

ONLINE APPENDICES

APPENDIX A: LIST OF UNDER-EMBARGO PRODUCTS

0 FOOD AND LIVE ANIMALS(1988-2500)

0

0 LIVE ANIMALS OTHER THAN ANIMALS OF DIVISION 03(1988-2500)

0

1 MEAT AND MEAT PREPARATIONS(1988-2500)

011 MEAT OF BOVINE ANIMALS, FRESH, CHILLED OR FROZEN(1988-2500)

- 01111 MEAT OF BOVINE ANIMALS, FRESH OR CHILLED, WITH BONE IN(19...
- 01112 MEAT OF BOVINE ANIMALS, FRESH OR CHILLED, BONELESS(1988-2...
- 01121 MEAT OF BOVINE ANIMALS, FROZEN, WITH BONE IN(1988-2500)
- 01122 MEAT OF BOVINE ANIMALS, FROZEN, BONELESS(1988-2500)

012 OTHER MEAT AND EDIBLE MEAT OFFAL, FRESH, CHILLED OR FROZE...

- 01221FRESH OR CHILLED(1988-2500)
- 01222FROZEN(1988-2500)
- 01231 POULTRY NOT CUT IN PIECES, FRESH OR CHILLED(1988-2500)
- 01232 POULTRY NOT CUT IN PIECES, FROZEN(1988-2500)
- 01233 FATTY LIVERS OF GEESE OR DUCKS, FRESH OR CHILLED(1988-2500)
- 01234 POULTRY CUTS AND OTHER OFFAL, FRESH OR CHILLED(1988-2500)
- 01235 POULTRY CUTS AND OFFAL, FROZEN(1988-2500)
- 01293 SNAILS (OTHER THAN SEA SNAILS)(1988-2500)

016 MEAT AND EDIBLE MEAT OFFAL, SALTED, IN BRINE, DRIED OR SM...

- 01611 HAMS, SHOULDERS AND CUTS THEREOF, WITH BONE IN(1988-2500)
- 01612 BELLIES (STREAKY) AND CUTS THEREOF(1988-2500)
- 01619 OTHER(1988-2500)
- 01681 MEAT OF BOVINE ANIMALS(1988-2500)
- 01689 OTHER, INCLUDING EDIBLE FLOURS AND MEALS OF MEAT OR MEAT ...

017 MEAT AND EDIBLE MEAT OFFAL, PREPARED OR PRESERVED, N.E.S....

- 01720 SAUSAGES AND SIMILAR PRODUCTS, OF MEAT, MEAT OFFAL OR BLO...

0

2 DAIRY PRODUCTS AND BIRDS' EGGS(1988-2500)

022 MILK AND CREAM AND MILK PRODUCTS OTHER THAN BUTTER OR CHE...

- 02211 MILK OF A FAT CONTENT, BY WEIGHT, NOT EXCEEDING 1%(1988-2...
- 02212 MILK AND CREAM, OF A FAT CONTENT, BY WEIGHT, EXCEEDING 1%...
- 02213 CREAM OF A FAT CONTENT, BY WEIGHT, EXCEEDING 6%(1988-2500)
- 02221 MILK, IN SOLID FORM, OF A FAT CONTENT, BY WEIGHT, NOT EXC...
- 02222 MILK AND CREAM, IN SOLID FORM, OF A FAT CONTENT, BY WEIGH...
- 02223 MILK AND CREAM, NOT IN SOLID FORM, NOT CONTAINING ADDED S...
- 02224 MILK AND CREAM, NOT IN SOLID FORM, CONTAINING ADDED SUGAR...
- 02231 YOGURT, WHETHER OR NOT CONCENTRATED OR CONTAINING ADDED S...
- 02232 BUTTERMILK, CURDLED MILK AND CREAM, KEPHIR AND OTHER FERM...
- 02241 WHEY AND MODIFIED WHEY, WHETHER OR NOT CONCENTRATED OR CO...
- 02249 PRODUCTS CONSISTING OF NATURAL MILK CONSTITUENTS, N.E.S.(...

023 BUTTER AND OTHER FATS AND OILS DERIVED FROM MILK(1988-2500)

- 02300 BUTTER AND OTHER FATS AND OILS DERIVED FROM MILK; DAIRY S...

024 CHEESE AND CURD(1988-2500)

- 02410 GRATED OR POWDERED CHEESE, OF ALL KINDS(1988-2500)
- 02420 PROCESSED CHEESE, NOT GRATED OR POWDERED(1988-2500)
- 02430 BLUE-VEINED CHEESE AND OTHER CHEESE CONTAINING VEINS PROD...
- 02491 FRESH (UNRIPENED OR UNCURED) CHEESE, INCLUDING WHEY CHEES...
- 02499 OTHER CHEESE(1988-2500)

0

3 FISH (NOT MARINE MAMMALS), CRUSTACEANS, MOLLUSCS AND AQUA...

034 FISH, FRESH (LIVE OR DEAD), CHILLED OR FROZEN(1988-2500)

- 03411 FISH, LIVE(1988-2500)
- 03412 SALMONIDAE, FRESH OR CHILLED (EXCLUDING LIVERS AND ROES)(...
- 03413 FLAT-FISH, FRESH OR CHILLED (EXCLUDING LIVERS AND ROES)(1...
- 03414 TUNAS, SKIPJACK OR STRIPE-BELLIED BONITO, FRESH OR CHILLE...

	03415	HERRINGS, SARDINES, SARDINELLA, BRISLINGS OR SPRATS, FRES...
	03416	COD, FRESH OR CHILLED (EXCLUDING LIVERS AND ROES)(1988-2500)
	03417	MACKEREL (SCOMBRIDS), FRESH OR CHILLED (EXCLUDING LIVERS ...
	03418	OTHER FISH, FRESH OR CHILLED (EXCLUDING LIVERS AND ROES)(...
	03419	FISH LIVERS AND ROES, FRESH OR CHILLED(1988-2500)
	03421	SALMONIDAE, FROZEN (EXCLUDING LIVERS AND ROES)(1988-2500)
	03422	FLAT-FISH, FROZEN (EXCLUDING LIVERS AND ROES)(1988-2500)
	03423	TUNAS, SKIPJACK OR STRIPE-BELLIED BONITO, FROZEN (EXCLUDI...
	03424	HERRINGS, SARDINES, SARDINELLA, BRISLINGS OR SPRATS, FROZ...
	03426	MACKEREL (SCOMBRIDS), FROZEN (EXCLUDING LIVERS AND ROES)(...
	03427	HAKE, FROZEN (EXCLUDING LIVERS AND ROES)(1988-2500)
	03428	OTHER FISH, FROZEN (EXCLUDING LIVERS AND ROES)(1988-2500)
	03429	FISH LIVERS AND ROES, FROZEN(1988-2500)
	03440	FISH FILLETS, FROZEN(1988-2500)
	03451	FISH FILLETS AND OTHER FISH MEAT, FRESH OR CHILLED(1988-2...
	03455	FISH MEAT (OTHER THAN FILLETS), FROZEN(1988-2500)
035		FISH, DRIED, SALTED OR IN BRINE; SMOKED FISH (WHETHER OR ...
	03511	COD (GADUS MORHUA, GADUS OGAC, GADUS MACROCEPHALUS), NOT ...
	03512	FISH FILLETS, DRIED, SALTED OR IN BRINE(1988-2500)
	03513	FISH, DRIED, WHETHER OR NOT SALTED, N.E.S.(1988-2500)
	03521	COD (GADUS MORHUA, GADUS OGAC, GADUS MACROCEPHALUS)(1988-...
	03522	ANCHOVIES(1988-2500)
	03529	OTHER FISH(1988-2500)
	03530	FISH (INCLUDING FILLETS), SMOKED, WHETHER OR NOT COOKED B...
	03540	FISH LIVER AND ROES, DRIED, SMOKED, SALTED OR IN BRINE(19...
	03550	FLOURS, MEALS AND PELLETS OF FISH, FIT FOR HUMAN CONSUMPT...
036		CRUSTACEANS, MOLLUSCS AND AQUATIC INVERTEBRATES, WHETHER ...
	03611	SHRIMPS AND PRAWNS, FROZEN(1988-2500)
	03619	OTHER CRUSTACEANS, FROZEN, INCLUDING FLOURS, MEALS AND PE...
	03620	CRUSTACEANS, OTHER THAN FROZEN, INCLUDING FLOURS, MEALS A...
	03631	OYSTERS(1988-2500)
	03633	CUTTLEFISH, OCTOPUS AND SQUID, FRESH OR CHILLED(1988-2500)
	03635	OTHER MOLLUSCS AND AQUATIC INVERTEBRATES, FRESH OR CHILLE...
	03637	CUTTLEFISH, OCTOPUS AND SQUID, FROZEN, DRIED, SALTED OR I...
	03639	OTHER MOLLUSCS AND AQUATIC INVERTEBRATES, FROZEN, DRIED, ...
0		
5		VEGETABLES AND FRUIT(1988-2500)
054		VEGETABLES, FRESH, CHILLED, FROZEN OR SIMPLY PRESERVED (I...
	05410	POTATOES, FRESH OR CHILLED (NOT INCLUDING SWEET POTATOES)...
	05422	CHICK-PEAS(1988-2500)
	05423	BEANS, OTHER THAN BROAD BEANS AND HORSE BEANS(1988-2500)
	05424	LENTILS(1988-2500)
	05425	BROAD BEANS AND HORSE BEANS(1988-2500)
	05429	OTHER(1988-2500)
	05440	TOMATOES, FRESH OR CHILLED(1988-2500)
	05452	GARLIC, LEEKS AND OTHER ALLIACEOUS VEGETABLES, FRESH OR C...
	05453	CABBAGE AND SIMILAR EDIBLE BRASSICAS, FRESH OR CHILLED(19...
	05454	LETTUCE AND CHICORY (INCLUDING ENDIVE), FRESH OR CHILLED(...
	05455	CARROTS, TURNIPS, SALAD BEETROOT, SALSIFY, CELERIAC, RADL...
	05456	CUCUMBERS AND GHERKINS, FRESH OR CHILLED(1988-2500)
	05457	LEGUMINOUS VEGETABLES, FRESH OR CHILLED(1988-2500)
	05458	MUSHROOMS AND TRUFFLES, FRESH OR CHILLED(1988-2500)
	05459	OTHER VEGETABLES, FRESH OR CHILLED(1988-2500)
	05461	SWEET CORN(1988-2500)
	05469	OTHER VEGETABLES AND MIXTURES OF VEGETABLES(1988-2500)
	05470	VEGETABLES PROVISIONALLY PRESERVED (E.G., BY SULPHUR DIOX...
	05481	MANIOC (CASSAVA)(1988-2500)
	05483	ARROWROOT, SALEP, JERUSALEM ARTICHOKEs, SWEET POTATOES AN...
056		VEGETABLES, ROOTS AND TUBERS, PREPARED OR PRESERVED, N.E....
	05612	ONIONS(1988-2500)
	05613	MUSHROOMS, WOOD EARS, JELLY FUNGI AND TRUFFLES(1988-2500)
057		FRUIT AND NUTS (NOT INCLUDING OIL NUTS), FRESH OR DRIED(1...
	05711	ORANGES, FRESH OR DRIED(1988-2500)
	05712	MANDARINS (INCLUDING TANGERINES AND SATSUMAS); CLEMENTINE...
	05721	LEMONS AND LIMES FRESH OR DRIED(1988-2500)
	05722	GRAPEFRUIT, FRESH OR DRIED(1988-2500)
	05729	CITRUS FRUIT, N.E.S., FRESH OR DRIED(1988-2500)
	05730	BANANAS (INCLUDING PLANTAINS), FRESH OR DRIED(1988-2500)

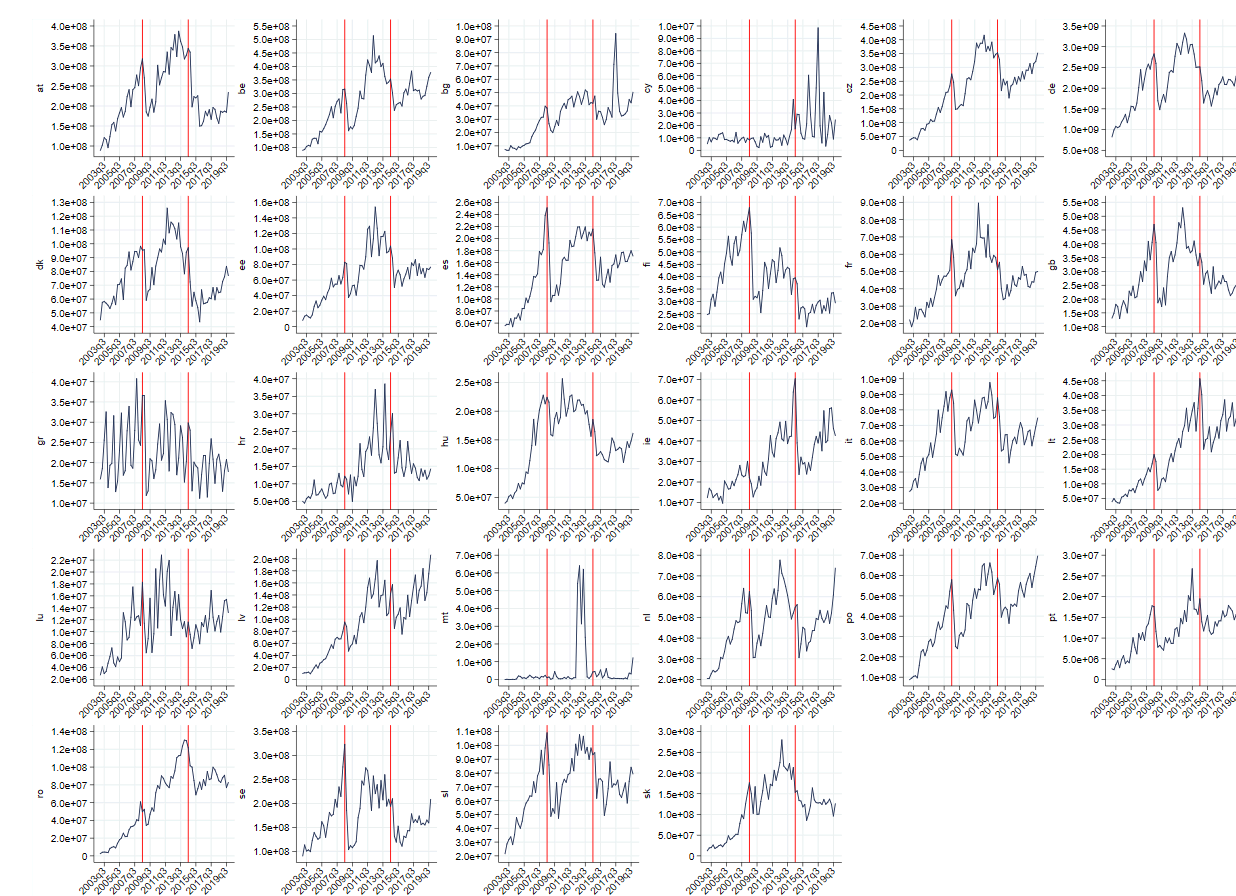
05740	APPLES, FRESH(1988-2500)
05751FRESH(1988-2500)
05752DRIED (E.G., RAISINS)(1988-2500)
05760	FIGS, FRESH OR DRIED(1988-2500)
05771	COCONUTS(1988-2500)
05772	BRAZIL NUTS(1988-2500)
05773	CASHEW NUTS(1988-2500)
05774	ALMONDS(1988-2500)
05775	HAZELNUTS OR FILBERTS(1988-2500)
05776	WALNUTS(1988-2500)
05777	CHESTNUTS(1988-2500)
05778	PISTACHIOS(1988-2500)
05779	EDIBLE NUTS (EXCLUDING MIXTURES), FRESH OR DRIED, N.E.S.(...
05791	MELONS (INCLUDING WATER MELONS) AND PAPAWS (PAPAYAS), FRE...
05792	PEARS AND QUINCES, FRESH(1988-2500)
05793	APRICOTS, CHERRIES, PEACHES (INCLUDING NECTARINES), PLUMS...
05794	STRAWBERRIES, RASPBERRIES, BLACKBERRIES, MULBERRIES, LOGA...
05795	PINEAPPLES, FRESH OR DRIED(1988-2500)
05796	DATES, FRESH OR DRIED(1988-2500)
05797	AVOCADOS, GUAVAS, MANGOES AND MANGOSTEENS, FRESH OR DRIED...
05798	OTHER FRESH FRUIT(1988-2500)
05799	FRUIT, DRIED, N.E.S., AND MIXTURES, N.E.S., OF NUTS OR DR...
058	FRUIT, PRESERVED, AND FRUIT PREPARATIONS (EXCLUDING FRUIT...
05831	STRAWBERRIES(1988-2500)
05832	RASPBERRIES, BLACKBERRIES, MULBERRIES, LOGANBERRIES, BLAC...
05839	OTHER(1988-2500)
0	
9	MISCELLANEOUS EDIBLE PRODUCTS AND PREPARATIONS(1988-2500)
098	EDIBLE PRODUCTS AND PREPARATIONS, N.E.S.(1988-2500)
09894	MALT EXTRACT; FOOD PREPARATIONS OF FLOUR, MEAL, STARCH OR...
1	BEVERAGES AND TOBACCO(1988-2500)
112	ALCOHOLIC BEVERAGES(1988-2500)
11220	FERMENTED BEVERAGES, N.E.S. (E.G., CIDER, PERRY, MEAD); M...

APPENDIX L: DISTANCE BETWEEN THE CAPITALS OF EU COUNTRIES AND THE CAPITAL OF RUSSIA

Code	Name	Distance between capitals (in km) ^a	Code	Name	Attributed number (i)
AT	Austria	1675.70	HU	Hungary	1574.19
BE	Belgium	2261.25	IE	Ireland	2802.32
BG	Bulgaria	1785.90	IT	Italy	2383.17
CY	Cyprus	2316.67	LT	Lithuania	794.07
CZ	The Czech Republic	1673.00	LU	Luxembourg	2214.13
DE	Germany	1614.18	LV	Latvia	847.85
DK	Denmark	1566.36	MT	Malta	2819.73
EE	Estonia	871.79	NL	Netherlands	2155.23
ES	Spain	3449.30	PO	Poland	1156.43
FI	Finland	892.68	PT	Portugal	3913.34
FR	France	2494.32	RO	Romania	1504.08
GB	The United Kingdom	2510.88	SE	Sweden	1232.38
GR	Greece	2233.58	SI	Slovenia	1937.98
HR	Croatia	1875.36	SK	Slovakia	1632.62

^a: extracted from the CEPII via the link http://www.cepii.fr/CEPII/en/bdd_modele/presentation.asp?id=6

APPENDIX M: NON-PROHIBITED EU EXPORTS TO RUSSIA



Note: The left vertical line represents the crash of stock markets while the right vertical lines illustrate the implementation of international economic sanctions against Russia.

APPENDIX O: SANCTION LIST (UPDATED)

No	Date	Type (α)	M	Details
1	03/03/2014	10	1	Extraordinary meeting of the Foreign Affairs Council on the situation in Ukraine. The EU and the member states who participate in the G8 decided to suspend the preparations for the G8 Summit in Sochi in June and considered possible consequences for bilateral EU-Russia relations. Furthermore, the Council agreed to swiftly work on the adoption of restrictive measures for the freezing and recovery of assets of persons identified as responsible for the misappropriation of Ukrainian state funds.
2	06/03/2014	10	1	Extraordinary meeting of EU Heads of State or Government on Ukraine. EU leaders condemned Russia's actions in Ukraine and decided to start preparing individual restrictive measures (assets freeze and travel bans). The leaders confirmed the actions proposed by EU foreign ministers on 3 March, that is to suspend bilateral talks with the Russian Federation on visa matters and on the New Agreement.
3	17/03/2014	1	21	Introduction of a first set of restrictive measures against 21 Russian and Ukrainian officials. EU ministers decided to introduce a first set of measures against 21 officials responsible for actions threatening Ukraine's territorial integrity. Foreign Affairs Council meeting, 17 March 2014
4	20/03/2014	1	12	European Council focused on Ukraine crisis and further sanctions. Following the annexation of Crimea and Sevastopol to the Russian Federation, 12 names were added to the list of Russian and Crimean officials subject to EU travel bans and asset freezes. In addition, the European Council cancelled a planned EU-Russia summit and noted that member states will not hold any bilateral regular summits with Russia. EU leaders also requested the European Commission to prepare broader economic and trade sanctions that could be imposed if Russia further destabilised Ukraine.
5	12/05/2014	10	1	Agreement on a new set of sanctions. In light of events in Eastern Ukraine and the illegal confiscation of entities in Crimea, the Council agreed on a new set of sanctions and took note of the preparatory work done by the Commission and Member States on possible targeted measures, as requested by the European Council in March.
6	12/05/2014	1	41	The Council added 39 further persons and 2 entities responsible for action against Ukraine's territorial integrity to the list of those subject to an asset freeze and a visa ban. This one is not officially announced but can be guessed as the council announced the 18/07/2014 that the total number of persons is 72 and two entities. Even if it was only announced 21 + 12 persons, the 17 and 20/03/2018.
7	23/06/2014	1000	1	Import ban on goods from Crimea. The Council adopted measures to implement the EU's policy of non-recognition of the illegal annexation of Crimea and decided on a ban on goods originating from Crimea or Sevastopol. Goods originating from Crimea or Sevastopol may not be imported into the EU unless they have been granted a certificate of origin by the Ukrainian authorities.
8	16/07/2014	10	1	Special meeting of the European Council. EU leaders regretted that Russia and the separatists had not taken the requested steps set out in the June European Council conclusions. They agreed to target Russia with a new set of 6 restrictive measures including restriction on economic cooperation with Russia.
9	18/07/2014	10	1	Ukraine crisis: EU broadens remit of sanctions. The Council widened the legal basis for EU restrictive measures making it possible to target entities which materially or financially support actions against Ukraine.
10	22/07/2014	10	1	Council takes action following the downing of flight MH17. EU ministers discussed the situation in Ukraine following the downing of flight MH17. They asked to finalise preparatory work for economic sanctions in four sectors, paving the way for their adoption.
11	25/07/2014	1	33	Further EU sanctions over situation in Eastern Ukraine. The Council adopted reinforced EU sanctions. The Council added 15 further persons and 18 entities responsible for action against Ukraine's territorial integrity to the list of those subject to an asset freeze and a visa ban.
12	29/07/2014	1000	1	Financial restrictive measures against Russia. In order to restrict Russia's access to EU capital markets, EU nationals and companies may no more buy or sell new bonds, equity or similar financial instruments with a maturity exceeding 90 days, issued by major state-owned Russian banks, development banks, their subsidiaries outside the EU and those acting on their behalf. Services related to the issuing of such financial instruments, e.g. brokering, are also prohibited.
13	29/07/2014	1000	1	Embargo on the import and export of arms and related material from/to Russia. It covers all items on the EU common military list. Exports of dual use goods and technology for military use in Russia or to Russian military endusers will also be prohibited, with all items in the EU list of dual use goods included.

14	29/07/2014	1000	1	Restrictive measures against Oil sector. Exports of certain energy-related equipment and technology to Russia will be subject to prior authorisation by competent authorities of Member States. Export licenses will be denied if products are destined for deep water oil exploration and production, arctic oil exploration or production and shale oil projects in Russia.
15	30/07/2014	1	11	Restrictive measures against 8 persons and 3 entities.
16	30/07/2014	1000	1	Restrictions for Crimea and Sevastopol: Ban on new investment in infrastructure projects in the transport.
17	30/07/2014	1000	1	Restrictions for Crimea and Sevastopol: Ban on new investment in telecommunications.
18	30/07/2014	1000	1	Restrictions for Crimea and Sevastopol: Ban on new investment in energy sectors, exploitation of oil, gas and minerals.
19	30/08/2014	10	1	The European Council asked for the preparation of new economic sanctions against Russia.
20	12/09/2014	1000	1	Financial restrictive measures against Russia. Restrictions on Russia's access to EU capital markets have been strengthened. EU nationals and companies may no more provide loans to five major Russian state-owned banks. At the same time, trade in new bonds, equity or similar financial instruments with a maturity exceeding 30 days, issued by the same banks, has been prohibited. The same restrictions have been extended to three major Russian defence companies and three major energy companies. Providing services related to the issuing of the above financial instruments, e.g. brokering, is also included in the prohibition.
21	12/09/2014	1000	0.5	Reinforcement of restrictive measures against Oil sector. Certain services necessary for deep water oil exploration and production, arctic oil exploration or production and shale oil projects in Russia may no more be supplied, for instance drilling, well testing or logging services.
22	12/09/2014	1000	0.5	Reinforcement of the dual use goods and technology prohibition.
23	12/09/2014	1	24	24 persons are added to the list of those subject to a travel ban and an asset freeze.
24	17/11/2014	10	1	New sanctions under consideration. Ukraine was the main focus of the Foreign Affairs Council. EU ministers asked the European External Action Service (EEAS) and the European Commission to present a proposal on further sanctions against separatists.
25	28/11/2014	1	18	EU strengthens sanctions against separatists in Eastern Ukraine. As requested by the Foreign Affairs Council of 17 November, an asset freeze and an EU travel ban were imposed to 13 persons and five entities involved in action against Ukraine's territorial integrity.
26	20/12/2014	1000	1	Financial measures: investment in Crimea or Sevastopol is outlawed. Europeans and EU-based companies may no more buy real estate or entities in Crimea, finance Crimean companies or supply related services.
27	20/12/2014	1000	1	Restrictive measures against tourism sector: EU operators will no more be permitted to offer tourism services in Crimea or Sevastopol. In particular, European cruise ships may no more call at ports in the Crimean peninsula, except in case of emergency. This applies to all ships owned or controlled by a European or flying the flag of a member state. Existing cruise contracts may be still be honoured until 20 March.
28	20/12/2014	1000	1	Prohibition to exports goods & services to Crimean companies for the use in Crimea: Transport sector.
29	20/12/2014	1000	1	Prohibition to exports goods & services to Crimean companies for the use in Crimea: telecommunications sector.
30	20/12/2014	1000	1	Prohibition to exports goods & services to Crimean companies for the use in Crimea: energy sectors or the prospection, exploration and production of oil, gas and mineral resources.
31	29/01/2015	10	1	Extension of existing individual restrictive measures. The Council strongly condemned the indiscriminate shelling of the residential areas, especially in Mariupol, and the escalation of fighting in the Donetsk and Luhansk regions of Ukraine. In response to those events, the Council agreed to extend the existing individual restrictive measures, targeting 132 persons and 28 entities for threatening or undermining Ukraine's sovereignty and territorial integrity, until September 2015.
32	16/02/2015	1	28	Additional listings persons and entities. The Council unanimously adopted additional listings concerning separatists in Eastern Ukraine and their supporters in Russia. These consist of an asset freeze and a travel ban on 19 persons and 9 entities involved in action against Ukraine's territorial integrity.
33	05/03/2015	10	1	Extension of EU sanctions over misappropriation of Ukrainian state funds. The Council adjusted and extended EU restrictive measures focused on the freezing and recovery of misappropriated Ukrainian state funds.

34	13/03/2015	10	1	Extension of EU sanctions over action against Ukraine's territorial integrity. The Council extended until 15 September 2015 the application of EU restrictive measures targeting action against Ukraine's sovereignty, territorial integrity and independence. 150 persons and 37 entities are subject to asset freeze and travel bans under these sanctions.
35	05/06/2015	10	1	Extension of EU sanctions over misappropriation of Ukrainian state funds. The Council extended the asset freeze for three persons covered by measures applying until 6 June 2015.
36	19/06/2015	10	1	Extension of restrictions in response to the illegal annexation of Crimea and Sevastopol. The Council extended until 23 June 2016 the EU restrictive measures in response to the illegal annexation of Crimea and Sevastopol. These measures include prohibitions on import of products, investment, tourism services and exports of certain goods and technologies.
37	22/06/2015	10	1	Extension of economic sanctions. The Council extended EU economic sanctions until 31 January 2016. These sanctions were introduced in response to Russia's destabilising role in Eastern Ukraine. They target certain exchanges with Russia in the financial, energy and defence sectors and dual-use goods.
38	14/09/2015	10	1	Extension of EU sanctions over action against Ukraine's territorial integrity. The Council extended until 15 March 2016 the application of EU restrictive measures targeting action against Ukraine's territorial integrity, sovereignty and independence. 149 persons and 37 entities are subject to asset freeze and travel bans under these sanctions.
39	05/10/2015	10	1	Extension of EU sanctions over misappropriation of Ukrainian state funds. The Council extended the asset freeze for one person covered by measures applying until 6 October 2015.
40	21/12/2015	10	1	Extension of economic sanctions. The Council prolonged EU economic sanctions against Russia until 31 July 2016.
41	04/03/2016	10	1	Extension of EU sanctions over misappropriation of Ukrainian state funds. The Council extended by one year asset freezes against 16 people identified as responsible for the misappropriation of Ukrainian state funds or for the abuse of office causing a loss to Ukrainian public funds.
42	10/03/2016	10	1	Extension of EU sanctions over action against Ukraine's territorial integrity. The Council extended until 15 September 2016 EU restrictive measures against 146 people and 37 companies, in view of the continuing undermining or threatening of the territorial integrity, sovereignty and independence of Ukraine.
43	17/06/2016	10	1	Extension of sanctions in response to the illegal annexation of Crimea and Sevastopol. The Council extended the restrictive measures in response to the illegal annexation of Crimea and Sevastopol by Russia until 23 June 2017. The measures apply to EU persons and EU based companies. They are limited to the territory of Crimea and Sevastopol.
44	01/07/2016	10	1	Extension of economic sanctions. The Council prolonged the economic sanctions targeting specific sectors of the Russian economy until 31 January 2017.
45	09/11/2016	1	6	Additional listings persons and entities. The EU added six members of the Russian Federation State Duma elected from the illegally annexed Autonomous Republic of Crimea and the city of Sevastopol to the list of persons subject to restrictive measures in respect of actions undermining Ukraine's territorial integrity, sovereignty and independence.
46	19/12/2016	10	1	Extension of economic sanctions. The Council prolonged the economic sanctions targeting specific sectors of the Russian economy until 31 July 2017.
47	03/03/2017	10	1	Extension of EU sanctions over misappropriation of Ukrainian state funds. The Council extended until 6 March 2018 the asset freezes against 15 people identified as responsible for the misappropriation of Ukrainian state funds or for the abuse of office causing a loss to Ukrainian public funds.
48	13/03/2017	10	1	Extension of EU sanctions over actions against Ukraine's territorial integrity. The Council prolonged for a further six months, until 15 September 2017, the application of sanctions targeting actions against Ukraine's territorial integrity, sovereignty and independence. The measures consist of asset freezes and a travel ban applying to 150 people and 37 entities.
49	19/06/2017	10	1	Extension of sanctions in response to the illegal annexation of Crimea and Sevastopol. The Council extended the restrictive measures in response to the illegal annexation of Crimea and Sevastopol by Russia until 23 June 2018. The measures apply to EU persons and EU based companies. They are limited to the territory of Crimea and Sevastopol.
50	28/06/2017	10	1	Extension of economic sanctions. The Council prolonged economic sanctions targeting specific sectors of the Russian economy until 31 January 2018. This decision follows an update from President Macron and Chancellor Merkel to the European Council of 22-23 June 2017 on the implementation of the Minsk Agreements.
51	04/08/2017	1	6	Additional listings persons and entities. The EU has added 3 companies and 3 Russian nationals involved in the transfer of gas turbines to Crimea to the list of persons subject to restrictive measures in respect of actions undermining Ukraine's territorial integrity, sovereignty and independence.

52	14/09/2017	10	1	Extension of EU sanctions over actions against Ukraine's territorial integrity. The Council prolonged for a further six months, until 15 March 2018, the application of sanctions targeting actions against Ukraine's territorial integrity, sovereignty and independence. The restrictive measures now apply to 149 persons and 38 entities.
53	21/11/2017	1	1	"Governor of Sevastopol" added to sanctions list over actions against Ukraine's territorial integrity
54	21/12/2017	10	1	Extension of economic sanctions. The Council prolonged economic sanctions targeting specific sectors of the Russian economy until 31 July 2018. This decision follows an update from President Macron and Chancellor Merkel to the European Council of 14 December 2017 on the state of implementation of the Minsk agreements.
55	05/03/2018	10	1	Extension of EU sanctions over misappropriation of Ukrainian state funds. The Council extended until 6 March 2019 the asset freezes against 13 people identified as responsible for the misappropriation of Ukrainian state funds or for the abuse of office causing a loss to Ukrainian public funds. The restrictive measures against two persons were not extended. This decision was based on the annual review of the measures.
56	12/03/2018	10	1	Extension of EU sanctions over actions against Ukraine's territorial integrity. The Council prolonged for a further six months, until 15 September 2018, the application of sanctions targeting actions against Ukraine's territorial integrity, sovereignty and independence. The measures consist of asset freezes and a travel ban applying to 150 people and 38 entities.
57	14/05/2018	1	5	Ukraine: EU adds five persons involved in the organisation of Russian presidential elections in illegally annexed Crimea and Sevastopol to sanctions list. The Council added five persons to the list of those subject to restrictive measures over actions undermining or threatening the territorial integrity, sovereignty and independence of Ukraine. They are listed because of their involvement in the organisation of the Russian presidential elections of 18 March 2018 in the illegally annexed Crimea and Sevastopol, thereby actively supporting and implementing policies that undermine the territorial integrity, sovereignty and independence of Ukraine. The five individuals hold positions of responsibility in the electoral commissions of Crimea or Sevastopol. The measures consist of a travel ban and an asset freeze.
58	18/06/2018	10	1	Illegal annexation of Crimea and Sevastopol: EU extends sanctions by one year. On 18 June 2018, the Council extended the restrictive measures in response to the illegal annexation of Crimea and Sevastopol by Russia until 23 June 2019.
59	05/07/2018	10	1	Russia: EU prolongs economic sanctions by six months. On 5 July 2018, the Council prolonged economic sanctions targeting specific sectors of the Russian economy until 31 January 2019. This decision follows an update from President Macron and Chancellor Merkel to the European Council of 28-29 June 2018 on the state of implementation of the Minsk agreements, to which the sanctions are linked. The Council adopted this decision today by written procedure and, in line with the rule for all such decisions, unanimously.
60	31/07/2018	1	6	Ukraine: EU adds six entities involved in the construction of the Kerch Bridge connecting the illegally annexed Crimea to Russia to sanctions list. The Council added six entities to the list of those subject to restrictive measures over actions undermining or threatening the territorial integrity, sovereignty and independence of Ukraine. They are listed because of their involvement in the construction of the Kerch Bridge, connecting Russia to the illegally annexed Crimean peninsula. Through their actions they supported the consolidation of Russia's control over the illegally annexed Crimean peninsula, which in turn further undermines the territorial integrity, sovereignty and independence of Ukraine.
61	13/09/2018	10	1	EU prolongs sanctions over actions against Ukraine's territorial integrity until 15 March 2019. The Council has prolonged the restrictive measures over actions undermining or threatening the territorial integrity, sovereignty and independence of Ukraine for a further six months, until 15 March 2019. The measures consist of asset freezes and travel restrictions. They currently apply to 155 persons and 44 entities.
62	10/12/2018	1	9	Ukraine: EU adds nine persons involved in 'elections' in 'Donetsk People's Republic' and 'Luhansk People's Republic' to sanctions list. The Council added nine persons to the list of those subject to restrictive measures over actions undermining or threatening the territorial integrity, sovereignty and independence of Ukraine. They are listed because of their involvement in the so-called 'elections' in the so-called 'Donetsk People's Republic' and 'Luhansk People's Republic'. Through their actions, they further undermined the territorial integrity, sovereignty and independence of Ukraine.
63	21/12/2018	10	1	Russia: EU prolongs economic sanctions by six months. On 21 December 2018, the Council prolonged the economic sanctions targeting specific sectors of the Russian economy until 31 July 2019. This decision follows an update from President Macron and Chancellor Merkel to the European Council of 13-14 December 2018 on the state of implementation of the Minsk agreements, to which the sanctions are linked. Given that no progress has been made, the European Council took the political decision to roll-over the economic sanctions against Russia.

64	04/03/2019	10	1	Misappropriation of Ukrainian state funds: Council prolongs EU sanctions for one year. The Council extended until 6 March 2020 the asset freezes directed against 12 persons identified as responsible for the misappropriation of Ukrainian state funds or for the abuse of office causing a loss to Ukrainian public funds. The restrictive measures against one person were not extended. This decision is based on the annual review of the measures.
65	15/03/2019	10	1	Ukraine: EU responds to escalation at the Kerch Strait and the Sea of Azov, and renews sanctions over actions against Ukraine's territorial integrity. The Council today added eight Russian officials to the list of those subject to restrictive measures in respect of actions undermining or threatening the territorial integrity, sovereignty and independence of Ukraine. These new listings have been adopted by the Council as a response to escalation in the Kerch Strait and the Sea of Azov and the violations of international law by Russia, which used military force with no justification.
66	15/03/2019	1	8	The same than sanction No. 65. Here we add values of Russian officials under sanctions (8 of them).
67	20/06/2019	10	1	Illegal annexation of Crimea and Sevastopol: EU extends sanctions by one year. On 20 June 2019, the Council prolonged the restrictive measures introduced in response to the illegal annexation of Crimea and Sevastopol by Russia until 23 June 2020.
68	27/06/2019	10	1	Russia: EU prolongs economic sanctions by six months. On 27 June 2019, the Council prolonged economic sanctions targeting specific sectors of the Russian economy until 31 January 2020.

Note: “M” stands for “multiplier”. It is used to multiply alpha’s value when multiple sanctions of a similar type have been imposed on the same date.

APPENDIX P: BETA VALUES & DATA

Date	$T_{t,k,j}$	$T_{t,j}$	$A_{t,k,j}$	$Y_{t,j}$	$B_{t,j}$	β
jan-14	22908.0 6	3952 9	57.95 %	517081.6 3	7.64% 4	0.0
feb-14	20994.6 4	3633 9	57.77 %	499663.5 8	7.27% 4	0.0
mar-14	21088.6 7	4694 4	44.92 %	505371.3 0	9.29% 4	0.0
apr-14	21984.0 4	4752 2	46.26 %	532782.9 8	8.92% 4	0.0
may-14	21247.1 5	4394 5	48.35 %	561172.0 5	7.83% 4	0.0
jun-14	20367.1 3	4060 0	50.17 %	581285.5 1	6.98% 4	0.0
jul-14	20130.4 9	4618 5	43.59 %	591883.4 0	7.80% 3	0.0
aug-14	20175.0 3	4141 3	48.72 %	587095.4 8	7.05% 3	0.0
sep-14	19312.9 4	3805 4	50.75 %	575661.0 0	6.61% 3	0.0
oct-14	19755.8 9	4150 2	47.60 %	542212.8 7	7.65% 4	0.0
nov-14	17619.9 9	3668 1	48.04 %	460046.7 9	7.97% 4	0.0
dec-14	16021.0 4	3809 3	42.06 %	350097.7 2	10.88% 5	0.0
jan-15	14032.8 4	2790 1	50.30 %	299843.9 5	9.31% 5	0.0
feb-15	14674.0 2	2940 1	49.91 %	289328.7 1	10.16% 5	0.0
mar-15	18096.0 2	3290 5	54.99 %	318755.3 7	10.32% 6	0.0
apr-15	17447.8 4	3071 5	56.81 %	374507.7 5	8.20% 5	0.0
may-15	17662.8 5	3065 2	57.62 %	403315.8 9	7.60% 4	0.0

jun-15	17805.4 6	3008 8	59.18 %	387157.3 8	7.77% 5	0.0
jul-15	15944.6 0	2732 2	58.36 %	382005.1 1	7.15% 4	0.0
aug-15	14467.2 8	2503 4	57.79 %	343814.0 3	7.28% 4	0.0
sep-15	13449.0 4	2634 3	51.05 %	342987.9 2	7.68% 4	0.0
oct-15	13709.0 4	2696 4	50.84 %	366287.5 9	7.36% 4	0.0
nov-15	12715.6 1	2538 4	50.09 %	336788.3 6	7.54% 4	0.0
dec-15	11867.0 8	2870 8	41.34 %	285672.0 4	10.05 %	0.0 4
jan-16	9884.78 9	1714 9	57.64 %	247866.9 0	6.92% 4	0.0
feb-16	9659.01 5	2013 5	47.97 %	248648.6 2	8.10% 4	0.0
mar-16	10577.5 0	2318 5	45.62 %	280966.2 4	8.25% 4	0.0
apr-16	10496.6 6	2175 0	48.26 %	307426.0 6	7.07% 3	0.0
may-16	10997.8 5	2204 2	49.89 %	319814.8 1	6.89% 3	0.0
jun-16	10960.6 3	2403 8	45.60 %	330750.6 2	7.27% 3	0.0
jul-16	10657.4 3	2244 5	47.48 %	345074.1 4	6.50% 3	0.0
aug-16	10721.4 0	2310 5	46.40 %	354265.2 8	6.52% 3	0.0
sep-16	11129.7 3	2536 9	43.87 %	366886.7 0	6.91% 3	0.0
oct-16	12149.8 4	2475 1	49.09 %	382898.4 8	6.46% 3	0.0
nov-16	11606.6 5	2653 2	43.75 %	358911.8 9	7.39% 3	0.0
dec-16	12996.1 7	3120 9	41.64 %	344136.1 0	9.07% 4	0.0
jan-17	15047.2 2	2542 4	59.19 %	343586.4 4	7.40% 4	0.0
feb-17	14062.8 3	2582 0	54.46 %	356212.5 7	7.25% 4	0.0
mar-17	14334.8 3	3132 9	45.76 %	366585.9 5	8.55% 4	0.0
apr-17	13399.8 5	2604 9	51.44 %	388091.4 4	6.71% 3	0.0
may-17	13725.7 9	2823 0	48.62 %	393563.0 6	7.17% 3	0.0
jun-17	12721.2 9	2951 5	43.10 %	399526.1 0	7.39% 3	0.0
jul-17	11488.2 8	2463 4	46.64 %	397195.3 0	6.20% 3	0.0
aug-17	12377.3 9	2905 6	42.60 %	410751.2 2	7.07% 3	0.0
sep-17	13296.5 1	3075 1	43.24 %	438521.2 3	7.01% 3	0.0
oct-17	13223.9 0	3157 3	41.88 %	443444.7 7	7.12% 3	0.0
nov-17	13034.0 2	3347 3	38.94 %	422620.0 5	7.92% 3	0.0
dec-17	13300.2 4	3725 0	35.71 %	401116.9 8	9.29% 3	0.0
jan-18	14920.6 9	3360 4	44.40 %	401519.4 3	8.37% 4	0.0
feb-18	13517.8 5	3129 8	43.19 %	410156.3 9	7.63% 3	0.0
mar-18	14249.2 6	3662 7	38.90 %	426068.3 7	8.60% 3	0.0

	14466.2	3598	40.20	417033.5	8.63%	0.0
apr-18	1	6	%	0		3
may-18	15550.7	3650	42.60	417964.7	8.73%	0.0
	0	2	%	7		4
jun-18	16164.7	3628	44.55	427353.8	8.49%	0.0
	5	6	%	3		4
jul-18	16793.8	3434	48.90	437330.5	7.85%	0.0
	6	6	%	3		4
aug-18	17282.9	3746	46.13	426662.4	8.78%	0.0
	0	3	%	7		4
sep-18	17220.1	3862	44.58	425741.3	9.07%	0.0
	6	9	%	9		4
oct-18	18134.8	4129	43.91	440158.8	9.38%	0.0
	0	6	%	8		4
nov-18	16838.2	4025	41.83	421211.5	9.56%	0.0
	0	4	%	5		4
dec-18	15895.9	4083	38.92	384828.5	10.61	0.0
	4	8	%	4	%	4
jan-19	17566.4	3084	56.95	369804.9	8.34%	0.0
	0	6	%	1		5
feb-19	15466.1	3474	44.51	382633.8	9.08%	0.0
	6	6	%	9		4
mar-19	17061.3	3702	46.08	396052.3	9.35%	0.0
	0	9	%	7		4
apr-19	17227.9	3667	46.98	408561.2	8.98%	0.0
	3	1	%	1		4
may-19	15406.3	3238	47.57	419654.6	7.72%	0.0
	1	7	%	5		4
jun-19	13632.4	3237	42.11	439084.0	7.37%	0.0
	1	5	%	9		3
jul-19	14940.9	3344	44.67	457290.7	7.31%	0.0
	4	6	%	8		3
aug-19	14578.0	3436	42.42	447138.4	7.69%	0.0
	8	9	%	7		3
sep-19	13727.3	3554	38.62	457067.2	7.78%	0.0
	5	7	%	3		3
oct-19	15196.8	3678	41.32	463064.4	7.94%	0.0
	4	0	%	0		3
nov-19	14484.0	3549	40.81	465043.4	7.63%	0.0
	4	0	%	5		3
dec-19	15358.2	3899	39.38	463966.3	8.41%	0.0
	3	8	%	4		3

Note: As explained in Bali and Rapelanoro (2021), $T_{t,k,j}$: Total exports of Russia to EU (imports of EU to Russia); $T_{t,j}$: Russia total foreign trade (total of exports); $A_{t,k,j} = \frac{T_{t,k,j}}{T_{t,j}}$; $Y_{t,j}$: Russia's GDP; and $B_{t,j} = \frac{T_{t,j}}{Y_{t,j}}$; $\beta = A_{t,k,j} * B_{t,j} \cdot T_{t,k,j}$, $T_{t,j}$, and $Y_{t,j}$ are expressed millions of USD. $Y_{t,j}$ is turned to USD with the OECD's usd/rub exchange rate, $T_{t,k,j}$ is turned into USD with ECB usd/eur exchange rate.

APPENDIX Q: ADDITIONAL ROBUSTNESS TESTS

Three additional cases are conducted to confirm the robustness of our models.

- **Case 1.** We add oil price to models 6-17. (source: U.S. Energy Information Administration, Crude Oil Prices: Brent - Europe [DCOILBRENTU], retrieved from FRED, Federal Reserve Bank of St. Louis).

Results are displayed in Table 2.1 (models 6-9), Table 3.1 (models 10-13) and Table 4.1 (models 14-17).

- **Case 2.** We rerun models 6-17 but using lagged value of all variables (except for distance).

Results are displayed in Table 2.2 (models 6-9), Table 3.2 (models 10-13) and Table 4.2 (models 14-17).

- **Case 3.** We rerun models 6-17 using lagged value of all variables and oil price data.

Results are displayed in Table 2.3 (models 6-9), Table 3.3 (models 10-13) and Table 4.3 (models 14-17).

Note: for tables using lagged variables, the number of observations decreased by 28, which ineluctably decreased the R^2 of these additional models.

Table 1: Summary of Results from Additional Models and Comparison with Results from Previous Models

	European sanctions index (S_t)				European sanctions index with a target economy that adapts twice faster to sanction (S_t^a)				European sanctions index with a target economy that adapts twice slower to sanction (S_t^b)			
	Model (6)	Model (7)	Model (8)	Model (9)	Model (10)	Model (11)	Model (12)	Model (13)	Model (14)	Model (15)	Model (16)	Model (17)
Case 1: with oil prices												
- New model (1)	-0.068***	-0.044**	-0.047*	-0.065**	-0.055***	-0.035**	-0.039*	-0.051**	-0.072***	-0.047**	-0.050*	-0.068***
- Original model (2)	-0.058***	-0.033*	-0.051*	-0.050**	-0.043***	-0.023*	-0.036	-0.036**	-0.062***	-0.036*	-0.054*	-0.054***
- Difference (1 – 2)	-0.010	-0.011	0.004	-0.015	-0.012	-0.012	-0.003	-0.015	-0.01	-0.011	0.004	-0.014
Case 2: with lagged independent variables												
- New model (1)	-0.058***	-0.046***	-0.100***	-0.049***	-0.051***	-0.037***	-0.083***	-0.042***	-0.056***	-0.044***	-0.100***	-0.047***
- Original model (2)	-0.058***	-0.033*	-0.051*	-0.050**	-0.043***	-0.023*	-0.036	-0.036**	-0.062***	-0.036*	-0.054*	-0.054***
- Difference (1 – 2)	0.000	-0.013	-0.049	0.001	-0.008	-0.014	-0.047	-0.006	0.006	-0.008	-0.046	0.007
Case 3: with lagged independent variables and oil prices												
- New model (1)	-0.082***	-0.076***	-0.101***	-0.076***	-0.074***	-0.068***	-0.090***	-0.070***	-0.082***	-0.077***	-0.103***	-0.077***
- Original model (2)	-0.058***	-0.033*	-0.051*	-0.050**	-0.043***	-0.023*	-0.036	-0.036**	-0.062***	-0.036*	-0.054*	-0.054***

- <i>Difference (1 – 2)</i>	-0.024	-0.043	-0.050	-0.026	-0.031	-0.045	-0.054	-0.034	-0.02	-0.041	-0.049	-0.023
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Case 1. Oil Price Data is Added to the Models

Table 2.1: Impact of EU Countries' Sanctions on Export to Russia: the First Difference of Sanction Values and Oil Price Data

	Export of European countries to Russia			
	Model (6)	Model (7)	Model (8)	Model (9)
European sanctions index (First difference of logarithm of sanction values)	-0.068*** (0.019)	-0.044** (0.019)	-0.047* (0.027)	-0.065** (0.025)
GDP of the RF (ln)	1.415*** (0.265)	1.560*** (0.323)	1.488*** (0.315)	1.433*** (0.292)
GDP of the EU countries (ln)	0.894*** (0.082)	0.876*** (0.075)	0.877*** (0.074)	0.894*** (0.081)
Distance between capitals (ln)	-1.918*** (0.285)	-1.985*** (0.293)	-1.989*** (0.291)	-1.917*** (0.283)
Real effective exchange rate	0.000 (0.013)		-0.009 (0.013)	
Harmonised index of consumer prices		0.005 (0.006)	0.006 (0.007)	
Marginal lending key interest rate	-0.083** (0.041)	-0.056 (0.038)	-0.057 (0.041)	-0.080* (0.043)
Labour productivity	0.009* (0.005)	0.008* (0.004)	0.009** (0.004)	0.009* (0.005)
Exchange rate against the Russian rouble		0.009 (0.009)		0.004 (0.022)
Producer prices in industry	0.000 (0.013)			-0.001 (0.016)
Oil (price data)	0.004* (0.002)	0.003 (0.002)	0.004*** (0.001)	0.004 (0.002)
Sanction time (Dummy)	0.353*** (0.087)	0.220* (0.114)	0.253* (0.139)	0.330** (0.144)
_cons	3.860 (4.218)	1.904 (3.773)	4.269 (3.695)	3.458 (3.491)
Number of observations	1888	1904	1904	1888
R-squared	0.881	0.890	0.893	0.882

Robust standard errors clustered at country level in parentheses; ln: natural logarithm; In model (6c) and (6d), 16 observations are excluded due to the missing data in producer prices in industry (the total observations decrease from 1904 to 1888); *** p<0.01, ** p<0.05, * p<0.1.

Table 3.1: Impact of EU Countries' Sanctions on Export to Russia: the First Difference of Sanction Values with a Target Economy that Adapts Twice Faster to Sanction and Oil Price Data

Export of European countries to Russia				
	Model (10)	Model (11)	Model (12)	Model (13)
European sanctions index (S_t^a) (First difference of logarithm of sanction values with twice-weaker economic pressure over time)	-0.055*** (0.014)	-0.035** (0.016)	-0.039* (0.022)	-0.051** (0.021)
GDP of the RF (ln)	1.303*** (0.237)	1.491*** (0.319)	1.414*** (0.319)	1.326*** (0.273)
GDP of the EU countries (ln)	0.894*** (0.082)	0.876*** (0.075)	0.877*** (0.074)	0.894*** (0.082)
Distance between capitals (ln)	-1.917*** (0.285)	-1.986*** (0.294)	-1.990*** (0.291)	-1.916*** (0.283)
Real effective exchange rate	0.000 (0.013)		-0.009 (0.012)	
Harmonised index of consumer prices		0.006 (0.006)	0.006 (0.007)	
Marginal lending key interest rate	-0.081** (0.040)	-0.054 (0.037)	-0.055 (0.040)	-0.078* (0.042)
Labour productivity	0.009* (0.005)	0.008* (0.004)	0.009** (0.004)	0.009* (0.005)
Exchange rate against the Russian rouble		0.009 (0.010)		0.004 (0.023)
Producer prices in industry	0.001 (0.012)			-0.001 (0.016)
Oil (price data)	0.004* (0.002)	0.003 (0.002)	0.004*** (0.001)	0.004 (0.002)
Sanction time (Dummy)	0.300*** (0.070)	0.184* (0.101)	0.219* (0.119)	0.278** (0.131)
_cons	5.257 (4.100)	2.764 (3.764)	5.224 (3.644)	4.792 (3.354)
Number of observations	1888	1904	1904	1888
R-squared	0.881	0.890	0.893	0.882

Robust standard errors clustered at country level in parentheses; ln: natural logarithm; In model (7c) and (7d), 16 observations are excluded due to the missing data in producer prices in industry (the total observations decrease from 1904 to 1888); ***p<0.01, ** p<0.05, *p<0.1.

Table 4.1: Impact of EU countries' Sanctions on Export to Russia: the First Difference of Sanction Values with a Target Economy that Adapts Twice Slower to Sanction and Oil Price Data

	Export of European countries to Russia			
	Model (14)	Model (15)	Model (16)	Model (17)
European sanctions index (S_t^b) (First difference of logarithm of sanction values with twice-stronger economic pressure over time)	-0.072*** (0.020)	-0.047** (0.020)	-0.050* (0.029)	-0.068*** (0.025)
GDP of the RF (ln)	1.422*** (0.264)	1.569*** (0.322)	1.492*** (0.313)	1.442*** (0.294)
GDP of the EU countries (ln)	0.894*** (0.082)	0.876*** (0.075)	0.877*** (0.074)	0.894*** (0.081)
Distance between capitals (ln)	-1.918*** (0.285)	-1.985*** (0.293)	-1.989*** (0.291)	-1.917*** (0.283)
Real effective exchange rate	0.000 (0.013)		-0.009 (0.013)	
Harmonised index of consumer prices		0.005 (0.006)	0.006 (0.007)	
Marginal lending key interest rate	-0.083** (0.040)	-0.056 (0.038)	-0.057 (0.041)	-0.080* (0.043)
Labour productivity	0.009* (0.005)	0.008* (0.004)	0.009** (0.004)	0.009* (0.005)
Exchange rate against the Russian rouble		0.009 (0.009)		0.004 (0.022)
Producer prices in industry	0.000 (0.012)			-0.001 (0.016)
Oil (price data)	0.004* (0.002)	0.003 (0.002)	0.004*** (0.001)	0.004 (0.002)
Sanction time (Dummy)	0.369*** (0.089)	0.231** (0.116)	0.265* (0.145)	0.344** (0.144)
_cons	3.747 (4.218)	1.780 (3.754)	4.203 (3.671)	3.309 (3.508)
Number of observations	1888	1904	1904	1888
R-squared	0.881	0.890	0.893	0.882

Robust standard errors clustered at country level in parentheses; ln: natural logarithm; In model (8c) and (8d), 16 observations are excluded due to the missing data in producer prices in industry (the total observations decrease from 1904 to 1888); ***p<0.01, ** p<0.05, *p<0.1.

Case 2. Models are Rerun with Lagged Values of All Variables (Except for Distance)

Table 2.2: Impact of EU Countries' Sanctions on Export to Russia: the First Difference of Sanction Values and Lagged Independent Variables

Export of European countries to Russia				
	Model (6)	Model (7)	Model (8)	Model (9)
European sanctions index (First difference of logarithm of sanction values)	-0.058*** (0.005)	-0.046*** (0.006)	-0.100*** (0.007)	-0.049*** (0.006)
Lagged GDP of the RF (ln)	1.242*** (0.034)	1.216*** (0.039)	1.788*** (0.046)	1.184*** (0.040)
Lagged GDP of the EU countries (ln)	-0.017*** (0.002)	-0.018*** (0.002)	-0.016*** (0.002)	-0.017*** (0.002)
Distance between capitals (ln)	-0.329 (0.341)	-0.329 (0.341)	-0.329 (0.341)	-0.329 (0.341)
Lagged real effective exchange rate	-0.002** (0.001)		0.004*** (0.001)	
Lagged harmonised index of consumer prices		-0.002*** (0.000)	-0.002*** (0.000)	
Lagged marginal lending key interest rate	-0.010** (0.004)	-0.005* (0.003)	-0.054*** (0.008)	0.000 (0.002)
Lagged labour productivity	0.005*** (0.000)	0.006*** (0.000)	0.010*** (0.001)	0.005*** (0.000)
Lagged exchange rate against the Russian rouble		0.020*** (0.002)		0.010*** (0.002)
Lagged producer prices in industry	0.015*** (0.001)			0.010*** (0.001)
Sanction time (Dummy)	0.313*** (0.041)	0.228*** (0.040)	0.566*** (0.050)	0.250*** (0.041)
_cons	3.963 (2.781)	3.749 (2.724)	-2.622 (2.810)	4.261 (2.767)
Number of observations	1876	1876	1876	1876
R-squared	0.025	0.025	0.021	0.025

Robust standard errors clustered at country level in parentheses; ln: natural logarithm; we use lagged independent variables, therefore, 28 observations are excluded which result in a decrease of total observations from 1904 to 1876); *** p<0.01, ** p<0.05, *p<0.1.

Table 3.2: Impact of EU Countries' Sanctions on Export to Russia: the First Difference of Sanction Values with a Target Economy that Adapts Twice Faster to Sanction and Lagged Independent Variables

Export of European countries to Russia				
	Model (10)	Model (11)	Model (12)	Model (13)
European sanctions index (S_t^a) (First difference of logarithm of sanction values with twice-weaker economic pressure over time)	-0.051*** (0.005)	-0.037*** (0.005)	-0.083*** (0.005)	-0.042*** (0.005)
Lagged GDP of the RF (ln)	1.203*** (0.037)	1.165*** (0.041)	1.707*** (0.042)	1.144*** (0.042)
Lagged GDP of the EU countries (ln)	-0.018*** (0.002)	-0.019*** (0.002)	-0.018*** (0.002)	-0.018*** (0.002)
Distance between capitals (ln)	-0.329 (0.341)	-0.329 (0.341)	-0.329 (0.341)	-0.329 (0.341)
Lagged real effective exchange rate	-0.002** (0.001)		0.003*** (0.001)	
Lagged harmonised index of consumer prices		-0.002*** (0.000)	-0.002*** (0.000)	
Lagged marginal lending key interest rate	-0.010** (0.004)	-0.005* (0.003)	-0.054*** (0.008)	0.001 (0.002)
Lagged labour productivity	0.006*** (0.000)	0.006*** (0.000)	0.010*** (0.001)	0.005*** (0.000)
Lagged exchange rate against the Russian rouble		0.020*** (0.002)		0.009*** (0.002)
Lagged producer prices in industry	0.015*** (0.001)			0.010*** (0.001)
Sanction time (Dummy)	0.287*** (0.040)	0.199*** (0.039)	0.516*** (0.047)	0.227*** (0.040)
_cons	4.468 (2.807)	4.392 (2.757)	-1.544 (2.810)	4.768* (2.795)
Number of observations	1876	1876	1876	1876
R-squared	0.025	0.025	0.020	0.025

Robust standard errors clustered at country level in parentheses; ln: natural logarithm; we use lagged independent variables, therefore, 28 observations are excluded which result in a decrease of total observations from 1904 to 1876); ***p<0.01, ** p<0.05, *p<0.1.

Table 4.2: Impact of EU Countries' Sanctions on Export to Russia: the First Difference of Sanction Values with a Target Economy that Adapts Twice Slower to Sanction and Lagged Independent Variables

Export of European countries to Russia				
	Model (14)	Model (15)	Model (16)	Model (17)
European sanctions index (S_t^b) (First difference of logarithm of sanction values with twice-stronger economic pressure over time)	-0.056*** (0.005)	-0.044*** (0.005)	-0.100*** (0.006)	-0.047*** (0.005)
Lagged GDP of the RF (ln)	1.212*** (0.032)	1.190*** (0.037)	1.765*** (0.045)	1.158*** (0.038)
Lagged GDP of the EU countries (ln)	-0.017*** (0.002)	-0.018*** (0.002)	-0.015*** (0.002)	-0.017*** (0.002)
Distance between capitals (ln)	-0.329 (0.341)	-0.329 (0.341)	-0.329 (0.341)	-0.329 (0.341)
Lagged real effective exchange rate	-0.002** (0.001)		0.004*** (0.001)	
Lagged harmonised index of consumer prices		-0.002*** (0.000)	-0.002*** (0.000)	
Lagged marginal lending key interest rate	-0.010** (0.004)	-0.005 (0.003)	-0.054*** (0.008)	0.001 (0.002)
Lagged labour productivity	0.006*** (0.000)	0.006*** (0.000)	0.010*** (0.001)	0.005*** (0.000)
Lagged exchange rate against the Russian rouble		0.020*** (0.002)		0.010*** (0.002)
Lagged producer prices in industry	0.015*** (0.001)			0.010*** (0.001)
Sanction time (Dummy)	0.311*** (0.040)	0.224*** (0.039)	0.574*** (0.049)	0.246*** (0.040)
_cons	4.331 (2.759)	4.056 (2.700)	-2.331 (2.789)	4.573* (2.747)
Number of observations	1876	1876	1876	1876
R-squared	0.025	0.025	0.020	0.025

Robust standard errors clustered at country level in parentheses; ln: natural logarithm; we use lagged independent variables, therefore, 28 observations are excluded which result in a decrease of total observations from 1904 to 1876); ***p<0.01, ** p<0.05, *p<0.1.

Case 3. Models are Rerun with Oil Data and Lagged Values of All Variables (Except for Distance)

Table 2.3: Impact of EU Countries' Sanctions on Export to Russia: the First Difference of Sanction Values and Oil Price Data + Lagged Independent Variables

Export of European countries to Russia				
	Model (6)	Model (7)	Model (8)	Model (9)
European sanctions index (First difference of logarithm of sanction values)	-0.082*** (0.006)	-0.076*** (0.006)	-0.101*** (0.007)	-0.076*** (0.006)
Lagged GDP of the RF (ln)	0.784*** (0.046)	0.761*** (0.054)	0.871*** (0.042)	0.769*** (0.052)
Lagged GDP of the EU countries (ln)	-0.019*** (0.002)	-0.019*** (0.002)	-0.018*** (0.002)	-0.018*** (0.002)
Distance between capitals (ln)	-0.329 (0.341)	-0.329 (0.341)	-0.329 (0.341)	-0.329 (0.341)
Lagged real effective exchange rate	-0.001** (0.001)		0.000 (0.001)	
Lagged harmonised index of consumer prices		-0.001*** (0.000)	-0.001*** (0.000)	
Lagged marginal lending key interest rate	-0.006* (0.004)	-0.003 (0.003)	-0.020*** (0.006)	-0.000 (0.002)
Lagged labour productivity	0.004*** (0.000)	0.004*** (0.000)	0.005*** (0.000)	0.003*** (0.000)
Lagged exchange rate against the Russian rouble		0.009*** (0.002)		0.006*** (0.002)
Lagged producer prices in industry	0.007*** (0.001)			0.004*** (0.000)
Oil (price data)	0.007*** (0.000)	0.007*** (0.000)	0.008*** (0.001)	0.007*** (0.000)
Sanction time (Dummy)	0.357*** (0.045)	0.317*** (0.043)	0.449*** (0.049)	0.325*** (0.044)
_cons	10.305*** (2.760)	10.295*** (2.738)	9.426*** (2.729)	10.211*** (2.763)
Number of observations	1876	1876	1876	1876
R-squared	0.029	0.029	0.028	0.029

Robust standard errors clustered at country level in parentheses; ln: natural logarithm; we use lagged independent variables, therefore, 28 observations are excluded which result in a decrease of total observations from 1904 to 1876); *** p<0.01, ** p<0.05, * p<0.1.

Table 3.3: Impact of EU Countries' Sanctions on Export to Russia: the First Difference of Sanction Values with a Target Economy that Adapts Twice Faster to Sanction and Oil Price Data + Lagged Independent Variables

	Export of European countries to Russia			
	Model (10)	Model (11)	Model (12)	Model (13)
European sanctions index (S_t^a) (First difference of logarithm of sanction values with twice-weaker economic pressure over time)	-0.074*** (0.006)	-0.068*** (0.006)	-0.090*** (0.006)	-0.070*** (0.006)
Lagged GDP of the RF (ln)	0.730*** (0.049)	0.705*** (0.056)	0.794*** (0.047)	0.716*** (0.054)
Lagged GDP of the EU countries (ln)	-0.020*** (0.002)	-0.020*** (0.002)	-0.020*** (0.002)	-0.020*** (0.002)
Distance between capitals (ln)	-0.329 (0.341)	-0.329 (0.341)	-0.329 (0.341)	-0.329 (0.341)
Lagged real effective exchange rate	-0.002*** (0.001)		-0.000 (0.001)	
Lagged harmonised index of consumer prices		-0.001*** (0.000)	-0.001*** (0.000)	
Lagged marginal lending key interest rate	-0.005 (0.004)	-0.003 (0.003)	-0.020*** (0.006)	-0.000 (0.002)
Lagged labour productivity	0.004*** (0.000)	0.004*** (0.000)	0.005*** (0.000)	0.003*** (0.000)
Lagged exchange rate against the Russian rouble		0.009*** (0.002)		0.005** (0.002)
Lagged producer prices in industry	0.007*** (0.001)			0.005*** (0.000)
Oil (price data)	0.007*** (0.001)	0.007*** (0.000)	0.008*** (0.001)	0.007*** (0.000)
Sanction time (Dummy)	0.324*** (0.044)	0.289*** (0.042)	0.406*** (0.046)	0.300*** (0.043)
_cons	11.038*** (2.780)	11.030*** (2.763)	10.473*** (2.752)	10.909*** (2.783)
Number of observations	1876	1876	1876	1876
R-squared	0.029	0.029	0.028	0.029

Robust standard errors clustered at country level in parentheses; ln: natural logarithm; we use lagged independent variables, therefore, 28 observations are excluded which result in a decrease of total observations from 1904 to 1876); *** p<0.01, ** p<0.05, * p<0.1.

Table 4.3: Impact of EU Countries' Sanctions on Export to Russia: the First Difference of Sanction Values with a Target Economy that Adapts Twice Slower to Sanction and Oil Price Data + Lagged Independent Variables

	Export of European countries to Russia			
	Model (14)	Model (15)	Model (16)	Model (17)
European sanctions index (S_t^b) (First difference of logarithm of sanction values with twice-stronger economic pressure over time)	-0.082*** (0.006)	-0.077*** (0.006)	-0.103*** (0.007)	-0.077*** (0.006)
Lagged GDP of the RF (ln)	0.763*** (0.044)	0.743*** (0.052)	0.854*** (0.041)	0.749*** (0.050)
Lagged GDP of the EU countries (ln)	-0.018*** (0.002)	-0.018*** (0.002)	-0.017*** (0.002)	-0.018*** (0.002)
Distance between capitals (ln)	-0.329 (0.341)	-0.329 (0.341)	-0.329 (0.341)	-0.329 (0.341)
Lagged real effective exchange rate	-0.001* (0.001)		0.000 (0.001)	
Lagged harmonised index of consumer prices		-0.001*** (0.000)	-0.000** (0.000)	
Lagged marginal lending key interest rate	-0.006 (0.004)	-0.002 (0.003)	-0.020*** (0.006)	0.000 (0.002)
Lagged labour productivity	0.004*** (0.000)	0.004*** (0.000)	0.005*** (0.000)	0.003*** (0.000)
Lagged exchange rate against the Russian rouble		0.010*** (0.002)		0.006*** (0.002)
Lagged producer prices in industry	0.007*** (0.001)			0.004*** (0.000)
Oil (price data)	0.007*** (0.000)	0.007*** (0.000)	0.008*** (0.001)	0.007*** (0.000)
Sanction time (Dummy)	0.364*** (0.045)	0.322*** (0.042)	0.461*** (0.049)	0.328*** (0.043)
_cons	10.561*** (2.740)	10.508*** (2.716)	9.635*** (2.709)	10.442*** (2.744)
Number of observations	1876	1876	1876	1876
R-squared	0.029	0.029	0.028	0.029

Robust standard errors clustered at country level in parentheses; ln: natural logarithm; we use lagged independent variables; therefore, 28 observations are excluded which result in a decrease of total observations from 1904 to 1876); *** p<0.01, ** p<0.05, * p<0.1.