The Influence of the EU on Smart Sanctions Imposed on Russia and Their Effect on Russian Financial Institutions

Sunil Dash

Graduate School, Chulalongkorn University, Bangkok, Thailand
Corresponding author: sunil.dash@hotmail.com

Abstract

Beginning in early 2014, the EU imposed and extended a range of smart sanctions on Russia concerning Russian involvement in destabilizing Ukraine and the violation of Ukraine's territorial integrity. The EU imposed extra restrictive measures for Russian financial institutions to increase the cost of smart sanctions imposed on Russia. Thus, the paper analyses the impact of smart sanctions on Russian financial institutions. This was done through regression analyses with a dataset that covers 6 sanctioned and 31 non-sanctioned Russian banks. Sanctioned banks are identified by examining the EU's and the US's sectoral sanctions lists and those associated with individuals on the EU's restrictive measures lists and the specially designated nationals lists of the US. The regression results suggest that after facing smart sanctions, sanctioned banks or banks associated with sanctioned individuals are less profitable compared with non-sanctioned banks. Furthermore, content analysis of annual reports of sanctioned banks reflects the vulnerability of the Russian banking sector towards smart sanctions; which curbed the financial position of Russian banks. Thus, smart sanctions on Russia appears to be "smart" in targeting the Russian financial institutions.

Keywords: Smart Sanctions, Russian Financial Institutions, Bank Profitability, Regression Analyses

1. Introduction

This section outlines the research problem, research objective, contribution to the existing literature, defines the core research question and hypothesis and finally, describes the scope of the paper.

1.1 Research problem

Empirical studies of smart sanctions are much fewer compared to comprehensive sanctions in general, partially due to the relatively short history of smart sanctions and availability of fewer examples involving purely smart sanctions compared to comprehensive sanctions. (Ahn & Ludema, 2017; Fritz Oliver, 2017) Additionally, most empirical analyses of smart sanctions imposed on Russia are cross-country studies. (Crozet & Hinz, 2016; Kholodilin & Netsunajev, 2016; Moret, Giumelli, & Bastiat-Jarosz, 2017). There is need of in-country empirical analysis of the target economy to understand the impact of smart sanctions imposed on Russia, which has been recognized by the Policy Department of European Parliament as well. (Fritz Oliver, 2017, p. 37)

1.2 Research objective

In early 2014, the European Union imposed smart sanctions on Russia through a council decision (2014/512/CFSP) in response to actions undermining or threatening the territorial integrity, sovereignty and independence of Ukraine. These sanctions were further strengthened in September 2014 with extra restrictive measures for the financial and defence sectors of the Russian economy, while the energy sector restrictions remained unchanged. (Union, 2014c) After the Russian aggression in eastern Ukraine, the Council urged Russia to stop the increasing flow of weapons, equipment and militants across the border to achieve rapid and tangible results in de-escalation of the situation in eastern Ukraine. As full and immediate cooperation from Russia on the above mentioned demand failed to materialise, European Council, as the "actor" of the EU decided on extending the restrictive measures on financial and defence institutions with a view of increasing the costs of smart sanctions imposed on Russia. The extended restrictive measures prohibit the issuance or trade in financial instruments including bonds with maturity exceeding 30 days within the EU territory. (maturity lowered from 90 days to for instruments

issued on or after 12th Sept 2014) The desired implication of this leads to stricter access to the capital market of the EU, for the financial and defence institutions of Russia; by limiting the foreign intermediate inputs for their operations. With limited foreign intermediate inputs, the cost of operations increases, thus leading to lower profitability. (Ahn & Ludema, 2017, p. 3)

Recognizing the EU's collective decision on targeting Russian financial institutions with extra restrictive measures, the objective of the thesis is to empirically estimate the impact of smart sanctions on Russian financial institutions, with a bank-level analysis. As the US smart sanctions on Russia happened during the same period as the EU smart sanctions, it's difficult to examine the impact of EU smart sanctions imposed on Russia, separating the US contribution. Thus, the empirical analysis consists of the bank-level data from both the sanctions lists, i.e. the EU and the US. To measure the "smartness" of the smart sanctions' impact on Russian financial institutions, this paper uses bank-level data of individual banks and presents an econometrical research to suggest that the sanctioned banks have had significant negative effects because of smart sanctions. To do so, regression analyses is done to find out if sanctioned banks or those associated with sanctioned individuals have lower profitability than non-sanctioned banks controlling for other factors. Here, the sanctioned Banks are identified by analysing the EU and the US sectoral sanctions lists and banks associated with individuals on the EU restrictive measures list and the specially designated nationals list of the US; and these are the substantial shareholders having more than 5% share.

1.3 Research question and hypothesis

To address the problem described in the previous section the research question will lead to understanding the impact of smart sanctions on Russian financial institutions and expressed as:

Whether the smart sanctions against Russia are quite "smart," in the sense of hitting the sanctioned Russian Banks in terms of lowering their profitability compared with non-sanctioned banks?

Thus, the hypothesis is formed on smart sanctions imposed on Russia and their effect on Russian financial institutions that will be tested in this paper. The hypothesis is as follows:

Sanctioned banks have lower profitability than non-sanctioned banks controlling for other factors.

1.4 Scope of the paper

Recognizing the need of in-country firm-level analysis on smart sanctions imposed on Russia, regression analyses will be done further focusing on Russian Banks which will the main unit of empirical analysis in this paper. The paper will consider the list of Russian banks and banks associated with individuals having more than 5% share, those explicitly targeted by the EU and U.S. from March 17, 2014 to 31st December 2016. The regression analyses would be accomplished to find whether sanctioned banks or those associated with sanctioned individuals have lower profitability than non-sanctioned banks, controlling for other factors. After the results of empirical analyses on bank profitability, the annual reports of sanctioned banks will be collected and analyzed with a content analysis, which will help in comparing the empirical findings with the literature.

2. Literature Review

In the following section, the paper describes the typology of economic sanctions, and classification of sanctions followed by prior literature on understanding impact of sanctions. The paper further proceeds with analyzing the EU's influence on smart sanctions imposed on Russia followed by empirical literatures on smart sanctions imposed on Russia and ends with examining the literatures on bank profitability and determinants of bank profitability.

2.1 Typology of economic sanctions

"Economic sanctions" or sometimes referred as "Sanctions" is an instrument of foreign policy, generally imposed by the States or International Institutions (termed as "senders") to try to change the strategic policy decisions of other states and non-state actors (termed as "targets") that threaten their foreign and security policy interests or violate international norms of behavior. The term "Economic Sanctions", sometimes referred as sanctions, is intentionally broad, since it includes all economic forms of influence. Most of the definitions refers economic sanctions as a coercive attempt or constraining

attempt on "target" where trade restrictions and financial restrictions are two integral parts of economic sanctions, and others include signaling (threat of withdrawal) as an important tool of economic sanctions along with coercing and constraining. The below table gives a comparative of restrictions under economic sanctions.

Table 1 Comparative of restrictions under economic sanctions

ECONOMIC SANCTIONS	
TYPE OF RESTRICTION	DESCRIPTION
TRADE IN GOODS	Limiting exports Restricting imports
TRADE IN SERVICES	Restriction on capital flows (restrict or suspend lending) Restriction on International Payments

Source: (Hufbauer, Schott, Elliott, & Oegg, 2009)

2.1.1 Traditional/Comprehensive sanctions

Traditional or Comprehensive sanctions have historically been imposed on different countries to create pressure on the government which may lead to compliance and help in determining the outcomes. Often comprehensive sanctions are apparent to serve as twofold purpose; to express disapproval of the target's objectionable behavior and to force the target, through restrictive measures, to change the conduct and bring to compliance. It ranges from oral condemnation to military intervention including economic sanctions and can be unilateral (one state against another) or multilateral (broad front of states against a target state) in nature. Looking at the possible objectionable behavior of the target country, there are many causes which may lead to comprehensive sanctions, if broadly classified can be of two types,

(a) Threat to security, stability or peace of sovereign states
(b) Human Rights Violation

2.1.2 Smart Sanctions: Modern alternative to comprehensive sanctions

Realizing the need to mitigate the unintended negative impacts of comprehensive sanctions on simple populations, senders have shifted the comprehensive sanctions policy to 'smart' or 'targeted' sanctions such as targeting certain sectors of the target economy, asset freezes or travel bans. Being more accurate in targeting their goal than the comprehensive sanctions, smart sanctions are supposed to put political pressure specifically on those responsible for the internationally condemned actions. Tostensen and Bull identified that smart sanctions in theory differ from comprehensive sanctions in two ways (Tostensen & Bull, 2002):

  (a) They more effectively target and coerce via arms embargoes, financial sanctions and travel restrictions etc.

  (b) Smart sanctions protect vulnerable groups by exempting certain commodities such as foods, medicine supplies from the embargoes.

The below table explains the different types of smart or targeted sanctions.

Table 2 Typology of smart sanctions

TYPE OF SANCTIONS	CATEGORY		DESCRIPTION
SMART OR TARGETED SANCTIONS	SPECIALLY DESIGNATED NATIONALS	FINANCIAL	Restrict the ability of individual or entity to access international financial system, asset freeze etc.
		NON-FINANCIAL	Travel and visa restrictions for individuals
	SECTORAL SANCTIONS	FINANCIAL	Prohibits specific financial transactions (like issuance or trade in bonds, equity or similar financial instruments) with specific sector.
		NON-FINANCIAL	Prohibits specific transactions (trade in goods or non-financial services) with specific economic sectors like defence, energy sector.

Source: (Rosenberg, Goldman, Drezner, & Solomon-Strauss, 2016)

2.2 Understanding impact of sanctions

The impact of comprehensive sanctions has been an issue in academic research and has been debated extensively for many decades. There are both quantitative and qualitative methods to measure the impact of comprehensive sanctions. Pape argues that "negative impacts on the target state's aggregate GDP measures the success of sanctions." (Pape, 1997, p. 93)To estimate the impact of comprehensive sanctions, quantitative methods were used by scholars using measurements such as gross domestic product, gross national product, trade linkage (percent of two-way trade between sender and target). Hufbauer et al. used a gravity model that estimates the impact of comprehensive sanctions on bilateral trade flows by using a regression equation. (Hufbauer et al., 2009)

However, for the qualitative part, the impact of comprehensive sanctions has been discussed in the context of sanctions effects on target's gross domestic product, trade and sanctions success. Most of the literature suggests that the impact of comprehensive sanctions can have two possible outcomes, i.e. successful or unsuccessful.

On smart sanctions, Hovi, Huseby and Sprinz explains the requirement of two level approach to understand the impact of smart sanctions. (Hovi, Huseby, & Sprinz, 2005) They argue that analyzing the smart sanctions measures like asset freeze, travel ban, capital restrictions which can be regarded as secondary objectives, also have the potential influence on the general primary objective, i.e. compliance of target.

For the quantitative research on impact of smart sanctions, most of the researchers used econometric analyses like regression analyses, structural vector auto regression method to estimate the impact on macro level like cost to sender and cost to target, responsive of macro economies to sanctions shock (Kholodilin & Netsunajev, 2016; Moret et al., 2017) while others are interested in estimating the impact on firms. (Ahn & Ludema, 2017; Crozet & Hinz, 2016)

2.3 Smart sanctions imposed on Russia by the EU and US

The transfer of Crimea to Russia was explicitly condemned by the international community including the European Union. The initial measures of the EU (asset freezes and travel suspensions) were implemented through Council Decision 2014/145/CFSP and Council Regulation (EU) No 269/2014 on March 17, 2014 and have been expanded and tightened with smart sanctions targeting certain sectors of Russian economy in July and Sept 2014 to put additional pressure on the Russian government. (Union, 2014a, 2014c) Similarly, the US smart sanctions were implemented through Executive Orders where economic measures are enforced and monitored by the Office of Foreign Assets Control and export control by the U.S. Department of Commerce, Bureau of Industry and Security, and the U.S. Department of State, Directorate of Defence Trade Controls. (Register, 2014a, 2014b, 2014c)

Those smart sanctions were primarily targeted at individuals and entities taking part in the absorption of Crimea, destabilizing the situations in eastern Ukraine. They are imposed against targets in Russia, Ukraine including the territory of Crimea and include measures imposed against individuals and entities (asset freezes, travel bans) and prohibits the financial transactions with Russian companies operating in specific sectors which includes finance, defence and energy sector.

2.3.1 Specially designated nationals/Designated persons

Under individual restrictive measures, the EU decided to freeze the assets and impose travel bans on 150 people and 38 entities because their actions undermined Ukraine's territorial integrity, sovereignty and independence. (Union, 2014a, 2014b, 2014c) These are identified jointly by the European Commission and the Council of the European Union. Travel Ban of listed persons means the targeted persons cannot enter the EU, or travel beyond their member state of nationality if they are an EU citizen. All their assets in the EU are frozen, which furthermore adds that the EU citizens and entities cannot make any funds available to those on the DPs list. (Union, 2014a, 2014b, 2014c)

Similarly, designated SDN individuals and entities under US smart sanctions list face asset freezes and travel bans in the United States, where

transactions and other activities by U.S. persons (individuals or entities) with these designated SDN individuals and entities are prohibited. (Register, 2014a, 2014b, 2014c) Altogether, the U.S. has designated 111 individuals and 82 entities on its SDN List as related to its Russian sanctions. (Register, 2014a, 2014b, 2014c) Ahn and Ludema classifies the sanctioned individuals into two categories (political figures and business figures) and finds that about one fourth of US sanctioned individuals are business figures. Meanwhile, the EU designated persons lists are dominated by political figures. (Ahn & Ludema, 2017, pp. 10, 11)

2.3.2 Sectoral sanctions

In the EU, Typically, a Sectoral Sanctions Identification list (SSI list) is prepared by the Council decision. For example, the sectoral sanctions list issued on 31st July 2014 listed five Russian financial institutions, namely Sberbank, VTB bank, Gazprom bank, Vneshekonom bank and Russelkhoz bank. (Union, 2014a) The European Union's sectoral sanctions were targeted against certain sectors in Russian Economy including financial, energy and defence sectors. Similarly, series of Executive Orders issued by the U.S. accompanying the sectoral sanctions focussed on the financial, defence and energy sectors in Russian economy. (Register, 2014c) The detailed explanation of sectoral sanctions imposed on Russia is given in the next section.

2.4 The EU's influence smart sanctions imposed on Russia

The EU Council's decisions (2014/145/CFSP, 17th March, and 2014/512/CFSP, 31st July) as well as the Regulation (EU) No 833/2014 of 31 July 2014 condemned Russian Federation's actions undermining or threatening the territorial integrity, sovereignty and independence of Ukraine and European Council collectively decided to impose significant restrictive measures on Russia by mentioning the Russian act as illegal, and unprovoked violation of Ukrainian sovereignty and territorial integrity. On 8th September 2014, the European Council amended the decision (2014/512/CFSP) concerning restrictive measures, condemning the increase in inflows of fighters and weapons from Russian into Eastern Ukraine. European Council collectively decided to put additional restrictions on access to the capital market, particularly certain Russian financial and defence institutions, for the

reason of increasing the cost of smart sanctions imposed on Russia. (Union, 2014c) The desired implication of this potentially leads to stricter access to capital market of the EU, for the Russian financial and defence institutions; by limiting the foreign intermediate inputs for their operations. With limited foreign intermediate inputs, the cost of operations increases, thus leading to lower profitability. (Ahn & Ludema, 2017, p. 3) The details of the EU restrictive measures with timeline is given below.

Table 3 EU restrictive measures

| The EU Restrictive Measures | | |
| Prohibition of issuance or trade in bonds, equity or similar financial instruments | | |
Date of announcement	Period when the financial instrument was issued	Maturity of the prohibited instruments
March 17, 2014	Before 12th September 2014	Longer than 90 days maturity for all financial, defence and energy sectors of Russian economy
July 31, 2014	On or after September 12, 2014	Longer than 30 days maturity for financial and defence institutions on the SSI list

Source: (Union, 2014a, 2014c)

Similarly, the restrictive measures of the US on smart sanctions imposed on Russia are tightened with extra restrictive measures for Russian financial institutions, since the initial measures of March 2014, where maturity periods of financial instruments are shortened. (Register, 2014c)

2.5 Empirical analysis of smart sanctions imposed on Russia

In case of smart sanctions imposed on Russia, most empirical studies are macro level analysis while others estimate the impact of smart sanctions against specific targets. Researchers attempting to empirically estimate the impact of smart sanctions on Russia face the challenge of extricating the impact of smart sanctions from the dramatic drop in oil prices and uncertainty of global hydrocarbon market prices, which coincides with the Russian sanctions

period. (Ahn & Ludema, 2017; Crozet & Hinz, 2016; Fritz Oliver, 2017) Russia, being a net exporter of natural gas, was affected by the deterioration of the situation in the global hydrocarbon market (significant decrease of natural gas price in 2014) during the sanctions period; which led to the ruble depreciation, growing inflation and dropped business confidence. (CBR 2014)

Kholodilin and NetŠunajev used a structural vector auto regression method (SVAR) to evaluate consequences of smart sanctions to identify the sanctions shock and trace the reaction of the Russian and European economies to the shock. (Kholodilin & Netsunajev, 2016) They used SVAR method and assess the responsiveness of macro economies, (i.e. Russia and Euro Area) to smart sanctions and assess the contribution of sanctions shocks to the variability of key macroeconomic variables like gross domestic product growth, exchange rate. Their findings reflect that smart sanctions directly affect Russian GDP, but not aggregate GDP of euro area and much larger variations in the GDP growth of Russia than of the Euro Area are due to smart sanctions.

Estimating the impact of Russian sanctions, Moret, Giumelli and Bastiat-Jarosz mentiones that sanctions on Russia have had a targeted or "smart" impact, rather than imposing costs on the entire Russian economy. (Moret et al., 2017) Analysing macro trade and investment data between the US, the EU and Russia, they found that economic costs incurred have been substantially larger for the EU than for the US. This is because, the EU had significantly larger volume in terms of trade in goods and trade in services with Russia compared to that of the US.

Crozet and Hinz studies the firm-level effects of the smart sanctions regime between Russia and Western countries, where they use French firm-level data and ordinary least square method (OLS) to explain if the French firms' exports were affected with respect to margins of trade (both extensive and intensive margin) after smart sanctions imposed on Russia. (Crozet & Hinz, 2016) Their regression results show that the smart sanctions significantly reduced both firm export participation and the value exported by the export firms.

Ahn and Ludema uses detailed firm-level data for all the sectors of the Russian economy with regression analyses to study the impact of smart sanctions imposed on Russia, where they constructed sanctions as a dummy variable. Their main finding is that sanctioned Russian companies or those associated with sanctioned individuals are indeed negatively affected by sanctions compared with non-sanctioned peer companies *in terms of losing operating revenue, asset value and number of employees.* (Ahn & Ludema, 2017)

2.6 Bank profitability and determinants of bank profitability

The empirical analyses of this paper focus on the Russian financial institutions and the impact of smart sanctions on their profitability. To better understand the impact of smart sanctions on the Russian financial institutions, it is crucial to first understand what bank profitability is and the determinants of bank profitability. The below section examines the existing literatures on bank profitability and the determinants of bank profitability and these papers don't examine sanctions.

The bank profitability variable is represented by two measures: the ratio of profits to assets, i.e. the return on assets (ROA) and the profits to equity ratio, i.e. the return on equity (ROE). (Kohlscheen, Pabón, & Contreras, 2018; Staikouras & Wood, 2004) In principle, ROA reflects the ability of a bank's management to generate profits from the bank's assets (Claessens, Coleman, & Donnelly, 2017) while ROE indicates the return to shareholders on their equity. (Athanasoglou Panayiotis, 2005; Kohlscheen et al., 2018)

Most of the literature categorizes the determinants of banks' profitability into two parts, namely bank-specific characteristics, and external macroeconomic characteristics, while others use industry specific characteristics, additionally. Internal factors are those within the control of the bank and which are mainly influenced by the bank's management decisions and policy objectives while the external determinants are beyond the control of the bank's management. (Athanasoglou Panayiotis, 2005)

Athanasoglou et al. follows ROA and ROE as alternative dependent variables in their empirical model while capital adequacy (measured as equity

to asset ratio), credit risk (measured as loan loss provisions to total loans), size (log value of assets), productivity (measured by real gross total revenue over the number of employees) and expenses management (operating expenses to assets ratio) are taken as bank specific characteristics. (Athanasoglou Panayiotis, 2005) Additionally, "concentration" as an industry specific characteristic has been taken using the 'Herfindahl-Hirschman (H-H) index, calculated by squaring the market share of each firm competing in a market, and then summing the total numbers. Furthermore, inflation and cyclical output represents the macroeconomic determinants of bank profitability in their model. They used a dynamic panel data with a GMM technique estimation procedure. The empirical results suggest that bank specific determinants credit risk, size, significantly affect bank profitability while the industry variables are not significant in explaining bank profitability.

Staikouras and Wood quantifies how internal determinants and external factors (GDP growth and Inflation) contribute to the profitability of banks. They used a regression model where they employ four variables to account for bank-specific characteristics namely loan to asset ratio, equity to asset ratio, provision of loan losses and bank size. (Staikouras & Wood, 2004) Their estimation results shows that banks with greater levels of equity are relatively more profitable and the loans to assets ratio and provision of loan losses are inversely related to banks return on assets. However, they used both the Herfindahl index, the industry specific variables and firm specific market share as independent variables and the results are not significant for both the variables in explaining profitability. Furthermore, they found a positive effect of level of interest rates on bank profitability. (Staikouras & Wood, 2004)

Claessens et al. examines the relationship between bank profitability and interest rates through a cross country empirical analysis. The empirical analysis follows ROA as the bank profitability while deposits over total liabilities, total equity capital over total assets, and total securities over total assets as bank level controls and GDP growth as macro economic control. They used a regression model with bank fixed effects and time fixed effects and their results finds an adverse effect of low interest rates on bank profitability and capital adequacy has a positive relationship with profitability. (Claessens et al., 2017)

Kohlscheen et al. analyses key determinants of bank profitability, where both ROA and ROE are taken as measures of profitability. (Kohlscheen et al., 2018) For the empirical analysis, loan growth, capital, liquidity provision, consumer deposits, efficiency are taken as bank related variables while GDP growth, short- and long-term interest rates are taken as macro-economic variables. They used a regression model for empirical analyses and finds that profitability is significantly affected by capital adequacy measured as equity to assets ratio, size measured as log value of total assets and expenses measured as operating expenses to assets ratio. (Kohlscheen et al., 2018)

Bikker et al. used a dynamic model with lagged dependent variable to investigate the impact of the low interest rates on profitability of US banking sector. (Bikker & Vervliet, 2018) They used size (log value of total assets), capital adequacy (ratio of equity to assets), credit risk (loan loss provisions), liquidity risk (ratio of total loans over total assets), diversification (ratio of non-interest income over total income) as the bank specific variables. Furthermore, macroeconomic variables are taken with real GDP growth and inflation in their paper. In their findings, all the bank specific variables are significant in explaining profitability while inflation, as the only macroeconomic variable explains profitability. (Bikker & Vervliet, 2018)

Most of the literature used linear models with annual data frequency to estimate the impact of various factors that may be important in explaining profitability while Athanasoglou et al. and Bikker et al. adopted dynamic models by including a lagged dependent variable among the regressors. (Athanasoglou Panayiotis, 2005; Bikker & Vervliet, 2018) Mostly, the literature essentially considers determinants of profitability at the bank and/or industry level followed by macroeconomic determinants.

Bank specific determinants capital adequacy, credit risk, liquidity risk and operating expenses appear to be an important determinant of profitability in most of the literature. Additionally, Athanasoglou et al. used productivity as an important bank specific determinant and found productivity has significant relationship with profitability.

Regarding the industry specific determinants: supporting the structure conduct performance hypothesis, Athanasoglou et al. used HH index as a

proxy of concentration while Staikouras and Wood (2004) used market share of individual banks to examine whether market share is important in explaining profitability, supporting the market power hypothesis. In both cases, not only the structure conduct performance hypothesis, but also the relative market power hypothesis is not important in explaining profitability.

Finally, most of the literatures used GDP and inflation as the macroeconomic variables to isolate their influence from that of bank structure so the impact of macroeconomic factors on profitability may be more clearly understood. However, the relationship between the macroeconomic variables and profitability is ambiguous in most of the literatures.

3. Methodology

This section describes the methodologies used for the study, the data and description of variables as well which includes the specification and explanation of the used econometrical model.

3.1 Econometric analysis

For firm level research, regression analyses are done to examine the profitability of sanctioned banks and banks associated with sanctioned individuals compared with the non-sanctioned banks.

3.1.1 Data collection and analysis

Here, the data that form a panel data set covering a period of 5 years (2012-2016) including two years (2012 and 2013) without sanctions. Overall, the data consists of 37 selected Banks (6 sanctioned and 31 non-sanctioned) and those are listed on MOEX as of 31st Dec 2017. Collection of balance sheets and income statement data are done from the official websites of respective banks at an annual frequency. Sanctioned banks are identified after analysing both the SDNs/Restrictive measures lists and SSI lists of the EU and the US. 10 sanctioned banks are identified based on two criteria, (1) if, it is listed on the sectoral sanctions or entities list, (2) if a sanctioned individual is associated with the Bank as a shareholder with more than 5% share. This is because substantial shareholders are classified by a minimum shareholding percentage, which is usually fixed at 5%. (OECD, 2017) However, data of

only 6 sanctioned banks could be gathered for the empirical research because of unavailability of information on Sobin Bank, Russia National Commercial Bank and SMP Bank, while Bank Moscow has been merged with VTB Bank. The sampled sanctioned banks cumulatively share about 61% market share in terms of assets in the Russian banking sector, while the sampled non-sanctioned banks share about 18% of market share in terms of assets as of 31st Dec 2016. The market share information of individual sampled banks is given in appendices section. The findings on sanctioned banks from both the SDNs/Restrictive measures lists and SSI lists of the EU and the US has been given separately in two tables, where table 4 contains the information of the banks based on the first criteria while table 5 is followed by the second criteria as mentioned above.

Table 4 Findings of SSI lists of the EU and US

Sl No.	Russian Banks listed on SSI Lists	Listed on MOEX	Included in the Sample
1	Bank Moscow	Yes	No
2	Bank Russia	Yes	Yes
3	Gazprom Bank	Yes	Yes
4	Rosselkhoz Bank	Yes	Yes
5	Russian National Commercial Bank	Yes	No
6	Sber Bank	Yes	Yes
7	SMP Bank	Yes	No
8	Sobin Bank	Yes	No
9	Vneshekonom Bank	Yes	Yes
10	VTB Bank	Yes	Yes

Source: (Author)

Table 5 Findings of SDNs/DPs lists of the EU and US

Sl No	Name of the SDNs/DPs listed on the EU and the US lists	Associated Bank	Share in the Bank (In %)	Listed on MOEX	Included in the Sample
1	Arkady Romanovich	SMP Bank	49.25	Yes	No
2	Boris Romanovich	SMP Bank	38.05	Yes	No
3	Gennady Timchenko	Bank Russia	9	Yes	Yes
4	Nikolay Shamalov	Bank Russia	12.5	Yes	Yes
5	Yuri Valentinovich	Bank Russia	38	Yes	Yes

Source: (Author)

To examine the relationship between the profitability of the banks and explanatory variables, a regression model is used. The Hausman test was conducted by fitting each model (RE and FE) and its results after each regression suggests that the random effects estimator is consistent. Prior to the estimation process of determinants equation, all the variable concerned have been tested for stationary process using panel unit root test (Levin, Lin and Chu test) for the whole period, and also, the potential outliers are investigated individually. There is no multi-collinearity problem between the control variables taken in this paper.

In this paper, the regression model of Staikouras and Wood has been adopted sanctions (dummy variable) as an independent variable has been added. (Staikouras & Wood, 2004) All the bank specific variables taken by them are included in this paper except the size variable. However, Herfindahl index has been excluded because of multicollinearity issues and firm specific market share has been used in this paper. Similarly, the macroeconomic variables gross personal income and level of interest rates are excluded. Macroeconomic variable GDPt (measured as real gross domestic product growth) has been included in this model following Athanasoglou et al. and Kohlscheen et al. (Athanasoglou Panayiotis, 2005; Kohlscheen et al., 2018)

The general view of the model used in this paper is as follows

$$ROA_{it} = \beta_0 + \beta_1 EA_{it} + \beta_2 CR_{it} + \beta_3 LR_{it} + \beta_4 MSH_{it} + \beta_5 GDP_t + \beta_6 SANC_{it} + \varepsilon_{it} \quad (1)$$

3.1.2 Description of variables

In this paper, return on assets (ROAit) is used as a measure of bank profitability, which is the dependent variable. Here, return on assets is defined as the net annual income of the bank after tax divided by total assets and is expressed as a percentage. (Athanasoglou Panayiotis, 2005; Claessens et al., 2017; Staikouras & Wood, 2004)

Here, two categories of independent variables that are used for the analyses of bank profitability. First category is the bank-specific or internal determinants including the firm specific market share which relates to market power and the second category is macroeconomic determinants. This paper uses five independent variables as bank specific determinants of profitability, and one external macroeconomic factor. Due to multi collinearity issues the industry specific determinant Herfindahl index and macroeconomic determinants oil price and inflation has been excluded in the analysis.

The following table aims at explaining how the dependent and independent variables has been constructed for the study. The data for the calculations of internal factors were obtained from respective bank's website and the details are provided in the appendices section for both sanctioned and non-sanctioned banks, while the data for external factors were obtained from World Bank website. Additionally, total value of assets of Russian banking sector was obtained from the banking supervision report of Central Bank of Russia and the firm specific market share has been calculated.

Table 6 Explanation of variables, proxies, measurement and source

Variable	Proxy	Measurement	Expected Sign	Source
Dependent Variable	Profitability **(ROAit)**	Measured as a percentage of operating profit of the bank to that of the total assets		(Athanasoglou Panayiotis, 2005; Claessens et al., 2017; Staikouras & Wood, 2004)
Independent Variable	Sanctions **(SANCit)**	Dummy Variable, which denotes 1 if a Bank is under sanction at time t and 0, if not.	(−)	(Ahn & Ludema, 2017)
Control Variables	Capital Adequacy **(EAit)**	Measured as the first difference of equity to assets ratio	+/(−)	(Athanasoglou Panayiotis, 2005; Claessens et al., 2017; Staikouras & Wood, 2004)
	Credit Risk **(CRit)**	Measured as the percentage of loan loss provision to total assets	(−)	(Athanasoglou Panayiotis, 2005; Bikker & Vervliet, 2018; Staikouras & Wood, 2004)
	Liquidity Risk **(LRit)**	Measured as a percentage of loans of the bank to that of the total amount of deposits.	+	(Staikouras & Wood, 2004)
	Market Share **(MSHit)**	Measured as the bank's assets divided by total value of assets of all banks in Russian banking sector and expressed in percentage	+/(−)	(Staikouras & Wood, 2004) www.cbr.ru
	GDP **(GDPt)**	Measured as real gross domestic product growth rate of Russia	+/(−)	(Athanasoglou Panayiotis, 2005; Kohlscheen et al., 2018)

3.2 Content analysis

The paper proceeds further with the aim of comparing the empirical finding of regression analysis with relevant literature through content analysis. Content analysis is a *qualitative research tool used to determine the presence and meaning of concepts, terms, or words in one or more pieces of recorded communication".* (Stan, 2010, p. 225) This method allows for compressing many words of text into fewer content categories based on explicit rules of

coding to make inferences about the individuals, groups, firms. To construct the categories, *words with similar meanings and connotations are organized in mutually exclusive and exhaustive categories*. (Stan, 2010, p. 227)

Recorded communication in the form of annual reports of sanctioned banks were collected for the period 2014-2016 and analyzed. Before analyzing the reports, extracted lines which fit to the topic of Russian sanctions were chosen and saved as a separate word document and further analyzed carefully. The findings were categorized those shared similarities and are relevant for this paper, threading them into groups, namely (a) smart sanctions, (b) smart sanctions and banking sector and (c) profitability. This, logically and intuitively fits together as per the scope of the paper.

4. Results and Discussion

In this chapter, this paper reports the findings of econometric analysis (section 4.1) and content analysis as well (section 4.2). These sections outline the interpretation of findings and includes discussion.

4.1 Results and discussion of econometric analysis

In the following section, the paper reports the findings of econometric analysis and outlines their interpretation.

Hierarchical regression has been done with four regressions for the relationship of bank profitability and determinants of bank profitability. Firstly, regression analysis was performed with the bank specific controlled variables (EAit, CRit and LRit) serving as independent variables. A second regression was done with the industry specific variable (MSHit) as an independent variable together with the first step independent variables. The third multiple regression was done adding the macroeconomic variable (GDPt) as an independent variable to the previously taken bank specific and industry specific independent variables. The fact that the paper aims at investigating the influence of smart sanctions on the profitability of Russian Banks. Finally, the fourth multiple regression was done by adding the sanctions dummy variable (SANCt) which is the independent variable while all other variables are control variables. The regression outputs for all the models are as follows:

Table 7 Regression Output

Variable	(1) ROA	(2) ROA	(3) ROA	(4) ROA
EA	0.0380**	0.0384**	0.0463**	0.0437**
	(0.0126)	(0.0126)	(0.0150)	(0.0144)
CR	0.1712***	0.1705***	0.1665***	0.1686***
	(0.0204)	(0.0204)	(0.0193)	(0.0191)
LR	-0.0017	-0.0017	-0.0009	-0.0009
	(0.0009)	(0.0009)	(0.0011)	(0.0010)
MSH	0.0101**	-0.0142	-0.0117	0.0334
	(0.0026)	(0.0245)	(0.0337)	(0.0357)
GDP		0.0107***	0.0007	6.87E-05
		(0.0028)	(0.0008)	(0.0008)
SANC			0.0088**	-0.0233**
			(0.0003)	(0.0083)
Constant				0.0101**
				(0.0035)
R-squared	0.3306	0.3318	0.3286	0.3573
Observations	184	184	184	184

Notes: Standard errors are in parentheses
Significance levels: *** p<0.001, ** p<0.01, * p<0.05

Table 7 exhibits the results of the regression analysis for the entire period (2012-2016) and for all the four models of regression. In all the cases, with all the variables selected for the model, around 30% of the ROAit variation is explained by the determinants considering 184 observations. Control variables that prove to be significant factors when explaining bank profitability are EAit, a proxy of capital adequacy and CRit, a proxy of credit risk and both have positive relationship. The positive relationship between capital adequacy and profitability is in line with the literature (Athanasoglou Panayiotis, 2005; Claessens et al., 2017; Staikouras & Wood, 2004) and suggests that banks with greater levels of equity are relatively more profitable.

The positive relationship between credit risk and profitability doesn't support the findings of the literature (Athanasoglou Panayiotis, 2005; Staikouras & Wood, 2004) while this is in line with the findings of Bikker et al. as they found positive relationship between credit risk and profitability. (Bikker & Vervliet, 2018) This means, as credit risk increases, the level of loan loss provisioning is raised which leads to a higher lending rate, which in turn positively explains the profitability. The bank specific determinants liquidity risk (LRit) measured as a percentage of loans of the bank to that of the total amount of deposits is not significant which is not supporting the findings of literature as Athanasoglou et al. and Kohlsheen et al. found positive relationship between liquidity risk and bank profitability. (Athanasoglou Panayiotis, 2005; Kohlscheen et al., 2018; Staikouras & Wood, 2004) The findings on bank market share variable (MSHit) is in line with the findings of Staikouras and Wood (2004) as the relative market power hypothesis cannot be supported. Furthermore, the real gross domestic product growth (GDPt) is not a significant factor in explaining profitability which is in contrary to the literature as Staikouras and Wood (2004) finds that gross domestic product growth has significant negative effect on profitability while Kohlscheen, Pabón and Contreras (2018) finds a positive effect of gross domestic product growth on profitability.

The result of regression analysis shows that SANCit dummy variable significantly influences the profitability, where sanctioned banks have lower profitability than non-sanctioned banks. The regression results suggest that after facing smart sanctions, the return on assets corresponding to the sanctioned banks or banks associated with sanctioned individuals is around 2.3 percentage points lower compared with non-sanctioned banks. This, allows to conclude the second hypothesis as: "*Sanctioned banks have lower profitability than non-sanctioned banks controlling for other factors.*"

Although the regression results show the impact of sanctions on profitability of sanctioned banks, these results should be interpreted cautiously. This is because, the effect of sanctions doesn't apply uniformly to all sanctioned banks. It depends on the firm specific characteristics and the type of sanctions the firm faces, as well.

4.2 Results and discussions of content analysis

Impact of smart sanctions was given nearly equal emphasis in all the annual reports. Here, the language reflected impact of smart sanctions in general, impact of smart sanctions on banking sector and impact on profitability as well. The focus on the impact of smart sanctions emphasized: (a) difficult circumstances because of the imposition of smart sanctions against Russia, (b) the smart sanctions regime caused a slowdown of economic growth and deterioration of the financial position, and (c) the subsequent introduction of smart sanctions against certain sectors of Russian economy.

Similarly, the description on smart sanctions and banking sector emphasized: (a) restricted access to western capital markets, (b) due to smart sanctions, the banking sector was the most exposed segment of the economy, (c) the limitations in the banks' funding mechanisms resulted from the imposed smart sanctions.

These annual reports emphasized bank profitability, albeit less frequently. In 2014 and 2015 they mention about significant increase in provisions of loan impairment, which led to a reduction of net profit. While in 2016, the Russian banking sector witnessed its margins gradually recover after two difficult years. At the same time, the banks also continued implementing conservative risk management policies and paid special attention to cost management.

In summary, the annual reports reflect smart sanctions and impact of smart sanctions, and particularly emphasized the vulnerability of banking sector towards smart sanctions which curbed the financial position of Russian Banks. Hence, "smart sanctions" was reconfirmed as one of the important dimensions of external factor that hit the banking sector from the banks' perspective. Together, the results of regression analysis and the literature review of above section indicate that the smart sanctions imposed on Russia appears to be "smart" in targeting the Russian financial institutions.

4.3 Limitations

Before concluding the findings, it is important to clarify the limitations of the methods used and acknowledge the contribution of this paper to the

existing literature. As the smart sanctions on Russia led by the US happened during the same time as the EU smart sanctions, it's difficult to separate the US contribution on the impact of smart sanctions on Russian financial institutions. There is an inherent problem of the Russian sanctions topic, since the period in which Russian sanctions occurred coincided with other external shocks on Russia like decline in oil prices and rouble exchange rate. As the correlation between the oil price and gross domestic product growth was found very high (83%), this paper excluded the oil price variable during the analysis. Thus, a lot of the impact on Russian banks is unexplained by the factors used, which limits the explanatory power of the analyses in this paper.

5. Conclusion

The paper examines the impact of smart sanctions on Russian financial institutions. This was done through regression analyses with a dataset that covers 6 sanctioned and 31 non-sanctioned Russian banks. Sanctioned banks are identified by examining the EU and the US sectoral sanctions lists and those associated with individuals on the EU restrictive measures lists and the specially designated nationals lists of the US. The paper considered the list of Russian banks and banks associated with individuals having more than 5% share, those explicitly targeted by the EU and U.S. from March 17, 2014 to 31st December 2016. In the regression model, explanatory variables include bank-specific determinants, firm specific market share and real gross domestic product growth, and a dummy variable for sanctions (SANCit) was created, as this paper intended to estimate the impact of smart sanctions on Russian financial institutions.

Control variables that prove to be significant factors when explaining bank profitability are EAit, a proxy of capital adequacy and CRit, a proxy of credit risk and both have positive relationship. The positive relationship between capital adequacy and profitability is in line with the literature and suggests that banks with greater levels of equity are relatively more profitable. The positive relationship between credit risk and profitability doesn't support the findings in most of the literature while this is in line with the findings of Bikker et al. as they found positive relationship between credit risk and profitability. (Bikker & Vervliet, 2018) The bank specific determinants liquidity

risk (LRit) measured as a percentage of loans of the bank to that of the total amount of deposits is not significant in explaining the profitability. The findings on bank market share variable (MSHit) is in line with the findings of literature as the relative market power hypothesis cannot be supported. Furthermore, the real gross domestic product growth (GDPt) is not a significant factor in explaining profitability.

The regression results show that sanctions dummy variable has a statistically significant negative impact on the profitability of sanctioned banks compared to non-sanctioned banks, controlling for other factors. The regression results suggest that after facing smart sanctions, the return on assets corresponding to the sanctioned banks or banks associated with sanctioned individuals is around 2.3 percentage points lower compared with non-sanctioned banks. Furthermore, the literature review of annual reports of sanctioned banks also emphasized the vulnerability of banking sector towards smart sanctions which curbed the financial position of Russian Banks. Thus, smart sanctions on Russia appears to be "smart" in targeting the Russian financial institutions.

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Appendices

Appendix-I List of sanctioned banks sampled

Sl No.	Bank Name	Data Source	Market Share in % (as of 31st Dec 2016)
1	Bank Rossiya	https://www.cbr.ru	36.1891
2	Gazoprom Bank	https://www.gazprombank.ru	6.0943
3	Sber Bank	https://www.sberbank.ru	31.6863
4	VEB Bank	www.veb.ru	4.4632
5	VTB Bank	https://www.vtb.com	15.7195
6	Rosselkhoz Bank	https://www.rshb.ru	3.0757

Appendix-II List of non-sanctioned banks sampled

Sl No.	Name of the Bank	Data Source	Market Share in % (as of 31st Dec 2016)
1	Absolute Bank	www.absolutbank.com	0.3759
2	AK Bars Group	http://www.abh.ru	0.5038
3	ALFA Bank	https://alfabank.com	3.1925
4	Bank Okritie	https://www.open.ru	3.3758
5	Bank Saint Petesburg	https://www.bspb.ru	0.7248
6	BIN Bank	https://eng.binbank.ru	1.3774
7	Center Invest Bank	https://www.centrinvest.ru	0.0836
8	Centro CREDIT Bank	https://www.ccb.ru	0.1206
9	CHELIND Bank	https://www.chelindbank.ru	0.0569
10	Credit Bank of Moscow	https://mkb.ru	1.9584
11	Deniz Bank	www.denizbank.ru	0.0205
12	Exim Bank	eximbank.ru	0.0829
13	EXPO Bank	https://expobank.ru	0.0823
14	HSBC Russia	www.about.hsbc.ru	0.0929
15	INTERSTATE Bank	www.isbnk.org	0.0090

Appendix-II List of non-sanctioned banks sampled (cont)

Sl No.	Name of the Bank	Data Source	Market Share in % (as of 31st Dec 2016)
16	LOCKO Bank	www.lockobank.ru	0.0994
17	MIZUHO Bank	https://www.mizuhobank.com	0.0537
18	Moscommers Bank	www.moskb.ru	0.0279
19	Natixis Bank	www.natixis.ru	0.0234
20	Nordea Bank	https://www.nordea.ru	0.2973
21	OTP Bank	https://www.otpbank.ru	0.1500
22	POMSVYAZ Bank	https://www.psbank.ru	0.0007
23	PRO Commerce Bank	www.procombank.ru	1.5291
24	ROS Bank	https://www.rosbank.ru	1.1000
25	ROSDOR Bank	en.rdb.ru	0.0183
26	RUSSO Bank	russobank.ru	0.0050
27	Russia Commercial Bank	www.rcbcy.com	0.8039
28	SDM Bank	www.sdm.ru	0.0679
29	SOVCOM Bank	sovcombank.com	0.7061
30	Transkapital bank	www.tkbbank.com	0.3111
31	Unicredit Bank	https://www.unicreditbank.ru	1.4642
	Total share in %		18.7153

Appendix-III Herfindahl-Hirschman index data (Russian banking sector)

Data Source: Bank of Russia						
https://www.cbr.ru/						
Country Name	Indicator Name	2012	2013	2014	2015	2016
Russian Federation	Herfindahl-Hirschman Index (Asset)	0.101	0.107	0.108	0.107	0.111
Note:	*The Central Bank of the Russian Federation calculates the Herfindahl-Hirschman Index as the sum of the squared unit weights of credit institutions in the total volume of the Russian banking sector. It shows the degree of concentration on a scale ranging from 0 to 1. The zero value corresponds to the minimum concentration; a value of less than 0.10 indicates a low level of concentration; a value between 0.10 and 0.18 represents a medium level of concentration, and a value of more than 0.18 corresponds to a high level of concentration.*					

Appendix-IV Real GDP growth (annual rate %) of Russian federation

Data Source: World Development Indicators							
Last Update Date: 3/1/2018							
Country Name	Country Code	Indicator Name	2012	2013	2014	2015	2016
Russian Federation	RUS	Real GDP growth (annual %)	3.6559	1.7853	0.7386	-2.8282	-0.225

Appendix-V Inflation (annual rate %) of Russian federation

Data Source: World Development Indicators							
Last Update Date: 3/1/2018							
Country Name	Country Code	Indicator Name	2012	2013	2014	2015	2016
Russian Federation	RUS	Inflation (annual %)	9.08593	5.4093	7.54	8.1509	3.6103

Appendix-VI Oil price (2012-2016)

Average annual OPEC crude oil price source: www.opec.org	
Year	Average price in U.S. dollars per barrel
2016	40.68
2015	49.49
2014	96.29
2013	105.87
2012	109.45

Appendix-VII Hausman test for appropriateness of FE

Correlated Random Effects–Hausman Test			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	11.303963	6	0.0794

Cross-section random effects test comparisons			
Variable	Fixed	Random	Var(Diff.)	Prob.
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EAit	0.068642	0.044836	0.000282	0.1560
CRit	0.167017	0.166475	0.000046	0.9361
LRit	0.000747	-0.001054	0.000001	0.0666
SIZEit	0.002764	-0.000469	0.000003	0.0577
MSHit	0.292719	-0.013954	0.116413	0.3687
GDPt	0.00085	0.000736	0.00000	0.2969

Appendix-VIII Panel unit root test summary

Levin, Lin & Chu unit root test: Summary		
Variable	Statistics	Probability
ROAit	-3.1088	0.0009
EAit	-1.34195	0.0898
CRit	-1.95887	0.0251
LRit	-3.19765	0.0007
MSHit	-6.87368	0.0000
GDPt	-13.6305	0.0000

Appendix- IX Descriptive statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max	Skewness	Kurtosis	Jarque-Bera	Probability
ROAit	185	0.0112	0.0331	-0.1572	0.3007	3.2352	39.0961	10366.14	0.0000
EAit	184	-0.000376	0.160502	-0.564293	0.544723	-0.261362	5.422669	47.09302	0.0000
CRit	185	0.0236	0.0990	-0.0085	1.3141	12.1114	157.7321	189075.8	0.0000
LRit	185	1.6962	2.0511	0.0025	19.8358	5.1114	39.1847	10898.34	0.00000
MSHit	185	0.0316	0.0829	0.0000	0.4236	3.5151	14.6688	1430.549	0.0000
GDPt	5	0.6253	2.1596	-2.8282	3.6559	-0.2484	2.1281	7.763019	0.0206

Appendix-X Graph indicating outliers

Series: Standardized Residuals	
Sample 2012 2016	
Observations 184	
Mean	3.59e-05
Median	0.002628
Maximum	0.134708
Minimum	-0.184386
Std. Dev.	0.027047
Skewness	-1.703266
Kurtosis	18.57060
Jarque-Bera	1947.701
Probability	0.000000
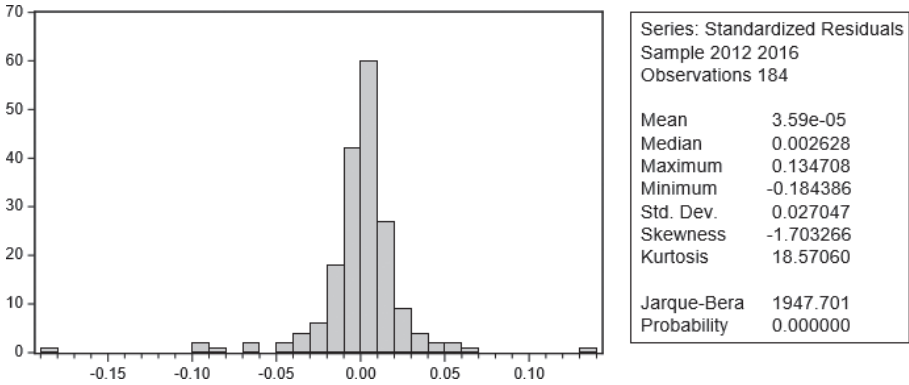
Appendix-XI Correlation test results

Variables	EA_{it}	CR_{it}	LR_{it}	$SIZE_{it}$	MSH_{it}	HH_t	GDP_t	$INFL_t$	OIL_t	Variance Inflation Factors	
										Coefficient Variance	*Centered VIF*
EA_{it}	1									0.0002	1.05
CR_{it}	0.082	1								0.0004	1.05
LR_{it}	0.013	-0.06	1							0.0000	1.04
$SIZE_{it}$	-0.207	-0.02	-0.03	1						0.0000	1.08
MSH_{it}	0.051	-0.05	-0.10	-0.18	1					0.0006	1.05
HH_t	-0.001	0.06	-0.09	0.00	0.00	1				3.7602	9.79
GDP_t	0.000	-0.03	-0.01	0.00	-0.01	-0.61	1			0.0000	8.56
$INFL_t$	0.002	0.03	0.12	-0.01	0.01	-0.80	0.16	1		0.0000	5.17
OIL_t	0.001	0.02	0.05	-0.01	-0.01	-0.67	0.83	0.44	1	0.0000	7.71