The Influence of the Greek Economic Crisis on FYROM Exports

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Abstract
According to the contemporary political and economic conditions, there is still an existing possibility for Greece to exit the Euro zone. If this scenario comes true, it will further decrease FYROM imports from Greece, as this will most probably result in the return of the Drachma with an assumed 50% devaluation to the Euro. On the other hand, FYROM exports Greece will become equally more expensive. The economic crisis which currently trembles our neighbour Greece has emerged as a new variable in the prediction and planning of economic activity along with main economic variables in the Macedonian economy. Analysis of the economic and trade relations between Greece and FYROM shows a steady decline during the last five years. FYROM exports to Greece in the first quarter of 2012 are at the lowest level in the history of trade relations between the two countries, at €39m. Even worse is that the coverage of imports from Greece with exports from FYROM is only 25.2 basis points, which is also at the lowest historical level. This is a clear indication that FYROM is losing Greece, neighbouring country and EU member, as a significant business partner.

This paper is trying to determine the potential effects on Macedonia economy due to the contemporary Greek crisis, taking into consideration that our neighbour is one of the largest investors and trading partners of FYROM.

Keywords: Foreign effective demand; GDP growth; Income elasticity coefficient; FYROM exports growth rate

Introduction
This has been the fifth consecutive year (2013) that the Greek GDP is still falling, keeping the country in the deepest recession period of its modern history. The government has recently announced, in the last quarter of 2013, that a primary surplus has been achieved for the first time, after almost a decade that the country has had four times higher budget deficit than that allowed for Eurozone member countries. But the current situation in Greece after more than three years later is alarming. During the economic crisis Greece received an unprecedented financial aid from the European Union and the International Monetary Fund. Government also made huge cash savings in the budget, severing public wages and pensions and minimizing public expenditure. In the same fashion, the private sector has also taken the blown, since it is called upon to support the ailing public sector of the economy. Nevertheless, results have not yet met expectations and the country has cumulatively lost more than a quarter of its wealth during the past five years.

The Greek economy was not in an ideal situation even before the crisis. GDP in 2008 fell by 0.2%; a year later it fell by another 3.1%. In 2011, GDP fell by 7.1%. The draft state budget for 2013 foresaw another year of crisis, specifically reducing GDP by an additional 3.8%, but economic analysts believe that GDP will finally fall by 4.2% as a result of reduced economic activity. On February 2013 the Chairman of the Bank of Greece projected a 4.5% recession and 26% unemployment for the current year. The impact of unemployment is phenomenal: four years ago, the unemployment rate stood at 7.7% and has since been in continuous growth. In August 2013 it stood at 27% or more than quarter of the active working population and latest announcements report a stable 27% in the end of 2013. Government debt three years ago stood at 129.4% of GDP, and the end of 2013 it is expected at about 170%.

FYROM exporters and Greek companies operating in the country during the last few years have strongly felt the effects of the Greek debt crisis. What is more important, the crisis is not appeased, but is gaining impetus. Direct result of the poor financial situation of Greece is the reduction in Macedonian exported goods and services. As the difficult economic situation escalates in Greece, FYROM exports are the most endangered in the aggregate economic cooperation between the two countries. The point here is on the most exported products, i.e. iron, steel, textiles, tobacco and marble. These five products count for about 55% of the total exports to Greece.

Likewise, Greek debt crisis has a negative impact on Greek investments in the country. Greek companies are expected to begin intensive efforts to extract profits from abroad, rather than reinvest in the business in the country, in order to distribute dividends to their shareholders in Greece. State statistics already show a declining trend in both export and direct investment in Greece in recent years. According to official records, in particular the office of financial and business affairs in Skopje, Greece in 2013 still stood as the largest investor in the country, followed by Germany, Serbia, Bulgaria and Italy. The report noted that the country’s exports to Greece totaled around 188 million US dollars, while imports totaled 804 million dollars. According to Hellenic Statistical Authority, Greek exports to FYROM - excluding oil - totaled 255.7 million euros in the January-November 2012 period, up 1.14% from 2011, while imports totaled 156.4 million euros, up 1.88% over the same period, respectively. The value of bilateral trade transactions in the 11-month period totaled 412 million euros, up 1.42% from 2011.

The economic crisis which presently shakes our neighbour has emerged as a new variable in the prediction and planning of economic activity along with main economic variables in the FYROM economy. This paper is trying to determine the potential effects on our economy from the economic crisis in Greece, considering that our neighbour is one of the largest investors and trading partners of our economy. The...
dominant part of the analysis will focus on determination of the future effects of the economic crisis in Greece, including FYROM’s foreign effective demand.

**Literature Review**

The significance of exports on national economy and their relationship to GDP levels has been analysed by many empirical studies. The categorization of these studies varies depending on either the methods applied or the scope of geographical regions. As far as the methods are regarded, some articles try to distinguish causality links between exports and GDP as well as existence of co-integration, whereas other look into short term relationships that could help policy makers adjust their decisions. As far as geographical regions are concerned, there are studies that examine one country-domestic characteristics, whereas other cover multiple countries or economic zones that share common economic and political characteristics.

Another important issue that influences all variables is the country’s monetary policy. The local currency, the Denar, is at a semi-pegged rate to the Euro and has been kept stable for the last decade or so. Until recently, the annual capital inflows were sufficient for the country to pay its debt and maintain the rate to the Euro. Current conditions however have raised the question of the future monetary policy of the country and the extend up to which the Euro peg can have more benefits than disadvantages.

According to a research by Nenovski et al. [1] the domestic economy of FYROM has been found to have some basic parameters, namely: a) the economy is heavily dependent on the only a few sectors (metals, textiles and agriculture), b) the movement of international prices has a great effect upon import and export goods, and c) the domestic demand on goods and services is relatively limited, discouraging the development of the economy.

In an earlier study by Kostoska and Petreski [2] on the state of competitiveness of the economy they claim that the country had an unsuccessful attempt to transition characterized by low growthrates and high unemployment. They also underline the dependence of the economy and its growth potential upon export competitiveness.


On the contrary, Konya [5] analyses a vast set of OECD countries and finds one-way and two-way causality in most countries between real exports and real GDP over a forty year period, with the exception six countries that do not have any causality in any direction. Likewise, Awokuse [6] examines transition European economies and suggests that trade stimulates economic growth; the same applies in another article of the same author [7] that refers to the Japanese economy.

In another cross-border analysis, Silaghi and Ioana [8] examine data from Central and Eastern European countries and find various forms of one-way causality between GDP existing in most cases. Hsiaoe and Hsiao [9] examine eight rapidly developing Asian economies, i.e. China, Korea, Taiwan, Hong Kong, Singapore, Malaysia, Philippines and Thailand, applying panel data analysis on the relationship between GDP, exports and FDI. They find mixed evidence of unidirectional causality varying from country to country depending also on economic and policy implications.

Finally, in their recent study Sadiku et al. [10] investigate the impacts of the Greek crisis on Western Balkan countries including FYROM by applying a binary logit model than includes variables such as real GDP growth, ratio of domestic bank loans, current account deficit, inflation and budget deficits. The authors conclude that the probability of a systemic crisis and contagion appears higher in countries like FYROM (Albania and Serbia as well) where Greek banks have a strong presence and suggest that policy makers take pre-emptive measures to prevent financial spill-over effects.

**Effects on Foreign Effective Demand**

This part of the paper analyses the effects of the Greek crisis on the FYROM foreign effective demand, i.e. FYROM exports to Greece and FYROM total exports. Initially, foreign effective demand is modelled and estimated (in accordance with the methodology of the Central Bank), as a weighted sum of the indices of the gross domestic product of the most important trade partners of FYROM. The weights are calculated based on the participation of these countries in exports. The calculation of the index includes Germany, Greece, Italy, Netherlands, Belgium, Spain and Serbia. In order to determine future foreign effective demand (2012 - 2015) this paper uses estimates of the IMF for GDP in constant prices [11,12].

For the sake of the calculations to evaluate the effects of the Greek crisis on the total FYROM exports and exports to Greece we use the income elasticity coefficient of 1.51, which is found as a result in the research of the Macedonian Central Bank (Kadievska-Vojnovic and Unesca) as the income elasticity coefficient of FYROM exports in terms of total world GDP. The results of the research from Kadievska-Vojnovic and Unesca show that income and price elasticity of exports are statistically significant at the 1%-5% level, have the expected signs, and amounted to 1.51 and -0.73, respectively. This means that in the long run, in terms of growth of world income by 1%, the demand for FYROM exports will increase by 1.51%, while relative export prices growth at 1% will have a decline in exports by 0.73% (higher domestic prices from foreign prices determine decline in exports). Thus, FYROM exports are more sensitive to changes in world income than price changes. This indicates that the price characteristics of FYROM exports are not the main significant determinant of foreign demand, which is more directed towards non-price (qualitative) aspects of exporting. Thus, if exporters wish to increase their turnover in world markets, they need to increase export non-price aspects (quality, distribution, marketing, etc.)

Given the high concentration of FYROM exports in a few products, mostly for reproduction (iron-steel and their derivatives, petroleum derivatives, as well as clothing and textiles based on a CMT-production), it becomes obvious that it is necessary to invest in qualitative aspects of products in order to attract foreign consumers whose standards grow in accordance with the growth of their income.

In regard to the above (FYROM exports sensitivity to changes in world income rather than price changes) this paper takes into account only the income elasticity of the FYROM exports. The approximation
of the income elasticity of FYROM exports to Greece is taken the
coefficient -1.511, which means in case of decline of Greece’s income
for 1%, the demand for FYROM exports will decrease by 1.5% and
vice versa. Table 1 summarizes the calculations for foreign effective
demand, effective demand by Greece and foreign effective demand
without Greece.

Proven from global experience, a small and open economy like that
of FYROM cannot reach solid growth rates and operate successfully
isolated from its surrounding countries (trading partners and foreign
investors). Therefore, the various shocks in the economic and business
environment, which is important for our economy, can very easily
be transmitted as a spiral to our economy. Exports and FDI (in our
economy a significant part comes from private transfers) are the main
pillars on which in terms of de facto fixed exchange rate, the stability of
the FYROM economy is based. To get a clearer picture of the importance
of foreign effective demand (exports) for the FYROM economy Figure
1 shows the movement of real GDP and foreign effective demand in the
period from 1999 to 2015 (historical and forecast).

The Figure 1 clearly shows the dependence relationship between
GDP growth rates and foreign effective demand (before the economic
crisis, during the crisis and expected recovery period). From the
Figure 1 it can be concluded that by mid-2013 the economy starts
recovering, simultaneously with are our major trading partners. This
comes as a direct result of the increased exports and positive growth
rates of our GDP (specific rates Table 1). During 2012 we witnessed a
modest GDP growth, a decline in industrial production and a modest
export growth, which was expectable due to the lowest foreign effective
demand. But the expectations for 2013 and the following two years are
more optimistic, mainly due to the expected positive foreign effective
demand in the middle of 2013 and expected higher percentage growth
rates of our GDP (specific rates Table 1). During 2012 we witnessed a

In addition Figure 2 isolates the effective demand by Greece and
shows its movement along with the movement of real GDP of FYROM.
Figure 2 also presents a close connection of the movement of the
total foreign effective demand and effective demand along with the
movement of real GDP of FYROM. In the period from 2010 – 2011, as well as in the second half of
2013, a clear distinction can be seen between the foreign effective
demand and foreign effective demand without Greece, which leads
us to the conclusion that the reduced effective demand by Greece
especially interesting are the situation in 2012 and the first half of 2013, where
foreign effective demand is reduced and has a negative sign, as a result of
the enormous cuts of effective demand by Greece. From the overall
analysis of this graph it is obvious how much is the negative impact of
the Greek contemporary crisis on Macedonia’s exports[13].

Two Possible Scenarios
In order to calculate the effects of the economic crisis from our
neighbor country Greece, two scenarios are designed for the period
2012 – 2015 that are most likely to take place in the Greek economy
and have strong effects on FYROM's foreign effective demand. The
assumptions used to design these two scenarios are Greek GDP growth
estimates from the IMF (World Economic Outlook Database), and an
income elasticity coefficient of FYROM exports with a value of 1.5.

<table>
<thead>
<tr>
<th>Year</th>
<th>Belgium</th>
<th>Germany</th>
<th>Greece</th>
<th>Italy</th>
<th>Netherlands</th>
<th>Spain</th>
<th>Serbia</th>
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<tr>
<td>2001</td>
<td>3.807</td>
<td>1.151</td>
<td>4.197</td>
<td>1.818</td>
<td>1.926</td>
<td>3.645</td>
<td>5.579</td>
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<tr>
<td>2002</td>
<td>1.325</td>
<td>0.006</td>
<td>3.439</td>
<td>0.454</td>
<td>0.76</td>
<td>2.704</td>
<td>3.882</td>
</tr>
<tr>
<td>2003</td>
<td>0.786</td>
<td>-0.231</td>
<td>5.943</td>
<td>-0.017</td>
<td>0.336</td>
<td>3.098</td>
<td>2.448</td>
</tr>
<tr>
<td>2005</td>
<td>1.997</td>
<td>0.732</td>
<td>2.241</td>
<td>0.656</td>
<td>2.047</td>
<td>3.615</td>
<td>6.164</td>
</tr>
<tr>
<td>2006</td>
<td>2.78</td>
<td>3.167</td>
<td>4.522</td>
<td>2.036</td>
<td>3.394</td>
<td>4.017</td>
<td>5.213</td>
</tr>
<tr>
<td>2008</td>
<td>0.832</td>
<td>1.248</td>
<td>2.015</td>
<td>-1.319</td>
<td>1.996</td>
<td>0.858</td>
<td>5.536</td>
</tr>
<tr>
<td>2010</td>
<td>1.153</td>
<td>1.21</td>
<td>-2.843</td>
<td>1.302</td>
<td>-0.41</td>
<td>1.968</td>
<td>0.492</td>
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<tr>
<td>2011</td>
<td>1.605</td>
<td>1.999</td>
<td>0.16</td>
<td>1.543</td>
<td>1.726</td>
<td>1.463</td>
<td>5</td>
</tr>
<tr>
<td>2012</td>
<td>0.037</td>
<td>0.936</td>
<td>-6</td>
<td>-2.292</td>
<td>-0.457</td>
<td>-1.538</td>
<td>-0.477</td>
</tr>
<tr>
<td>2013</td>
<td>0.34</td>
<td>0.852</td>
<td>-4.73</td>
<td>0.73</td>
<td>0.394</td>
<td>-13.16</td>
<td>2.049</td>
</tr>
<tr>
<td>2014</td>
<td>0.952</td>
<td>1.372</td>
<td>0</td>
<td>501</td>
<td>1.353</td>
<td>1.004</td>
<td>2.545</td>
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<tr>
<td>2015</td>
<td>1.322</td>
<td>1.381</td>
<td>2.7</td>
<td>1.203</td>
<td>1.821</td>
<td>1.552</td>
<td>2.2</td>
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Table 1: Foreign effective demand of FYROM (1999-2015)
The first scenario is the reduction of the projected rate of GDP of Greece by 1 percentage point and the ratio of income elasticity of FYROM exports of 1.5.

Table 2 presents the effects of this scenario on the value of FYROM exports in thousands of U.S. dollars (2012 - 2015), as well as FYROM export growth rates (2012 - 2015). The last column shows the amount of Macedonian exports in thousands of USD that will be gained if Greece’s GDP increase by 1 percentage point above the projected rate of IMF, and income elasticity coefficient of FYROM exports is the same 1.5. This can be better seen at the growth of FYROM exports in 2015, which is 214.69 million USD[14].

Nevertheless, it should be noted that based on the last two tables, the most significant issue is that the growth rate of Macedonian exports presented in USD, when there is 1% increase in projected Greece GDP growth, is bigger compared to the losses that FYROM exports will have if the Greek GDP fell by 1 %. In particular, Figure 4 summarizes this case:

The above shows FYROM exports, in absolute values, in two case scenarios, and in the first scenario there is a decline in the Macedonian exports, and in the second there is a growth in FYROM exports. Analyzing year by year, there is no difference in the numbers considering 2013, but in 2014 there is difference of 1.8 million USD more in growth compared to the decline, taking the absolute numbers. In 2015 there is even bigger difference of about 6 million USD in absolute numbers.

Conclusion

Although there are signs of recovery and exit from the crisis for some major economies (Germany, France etc.), pace of recovery is with lower intensity than expected, and on the other hand there are economies that are still struggling with the effects of the crisis, such as Portugal, Spain, Italy and many other EU economies.

The effects of the Greek crisis on the total Macedonian exports, according to our analysis are expected to be significant, but not devastating for our economy, taking in consideration the fact that when calculating the effective demand in this paper it was provided only a drop in GDP of Greece. According to the IMF GDP projections for other economies - which are part of our effective demand growth – there will be a smaller, almost insignificant decrease in GDP just in 2012. The IMF projections that were used, assume that growth in other economies will entail greater import demand and thus absorb some of the negative effects of the Greek crisis on the FYROM export. But here comes the question: what will happen and what will be the effect on the FYROM economy be if the effects of the Greek economic crisis spill over into other economies that are major trading partners and investors in FYROM? The answer to this question would go in the direction - if there is such a scenario as the Macedonian economy whose GDP growth is highly determined - dependent on foreign effective demand will face a decline in exports, FDI, private transfers, which could lead to pressure on the foreign exchange market, a decline in production, increase in unemployment (which is currently at the highest level in Europe) and devastating meltdown of our economy[15].

The significance of the Greek GDP growth is confirmed with the
two case scenarios where the increase of Greece GDP growth by 1% is provoking bigger increase in the FYROM exports, than in the opposite case, where there is 1% decrease in Greek GDP and smaller decrease in FYROM exports, taking the absolute values of the FYROM exports.

Further investigation into the matter should include the inter-related partner economies of FYROM and the potential integrated result that could stem from the different recovery rates of the economies of our partners.

References