Category: review paper

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Cross-Sectional Analysis of Exchange Rate and Internal Depreciation Elasticity on External Trade Balance and Foreign Direct Investment Inflow in Croatia and Hungary From 2010 to 2017

Abstract:

In recent years, external trade figures between Croatian and Hungarian have marked significant changes. Although, both of them have been passed strong process of transformation in the earlier nineties of the last century. In the observed period, Hungarian export marked significant result in terms of external coverage ratio and it is continuously in the surplus side. Comparing with Croatia, the results are totally different; low external trade coverage ratio (in average below 60%) and continuously in the deficit side. Therefore, the main goal of this article is to point out how depreciation of exchange rate in correlation with internal depreciation influence on the net foreign direct investment inflow (hereinafter FDI) and external trade balance. Thus, in the observed period Hungary had significant high level of capital accumulation in terms of FDI, followed with high level of internal depreciation and depreciation of exchange rate, while Croatian economy, had considerably lower level of capital accumulation measured in terms per capita FDI followed with internal appreciation and stable exchange rate. Additionally, in the observed period, Croatia had passed through the recession which lasted six years, while in Hungary that was not the case.

Keywords:

exchange rate, external trade balance, net salary, foreign net investment inflow (FDI inflow), macroeconomic indicators

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Introduction

After global economic crisis from 2008 which first occurred in the USA and transmitted on European market in 2009, caused significant imbalances in certain markets. Some countries suffered higher rate of decrease in GDP, while other countries experienced a lower fall in GDP in 2009. In mentioned circumstances the economic crisis in Croatia lasted for six years (2009 - 2014), while in the same time in some countries lasted notably shorter (e.g. Poland economy without recession). On the other hand, Hungary had a negative rate of GDP only in year 2009. In year 2010, Hungary has recorded a positive gross domestic growth for +0.7%. In the period from 2009 to 2014, Croatian GDP decreased for -12.6%, while Hungarian market in the same time achieved growth for +0.05%.

The main reason of such fast rate of recovery is a stable macroeconomic situation followed by high level of internal depreciation and continuous exchange rate depreciation/devaluation which was the backbone of FDI inflow [1]. In the same period, Croatia recorded slightly exchange rate depreciation in 2017 comparing with 2010, although in some years Croatia was faced with appreciation pressures on exchange rate and followed by slightly increase in average net salaries. All mentioned did not have any influence on FDI inflow. Accordingly, the paper will show, how the exchange rate policy has played significant role in the net export growth and on the other hand, how the low level of net salaries/internal depreciation had led to a strong FDI inflow.

In the following of the paper, it will be analyzed how the policy of relative low level of net salaries and gradually exchange rate depreciation led to Hungarian economy on the level of external trade surplus and high level of FDI inflows. The Croatian economy continuously maintained a stable exchange rate policy and policy of high level of internal appreciation. Because of that, the exchange rate in Croatia was not presenting as an instrument for exchanging commodities among the countries and did not play a significant role for improving the coverage ratio in external trade balance. Nevertheless, Hungarian convergence effect to developed countries has become more and more stronger in the recent years. The average net salary in year 2017 increased by 13.8% (Hungarian statistics office, hereinafter KHS) comparing with 2016, while in Croatia increased by 5.3% in the same observed period. This gap between average net salary among the countries has declining due to the high level of openness of the economy and the high level of mobility of labor force among EU member states.

Comparing the GDP per capita between Croatia and Hungary in 2017, there are the significant differences between the countries. The Hungarian average GDP per capita is around EUR 20.700 measured by purchasing power parity (PPP), while in Croatia is EUR 18.100. At the same time, the average gross salary in Hungary is EUR 961 in 2017, while in Croatia is EUR 1.079. Accordingly, all mentioned indicators led to the fact that Hungarian average citizen with 11% lower salary, earns 14.4% higher GDP per capita. Depreciation of Hungarian HUF against EUR in 2017 compared with 2010 was 12.3%, while Croatia HRK depreciated only 2.38% in the same observed period.

Methodology of Research and Overview of Previous Research

In this paper the impact of important macroeconomic variables will be analyzed, likewise, the correlation between the movements of internal depreciation and the exchange rate depreciation on

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the movement of FDI will be examined. The impact of mentioned variables on the external trade balance will be also explored. It will be explained whether the variables: net salary the depreciation of the exchange rate influenced on the FDI inflow, and whether they had positive impact on the external trade balance.

The main focus will be on Hungary and Croatia. The test on the existence of correlation between variables in the economic model will be performed by a simple and multiple linear regression method in which the dependent variables will be the export and the FDI.

Based on the determination coefficient and coefficient of correlation, the existence of the strength of the relation between the variables will be determined [2]. In the first part of empirical research, the correlation between the observed variables will be shown, in the separate table. Afterwards, the E-views program will be used to test the determination coefficient of single and multiple linear regression and to prove its reliability. Other econometric indicators will not be used, as they are showing similar results.

Hypothesis 1: Depreciation of exchange rate has an impact on export growth.

Explanation: If the correlation coefficient is higher than 0.8, and the coefficient of determination is higher than 0.7 in the econometric model, the model is reliable.

Hypothesis 2: FDI depends on the movement of internal depreciation and exchange rate movement.

Explanation: If the correlation coefficient is higher than 0.8, and the coefficient of determination is higher than 0.7 in the econometric model, the model is reliable. The econometric model, a multiple linear regression model will be also used.

So far, no research has been conducted on this subject.

Macroeconomic Movements

Negative macroeconomic trends from 2009, which had affected Europe, where almost all EU members had negative GDP growth rates (apart from Poland). The Croatian and Hungarian economies had different levels of economic recovery in the observed period. Croatia had a negative growth rate of GDP from 2009 to 2014 (six years in a row), while Hungary has marked the positive growth rate of GDP already in 2010. Croatia's GDP has dropped for 12.6% in observed six years and has not yet reached pre-recession level.

At the same time, Hungary recorded significant level of growth rate of GDP and has performed better than Croatia in a very short period. Convergence effect in Hungary is much more emphasized in the last years than in Croatia, although the starting position was in favor of Croatia, which enjoyed a significantly higher level of economic development, if looking at GDP per capita and a net salary which represent a measure of wealth of population.

In 2017, a big part of macroeconomic indicators changed significantly in favor of Hungary. Hungary has recorded a significant growth rates for the most important macroeconomic indicators, while in Croatia that is not a case. Low net salary and fluctuating exchange rate represented one of the most important indicators for attracting foreign capital in the form of FDI inflow.

Table 1. Selected macroeconomic indicators from 2010 to 2017 for Hungary and Croatia

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Hungary	2010	2011	2012	2013	2014	2015	2016	2017
GDP, growth rate n/(n-1), %	0,7	1,7	-1,6	2,1	4,2	3,4	2,2	4,0
GDP per capita, EUR	9.871	10.152	10.013	10.281	10.690	11.238	11.568	12.604
Unemployment rate, ILO in %	11,2	11,0	11,0	10,2	7,7	6,8	5,1	4,2

Croatia	2010	2011	2012	2013	2014	2015	2016	2017
GDP, growth rate n/(n-1) %	-1,4	-0,3	-2,2	-0,6	-0,1	2,3	3,2	2,8
GDP per capita, EUR	10.219	10.474	10.315	10.281	10.244	10.597	11.117	11.804
Unemployment rate, ILO in %	17,2	17,4	18,6	19,8	19,3	17,1	15,0	13,9

Source: Croatian Bureau of Statistics (CBS), Hungarian Bureau of Statistics (KSH), Croatian National Bank (NCB), Hungary National Bank (NBH), International Monetary Fund (IMF)

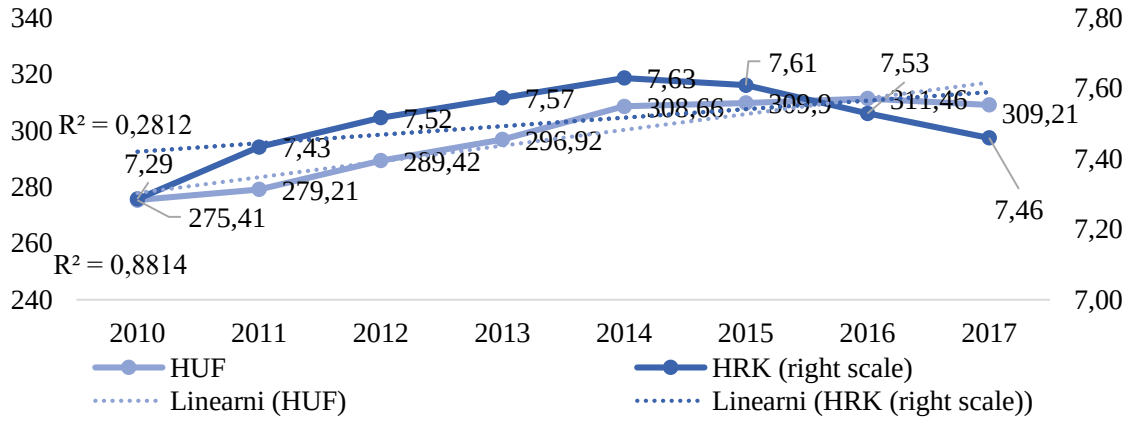
Within Table 1, the selected macroeconomic indicators are showing the trend for the last eight years. From 2010 to 2014 Croatia has passed through the recession period, while Hungary has achieved average growth of 2% of GDP. Both countries are enclosed by depopulation process, whereby in Croatia the trend is more accelerated.

Slightly slowdown of the Hungarian economy was registered in 2012, with GDP falling by -1.6% compared with 2011. However, the policy of low salaries and depreciation of HUF has brought Hungary to stable GDP growth rates in 2013. In 2010, the nominal GDP per capita was higher in Croatia by almost 350 EUR, than in Hungary. However, the trend changed in the upcoming years, especially in 2013, in favor of Hungary.

EXCHANGE RATE POLICY

One of the key determinants of the economic movements in observed countries is certainly an exchange rate policy. Hungary and Croatia have led different exchange rate policies. Hungary conducts a fluctuating exchange rate policy, while Croatia conducts a stable exchange rate policy. Such different exchange rate policies supported by other policies (Salary policy, Social policy, etc.) have led Hungary into the area of external trade surplus during observed period (2012 - 2017), while Croatia achieved deficit in the external trade balance, for the same period.

Chart 1. Movements of the HUF and the HRK against the EUR from 2010 to 2017



Source: NCB, KSH

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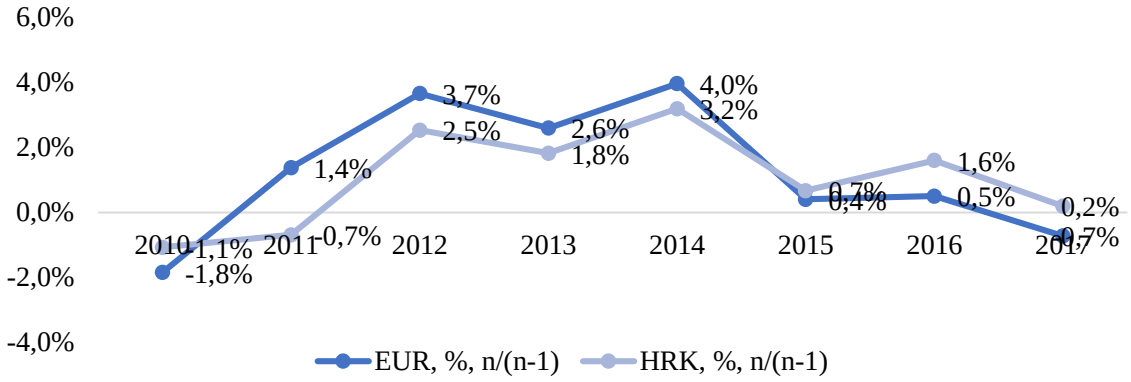
Chart 1 shows the area of apro-depreciation movements for observed currencies. Hungary's HUF depreciated more than 12.2% in 2017, compared with 2010, while Croatian HRK depreciated 2.4% in the same period. The linear trend points out significantly higher incidence of the Hungarian currency comparing with the Croatian HRK.

THE HUF AGAINST THE EUR AND THE HRK IN THE PERIOD FROM 2010 TO 2017

HUF depreciation against EUR and HRK has been constant from 2010 until today. HUF depreciated against EUR by 12.2% in 2017 compared to 2010. At the same period, HUF depreciated against HRK by 9.6%.

Chart 2. Movement of the exchange rate, growth / fall of HUF in relation to the EUR and the HRK from 2010 to 2017, n/(n-1)



Source: KSH, author calculation

The coefficient of correlation of the depreciation and appreciation of HUF against EUR and HRK amounts 0.84, which points out a very high correlation between the variables, but not the perfect correlation. Chart 2 shows that, in 2017, even the HUF had an appreciation against the EUR, while at the same time HUF depreciated against HRK.

SALARY POLICIES

The second, important variable in the movement of macroeconomic equilibrium is the average net salary. Taking into account the observed countries, the differences are huge, like in the exchange rate policy. These two countries have a completely different salary policy. E.g. Hungary maintains a low net salary policy, i.e. it has a strong internal depreciation in comparison to Croatia, which has on average higher net salary and a high internal appreciation policy compared with the GDP per capita.

Table 2. Average monthly net salaries from 2010 to 2017 and gap between countries (Hungary and Croatia)

	2010	2011	2012	2013	2014	2015	2016	2017	*2017/2010*
Hungary, net salary in EUR	481	506	498	509	504	524	562	639	*32,7%*
Croatia, net salary in EUR	733	732	729	728	725	750	755	802	*9,4%*
GAP, absolute (CRO-HU)	*252*	*226*	*231*	*219*	*221*	*226*	*193*	*163*	*-35,1%*
GAP, relative (CRO-HU)	*34,3%*	*30,9%*	*31,7%*	*30,1%*	*30,4%*	*30,2%*	*25,6%*	*20,4%*	

Source: CBS, KSH, author calculation

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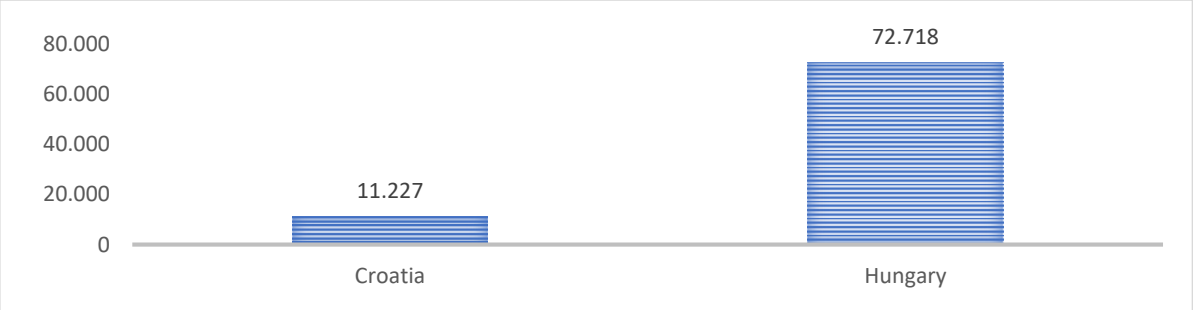
Table 2 clearly shows the trend of convergence of average net salaries in Hungary and Croatia. In 2010, the difference between net salaries between Hungary and Croatia amounted 252 EUR in favor of Croatia. Croatian net salary was higher by 34.3% than the average net salary in Hungary. In 2017, this gap between net salaries has decreased considerably and was 163 EUR in favor of Croatia. The average net salary in Hungary denominated in EUR in 2017 was higher by almost 33% compared to 2010, while in Croatia the net salary increased by 9.4% in the same period. The gap in net salaries decreased by over 35%. All the above-mentioned points indicate differences in economic policies which influence on various macroeconomic trends between countries. The exchange rate policy and salary policy are one of the main segments in attracting foreign capital.

Relatively cheap labor force and high level of depreciation of the exchange rate led the Hungarian economy to an external trade surplus, followed by significantly high level of GDP per capita. Thus, on the one hand, we have strong pressure of labor force, (Table 2), where the convergence effect is present, and on the other hand, we have an accelerated growth in net salary. If analyzing the year 2017, one can see that the average net salary denominated in EUR has risen to almost 14% in Hungary compared to 2016, while in Croatia increased around 6%. The low salary policy had significant implications, also on unemployment. Therefore, in 2017, Hungary was almost at natural unemployment level of 4.0%, while in Croatia, the unemployment was 13,9%, and the average net salary was higher for 20.4%.

Foreign Direct Investment Inflow (FDI Inflow)

Analyzing the FDI inflow, it is noticeable that it is in strong correlation with internal depreciation / devaluation and depreciation of the exchange rate. Thus, Hungary with less than ten million inhabitants from 2010 to 2016, had FDI inflow of 72.7bn USD while Croatia had only 11.2bn USD. In 2017, the trend is even more significant in favor of Hungary. Such a strong investment inflow in Hungary results in significantly more stable macroeconomic indicators than in Croatia.

Chart 3. FDI inflow (Balance of payment, current prices in billion USD), from 2010 to 2016 - cumulative



Source: World Bank, accessed 5th of April 2018

Hungarian economy with more than double number of inhabitants had six times higher FDI inflow from 2010 to 2016 (there is no data for 2017). A favorable macroeconomic environment with lower level of net salaries created a favorable area for FDI inflow. Therefore, the significantly higher capital accumulation is achieved in Hungary then in Croatia, with a significantly lower level of average net salary.

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External Trade Balance

If analyzing external trade, in the observed period from 2010 to 2017, Hungary recorded a surplus in external trade, while in the same observed period Croatia was constantly in deficit.

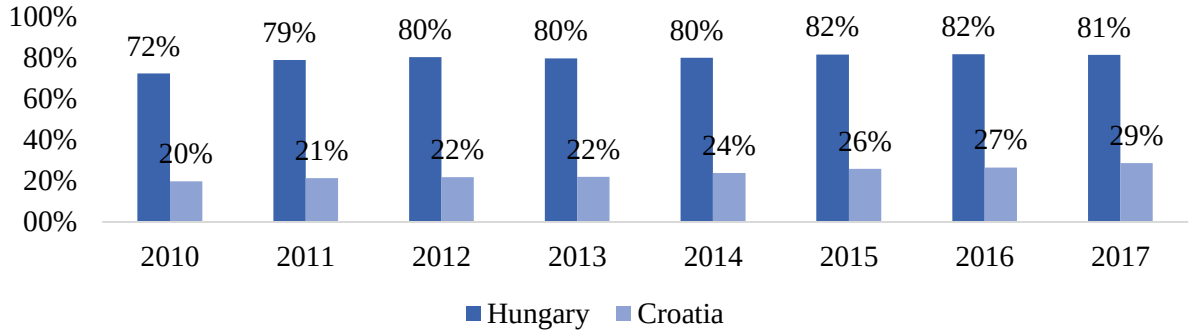
Table 3. Movements in import and export in Hungary and Croatia from 2010 to 2017

Hungary	2010	2011	2012	2013	2014	2015	2016	2017	*Cumulative*
Export in mn EUR	71.494	80.020	79.964	81.227	84.443	90.395	92.983	100.589	*681.114*
Import in mn EUR	65.990	72.934	73.323	74.642	78.165	81.796	83.257	92.499	*622.607*
Coverage ratio	*108%*	*110%*	*109%*	*109%*	*108%*	*111%*	*112%*	*109%*	*109%*
Croatia	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	***Cumulative***
Export in mn EUR	8.906	9.582	9.629	9.585	10.367	11.534	12.320	13.987	*85.911*
Import in mn EUR	15.138	16.281	16.216	16.512	17.126	18.496	19.719	21.807	*141.295*
Coverage ratio	*59%*	*59%*	*59%*	*58%*	*61%*	*62%*	*62%*	*64%*	*61%*

Source: NCB, NBH, author calculation

Table 3 shows that Hungary has an average import coverage at index 109, while Croatia is at the same period at index 61. The deficit in external trade denominated in EURs is 39% in Croatia, while the surplus is present in Hungary of 9%. Despite the strong depreciation pressures against the EUR, Hungary has a significant surplus in external trade, while the Croatian export being denominated in EURs with a mild appreciation is in deficit. The share of exports in the total GDP in Hungary is about 81% in 2017 year, while the Croatian does not exceed 30%. Therefore, the Hungarian share of exports in GDP is one of the largest in Europe.

Chart 4. Movement of export share in GDP from 2010 to 2017



Source: CBS, KHU, author calculation

Empirical Research and Analysis

Based on the conducted analyses in the previous chapters, the exchange rate and level of net average salary was a key factor for withdrawing FDI in both countries. The high volatility in exchange rate of Hungarian HUF, followed by a relatively low level of average net salaries were significant influenced on the FDI inflows. All mentioned indicators led Hungarian economy to a high share of exports in the GDP and had a significant impact on the surplus in external balance. Consequently, conclusion is that

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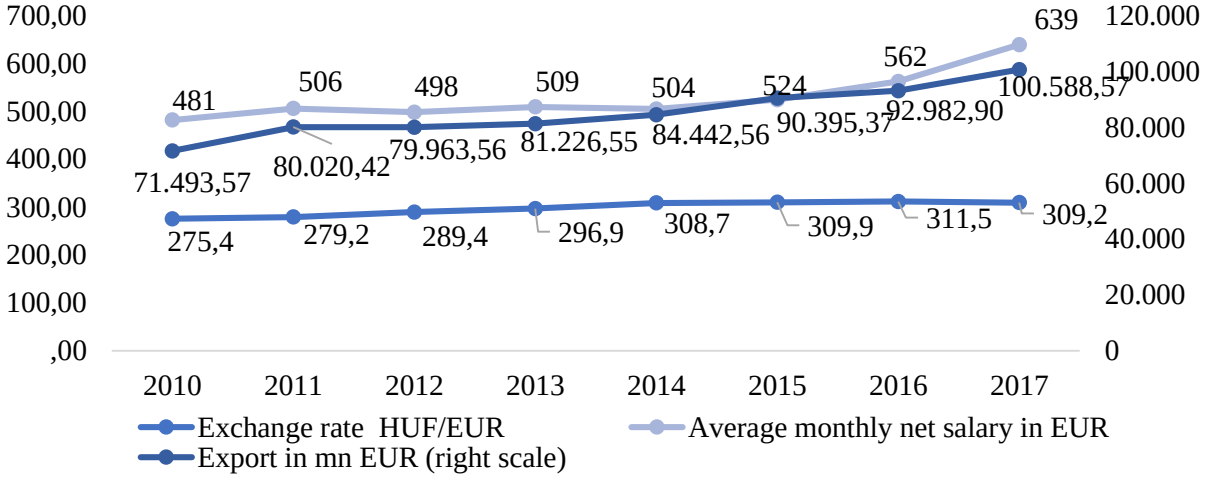
Hungary is one of the very few countries in general which have a continuously external trade surplus. In Croatia, the situation is significantly different. The policy of strong internal appreciation (relatively high base of net salary) followed by stable exchange rate, was influenced on lower FDI inflows and significantly worse position in external trade balance. Accordingly, Croatian economy in the last eight years has been continuously on the deficit side, while the share of exports in GDP did not exceed 30% in the observed period. The Hungarian starting position and a more favorable macroeconomic circumstances comparing with Croatian have led to a strong absorption of capital accumulation.

The Croatian position at the very beginning of the observed period was more unfavorable for FDI inflows, because of relatively high starting base of net salary. The average net salary was 52% higher in 2010 comparing with Hungarian denominated in EURs.

This situation allowed to Hungarian economy a huge inflow of FDI, especially in the labor intensive sector, who is in average significantly cheaper than the Croatian. However, due to the strong pressure on labor force, especially in the last few years, and particularly in 2017, Hungary has a significant convergence effect to developed countries, primarily in the average net salary and then in other macroeconomic indicators. According to the latest indicator (KHS), the average net salary in 2017 is almost 14% higher comparing with 2016, while in Croatia it was 6.2%. The growing trend in salaries will continue in the next periods in both countries, because they are significant affected with the process of depopulation. In the next several years both countries are faced with outflow of workforce into developed economies in Europe. Both economies have challenges with losing a population.

Chart 5. Movements in export, exchange rate and net salary from 2010 to 2017, Hungary



Export vs Exchange rate *r=0,84*
Net salary vs FDI inflow *r=0,85*
Source: KSH, author calculation

Chart 5 shows the strong correlation between the HUF depreciation and export growth. The coefficient of correlation is 0.84 (r = 0.84) what indicates a very strong correlation between observed variables. If we take into

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account the same observed period, the correlation between the net salary and the FDI inflow have also very strong correlation coefficient 0.85 (r = 0.85).

Table 4. Movement of export growth, exchange rate and in net salaries from 2010 to 2017, Hungary

	2010	2011	2012	2013	2014	2015	2016	2017
Export, mn EUR	71.494	80.020	79.964	81.227	84.443	90.395	92.983	100.589
Growth rate, %, n/(n-1)		*12%*	*0%*	*2%*	*4%*	*7%*	*3%*	*8%*
Exchange rate HUF/EUR	275,4	279,2	289,4	296,9	308,7	309,9	311,5	309,2
Growth rate, %, n/(n-1)		*1%*	*4%*	*3%*	*4%*	*0%*	*1%*	*-1%*
Net salary in EUR	481,5	505,5	497,8	509,0	504,4	524,0	561,9	638,8
Growth rate, %, n/(n-1)		*5%*	*-2%*	*2%*	*-1%*	*4%*	*7%*	*14%*

Source: KSH, author calculation

According to above mentioned Table 4, there is a strong correlation between observed variables, especially in correlation between FDI inflow and average net salary. Table 4 clearly shows the strong export growth. In 2017 the export increased for more than 40% (absolute amount EUR 29bn) comparing with 2010 while in the same period the exchange rate has depreciated around 12,4%

Following is an econometric analysis.

Table 5. Econometric analysis through program E-Views, exchange rate influence on export, Hungary

Dependent variable: HE - Export Hungary
Method: Least Squares
Date: 04/12/18 Time: 17:09
Sample: 2010 2017
Included observations: 8

Variable	Coefficient	Std. Error
HUF	5.251.892	1.373.149
C	-71117.08	40897.66
R-squared	0.709138	
Adjusted R-squared	0.660662	

Source: E-views, author calculation

Explanation of variables: HE (Hungarian export), HUF (Hungarian national currency), C (independent parameter)

By econometric research, the same conclusions about the existence of correlation between variables has been proved. In simple linear regression, export represents the dependent variable, which is the function of the exchange rate trend. Over the coefficient of determination R2, it can be concluded with a confidence level of 70.9%, that the export represents a function of exchange rate policy. A more representative result was achieved with 17 observations, with a coefficient of determination over 0.8.

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Table 6. Econometric analysis through program E-Views, influence of exchange rate and net salaries on FDI inflow in Hungary

Dependent variable: HFDI - FDI Hungary
Method: Least Squares
Date: 04/12/18 Time: 17:23
Sample (adjusted): 2010 2016
Included observations: 7 after adjustments

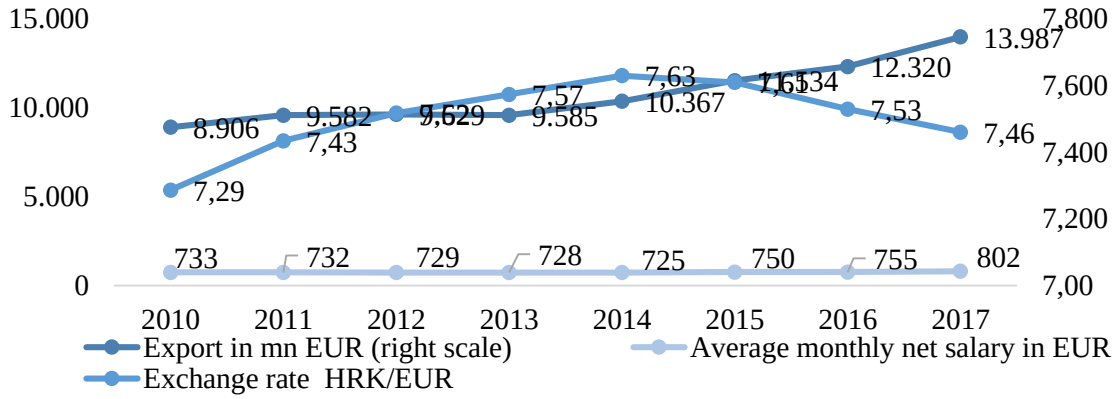
Variable	Coefficient	Std. Error
HUF	-4.009.025	6.958.370
HS	1.127.103	4.095.505
C	-448099.9	152288.7
R-squared	0.750508	
Adjusted R-squared	0.625762	

Source: E-views, author calculation

Explanation of variables: HS (Hungarian net salary), HUF (Hungarian national currency), C (independent parameter)

Econometric analysis showed that with a confidence level of 75%, the parameters; exchange rate and net salary have a direct effect on FDI inflow. With simple linear regression model, where two variables were tested, the influence of FDI inflow on the level of net salary resulted with the coefficient of determination of 0.73. Stable exchange rate and relatively high level of net salary in Croatia have as a consequence lower FDI inflow, comparing with Hungary.

Chart 6. Movement of export, exchange rate and net salary from 2010 to 2017, Croatia



Export vs Exchange rate r= 0,24
Net salary vs FDI inflow r= -0,41
Source: CBS, author calculation

In some years the appreciation of the exchange rate and the growth of net exports occurred, which shows that the exchange rate as an instrument in Croatia had no significant effect on the export trends.

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Compared to Hungary which has both coefficients of correlation at strong level, in Croatia the situation is very different. The level of correlation between export and exchange rate is very low, as well as the correlation between net salaries and FDI inflow. The stable exchange rate policy did not have significant implications on trends in exports. In some years there was an appreciation of exchange rate and at the same time a growth of net export occurred. A mentioned situation shows that the exchange rate, as an instrument, does not have a significant effect on export trends in Croatia.

Table 7. Movement in export rate, exchange rate and net salaries from 2010 to 2017, Croatia

	2010	2011	2012	2013	2014	2015	2016	2017
Export, mn EUR	8.906	9.582	9.629	9.585	10.367	11.534	12.320	13.987
Growth rate, %, n/(n-1)		*8%*	*0%*	*0%*	*8%*	*11%*	*7%*	*14%*
Exchange rate HRK/EUR	7,3	7,4	7,5	7,6	7,6	7,6	7,5	7,5
Growth rate, %, n/(n-1)		*2%*	*1%*	*1%*	*1%*	*0%*	*-1%*	*-1%*
Net salary in EUR	733,3	731,9	728,7	728,2	725,2	750,5	755,0	802,3
Growth rate, %, n/(n-1)		*0%*	*0%*	*0%*	*0%*	*3%*	*1%*	*6%*

Source: CBS, NCB, author calculation

Even though, there is no correlation between the exchange rate and the external trade balance in Croatia, export increased by 56% (almost 5 billion EUR) in 2017 compared with 2010, which is almost six times less than in Hungary, while in absolute terms the exchange rate depreciated for around 2.3%.

Table 8. Econometric analysis through program E-Views, exchange rate influence on export, Croatia

Dependent variable: CE - Export Croatia
Method: Least Squares
Date: 04/12/18 Time: 17:26
Sample: 2010 2017
Included observations: 8

Variable	Coefficient	Std. Error
HRK	3.676.294	6.179.591
C	-16851.93	46382.63
R-squared	0.055701	
Adjusted R-squared	-0.101683	

Source: E-views, author calculation

Explanation of variables: CE (Croatian export), HRK (Croatian national currency), C (independent parameter) The obvious fact is that there is no correlation between exchange rate movements and net exports. Coefficient of determination is very low and not significant. Method of ordinary least squares [3] showed that the exchange rate in Croatia had no impact on the export growth. The identical result was recorded on 17 observations, so it was not necessary to take a longer data series.

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Table 9. Econometric analysis through program E-Views, influence of exchange rate and level of net salaries on FDI inflow in Croatia

Dependent variable: CFDI - FDI Croatia
Method: Least Squares
Date: 04/12/18 Time: 17:30
Sample (adjusted): 2010 2016
Included observations: 7 after adjustments

Variable	Coefficient	Std. Error
CS	-4.352.859	4.419.464
HRK	2.282.021	4.373.421
C	16504.57	43746.11
R-squared	0.222882	
Adjusted R-squared	-0.165677	

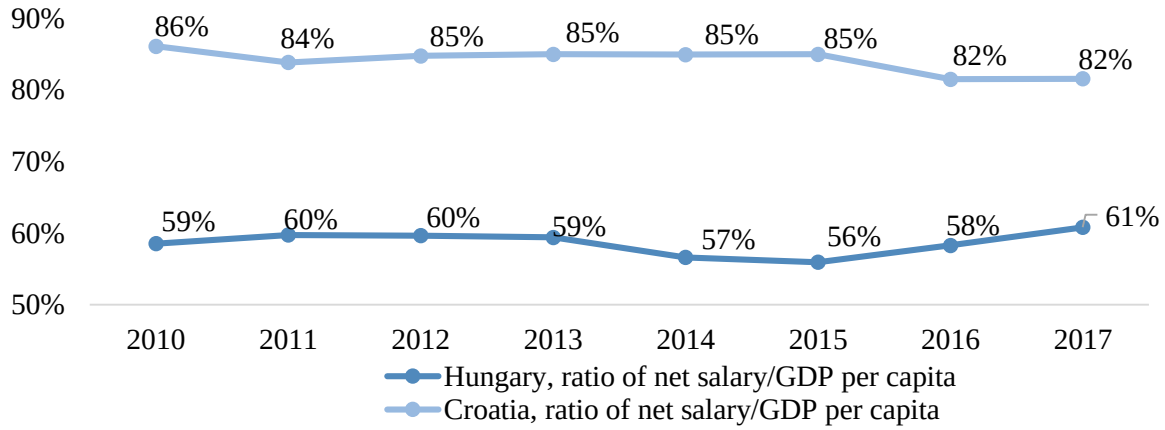
Source: E-views, author calculation

Explanation of variables: CS (Croatian net salary), HRK (Croatian national currency), C (independent parameter)

It is also showed that FDI inflow has no reaction on the exchange rate and the level of net salary. As noted above, the high level of internal appreciation and appreciation of the exchange rate did not have a positive impact on FDI inflow.

According to all mentioned facts, the conclusion is that the initial position of the Hungarian economy has led to a stronger accumulation of capital in the form of FDI, caused by a low level of exchange rate against the EUR and mild depreciation, and followed with high level of initial internal depreciation in the form of net salaries. Lower net salaries were one of the important elements in attracting a high level of FDI inflow and moreover they influenced on significant growth in exports. If we observe the share of annual net salaries in GDP per capita, it is obvious that the gap between the curve of ratio of salary in GDP per capita is considerably lower in Hungary.

Chart 7. Share/ratio of yearly average net salary in GDP per capita from 2010 to 2017



Source: KHS, CBS, author calculation

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Chart 7 explains a relative indicator of the share of yearly average net salary in the GDP per capita. The gap between the observed countries is very significant, which confirms the previously proven fact about low net salaries and FDI inflows. In average, Croatia has 25 percentage points higher share of net salaries in the GDP per capita comparing with Hungary, which means that the average worker in Croatia has a significantly lower level of efficiency and productivity than in Hungarian case.

Conclusion

This paper presents the cross sectional analysis between Croatia and Hungary. Based on analyzes and researches, conclusion is very clear. These two countries have completely different macroeconomic policies and different impact on main macroeconomic indicators. Countries were at different stages of economic development at the very beginning, and during the years they passed through significant changes, mostly in favor of Hungary. The policy of slightly internal devaluation and depreciation and policy of fluctuating exchange rate resulted with a strong inflow of FDI and trade balance surplus in Hungary. In the same period Croatia was executing the policy of internal appreciation with relative high base of net salary in terms of ratio in GDP per capita. Also, Croatia in the same observed period had stable exchange rate policy. The result of such macroeconomic policy in Croatia is very low level of FDI inflow and exports non-elasticity on exchange rate fluctuations. Because of that, Croatia is continuously in the area of external trade deficit with very high ratio of average annual net salary in GDP per capita. All mentioned facts mean very low level of productivity in Croatia comparing with Hungary. The external trade between Croatia and Hungary is on the very low level, where Croatia suffers a significant deficit. The coverage ratio of import with export in Croatia with Hungary is around 27.9%. Therefore, the strong correlation between the FDI inflow and the very low relative level of net salary, and the strong correlation between exchange rate and export growth, led the Hungarian economy to the very stable macroeconomic circumstances. On the other hand, Croatia led different macroeconomic policy which resulted with unstable macroeconomic circumstances. The high level of external trade deficit, six-years of recession and the high level of unemployment rate, are one of the main indicators of macroeconomic (non) stability in Croatia. Taking into account FDI inflow in the observed period, the average FDI inflow per capita in Hungary was almost three times higher than in Croatia. However, the strong pressures on the labor force market in Hungary become more and more significant. The convergence effect of Hungarian average net salary to average net salary of developed EU countries become very important indicator in upcoming period. Accordingly, the expectations for the future is a higher growth rate of average net salary, due to the very strong pressure on the labor force market and due to strong labor force mobility between EU countries. Both countries are affected with significant migration trend. Additionally, the strong depopulation effect which hit both countries will have tremendous consequences on macroeconomic equilibrium. Because of all mentioned facts, the demographic policy will have very important role in creating economic policy in the future.

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