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Original Paper

The competitive edge through the scope of international trade: the evidence from world country data

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ABSTRACT

International trade indicates the country's competitive advantage on the global level. The paper's objective was to find substantial evidence about the country's competitiveness evaluation on the global level based on export volume and income nexus. Assuming substantial variability of exports and persistent income gap between the countries, the quantile regression concept was applied. The results indicate statistically significant differences among the countries measured in their respective quantiles. The most significant gap was found among the low-medium income and high income and upper-middle income countries in export volume growth. Interestingly, low-income countries, such as upper-middle-income and high-income countries, have shown similar export growth levels. Subsequently, the link between labour productivity and income on the country level was investigated. One-way ANOVA analysis has shown statistically significant differences between labour productivity and the country's group classified by income. The between-group variation became substantial, whereas the within variation suggests higher group homogeneity. The highest productivity was recorded in high-income countries and the lowest in low-income countries. However, reflecting the earlier results of the study, low-income countries (lower quantile) have shown higher export growth than lower-middle-income countries centred on the median quantile. In general, export volumes indicate a country's global competitiveness. Income level and productivity play a significant role in gaining an export advantage. However, the abundance of resources and their valuation, as well as the export structure, can provide a competitive edge over the trading peer. The results partially reflect the trade theories, especially about countries gaining the competitive edge in international trade because of the comparative advantage or using scale economics.

KEYWORDS: international trade, income, competitive advantage, global economy, quantile regression

JEL CLASSIFICATION: F14, P52, R11

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INTRODUCTION

The global economy is now divided. Economic fissures are shaping the world and outlining its future growth prospects. Is this pattern predestined? There are some other forces hindering the country's competitiveness and progress? These questions are becoming more urgent because such a state threatens stability and current global architecture. Indeed, international trade plays a vital role in preserving a country's development if speaking about market access expansion, competition and innovation opportunities, specialization and knowledge transfer. Moreover, many empirical sources identify economic prosperity with the country's competitiveness and by their proxy measures, such as GDP per capita (Fagerberg et al., 2007; Mura & Hajduova, 2021; Haidar, 2012; and Ani, 2015).

There needs to be a more elaborated research background in this field by linking international trade and economic growth through the scope of comparison on the world-country community. The main objective of the paper is a comparison of the world country's community by examining the relationship between economic growth and export volume with broader implications and diffusion to other fields like productivity and global competitiveness. The paper takes exciplitly into account the social stratification of countries by assigning them into coherent groups on the global level and subsequently evaluates their contribution to international trade and economic growth. It is assumed that, because of the complex interplay of factors like labour productivity, geography, established trade links and other various factors, significant differences in "two-way exchanges" between the countries are expected. Hence, the contribution to world trade and economic growth varies significantly by the country's income class. Such projection has essential ramifications on the global level because it implies future development prospects and global issues like international migration, poverty and resource depletion.

The paper's structure is following: 1) Literature review links international trade with national competitiveness within the scope of the global economy; 2) Methodology provides an analytical framework of the research with a detailed description of material and methods; 3) Results and discussion present results of the paper hence planting them within the scope of international empirical evidence.

Theoretical Background

Any economy is linked to the rest of the world through two broad channels: trade (in goods and services) and finance. The WTO identifies several ongoing trends concerning international trade: much higher vulnerability of the global economy to economic shocks, however also together more resilience when they occur; second, reshaping the trade patterns by enforcing policies aiming at production re-shoring and self-sufficiency promotion; and third, urging for more global cooperation for maintaining the economic resilience (WTO, 2021).

Despite many headwinds affecting international trade, the global economy experiences steadily increasing world trade volumes. Banbura & van Vlodrop (2018) provide a comprehensive overview of international trade development since the Great Recession. In the period before the Great Financial Recession (period 2007-2009), world trade typically grew at a steady rate (the exception was the 2000s). However, in the Great Financial Recession, the decades of steady growth ended abruptly when world trade contracted by 13% and then

resumed growth at a slower rate than before the crisis. Then, 2020 was marked by some of the largest reductions in trade and output volumes since WWII. However, unlike the GFR (Great Financial Recession), trade volumes recovered more quickly, marking a V-shaped recovery in 2020. In addition, trade and production impacts across specific goods, services and trade partners were highly varied (Arriola et al., 2021).

Similarly, the OECD (2022) points to a sharp recovery of international trade in 2021. However, there is a substantial difference among the countries in export output structure, industries, and trade links. Trade relations and supply chains were altered after the pandemic, underlining changes in the trade structure of goods, services, and trading partners.

Trade topics may be observed from different perspectives. Among the factors with a profound impact on trade volumes are geography (Stutz & Warf, 2012), labour productivity (McConnell et al., 2009; Krugman & Wells, 2006) and instruments of fiscal and monetary policies (Sachs & Larrain, 1993) are often cited.

There are several theories explaining the foreign trade. Of these, two refer to comparisons between the countries (Hecksher-Ohlin factor price equalization theorem) and the other deals with relationships within a single country (the Stolper-Samuelson and Rybczynski theorem), Horvat (1999). Fisher (2011) puts in the forefront: 1) The Heckshler-Ohlin theorem itself, a country tends to export the goods that use intensively the factors with which it is abundantly endowed; 2) The Factor Price Equalization theorem; international trade brings factor prices closer together, hence a locally significant factor which experiences global scarcity will benefit from trade; 3) The Rybczynski theorem, at fixed factor goods prices and thus fixed factor prices, endowment changes magnify output changes.

The decades after the first foundations of the trade theory were lied we may witness continued expositions, interpretations, controversies, and developments of international trade theories. In particular, among the expositions, Jones (1956), Lancaster (1957) and Mookerfee (1958) are noted. Among the interpretation, the contributions of Tinbergen (1949), Harrod (1958) and Ford (1963) is worth mentioning. The most significant developments were provided by McKenzie (1955, 1962), Kuhn (1959), Yale and Nikaidô (1965), Leontief (1953, 1956, 1964), Arrow et al.(1961) and Uzawa (1959), Chipman (1963).

Similarly, earlier notions about competitiveness were revealed in historical studies of classical and neoclassical economists (Bhawsar & Chattopadhyay, 2015; Zeibote et al., 2019). Specifically, the Ricardian model identifies the trade flows merely as a result of the comparative advantage. The factor in the Ricardian model may be represented as a resource combination or a single factor itself. However, no explanation about the differences in productivity among the nations was given. (Coldwell, 2000). Nonetheless, many empirical sources (WEF, EU, OECD) cite labour productivity as essential to achieving a competitive advantage over peers in the global market (WEF, 2019; WIFO).

More recently, Porter introduced a four-tier definition setting the framework of competitiveness on the national level: input factors and demand, forward and backward linkage industries, and company management and its contenders. Other factors, like government policy and economic shocks, should also affect competitiveness, but in an exogenous way (Porter, 1990).

Over time, Porter's model expanded by involving additional factors assumed to affect national competitiveness. For instance, FDI, creating a favourable pro-business environment, is often

advocated (Kordalska & Olczyk, 2015; Androniceanu et al., 2022). Bayoumi et al. (2018) observe real effective exchange rates, which provide an aggregate measure of changes in international prices by weighting exchange rates based on trade patterns, the standard metric for measuring such competitiveness.

Strive for maintaining to be internationally competitive is perhaps one of the most important objectives of all countries. High-income countries preserve their cutting-edge technologies with a focus on wages, which shall not sap their competitiveness. On the other hand, export-focusing economies (like new industrialized economics NIEs) beware of lower-wage entrants and often challenge more developed industrial countries. Finally, least-developed countries try to maintain their industries and often take a cautionary stance toward engaging in new export activities (Lal, 2001). In this relation, Zeibote et al. (2019) highlight the role of the government as a guarantee of the: 1) supply of resources need for development, especially factors for creating advantages; 2) creating institutional ground for economic development, innovations, environmental protection, etc.; 3) ensuring the functioning of the market system and 4) stimulating the development of human capital.

A country's international competitiveness might be well documented by its transaction records with the rest of the world. The empirical evidence points to factors hindering international competitiveness. Factors such as insufficient research and development (R&D), trade imbalance in high-tech products and services, labour skills mismatch and productivity decline often make the country lag towards their peers (Ezeala-Harrison, 2005).

When speaking about the competitiveness of nations, there is scope for countries which base their competitive advantage on various factors. Fagerberg (2007); Mura and Hajduova (2021) related national competitiveness with economic growth. Developed countries with above average GDP per capita but relatively slow growth were characterized as that 'lose momentum'. In turn, countries like Ireland, Luxembourg or Hong-Kong and Singapore grow fast despite a high GDP per capita ('moving ahead'). The performance of developing economies may be distinguished from that catching up-up and those that are 'falling further behind'. The former is developing Asian economies, notably China and some African and Latin-American countries. However, most developing countries from Africa and Latin America are considered 'falling further behind', Fagerberg (2007).

Boretos (2009), in the study of long-run series, predicts the slow decline of the Western countries and the rapid ascension of China. Kwasnicki (2013) compared the competitiveness of world countries divided into six regions. It is seen that the competitiveness of the USA or Western Europe eroded in the post-war period in favour of other countries, notably China or India. However, the competitiveness dynamics fluctuate, allowing many countries to run neck-on-neck along their respective pattern. Based on DEA analysis, Ülengin et al. (2011) identified 'how efficiently a chosen country uses its competitiveness'. Above the threshold became just Australia and South America. North American region became just shy below the threshold, and Asia, Africa, and Europe became well below the threshold.

Global Competitiveness Report (WEF, 2019 and WEF, 2020) cites lack of the global competitiveness. The global productivity slowdown was identified as the crucial factor of weak performance and fragility of the global economy in the last decade. The report shows that advanced economies continuously perform better than other countries but still fall short of 30 pts (GCI score) of the frontier. For least-developed countries (LDCs), poverty, including extreme poverty, is the main factor which prevents these economies from achieving

sustainable growth. Moreover, according to preliminary results, the pandemic of COVID-19 brought severe repercussions for the global economy; in the case of advanced economies, there has been:

1) a marked decline in competition in services; 2) a reduction in collaboration between companies; and 3) finding skilled workers became increasingly difficult. In emerging and developing economies since the pandemic, were noted: 1) an increase in business costs related to crime and violence and 2) organized crime; 3) a reduction in judicial independence; 4) further reduction in competition; and 5) stagnating trust in politicians.

The importance of international trade and exports, notably in boosting economic growth, was noted by Gururaj et al. (2016). A positive link was found between the export value and economic growth, hence the rise in GNI per capita. In turn, inflation (e.g. money growth) shows a harmful link. Moreover, the 'growth led export' hypothesis or vice versa is a topic of not finite debate. Substantial evidence supports both hypotheses, and there is some consensus on the causal link between export growth and GDP, at least in the short run (Orhan et al., 2022; Onose and Aras, 2021; Gulzar and Li, 2018). In the nutshell, it is assumed that a high level of exports valuably contributes to the country's positive account balance, enabling savings built up for providing investments to economic growth.

Thus, the paper also aims to find evidence about the competitiveness of world countries, linking exports and economic growth. Assessing a country's competitiveness represents an instrument for comparing them in the global economy.

MATERIAL AND METHODS

The paper's objective is to compare world countries through the scope of their competitiveness in international trade. The paper results should highlight regional disparities between the countries based on their income and contribution to international trade. Moreover, the relationship between the conditional variables, such as income and labour productivity, is being investigated within the methodological approach. For the study purpose, Quantile regression (QR) is used. The simple bivariate relation, such as the export volume in the international dollars (current prices) per labour unit and GNI per capita (Atlas method), would provide information about the relationship between the outcome y and regressor x at different points in the conditional distribution of y. Formally, there are $x_i = x_1, x_2, .., x_n$ countries aggregated to the dimensions $m_j = m_1, m_2, .., m_k$. To introduce the concept of a regression quantile, suppose that the main objective of modeling is the conditional prediction of y given x. Let $\hat{y}(x)$ denote the predictor function and $e(x) \equiv y - \hat{y}(x)$ denote the prediction error. Then

$$L\{e(x)\} = L\{y - \hat{y}(x)\} \tag{1.0}$$

Denotes the loss associated with the prediction error e.The optimal loss-minimizing predictor depends upon function $L(\cdot)$. If $L(e) = e^2$, then the conditional mean function, $E(y|x) = x'\widehat{\beta}$, where $\hat{\beta}$ is the least absolute-deviations estimator that minimizes $\sum_i |y_i - x_i'\beta|$. The qth QR estimator $\widehat{\beta_q}$ minimizes β_q the objective function

$$\min_{Q(B_q)} \left[\sum_{\{i|y_i \geq x_i'\beta\}} q\left|y_i - x_i'\beta_q\right| + \sum_{\{i|y_i < x_i'\beta\}} (1-q)\left|y_i - x_i'\beta_q\right| \right] \tag{1.1}$$

when $K = 1$ and $x_{i1} \equiv 1$. Also, for $q = 1/2$ is equivalent to minimizing$\sum_i |y_i - x_i'\beta|$, and the resulting estimator is often known as the least absolute value or l_1-estimator. The minimization problem is a linear programming problem, whose computational aspects are discussed in Koenker and Basset (1978), Basset and Koenker (1982), Judge et al. (1988).

QRs have considerable appeal for several reasons. Median regression, also called least absolute-deviations regression, is more robust to outliers that is mean regression. Moreover, QR permits to study the impact of repressors on both the location and scale parameters of the model, thereby allowing richer understanding of the data. In addition, QR is suitable for heteroskedastic data. The estimator that minimizes $Q(B_q)$ is an m estimator with well-established asymptotic properties (Cameron and Trivedi, 2009). It can be shown that

$$\widehat{\beta_q} \sim N(\beta_q, A^{-1}BA^{-1}) \tag{1.2}$$

where $A = \sum_i q\,(1-q)x_i x_i', B = \sum_i f_{uq}(0|x_i)x_i x_i'$ and $f_{uq}(0|x)$ is the conditional density of the error term $u_q = y - x'\beta_q$ evaluated at $u_q = 0$. In case this study standard bivariate regression model is considered, with the conditional mean function $E(y_i|x_i) = \beta_0 + \beta_1 x_i$ which can be written as

$$y_i = \beta_1 + \beta_2 x_i + F_{u_i}^{-1}(q) \tag{1.3}$$

where the error u_i satisfies $E(y_i|x_i) = 0$. The qth conditional quantile function of y given x as $Q_q(y|x)$. In general, it implies that

$$Q_q(y_i|x_i) = \beta_1 + \beta_2 x_i + F_{u_i}^{-1}(q) \tag{1.4}$$

where F_{u_i} is the distriubution function of u_i. Conditional on x_i, the quantile depends on the distribution of u_i via the term $F_{u_i}^{-1}(q)$. This will depend on x_i if, for example, errors are heteroskdastic. Then in general $Q_q(y|x)$ at different values of q will differ in more than just the intercept and may well even be nonlinear in x.

In the study, the World Bank country classification by income level has been undertaken (WB, 2022). Countries are classified by the income expressed as GNI per capita (Atlas method). Based on the classification, the following classes may be distinguished: 1) Low income < 1,085; 2) Lower-middle income 1,086 – 4,255; 3) Upper-middle income 4,256 – 13, 205; 4) High income >13,205 expressed in US dollars. Moreover, subsequent results are submitted for further data inference, especially one-way ANOVA looking for an association between the country's economies. The cross-section data, including all world countries, averaged over 2016-2021, was employed as a research sample. It must be noted that the final sample consists of just 162 units because some units (countries) were eliminated due to data insufficiency.

According to the WB country database, the geographical distribution of countries based on income level is quite homogenous across the world's land mass. High-income countries (HI) cover predominantly North-America and Western Europe, Australia and Japan, and few countries in the Arab peninsula, Upper-middle income countries (UMI) are located predominantly in Asia and Latin America, Lower-middle income (LMI) and Low-income (LI) countries lie predominantly in Africa and Southern-Asia.

As a sample, secondary data from the World Bank database (databank.worldbank.org) were provided. Following variables were employed to provide research background and the model:

- export volumes on the country's level per unit of labour expressed in the current international dollar (dependent variable),
- GNI per capita (Atlas method) (independent variable).

Using the GNI per capita seems appropriate and well-justified. This variable reflects the 'economic values' created by the nation's resources. Hence, the model is poised to better extract the differences between the countries using the GNI term.

RESULTS AND DISCUSSION

Table 1 presents the research sample of the study. Four categories of countries are classified by their income level (GNI per capita Atlas method) provided by the World Bank. The lowest frequency has LI countries because of poor data records; hence, some countries must be excluded from this group.

Table 1 Research sample of the study.

Income class by country	Treshold	Frequency
Low income (LI)	1,085<	20
Low middle income (LMI)	1086 - 4,255	49
Upper middle income (UMI)	4,256 - 13,205	42
High Income (HI)	>13,205	51

Source: own research

Table 2 shows income quantiles expressed in logarithms of export volume per labour unit. The export volume also classifies the frequency of countries belonging to each quantile. In terms of export volume per unit of labor (current international dollar), LI and half of the LMI countries belong to the lower quantile, and HI countries belong to the upper quantile.

Table 2 Calculated quantiles by the export volume.

Income class by country	0.25 quantile	Frequency	0.50 quantile	Frequency	0.75 quantile	Frequency
Low income (LI)	q<3.1873	20	3.1873<q<3.6602	0	3.6602<q<5.6135	0
Low middle income (LMI)		20		24		0
Upper middle income (UMI)		0		17		30
High Income (HI)		0		0		51

Source: own research

Table 3 shows the quantile regression results considering the bivariate relationship between the export volumes and the GNI per capita. The coefficients vary across quantiles. All coefficients became statistically significant, and the chosen regressor has a greater impact on the upper conditional quantiles of export volumes. The standard errors are smaller for median regression (q= .5) than for upper and lower quantiles (q= .25, .75), reflecting more precision at the centre of the distribution. Interestingly, export volumes on lower quantile (.25) are higher than on the median (.5). It might reflect that many LI and LMI countries have abundant stocks of natural resources (fossil fuels, minerals and metals crops), which are relatively easy to extract and to export, what contributes to higher export volumes.

Table 3 Results of quantile regression

```
Simultaneous quantile regression                        Number of obs =        162
  bootstrap(20) SEs                                     .25 Pseudo R2 =     0.6492
                                                        .50 Pseudo R2 =     0.6687
                                                        .75 Pseudo R2 =     0.6423

------------------------------------------------------------------------------
             |               Bootstrap
    lexp_lab | Coefficient  std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
q25          |
        lGNI |   1.106543    .051041    21.68   0.000     1.005742    1.207344
       _cons |  -.6793177   .2080953    -3.26   0.001    -1.090285   -.2683499
-------------+----------------------------------------------------------------
q50          |
        lGNI |   1.104307   .0376766    29.31   0.000     1.029899    1.178714
       _cons |  -.4944134   .1325294    -3.73   0.000    -.7561459   -.2326809
-------------+----------------------------------------------------------------
q75          |
        lGNI |   1.211089    .046257    26.18   0.000     1.119736    1.302442
       _cons |  -.7543373    .172434    -4.37   0.000    -1.094877    -.413797
```

Source: own research

It is possible to conduct a hypotheses test of equality of the regression coefficients at different conditional quantiles. Consider a test of equality of the coefficient GNI with q=0.25 and q=0.75. The results show that the difference became statistically significant at a 10% level. So, the equality hypothesis can be rejected at a level of .1.

```
 q25]lGNI - [q75]lGNI = 0
 F(1,160) =    2.99
 Prob > F =    0.0855
```

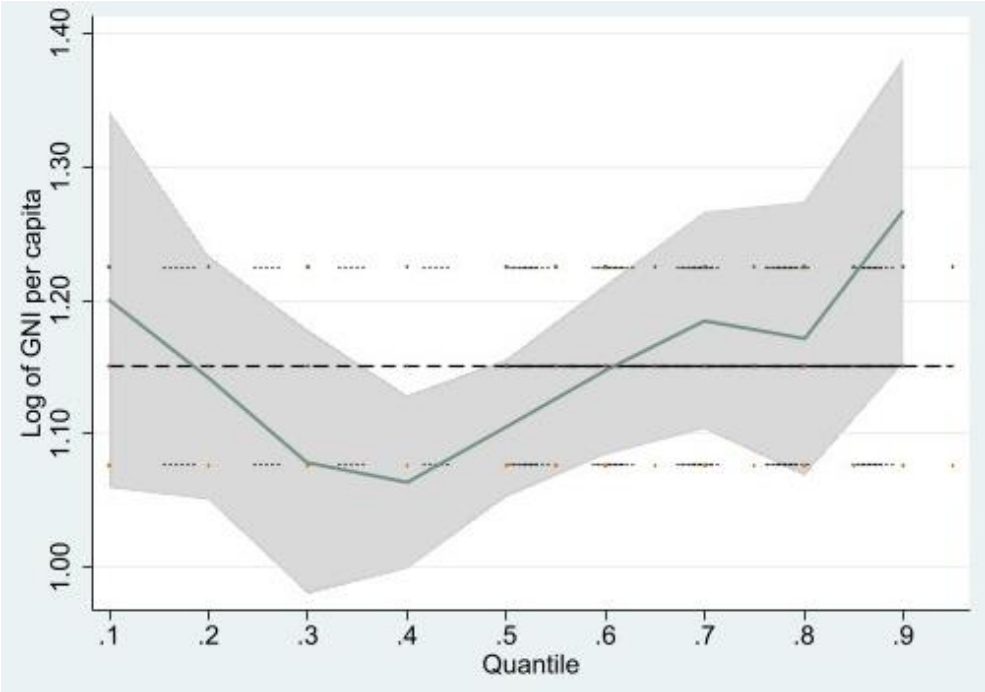

Figure 1 QR and OLS coefficients and confidence intervals for GNI as *q* varies from 0 to 1

Finally, a more detailed quantile plot provides in Fig. 1. Horizontal lines are the OLS point estimates and confidence intervals. Results suggest that the lower quantile (LI countries) is associated with a .16% export gap (compared to the median), and the upper quantile (UMI and HI countries) has shown a .22% higher export volumes compared the median quantile. So the lowest level of exports is concentrated around q.4, which makes a difference of up to .5% (q.75) per labour unit level.

Overall, the results suggest that there are indeed meaningful differences in export volumes between the countries classified by income. Also, in the literature body of the paper, the link between labour productivity, income, and export was highlighted. Countries with higher labour productivity are assumed to have higher incomes and a comparative advantage in exports. This issue might be explored through the one-way ANOVA analysis comparing the log of labour productivity between the country's income categories.

Table 4 One-way ANOVA analysis of labor productivity by country classification

```
       Country    |
classification    |    Summary of Log of labor productivity
     by income    |
                  |        Mean   Std. dev.       Freq.
------------------+------------------------------------
               HI |   4.7841964   .22159411          51
               LI |   3.2312462   .17619596          20
              LMI |   3.7665946    .2230135          49
              UMI |    4.171276   .13435504          42
------------------+------------------------------------
            Total |   4.1257757   .56113238         162

                      Analysis of variance
    Source              SS         df      MS            F     Prob > F
------------------------------------------------------------------------
Between groups      44.5215614      3   14.8405205    379.88     0.0000
 Within groups      6.17243618    158   .039066052
------------------------------------------------------------------------
    Total           50.6939976    161    .31486955

Bartlett's equal-variances test: chi2(3) =  12.8368    Prob>chi2 = 0.005

Comparison of Log of labor productivity by Country classification by income
                              (Bonferroni)
Row Mean-|
Col Mean |         HI          LI         LMI
---------+---------------------------------
      LI |   -1.55295
         |      0.000
         |
     LMI |    -1.0176    .535348
         |      0.000      0.000
         |
     UMI |    -.61292     .94003    .404681
         |      0.000      0.000       0.000
```

Tab. 4 provides the results of the one-way ANOVA. There is great variance between the groups and relatively small variance within the country groups. The differences between the groups are highly statistically significant at the .05 level. Moreover, Bonferroni statistics have shown substantial statistical differences between the mean productivity levels of country groups. It suggests that labour productivity plays a major role in the determination of income

and also export volumes. Unsurprisingly, the higher-income countries also have higher productivity levels due to the combination of labour and capital and access to cutting-edge technologies, which feed the higher productivity rate.

CONCLUSIONS

The paper's objective is an examination of world countries' competitiveness through international trade. The research is based on earlier international trade theories such as the Ricardian theory (comparative advantage) and the 'growth-led export' hypothesis. For such purpose, cross-section data of export volumes and income of world countries were employed. The results have shown a tight link between exports and the country's income level. Assuming the variability, the concept of quantile regression was used. The results have confirmed statistically significant variability across the chosen quantiles. The lowest export growth is associated with LMI and UMI countries (< .5q) but not with all of them. The highest export growth was recorded in HI and some UMI countries (> .75q). Surprisingly, LI countries (< .25q) recorded slightly higher export growth rates compared to the countries located in the median quantile (.5q). The reason may be abundant stocks of natural resources located in LI countries, allowing their export in large quantities. The difference between the median quantile (.25 <q < .5) and upper quantile (> .75q) is up to .5% of export volume expressed in international dollars per unit of labour. The value is marginal. However, it is so just on the general level. Looking at the structure of the exports shall reveal more substantial differences. However, it is out of the scope of this paper. Such presumption is also backed by empirical evidence. Gozgor & Can (2016) examine the relationship between the product diversification of exports and the real GDP per capita by considering subgroups of countries categorized by income (low-, lower middle-, upper middle-, non-OECD high and OECD-high income). A positive association was found between the degree of diversification for the three sets of low and middle-income countries and a negative relation for richer countries. On the contrary, the product concentration promoted the real income in the non-OECD and the OECD member high-income countries. Similar conclusions were found also by Cadot et al. (2011), and Klinger & Lederman (2011).

Subsequently, the relationship between the country's income and labour productivity was investigated. Assuming the conditional relation between productivity and income, one-way ANOVA analysis has been employed. The results pointed to the vast differences between the country's groups classified by income. The highest productivity rate records HI and lowest LI countries. The topic of productivity – income gap devoted much of the literature. There can also be found the relation between productivity and exports. Labour and total factor productivity are typically higher for export industries than non-exporting industries on the firm level. It can also be considered an indicator of the competitive advantage over the other peers on an industry basis.

Moreover, the difference increases over time (Alvarez & Lopéz, 2005). Amin, Islam & Khalid (2023) point out that output per worker varies enormously across countries. A substantial productivity gap was found between the HI and LMI countries on the firm level. They underline the importance of human capital, institutions and market size for the transition countries.

Van Ark (2002) explains that greater use of labour-productivity positively contributes to per capita income. Labour-productivity growth often results in the accumulation of intangible

capital, such as human capital, thus contributing to the country's social progress. Similarly, Nina (2005) stresses that sound macroeconomic policies and a stable political and legal context must be revised. He pointed out that economic growth, productivity and competitiveness depend on improving microeconomic foundations. Cole et al. (2004) explain why Latin America has not replicated Western economic success and note that Latin America has many more international and domestic competitive barriers than Western and successful East Asian economies. The results partially reflect the trade theories, especially about countries gaining the competitive edge in international trade because of the comparative advantage or using scale economics.

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