

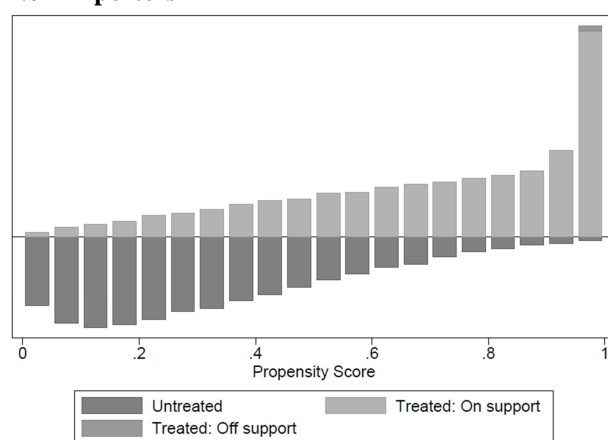
Appendices

Appendix A

Propensity Score Histograms and Balancing Property Tests for the Basic Model

Figure A1

The Propensity Score Histogram on the Differences in the Skill Structure between Importers and Non-importers

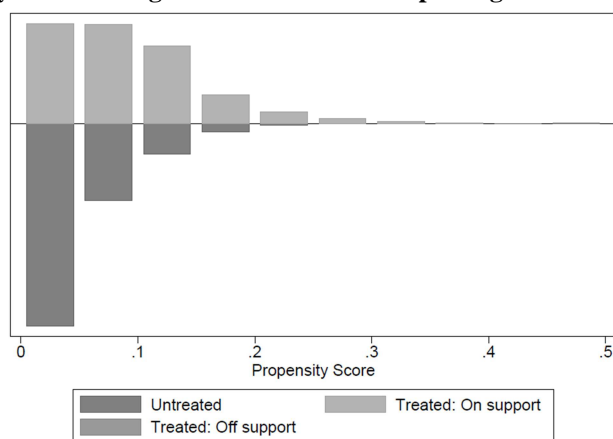


Note: *Untreated* – relates to firms in the control group (i.e. non-importing firms); *Treated* – relates to firms in the treatment group (i.e. importing firms).

Source: SORS; authors' calculations.

Figure A2

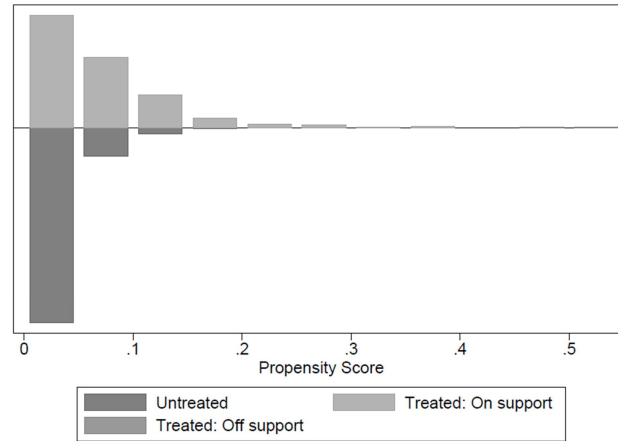
The Propensity Score Histogram on the Start of Importing



Note: *Untreated* – relates to firms in the control group (i.e. non-importing firms); *Treated* – relates to firms in the treatment group (i.e. importing starters).

Source: SORS; authors' calculations.

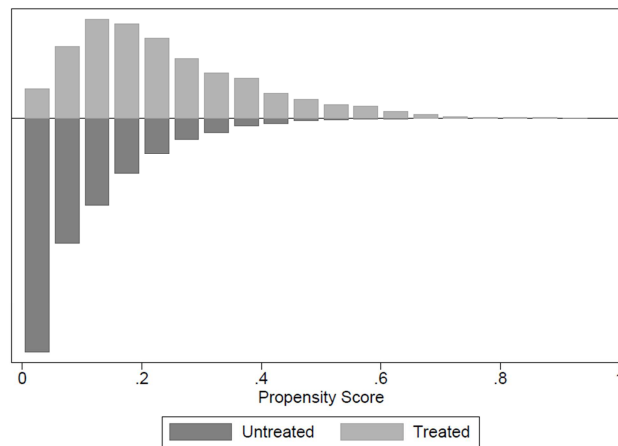
Figure A3

The Propensity Score Histogram on Learning-by-importing

Note: *Untreated* – relates to firms in the control group (i.e. non-importing firms); *Treated* – relates to firms in the treatment group (i.e. importing starters that import also one year after the start of importing).

Source: SORS; authors' calculations.

Figure A4

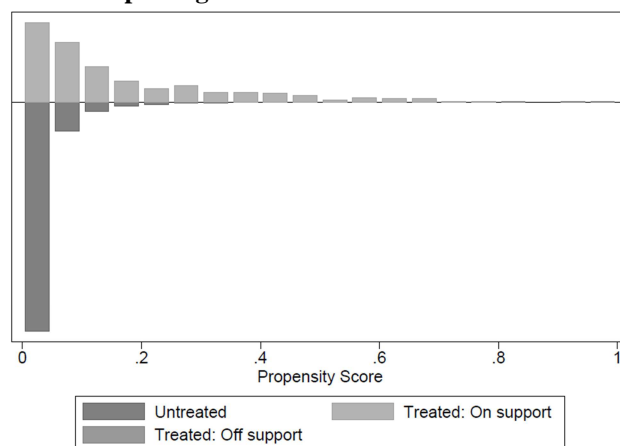
The Propensity Score Histogram on the Stop of Importing

Note: *Untreated* – relates to firms in the control group (i.e. importing firms); *Treated* – relates to firms in the treatment group (i.e. firms that have stopped importing).

Source: SORS; authors' calculations.

Figure A5

The Propensity Score Histogram on the Effect of the Start of Importing Capital Goods on the Start of Exporting

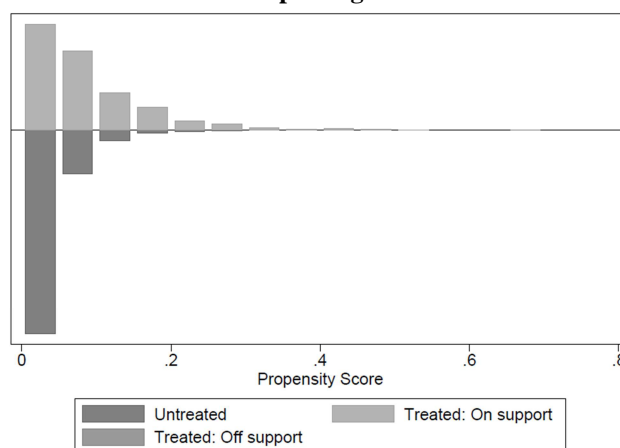


Note: *Untreated* – relates to firms in the control group (i.e. non-importing firms); *Treated* – relates to firms in the treatment group (i.e. importing starters of capital goods).

Source: SORS; authors' calculations.

Figure A6

The Propensity Score Histogram on the Effect of the Start of Importing Intermediate Goods on the Start of Exporting



Note: *Untreated* – relates to firms in the control group (i.e. non-importing firms); *Treated* – relates to firms in the treatment group (i.e. importing starters of intermediate goods).

Source: SORS; authors' calculations.

Table A1

Balancing Property Test in the Analysis on the Differences in Skill Structure between Importers and Non-importers

	Unmatched/ Matched	Bias reduction		t-test	
		% of bias	% of bias reduction	t	p-value
Size	Unmatched	117.1		152.91	0.000
	Matched	5.4	95.4	6.16	0.000
Lvae	Unmatched	28.0		36.89	0.000
	Matched	3.4	87.8	4.55	0.000
Lke	Unmatched	42.5		56.16	0.000
	Matched	6.0	85.9	8.28	0.000
Rimsh	Unmatched	6.2		8.19	0.000
	Matched	4.7	24.4	6.18	0.000
Foreign	Unmatched	32.1		41.82	0.000
	Matched	-13.6	57.5	-13.99	0.000
FDI	Unmatched	45.3		58.52	0.000
	Matched	3.7	91.7	3.75	0.000

Note: The explanation of variables: *Size* – logarithm of the number of employees; *Lvae* – logarithm of the value added per employee; *Lke* – logarithm of the capital per employee; *Rimsh* – regional import share; *Foreign* – dummy variable for foreign ownership; *FDI* – dummy variable for foreign direct investments. Matching method – one nearest neighbour matching with replacement, common caliper: 0.05. Firms in the control group: non-importing firms, firms in the treatment group: importing firms. For brevity, the estimates for industry and year dummies are excluded.

Source: SORS; authors' calculations.

Table A2

Balancing Property Test in the Analysis of the Skill-structure Difference before the Start of Importing

	Unmatched/ Matched	Bias reduction		t-test	
		% of bias	% of bias reduction	t	p-value
Size_1	Unmatched	22.0		9.10	0.000
	Matched	0.6	97.2	0.17	0.866
Lvae_1	Unmatched	-9.8		-3.94	0.000
	Matched	-0.9	90.9	-0.26	0.796
Lke_1	Unmatched	2.7		1.03	0.305
	Matched	-1.9	31.8	-0.54	0.589
Rimsh_1	Unmatched	4.8		1.98	0.048
	Matched	-1.1	76.4	-0.30	0.765
Foreign_1	Unmatched	15.1		7.05	0.000
	Matched	-2.4	84.1	-0.58	0.559
FDI_1	Unmatched	1.9		0.81	0.420
	Matched	-4.7	-145.8	-1.09	0.274

Note: The explanation of variables: *Size_1* – logarithm of the number of employees; *Lvae_1* – logarithm of the value added per employee; *Lke_1* – logarithm of the capital per employee; *Rimsh_1* – regional import share; *Foreign_1* – dummy variable for foreign ownership; *FDI_1* – dummy variable for foreign direct investments. All variables are lagged for one period. Matching method – one nearest neighbour matching with replacement, common caliper: 0.05. Firms in the control group: non-importing firms, firms in the treatment group: importing starters. For brevity, the estimates for industry and year dummies are excluded.

Source: SORS; authors' calculations.

Table A3

Balancing Property Test in the Analysis of the Skill-structure Change after the Start of Importing

	Unmatched/ Matched	Bias reduction		t-test	
		% of bias	% of bias reduction	t	p-value
Size_1	Unmatched	31.4		9.78	0.000
	Matched	1.5	95.2	0.30	0.767
Lvae_1	Unmatched	-12.3		-3.81	0.000
	Matched	-1.6	86.9	-0.33	0.745
Lke_1	Unmatched	1.1		0.31	0.760
	Matched	1.0	7.4	0.22	0.828
Rimsh_1	Unmatched	9.9		3.04	0.002
	Matched	-3.1	68.5	-0.59	0.558
Foreign_1	Unmatched	21.5		7.99	0.000
	Matched	-3.7	82.7	-0.63	0.527
FDI_1	Unmatched	4.6		1.58	0.115
	Matched	-1.6	65.0	-0.28	0.781

Note: The explanation of variables: *Size_1* – logarithm of the number of employees; *Lvae_1* – logarithm of the value added per employee; *Lke_1* – logarithm of the capital per employee; *Rimsh_1* – regional import share; *Foreign_1* – dummy variable for foreign ownership; *FDI_1* – dummy variable for foreign direct investments. All variables are lagged for one period. Matching method – one nearest neighbour matching with replacement, common caliper: 0.05. Firms in the control group: non-importing firms, firms in the treatment group: importing starters that import also one year after the start of importing. For brevity, the estimates for industry and year dummies are excluded.

Source: SORS; authors' calculations.

Table A4

Balancing Property Test in the Analysis of the Skill-structure Change after the Stop of Importing

	Unmatched/ Matched	Bias reduction		t-test	
		% of bias	% of bias reduction	t	p-value
Size_1	Unmatched	-88.0		-42.53	0.000
	Matched	2.1	97.6	1.05	0.293
Lvae_1	Unmatched	-13.6		-7.43	0.000
	Matched	1.5	88.9	0.56	0.577
Lke_1	Unmatched	-16.6		-9.35	0.000
	Matched	3.7	77.7	1.42	0.157
Rimsh_1	Unmatched	-1.9		-1.03	0.301
	Matched	0.8	59.1	0.33	0.739
Foreign_1	Unmatched	-29.3		-13.82	0.000
	Matched	0.1	99.6	0.06	0.953
FDI_1	Unmatched	-41.9		-18.17	0.000
	Matched	0.4	99.1	0.31	0.757

Note: The explanation of variables: *Size_1* – logarithm of the number of employees; *Lvae_1* – logarithm of the value added per employee; *Lke_1* – logarithm of the capital per employee; *Rimsh_1* – regional import share; *Foreign_1* – dummy variable for foreign ownership; *FDI_1* – dummy variable for foreign direct investments. All variables are lagged for one period. Matching method – one nearest neighbour matching with replacement, common caliper: 0.05. Firms in the control group: importing firms, firms in the treatment group: firms that have been importing in the current year but have stopped importing in the next years. For brevity, the estimates for industry and year dummies are excluded.

Source: SORS; authors' calculations.

Table A5

Balancing Property Test in the Analysis on the Effect of the Start of Importing Capital Goods on the Start of Exporting

	Unmatched/ Matched	Bias reduction		t-test	
		% of bias	% of bias reduction	t	p-value
Size_1	Unmatched	110.3		38.43	0.000
	Matched	7.0	93.7	1.27	0.203
Lvae_1	Unmatched	17.9		4.95	0.000
	Matched	-5.0	71.9	-1.01	0.311
Lke_1	Unmatched	29.1		7.91	0.000
	Matched	4.5	84.4	0.94	0.349
Rimsh_1	Unmatched	5.7		1.67	0.095
	Matched	4.5	21.6	0.87	0.384
Foreign_1	Unmatched	31.3		12.75	0.000
	Matched	-10.0	68.2	-1.56	0.119
FDI_1	Unmatched	32.1		21.66	0.000
	Matched	-21.4	33.2	-2.85	0.004

Note: The explanation of variables: *Size_1* – logarithm of the number of employees; *Lvae_1* – logarithm of the value added per employee; *Lke_1* – logarithm of the capital per employee; *Rimsh_1* – regional import share; *Foreign_1* – dummy variable for foreign ownership; *FDI_1* – dummy variable for foreign direct investments. All variables are lagged for one period. Matching method – one nearest neighbour matching with replacement, common caliper: 0.05. Firms in the control group: non-importing firms, firms in the treatment group: importing starters of capital goods that import also one year after the start of importing. For brevity, the estimates for industry and year dummies are excluded.

Source: SORS; authors' calculations.

Table A6

Balancing Property Test in the Analysis on the Effect of the Start of Importing Intermediate Goods on the Start of Exporting

	Unmatched/ Matched	Bias reduction		t-test	
		% of bias	% of bias reduction	t	p-value
Size_1	Unmatched	60.1		20.27	0.000
	Matched	0.2	99.7	0.04	0.972
Lvae_1	Unmatched	9.7		2.87	0.004
	Matched	-4.7	52.0	-1.03	0.304
Lke_1	Unmatched	22.3		6.27	0.000
	Matched	-0.1	99.4	-0.03	0.976
Rimsh_1	Unmatched	6.3		1.98	0.048
	Matched	1.8	71.9	0.37	0.713
Foreign_1	Unmatched	18.4		6.84	0.000
	Matched	-7.3	60.1	-1.26	0.209
FDI_1	Unmatched	12.5		5.75	0.000
	Matched	-9.2	26.6	-1.35	0.178

Note: The explanation of variables: *Size_1* – logarithm of the number of employees; *Lvae_1* – logarithm of the value added per employee; *Lke_1* – logarithm of the capital per employee; *Rimsh_1* – regional import share; *Foreign_1* – dummy variable for foreign ownership; *FDI_1* – dummy variable for foreign direct investments. All variables are lagged for one period. Matching method – one nearest neighbour matching with replacement, common caliper: 0.05. Firms in the control group: non-importing firms, firms in the treatment group: importing starters of intermediate goods that import also one year after the start of importing. For brevity, the estimates for industry and year dummies are excluded.

Source: SORS; authors' calculations.

Appendix B

Results on Matching Functions (probit estimations)

Table B1

Probit Estimations for the Basic Model

	H1
Size	0.492*** [108]
Lvae	0.301*** [34.1]
Lke	0.134*** [33.1]
Rimsh	-0.315*** [-3.61]
Foreign	0.618*** [23.8]
FDI	0.605*** [11.7]
Constant	-4.821*** [-55.8]
Observations	69,392
Log-likelihood	-32,459
Pseudo R ²	0.324

Notes: Each column name presents the name of a hypothesis: *H1* – Hypothesis 1 (treatment group: importing firms, control group: non-importing firms). The explanation of explanatory variables: *Size* – logarithm of the number of employees; *Lvae* – logarithm of the value added per employee; *Lke* – logarithm of the capital per employee; *Rimsh* – regional import share; *Foreign* – dummy variable for foreign ownership; *FDI* – dummy variable for foreign direct investments. For brevity, the estimates for industry and year dummies are excluded. * p < 0.1; ** p < 0.05; *** p < 0.01, z statistics in brackets.

Source: SORS; authors' calculations.

Table B2

Probit Estimations for the Basic Model

	H2	H3	H4	H5	H6
Size_1	0.102*** [9.20]	0.136*** [9.91]	-0.305*** [-37.1]	0.413*** [33.0]	0.246*** [20.8]
Lvae_1	0.092*** [4.70]	0.090*** [3.68]	-0.244*** [-14.50]	0.282*** [10.10]	0.168*** [7.11]
Lke_1	0.026*** [2.89]	0.028** [2.47]	-0.020** [-2.41]	0.089*** [7.66]	0.071*** [6.93]
Rimsh_1	0.281 [1.55]	0.408* [1.84]	0.058 [0.37]	0.036 [0.16]	0.121 [0.58]
Foreign_1	0.478*** [8.02]	0.544*** [7.81]	-0.418*** [-9.45]	0.556*** [8.73]	0.421*** [6.58]
FDI_1	-0.106 [-0.57]	-0.095 [-0.44]	-0.286*** [-4.40]	0.389*** [3.37]	0.107 [0.73]
Constant	-3.358*** [-16.8]	-4.042*** [-15.8]	2.634*** [14.7]	-6.237*** [-22.2]	-4.524*** [-19.0]
Observations	30,155	29,399	28,748	29,690	29,754
Log-likelihood	-5,767	-3,453	-8,808	-3,749	-4,491
Pseudo R ²	0.081	0.103	0.166	0.225	0.110

Notes: Each column name presents the name of a hypothesis: *H2* – Hypothesis 2 (treatment group: importing starters, control group: non-importing firms); *H3* – Hypothesis 3 (treatment group: importing starters that import also one year after the start of importing, control group: non-importing firms); *H4* – Hypothesis 4 (treatment group: firms that have been importing in the current year but have stopped importing in the next years, control group: importing firms); *H5* – Hypothesis 5 (treatment group: importing starters of capital goods that import these goods also one year after the start of importing, control group: non-importing firms); *H6* – Hypothesis 6 (treatment group: importing starters of intermediate goods that import these goods also one year after the start of importing, control group: non-importing firms). The explanation of explanatory variables: *Size_1* – logarithm of the number of employees; *Lvae_1* – logarithm of the value added per employee; *Lke_1* – logarithm of the capital per employee; *Rimsh_1* – regional import share; *Foreign_1* – dummy variable for foreign ownership; *FDI_1* – dummy variable for foreign direct investments. All variables are lagged for one period. For brevity, the estimates for industry and year dummies are excluded. * p < 0.1; ** p < 0.05; *** p < 0.01, z statistics in brackets.

Source: SORS; authors' calculations.

Table B3

Probit Estimations for Model Extensions

	H2
Size_2	0.039*** [2.71]
Lvae_2	0.120*** [4.65]
Lke_2	0.009 [0.77]
Rimsh_2	0.265 [1.20]
Foreign_2	0.351*** [4.45]
FDI_2	0.077 [0.37]
Constant	-3.441*** [-13.2]
Observations	25,264
Log-likelihood	-3,585
Pseudo R ²	0.068

Notes: Each column name presents the name of a hypothesis: *H2* – Hypothesis 2 (treatment group: importing starters, control group: non-importing firms). The explanation of explanatory variables: *Size_2* – logarithm of the number of employees; *Lvae_2* – logarithm of the value added per employee; *Lke_2* – logarithm of the capital per employee; *Rimsh_2* – regional import share; *Foreign_2* – dummy variable for foreign ownership; *FDI_2* – dummy variable for foreign direct investments. All variables are lagged for two periods. For brevity, the estimates for industry and year dummies are excluded. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$, z statistics in brackets.

Source: SORS; authors' calculations.

Table B4

Probit Estimations for Model Extensions

	H3
Size_1	0.158*** [10.10]
Lvae_1	0.102*** [3.55]
Lke_1	0.019 [1.46]
Rimsh_1	0.489* [1.94]
Foreign_1	0.471*** [5.73]
FDI_1	-0.115 [-0.47]
Constant	-4.313*** [-14.4]
Observations	29,116
Log-likelihood	-2,481
Pseudo R ²	0.112

Notes: Each column name presents the name of a hypothesis: *H3* – Hypothesis 3 (treatment group: importing starters that import also two years after the start of importing, control group: non-importing firms). In order to be able to compare apples to apples in the model extensions for the Hypotheses 5 and 6, i.e. keeping the comparable scope of observations in the basic model and model extensions, the treatment in the latter was the same as in the basic model. Consequently, also estimation of the propensity scores remains unvaried in the model extensions for these two hypotheses. The explanation of explanatory variables: *Size_1* – logarithm of the number of employees; *Lvae_1* – logarithm of the value added per employee; *Lke_1* – logarithm of the capital per employee; *Rimsh_1* – regional import share; *Foreign_1* – dummy variable for foreign ownership; *FDI_1* – dummy variable for foreign direct investments. All variables are lagged for one period. For brevity, the estimates for industry and year dummies are excluded. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$, z statistics in brackets.

Source: SORS; authors' calculations.

Appendix C

Additional Robustness Checks of Matching Results

Table C1

Results of Testing Hypothesis 1 (the direction of the relationship between importing and a better skill structure of firms)

<i>Outcome of interest: skill share</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.1	0.268***	0.034	35,910	33,289
NN (5), caliper: 0.1	0.252***	0.030	35,910	33,289
Radius, caliper: 0.1	0.392***	0.019	35,910	33,289
Kernel, bandwidth: 0.01	0.263***	0.030	35,910	33,289

Note: ATT – average treatment effect on the treated; *se* – bootstrapped standard errors (100 repetitions); *Treated* – firms in the treatment group (i.e. importing firms); *Control* – firms in the control group (i.e. non-importing firms). NN (1) denotes one nearest neighbour matching with replacement; NN (5) denotes five nearest neighbours matching with replacement. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Source: SORS; authors' calculations.

Table C2

Results of Testing Hypothesis 2 (whether firms with a better skill structure start importing)

<i>Outcome of interest: skill share one year before the start of importing</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.1	0.205***	0.063	1,604	28,549
NN (5), caliper: 0.1	0.145***	0.054	1,604	28,549
Radius, caliper: 0.1	0.111***	0.042	1,604	28,549
Kernel, bandwidth: 0.01	0.095**	0.045	1,604	28,549

Note: *Treated* – firms in the treatment group (i.e. importing starters). The rest of the note is the same as note under Table C1.

Source: SORS; authors' calculations.

Table C3

Results of Testing Hypothesis 3 (whether importing firms adjust their skill share after the start of importing)

<i>Outcome of interest: skill share one year after the start of importing</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.1	0.433***	0.088	805	23,640
NN (5), caliper: 0.1	0.356***	0.063	805	23,640
Radius, caliper: 0.1	0.370***	0.052	805	23,640
Kernel, bandwidth: 0.01	0.321***	0.060	805	23,640
<i>Outcome of interest: change in the skill share one year after the start of importing</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.1	0.090**	0.042	843	27,765
NN (5), caliper: 0.1	0.034	0.032	843	27,765
Radius, caliper: 0.1	0.030	0.027	843	27,765
Kernel, bandwidth: 0.01	0.035	0.028	843	27,765

Note: *Treated* – firms in the treatment group (i.e. importing starters that import also one year after the start of importing). The rest of the note is the same as note under Table C1.

Source: SORS; authors' calculations.

Table C4
Results of Testing Hypothesis 4 (whether firms adjust their skill structure after they stop importing)

<i>Outcome of interest: skill share after the stop of importing</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.1	−0.217***	0.049	3,371	25,227
NN (5), caliper: 0.1	−0.280***	0.039	3,371	25,227
Radius, caliper: 0.1	−0.347***	0.030	3,371	25,227
Kernel, bandwidth: 0.01	−0.289***	0.031	3,370	25,227
<i>Outcome of interest: change in the skill share after the stop of importing</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.1	−0.067***	0.024	3,360	25,214
NN (5), caliper: 0.1	−0.053***	0.020	3,360	25,214
Radius, caliper: 0.1	−0.059***	0.015	3,360	25,214
Kernel, bandwidth: 0.01	−0.058***	0.016	3,359	25,214

Note: *Treated* – firms in the treatment group (i.e. firms that have been importing in the current year but have stopped importing in the next years); *Control* – firms in the control group (i.e. importing firms). The rest of the note is the same as note under Table C1.

Source: SORS; authors' calculations.

Table C5
Results of Testing Hypotheses 5 and 6 (whether importing capital or intermediate goods increases the probability of starting to export)

<i>Outcome of interest: start of exporting one year after the start of importing capital goods</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.1	0.000	0.006	819	24,038
NN (5), caliper: 0.1	0.001	0.005	819	24,038
Radius, caliper: 0.1	0.004	0.004	819	24,038
Kernel, bandwidth: 0.01	0.002	0.004	796	24,038
<i>Outcome of interest: start of exporting one year after the start of importing intermediate goods</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.1	0.010*	0.006	905	24,038
NN (5), caliper: 0.1	0.006	0.005	905	24,038
Radius, caliper: 0.1	0.012***	0.004	905	24,038
Kernel, bandwidth: 0.01	0.009**	0.004	901	24,038

Note: *Treated* – firms in the treatment group (i.e. importing starters of capital or intermediate goods that import these goods also one year after the start of importing). The rest of the note is the same as note under Table C1.

Source: SORS; authors' calculations.

Table C6
Robustness Checks of Testing Hypothesis 2 (whether firms with a better skill structure start importing)

<i>Outcome of interest: skill share two years before the start of importing</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.1	−0.067	0.102	888	24,376
NN (5), caliper: 0.1	−0.018	0.070	888	24,376
Radius, caliper: 0.1	0.018	0.051	888	24,376
Kernel, bandwidth: 0.01	0.026	0.052	888	24,376

Note: *Treated* – firms in the treatment group (i.e. importing starters). The rest of the note is the same as note under Table C1.

Source: SORS; authors' calculations.

Table C7

Robustness Checks of Testing Hypothesis 3 (whether importing firms adjust their skill share after the start of importing)

<i>Outcome of interest: skill share two years after the start of importing</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.1	0.281	0.184	224	16,400
NN (5), caliper: 0.1	0.273**	0.125	224	16,400
Radius, caliper: 0.1	0.404***	0.108	224	16,400
Kernel, bandwidth: 0.01	0.358***	0.108	224	16,400
<i>Outcome of interest: change in the skill share two years after the start of importing</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.1	0.218***	0.084	252	23,545
NN (5), caliper: 0.1	0.143*	0.077	252	23,545
Radius, caliper: 0.1	0.139**	0.070	252	23,545
Kernel, bandwidth: 0.01	0.137*	0.071	252	23,545

Note: Treated – firms in the treatment group (i.e. importing starters that import also two years after the start of importing). The rest of the note is the same as note under Table C1.

Source: SORS; authors' calculations.

Table C8

Robustness Checks of Testing Hypotheses 5 and 6 (whether importing capital or intermediate goods increases the probability of starting to export)

<i>Outcome of interest: start of exporting two years after the start of importing capital goods</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.1	0.011*	0.006	723	19,984
NN (5), caliper: 0.1	0.011*	0.006	723	19,984
Radius, caliper: 0.1	0.011**	0.005	723	19,984
Kernel, bandwidth: 0.01	0.010*	0.006	705	19,984
<i>Outcome of interest: start of exporting two years after the start of importing intermediate goods</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.1	−0.008*	0.004	795	19,984
NN (5), caliper: 0.1	−0.006*	0.003	795	19,984
Radius, caliper: 0.1	−0.003	0.002	795	19,984
Kernel, bandwidth: 0.01	−0.005**	0.002	790	19,984

Note: Treated – firms in the treatment group (i.e. importing starters of capital or intermediate goods that import these goods also one year after the start of importing). The rest of the note is the same as note under Table C1.

Source: SORS; authors' calculations.

Appendix D

Results of the Basic Models for the Two Subperiods, before and after Slovenia's Accession to the EU

Table D1

Results of Testing Hypothesis 1 (the direction of the relationship between importing and a better skill structure of firms), period: 1996 – 2003

<i>Outcome of interest: skill share</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.05	0.234***	0.041	20,365	13,587
NN (5), caliper: 0.05	0.234***	0.035	20,365	13,587
Radius, caliper: 0.05	0.302***	0.034	20,365	13,587
Kernel, bandwidth: 0.06	0.295***	0.035	20,365	13,587

Note: ATT – average treatment effect on the treated; *se* – bootstrapped standard errors (100 repetitions); *Treated* – firms in the treatment group (i.e. importing firms); *Control* – firms in the control group (i.e. non-importing firms). NN (1) denotes one nearest neighbour matching with replacement; NN (5) denotes five nearest neighbours matching with replacement. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Source: SORS; authors' calculations.

Table D2

Results of Testing Hypothesis 2 (whether firms with a better skill structure start importing), period: 1996 – 2003

<i>Outcome of interest: skill share one year before the start of importing</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.05	0.073	0.084	1,089	10,484
NN (5), caliper: 0.05	0.131**	0.052	1,089	10,484
Radius, caliper: 0.05	0.113**	0.051	1,089	10,484
Kernel, bandwidth: 0.06	0.112**	0.051	1,089	10,484

Note: *Treated* – firms in the treatment group (i.e. importing starters). The rest of the note is the same as note under Table D1.

Source: SORS; authors' calculations.

Table D3

Results of Testing Hypothesis 3 (whether importing firms adjust their skill share after the start of importing), period: 1996 – 2003

<i>Outcome of interest: skill share one year after the start of importing</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.05	0.235**	0.117	444	7,933
NN (5), caliper: 0.05	0.281***	0.090	444	7,933
Radius, caliper: 0.05	0.291***	0.079	444	7,933
Kernel, bandwidth: 0.06	0.288***	0.079	444	7,933
<i>Outcome of interest: change in the skill share one year after the start of importing</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.05	0.002	0.046	507	10,170
NN (5), caliper: 0.05	0.006	0.036	507	10,170
Radius, caliper: 0.05	0.006	0.031	507	10,170
Kernel, bandwidth: 0.06	0.006	0.031	507	10,170

Note: *Treated* – firms in the treatment group (i.e. importing starters that import also one year after the start of importing). The rest of the note is the same as note under Table D1.

Source: SORS; authors' calculations.

Table D4

Results of Testing Hypothesis 4 (whether firms adjust their skill structure after they stop importing), period: 1996 – 2003

<i>Outcome of interest: skill share after the stop of importing</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.05	–0.271***	0.077	1,222	12,419
NN (5), caliper: 0.05	–0.259***	0.063	1,222	12,419
Radius, caliper: 0.05	–0.304***	0.053	1,222	12,419
Kernel, bandwidth: 0.06	–0.300***	0.053	1,222	12,419
<i>Outcome of interest: change in the skill share after the stop of importing</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.05	–0.077**	0.037	1,218	12,409
NN (5), caliper: 0.05	–0.054**	0.027	1,218	12,409
Radius, caliper: 0.05	–0.040*	0.024	1,218	12,409
Kernel, bandwidth: 0.06	–0.040*	0.024	1,218	12,409

Note: *Treated* – firms in the treatment group (i.e. firms that have been importing in the current year but have stopped importing in the next years); *Control* – firms in the control group (i.e. importing firms). The rest of the note is the same as note under Table D1.

Source: SORS; authors' calculations.

Table D5

Results of Testing Hypotheses 5 and 6 (whether importing capital or intermediate goods increases the probability of starting to export), period: 1996 – 2003

<i>Outcome of interest: start of exporting one year after the start of importing capital goods</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.05	0.015	0.010	412	8,066
NN (5), caliper: 0.05	0.006	0.010	412	8,066
Radius, caliper: 0.05	0.010	0.008	412	8,066
Kernel, bandwidth: 0.06	0.010	0.008	412	8,066
<i>Outcome of interest: start of exporting one year after the start of importing intermediate goods</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.05	0.017	0.010	475	8,066
NN (5), caliper: 0.05	0.019**	0.008	475	8,066
Radius, caliper: 0.05	0.019**	0.008	475	8,066
Kernel, bandwidth: 0.06	0.019**	0.008	475	8,066

Note: *Treated* – firms in the treatment group (i.e. importing starters of capital or intermediate goods that import these goods also one year after the start of importing). The rest of the note is the same as note under Table D1.

Source: SORS; authors' calculations.

Table D6

Results of Testing Hypothesis 1 (the direction of the relationship between importing and a better skill structure of firms), period: 2004 – 2010

<i>Outcome of interest: skill share</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.05	0.259***	0.032	14,685	19,702
NN (5), caliper: 0.05	0.263***	0.036	14,685	19,702
Radius, caliper: 0.05	0.351***	0.031	14,685	19,702
Kernel, bandwidth: 0.06	0.337***	0.032	14,685	19,702

Note: The same as note under Table D1.

Source: SORS; authors' calculations.

Table D7

Results of Testing Hypothesis 2 (whether firms with a better skill structure start importing), period: 2004 – 2010

<i>Outcome of interest: skill share one year before the start of importing</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.05	0.249**	0.118	514	18,065
NN (5), caliper: 0.05	0.152	0.103	514	18,065
Radius, caliper: 0.05	0.153*	0.080	514	18,065
Kernel, bandwidth: 0.06	0.155*	0.080	514	18,065

Note: Treated – firms in the treatment group (i.e. importing starters). The rest of the note is the same as note under Table D1.

Source: SORS; authors' calculations.

Table D8

Results of Testing Hypothesis 3 (whether importing firms adjust their skill share after the start of importing), period: 2004 – 2010

<i>Outcome of interest: skill share one year after the start of importing</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.05	0.667***	0.159	225	14,153
NN (5), caliper: 0.05	0.536***	0.114	225	14,153
Radius, caliper: 0.05	0.473***	0.097	225	14,153
Kernel, bandwidth: 0.06	0.474***	0.097	225	14,153
<i>Outcome of interest: change in the skill share one year after the start of importing</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.05	0.068	0.065	215	15,720
NN (5), caliper: 0.05	0.040	0.059	215	15,720
Radius, caliper: 0.05	0.030	0.042	215	15,720
Kernel, bandwidth: 0.06	0.030	0.042	215	15,720

Note: Treated – firms in the treatment group (i.e. importing starters that import also one year after the start of importing). The rest of the note is the same as note under Table D1.

Source: SORS; authors' calculations.

Table D9

Results of Testing Hypothesis 4 (whether firms adjust their skill structure after they stop importing), period: 2004 – 2010

<i>Outcome of interest: skill share after the stop of importing</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.05	−0.370***	0.071	1,760	10,621
NN (5), caliper: 0.05	−0.350***	0.060	1,760	10,621
Radius, caliper: 0.05	−0.342***	0.051	1,760	10,621
Kernel, bandwidth: 0.06	−0.341***	0.050	1,760	10,621
<i>Outcome of interest: change in the skill share after the stop of importing</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.05	−0.054	0.036	1,118	8,913
NN (5), caliper: 0.05	−0.052*	0.032	1,118	8,913
Radius, caliper: 0.05	−0.058**	0.026	1,118	8,913
Kernel, bandwidth: 0.06	−0.058**	0.026	1,118	8,913

Note: Treated – firms in the treatment group (i.e. firms that have been importing in the current year but have stopped importing in the next years); Control – firms in the control group (i.e. importing firms). The rest of the note is the same as note under Table D1.

Source: SORS; authors' calculations.

Table D10

Results of Testing Hypotheses 5 and 6 (whether importing capital or intermediate goods increases the probability of starting to export), period: 2004 – 2010

<i>Outcome of interest: start of exporting one year after the start of importing capital goods</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.05	0.006	0.007	338	14,360
NN (5), caliper: 0.05	0.006	0.006	338	14,360
Radius, caliper: 0.05	0.003	0.006	338	14,360
Kernel, bandwidth: 0.06	0.003	0.006	338	14,360
<i>Outcome of interest: start of exporting one year after the start of importing intermediate goods</i>				
Matching method	ATT	se	Treated	Control
NN (1), caliper: 0.05	0.003	0.006	351	14,360
NN (5), caliper: 0.05	0.002	0.004	351	14,360
Radius, caliper: 0.05	0.002	0.004	351	14,360
Kernel, bandwidth: 0.06	0.002	0.004	351	14,360

Note: Treated – firms in the treatment group (i.e. importing starters of capital or intermediate goods that import these goods also one year after the start of importing). The rest of the note is the same as note under Table D1.

Source: SORS; authors' calculations.