IMF programs and policies assessment in the transition economies during the transition and the post-transition period

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Abstract: We analyze empirically whether IMF financial assistance in 31 transition countries, during the transition and the post-transition period, has achieved the purposes stated in the IMF's own articles of agreement, namely employment enhancement, confidence provision and export promotion. By employing panel data and impact evaluation analysis, we find that IMF presence persistently fails to be correlated with upgrades in sovereign rating, FDI attraction and employment improvement. By focusing on specific IMF policies, we present some intriguing results, which reveal whether these individual policies actually contribute to the achievement of the official IMF purposes or not.

1. Introduction

The initiation of the transition period signaled a fundamental system change from the centrally planning economic paradigm towards to what is called "open market" economic system. This shift was anything but smooth as an entire socio-economic system established in several countries was uprooted with severe impacts in a rather short period. In this adjustment process, international organizations such as the International Monetary Fund (IMF) played a significant role, acting both

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as consultants and financiers, while their presence, in several transition countries continues until today, in the post-transition period.

The present paper aims to evaluate IMF programs in a number of transition countries by shedding light on a series of variables that the Fund itself has stated to be its objectives. The originality of the paper lies in the fact that very few studies focus on the IMF presence in the transition economies and even fewer have evaluated its mission and its objectives.

The paper is structured as follows. Section II reviews the literature and displays the various approaches dealing with the impact of IMF's policies. Section III analyzes the logic behind the selection of the variables and the methodologies employed, while also the empirical model. Section IV provides insight to technical issues and econometric details. Results are given in section V. Section VI discusses the findings that support the view that IMF's objectives are partly achieved and Section VII concludes.

2. Literature review

The transition path was a unique phenomenon in modern economic history, because it was the first case of the abandonment of a certain economic paradigm and its substitution with another, carried out in a relatively short period of time. Its uniqueness however does not lie only in the fact that it referred to the prevalence of an economic theory over another, but mainly because it constituted a vast "project", that is, it was initiated in a rather official manner in a large number of countries spread across a huge geographical area, following more or less common directions of actions (regardless of whether these were successfully implemented or not) and in a rather short period of time.

Given the vastness of the particular "project" and its radicalism, it is easily concluded that its implementation from the beginning was requiring the existence of enormous financial resources and guidance from specialized entities. The IMF was able to fulfill both requirements. With adequate cash reserves and with more than half of a century's experience in providing assistance to countries facing financial problems it concentrated much of the preferences for the particular mission.

The IMF itself has a number of objectives listed in its Article of Agreement (IMF, 2011), which actually consist its very core mission. These objectives include increasing and maintaining employment and real income in high levels, trade enhancement, development of the productive use of resources and exchange rate stability, while also correcting balance of payment "maladjustments". In exact words, the Articles of Agreement state that the mission of the IMF is to:

"*facilitate the expansion and balanced growth of international trade, and to contribute thereby to the promotion and maintenance of high levels of employment and real income and to the development of the productive resources of all members as primary objectives of economic policy*."

Along with these explicitly stated objectives, the mission of the IMF includes also the provision of confidence to its members, while also the enhancement of its members' access to international capital markets (Mody and Saravia, 2003; Kohler, 2001).

However, the achievement of these goals and the provision of the requested financial assistance are usually accompanied by certain dictated structural changes by the IMF, called "conditionality". The most common question in the IMF evaluation related literature is whether the policies imposed in the context of the IMF conditionality are rightfully selected and whether these have a really beneficial impact on the recipient countries. The fact that the completion rates for IMF programs, from 1973 to 1997, was only 35% (Bird, 2002) raises questions and doubts regarding their overall utility and efficiency.

Fiscal Consolidation and Fiscal Contraction, the two of the most commonly used methods by the IMF conditionality, have direct negative impact on employment, which the IMF is supposed to maintain in high levels. Nawaz and Wadho (2006), for the case of Pakistan, have shown a positive and highly significant association between IMF programs and unemployment increase, which the authors attribute to the reduction of public expenditure. Stiglitz (2002) also stressed the negative impact of austerity packages on employment in countries experiencing capital account crises and questioned their overall efficiency. Fiscal Consolidation and Contraction policies are also considered as causes of reducing education level in the recipient countries, resulting indirectly to greater unemployment in the long term (Marphatia, 2010). In the same strand, the IMF itself has admitted that both fiscal consolidation and contraction lead to high unemployment in both the short and long term respectively, with the wage earners carrying a much heavier burden than the rest (Ball et al, 2011). In the pro-IMF side, Evrensel (2002), found no statistically significant correlation between unemployment rate and IMF programs in a sample of 91 countries for the period 1971 -1997. Crivelli et al (2012) – IMF researchers - using a panel of 167 countries over the period 1991-2009 showed that structural policies have a positive impact on employment elasticities. However the authors themselves state that this does not mean necessarily that such policies contribute to job creation during periods of crisis[2].

Another major policy component of IMF conditionality is trade policy reform, as it is assumed that it can provide incentives towards reallocation of resources that will encourage the production of tradable goods, the enhancement of exports and consequently growth. These reforms aim particularly at eliminating any protectionism that could impose obstacles in the realization of the open global market (Weiss, 2002). The trade reform policies dictated by IMF programs have been criticized to be doctrinaire without giving the opportunity to the recipient countries to create their own policies, based on their own country-specific conditions (Chang, 2003; Gallacher, 2005; Hamway, 2005; Rodrik, 2007). The Criticism on trade conditionality goes further beyond with critics stating that behind these dictated policies there is a hidden agenda by strong industrial countries to force developing countries to open their markets to their superior products, while at the same time the rich countries set trade barriers in order to keep their markets closed and protected. Therefore, exports from the recipient countries are difficult

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[2] Actually, the authors admit that according to their empirical results, such policies have a negative impact on employment.

to be achieved and the negotiating power of the recipient countries is weakened, as they are obliged to obey to such policies (Stiglitz, 2002; Bello, 2000). In addition, Noorbakhsh and Palloni (1997) state that structural adjustment programs (SAPs), fail to generate an appropriate supply response that could underpin a lasting export expansion and diversification.

In the case of private capital flows and the Fund's commitment to their enhancement (i.e provision of confidence according to the IMF's Articles of Agreements), there is a widespread view that participation in one of the IMF programs is a kind of guarantee or "seal of approval", under which the foreign capital will keep flowing under favorable conditions (Marchesi and Thomas, 1999). Several studies, based mainly on empirical analysis arrive at conclusions at odds with these widespread, axiomatic views. Ozler (1992) focused on the developing countries in the 1970's and showed that economic difficulties of the past have a significant impact on current credit terms. His analysis also included an IMF-dummy variable for IMF program participations, which was found significant and positive for the interest rate spread deterioration. Killick et al (1991) analyzed the financial flows before and after the participation in IMF programs and found that financial flows significantly decline after the programs' initiation. Bird and Rowlands (1997, 2001) also pose a series of caveats regarding the IMF's positive effect on enhancing foreign capital flows. In the opposite strand of literature, Mody and Saravia (2003) failed to find any significant impact of IMF programs on bond spreads, while Hajivassiliou (1987) did not find any correlation between IMF programs and the flow of private debt.

Foreign capital however refers not only to liquid or even speculative capital, invested through capital markets, but to foreign direct investments as well, which have a less volatile character than the former. FDIs actually are considered to be means of attaining several of the rest of the IMF's objectives (e.g. employment improvement, productive use of resources, trade enhancement). Campos and Kinoshita (2008), studying a sample of 19 Latin American and 25 Eastern European countries, for the period 1989-2004, found that FDI inflows are strongly correlated to the structural reforms taking place in the host countries, though mostly to privatization schemes. In the same vein, Biglaiser and De Rouen (2010), examining a sample of 126 developing countries for the period 1980-2003, found that participation in IMF programs had a beneficial impact on US FDI inflows. Against these findings, Barro and Lee (2005) showed that IMF programs are associated with investment reduction in the recipient countries, which consequently lead to lower growth. Similarly, Jensen (2004) in a sample of 68 countries for the period 1970-1988 concluded that IMF agreements lead to approximately 25% less foreign direct investment when compared to countries that are not subject to IMF programs.

Given the existing literature review, IMF's presence in a troubled economy is rather controversial even on issues where IMF itself has stated to be its very basic objectives. Our empirical attempt is to evaluate IMF's record within the context of the transition economies.

3. Development of the empirical analysis
3.1.1. The Theoretical Basis of the developed model

As all IMF objectives reflect actually different aspects of economic growth, the dependent variables will have to be such that can meet the basic requirements of the economic growth theories.

The most known theories of growth (Harrod-Domar; 1939, 1946, Solow; 1956) refer to the role and the interaction of the two major growth parameters, namely capital, labour and productivity. The empirical model was constructed having in mind this fact. However, the presence of crisis conditions due to transition, while also of conditionality constraints, prevented the use of typical parameters, like the capital formation, the labour productivity or the trade terms of an economy, because these would carry embodied the impact of these economic particularities (crisis, conditionality). As a result, we tried to spot more basic or structural substitutes that could stand in a more unaffected manner against these particularities, but at the same time still being able to reflect the distinctive characteristics of the economic growth components for each economy examined. These include parameters related to the existence of natural resources, the rate of development, the geographical position, while also the political (or geopolitical) orientations of an economy. These are in detail described and analyzed below.

Based on the relevant literature and the basic growth theories regarding capital, labor and labor specialization (Harrod, 1939; Domar, 1946; Solow, 1956), the empirical model used in this paper is the following:

$$DEPVAR_{it} = constant + a\ OILPRODUCTION_{it} + b\ URBANIZATION_{it} + c\ LANDLOCK_i + d\ IMF\ (pc)_{it,} + e\ EUMEMBERSHIP_{it} + f\ CIS_{it} + g\ ECONOMIC\ CRISIS_{it}$$

i=Country, t= year

3.1.2. The Independent Variables

The right-hand part of the empirical model includes, apart from IMF presence, a series of control variables. Natural resources abundance accounts for strategic importance (Frederiksen and Looney, 1983; Chun, 2010), capital amount and capital basis for a potential development of industrial complex, as well as "resource curse" phenomena (Morrison, 2007, 2009; Jensen and Wantchekon, 2004; Jones and Weinthal, 2006; Lynn, 1997). Urbanization rate accounts for human capital and productivity (Kumar and Kober, 2012), bureaucracy sophistication, infrastructure levels, economies of scale and agglomeration potential (Vernon Henderson, 2003; Iimi, 2005) as well as democracy (Barro, 1999) and corruption levels (Hill, 2003). Landlock reflects geographical location and trade potential (Faye et al, 2004). EU membership incorporates geo-economic orientation (Maizels and Nissanke, 1986) and commitment towards higher development levels and economic growth (Barbone and Zalduendo, 1996; Rapacki and Prochniak, 2009), while CIS membership accounts for a corresponding Russian-orientation

reflecting until recently rather slow paced countries (De Nicolo et al, 2003), but with a promising future (Kurmanalieva and Fedorov, 2011). Finally, the crisis time dummy embodies the 2008 global financial crisis in the form of a time dummy variable.

The IMF presence is displayed by the per capita share of the IMF's funding (in SDRs). SDRs were preferred instead of national currencies to avoid exchange rate volatility. However, in the relevant literature it is often represented by forms like IMF(%GDP). We also carried out the analysis using also the variable IMF(% GDP) and the results were not altered in terms of the appeared significance and sign. It could be argued that the amount of the IMF funding cannot reliably capture the IMFs presence in an economy as this takes place in a rather later stage, which is indeed true. However, the disbursement of the funds coincides with the exact time that all the required measures that were decided in the prior stages (e.g that of the initial advices or that of the negotiations) were implemented (usually via the coming into power of new legislation), which is actually the very essence of IMF's conditionality. In this way, increasing funding denotes also higher rate of IMF measures implementation.

As the implementation of an IMF program in a country is a complicated issue, comprising several different conditions, targets and missions, it is of particular interest to focus further on the distinct IMF policies and their impact on the IMF objectives, mentioned previously. However, due to the lack of data in measuring specific IMF's policies we proxy them with policy transition indicators taken by the EBRD as these appear to all structural adjustment programs. Therefore, by deepening the research on the IMF's presence and in a second stage we use the following transition indicators: Large Scale Privatizations, Trade and Forex changes, Competition Policy and Price Liberalization.

3.1.3.   The Dependent Variables (DEPVAR)

The dependent variables are actually outlined by the IMF-set objectives in its Articles of Agreement (IMF, 2011). IMF's primary purpose, from the Articles of Agreement is the enhancement of trade. Transition itself is interpreted as the transformation of a centrally planned economy to an open economy capable of competing in the international trade and investment arena. Along with the transition process itself, the scope of the IMF's mission includes the regaining of the competitiveness of the recipient countries. Therefore, the actions and the measures involved in this direction should promote trade and particularly exports, as this is the trade parameter which has the most direct benefits to the domestic economy.

The second IMF objective is the attainment and maintenance of high levels of employment. Usually measures applied by IFIs (International Financial Institutions) worsen the unemployment records as the latter are linked in a great extent to Government Expenditure, which is often one of the primary targets of structural adjustment programs, in order to improve fiscal deficit. IMF and similar organizations, however state that in a longer term their measures improve the conditions regarding employment by creating the appropriate business-enhancing environment and diminishing, where possible, the waste of public expenditure.

The third IMF objective is related to the enhancement of the members' access to international capital markets, or in other words, the provision of confidence to the recipient countries by using the Fund's assistance as a "Seal of Approval" (Mody and Saravia, 2003; Kohler, 2001)[3]. An adequate measure of this is the Sovereign Rating, provided by International Rating Agencies, such as Fitch and Moody's.

Finally we employ in our analysis a variable that embodies several of the IMF's objectives. Foreign Direct Investments, as mentioned previously are indications of both productive use of resources, employment improvement and trade enhancement and as such can also be used as a variable for the evaluation of the IMF's objectives achievement.

3.2. Impact Evaluation Analysis

In order to evaluate the implementation of the IMF objectives in the transition countries, the empirical analysis has to take into consideration some particularities. Similar research attempts have faced certain problems due to the nature of the studied phenomenon. Crisis-like situations, such as that of transition, are by definition related to certain – usually unavoidable - negative developments reflected in the trends of several macroeconomic variables (e.g. economic growth decline). The difficult issue in such cases is to differentiate those negative consequences of the crisis itself from the consequences of specific events, like the implementation of an IMF program. A method that can distinguish such consequences is the impact evaluation method, which is very common in the related literature, especially when assessing IMF effects.

It is important though to stress at this point the fact that this paper is differentiated from IMF evaluation papers in that it does not focus on the impact of IMF presence, but rather on testifying whether the IMF's own officially set and stated goals are achieved (leaving somehow aside the issue of impact origination). Therefore, the impact evaluation analysis carried out here has to be viewed as a merely supportive tool, in case that someone actually insists on seeing an impact evaluation character in the attempted research.

A possible way of implementing Impact Evaluation Analysis is to follow the techniques of other researchers (e.g. Pastor, 1987; Evrensel, 2002; Noorkbash and Palloni, 1997; Barro and Lee, 2005; Hakro and Wadho, 2006). The most common methods used are the "before-after" and the "with-without" approaches. Both of them are based on comparing either the conditions prior and after to the IMF programs, or the conditions prevailing in similar countries that did not follow similar programs with the conditions in countries that did follow such programs.

Some researchers consider as an alternative impact evaluation method the comparison of the real outcome with the initially targeted program (Evrensel, 2002; Hakro and Wadho, 2006, Reichmann and Stillson, 1978; Goldstein and Montiel, 1986; Khan, 1990; Santaella, 1996; Knight

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[3] In the recent Eurozone financial crisis, in which IMF together with European Commission and European Central Bank (Troika), have implemented a series of programs to countries hit severely by the crisis (Greece, Portugal, Ireland, Spain), the return of an economy to the Capital Markets is considered to be the sign/milestone that indicates the successful completion of each program.

and Santaella, 1997). This is actually our case as we compare the IMF's officially stated purposes (in its articles of agreement) with the outcome of the programs' implementation. Therefore, even the panel data analysis alone can stand as an impact evaluation method in our case. However, as already stated earlier, in order to ensure further the robustness of our results, we do apply in the analysis both the 'before- after', and the 'with – without' methods, following the particular techniques as described in the study of Noorkbash and Palloni (1997).

The before-after approach

This approach compares how a variable behaves during a program and in the period prior to the program, by running the following cross-section regression, for the sample of the countries which have adopted an IMF program.

$$\Delta y_i = a_1 \cdot d_i$$

Where Δyi is the change in each of the dependent variables between years within IMF programs and previous years and d_i is a dummy variable that takes the value of 1 for IMF program years and 0 for non program years. The regression aims to examine whether the dummy variable (di) is significant or not.

The with-without approach

This approach compares the performance of a variable for countries that have asked for the IMF finance assistance and for the countries that have not adopted an IMF program. In this case the regression equation is the following:

$$\Delta y_i = a_0 + a_1 \cdot d_i$$

, where di is a dummy variable that takes the value of 1 for countries with IMF programs and the value 0 for non-IMF program countries; hence, a1 is the difference in the mean changes of the selected variable between countries with IMF and without IMF programs. In this case also the regression aims at showing the significance or not of the dummy variable (di).

The implementation of the "before-after" method faced certain obstacles, because in several cases observations existed only after the IMF program had initiated. The "with-without" method did not face similar data problems and is successfully applied in all cases. Therefore, the results have to be interpreted with caution.

4. Econometric details
4.1. Data

There are 31 countries in the sample (see Appendix – **A**) and the time period examined is 1985 – 2011.We also divide the period into two unequal sub-periods namely 1985-2004 and 2005-2011, with the first one to be the main transition period. Since there is no official end of the transition process the sample division could be considered arbitrary. However, as several of the

transition countries in Europe started joining the EU in 2004, we adopt Lavigne's approach (2000) that accession to EU is indeed an important milestone indicating at least the beginning of the end of the transition process and the initiation of participation of the transition countries in the open market economies.

4.2. Panel Data Method – Descriptive Statistictics

The use of the panel data method, technically speaking, allows for a much larger degree of freedom in comparison to cross-sectional or time-series techniques and results in more accurate regression estimates. It can also address omitted variable bias and heterogeneity problems that often arise in cross-sectional investigations, which is of particular importance, as it is very likely in most cases that there is a number of country-specific factors that cannot be directly incorporated into the regression equations. Lastly it has greater capacity for capturing the complexity of social behavior than a single cross-section of time-series data.

Given the fact that the model contains dummy variables, we estimate the model by using the Random Effects method. Any potential heteroskedasticity problems are resolved by using the Newey-West Heteroskedasticity and Autocorrelation Consistent Standard Errors. All variables are in logarithmic form and we test stationarity by using the Levin, Lee and Chu and the Philips Perron methods with a Newey West bandwidth selection. The results confirmed the stationarity of the variables.

The descriptive statistics are displayed in table 2 (Appendix A). All variables exhibit strong excess kurtosis and skewness and the Jarque – Bera test statistics show that normality is rejected at the 1% level of significance for all variables.

4.3. Missing Observations

Missing observations is a common problem in transition studies (Mc Donald and Eger, 2010). These are due to the examined economies' nature and the previous regime policies either not to keep records or even not to disclose data. Both of them dictate the approach to the results with a certain degree of caution.

5. Results

Detailed results for the whole sample as well as for the two sub-samples of the Panel Data Analysis method are presented in the Appendix B. Impact Evaluation results are given in Appendix C.

First, we assess the results of the control variables and then IMF's finance and its distinct policies.

The natural resources abundance, proxied by Oil and Gas Production has a significant and positive relation with Exports, as expected (Tables 3.4, 4.4, 5.4, 6.4, and 7.4).

Urbanization negatively associated with unemployment (Tables 3.3, 4.3, 5.3, 6.3, 7.3) though not always significantly, which can be attributed to the fact that job opportunities are more frequent in an urban network, possibly due to the development of tertiary sector. Surprisingly, the rate of urbanization is negatively and significantly associated to exports (Tables 3.4, 4.4, 5.4, 6.4, and 7.4).

The Landlock variable has a positive and significant liaison with the Inward FDI stock (Tables 3.2, 4.2, 5.2, 6.2 and 7.2) and a negative and significant with exports (Tables 3.4, 4.4, 5.4, 6.4 and 7.4). These correlations show that FDI are attracted to countries, which are landlocked, like the Central European and Central Asian Democracies, possibly substituting trade activities but also taking advantage of critical locations in regional networks. The negative correlation with exports is expected as the lack of access to sea routes has a negative impact on exports.

EU membership is significant and positive towards Sovereign Rating (Tables 3.1, 4.1, 5.1, 6.1, 7.1) denoting a provision of confidence to EU members, though the significance vanishes in the period 2005-2011. The same relation is found also with inward FDI stock (Tables 3.2, 4.2, 5.2, 6.2 and 7.2), revealing an EU-related FDI enhancing character in the transition economies. Surprisingly the EU membership is negatively and significantly correlated with Exports (Tables 3.4, 4.4, 5.4, 6.4 and 7.4) especially in the transition period (1985-2004). It would be expected that the entrance to a common market with no trade barriers would boost export activities. However, in that period, the competitiveness of the transition countries products was low, resulting to low demand and thus, to low level of exports. This is supported by the fact that in the second period the variable loses its significance, retaining though its negative sign, which might be interpreted as an export potential improvement (though still far from becoming positive and significant).

Membership in other large international organizations for transition economies like CIS has a totally different attitude than EU. In the post transition period it is negatively and significantly correlated to inward FDI stock (Tables 3.2, 4.2, 5.2, 6.2 and 7.2), denoting a non-attractive environment for the CIS members. However, CIS is negatively and significantly correlated with unemployment (Tables 3.3, 4.3, 5.3, 6.3, 7.3), especially in the post-transition period, implying a significant presence of job opportunities.

The time dummy reflecting the 2008 global economic crisis has a constant pattern of behavior, which was rather expected. In the overall period it is insignificant (with the exception of FDI stock), though in the post-transition period it is strongly significant. In this way, the economic crisis is negatively associated with Sovereign Rating (Table 3.1) in the post transition period, positively and strongly significant with FDI stock both in the overall and the transition period (Table 3.2), positively and significantly with unemployment rate (only in the post-transition period), (Table 3.3) and insignificantly and positive with Exports. In the case of the IMF policies the same exactly pattern is repeated, that is negative and significant with Sovereign Rating (Tables 4.1, 5.1, 6.1, 7.1), positive and significant with FDI stock in all periods (Tables 4.2, 5.2, 6.2, 7.2), positive and significant with unemployment rate periods (Tables 4.3, 5.3, 6.3, 7.3) and positive and significant with exports (Tables 4.4, 5.4, 6.4, 7.4).

Getting to our main focus, the IMF finance (IMF pc) is negatively correlated to Sovereign Rating in a significant basis (Table 3.1). With FDI stock it is positively and significantly correlated in the transition period but negatively in the post transition period (Table 3.2). IMF presence is positively correlated with Unemployment in a significant manner for the overall and the transition period, but insignificantly for the postr-transition one (Table 3.3). Finally, IMF finance is positively and significantly correlated to Exports only during the transition period (Table 8.4).

The distinct policies implemented (LARGE SCALE PRIVATIZATIONS, PRICE LIBERALIZATION, COMPETITION POLICY, TRADE FOREX) display some common patterns. All of them are positively and significantly correlated to Sovereign Rating in the overall period and the transition period (Tables 4.1, 5.1, 6.1, and 7.1). They demonstrate exactly the same pattern (positive and very significant for the entire and the transition period) with FDI Stock (Tables 4.2, 5.2, 6.2, and 7.2). They also have a common positive and significant liaison with Unemployment almost in all periods (Tables 4.3, 5.3, 6.3, and 7.3), while the majority of them are negatively and significantly correlated to Exports almost in all periods (Tables 4.4, 5.4, 6.4, and 7.4).

The Impact Evaluation Analysis results based on the "before-After" and "With-Without" methods (presented in the Appendix, Part D), show that with the 'Before-After' method, the IMF finance (IMF pc) has a positive and significant impact on the amount of inward FDI stock (Table 8), on Exports (Table 9) and on Unemployment increase (Table 11). Due to data omission problems the method couldn't be applied in the case of the Sovereign Rating (Table 10). Using the 'With-Without' method we reach at similar results. In the case of FDI stock the association is significant and positive (Table 8), while in the case of Exports (Table 9), the association is positive but not statistically significant. In terms of Sovereign Rating the association is significant and negative (Table 10) and in terms of Unemployment (Table 11) the association is as in the other method positive and significant (that is, unemployment significantly increasing with the IMF presence).

The Crosscheck of the results of the two methods (Panel Data Analysis and Impact Evaluation Analysis) shows that there are some common patterns regarding the IMF finance (IMF pc). Both methods show that the IMF's finance is correlated significantly and in a positive manner with FDI stock, and increases in the Unemployment rate. Both approaches exhibit a positive correlation of IMF's finance with Exports (but not so strongly significant). Finally, in both methods IMF's finance is negatively and significantly correlated to Sovereign Rating.

6. Discussion

The results demonstrate that the presence of the IMF in the countries at hand was correlated in a positive manner with variables, like Exports, but was also correlated in a negative manner with variables like Sovereign Rating, and Employment[4], while with FDI there was no significance. At the same time, policies that are usually part of the IMF conditionality framework

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[4] The association of IMF variable with Unemployment rate is "positive", that is higher values of the IMF variable are associated with higher rates of Unemployment.

were found to be positively correlated to Sovereign Rating and FDI stock, and negatively correlated to employment and exports.

The negative correlation of the IMF presence with the Sovereign rating has been observed in other studies as well. Benelli (2003) showed that the larger the amount of IMF credit provided the harder is for the country to return to capital markets. Hovaguimian (2003) also stresses Fund's inability to motivate the flow of international capital in the recipient economies, while Diaz-Cassou et al (2006) showed that the IMF programs fail to stimulate foreign capital flows, something that is reflected in the Sovereign rating of the recipient countries. However a more careful look at the results shows that as the IMF's finance increases in the recipient transition country, the attained Sovereign Rating (in its 10-year bonds) worsens. The increased financial assistance from IMF may denote increased domestic problems and more difficult economic conditions as well, which in turn are reflected to bad sovereign ratings (Benelli, 2003). However, the increased IMF credit over a long time period as in our case shows that the IMF programs are implemented in a rather successful or at least accepted manner, which allows for the continuation of finance. Conditionality requires that the continuation of financing takes place only when intermediate goals are achieved. Therefore the results actually show that as the IMF intermediate goals are attained and more finance is released, the sovereign rating deteriorates. Of course someone cannot just claim that it is the IMF's credit that harms the sovereign rating.

However, the fact that the IMF fails to contribute significantly to the Sovereign Rating improvement could be actually evaluated negatively in terms of capacity on behalf of the Fund to achieve its objectives. As it was shown in the beginning, the provision of confidence to the host economy is one of the objectives of the Fund. It is assumed by the IMF mode of thought that the more the programs are implemented and more finance is released, the higher is the provision of confidence to the host economy (reflected in its sovereign rating). However this hardly finds support by the empirical findings.

In the case of employment and its negative correlation to the IMF finance (IMF pc) and to the Policies implemented (Large Scale Privatizations, Price Liberalization, Competition Policy, Trade Forex), it is important first to focus on some particularities of the transition economies themselves. In all transition economies, during the centrally planned economy era, unemployment was technically kept in the lowest possible levels. Employment was rather irrelevant to the real needs of the market. The transition from the previous paradigm to the open market economy system had severe effects on unemployment. This fact explains in particular the results extracted from the "before-after" method. At this point it is important to stress the facts arising from the 'with-without' method, which imply that the countries that did not adopt an IMF program managed to handle unemployment better than the ones that followed such a program. In this case, the explanation may lie, at least partly, on the course of transition that these countries chose. The shock therapy approach, which was evangelized by the supporters of the Washington Consensus, stressed the importance of a quick adjustment, in order for the transition to be successful. However, all transition countries did not follow this, as there were alternative techniques/strategies and approaches, while also suspicion for the efficiency of such radical methods. The countries that consist the control group of the no-IMF program in the "With-without" method in their majority followed either the gradual approach or even the

lagged approach, the latter meaning a significant delay in the implementation of the necessary changes (Lavigne, 1999; Wolf, 1999). Therefore, countries that followed the gradual or the lagged approach kept unemployment in lower levels than the rest of the transition countries, which in their majority followed the shock therapy approach. This of course is not a proof by itself that the particular economies are more employment efficient, because they might just simply continue the same or similar patterns of the central planning era policies, that is keep technically unemployment low.

However, beyond this, we have to state that these findings are similar to other IMF evaluation studies focusing though on other regions of the world, like Asia and Latin America (Hakro et al 2006; George, 2013), stating that the IMF policies have resulted in increased unemployment rates. The IMF itself recently officially recognized this association. In the beginning of 2013, the Chief Economist of IMF, Olivier Blanchard referring to IMF programs applied in European countries stated that the "Forecasters significantly underestimated the increase in unemployment and the decline in domestic demand associated with fiscal consolidation" (Shneider, 2013).

In terms of the association between the IMF finance (IMF pc) and FDI stock, there is no clear or significant pattern (negative significance in the overall period, positive insignificance in the post period), which actually confirms previous studies on the IMF's ability to enhance foreign capital (Bird and Rowlands, 1997, 2001). The results can be interpreted in the known view that the transition countries have received limited FDI. The truth is that the vast majority of the incoming FDI in the transition countries accounted for privatized firms (Lavigne, 1999), which actually had less to offer in terms of development and growth enhancement in the host economies, compared to new FDIs, while also there is evidence that these FDIs were positively associated with Corruption and Bad Governance (Bellos and Subasat, 2011,2013).

The Export enhancement of the IMF finance (IMF pc) (especially during the transition sub-period) is related to the favorable conditions shaped in the recipient economy, mainly due to diminished production costs. In this case, the IMF achieves its stated objective and this is verified by both methods applied in the analysis so far. However, this outcome fails to find support from the empirical results of the individual policies (Large Scale Privatizations, Price Liberalization, Competition Policy, Trade Forex), since the majority of them is negatively and significantly correlated to exports. The explanation of this disagreement may lie first on the fact that the IMF programs consist of many more parameters and policies than those that we examine in this paper. Such programs usually include, apart from these already described and used in the present analysis, policies related to Currency devaluation, Financial Sector Liberalization, Labor Market Reforms and last but not least Public Spending Cuts. All these may formulate a combined outcome towards Exports that would match that of the IMF finance variable (IMF pc).

The IMF policies may aim towards the improvement of the export potentials of the recipient country. However, the policies, which are examined here, may have a different outcome when examined individually. In parallel to the reduction of the production cost that normally could enhance exports, the competition and the trade policies introduced, may be partly responsible for making several domestic firms uncompetitive at least in the short run, by

exposing them suddenly in unfavorable operating conditions. These findings are partly similar to that of Noorbakhsh and Palloni (1997), which showed that structural adjustment programs have positive effects on exports in the short and medium term, failing however to generate a lasting export expansion and diversification, mainly because the imposed programs do not really focus on real and permanent reforms. The generation of long term export promotion strategies does not lie on structural adjustment programs, which are focused mainly on cost reduction policies and sudden openings to the international market, but on real reforms in the domestic industry (Thomas and Nash, 1991).

Finally, it is important to comment on the difference between the IMF finance (IMF pc) and the Policies implemented (Large Scale Privatizations, Price Liberalization, Competition Policy, Trade Forex) regarding their correlation to Sovereign Rating. IMF finance has a permanently negative and significant correlation, while the individual IMF Policies have a permanently positive and significant correlation with the Sovereign Rating. We will again refer to the fact that the examined policies are not but a segment of the total IMF policies framework. As noted earlier, the present analysis does not include variables representing many of them e.g. Public Spending Cuts. Therefore, there is again a gap between IMF overall presence and the examined policies in this article. Despite that, the phenomenon observed might have some additional explanations related to the IMF presence itself. Although IMF programs are supposed to benefit a country, it might be really bad news and an equally bad signal to other economic entities that the IMF believes that intervention is necessary (Zwart, 2007). Such negative signals usually result to having deteriorating effects on Sovereign rating due just to the presence of IMF in an economy. The implemented policies studied here may on their own be necessary tools that would improve certain features of an economy, having by this way a positive impact on the Sovereign Rating. Therefore, the observed difference in the sign of the correlation to Sovereign Rating might as well lie on the signal that some of the policies give, which is different from that of the IMF presence.

7. Conclusions

We attempted to assess the IMF presence in the transition economies during the transition and the post-transition period. The assessment was based on the IMF stated purposes (objectives) in its Terms of Agreement. By applying panel data and impact evaluation analysis in 31 transition countries in the period 1985-2011, the empirical analysis shows that the IMF presence in the countries of interest has been associated positively to Exports, but negatively (deteriorating) to unemployment rate and to sovereign long term rating appraised by international rating agencies. Therefore, IMF achieves its objectives in terms of export enhancement, but seems to need certain improvements in terms of reducing the unemployment rate, creating those conditions that could actually attract FDIs and providing real confidence to the recipient economies.

In order to simulate some of the individual IMF policies and their association with the IMF objectives, the study included selected quantified policy variables (provided by EBRD), which are usually met in IMF funding programs, like large scale privatizations, competition policy changes, price liberalization and changes in the trade and foreign exchange regimes. The empirical results

showed that the examined policies do have some common patterns regarding their association with the IMF objectives, though not always towards their fulfillment. More specifically, the selected IMF policies were found to be positively related to the improvement of Sovereign Rating and the FDI enhancement, but also correlated to unemployment increase and exports decrease, verifying by this way in a second stage (that of individual policies), the need for the improvement, update, or even radical restructuring of the implemented IMF policies, without of course overlooking their successful contributions so far.

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APPENDICES

Part A.
Participating Countries in the Sample

The participating countries are:

Albania, Armenia, Azerbaijan, Belarus, Bosnia, Bulgaria, China, Croatia, Czech Republic, Estonia, FYROM, Georgia, Hungary, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Montenegro, Mongolia, Poland, Romania, Russia, Serbia, Slovakia, Slovenia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan, Vietnam

EU MEMBERS (10): Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia

CIS MEMBERS (11-1): Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Uzbekistan (Georgia left CIS in 2008)

Table 1. Dependent and Independent variables

Nr	NAME		DESCRIPTION	SOURCE
DEPENDENT VARIABLES				
1	Sovereign Rating		10 year Government Bonds Rating	Fitch
2	FDI Stock (%GDP)		Inward FDI Stock as a percentage of GDP	UNCTAD
3	UNEMPLOYMENT		Unemployment rate (%)	World Development Indicators 2013
4	EXPORTS (%GDP)		Exports as %GDP	World Development Indicators 2013
INDEPENDENT VARIABLES				
1	OIL PRODUCTION		The Annual Oil and Natural Gas Production in thousands barrels	International Energy Association
2	URBANIZATION (%)		The percentage of the urban population in the total population of a country	World Development Indicators 2013
3	Landlock		Access to Sea (1 for countries with no access to sea and 0 for countries with direct access to sea)	Dummy Variable
4	IMF Finance		IMF Credit provided to a country in SDRs per capita	IMF 2012
	4.1	Large Scale Privatization	Index for the magnitude of Large Scale Privatizations (1 small progress – 4 large progress)	EBRD Transition Indicators Database
	4.2	Price Liberalization	Index for the magnitude of Price Liberalization (1 small progress – 4 large progress)	EBRD Transition Indicators Database
	4.3	Competition Policy	Index for the magnitude of changes in Competition Policies (1 small progress – 4 large progress)	EBRD Transition Indicators Database
	4.4	Trade and Foreign Exchange Policies	Index for the magnitude of changes in Trade and Foreign Exchange Policies (1 small progress – 4 large progress)	EBRD Transition Indicators Database
5	EU membership		Membership in EU (0 No membership – 1 Membership)	Dummy Variable
6	CIS membership		Membership in CIS (0 No membership – 1 Membership)	Dummy Variable
7	Economic Crisis		Year after the initiation of the Global Financial Crisis (0 – year before 2008 – 1 year after 2008)	Dummy Variable
8	ε_{it}		Error Term	

Table 2. Descriptive Statistics

	IMF Credit	SOVEREIGN RATING	FDI STOCK (%GDP)	UNEMPLOYMENT	EXPORTS (%GDP)	OIL AND GAS PRODUCTION	URBANIZATION	LARGE SCALE PRIVATIZATIONS	PRICE LIBERALIZATION	COMPETITION POLICY	TRADE FOREX
Mean	3.12E+08	11.97651	16024.02	11.69416	43.41893	458.7360	54.54940	2.490233	3.569006	1.929488	3.196522
Median	1.00E-07	12.00000	1466.760	9.882000	41.70329	7.230200	55.42690	3.000000	4.000000	2.000000	4.000000
Maximum	1.37E+10	19.00000	491052.0	38.40000	98.76220	10213.14	75.36500	4.000000	4.330000	3.670000	4.330000
Minimum	1.00E-07	1.000000	0.000000	0.025000	3.945298	0.000000	19.56100	1.000000	1.000000	1.000000	1.000000
Std. Dev.	1.27E+09	3.306374	47662.56	7.582212	18.01125	1532.299	13.39764	1.041728	0.988587	0.737413	1.257032
Skewness	6.646176	-0.219478	6.453721	1.476453	0.425528	4.459064	-0.555586	-0.252829	-1.580868	0.276887	-0.729571
Kurtosis	50.88585	2.553713	55.15262	5.204549	2.689150	23.80931	2.584279	1.722667	4.450616	2.341127	1.970374
Jarque-Bera	86132.23	4.865520	71561.10	254.0534	23.60161	13796.42	48.79425	50.64176	324.7066	19.87756	85.57757
Probability	0.000000	0.087794	0.000000	0.000000	0.000007	0.000000	0.000000	0.000000	0.000000	0.000048	0.000000
Sum	2.61E+11	3569.000	9534294.	5250.677	29959.06	296343.4	45385.10	1603.710	2298.440	1242.590	2058.560
Sum Sq. Dev.	1.35E+21	3246.836	1.35E+12	25755.49	223515.2	1.51E+09	149161.9	697.7819	628.4066	349.6493	1016.023
Obs	837	298	595	449	690	646	832	644	644	644	644

Part B.
Table 3. Panel Data Analysis Results for IMF presence

	1.SOVEREIGN RATING			2.INWARD FDI STOCK			3.UNEMPLOYMENT			4.EXPORTS (%GDP)		
	1985-2011	1985-2004	2005-2011	1985-2011	1985-2004	2005-2011	1985-2011	1985-2004	2005-2011	1985-2011	1985-2004	2005-2011
CONSTANT	1.89 (2.08)**	1.87 (1.24)	1.61 (1.80)*	-22.5 (-6.62)***	-19.4 (-4.40)***	-18.81 (-5.71)***	4.21 (2.74)**	3.17 (1.85)*	7.67 (2.85)**	1.01 (0.77)	1.39 (-0.42)	1.91 (0.97)
OIL PRODUCTION	-0.02 (-2.08)**	-0.03 (-2.22)**	-0.02 (-1.87)*	-0.03 (-0.37)	-0.03 (-0.35)	-0.04 (-0.75)	-0.06 (-1.93)*	-0.06 (-1.63)	0.004 (0.12)	0.02 (1.51)	0.05 (2.72)**	0.06 (3.48)***
URBANIZATION	0.13 (0.57)	0.14 (0.38)	0.22 (0.99)	1.59 (1.93)*	0.76 (0.71)	1.08 (1.34)	-0.42 (-1.11)	-0.16 (-0.37)	-1.31 (-1.93)*	-1.14 (-3.57)***	-0.76 (-2.25)**	-1.42 (-2.94)**
LANDLOCK	0.06 (1.12)	0.12 (1.42)	0.05 (0.86)	1.12 (2.87)**	1.26 (2.71)**	0.41 (1.30)	-0.15 (-0.68)	-0.31 (-1.13)	-0.26 (-1.09)	-0.38 (-3.34)***	-0.34 (-2.10)**	-0.42 (-4.10)***
IMF(Pc)-2	-0.005 (-7.19)***	-0.004 (-6.21)***	-0.002 (-1.84)*	0.02 (2.78)**	0.03 (3.97)***	-0.004 (-1.99)**	0.008 (2.70)**	0.008 (1.83)*	0.002 (1.09)	0.0011 (1.20)	0.003 (2.70)***	-0.001 (-1.22)
EU MEMBERSHIP	0.12 (5.42)***	0.09 (2.95)***	0.09 (2.19)**	1.78 (9.90)***	2.00 (7.69)***	0.42 (3.11)***	0.09 (1.02)	0.27 (1.61)	-0.10 (-1.05)	-0.23 (-7.57)***	-0.14 (-3.13)***	-0.05 (-0.64)
CIS	0.005 (0.05)	-0.09 (-0.57)	0.09 (0.91)	0.06 (0.14)	0.13 (0.21)	-0.36 (-1.96)*	-0.22 (-1.26)	-0.03 (-0.11)	-0.30 (-2.49)**	0.03 (0.32)	-0.02 (-0.12)	-0.03 (-0.44)
ECON. CRISIS DUMMY	-0.04 (-1.55)	-	-0.05 (-2.66)**	1.34 (9.71)***	-	0.32 (6.46)***	0.07 (0.99)	-	0.11 (2.23)**	0.03 (0.67)	-	0.04 (1.71)*
R²	0.508	0.509	0.440	0.291	0.190	0.355	0.09	0.09	0.286	0.386	0.353	0.533
N	223	114	123	382	245	156	347	215	150	395	257	157

t-values are in brackets. "*" shows significance at 10% level, "**" shows significance at 5% level and "***" shows significance in 1% level.
All variables in log form.

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Table 4. Panel Data Analysis Results for IMF Policies (EBRD Indicators)- LARGE SCALE PRIVATIZATIONS

	1. SOVEREIGN RATING			2. INWARD FDI STOCK			3. UNEMPLOYMENT			4. EXPORTS (%GDP)		
	1985-2011	1985-2004	2005-2011	1985-2011	1985-2004	2005-2011	1985-2011	1985-2004	2005-2011	1985-2011	1985-2004	2005-2011
CONSTANT	4.38 (2.99)**	3.79 (2.09)**	3.18 (2.25)**	-23.87 (-8.07)***	-19.69 (-4.47)***	-20.13 (-7.19)***	6.49 (3.83)***	4.59 (1.91)*	7.62 (2.46)**	1.42 (0.97)	-0.24 (-0.15)	2.98 (1.51)
OIL PRODUCTION	0.01 (0.85)	-0.02 (-1.69)*	-0.006 (-0.44)	0.03 (0.63)	0.07 (1.15)	-0.01 (-0.29)	0.004 (0.02)	0.03 (1.13)	0.02 (0.68)	0.03 (1.69)*	0.06 (2.28)**	0.07 (3.84)**
URBANIZATION	-0.63 (-1.77)*	-0.45 (-1.00)	-0.20 (-0.53)	1.32 (1.82)*	0.27 (0.25)	1.04 (1.53)	-1.00 (-2.40)**	-0.55 (-0.95)	-1.37 (1.93)*	-1.22 (-3.37)***	-0.83 (-2.07)**	-1.58 (-3.35)***
LANDLOCK	-0.01 (-0.12)	0.06 (0.56)	-0.03 (-0.29)	1.24 (3.23)***	0.94 (1.88)*	0.68 (2.48)**	-0.21 (-1.23)	-0.27 (-1.19)	-0.23 (-1.02)	-0.47 (-3.70)***	-0.46 (-2.20)**	-0.54 (-4.95)***
LARGE SCALE PRIVATIZATIONS (-2)	0.49 (5.93)***	0.44 (4.96)***	0.13 (0.58)	2.61 (16.78)***	2.30 (14.34)***	1.22 (3.78)***	0.07 (1.87)*	0.15 (2.48)**	0.25 (0.72)	-0.15 (-2.83)**	-0.14 (-2.51)**	-0.34 (-2.79)**
EU MEMBERSHIP	0.12 (5.51)***	0.13 (5.36)***	0.03 (0.88)	0.77 (8.57)***	0.78 (6.48)***	0.37 (3.29)***	-0.20 (-3.46)***	-0.08 (-0.91)	-0.14 (-1.13)	-0.20 (-6.23)***	-0.14 (-2.85)**	-0.01 (-0.19)
CIS	-0.01 (-0.08)	-0.03 (-0.17)	0.05 (0.65)	0.13 (0.43)	0.29 (0.53)	-0.15 (-0.87)	-0.44 (-4.06)**	-0.42 (-1.71)*	-0.42 (-2.33)**	0.001 (0.08)	-0.02 (-0.07)	-0.07 (-0.93)
ECON. CRISIS DUMMY	0.01 (0.09)	-	-0.04 (-2.41)**	0.73 (7.20)***	-	0.31 (5.93)***	-0.02 (-0.29)	-	0.08 (1.76)*	0.06 (1.42)	-	0.07 (2.53)**
R²	0.276	0.469	0.179	0.677	0.578	0.384	0.320	0.357	0.433	0.405	0.374	0.605
N	206	104	115	354	224	148	315	190	142	362	231	149

t-values are in brackets. "*" shows significance at 10% level. "**" shows significance at 5% level and "***"shows significance in 1% level. All variables in log form.

Table 5. Panel Data Analysis Results for IMF Policies (EBRD Indicators)-PRICE LIBERALIZATION

	1.SOVEREIGN RATING			2.INWARD FDI STOCK			3.UNEMPLOYMENT			4.EXPORTS (%GDP)		
	1985-2011	1985-2004	2005-2011	1985-2011	1985-2004	2005-2011	1985-2011	1985-2004	2005-2011	1985-2011	1985-2004	2005-2011
CONSTANT	2.16 (1.46)	1.80 (0.88)	0.86 (0.47)	-2.41 (-6.96)***	-2.10 (-4.88)***	-2.26 (-5.78)***	7.03 (3.83)***	5.29 (1.91)	-3.94 (-1.51)	1.51 (1.01)	-0.20 (-0.12)	5.55 (2.54)**
OIL PRODUCTION	0.005 (0.40)	-0.03 (-1.57)	-0.01 (-0.61)	0.05 (0.96)	0.08 (1,12)	-0.02 (-0.32)	-0.003 (-0.16)	0.03 (1.59)	-0.009 (-0.37)	0.03 (1.68)*	0.03 (2.25)**	0.08 (3.67)***
URBANIZATION	-0.37 (-1.00)	-0.08 (-0.17)	-0.15 (-0.39)	1.12 (1.34)	0.39 (0.36)	1.04 (1.39)	-1.18 (-2.62)**	-0.79 (-1.18)	-0.05 (-0.09)	-1.24 (-3.41)***	-0.84 (-2.09)**	-1.85 (-4.23)***
LANDLOCK	-0.02 (-0.24)	0.08 (0.79)	-0.01 (-0.15)	1.04 (2.87)**	0.81 (1.72)*	0.64 (2.00)**	-0.23 (-1.20)	-0.30 (-1.26)	0.12 (0.99)	-0.47 (-3.60)***	-0.46 (-2.11)**	-0.62 (-4.75)***
PRICE LIBERALIZATION (-2)	1.20 (3.49)***	0.72 (3.57)***	1.61 (1.17)	2,65 (13.12)***	2.25 (11.30)***	2.87 (1.91)*	0.21 (2.04)**	0.29 (2.64)**	4.53 (6.48)***	-0.09 (-1.69)*	-0.08 (-1.15)	-1.31 (-2.82)**
EU MEMBERSHIP	0.12 (5.21)***	0.13 (5.29)***	0.01 (0.44)	1.21 (11.85)***	1.22 (11.29)***	0.38 (3.14)***	-0.19 (-3.56)***	-0.06 (-0.84)	-0.33 (-3.25)***	-0.23 (-7.41)***	-0.18 (-3.48)***	-0.02 (-0.26)
CIS	-0.01 (-0.09)	-0.09 (-0.44)	0.07 (0.67)	-0.23 (-0.60)	0.05 (0.09)	-0.30 (-1.83)*	-0.42 (-4.08)***	-0.45 (-1.76)*	-0.34 (-2.29)**	0.04 (0.34)	0.007 (0.02)	-0.05 (-0.72)
ECON. CRISIS DUMMY	0.006 (0.25)	-	-0.04 (-2.75)**	0.96 (9.46)***	-	0.26 (5.71)***	-0/02 (-0.30)	-	0.12 (2.63)**	0.04 (0.99)	-	0.05 (2.51)**
R²	0.298	0.399	0.180	0.604	0.491	0.347	0.314	0.384	0.751	0.387	0.355	0.639
N	206	104	102	354	224	130	315	190	125	362	231	131

t-values are in brackets. "*" shows significance at 10% level. "**" shows significance at 5% level and "***" shows significance in 1% level.

All variables in log form.

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Table 6. Panel Data Analysis Results for IMF Policies (EBRD Indicators)-COMPETITION POLICY

	1.SOVEREIGN RATING			2.INWARD FDI STOCK			3.UNEMPLOYMENT			4.EXPORTS (%GDP)		
	1985-2011	1985-2004	2005-2011	1985-2011	1985-2004	2005-2011	1985-2011	1985-2004	2005-2011	1985-2011	1985-2004	2005-2011
CONSTANT	4.14 (2.77)**	3.05 (1.42)	3.26 (2.22)**	-1.97 (-6.61)***	-1.63 (-4.41)***	-1.69 (-5.11)***	6.79 (3.54)***	4.69 (1.85)*	8.05 (2.43)**	0.99 (0.70)	-0.44 (-0.27)	2.36 (1.61)
OIL PRODUCTION	0.009 (0.75)	-0.02 (-0.96)	-0.01 (-0.74)	0.07 (1.34)	0.12 (1.57)	-0.006 (-0.10)	-0.01 (-0.48)	0.03 (1.18)	0.002 (0.05)	0.03 (1.63)	0.05 (2.21)**	0.07 (3.41)***
URBANIZATION	-0.46 (-1.26)	-0.16 (-0.31)	-0.21 (-0.56)	0.36 (0.48)	-0.53 (-0.59)	0.57 (0.67)	-1.08 (-2.27)**	-0.59 (-0.94)	-1.42 (-1.66)*	-1.11 (-3.13)***	-0.77 (-1.96)*	-1.45 (-3.97)***
LANDLOCK	-0.02 (-0.25)	0.10 (0.79)	-0.02 (-0.17)	0.91 (2.09)**	0.42 (0.70)	0.40 (1.15)	-0.22 (-1.00)	-0.30 (-1.23)	-0.32 (-1.24)	-0.45 (-3.74)***	-0.42 (-2.09)**	-0.51 (-4.67)***
COMPETITION POLICY (-2)	0.18 (2.61)**	0.09 (0.97)	0.15 (2.85)**	3.26 (15.06)***	2.91 (14.25)***	0.35 (0.76)	0.10 (1.38)	0.20 (2.33)**	-0.003 (-0.01)	-0.26 (-3.69)***	-0.22 (-2.98)**	-0.33 (-3.73)***
EU MEMBERSHIP	0.14 (5.44)***	0.15 (4.93)***	0.007 (0.22)	0.40 (3.49)***	0.55 (4.95)***	0.39 (2.73)**	-0.21 (-3.59)***	-0.09 (-1.06)	-0.12 (-1.29)	-0.16 (-4.62)***	-0.12 (-2.20)**	-0.007 (-0.07)
CIS	-0.06 (-0.57)	-0.17 (-0.86)	0.05 (0.61)	-0.32 (-0.87)	0.14 (0.21)	-0.38 (-2.21)**	-0.38 (-3.87)***	-0.41 (-1.62)	-0.27 (-2.09)**	0.02 (0.23)	-0.02 (-0.07)	-0.01 (-0.22)
ECON. CRISIS DUMMY	-0.001 (-0.07)	-	-0.05 (-3.09)***	0.82 (7.45)***	-	0.26 (5.26)***	-0.02 (-0.31)	-	0.14 (2.99)**	0.07 (1.56)	-	0.07 (2.93)**
R²	0.249	0.350	0.255	0.634	0.563	0.326	0.275	0.337	0.288	0.431	0.388	0.656
N	206	104	102	354	224	130	315	190	125	362	231	131

t-values are in brackets. "*" shows significance at 10% level. "**" shows significance at 5% level and "***"shows significance in 1% level. All variables in log form.

Table 7. Panel Data Analysis Results for IMF Policies (EBRD Indicators)-TRADEFOREX

	1.SOVEREIGN RATING			2.INWARD FDI STOCK			3.UNEMPLOYMENT			4.EXPORTS (%GDP)		
	1985-2011	1985-2004	2005-2011	1985-2011	1985-2004	2005-2011	1985-2011	1985-2004	2005-2011	1985-2011	1985-2004	2005-2011
CONSTANT	3.14 (1.79)*	2.29 (1.20)	2.81 (1.87)**	-2.77 (-7.25)***	-2.49 (-4.95)***	-1.87 (-5.46)***	6.27 (3.72)***	4.91 (2.23)**	2.86 (1.17)	1.64 (1.09)	0.17 (0.11)	4.31 (2.57)**
OIL PRODUCTION	0.01 (0.85)	-0.02 (-1.61)	-0.01 (-0.89)	0.01 (0.19)	0.05 (0.70)	-0.003 (-0.07)	-0.001 (-0.084)	0.03 (1.43)	0.03 (1.18)	0.03 (1.80)*	0.05 (2.13)**	0.07 (3.56)***
URBANIZATION	-0.32 (-0.83)	-0.02 (-0.04)	-0.06 (-0.17)	2.16 (2.34)**	1.44 (1.18)	0.81 (1.04)	-0.94 (-2.31)**	-0.66 (-1.25)	-0.76 (-1.59)	-1.27 (-3.48)***	-0.92 (-2.30)**	-1.74 (-4.63)***
LANDLOCK	-0.008 (-0.10)	0.09 (0.95)	-0.02 (-0.19)	1.29 (3.25)***	0.90 (1.77)*	0.48 (1.49)	-0.21 (-1.18)	-0.28 (-1.42)	-0.03 (-0.24)	-0.47 (-3.69)***	-0.47 (-2.36)**	-0.59 (-5.39)***
TRADEFOREX (-2)	0.39 (1.68)*	0.17 (0.63)	-0.004 (-0.01)	2.33 (14.86)***	2.14 (13.50)***	0.73 (0.83)	0.04 (0.58)	0.16 (2.22)**	1.75 (2.53)**	-0.10 (-1.97)**	-0.11 (-2.09)**	-0.75 (-3.00)***
EU MEMBERSHIP	0.17 (7.99)***	0.17 (6.70)***	0.02 (0.61)	1.20 (12.71)***	1.09 (12.75)***	0.42 (3.56)***	-0.18 (-3.29)***	-0.09 (-1.49)	-0.19 (-2.02)**	-0.23 (-7.32)***	-0.19 (-5.44)***	-0.04 (-0.46)
CIS	-0.02 (-0.21)	-0.08 (-0.41)	0.05 (0.65)	0.26 (0.77)	0.84 (1.47)	-0.35 (-2.08)**	-0.43 (-4.01)***	-0.41 (-1.84)	-0.43 (-2.39)**	0.02 (0.13)	-0.03 (-0.11)	-0.05 (-0.71)
ECON. CRISIS DUMMY	-0.005 (-0.17)	-	-0.04 (-2.73)**	0.74 (6.85)***	-	0.26 (5.96)***	-0.01 (-0.23)	-	0.11 (2.07)**	0.05 (1.26)	-	0.06 (2.78)**
R²	0.242	0.383	0.145	0.651	0.565	0.328	0.300	0.372	0.567	0.393	0.369	0.695
N	206	117	102	354	242	130	315	207	125	362	249	131

t-values are in brackets. "*" shows significance at 10% level. "**" shows significance at 5% level and "***"shows significance in 1% level.

All variables in log form.

Part C. IMPACT EVALUATION ANALYSIS RESULTS

Table 8. Impact Evaluation Analysis. IMF Program Effects on FDI stock

Before – After Method	With – Without
2.44E-05	6.96E-05
(8.63)***	(6.61)***

t-values are in brackets. "*" shows significance at 10% level. "**"shows significance at 5% level and "***"shows significance in 1% level.

Table 9. IMF Program Effects on Exports

Before – After Method	With – Without
4.494	0.437
(4.19)**	(0.14)

t-values are in brackets. "*" shows significance at 10% level. "**"shows significance at 5% level and "***"shows significance in 1% level.

Table 10. IMF Program on Sovereign Rating

Before – After Method	With – Without
(N/A)	-3.3334
(N/A)	(-6.49)***

t-values are in brackets. "*" shows significance at 10% level. "**"shows significance at 5% level and "***"shows significance in 1% level.

Table 11. IMF Program on Unemployment

Before – After Method	With – Without
6.019	5.0978
(12.82)***	(5.96)***

t-values are in brackets. "*" shows significance at 10% level. "**"shows significance at 5% level and "***"shows significance in 1% level.