

UNIT LABOR COSTS – A FACTOR OF COMPETITIVENESS? CASE OF SLOVAKIA

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1. Introduction to Competitiveness

There is not any uniform definition of the term „competitiveness“ regarding a nation. Often it refers to a macroeconomic event, under the influence of exchange rates, interest rates, government deficits (Porter, 1998). The principal goal of a nation is to produce a high and growing standard of living for its citizens. The ability to do so depends on the productivity with which a nation's labor and capital are used. A nation's prosperity is sometimes diagnosed from the point of view of trade flows, monetary, fiscal and budget policies (Garelli, 2006). However, competitiveness expressed from this point of view does not correspond to everyday changes in the global economy – new business environment, forms of trading, new products, new communication processes, alternative or new payment and settlement systems, digital monetary and payment means, new financial devices, new risks, etc. Competitiveness of Nations is a field of Economic theory, which analyses the facts and policies that shape the ability of a nation to create and maintain an environment that sustains more value creation for its enterprises and more prosperity for its people. Competitiveness of nations and competitiveness of enterprises differentiate according to the facts where in society the creation of economic values takes place. While it (Garelli, 2006) is argued, that an economic value is only created by enterprises and that nations can only establish an environment for hindering or supporting the activities of enterprises, a nation does not directly generate an economic value added.

Competitiveness is a relatively new economic topic although its essential part goes back to the theory of absolute and comparative trade advantages (Adam Smith, David Ricardo, Heckscher-Ohlin, etc.). The term competitiveness itself did not occur in those times. Classical theory of cost advantages was first introduced by Adam Smith (1937). Smith argued that every country should focus on production of those commodities that would be produced more cheaply than its competitors in the world market. Trading should be conducted on the basis of market prices, i.e. prices should not be distorted by the state through tariffs or subsidies. From this point of view, absolute advantages correspond with competitive advantages. However, comparative advantages (David Ricardo, 1817) regulate the trade relations also from those countries, which suffer from cost disadvantages compared with other countries in the production of all goods and not only in the production of some goods in particular. Thus every country has a comparative cost advantage in the production of at least some commodities. International trade can usually result in increased employment. A more comprehensive explanation of the comparative cost differences between individual countries was brought in by Eli Heckscher in 1919. According to Heckscher and Ohlin country's endowments with factors of production explain the price differences of commodities produced in different countries. This doctrine gave rise to the theorem of factor price equalization. According to this, it is the relatively abundant production factor in a country that will benefit most from international trade due to increased demand. Comparative advantage and competitiveness are related, but are often mistakenly mixed up for one another. Comparative advantage explains how trade benefits to nations through more efficient use of the world's resource base when that trade is totally unrestricted. Competitive advantage defines trading patterns as they exist in the real world including all the barriers to

free trade ignored by comparative advantage. Recent trends in the theory of international trade concentrate upon the Intra-industry trade relations as a result of globalization, internationalization and interdependence of nations (Vokorokosová, 2003). It is attributed e.g. to differences in consumers' needs and production of new commodities. However, a dynamic study of International trade also explains the essentials of Intra-industry trade, as the Intra – industry trade became much more popular among industrial nations in comparison to the classical exchange of different products (Suntum, 2004). Standard economic theory claims that factors of production – labor, land, natural resources, capital, and infrastructure – will determine the flow of trade. However, a nation does not inherit the factors of production – but it creates the most important factors of production – such as skilled human resources or scientific base (Porter, 1998). However, nowadays the doctrine of competitive advantage substituted the theory of comparative advantage in economic analysis of international competitiveness. This doctrine identifies the fundamental determinants of competitive advantage in an industry and how they work together as a system. Porter's theory revolved around his Diamond Model of the competitive advantage of nations. The traditional comparative advantage doctrine follows four factors for regions and countries, namely; land, location, natural resources and labor. Because these factor endowments can hardly be influenced, this fits in an inherited view towards national economic opportunity.

While Competitive – specific advantages can influence the trade flow of internationally competitive goods, comparative advantages are fixed of nature, for at least a given time, and are determined by a surplus of some factors such as labor or natural resources and are more easily identified than competitive advantages (Fuentes, 1999). Competitive advantages can modify their appearance more frequently and easily. Hence if a country's trade output is relative to comparative advantages, than, special conditions or factors of production are associated with that output. On the other hand, competitive advantages enable any country or any company to produce the given output. With respect to the present production, it is based upon competitive rather than comparative advantages. However, sustainable competitive advantages allow the maintenance and improvement of the countries competitive position in the market (Baláž, 1999). It is an advantage that enables a nation to survive against its competition over a long period of time. Talking about competitiveness within a context of trade relations requires a specification on measurements of trade performance. Sometimes it is tempting to use the trade balance as a measure of trade competitiveness. Hence by setting the trade balance for competitiveness as an indicator, the mobility of labor and capital is neglected. From this point of view the Balance of Payments seems to be a more comprehensive measure for this issue. And in addition to this a nation's trade balance is more revealing of its spending patterns than of its products' attractiveness in world markets.

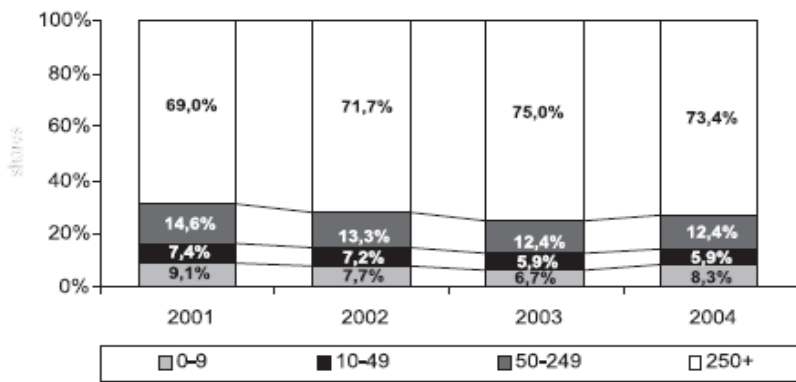
2. Genesis of external trade relations of Slovakia

According to law No. 119/1948, all foreign trade including foreign forwarding has been nationalized, thus creating a state monopoly of foreign trade. Only subjects (business organizations) appointed by the state were permitted to provide export and import transactions. Because of the state monopoly of foreign trade, production and domestic trade were separated from the foreign market demands. The second half of the 1960s was marked by the transformation of some business organizations into stock companies. With producers participation they establishing, e.g. Škodaexport, Jablonex, Chemopol, Koospol, Centrotex etc. In 1990, almost 100 % of the economy was in the hands of the state. In the early 1990s,

Slovakia began the transition from a centrally planned economy to a market economy. Law No. 113/1990 abolished the state monopoly in foreign trade. Foreign trade activity became regulated by the Law of the National Council of the Slovak Republic No 180/1996 (Code) - the so called Customs Law and by the Decree of the Ministry of Finance of the Slovak Republic No 167/1997 (Code) in the contents, form, and requirements of customs declarations and on the manner of keeping customs statistics. The Section of Foreign trade was in the former CSFR (Czech and Slovak Federal Republic) conducted by the Federal Ministry of Foreign Trade (FMFT) in Prague. The Ministry of Economy was established by the law of Slovak National Council No 347/1990. Some sections of the FMFT were further on developed upon Ministry of Economy. Since January 1, 1993 competencies of Foreign Trade were divided between Ministry of Foreign Affairs and Ministry of Economy. At present, external trade relations are governed by leading authorities: The Ministry of Foreign Affairs of the Slovak Republic, The Ministry of Economy of the Slovak Republic, The Slovak Chamber of Commerce and Industry.

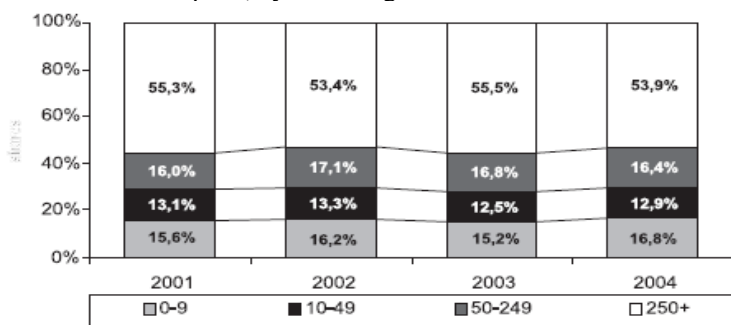
The 1990s have been a decade of major economic and social transformations in Slovakia. Slovak reforms began under the Czech and Slovak Federal Republic. They continued after Slovakia became a sovereign state on January 1, 1993. The transition to a market economy has been completed in the corporate sector, and the share of private enterprise to GDP now accounts for around 80 %. Privatization of state enterprises and the emergence of many new SMEs resulted with this transformation process. The economy has been opened to international trade with prevailing market forces (about 80 % of Importing/GDP and about 70 % of Exporting to GDP). In efforts to establish a market-based economy, Slovakia has decontrolled prices, opened the economy to foreign investment and liberalized its foreign exchange regime. It has also loosened or eliminated foreign trade restrictions and privatized many of its state enterprises. Since 1989, territorial structure of Slovak external trade relations changed substantially when trading was utmost with the Soviet Union and other central and eastern European countries. Until 1989, the share of CMEA countries (Council for Mutual Economic Aid) achieved about 70 % in the turn-over of the Czechoslovak foreign trade. Excluding trade with the Czech Republic, which is Slovakia's largest trading partner, the share of Slovakia's merchandise exports sold to industrialized countries in Western Europe increased from 19 % in 1989 to 71 % in 1994. As much as 91 % of all merchandise imports and exports are exchanged with European countries, including Russia. For improving balance of trade the end of 1997 was characterized by implementation of government measures like import charges, certifications, and import quotas. Export into the EU has risen between 1993-1998 from SKK 40.2 billion to SKK 210.2 billion. That is nearly 191, 2 %. Slovakia is a small and very open economy. Exports plus imports represent about 150 % of the Slovak GDP. At present, there is a visible dominance of commodities of large companies mainly those of Volkswagen, US-Steel, etc. on the exports side. Products from Kia Motors, Peugeot-Citroen which built their factories in Slovakia and will export their production worldwide in a near future, will further on generate trade and export performance. Because this development means a relative decline of SMEs in exports statistics, there is, however, a huge challenge for SMEs (see chart 1, 2) to become important business partners/suppliers to large companies and to create cooperation clusters. This is evident e.g. in the case of German car making company Volkswagen located in Bratislava.

Chart 1 Shares of SMEs on exports, by size categories



Source: State of small and medium enterprises in the Slovak Republic, 2004

Chart 2 Shares of SMEs on imports, by size categories



Source: State of small and medium enterprises in the Slovak Republic, 2004

The Slovak economy and the entire society have made remarkable progress during several recent years. See e.g. Charts 3, 4. Reforms have strengthened the economic performance of the country to that of a standard market economy. Reforms have also made the business environment simple and transparent. All of this effort was crowned by the country's admission to the EU in 2004. Slovakia is also fully integrated into other international organizations including WTO, IMF, EBRD, NATO, and OECD.

Chart 3 GDP of SR

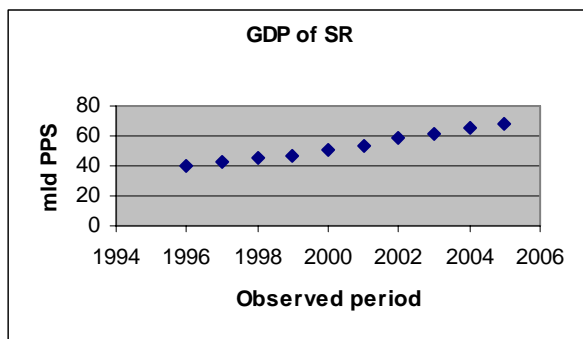
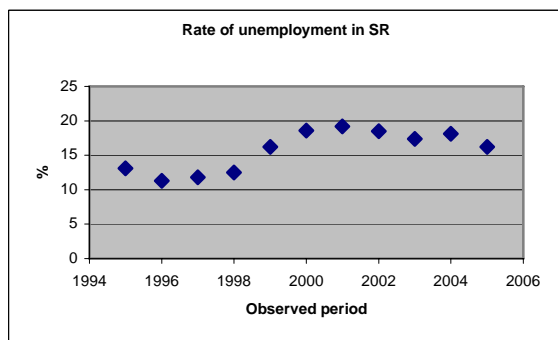


Chart 4 Rate of unemployment of SR



Source: Statistical Office of the Slovak Republic

Reforms undertaken so far have led to an increased stability of the economic environment and a sustainability of economic growth.¹ Many reforms have a pioneering character in Europe (retirement and social reforms, introduction of the flat income tax^{2, 3} and VAT) and therefore have significantly increased the attractiveness of the Slovak business environment. The reforms strengthened the position of Slovakia in the Central European region and increased its investment attractiveness. Now Slovakia achieves in GDP p/c nearly half of the average of EU 25.

¹ State Budget Deficit about 3 % of GDP, Economic Growth about 5 %.

² 19% Flat Tax on Individual and Corporate Income (Effect on January 1, 2004).

³ The TAX burden in Slovakia in 2004 was the third lowest in the European Union, according to a comparison of the ratios between national tax revenues and gross domestic product (GDP) in EU member states. The report by Eurostat, the EU's statistics bureau, found the ratio for Slovakia was 30.6 percent in 2004. According to Eurostat, Slovakia's ratio has been falling since 1998, when it stood at 37.1 percent. Only Lithuania and Latvia had a lower tax burden, recording 28.7 percent and 29.1 percent, respectively. The EU's average tax burden in the same year was 40.7 percent, down from 42.7 percent in 1999. Among EU member states, the highest tax burden in 2004 was in Sweden, where the ratio was 51 percent. Denmark had the second-highest ratio at 49.9 percent, followed by Belgium (47.4 percent), France (45.3 percent), Finland (44.5 percent) and Austria (44.3 percent).

Slovak Comparative and Competitive Advantages

Comparative advantages always determine the direction of trade, competitive and absolute advantages affect resource allocation, trade patterns and trade volumes. In this article, the foreign trade exchange of Slovakia is specified according to comparative advantages based on the cost of labor. It is evident, that comparative advantages determine its export and import performance towards/from the world market in the case of Slovakia, too. Thus competitive advantages contribute e.g. to preserving given comparative advantages, help finding out new sources of additional value, attract foreign investments, create favourable conditions for domestic investors, and generate job creation. Suppose, Slovakia's comparative advantages are reflected in inherited conditions for competing, such as location – strategic position, factors of production – cheap labor and fertile arable land. Slovakia has scarce resources of e.g. antimony ores, mercury, iron ores, copper, lead, zinc, precious metals, magnesite, limestone, dolomites, gravel, brick soils, ceramic materials, stone salt etc, fuel resources (brown coal, natural gas). None of these are in sufficient amount, and for covering domestic demand, these have to be imported. If comparative advantages are based on country's endowment with factors of production, and in case of Slovakia, competitive advantages such as low taxes, state investment support, friendly entrepreneurial environment, traditional industries and services (automotive industry, chemical industry, glass industry, footwear industry, metallurgy, wood processing industry) increase the value of given production factors thus that of comparative advantages.

For analysis of selected factors of Slovak competitiveness, low labor cost advantage was taken for examination. However, talking about cheap labor force, we must start by clarifying the data and methodology for calculating the Unit labor costs that determine country's competitiveness.

3. Data description and methodology of ULC (Unit labor costs)

Monitoring of ULC is a useful indicator to follow a country's competitive performance in the short and medium run and to find out possible solutions if ULCs change their trend. The measurement of International competitiveness by ULC - a partial indicator requires the data of nominal labor cost per employee or per hour worked, the output volume per worker or per hour worked the ratio of the purchasing power parity for output relative to the nominal exchange rate.

Unit labor cost is defined as the cost of labor required to produce one unit of output in a particular industry, sector or the total economy. In another words, the unit labor cost measure is a ratio that is constructed from a numerator reflecting the major cost category in the production process (labor compensation) and the denominator reflecting the output from the production process (GDP or value added). In economics, productivity is the amount of output created (in terms of goods produced or services rendered) per unit of input used (Lipská, 2005). Then labor productivity is typically measured as output per worker or output per labor-hour (Raymand, 2003). Labor productivity is in fact the „average product of labor“ (average output per worker or per worker-hour, an output which could be measured in physical terms of in prices terms).

Comparing ULC among countries enables to reveal a country that might be regarded as cost competitive relative to other countries. The meaning of the labor cost concept might be even better understood when expressed in terms of the ratio of labor compensation per unit of labor (for example, the wage or the total labor cost per employed person or per hour worked) and the

productivity of labor (measured as output per employed person or per hour). The ratio shows that a country can improve its cost competitiveness either by decreasing its labor cost per person employed (the numerator) or by raising the productivity performance (the denominator), which implies that cost competitiveness is not only based on wage growth but can be improved through raising productivity to create more output. A specific characteristic of unit labor cost measures is that the numerator, which reflects the labor cost component of the equation, is typically expressed in nominal terms, whereas the denominator, which is output or productivity, is measured in real or volume terms. Compensation of employees (at current prices) (ESA 95) is defined as the total remuneration in cash or in kind, payable by an employer to an employee in return for work done by the latter during the accounting period (ILO).

Compensation of employees is broken down into:

- Wages and salaries: wages and salaries in cash; wages and salaries in kind;
- Employers' social contributions: employers' actual social contributions; employers' imputed social contributions.

An analysis done in this article encompasses the investigation of how important the ULCs are for observed countries – Slovakia and Austria being competitors in cost labor relations. For this reason we also involved our own calculations of relative labor productivity, along with relative labor costs.

For the sake of a comparison of the ULCs between Slovakia and Austria, we applied the available data from National accounts (ESA 95), Euro nominal compensations of employees to GDP expressed in constant Euro prices. For expressing Euro nominal compensations of employees, nominal quarterly data of exchange rates of Slovakia towards Euro were applied, while compensations of employees in Austria were already expressed in Euro currency and taken down from Eurostat database. Data for GDP in Euro constant prices were derived from Eurostat database for both of countries under observation. Hence we keep to the methodology of the European Central Bank (ECB), the European Commission (EC), and the Organization for Economic Cooperation and Development (OECD).

For this analysis we used the following form:

$$ULC_{SR/A} = \frac{LCSR}{ER * LCA} \cdot \frac{YSR}{YA} = YA * YSR^{-1} * LCSR * LCA^{-1} * ER^{-1} \quad 1$$

where ULCs stands for Unit Labor Cost, LC for Labor Compensation of corresponding countries, ER for the official nominal Exchange rate of Slovakia to Euro. Austrian data taken from Eurostat were already expressed in the Euro currency. Dividing labor compensation (LC) by number of employees (E) and output by total employment (TE) gives the labor cost per labor unit and labor productivity (LP).

The difference between our approach to ULC measurement and that of ECB, EC, and OECD is the GDP expressed in constant Euro prices instead of in PPS (Purchasing Power Standard). By this method costs of labor are compared to real output prices in the period under review. Moreover, this article brings a detailed analysis of relations of the ULCs between two countries

differing in their labor costs, trying to answer a question, whether cheap labor in competitive country threatens the high wage countries.

Secondly we concentrated our attention on diagnosing the relative ULCs of the observed countries specifying the % changes of ULCs, LP and LC of individual countries. Development of relative LCs, LPs should reveal the sustainability of comparative advantages based upon low cost labor. The entire analysis was performed upon 44 observations based upon quarterly data between 1995 and 2005.

4. Results

Average quarterly labor costs in Slovakia expressed in current prices equal under the period of observation to about 1284 Euro and about 8214 Euro in Austria. On average, the current costs associated with an employee in Slovakia achieved quarterly in the year 2005 about 1998.75 Euro. In Austria it was about 9100 Euro. In 1995, however, the compensations per employee in Slovakia recorded per quarterly about 810 Euro, in Austria about 7829. Between 1995 and 2005 the average quarterly rate of growth of LC (labor costs) recorded in Slovakia was nearly 2.70 % while in Austria about 0.40 %. The highest % change in labor costs in Slovakia was recorded in the fourth quarter of 2002 with a 22 % increase in LCs relative to previous quarter. Austria faced the highest % change between quarters in the year 1995 about 1.87 %. However, the highest average quarterly % change in LCs in Slovakia was in 2004 and 2005. All these were mainly due to the upward wage pressure in 2004 and 2005 respectively. For a more detailed view on this indicator see Chart 5. Between 2004 and 2005, the average quarterly share of LCs in Slovakia recorded about 21.25 % of the LCs in Austria, in the year 1995 it was about 8 % and in 1999 slightly more than 13 %. From these figures it is clear that Slovakia still uses its comparative advantages – cheap labor - for generating exporting, inflow of foreign direct investments thus economic growth.

However, these advantages in cost labor conditions in Slovakia are just a sign of temporary comparative advantages as these are according to the compact data set in Charts 6 and 7 under permanent changes. However, a cheap labor does not mean a threat for competitive countries at once if these costs benefits do not fit to corresponding increase in productivity of labor.

Labor productivity and labor costs alike showed an unstable development in both observed countries. Between 1995 and 2005 in Slovakia, the labor productivity dropped four times while in Austria seven times. The highest negative changes were recorded in Slovakia and in Austria in the fourth quarter of the year 2000. In Slovakia it was due to a decline in GDP growth in constant prices relative to previous quarter – about 3.56 %, while total employment grew quarterly by nearly 1.5 %. In Austria, GDP in constant prices increased in the fourth quarter of 2000 by nearly 0.70 %, while total employment by nearly 2.6 %. In the observed period, the average quarterly labor productivity growth in Slovakia achieved about 1.07 % while in Austria 0.40 %. The quarterly average rate of growth of labor productivity in Austria achieved about 0.33 % in 2005. In Slovakia it was about 1.3 % in the same period. On the quarterly average, labor productivity of Slovakia achieves about 18 % of the labor productivity of Austria. See the results of ULCs – Unit labor costs, LPSR labor productivity of Slovakia, LPA labor productivity of Austria, LCSR labor compensations per employee in Slovakia, LCA labor compensations per employee of Austria, relative Labor productivity (LPSR/A), relative Labor compensations (LCSR/A), GDP SR – real GDP of Slovakia, GDPA – real GDP of Austria,

Nominal Exchange Rate of SKK to Euro, TESR – total employment of Slovakia, TEA – total employment of Austria, ESR – employees of Slovakia, EA – employees in Austria in countries under review presented in Charts 6 and 7. Slovakia achieves on the quarterly average about 88 % from Unit labor costs in Austria, however, in 2004 and 2005 due to a dramatic increase of wages and salaries in Slovakia ULCs of Slovakia exceeded even those of Austria. Wages and salaries represent about 75 % of all costs on the compensation of employees in Slovakia and about 70 % in Austria. Total employment in Slovakia grew on quarterly average under observed period by nearly 0.005 %, while in Austria by 0.16 %. On the contrary the number of employees dropped in Slovakia on quarterly average by 1.7 %, while in Austria, it increased quarterly by about 0.18 %.

Chart 5 Average monthly wages in economy of the SR - (calculated per persons)

Indicator	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Index of nominal wages	117,0	114,3	113,3	113,1	109,6	107,2	106,5	108,2	109,3	106,3	110,2	109,2
Index of real wages	103,2	104,0	107,1	106,6	102,7	96,9	95,1	101,0	105,8	98,0	102,5	106,3

1) Indices corresponding period of previous year = 100

Source: Statistical office of the Slovak Republic

Chart 6 Trend of ULCs, LP, and LC

%	Δ ULC SR	Δ ULC A	Δ LP SR	Δ LP A	Δ LCSR	Δ LCA	ULC SR-A
1995Q1							62,87
1995Q2	7,37	1,85	1,55	0,02	9,03	1,87	66,27
1995Q3	1,13	-0,72	0,14	0,22	1,27	-0,5	67,50
1995Q4	15,70	-0,24	2,52	0,83	18,62	0,6	78,30
1996Q1	-18,18	-1,46	0,32	1,06	-17,92	-0,4	65,01
1996Q2	10,10	-1,37	0,22	0,51	10,33	-0,87	72,56
1996Q3	-1,51	0,24	0,94	-0,04	-0,58	0,2	71,30
1996Q4	15,52	-1,02	1,66	-0,01	17,43	-1,02	83,21
1997Q1	-13,35	-1,02	2,44	0,08	-11,23	-0,94	72,85
1997Q2	11,93	-0,57	1,12	0,38	13,19	-0,18	82,01
1997Q3	-0,05	-0,95	1,29	0,74	1,24	-0,22	82,75
1997Q4	13,80	-0,11	0,53	0,78	14,39	0,67	94,28
1998Q1	-13,31	-0,20	1,78	0,72	-11,77	0,51	81,89
1998Q2	8,62	0,32	1,56	0,47	10,32	0,79	88,67
1998Q3	-4,42	0,55	2,08	0,22	-2,42	0,77	84,29
1998Q4	8,08	1,14	-2,74	-0,06	5,16	1,08	90,06
1999Q1	-17,38	0,29	1,36	0,18	-16,25	0,47	74,20

1999Q2	1,88	-0,60	2,68	1,01	4,62	0,41	76,05
1999Q3	0,57	-0,73	2,17	1,21	2,75	0,47	77,05
1999Q4	14,78	0,02	1,75	0,50	16,78	0,53	88,41
2000Q1	-8,23	0,15	2,57	0,44	-5,8	0,59	81,01
2000Q2	6,05	0,02	0,55	0,56	6,63	0,58	85,90
2000Q3	-2,40	0,07	-0,16	0,41	-2,5	0,48	83,78
2000Q4	18,67	2,24	-4,97	-1,90	12,78	0,3	97,24
2001Q1	-17,22	0,19	4,92	0,05	-13,14	0,24	80,35
2001Q2	7,87	0,92	0,49	-0,64	8,39	0,28	85,87
2001Q3	-1,67	-1,59	1,53	2,02	-0,16	0,4	85,80
2001Q4	12,07	-0,02	1,69	0,51	13,97	0,49	96,18
2002Q1	-9,26	0,28	1,04	0,84	-8,3	1,12	87,02
2002Q2	4,50	-0,38	0,87	0,37	5,41	-0,008	91,28
2002Q3	-4,32	0,55	1,07	-0,07	-3,3	0,48	86,86
2002Q4	21,12	0,18	0,75	0,26	22,03	0,45	105,01
2003Q1	-14,88	-0,06	-0,27	0,50	-15,11	0,44	89,44
2003Q2	7,32	0,15	0,47	0,34	7,81	0,49	95,83
2003Q3	-0,24	0,40	1,12	0,13	0,88	0,53	95,22
2003Q4	17,15	0,22	1,41	0,30	18,81	0,53	111,30
2004Q1	-13,54	-0,27	2,42	0,81	-11,44	0,54	96,49
2004Q2	6,88	-0,70	1,45	1,23	8,43	0,52	103,86
2004Q3	-0,48	-0,35	0,37	0,88	-0,1	0,53	103,72
2004Q4	19,38	0,41	0,96	0,17	20,53	0,59	123,32
2005Q1	-12,47	0,63	1,53	-0,04	-11,12	0,59	107,27
2005Q2	2,31	0,38	1,16	0,24	3,49	0,63	109,32
2005Q3	1,15	0,21	1,11	0,38	2,27	0,59	110,35
2005Q4	14,50	0,20	1,46	0,41	16,18	0,6	126,11

Source: Own calculations from data of Eurostat; % data corresponding period of previous quarters = 100

In Slovakia, the average quarterly rate of growth of ULCs was about 1.6 %. There was a tremendous upward movement in ULCs in 2005 in Slovakia; the average quarterly rate of growth was nearly 5 %. In Austria, the ULCs recorded quite a stable development between 1995 and 2005. In 2005, Austria's quarterly ULCs growth was about 0.66 %.

Chart 7 Relative LP, LC, Exchange Rate of SKK to Euro, GDP growth, TE, E

%	LCSR/A	LPSR/A	$\frac{\Delta TE}{SR}$	$\Delta SKK/E$	$\frac{\Delta TE}{A}$	$\Delta E SR$	$\Delta E A$	$\Delta GDP SR$	$\Delta GDP A$
1995Q1	10,22	14,82							
1995Q2	10,09	15,05	0,19	1	0,03	0,46	-0,06	1,74	0,04
1995Q3	10,21	15,03	1,19	0,2	0,03	1,68	0,00	1,33	0,25
1995Q4	10,48	15,28	-0,99	-1,6	0,03	-1,20	0,03	1,50	0,85
1996Q1	10,68	15,17	1,38	-1,1	0,08	0,91	0,06	1,70	1,14
1996Q2	10,96	15,13	1,22	0,1	0,15	1,41	0,19	1,44	0,66
1996Q3	11,00	15,28	0,32	1,4	0,18	1,14	0,26	1,26	0,14
1996Q4	11,53	15,53	-0,18	1,6	0,20	-0,79	0,22	1,47	0,20
1997Q1	12,48	15,90	-1,80	-2,1	0,23	-1,58	0,26	0,59	0,31
1997Q2	13,09	16,01	0,09	-1,1	0,20	-0,10	0,22	1,21	0,59
1997Q3	13,73	16,10	0,05	-1,2	0,28	-0,10	0,25	1,34	1,02
1997Q4	13,78	16,06	0,56	1,6	0,33	0,70	0,29	1,09	1,11
1998Q1	14,23	16,23	-0,19	0,3	0,33	0,05	0,25	1,59	1,04
1998Q2	14,66	16,41	-0,70	-0,1	0,35	-1,35	0,35	0,85	0,83
1998Q3	14,62	16,71	-0,75	2,3	0,37	-1,52	0,35	1,31	0,60
1998Q4	13,34	16,26	0,71	9,2	0,40	0,82	0,38	-2,05	0,34
1999Q1	12,97	16,45	-0,24	1,8	0,42	-0,20	0,47	1,12	0,60
1999Q2	12,74	16,73	-1,66	4,5	0,37	-1,94	0,47	0,98	1,39
1999Q3	13,58	16,88	-1,83	-2,1	0,32	-2,50	0,46	0,30	1,54
1999Q4	13,70	17,09	-1,13	-3	0,27	-1,12	0,43	0,60	0,78
2000Q1	15,08	17,46	-0,40	-2,5	0,24	-0,27	0,31	2,17	0,68
2000Q2	15,23	17,45	0,00	0,5	0,22	-0,22	0,21	0,55	0,78
2000Q3	15,07	17,35	0,75	0,9	0,22	0,54	0,15	0,58	0,63
2000Q4	14,73	16,81	1,48	1,6	2,64	2,27	0,21	-3,56	0,69
2001Q1	15,05	17,63	-0,39	0,8	0,14	-1,59	0,18	4,52	0,19
2001Q2	15,35	17,83	0,00	-1,3	0,12	0,21	0,12	0,49	-0,52
2001Q3	15,72	17,74	-0,68	-0,2	-2,31	-0,48	0,03	0,84	-0,33
2001Q4	15,88	17,95	-0,59	-0,5	0,00	-0,38	-0,06	1,09	0,51
2002Q1	16,66	17,99	0,05	-2,4	-0,07	-0,65	-0,12	1,09	0,76
2002Q2	16,56	18,08	0,45	1,7	-0,05	0,98	-0,09	1,32	0,32
2002Q3	16,44	18,29	-0,10	2	-0,05	-0,38	-0,03	0,97	-0,12
2002Q4	17,68	18,37	-0,25	-4,8	0,00	-1,30	0,06	0,50	0,26

2003Q1	17,40	18,23	1,43	0,2	0,02	1,97	0,12	1,16	0,53
2003Q2	17,87	18,26	0,63	-1,4	0,05	0,32	0,09	1,10	0,39
2003Q3	18,12	18,44	0,05	1,3	0,02	-0,75	0,06	1,17	0,16
2003Q4	18,71	18,64	-0,10	-1,3	0,00	-0,86	0,06	1,32	0,30
2004Q1	19,44	18,94	-0,92	-1,5	-0,02	-0,82	0,06	1,48	0,79
2004Q2	20,18	18,98	-0,05	-1,2	-0,05	-1,37	0,15	1,40	1,18
2004Q3	20,37	18,88	0,83	-0,2	0,00	0,00	0,21	1,21	0,88
2004Q4	21,08	19,03	0,34	-1,3	0,07	-0,06	0,21	1,31	0,25
2005Q1	21,90	19,33	0,14	-3,1	0,19	0,50	0,27	1,68	0,15
2005Q2	21,89	19,51	0,14	1,6	0,22	-0,22	0,27	1,31	0,46
2005Q3	22,31	19,65	0,58	-0,6	0,26	0,67	0,33	1,69	0,65
2005Q4	22,73	19,86	0,67	-0,4	0,26	0,22	0,33	2,14	0,67

Source: Own calculations from data of Eurostat; % data corresponding period of previous quarters = 100

As the data indicate, Austria is still a country with a substantial high level of labor costs compared to Slovakia, which is considered a low wage economy. However, it is necessary to observe the factors leading to a cheap labor in Slovakia. In comparison to Austria, these may be e. g. lower taxation (flat tax, 19 %), lower expenses on high skilled labor for Research and Development and innovation (in Slovakia about 0.60 % of GDP, in Austria about 2 % of GDP), different (as to complexity) labor standards. The minimum wage which is about 250 Euro in comparison to Austria, is a part of labor standards in Slovakia. Austria does not maintain a minimum wage; minimum wages are determined by annual collective bargaining agreements between employers and employee trade unions. Payments to social security in Slovakia involve the employer's contribution in amount of 35.2 % of the salary, while that of the employee's contribution is 13.4 %. In Austria the employer's contributions achieve about 14 %, the employee's payments about 16 %.

Productivity growth in Slovakia is in quarterly average behind the growth of labor costs. In Austria the rate of growth of labor costs and labor productivity seems to be balanced (about 0,40 % for LC, and 0.40 % for LP). Differences in Slovakia might result from the insufficient technological changes of domestic companies relative to those of foreign ones. In addition, also a policy of innovation targeted towards the inflow of foreign investors to create more jobs for skilled workers in industry rather than in the services sectors, is a good example of how to keep our competitiveness thus economic growth. It is not at once low cost labor which attracts foreign investors for the long run. Outflow of Foreign Direct Investments from e. g. Austria to Slovakia is not immediately associated with job exporting from their domestic country. It proves the fact that Austria welcomes most foreign direct investment even with a costly labor factor. Increased real growth of annual GDP of Slovakia as a result of huge inflow of foreign direct investments mainly due to the privatization process, accommodation of capital, along with an increased domestic and foreign demand, contributed to the improvement of labor productivity and job creation.

An important observation of data results and comparisons indicated in Charts 6 and 7 point out that relative productivity levels of observed countries move more or less in tandem with relative

labor cost levels, so that values of ULCs do not differ so much between Slovakia and Austria. Significant gaps are seen when tracking cost levels per se. Another very important result in general is that competitiveness of countries with higher labor costs is not directly threatened by lower labor cost economies, as is shown by the data in Charts 6 and 7. Low wage countries like Slovakia are also characterized by lower productivity of labor in comparison to the high labor cost countries. From this point of view, when seeking advantages for a national sustainable competitiveness one reveals the labor productivity being more important than just temporal labor cost advantages.

5. Conclusion

For a country to remain competitive towards its competitors, one should start by analyzing short term comparative advantages and continue with finding an alternative or new sources for generating national economic growth. In this article, we started with revelation of comparative advantages of Slovakia and after that we proceeded to an analysis of how important ULCs are when comparing low and high labor costs nations. Because it is predominantly the GDP which influences labor productivity, thus the final ULCs over countries, a big concentration of analysts, economists, politicians is to be placed upon all segments of GDP. It refers to the creation of an environment for absorbing foreign direct investments, to stimulate investments in human capital, to promote and to protect employment in traditional industries and services, etc. For Slovakia it means providing domestic and foreign investors with such benefits and advantages that would be more attractive for them than those in other countries. Some of them offer just temporarily friendly business environment which motivates investors to exploit the offered advantages and then leave for another country. Hence to look for the competitiveness factors in a long run, one has to take into consideration the endowments of a country with e.g. skilled human capital, quality of labor market policy, tax system, delivery chains relations, banking system etc, rather than cheap labor. However, for the long run productivity of labor seems to be more interesting for producers, foreign investors export a greater part of their production abroad rather than just rely upon temporary cost advantages.

For the sake of complexity as to competitiveness of nations, the ULCs can be taken as one transparent factor which can help formulate measures and strategies of a country to manage its success over competitors. To investigate the ULCs within a certain period of time, it is very useful for the economy to get ready by different preparations for changes in economic growth, labor productivity, compensations of employees, total employment, total labor cost, etc. Hence the ULCs represent a direct link between productivity and the cost of labor used in generating output. However, a precise interpretation of a change in ULCs or a difference in ULCs levels across countries depends upon a source from which the changes originate. From results presented in Charts 6 and 7, it is evident that the increase in unit labor costs in Slovakia were associated with upward wage pressure rather than with a slowdown in productivity growth. Talking about labor costs and productivity, we should start with legislation changes in Slovakia as to e.g. the Labor Code. It introduced a more flexible labor market conditions and easy labor mobility among different sectors. In addition to that, changes refer especially to the field of working time, working hours up to 48 including overtime, in the field of part time contracts - more flexible and less time consuming process of giving a notice within part time contracts, in the field of limits on term contracts - more flexible system – term contracts were allowed in more cases than before, in the field of notices given by employer - less complicated procedure than before and in the field of setting up overtime - more hours allowed. However, the latest

appreciation of Slovak currency during the last two years may also be treated as another important factor for the upward wage pressuring. Beside that a tax system, along with a quality of a business environment in Slovakia and Austria, form a competitive conditions for inflow of foreign investments, which in comparison to domestic ones, can in many cases allow offering different wages, bonuses etc. All these are just some of the phenomena which are the main concern of governments in countries under observation. In Austria, e.g. a major tax reform initiative, simplifying both wage and income taxes, was enacted in May 2004. Corporate tax rates were reduced from 34 percent to 25 percent, which is among the lowest rates in Western Europe. Thus the investigation of ULCs is of great importance for labor and product market policy, technology and innovation policy, as well as foreign trade policies. From this point of view, the Government of Slovakia will therefore strive to create such business environment all over Slovakia which will promote new investment, productivity growth, innovations and the creation of new jobs. Main priorities with respect to the business environment are the following: high degree of enforcement of laws and contracts, high-quality physical infrastructure and services in network industries, public institutions as a partner and not as a burden, effective access to capital market for all companies, to create favourable conditions for the increase of labor productivity (Mikloš, 2004). It is the main interesting and important factor of those investors that seek a sustainable source of effectiveness of their investments.

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Abstract

Unit labor costs (ULC) are one of many other factors determining a country's International competitiveness. This article focuses on revealing sustainable competitive advantages for low and high labor economies over the long run. A detailed analysis of ULCs of the observed countries helped us answer a question of how important the labor costs for national competitiveness are. For this reason the ULCs are calculated and specified within Slovakia and Austria stressing the trade and economic genesis of Slovakia from 1948 until present. There are four parts in this article. The introductory chapter presents only a short insight into the theory of competitiveness, the second part starts with a genesis and a brief analysis of foreign trade of Slovakia, the following part proceeds to the methodology of the ULCs. The next one brings tables which present obtained results along with a complex commentary, comparison statements and a final conclusion.

Abstrakt

V predloženom príspevku sa analyzuje jeden z faktorov konkurencieschopnosti na národnej úrovni, ktorým sú jednotkové náklady práce. V úvodných častiach sa prezentuje teória konkurencieschopnosti a genéza medzinárodného obchodu SR. V ďalšej časti dochádza ku porovnávaniu jednotkových nákladov práce SR a Rakúska. Výsledky z porovnávania potvrdzujú skutočnosť, že pre konkurencieschopnosť ekonomiky sú potrebné nie krátkodobé komparatívne výhody, ale dlhodobé konkurenčné výhody, ku ktorým patrí napr. rast produktivity práce.