

**EXCHANGE RATE, TRADE, FDI AND GROWTH IN
UKRAINIAN ECONOMY**

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There is no consensus in the theoretical and empirical literature about any unique consequence of exchange rate policies on macroeconomic variables. The empirical studies on this issue can be classified broadly into two categories. Firstly, a section of the literature investigates whether the exchange rate is a significant determinant for the balance of trade in the long- and short-run. Some of them report a significant impact of exchange rate movements on balance of trade while some others find insignificant result. Second, there exists another segment of the studies which tests whether Marshall-Lerner condition and the J-curve or S-curve hypothesis –following a devaluation in the exchange rate initially deteriorates the balance of trade but improves eventually – hold in reality.

Taking into account these debates, It will be quite interesting and useful to analyze the influence of the exchange rate in Ukraine. The main objective of this paper aims to study the relationship between exchange rate, export, import, foreign direct investment and economic growth. Our model uses quarterly data from 1998 till 2016. For this purpose the IMF International Financial Statistics data base has been used as a primarily source and also sources of National Bank of Ukraine and State Committee of Statistics and OECD.

Using multiple linear regression performed econometric impact assessment of the external macroeconomic indicators on the economic growth inflows in the condition of high rate of GDP growth and financial crisis.

In the table 1 we summarize the results of multiple OLS linear regression, where dependent variable is rate of GDP growth (Growth) independent variables

annual rate of change of export, foreign direct investment and real effective exchange rate respectively: DIFF(export), DIFF(FDI), DIFF(REER).

Our research showed that increasing of export and real effective exchange rate are the main external drivers of Ukrainian economy. So, devaluation of national currency is really bad thing for our economy. There is no statistical significant impact of the foreign direct investment on the economic growth in Ukraine.

It has been discovered that during the whole period the impact of devaluation on exports was positive. But when we divided our period into two main parts: from 1998 till 2007 (in order to analyze the effect of devaluation of 1998) and from 2008 till 2016 (to find out the results of Global financial crisis of 2008 and political and economic instability of Ukraine in 2014-2015), the results were different.

The deal is that the devaluation from 1998 till 2007 influenced the volume of export in a positive way, while the devaluation starting from 2008 lead to decreasing of exports and accordingly of trade balance and competitiveness as well.

Table 1.

Export, FDI and REER in Economic Growth of Ukraine (1998-2016)

Independent variables	Dependent variable Growth For period (1998-2016)	Dependent variable Growth For period (2009-2016)
	Model specification I	Model specification II
Constant	2,236 (2,814)	-1,495 (-1,237)
DIFF(Export)	0,349 (3,021)*	,358 (1,839)
DIFF(FDI)	-0,110 (-,991)	-,137 (-,768)
DIFF(REER)	0,221 (1,982)	,272 (1,571)
Adjusted R ²	0,169	0,174
Fisher statistics	5,93	3,386
Number of observations	76	36

* t-statistics in parenthesis

In order to confirm or reject the results of regression model we have created a simulation model via Vector Autoregressive model (VAR). It is one of the most successful, flexible and easy models for the analysis of multivariate time series. The VAR model has proven to be especially useful for describing the dynamic behavior of economic and financial time series especially in the terms of forecasting. It often provides superior forecasts in comparison to those from univariate time series models to elaborate theory-based simultaneous equations models. Forecasts from VAT models are quite flexible as they can be made conditional on the potential future paths of specified variables in the model. We use five endogenous variables (Log (fdi); growth; Log(export); Log(wage); Log(exchange rate)) with two periods lag for period from 1998 to 2016 (quarterly data).

Next step of our analysis to make variance decomposition, which decomposes variation in an endogenous variable into the component shocks to the endogenous variables in the VAR. The variance decomposition gives information about the relative importance of each random innovation to the variables in the VAR.

The results shows that for the whole period of our survey (from 1996 to 2016) the variance of growth was explained by Log(FDI) -18%; by Log(wage)- 20% and by export -10% and exchange rate not more than 5 %. In the period of investment boom in 2000-2008 the variance of growth was explained by Log(FDI) increased to 35%, after crisis this indicator decreased to 20%. So, high dynamics of economy is very attractive for foreign investors of Ukrainian economy.