

Export costs of visa restrictions: evidence from Russia

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Motivation –1

- Liberalization usually is regarded in terms of economic policy instruments
- “Pure political” or “security inspired” decisions in international affairs might have strong economic effects as well – both in terms of welfare and redistribution
- Usually very difficult to quantify and evaluate
- Might play strong discriminatory role which could overweight “non-discriminatory” stance of normal economic policy

Motivation – 2

- Trade costs include all costs incurred in getting a good to a final user other than a marginal cost of producing a good itself (Anderson&Wincoop, 2004)
 - transportation
 - policy barriers (tariff and non tariff)
 - information
 - contract enforcement
 - currency costs
 - legal and regulatory costs
 - local distribution costs
- Visa restrictions usually are regarded as an obstacle to tourism, not to trade

Case: direct costs of starting exporting for medium size enterprise in Russia (March, 2012)

New expenses	What for	Costs per month, \$	Share of costs
Marketing specialist	Foreign market research	1 300	8
Lawyer	Support on foreign country legislation	1 600	10
Logistic specialist	Perform logistic and customs clearance	1 300	8
Financial specialist	Provide financial and insurance guarantees	2 000	12
Trade representative	Representation	2 000	12
Customer support	Support	2 000	12
Translator	Translation	1 000	6
Travel	Business trips	5 000	30
Total		16 200	100

Motivation – 2

- Case study indicates that 30% of costs that medium sized Russian firm incurs launching export activity are spent on business trips. It implies obtaining visa stamp in case the buyer is in visa restricted country.
- Visa costs might include time costs, direct monetary costs, risks of not obtaining visa on time which also might contribute to contract enforcement costs

Research question

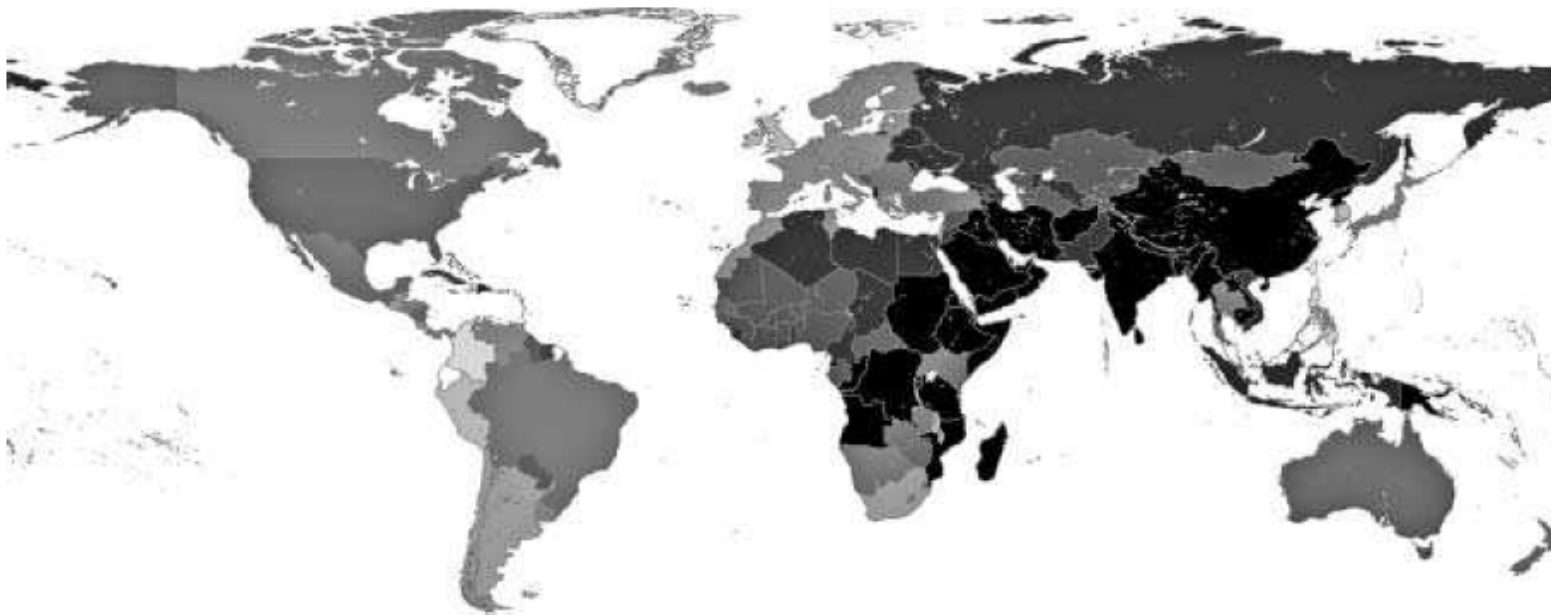
- Do visa restrictions contribute to costs of exporting:
 - What are the export costs of visa restrictions?
 - Fixed or variable costs?
 - Mechanism behind visa costs of export?
 - Pure monetary and time costs?
 - Inability to enforce contracts in case of visa refusal might increase costs of contract enforcement?

Results

- Visa restrictions have significant negative market access effects. The effect is bigger for export of relation-specific goods than for export of non-relation specific goods
- Controlling for choice of destination visas have significant negative effect of value of export of relation-specific goods.

Visa restriction across the world

- Eric Neumayer, 2010,2011
 - The effect of visa on travels, bilateral trade flows and FDI is found to be significantly negative
 - Cross-country study, gravity analysis, usual problems: omitted variable, endogeneity, selection bias, inability to distinguish between market access and variable costs



Visa restrictions faced by nationals of country traveling to other countries (darker shades mean more restrictions). Source: Neumayer, 2010

Our study

- Russian firm-level export transaction data:
exploit variation of firms' export across destinations over time
 - Analysis of destination selection
 - Analysis of export value controlling for selection
- Instrument visa variable
- Control for exported goods' nature to differentiate between mechanisms

Model specification (based on HMR, 2008)

Selection of export destinations

$$\begin{aligned} & \textit{Probability of export}_{dt}^h \\ & = \alpha + \beta_1 * VCE_{dt} + \beta_2 * FCE_{dt} + \gamma GDP_{dt} + \lambda_t^h + \epsilon_{dt}^h \end{aligned}$$

Export value

$$\textit{Value of Export}_{dt}^h = \alpha + \beta * VCE_{dt} + \gamma GDP_{dt} + \lambda_t^h + u_{dt}^h$$

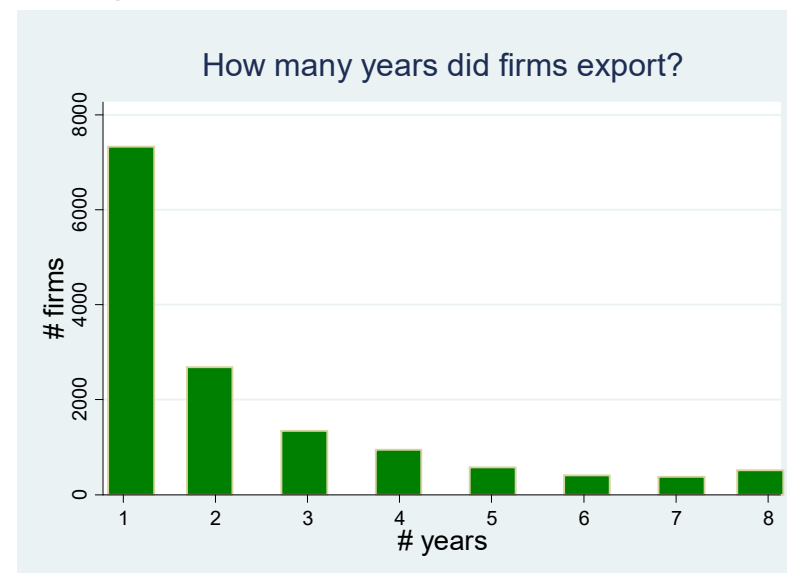
- where h – domestic firm, d – destination, t –time
- VCR – variable costs of exporting
- FCE – fixed costs of exporting

Data

- Russian customs exporter invoices. For each individual package exported through customs we know
 - firm - sender, good's code and description, country-recipient, firm-recipient , statistical value of export (and many more details) (Russian FCS)
- Costs of exporting:
 - tariff rates imposed by destination country on Russian export of particular good (WITS), averaged across export basket of the firm (fixed weights)
 - visa restriction by destination country on Russian citizens (MFA, tourist agencies)
 - proxies for other costs : language, historical relations, common border
- Destination control
 - GDP PPP (WDI)
- Time
 - 2003-2010

Some details about the sample

- Sample size: 3, 732, 613 observations at selection stage
 - only manufacturing goods: HS between 15.00-37.99
 - 75 000+ firms, that were exporters at least once over those years
 - 48% of firms exported only once, 20% - twice
 - 180 destinations
 - 8 years



Data on visas

- We define visa variable
 - No visa restrictions
 - Visa is obtained at destination airport free of charge
 - Visa required and should be obtained in consulate
 - Visa must be bought at destination airport
 - 24 (out of 180) visa regimes changed over 2003-2010
 - AG AR BB BW CR DM GD GU HK HT IL JO LA MA MP MV MY PH RS SV SZ TH VE VN
 - mostly visa waivers, few visa introductions
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- NO VISA, =0
- YES VISA, =1

#	Country	Visa (change)	#	Country	Visa (change)	#	Country	Visa (change)
1	Afghanistan	1	61	Germany	1	121	North Korea	1
2	Albania	1	62	Ghana	1	122	Norway	1
3	Algeria	1	63	Great Britain	1	123	Oman	1
4	Andorra	1	64	Greece	1	124	Pakistan	1
5	Angola	1	65	Grenada	0	125	Palau	0
6	Antigua And Barbuda	1	66	Guatemala	1	126	Palestinian Territories	0 (2009)
7	Argentina	0 (2009)	67	Guinea	1	127	Panama	1
8	Armenia	0	68	Guinea-Bissau	0 (2010)	128	Paraguay	1
9	Australia	1	69	Guyana	0 (2010)	129	Peru	0
10	Austria	1	70	Haiti	0	130	Philippines	0 (2007)
11	Azerbaijan	0	71	Honduras	0 (2009)	131	Poland	1
12	Bahamas	1	72	Hungary	1	132	Portugal	1
13	Bahrain	0	73	Iceland	1	133	Qatar	1
14	Bangladesh	1	74	India	1	134	Romania	1 (2004)
15	Barbados	0 (2007)	75	Indonesia	0 (2005)	135	Rwanda	1
16	Belgium	1	76	Iran	1	136	Saint Kitts And Nevis	1
17	Belize	1	77	Iraq	1	137	Saint Lucia	1
18	Benin	1	78	Ireland	1	138	St Vincent and the Grenadines	0
19	Bolivia	1	79	Israel	0 (2008)	139	Samoa	0 (2010)
20	Bosnia And Herzegovina	0 (2007)	80	Italy	1	140	San Marino	1
21	Botswana	0	81	Jamaica	1	141	Sao Tome And Principe	1
22	Brazil	0 (2010)	82	Japan	1	142	Saudi Arabia	1
23	Brunei Darussalam	1	83	Jordan	0	143	Senegal	1
24	Bulgaria	1	84	Kazakhstan	0	144	Serbia	0 (2009)
25	Burkina Faso	1	85	Kenya	1	145	Seychelles	0
26	Burundi	1	86	Kuwait	1	146	Sierra Leone	1
27	Cambodia	1	87	Kyrgyzstan	1	147	Singapore	1
28	Cameroon	1	88	Lao People's Dem R	1	148	Slovakia	1
29	Canada	1	89	Latvia	1	149	Slovenia	1
30	Cape Verde	0	90	Lesotho	1	150	Somalia	1
31	Central African Republic	1	91	Liberia	1	151	South Africa	1
32	Chad	1	92	Libya	1	152	South Korea	1
33	Chile	1	93	Liechtenstein	1	153	Spain	1
34	China	1	94	Lithuania	1	154	Sri Lanka	0
35	Colombia	1	95	Luxembourg	1	155	Suriname	1
36	Congo, Republic Of	1	96	Macedonia	0 (2008)	156	Swaziland	0
37	Congo, The Dem Rep	1	97	Madagascar	0	157	Sweden	1
38	Costa Rica	1 (2008)	98	Malawi	1	158	Switzerland	1
39	Cote D'Ivoire	1 (2008)	99	Malaysia	0 (2006)	159	Syrian Arab Republic	0 (2010)
40	Croatia	0 (2010)	100	Maldives	0	160	Taiwan	1
41	Cuba	0	101	Mali	1	161	Tajikistan	0
42	Cyprus	1	102	Malta	1	162	Tanzania	0 (2010)

Visa endogeneity?

- To deal with possible endogeneity we use tourist flows between countries as an instrument
- To correct for the possible correlation between bilateral export flows and tourist flows we use “predicted” measures of tourist flows from Russia to each destination:
 - Measure tourist attractiveness of each destination based on the inflow of tourists from the whole world to this destination over the period 2003-2010
 - Multiply the attractiveness of each destination by the aggregate outflow of Russian tourists each year

Mechanism of visa effect?

- Pure financial costs irrespective of type of good? Or depends on the nature of traded goods?
- Information: about foreign markets, about buyers, dealers...
 - Jiang (2007), Blum et al (2008)
- Contract enforcement
 - Nunn (2007)
- Long-term contacts
 - Akermany (2010)
- Add one more dimension – relation specificity of exported good
 - follow Rauch (1999) to differentiate between relation specific and non relation specific goods
 - 77% of firms in the sample export relation specific goods only
 - 14% - non relation specific goods only
 - 9% - export both types of goods

Hypothesis

- If costs of contract enforcement (or seller-buyer specific costs) contribute to costs of export then we might expect a differentiated effect of visa on goods depending on their sensitivity to contracts : expect more pronounced effect for relation-specific goods than to non relation -specific

Estimation on non RS sample (2-stage IV)

	Selection of export destination		Export value, weighted by inverse probabilities	
	1 st stage	2 nd stage	1 st stage	2 nd stage
Visa dummy		-0.011***		-5.295
		(0.003)		(4.238)
Tariffs (log)	-0.016***	-0.002***	0.011	0.095
	(0.000)	(0.000)	(0.010)	(0.092)
WTO = 1	0.279***	-0.007***	0.391***	2.303
	(0.003)	(0.001)	(0.022)	(1.580)
GDP PPP (log)	0.020***	0.007***	0.004	0.322***
	(0.000)	(0.000)	(0.003)	(0.041)
FSU=1	-0.517***	0.041***	-0.497***	-3.169
	(0.001)	(0.003)	(0.023)	(2.182)
Landlocked = 1	-0.034***	0.007***	-0.119***	0.048
	(0.001)	(0.001)	(0.017)	(0.697)
Contiguity = 1	0.205***	0.029***	0.140***	1.433**
	(0.001)	(0.002)	(0.018)	(0.611)
Distance (log)	-0.086***	-0.008***	-0.054***	-0.541
	(0.000)	(0.001)	(0.008)	(0.349)
Tourists (artificial, log)	-0.040***		-0.018***	
	(0.000)		(0.003)	
Observations	781,457	781,457	11,181	11,181
Number of firm-year	7,416	7,416	2,247	2,247
Firm-Year FE	YES	YES	YES	YES
Cluster	YES	YES	YES	YES
Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1				
Constant included				

Estimation on RS sample (2-stage IV)

	Selection of export destination		Export value, weighted by inverse probabilities	
	1 st stage	2 nd stage	1 st stage	2 nd stage
Visa dummy		-0.005***		-2.813*
		(0.002)		(1.657)
Tariffs (log)	-0.016***	-0.002***	0.027***	0.143**
	(0.000)	(0.000)	(0.007)	(0.066)
WTO = 1	0.286***	-0.018***	0.404***	1.010
	(0.001)	(0.001)	(0.016)	(0.680)
GDP PPP (log)	0.020***	0.006***	-0.001	0.217***
	(0.000)	(0.000)	(0.003)	(0.033)
FSU=1	-0.518***	0.080***	-0.553***	-1.177
	(0.001)	(0.002)	(0.013)	(0.946)
Landlocked = 1	-0.031***	0.010***	-0.083***	-0.225
	(0.000)	(0.000)	(0.009)	(0.178)
Contiguity = 1	0.206***	0.036***	0.195***	1.085***
	(0.000)	(0.001)	(0.009)	(0.324)
Distance (log)	-0.087***	-0.001**	-0.040***	-0.036
	(0.000)	(0.000)	(0.006)	(0.077)
Tourists (artificial, log)	-0.041***		-0.014***	
	(0.000)		(0.003)	
Observations	2,925,511	2,925,511	38,124	38,124
Number of firm-year	27,721	27,721	7,955	7,955
Firm-Year FE	YES	YES	YES	YES
Cluster	YES	YES	YES	YES
Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1				
Constant included				

Results: economic effect of visas

- the probability of the firm to export to visa-restricted destinations is below the probability of export to visa-free destinations
- the probability gap is about
 - 36 percent for the overall sample
 - 40% for relationship specific transactions
 - 26% for non-relationship specific export
- the export volumes of relation-specific goods are lower by at least 50% to visa restricted destinations compared to visa free ones.

Conclusions

- Visa restrictions have strong selection (market access) effects in all specifications
- Controlling for selection visas also have strong volume effect on relation specific export
- Visa have bigger effect on selection into exporters of RS goods than exporters of NRS goods (around 30% difference)
- Visa have significant negative effect on export value of RS goods
 - consistent with contractual nature of visa costs