Within	Between	Cross	Prop. Entry	Disprop. Entry	Exit
Russia							
1985-1990	20.17	21.10	0.24	-1.18	0.04	-0.02	0.00
1986-1991	10.90	11.95	0.23	-1.29	0.16	-0.14	0.00
1987-1992	6.32	6.54	1.82	0.30	-0.14	-2.21	0.00
1988-1993	-17.87	-19.36	2.22	4.54	-2.39	-2.87	0.00
1989-1994	-56.28	-59.80	2.81	12.15	-7.81	-3.64	0.00
1990-1995	-63.72	-69.85	2.65	18.29	-11.00	-4.27	0.45
1991-1996	-66.44	-76.95	2.62	16.24	-8.46	-1.30	1.41
1992-1997	-54.65	-66.69	7.44	7.02	-3.84	-0.63	2.06
1993-1998	-45.40	-57.81	7.55	6.85	-3.93	-1.06	2.99
1994-1999	-1.24	-17.08	7.17	4.54	-0.38	-0.82	5.32
1995-2000	15.55	-1.37	7.15	3.37	1.71	-1.68	6.36
1996-2001	37.37	18.29	7.89	0.76	5.08	-2.55	7.91
1997-2002	28.14	9.27	6.86	0.37	4.56	-3.30	10.37
1998-2003	47.20	24.06	6.19	-0.11	7.83	-2.28	11.51
1999-2004	42.19	15.29	9.72	-2.42	7.71	-2.36	14.24
Ukraine							
1989-1994	-58.04	-62.15	1.44	6.05	-2.35	-1.04	0.01
1992-1997	-101.30	-112.22	3.58	22.56	-14.75	-0.90	0.44
1993-1998	-88.32	-102.79	5.04	21.01	-12.67	-0.08	1.18
1994-1999	-41.92	-58.45	5.24	14.20	-6.98	2.43	1.63
1995-2000	-29.81	-47.47	14.42	1.53	-4.10	3.74	2.08
1996-2001	11.30	-16.80	13.73	3.14	1.59	4.32	5.32
1997-2002	27.11	-4.99	22.88	-1.97	4.25	1.21	5.73
1998-2003	52.56	15.74	26.51	-4.75	7.87	-1.30	8.48
1999-2004	69.83	31.64	33.03	-13.47	9.86	-1.06	9.84
2000-2005	93.63	54.25	22.29	-4.73	14.63	-1.27	8.47
2001-2006	134.15	95.48	19.60	-7.25	19.64	-2.04	8.72

Note: These are labor productivity growth decompositions weighted by base-year employment. Labor productivity is the log of the ratio of real gross output divided by number of employees. They apply Equation (4) in the text. The exit term here is $-\sum_{e \in X} s_{et-1}(p_{et-1} - P_{it-1})$, so a positive exit term value means a positive contribution to productivity growth.

Appendix Table 5: Five-Year Multifactor Productivity Growth Decompositions

	Total	Within	Between	Cross	Prop. Entry	Disprop. Entry	Exit
United Kingdom							
1982-1987	15.41	6.24	-0.52	7.83	2.27		-0.40*
United States							
1977-1982	2.43	-0.30	-1.26	3.52	0.19		0.24*
1982-1987	8.26	4.76	-1.39	3.92	0.69		0.27*
Hungary							
1986-1991	-23.12	-16.11	1.98	-1.67	-7.37	1.32	-1.28
1987-1992	-39.19	-29.05	0.77	7.38	-18.85	1.83	-1.27
1988-1993	-36.21	-28.60	0.22	12.31	-21.32	1.91	-0.73
1989-1994	-26.52	-28.15	-0.94	16.57	-16.80	0.64	2.16
1990-1995	1.03	-7.99	-2.06	8.92	1.25	-2.36	3.27
1991-1996	27.72	16.22	0.25	0.04	11.89	-3.92	3.24
1992-1997	33.54	22.01	2.19	-1.67	11.70	-4.58	3.89
1993-1998	31.47	23.56	2.95	-3.20	7.58	-2.64	3.23
1994-1999	14.35	10.00	5.45	-4.55	3.04	-2.07	2.49
1995-2000	14.05	10.28	6.28	-4.36	2.96	-2.71	1.61
1996-2001	19.04	13.76	5.93	-3.53	3.51	-2.18	1.54
1997-2002	17.82	11.95	4.43	-1.24	2.92	-1.16	0.91
1998-2003	20.84	15.67	5.49	-2.75	3.19	-0.81	0.05
1999-2004	21.88	19.14	4.07	-4.97	3.85	-0.36	0.15
2000-2005	24.76	20.78	6.06	-4.38	3.16	-2.07	1.20
Lithuania							
1995-2000	47.74	14.91	11.50	4.47	11.79	2.81	2.27
1996-2001	55.10	24.05	12.62	-1.83	13.54	3.47	3.25
1997-2002	45.23	25.22	11.71	-8.04	10.72	2.41	3.20
1998-2003	41.79	21.94	11.89	-7.43	10.72	1.35	3.32
1999-2004	49.10	27.31	13.67	-10.51	9.48	2.64	6.51
2000-2005	54.55	28.47	14.16	-10.01	11.13	2.58	8.21
Romania							
1992-1997	49.90	36.89	6.80	2.40	5.06	-0.83	-0.42
1993-1998	-0.08	-13.35	8.13	6.00	-1.25	0.60	-0.21
1994-1999	30.24	18.73	6.15	2.51	5.21	-2.44	0.07
1995-2000	24.83	12.20	10.92	-0.62	3.03	-0.67	-0.04
1996-2001	11.66	4.14	11.36	-2.44	1.72	-3.17	0.06
1997-2002	5.45	-6.71	11.44	3.09	0.03	-2.45	0.05
1998-2003	16.14	-1.29	11.28	3.98	2.79	-0.78	0.15
1999-2004	25.31	13.59	12.04	-2.40	3.03	-1.21	0.26
2000-2005	15.86	3.11	10.04	-1.38	1.70	-0.22	2.61
2001-2006	21.03	4.84	11.67	-1.74	2.63	0.06	3.58

	Total	Within	Between	Cross	Prop. Entry	Disprop. Entry	Exit
Russia							
1985-1990	13.60	14.58	0.69	-1.68	0.03	0.00	0.00
1986-1991	6.64	7.26	0.73	-1.62	0.13	0.15	0.00
1987-1992	-1.91	-3.38	1.63	0.75	-0.33	-0.57	0.00
1988-1993	-19.36	-22.59	1.18	4.71	-1.95	-0.71	0.00
1989-1994	-52.60	-57.02	1.98	10.19	-6.47	-1.38	0.10
1990-1995	-54.96	-62.26	2.11	14.09	-8.22	-1.01	0.32
1991-1996	-75.43	-83.49	3.11	10.83	-7.48	1.17	0.42
1992-1997	-47.05	-57.01	7.39	3.16	-2.98	1.22	1.18
1993-1998	-39.32	-49.27	8.25	2.33	-3.15	1.45	1.06
1994-1999	4.03	-9.32	8.23	0.14	0.26	1.90	2.83
1995-2000	17.90	3.79	7.95	-0.30	1.86	0.92	3.68
1996-2001	37.86	20.81	8.29	-4.01	5.75	1.20	5.82
1997-2002	28.12	10.69	8.77	-5.03	5.11	1.09	7.49
1998-2003	44.69	24.93	7.90	-4.58	6.63	1.57	8.24
1999-2004	38.26	15.05	9.74	-5.17	6.05	2.10	10.50
Ukraine							
1989-1994	-44.33	-47.51	1.42	2.76	-0.74	-0.24	-0.02
1992-1997	-94.95	-104.72	3.23	13.90	-8.61	1.04	0.21
1993-1998	-83.08	-97.16	4.73	16.04	-9.73	2.39	0.65
1994-1999	-42.65	-58.78	5.16	12.93	-6.94	3.56	1.41
1995-2000	-38.65	-55.56	9.95	6.49	-6.02	4.28	2.21
1996-2001	6.55	-23.08	14.17	4.98	1.02	4.42	5.04
1997-2002	22.31	-11.44	21.55	-0.09	3.53	3.12	5.64
1998-2003	46.35	10.44	23.84	-3.77	6.77	1.57	7.49
1999-2004	66.61	27.21	32.47	-11.53	8.30	1.31	8.85
2000-2005	89.73	50.11	22.45	-4.41	12.67	1.45	7.45
2001-2006	131.80	90.20	20.60	-7.23	18.73	1.82	7.69

Note: These are multifactor productivity growth decompositions weighted by base-year employment, with the exception of the U.S. numbers, which are weighted by base-year output. The U.K. and U.S. numbers are our calculations based on Disney et al. (2003) and Haltiwanger (1997)'s results, respectively. The U.K. and U.S. starred numbers are exit plus disproportionate entry.

**Appendix Table 6: Entry Cohort Contributions
to Three-Year Labor Productivity Growth**

	Year T Cohort	Year T-1 Cohort	Year T-2 Cohort	Total Disprop. Entry	(T-2) – T Entry
Georgia					
2000-2003	-0.93	-0.82	2.00	0.25	n.a.
2001-2004	-2.61	-0.78	0.46	-2.93	n.a.
Hungary					
1986-1989	0.03	0.19	-0.17	0.05	n.a.
1987-1990	-1.57	0.47	0.38	-0.71	n.a.
1988-1991	-2.51	1.24	0.84	-0.44	0.81
1989-1992	-3.81	1.50	3.19	0.88	4.76
1990-1993	-5.89	2.28	1.79	-1.82	4.30
1991-1994	-3.66	-2.13	0.63	-5.16	4.44
1992-1995	-2.59	-1.29	-1.73	-5.61	4.16
1993-1996	-1.75	-1.13	-1.21	-4.10	2.44
1994-1997	-1.63	-1.11	-0.19	-2.93	2.40
1995-1998	-1.40	-1.21	-0.95	-3.56	0.80
1996-1999	-1.39	-1.03	-0.73	-3.15	0.90
1997-2000	-1.55	-0.84	-1.09	-3.48	0.31
1998-2001	-1.78	-0.78	-0.43	-3.00	0.96
1999-2002	-1.43	-1.00	-0.38	-2.81	1.18
2000-2003	-1.68	-0.89	-0.73	-3.30	1.06
2001-2004	-3.46	-1.35	0.01	-4.80	1.44
2002-2005	-2.36	-2.88	-0.85	-6.09	0.83
Lithuania					
1995-1998	-1.40	-0.17	-0.73	-2.31	n.a.
1996-1999	-1.88	0.20	0.30	-1.38	n.a.
1997-2000	-1.70	-2.01	-0.46	-4.16	0.95
1998-2001	-1.93	-1.12	-1.52	-4.56	0.36
1999-2002	-2.12	-1.22	-1.02	-4.36	0.68
2000-2003	-2.49	-1.98	-0.99	-5.46	0.94
2001-2004	-0.92	-1.93	-1.42	-4.27	0.70
2002-2005	-1.70	-0.91	-1.37	-3.98	1.12
Romania					
1992-1995	-0.35	-0.14	0.42	-0.07	n.a.
1993-1996	-0.33	0.10	0.61	0.37	n.a.
1994-1997	-0.54	-0.45	0.42	-0.56	0.78
1995-1998	-0.71	0.09	-0.04	-0.65	0.29
1996-1999	-0.95	-0.21	-2.16	-3.32	-1.62
1997-2000	-0.90	-0.40	0.04	-1.26	0.74
1998-2001	-1.55	-0.82	0.18	-2.19	1.13
1999-2002	-1.63	-0.95	-0.31	-2.89	0.58
2000-2003	-1.45	-1.06	-0.37	-2.87	1.18
2001-2004	-1.95	-0.97	-0.52	-3.44	1.10
2002-2005	-2.11	-1.21	-0.82	-4.15	0.62
2003-2006	-2.17	-1.43	-0.83	-4.44	1.12

	Year T Cohort	Year T-1 Cohort	Year T-2 Cohort	Total Disprop. Entry	(T-2) – T Entry
Russia					
1985-1988	0.00	0.00	0.03	0.04	n.a.
1986-1989	-0.01	0.00	0.00	-0.01	n.a.
1987-1990	-0.05	0.00	0.00	-0.05	0.00
1988-1991	-0.12	-0.01	-0.01	-0.14	0.00
1989-1992	-1.32	-0.86	-0.06	-2.24	-0.01
1990-1993	-0.65	-1.29	-1.01	-2.95	-0.88
1991-1994	-0.66	-0.51	-1.11	-2.29	0.20
1992-1995	-0.36	-0.52	-0.24	-1.12	0.41
1993-1996	-0.04	-0.20	-0.40	-0.64	0.27
1994-1997	-0.09	-0.20	0.04	-0.25	0.40
1995-1998	-0.29	-0.57	-0.14	-1.00	-0.10
1996-1999	-0.22	-0.86	-0.15	-1.23	-0.06
1997-2000	-0.68	-0.57	-0.69	-1.95	-0.40
1998-2001	-0.96	-0.98	-0.51	-2.45	-0.28
1999-2002	-1.14	-0.64	-0.75	-2.53	-0.07
2000-2003	-1.13	-0.82	0.01	-1.94	0.97
2001-2004	-0.91	-1.34	-0.33	-2.58	0.81
Ukraine					
1992-1995	-0.31	-0.05	0.04	-0.33	n.a.
1993-1996	-0.04	-0.50	-0.03	-0.57	n.a.
1994-1997	0.23	-0.11	-0.24	-0.11	0.08
1995-1998	-0.44	0.58	-0.03	0.11	0.01
1996-1999	0.61	0.43	1.38	2.42	1.15
1997-2000	-0.15	0.65	0.98	1.47	1.42
1998-2001	-0.52	-0.25	0.98	0.21	0.38
1999-2002	-1.24	0.08	-0.03	-1.19	0.12
2000-2003	-1.49	-0.87	-0.06	-2.42	0.46
2001-2004	-0.38	-0.70	-0.60	-1.68	0.64
2002-2005	-0.89	-0.14	-0.20	-1.23	1.30
2003-2006	-0.84	-0.65	-0.08	-1.57	0.31

Note: These are disproportionate entry terms from labor productivity growth decompositions weighted by base-year employment, applying Equation (4) in the text. (T-2) – T entry is the difference between the year T-2 contributions and what they were two years earlier as year T contributions.

Appendix Table 7: Reallocation and Labor Productivity Descriptive Statistics

	Productivity Dispersion	Productivity Rank Change	Employment Share Change Dispersion	Employment Share Change-Productivity Correlation
Georgia				
2000-2003	1.47	0.37	1.94	0.16
2001-2004	1.37	0.31	1.64	0.17
Hungary				
1986-1989	0.72	0.21	0.47	0.15
1987-1990	0.84	0.20	1.37	0.02
1988-1991	0.89	0.35	1.77	0.01
1989-1992	1.06	0.41	2.60	0.01
1990-1993	1.05	0.45	2.66	0.01
1991-1994	1.07	0.36	2.43	0.01
1992-1995	1.15	0.36	2.26	0.04
1993-1996	1.13	0.33	1.74	0.01
1994-1997	1.12	0.29	1.67	0.03
1995-1998	1.14	0.29	1.80	0.03
1996-1999	1.13	0.28	1.76	0.02
1997-2000	1.13	0.28	1.76	0.01
1998-2001	1.11	0.27	1.73	0.02
1999-2002	1.11	0.27	1.82	0.02
2000-2003	1.12	0.26	1.81	0.00
2001-2004	1.20	0.26	2.12	-0.01
2002-2005	1.19	0.25	2.11	0.00
Lithuania				
1995-1998	1.11	0.37	1.26	0.08
1996-1999	1.15	0.42	1.23	0.07
1997-2000	1.27	0.43	1.25	0.03
1998-2001	1.21	0.38	1.31	0.03
1999-2002	1.18	0.36	1.47	0.06
2000-2003	1.46	0.34	1.47	0.06
2001-2004	1.43	0.31	1.36	0.04
2002-2005	1.32	0.32	1.33	0.03
Romania				
1992-1995	1.23	0.50	1.95	0.07
1993-1996	1.28	0.48	2.22	0.06
1994-1997	1.23	0.44	1.34	0.04
1995-1998	1.21	0.43	2.15	0.05
1996-1999	1.19	0.39	1.88	0.03
1997-2000	1.22	0.39	2.11	0.04
1998-2001	1.20	0.39	1.76	0.04
1999-2002	1.22	0.38	1.66	0.04
2000-2003	1.22	0.38	1.81	0.03
2001-2004	1.30	0.36	1.94	0.04
2002-2005	1.27	0.35	1.95	0.05
2003-2006	1.30	0.35	1.90	0.05

	Productivity Dispersion	Productivity Rank Change	Employment Share Change Dispersion	Employment Share Change-Productivity Correlation
Russia				
1985-1988	0.66	0.08	0.28	0.01
1986-1989	0.65	0.09	0.34	0.03
1987-1990	0.65	0.11	0.35	0.04
1988-1991	0.62	0.18	0.40	0.00
1989-1992	0.73	0.36	0.69	-0.04
1990-1993	0.81	0.45	0.65	-0.04
1991-1994	0.92	0.50	0.69	-0.01
1992-1995	1.00	0.42	0.66	0.08
1993-1996	1.05	0.44	0.66	0.12
1994-1997	1.11	0.34	0.72	0.13
1995-1998	1.11	0.30	0.83	0.11
1996-1999	1.19	0.28	1.00	0.09
1997-2000	1.27	0.25	0.93	0.09
1998-2001	1.29	0.26	0.91	0.09
1999-2002	1.33	0.23	1.04	0.10
2000-2003	1.31	0.22	1.00	0.09
2001-2004	1.36	0.23	1.10	0.09
Ukraine				
1989-1992	0.51	0.37	0.44	0.03
1992-1995	0.80	0.43	0.37	0.09
1993-1996	0.93	0.42	0.48	0.09
1994-1997	1.15	0.37	0.64	0.06
1995-1998	1.38	0.35	0.98	0.08
1996-1999	1.50	0.31	0.86	0.08
1997-2000	1.56	0.38	1.11	0.11
1998-2001	1.57	0.40	1.51	0.11
1999-2002	1.73	0.26	1.44	0.13
2000-2003	1.72	0.27	1.43	0.09
2001-2004	1.69	0.24	1.31	0.08
2002-2005	1.68	0.23	1.34	0.08
2003-2006	1.65	0.36	1.37	0.07

Note: Productivity dispersion is the standard deviation of labor productivity in the first year of the three-year period. Productivity rank change is 1 minus the correlation in labor productivity rankings in the first and last years of the three-year periods. Employment share change is the standard deviation of employment share change in the three-year period. Employment share change-productivity correlation is the correlation between a firm's deviation from average labor productivity in the sector and its employment share change.