THE ROLE OF EXTENSIVE MARGIN AND INTENSIVE MARGIN IN KAZAKHSTAN’S EXPORT GROWTH

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Abstract
Decomposition of country’s export gives us to opportunity to understand the sources of exports growth. This paper decomposes Kazakhstan export into four margins extensive, intensive, price and quantity. We analyzed Kazakhstan’s export performance using data at the 6-digit level over period 2004-2013. Kazakhstan export showed good results during this period, but this growth was not sustainable. We employed two methods for decomposition of exports, count method and method of shares. Our investigation showed that intensive margin of exports and quantity component of exports was important contributor of the export growth. The result further pointed out that final goods are more important in exports growth than these goods were a decade ago.

Key words: Export growth, Extensive margin, Intensive margin, Kazakhstan.

JEL Classification: F14, F15, F63, O53

1. INTRODUCTION

Kazakhstan is one of the independent states of the former Soviet Union. The population of Kazakhstan is 17,541,249 (64th in the world) and its rank on basis of economic size is 45th in the world as country’s GDP was $217.9 billion in 2014. Kazakhstan has large reserves of natural resources. It has the first largest zinc, wolfram and barite reserves, second largest uranium, lead and chromium reserves, the third largest manganese reserves, and the fifth largest copper reserves. It is also ranked in the top ten in the world for coal, iron, and gold reserves. However, the most significant for economic development of Kazakhstan is the 11th largest proven reserves of both petroleum and natural gas (Aurora Minerals Group, 2014). These statistics demonstrate the high potential of the country in achieving sustainable economic growth, and Kazakhstan’s nominal GDP increased 9.9 times, foreign trade turnover 7.6 times and exports increased by almost 10 times between 1993 and 2013.

The reforms conducted in the republic promoted the restructuring of the economy (See for more information: Strategy of Industrial and Innovation Development of Kazakhstan for 2003-2015 years and its logical continuation, Program of accelerated Industrial-Innovative Development for 2010-2014 years). During this period significantly increased the contribution of the service sector in GDP, its share was 59.4 % in 2014, against 43.1 % in 1993. In contrast, the contribution of agriculture has been decreased from 17.5% to 4.7% between 2013 and 2014 (World Bank). The energy sector get great attention from the government which, eventually increased dependency of export on the situation of world markets for energy resources. Kazakhstan’s exports decreased by 13.2 and 36.7 % in 1998 and 2009 respectively as a sharp decrease in energy prices were witnessed in 1998 and 2009. This in turn had a negative impact on GDP growth, which was 1.9% in 1998 and amounted to 1.2 % growth in 2009. Therefore, one of the main directions of government economic policy at the present stage of development is to create conditions for the production of competitive products, export growth and the development of the innovative potential of the country’s economy through diversification and modernization of the economy.

In recent years, there has been an increasing amount of literature on study the role of extensive and intensive margins on export growth. However, these studies did not get the common opinion regarding the role of extensive and intensive margins in the export growth. Some researchers concluded that the extensive margin is more significant in export growth, while others found that the intensive margin has the more important role in export growth of the economy. Evenett and Venables (2002), decomposed the export growth of 23 developing
economies for 1970-1997 period and found that numerous zeros in bilateral trade disappear over the time and about one third of this growth can be accounted for by sales of long-standing exportable to new trading partners. Felbermayr and Kohler (2004) decomposed world trade growth since World War II into extensive and intensive margins and found that the extensive margin played an important role in the growth of world trade between 1950 and 1970 and later at the end of 1990s, however the intensive margin was more essential in the intervening years. Hummels and Klenow (2005) made the significant contribution to the methodology of decomposition of export growth into extensive and intensive margins. They used trade data for 126 exporting countries to 59 importing countries and found that the contribution of extensive margin was significant in export growth as it accounts for about 60% of export growth.

Eaton, Eslava et al. (2008) decomposed Colombian firms’ exports into extensive and intensive margins and concluded that growth of export was mainly due to intensive margin. The similar results showed by Amiti and Freund (2008), they studied China’s export growth between 1992 and 2005 and found that the intensive margin played more important role in the growth of China’s exports compared to the extensive margin.

Helpman, Melitz et al. (2008) used Melitz model and decomposed trade data between 1970 and 1997 for 158 countries. Authors found that there are many zeros in trade between countries. They concluded that trade growth attributes to extensive margin for most countries. Amurgo-Pacheco and Pierola (2008) studied export data for 1990-2005 for 24 countries. In this study, they focused on patterns of trade diversification in developing countries. They found that contribution of intensive margin in export growth was higher (86%) than that of extensive margin (14%).

Bernard, Jensen et al. (2009) decomposed US trade growth at the firm level for period from 1992 to 2000. They results indicated that new exporting firms and new products had significant impact for export growth. Therefore, their study confirms importance of extensive margin.

Feenstra and Ma (2013) constructed an empirical gravity model to examine the impact of trade facilitation, such as efficiency of ocean ports, trade barriers and memberships in the OECD and Regional Trade Agreement on export growth for over period 1991-2003. They observed that improvement in port operating efficiency, reduction in bilateral import tariff promotes trade in extensive margin; especially the positive effect is confirmed between OECD member countries and non-OECD countries. Similarly research study conducted by Dutt et al. (2011) investigated the effect of WTO membership on the extensive and intensive margins of trade. They concluded that WTO membership significantly increases extensive margin of export and has negative impact on intensive margin.

The most recent studies extended decomposition methodologies used in previous papers. Bingzhan (2011) investigated China's export trade with 140 partners in 2001 and 2007 by decomposing it into three margins: extensive margin, price and quantity. He enhanced the Hummels and Klenow’s method of the decomposition of the export growth. The main difference of this method is that instead of export shares he decomposed export growth. He concluded that China's export growth is mainly driven by quantity growth. The similar method is also used by Gao et al. (2013) who decomposed China's export growth into extensive margin, export quality and quantity components. They used data of Chinese export to 35 biggest destinations for period from 1995 to 2010. Their study results showed that China's export growth depends more on price increase than on quantity expansion.

Turkcan (2014) investigated the Turkey’s export growth during the 1998-2013 by decomposing export growth into extensive margin, intensive margin, quantity, and price components. He used count and share method for export decomposition. He determined growth of extensive margin for intermediate goods, final goods, and also for total goods. His research showed that extensive margin played important role in Turkey’s export growth.

The purpose of this paper is to decompose exports into the extensive and intensive margins and further to quality (price) and quantitative margins to study their contribution in export growth. Decomposition of intensive margin to quantity and price component will make it possible to determine which margin was significant in ensuring exports growth, the increase of prices or increase in volumes of exports. Similarly, which importer countries were important in exports growth? Also in this paper, we gave attention to assess the contribution of final and intermediate goods in export growth. This will elucidate the role of high value added products in export growth.

For us it is important to find out why Kazakhstan has difficulties in achieving stable economic growth although it has high export potential. Moreover, Kazakhstan borders with such capacious markets for their products such as China and Russia, whose annual imports are $ 1.65 trillion and $ 335.70 billion respectively (World Bank, 2014) but exports to these two countries is still less.

II. Methodology

For decomposition of export into the extensive and intensive margins we applied a couple of methods. First, the counting method which was used in studies such as Bergin and Lin (2012), Dutt et al. (2011), Bingzhan (2011) and Turkcan (2014). It is the simpler way based on counting the exported goods from country $i$ to the country $j$. In this methodology, extensive margin means the number of products or the number of trading
partners and intensive margin as the volume of trade per product. Although this method is easier to use for decomposition, but it is almost intuitive and does not show the contribution of an each product or the trade flow in the growth of exports.

The second method is decomposition method which is more complex and was developed by Feenstra (1994) and Hummels and Klenow (2005). This method is known as share method. The share method is based on the calculation of the share of exports relative to world exports. According to decomposition method extensive margin is a weighted count of categories (products) that a country exports relative to categories exported by the rest of world whereas intensive margin is a country’s nominal exports relative to world’s nominal exports in a set of categories that this country also exports.

Based on the methods mentioned above the bilateral extensive margin in year $t$ can be referred to as $EM^I_{jt}$ and is defined as the number of products $i$ that have been exported from Kazakhstan to trading partner country $j$:

$$EM^I_{jt} = \sum_{i \in I_{jt}} n_{jt} = \begin{cases} 1 & \text{if } p_{jt} \neq 0 \\ 0 & \text{otherwise} \end{cases}$$

(1)

where $I_{jt}$ is the set of the exported products of Kazakhstan to destination country. Here the extensive margin has static concept, for taking dynamic perspective the growth of extensive margin $G_{EM}$ is given by

$$G_{EM} = \left( \frac{EM^I_{jt+1}}{EM^I_{jt}} \right)^{\frac{1}{t}} - 1 \quad (2)$$

The bilateral intensive margin of export of Kazakhstan to country $j$ is defined as export value of ‘common’ products that were exported in, periods $t$ and $t+1$

$$IM^I_{jt} = \sum_{i \in I_{jt}} p_{jit} q_{jit} \quad (3)$$

where $I_{jt}$ represents the set of products that were exported to country $j$ in periods $t$ and $t+1$.

This study computed $EM^I_{jt}$ and $IM^I_{jt}$ for the large ten import destination countries of Kazakhstan’s export and also for destination regions. We choose the ten counties that had biggest share in Kazakhstan’s export in 2013. Composition of regions is based on UN classification and also we analyzed separately for the European Union (EU) and other nonmember EU countries. In addition, we count the extensive and intensive margins for the different types of goods according to their production stage (intermediate goods, final goods and total goods).

Decomposition of share method is based on Hummels and Klenow (2005) which is given in Equation 4:

$$EM_{mj} = \frac{\sum_{i \in I_{mj}} p_{kji} q_{kji}}{\sum_{i \in I} p_{kji} q_{kji}} \quad (4)$$

where $I_{mj}$ is the set of observable categories in which country $m$ has positive exports to country $j$ and $I$ is the set of products exported by world to country $j$.

The bilateral intensive margin for Kazakhstan’s exports to country $j$ for year $t$ is defined as Kazakhstan’s nominal exports relative to $k$’s nominal exports in those categories Kazakhstan exports to $j$ and can be expressed as:

$$IM^I_{mj} = \frac{\sum_{i \in I_{mj}} p_{mj} q_{mj}}{\sum_{i \in I} p_{mj} q_{mj}} \quad (5)$$

where $m_{mj} q_{mj}$ is value of total exports from Kazakhstan to destination country (or region) and $m_{kj} q_{kj}$ is total world exports of set of goods which Kazakhstan export to destination country $j$.

The intensive margin following Hummels and Klenow (2005) can be further decomposes into a price (quality) and quantity component. The bilateral aggregate price index is based on the contribution of Feenstra (1994). This price index is:

$$P_{mj} = \prod_{i \in I_{mj}} \left( \frac{P_{mj}}{P_{ij}} \right)^{q_{mj}} \quad (6)$$

where, $p_{mj}$ and $p_{ij}$ are prices of product $i$ exported by $m$ (Kazakhstan) and $k$ (the rest of world) respectively to partner $j$, $w_{mj}$ is the logarithmic mean of $S_{mj}$ (share of category in Kazakhstan’s exports to $j$) and $S_{kj}$ the share of category $I$ in world’s exports to $j$. 


$S_{m, j} = \frac{p_{m, j} q_{m, j}}{\sum_{m \neq j} p_{m, j} q_{m, j}}$,  
$S_{k, j} = \frac{p_{k, j} q_{k, j}}{\sum_{k \neq j} p_{k, j} q_{k, j}}$,  
$w_{n, j} = \frac{s_{n, j} - s_{j, j}}{\sum_{m \neq j} \ln s_{m, j} - \ln s_{j, j}}$

For each market $j$ (country or region), we choose $k$ to be all exporters to $j$ other than Kazakhstan.

**III. Data**

In order to measure intensive and extensive margins, we used the 6-digit level of Harmonized System (HS-2002) trade data from Comtrade database. Our time frame is the period from 2004 to 2013. We choose this period because as we mentioned above Kazakhstan export in 2008 and in 2013 substantially declined, so we will able to observe the earlier years before these reductions in exports. We did not include 2014 in our decomposition because data was not available for all countries, so may increase robustness in our research. The sample includes Kazakhstan’s exports to more than 200 destinations and exports by ‘rest of the world’ represents the sum of exports reported by all countries (excluding Kazakhstan) to these destinations. Also we used SITC rev.3 the 3-digit level data to analyzing structure of export at industry level. To distinguish intermediate goods and final goods from the trade, we transfer HS codes to BEC (the UN Broad Economic Categories) codes by using UN trade statistic conversion tables. Furthermore, we used BEC classification scheme, intermediate goods include 111, 121, 2, 31, 322, 42, and 53 categories, where final goods are 112, 122, 522, and 6 categories.

**IV. Results**

**Overview on Kazakhstan export**

Before presenting the results of the decomposition of export, we want to overview of Kazakhstan’s export, its destinations and structure. The GDP of Kazakhstan increased by five times whereas export by 3.8 times over the period 2004 to 2014. This growth was not stable, as in 2009 and 2013 export growth substantially reduced.

[Figure 1 - GDP, Nominal Export and Export growth rate (2004-2014)]

From figure 1, it is easy to see that Kazakhstan’s exports have experienced a rapid growth. In 2004, the export value was $22.65 billion, the export value increased to $85.23 billion in 2014, with an average growth rate of 14.17%. Although the growth of export value was significant, it was not steady, rapid growth rates were recorded in 2004 and 2007.

Figure 2 compares the contribution of each industry based on SITC groups. A comparison of the industry’s shares reveals four important industries in country’s export: ‘Food and live animals’ (SITC code 0), ‘Crude materials, inedible, except fuels’ (SITC code 2), ‘Mineral fuels, lubricants and related materials’ (SITC code 3) and ‘Manufactured goods’ (SITC code 6). These four industries contributed 95.4% of export in 2004 and 93.8% in 2013. Especially considerable industry in export was ‘Mineral fuels, lubricants and related materials’, its share in export were 64.26% in 2004 and 76.3% in 2013.
Intra industry analysis of these industries shows the big contribution of ‘Petroleum, Petrol Product’ (SITC 33), its share in SITC 3 industry was 91.89% and 93.60% in 2004 and 2014 respectively. The second important export goods of this industry is ‘Gas, natural, manufactured’ (SITC 34), its share of export in this industry were 5.41% in 2004 and 5.24% in 2013. Intra industry analysis of ‘Manufactured goods’ shows the greater contribution of two groups of goods ‘Iron and steel’ (SITC 67) and ‘Non-ferrous metals’ (SITC 68) and their share were 94.6% in 2004 and 96.1% in 2013. So we can conclude that Kazakhstan’s export strongly depends on the export of Petroleum, Petrol Product (SITC 33), ‘Iron and steel’ (SITC 67) and ‘Non-ferrous metals’ (SITC 68).

**Decomposition results**

The second column of Table 2 demonstrates the share of the destination (country or region) in Kazakhstan’s total exports in 2004 and 2013 and its growth during this period. The share of destination country in total export varies enormously across countries. The combine share of Italy, China, Netherlands, Russian Federation, France, and Switzerland was more than 66% of export in 2013 as compare to the combine share of these countries, which was about 68% in 2004. This data also shows some changes in the structure of biggest export destination countries. The share of exports to China, Netherlands, Austria, Canada and Turkey had significantly increased during the study period. The share in total export increased for China by 7.26 times, almost 20 times for Netherlands, 4690 times for Austria, 10 times for Canada, and 17.6 times for Turkey. Thereby despite Kazakhstan’s export value to Russia has doubled, its share in nominal total export declined from 14.13% to 7.04% in the study period. The same trend we can observe for Switzerland which share in exports fall from 18.74% to 5.16%, and same is true for France whose share decreased from 7.32% to 6.38%. One can also observe significant changes for regions, the share of the European Union (EU) in export of Kazakhstan’s export increased from 35.14% to 53.91%, and the other European countries share decreased significantly from 36.23% to 18.25%. In our understanding, the important factor in reducing the shares of non-EU European countries (here after ROE) in the Kazakhstan’s export is the relatively low export growth rates to these countries, especially to Russia and Switzerland.

Kazakhstan exported 2410 types of product (at the 6-digit level of the HS) to 114 countries in 2004 and 2692 types of product to 118 countries in 2013 and its annual growth rate during this period was 1.24 %.

The results obtained through count method of export’s decomposition are presented in the third, fourth and fifth column of the Table 2. The third column shows extensive margins of total goods to each destination countries and regions, the fourth column and fifth column presents final goods and intermediate goods respectively. It can be clearly observed, the number of product destinations relationships of Kazakhstan to the world increased from 9288 in 2004 to 14789 in 2013, with an annual average growth rate of 5.3%. These results indicate that the extensive margin grew slowly than the overall export growth. At countries and regions level, we can perceive that for some countries (such as Switzerland and France) annual growth of extensive margins is higher than nominal export growth rates for these countries.
In addition, results show a faster growth rate for the extensive margins for non-EU Europe (nonmember EU countries) and Middle East countries. Export extensive margins growth is the highest compare to other regions. For other regions, growth rate of extensive margin is less than export value growth.

Growth rate of extensive margins of final goods was higher than intermediate goods in the study period for whole world, but this growth vary greatly across countries. For most countries, growth of extensive margin of final goods was higher than intermediate goods. However, for some countries like Netherland, Switzerland, UK, and Spain and regions such as Oceania and Africa growth of extensive margin of final goods was lower than intermediate goods.

It can be deduced from these results that intermediate goods have higher contribution in total exports but the final goods were important in export growth sustainability during study period. For Kazakhstan like other developing economies is very difficult to introduce new products or to enter into new markets. Thus intermediate goods are still important in export growth.

Results of decomposition of share method are showed in Table 2. As we can see that extensive margin was less important in export growth compare to intensive margin. Extensive margin growth rate was 1.6% compare to intensive margin growth rate which was about 11%, so intensive margin had dominant role in export growth. Our study at regions level shows high growth rate of both margin to non-EU European (ROE) countries. Annual growth rate (AGGR) of extensive margin and intensive margin was 20.72% and 23.78% in study period respectively.

We consider that at the first stage after its independents Kazakhstan focus on geographically diversification of the export portfolio. It was important in that period as Kazakhstan’s export was highly

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
<th>Column 4</th>
<th>Column 5</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Share</td>
<td>Exg/</td>
<td>Total goods EM</td>
<td>Final goods EM</td>
</tr>
<tr>
<td>Italy</td>
<td>15.5</td>
<td>18.5</td>
<td>4.9</td>
<td>208</td>
</tr>
<tr>
<td>China</td>
<td>9.8</td>
<td>17.4</td>
<td>7.3</td>
<td>363</td>
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<tr>
<td>Netherl.</td>
<td>2.3</td>
<td>11.8</td>
<td>20.9</td>
<td>264</td>
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<td>Russia</td>
<td>14.1</td>
<td>7.0</td>
<td>2.1</td>
<td>1215</td>
</tr>
<tr>
<td>France</td>
<td>7.3</td>
<td>6.4</td>
<td>3.6</td>
<td>140</td>
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<td>18.7</td>
<td>5.2</td>
<td>1.1</td>
<td>83</td>
</tr>
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<td>Austria</td>
<td>0.01</td>
<td>4.4</td>
<td>4690</td>
<td>42</td>
</tr>
<tr>
<td>Canada</td>
<td>1.2</td>
<td>3.2</td>
<td>10.7</td>
<td>142</td>
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<tr>
<td>Turkey</td>
<td>0.7</td>
<td>3.2</td>
<td>17.7</td>
<td>150</td>
</tr>
<tr>
<td>Romania</td>
<td>0.2</td>
<td>2.8</td>
<td>69.1</td>
<td>51</td>
</tr>
<tr>
<td>Ukraine</td>
<td>1.4</td>
<td>2.5</td>
<td>7.3</td>
<td>191</td>
</tr>
<tr>
<td>Spain</td>
<td>1.4</td>
<td>2.2</td>
<td>6.6</td>
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<td>U K</td>
<td>1.2</td>
<td>1.8</td>
<td>6.3</td>
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<td>1.0</td>
<td>1.4</td>
<td>5.6</td>
<td>452</td>
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<tr>
<td>Portugal</td>
<td>1.6</td>
<td>1.1</td>
<td>2.9</td>
<td>3</td>
</tr>
<tr>
<td>World</td>
<td>100</td>
<td>100</td>
<td>3.9</td>
<td>9288</td>
</tr>
<tr>
<td>Africa</td>
<td>0.1</td>
<td>0.1</td>
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<tr>
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<td>2.7</td>
<td>3.8</td>
<td>5.7</td>
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<td>Asia</td>
<td>16.4</td>
<td>22.4</td>
<td>5.5</td>
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<tr>
<td>EU</td>
<td>35.1</td>
<td>53.9</td>
<td>6.2</td>
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<tr>
<td>ROE</td>
<td>36.2</td>
<td>18.3</td>
<td>2.1</td>
<td>1765</td>
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<td>Mid. Est.</td>
<td>5.5</td>
<td>1.5</td>
<td>11</td>
<td>571</td>
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<tr>
<td>Oceania</td>
<td>0.01</td>
<td>0.01</td>
<td>8.0</td>
<td>79</td>
</tr>
<tr>
<td>Caribbean</td>
<td>4.0</td>
<td>0.01</td>
<td>0.01</td>
<td>18</td>
</tr>
</tbody>
</table>

Note: Share represents share of country in total export, Exg represents the total exports in 2013 divided by the exports in 2004, EM-extensive margin, GEM annual growth rates of extensive margin formula (2) was used to define. The EU includes current 26 countries; The ROE includes rest of non-member EU European countries

Source: Authors’ calculations used Comtrade database at the 6-digit level of 2002 Harmonized System.
depended on CIS countries markets, while later, Kazakhstan focused more on efficient markets for its goods. At the same time, Kazakhstan increased its dependence on export of energy resources, mainly oil and petroleum.

Results of decomposing export into price and quantity components showed that export growth is mainly due to increase in the quantity component rather than in the price component. Price component has negative value for all regions, highest decrease of price component observed in the export to European region (including EU). Quantitative component had significant growth rate (11.15%) in this period. Further examination of this component at the regional level shows that for regions, such as the EU, Oceania and America, growth rate of quantity component was higher than average growth rate for rest of world.

**Table 2. The Decomposition of Kazakhstan’s export shares into extensive margin, price and quantity component by region, total goods trade, 2004-2014**

<table>
<thead>
<tr>
<th>Region</th>
<th>EM&lt;sub&gt;2004&lt;/sub&gt;</th>
<th>EM&lt;sub&gt;2013&lt;/sub&gt;</th>
<th>G&lt;sub&gt;IM&lt;/sub&gt;</th>
<th>IM&lt;sub&gt;2004&lt;/sub&gt;</th>
<th>IM&lt;sub&gt;2013&lt;/sub&gt;</th>
<th>Gim</th>
<th>Gpjm</th>
<th>Gxjm</th>
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<tbody>
<tr>
<td>World</td>
<td>0.7163</td>
<td>0.8266</td>
<td>1.60</td>
<td>0.0011</td>
<td>0.0029</td>
<td>10.96</td>
<td>-0.17</td>
<td>11.15</td>
</tr>
<tr>
<td>Africa</td>
<td>0.0935</td>
<td>0.0830</td>
<td>-1.31</td>
<td>0.0002</td>
<td>0.0003</td>
<td>4.78</td>
<td>-0.01</td>
<td>4.79</td>
</tr>
<tr>
<td>America</td>
<td>0.3286</td>
<td>0.3209</td>
<td>-0.26</td>
<td>0.0007</td>
<td>0.0019</td>
<td>11.90</td>
<td>-0.18</td>
<td>12.10</td>
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<tr>
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<td>0.6881</td>
<td>2.24</td>
<td>0.0057</td>
<td>0.0099</td>
<td>6.40</td>
<td>-0.11</td>
<td>6.51</td>
</tr>
<tr>
<td>EU</td>
<td>0.5037</td>
<td>0.5543</td>
<td>1.07</td>
<td>0.0047</td>
<td>0.0227</td>
<td>19.04</td>
<td>-0.47</td>
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<tr>
<td>ROE</td>
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<td>0.6166</td>
<td>20.72</td>
<td>0.0067</td>
<td>0.0433</td>
<td>22.95</td>
<td>-0.67</td>
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<td>Middle East</td>
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<td>4.16</td>
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<td>0.0001</td>
<td>-27.89</td>
<td>-0.14</td>
<td>-27.78</td>
</tr>
</tbody>
</table>

Note: EM and IM extensive and intensive margins, G<sub>IM</sub>, G<sub>pjm</sub>, G<sub>xjm</sub> are annual growth rates of the extensive margin, intensive margin, price component and quantity component. A formula similar to equation (2)

Source: Authors’ calculations used Comtrade database at the 6-digit level of 2002 Harmonized System.

**V. CONCLUSION**

This study aimed to analyze export margins of Kazakhstan’s exports over period from 2004 to 2013. The nominal export value increased about four times averaging 16.3% per year during the period between 2004 and 2013. We identify the main sources of Kazakhstan export growth by decomposing into four margins: extensive, intensive, price and quantity. The following conclusions can be drawn from the present study.

The results of industry level analyzing showed that Kazakhstan exports mainly depend on exports of four industries, “Food and live animals”, “Crude materials, inedible, except fuels”, “Mineral fuels, lubricants and related materials”, and “Manufactured goods” which contributed 93.8% of total export in 2013. The share of just Mineral fuels, lubricants and related materials industry was 76.3% in 2013.

The results obtained by the count method indicate that the number of product destinations relationships of Kazakhstan increased significantly with the annual growth rate of 5.3%. Total goods extensive margin remarkably increased to some countries, such as, Switzerland, Romania, Turkey and France. In addition, we compared extensive margin growth between final and intermediate goods. We found that extensive margins growth rate of final goods (7.33%) was a little higher than intermediate goods (3.97%). Results also identified that although intermediate goods export have higher contribution in total export, the final goods export were important in export growth. However, we know that extensive margin calculated by count method just gives the number (quantity) of new goods and new destination, so by using this method we cannot observe the share and importance of these goods in export. For this purpose the share method used in our paper gives more accurate results.

Share method of decomposition results showed that intensive margin was important in Kazakhstan export growth. Its annual growth rate (10.96%) was higher than extensive margin growth rate (1.6%). At the regions level analyzing showed that both extensive and intensive margins of export to European countries (except the EU countries) were important in insuring the export growth. The regions such as EU, America and Asia showed substantial growth in intensive margin. It was also indicated that quantity component played essential role in contribution of Kazakhstan’s export growth. The most interesting finding is that price component was negative for world as well as for all regions. This results show that Kazakhstan export goods are not competitive in world market although world experienced high price for industries in which Kazakhstan exports but price component was negative for Kazakhstan.

From a policy perspective, the results obtained in this paper make obviously that diversification of structure of export is very important field where police-makers could involve in order to increase value and effectiveness of Kazakhstan’s export. Geographically, Kazakhstan diversified exports, but biggest part of export still depends on few important markets. The first tenth biggest trade partner countries share in Kazakhstan’s total export was about 80%, whereas the other more than 100 countries share was just about 20% in 2013. The
number of exported goods increased in the study period but their share in total export was not big. Thus intensive margin of export is played important role in export growth.

As the most resource-abundant country Kazakhstan, substantially focus on export of resources. In order to insure the export growth it is important to deepen its diversification of exports, to find potential markets for their new goods. Another key problem is to solve is to facilitate exports mainly by reducing transportation costs as Kazakhstan is land locked country, transportation costs are important component of exporting products costs, this especially essential for new trading products. Kazakhstan participating in some international transport logistic projects (“International North–South Transport Corridor” “Kazakhstan - New Silk Road”, “Transport Corridor Europe-Caucasus-Asia” and other) These projects will create transportations routes such as: China – Kazakhstan, China – Central Asia, China – Kazakhstan – Russia – Western Europe and Kazakhstan-Turkmenistan-Iran that provide Kazakhstan as the largest business transit hub of the Central Asian region in future.

VI. REFERENCES