Abstract

Whether the United Kingdom (UK) should remain in the European Union (EU) or not has been a fiercely debated issue both before and after the referendum in the UK on June 23, 2016. The main purpose of this paper is to evaluate the pros and cons of the UK leaving the EU. It is concluded that if the UK leaves the EU, the resulting economic shock would risk adverse effects on macroeconomic variables such as foreign trade, high inflation, employment level, interest rate, aggregate supply and aggregate demand, trade creation and diversion, balance of payments, balance of trade, term of trade, depreciation of the pound sterling, rising consumer price index (CPI) and reduction in the standards of living in the UK. Effects of leaving the EU on money market, labour market and goods market in the UK have also been explored to show the effects on the exchange rate, the interest rate, nominal and real wages and output level in the UK. It has therefore been concluded that it is not in the best interest of the UK to leave the EU. Benefits of remaining in the EU far outweigh the disadvantages.

Keywords: Macroeconomic Variables, Trade Creation and Diversion, Exchange Rate, Standards of Living, Balance of Payments.

JEL Classification: E20, F13, F14, F31, F32.

1. Introduction

Economic integration is considered to be one of the most important causes of regional change in the 1990. The European Community’s progress towards the unprecedented elimination of borders would have been unimaginable barely three decades ago (Suarez-Villa, 1993). Regional economic integration leads to trade augmenting effects on member countries. Aitken (1973) and Balassa (1967) showed that the formation of the European Economic Community
(EEC) and European Free Trade Association (EFTA) significantly increased inter-member trade.

The establishment of trading block such as the EU has been considered as a way to increase the size of the “country” which is intended to benefit the member countries economically. It has also been concluded that regional economic integration provides an important stimulus not only to trade but also to foreign direct investment (FDI). Keeping this point in view it is beneficial for the UK to remain in the EU to be a part of the globalised world economy. Figures 6 to 9 are based on the data obtained from THE TIMES, Monday June 27, 2016. Figure 6 depicts the rise in the quantity of workers from the EU by 10.64 percent over the period under consideration; and the converse holds true for the workers from outside the EU where it declined by -0.50 percent.

Figure 6: Non-UK Nationals Working in the UK, Millions

Figure 7: UK Exports, £ Billion
Figure 7 depicts a rising trend in UK’s exports to its major trading partners during 2015-16. It increased by 11.62 percent, 6.28 percent, 5.02 percent and 89 percent to the EU, non-EU countries, the USA and China, respectively. The highest increase in exports was recorded to be to China.

Figure 8: UK Imports, £ Billion

![Graph showing UK imports from EU, non-EU countries, USA, and China](image)

Figure 8 depicts a rising trend in UK’s imports from its major trading partners during 2015-16. It is evident from the graph that its total imports from non-EU countries raised more than EU, the USA and China. It increased by 7.63 percent, 61.86 percent, 23.72 percent and 22.97 percent from the EU, non-EU countries, the USA and China, respectively. The highest increase in imports was recorded to be from non-EU countries.

Figure 9: EU Foreign Direct Investment Projects in the UK

![Bar chart showing EU foreign direct investment projects](image)
Figure 9 depicts a sharp rising trend by 35.44 percent in creation of new jobs in the UK due to FDI projects by the EU, but the safeguarded jobs continuously declined during the last three years by -29.28 percent, while the number of the projects during the same period increased by just 14.25 percent (504 to 658).

2. Arguments in Favour of Britain’s EU Membership

Table 1 shows the share of the UK exports to its trading partners in the EU’s single market having more than 500 million customers and an economy over five times bigger than the UK. The EU buys about 44% of all exports sold abroad by the UK, while UK’s imports are less than 8% from the EU. Moreover, more than 3 million UK jobs are linked to exports to the EU. Therefore, being a part of the EU guarantees full access to its Single Market. Leaving the EU will create uncertainty and risk. Being a member of the EU enables the UK’s exporters to sell their product cheaper and more easily to the Single Market; more exports means more jobs for British workers and more foreign earnings which in turns increases capacity to import from the EU countries. More exports means increased demand for the pound sterling which will increase the exchange rate (appreciation) of the currency against its trading partners’ currencies in the EU member countries. During the last decade foreign companies have invested 540 billion pound sterling in the UK.

<table>
<thead>
<tr>
<th>Industry</th>
<th>Jobs</th>
<th>Share of exports going to the EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerospace</td>
<td>110,000</td>
<td>47%</td>
</tr>
<tr>
<td>Chemicals and pharmaceuticals</td>
<td>136,000</td>
<td>54%</td>
</tr>
<tr>
<td>Financial services</td>
<td>1,069,000</td>
<td>41%</td>
</tr>
<tr>
<td>Food manufacturing</td>
<td>373,000</td>
<td>53%</td>
</tr>
<tr>
<td>IT and telecoms</td>
<td>1,364,000</td>
<td>46%</td>
</tr>
<tr>
<td>Transport</td>
<td>1,065,000</td>
<td>44%</td>
</tr>
</tbody>
</table>

Resource: EUReferendum.gov.uk

After the UK leaves the EU, the volume of trade would reduce because it will make exports to Europe harder with increased costs. Consequently, demand for its currency will fall which will cause depreciation of the currency and may cause higher household goods (CPI) prices. Therefore, this will cause lower value of the real GDP
and consequently, lower standards of living (real per capita income) of Britons. Depreciation of the currency will make foreign tours expensive for UK citizens. Less exports means less production of goods and services, implying reduction in the demand for workers which, in the labour market, means lower nominal and real wages. A higher rate of unemployment implies a rise in payment of unemployment allowance by the government and reduction in tax revenue. Rising unemployment also means a higher dependency ratio. Owing to inflation, supply of real money in the money market will decrease which in turn will raise the interest rate (Figure 2). Higher interest rates will increase the inflow of money to improve the capital account component of the balance of payments of the UK. Higher interest rates will also cause a reduction in the investment level, which in turn will decrease the output level by a multiplier factor. Finally, higher interest rates will put downward pressure on demand for houses which may cause reduction in house prices. Reduction in exports of goods and services would reduce both the visible exports and invisible exports of the UK, which will adversely affect the current account component and hence the overall balance of payments of the UK. When a country’s exports fall the capacity to import falls, which results in a reduction in the volume of trade and hence a decrease in the standards of living of the trading partners.

Leaving the EU might deny the free or cheaper public healthcare to UK citizens who travel to European countries. It will also deny UK citizens to get EU citizenship, thus, denying them the right to live and work over there. In anticipation, many German companies have already started leaving the UK which will have an adverse effect on both economies. If the UK leaves the EU, banks of the EU member countries operating in the UK will curtail or close their business in the UK, which will cost billions of US dollars to the UK’s economy and other countries.

Being in the EU contributes to the attraction of the UK for international investment and also enables it to have full access to the Single Market and trade in over 50 countries around the world. The Single Market has more than 500 million customers and represents an economy over five times bigger than the UK’s. It is easier and cheaper for the UK’s exporters to sell their products to the other 27 EU
member countries. A bigger market to sell means achieving economy of scale, more job opportunities, and specialisation in production of those goods in which the UK has comparative advantage and greater economic security for British people. Trade enables countries to consume much more than what they can produce by importing goods from other countries which have a comparative advantage. Needless to say, the UK is not geographically linked with the EU but economically it is. The overall welfare and security of these countries is linked with each other.

After leaving the EU, there would be reduction in UK’s exports which in turn will decreases the demand of pound sterling by other countries, consequently, depreciation of the currency will take place (Figure 3), lower profits and fewer jobs. Consequently, it may cause worsening of a country’s trade balance, balance of payments and terms of trade. A fall in exports can trigger negative multiplier and accelerator effects on national income and employment (Figure 1). The composite impact of reduction in GNP and rising inflation will cause a reduction in the standards of living and the capacity to import from other countries.

3. Trade Creation vs Trade Diversion
Trade creation leads to an increase in economic welfare from joining a free trade area, such as custom union. Trade creation takes place when there is a reduction in tariff barriers and custom duties, which leads to lower prices and hence a rise in consumer surplus in the importing countries. Therefore, it causes a rise in producer surplus in exporting countries and a rise in the overall global welfare. Custom unions eliminate barriers to trade between members, which is assumed to provide an incentive to increase trade between members and to reduce trade between members and non-members. Therefore, it is in the interest of the UK not to leave the EU. Leaving the EU would lead to trade reduction rather than trade creation. It will cause trade diversion from the EU member states to other non-member countries such as Australia, New Zealand, India and other low cost producing countries in which they have comparative advantage.

Figures 1 to 5 depict the aftermath of leaving the EU membership. All dotted lines in these figures show the shifting of the curves due to the UK leaving the EU.
4. Impact on the Production (Output) in the UK
Figure 1 shows a reduction in injection \( J \) through injection elements investment (I) and exports (X) from \( J_0 \) to \( J_1 \) shown by a dotted line. Reduction in injection means reduction of finance in economy. There would also be reduction in withdrawals \( W \) through its elements, savings (S), taxes (T) and imports (M). The new intersection point of \( W_1 \) and \( J_1 \) gives us a reduction in the output level from \( Y_0 \) to \( Y_1 \). Thus, leaving the EU will cause reduction in the output level in the UK. Less output means less demand for labour; and hence unemployment.

\[
J_0 = I + G + X \\
W_0 = S + T + M \\
J_1 = I + G + X \\
W_1 < W_0 \\
J_1 < J_0
\]

![Figure 1 Goods market](image)

5. Impact on the Rate of Interest in the UK
Figure 2 shows shifting of the LM curve to the left because of a rise in inflation. When prices raise the real supply of money, \( (M/P) \) decreases which is shown by the leftward shifting of the LM curve. The IS curve will also shift to the left due to a reduction in investment \( I \). The new intersection of \( LM_1 \) and \( IS_1 \) curves gives us higher interest rate \( r_1 \). Thus, leaving the EU will increase the rate of interest in the UK, which will make borrowing from banks expensive, thus cause a reduction in investment in the economy. It may lure foreigners to deposit their money in UK banks because of higher interest rate which will improve the capital account component of the balance of payments of the country. It is also to be noted that in general, inflation and interest rates move in tandem and are mutually dependent on each other.
An Analysis of Economic Implications of the UK Leaving the EU

6. Impact on the Exchange Rate of the Pound Sterling

Figure 3 depicts the depreciation of the exchange rate of pound sterling after leaving the EU. When the UK’s exports decrease to the EU member countries, the demand for pound sterling will decrease which is shown by the leftward shifting of the demand curve from \( D_0 \) to \( D_1 \). The supply curve will also shift to the left, because when exports of a country decrease its ability to import also decreases. Less imports by a country means less supply of its currency in international market. Thus, the supply curve also shifts from \( S_0 \) to \( S_1 \). The new intersection point gives us a reduction in the exchange rate from \( e_0 \) to \( e_1 \). Thus, if the UK leaves the EU, its currency will depreciate which in turn might lead to a higher inflation rate in the UK?
7. How the Exchange Rate Affects Inflation

Depreciation in the exchange rate causes inflation to increase. According to the Fisher equation $E_{EU} (P_{EU}) = P_{UK}$, $E_{EU}$ represents the exchange rate of pound sterling to euro €, $P_{EU}$ stands for the price of a certain good $X$ in the EU and $P_{UK}$ stands for price of the same good $X$ in the UK. If the exchange rate $E_{EU}$ decreases the price of imported goods $P_{EU}$ increases. A depreciation of the currency means the currency buys less foreign exchange, therefore, imports are more expensive and exports are cheaper for foreigners, which is termed as imported inflation in the country whose currency has depreciated. The price of imported goods will increase because they are more expensive to buy from abroad. Cheaper exports increase demand for the UK’s exports. Therefore, there would be an increase in domestic aggregate demand $AD$ as shown in Figure 4 by the dotted line $AD_1$, which creates demand pull inflation shown by a rise in the price from $P_0$ to $P_1$.

![Figure 4 Goods market](image)

Also, there would be less incentive to cut costs of production. Manufacturers who export see an improvement in competitiveness without making any effort. It is argued by some that there would be no incentive to cut costs, and therefore, there would be higher inflation over the long run. Therefore, depreciation of the currency causes cost-push inflation, demand pull inflation and imported inflation. This explains why there would be a rise in inflation in the UK after leaving the EU.
8. Impact on the Wage Rate and Employment Level

Figure 5 pertains to the wage rate and employment level in the UK after leaving the EU.

As discussed above (Figure 1), if the UK leaves the EU, production will decrease. To produce less, less labour will be needed. This will decrease the nominal wage rate. Since price level might rise, it will decrease the real wage rate \( w \). \( (w = W/P) \) also. Thus, leaving the EU will decrease the wage rate, increase unemployment, increase the dependency ratio and reduce the overall standards of living of the country. Reduction in the demand for labour is shown by the leftward shifting of the demand curve, the dotted line. The new intersection gives us a lower wage rate (from \( w_0 \) to \( w_1 \)) and less employment level (from \( Q_0 \) to \( Q_1 \)).

![Figure 5 Labour market](image)

9. Arguments against Britain’s EU Membership

But those who are not in favour of being in the EU may argue that by leaving the EU and operating independently, the UK will be able to exploit its comparative advantage by trading with any country through specialisation. The UK will export the goods it produces most efficiently and import goods from low-cost producing countries. But, remaining in the EU means inefficient producers are protected and encouraged at the expense of more efficient imports. The EU will continue to grow because the next countries set to join the EU are
Albania, Macedonia, Montenegro, Serbia and Turkey with population size 2.8 million, 2.1 million, 0.6 million, 4.2 million and 76 million, respectively. Immigration from these and relatively poor countries will tend to rise, which will adversely affect the employment level and living wages in the UK. Almost 2 million people came to the UK from the EU over the last ten years. Leaving the EU means greater control over immigration from the European Union. Besides, the EU is not allowing the UK to sign trade deals with Australia or New Zealand and other growing economies like India, China or Brazil. Leaving the EU means more trading opportunities which means more jobs and better standard of living for British people, faster economic growth and greater prosperity in the future. Furthermore, the EU places tariffs and charges value added tax (VAT) on goods from outside the EU which makes thing expensive for British buyers and is not good for developing countries. It is also said that the UK is sending about £20 billion a year (£350 million every week) to the EU. More is being paid in to the EU than the UK is getting out of it. Leaving the EU will enable us to regain control and spend our money according to our priorities such as on NHS and other infrastructure. More than a quarter of a million people migrate to the UK from the EU every year.

It is also argued that the only way to control immigration is to leave the EU. Five new countries are in the queue to join the EU - Albania, Macedonia, Montenegro, Serbia and Turkey. When they join, there would be more immigration of prospective job seekers in the UK, which might exert downward pressure on the living wage rate in the UK. More schools, hospitals and houses would be needed to cater to their demands. Consequently, house prices would tend to rise.

While in the EU, the UK is not allowed to negotiate its own trade deals with other countries. The EU law overrules the UK law. The UK can trade with the EU even without being a member of it, for example, Switzerland is not in the EU, even than it is trading with EU. These are the arguments for leaving the EU membership.

10. Conclusion
It is in the best interests of the UK to remain in the EU because it protects jobs, consumers and environments and attracts investment which leads to economic growth, lower prices in the UK shops, with
the average household saving over £350 a year (Centre for Economic Performance) and better standards of living. Leaving the EU would make UK households worse off by £4,300 a year (The Treasury), its exchange rate will depreciate, exports and investment will decrease, production will decrease and even a small recession may set in. Wages will fall, interest rate may go up which will decrease the output in the economy by a multiplier factor. Reduced exports means lower profits and fewer jobs, consequently worsening of the UK’s trade balance, balance of payments, and terms of trade. A fall in exports can trigger negative multiplier and accelerator effects on national income and employment and reduction in the standards of living of British people.

Leaving the EU would lead to trade reduction rather than trade creation. It will cause trade diversion from the EU member states to other non-member states such as Australia, New Zealand, India and other low cost producing countries in which they have comparative advantage.

Britain is stronger and safer in Europe. Allies of the UK including the USA and NATO are also stressing the UK to stay in. Being in the EU will protect jobs, provide security and strengthen the UK’s economy. In conclusion, the UK is better off by not leaving the EU. Advantages of being in the EU far outweigh the disadvantages. It is also feared and speculated that after Brexit there would be further disintegration of the EU due to Frexit (France leaving the EU) and Nexit (Netherland leaving the EU) because of the pressure of the anti-European forces within the union. Therefore, it is harmful for the entire Europe if that happens.

References