ESTIMATING ABSOLUTE PRICE LEVEL IN ESTONIA[1]

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Introduction

In the first one to five years Estonia will abandon its own currency Estonian kroon and replace it by the euro. Estonia will lose opportunity to evaluate price level through the nominal exchange rate. Although nominal exchange rates did not play key role in Estonian price level development. The actual nominal prices were more important. But as Estonia will remain quite different from other EU (the European Union) countries by its price level for a long time, it is necessary to evaluate the development of relative price level against the EU and other large countries average. Measuring relative price level against the US (the United States of America) and Russia is easily understandable, but measuring it against other EU countries is not so clear. The latter countries do not have floating exchange rate between them. In reality it is even more important to have relative price level data for these countries. Estonia has more economic ties in this direction. Researchers often concentrate on changes in relative price level in time, which are easier to calculate from inflation difference and nominal exchange rate. But in practical applications absolute price levels are more useful. Absolute price levels are also more easily understandable and comprehensible. Looking only at inflation difference and nominal exchange rate does not give any information on absolute price level.

The intentions of this article are to give overview about methods available for estimating absolute price level and discuss on changes in Estonian and Eastern and Central European countries' absolute price level, although the levels will be expressed in relative basis. The topic is also important in the point of view of eurozone extension. In the literature the phrase 'relative price level' means that the difference in inflation rates will be analyzed. But in this paper the absolute price level will be analyzed through certain nominal price levels of Big Mac or other goods. But the word 'relative' in this paper means relative absolute price level against countries used in the analysis. In the broad sense we talk about absolute price level but in detail we talk about relative absolute price level. The difference from relative price level comes from that we have different points to hang time serieses on. Traditional relative price level analyses assumes that at the beginning or some other time absolute price levels are equal.

In the empirical part of the article we will look at calculations of ICP[2]-type absolute price levels for Estonia and some other important countries. Possible applications of

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[1] Artikkel on valminud ETF grandi nr. 6630 rahalisel toel

[2] ICP – International Comparison Programme run by the United Nations, the University of Pennsylvania and the World Bank. The methodology is to calculate 'fair' exchange rates from the nominal prices. The 'fair' exchange rate equals the purchasing power parity over countries.

Big Mac index will be overlooked. The methods used for adjusting GNP-s (Gross National Product) to compare countries on PPP (Purchasing Power Parity)-GNP-basis will be explained. ICP index on the basis of property prices will be calculated.

The current topic may be painful for certain groups of interest because the applications of the theory may be used to point to possible risks of overextension in Estonian economy.

Necessity for evaluating relative price level

Taking into account relative price level of the economy is important for many reasons. As Ibrahim Elbadawi from the World Bank introduced the topic in his paper (Elbadawi 1994, p. 93):

> *The concept of the real exchange rate (RER) has assumed a central position in past and current debates in the literature on economic development and growth strategies and in the more recent literature on structural adjustment and macroeconomic stabilization.*

Developments in the relative price level affect directly market values of certain assets. The real asset prices has a key role in influencing investment decisions. The second use of relative price level arises from signaling financial risks in the economy. For example large and sharp appreciation of the price level may point to overextensions in the economy. Overextension in the economy may result in inconvenient corrections for investors and other economic agents. Increasing financial integration throughout the world elevates the costs related to real exchange rate misalignment (Montiel *et al* 1999., pp 2).

Now we have to explain what we mean under relative price level. It is possible to calculate relative price level against foreign country or region for each single product. In case our price level is lower than in our counterparty country, the relative price level for good X is for example 0.7. It is possible to aggregate these price levels over all goods and arrive to aggregated relative price level. The aggregation method depends on single case. The weights of single goods may come from consumer bundle or from the national accounts. The method may take into account only consumer goods or consumer goods and property prices. The exact method will depend on goal.

The relative price level of assets is more dependent on the capital market and productivity than production costs. In this regard housing prices have importance. The housing prices depend partly on financial markets and partly on consumption activity. Since housing units are fixed to certain location, these are not movable in space and not tradable in geographical sense. For this reason housing prices should be especially volatile and show leveraged price level developments. The more tradable is the good, the less its prices differ over countries and the more the law of one price hold (1).

(1) $\qquad P^{*} = e \times P$

where P^* - the price of good abroad in foreign currency;

e - exchange rate of the domestic currency in units of foreign currency per one unit of domestic currency;

P - the price of unit of good in domestic currency.

The models of macroeconomy assume that all agents are aware and comprehend of all prices in domestic country and abroad. In reality this assumption does not hold. In order to make rational decisions agents must find out nominal prices and relative prices (aggregated price level). Only after having necessary information, agents are able to make rational decisions and achieve optimal allocation of resources.

Predicting and recognizing bubbles in asset and goods prices is very important for those who make investment decisions and economic policy decisions. Legendary speculators, like George Soros, spend substantial amount of energy and time to recognize discords in price levels and taking adequate speculative positions in assets or currencies. Public is better aware of speculative positions taken against currencies of developing countries. But these transactions preceded analysis of price levels in relevant countries.

Relative price level may be viewed as the relative cost of production resource because labour force is one of production factors. According to the Balassa-Samuelson effect the price level should be low in these countries where productivity and wage level is low. Wage level is low in these countries where demand for labour is smaller. Demand for labour is low in countries where potential for entrepreneurship and business activities is low. This process is rationing of labour force. It is natural that labour force more capable and competitive moves to countries where job opportunities meet their qualification and offer better compensation. This situation has standpoint of system competition. Low price and wage level would reflect low quotation for the system. Relative price level may be calculated for consumer goods, services, properties, land, businesses (stock prices) and labour force.

Relative price level can be used to forecast macroeconomic developments in specified country. It hints whether country's economy is attractive for investments in relation to neighbouring countries. High price level hints inflation and depreciation in money's value in relation to goods and assets. It also may hint high speculators activity. The decisionmakers of economic policy do not like too rapid expansion of prices. But US's former and current head's Alan Greenspan and Ben Bernanke have both indicated that they would not fight against asset bubbles with monetary policy instruments (Shinkle 2006). But this statement includes opinion that asset bubbles should be fighted against. In real life Fed would not fight against housing bubble in US with hawkish interest rate policy.

Estimations on relative price levels are required by investment decision makers and currency speculators. Although some famous fund managers and opinion leaders (W. Buffett, G. Soros, B. Gates etc.) are betting against the US dollar, ICP indexes

already suggest relative undervaluation of US dollar (look below). Comparative table of Big Mac index valuations composed in summer 2005 demonstrated relative undervaluation of the dollar against the euro. Purchasing power parity should have been $1,05, not $1,20. The most legendary success story of ICP indexes belongs to devaluation of the British pound in 1992. ICP indices suggested relative overvaluation of the British price level.

Literature

Price levels of specific goods, services or bundles of them are calculated and compared under given nominal exchange rates.

Geary-Khamis'e method. Is used by IMF to calculate price indices of several countries to make GNP-s of different countries comparable in this sense that the same goods in different countries are taken into account with the same price. Calculated ICP exchange rates express average price level against some foreign country or region. (Hinkle *et al.* 1999, p. 102).

$$(2) \qquad ICPER_j = \frac{\sum_{i=1}^{m} P_{ij} q_{ij}}{\sum_{i=1}^{m} \prod_i q_{ij}} \qquad j = 1,...,n$$

$$(3) \qquad \prod_i = \sum_{J=1}^{n} \frac{P_{ij}}{ICPER_j} \left[\frac{q_{ij}}{\sum_{j=1}^{n} q_{ij}} \right] \qquad i=1,...,m$$

where n – number of countries;
m – number of goods categories;
P_{ij} – price of good i in country j;
q_{ij} – price of good i in country j;
Π_i – international price of good i;
$ICPER_j$ – aggregated ICP exchange rate between country j and numeraire country currencies.

So-called fair exchange rates are calculated by *International Comparison Programme* (ICP), which is created by the UN and University of Pennsylvania supported by the World Bank. About 90 countries take part in their price survey. Specific ICP exchange rate is calculated for every good. According to their method the price of the good in domestic country in domestic currency is divided by the price of the same good in foreign country in foreign currency. The OECD and Eurostat has their own purchasing power parity program.

The ICP exhange rate data about world countries is available from Heston, Summers and Aten's Penn World Tables.

The two best-known ICP indices are Big Mac index and Ikea index.

Big Mac'i index is the best-known ICP-type exchange rate calculated by *The Economist*. ICP exchange rate equals nominal exchange rate if absolute purchasing power parity holds. By nature Big Mac index is ICP exchange rate calculated on the basis of one good. The numeraire country for the index is the US. Ong (1997) admitted that the Big Mac index is surprisingly good tool for predicting exchange rate movements in long-term. The index has wide use because Big Mac is sold in 120 countries.

Whether the purchasing power parity holds in international trade depends in substantial extent on specific model picked for testing, data sample and country (Fujiki *et al.*, 2003). Some authors argue that the Big Mac index is suitable for estimating purchasing power parity (Pakko *et al.,* 2003).

The most important arguments agaits the Big Mac index are existing trade barriers, including tradables in the bundle, incomplete competition on goods and resources markets and current account imbalances (*Ibid.*, 1996).

Ikea index was calculated by Gabriel Thulin from Swedish consultancy firm Hallvarsson & Halvarsson in November 2003. The index was calculated from Ikea department stores' catalog prices from different countries. At the time of index calculation Ikea sold similar products in 165 stores from 22 countries. Part of used prices were online, which made price survey easier. Only products sold in at least 15 countries were included. The cheapest country according to the Ikea index was the US by large. It was followed by the Netherlands, Germany, the UK and Sweden (Ikea index 2003). Excluding VAT taxes the cheapest country was Sweden, but this fact is influenced by the fact that furniture is the cheapest in Sweden. The largest price differential between the countries was 67%. The most expensive countries were Finland, Italy, Denmark, Norway, Spain and Belgium. Ikea had entered Finland lately and was not aggressive by price. In 2003 prices among the countries converged. The cheap price level of the US was in part reasoned by low dollar exchange rate. Price levels in countries were dependent on competitve situation on the markets of these countries. But the extent of price differences between the EU countries was surprise for the author of the survey (Ikea index 2003).

This fact proves that the topic of relative price level remains in high importance even after accession to the eurozone. Most likely markets overestimate future price convergences. Most probably local markets remain separated and different by the level of development and price level. Opponents of the common currency euro point to the same fact.

APESMA Big Mac index or '*The Association of Professional Engineers, Scientists and Managers, Australia*' Big Mac index has the purpose of making salaries of

29

graduated engineers comparable on the international level. The index shows how many minutes engineer should work to purchase one Big Mac in specific country. The method assumes 40-hour workweek.

Table 1. The time to be spent at work in minutes to purchase 1 Big Mac, 1 kg bread and 1 kg rice

	1 Big Mac	1 kg bread	1 kg rice	Total
Chicago	9	7	6	22
Zürich	14	6	7	27
Los Angeles	10	15	8	33
London	16	6	13	35
Sydney	18	15	8	41
Berlin	16	10	16	42
New York	12	16	15	43
Stockholm	19	17	14	50
Paris	19	17	18	54
Singapur	20	25	11	56
Warsaw	42	17	15	74
Bangkok	46	39	23	108
Rio de Janeiro	42	58	20	120
Shanghai	27	80	26	133
Bombay	104	35	89	228
Average	27.6	24.2	19.3	71.1
Tallinn	30	11	18	74.3

Source: APESMA. Burgernomics, December 2005/January 2006.

APESMA Big Mac index is not relative price index in its usual sense. It should be remembered that it is the relative price of labour force in relation to Big Mac. It shows real wage and hints where engineer or scientist would sell its labour force at the highest real price against Big Mac price. It is not the best indicator for pure relative price level because the productivity of labour is very different by countries.

Application of ICP exchange rates in estimation of absolute price level of Estonia

Most methods used to measure the real exchange rate measurement does not provide any information about the level of real exchange rate or absolut price level. Measuring absolut price level is more important for small Estonia-like country in transition than for slow-growth developed country. In economy in transition we need to measure the extent of transition and price convergence ahead. Measuring real

exchange rate from inflation difference and nominal exchange rate differential does not allow us to hang calculated real exchange rate curve to any certain level.

The Big Mac index has turned out to be unexpectedly good and authentic measure for absolute price level. It may be especially useful in economic conditions of Estonia where measuring relative price level and equilibrium real exchange rate is complicated. The another reason in favour of Big Mac-type index is that Estonia will give up its own currency – the Estonian kroon - soon. The main focus will shift from measuring the real exchange rate to measuring relative price level between Estonia and the EU. Following the relative price level remain important topic after the euro adoption. Removal of currency exchange costs should even increase reliability of this index.

Some authors state that absolut and relative purchasing power parity in Central-European countries (Hungary, Slovenia, the Czech Republic) does not hold (Boršič, 2002). They state that during the ten-year transition process the price level of these countries did not converge to the price level of Western Europe in sufficient extent. But economic theory provides enough explanations to this observation. According to the Balassa-Samuelson effect the price level in these countries should rise in accordance with productivity and personal incomes. This means slow step-by-step process, not rapid convergence to Western European level. The price must not be totally converged to fixed rate of Western price level. The price level should converge by the end of catch-up period after several decades. The slow progress of convergence should be especially typical for nontradable goods and services. Macroeconomic theory classifies houses and land to nontradables group. Therefore these items should be among the slowly converging prices. In reality in Estonia property prices showed very rapid increase during the past few years. Therefore it may be realistic to believe that the increase in property is not so much caused by successful economic convergence than rapid price price appreciation in itself. The author believes that property prices are relatively good measure of domestic price level dynamics. These items are not tradable in geographical sense and price dynamics can not be stabilized by international market. In average term it is possible to produce practically unlimited number of new houses in Estonia or in Tallinn. Production costs should depend directly on domestic price levels for goods, services, labour force and productivity.

Empirical results

In the following table 2 the price levels for selected countries are presented. These price levels are calculated from Big Mac prices and actual nominal exchange rates between countries. The price levels are expressed in relation to eurozone price level (100). During the period when eurozone was nonexistent, Germany's price level was used.

Table 2. Relative price level of goods according to the Big Mac index against eurozone

	1994	1995	1999 April	2001 April	2004 May	2006 Januar
US	85.5	66.7	89.7	98.8	88.4	89.7
Eurozone	100.0	100.0	100.0	100.0	100.0	100.0
Sweden	...	...	106.3	90.7	120.1	121.9
Estonia	...	...	...	...	69.2	...
Russia	60.7	46.7	49.8	47.1	44.2	45.6
Poland	51.3	42.0	50.9	56.8	49.7	59.5
Czech Republic	62.4	54.7	...	55.6	64.9	74.1
Hungary	60.7	45.3	46.5	51.4	76.8	77.2
Argentina	134.2	86.0	92.3	97.3	45.1	44.2
Turkey					78.7	87.5
Japan	139.3	133.3	90.0	92.6	71.0	62.4
China	38.5	30.0	44.3	46.7	38.4	37.0
Russia+ Poland+ Czech+ Hungary	58.8	47.2	49.1	52.7	58.9	64.1

Source: The Economist; calculation of the author.

The following table 3 presents relative price levels from Penn World Table CICUP database against the price level of Germany. Original data showed relative price level for each country against the US dollar. For Estonia, it is more sensible to compare the price level against the EU and other European countries. Otherwise dollar/euro exchange rate fluctuations would overshadow real convergence.

The difference in Estonia's relative price level in tables 2 and 3 is explained by difference in goods bundle used in calculation. Big Mac contains relatively more tradable goods than bundle of GDP goods and services. Tradables prices have converged much more than nontradables prices. The bundle of goods used in CICUP data contains much more goods and services. The latter describes economy's price level probably more realistically.

Table 3. Relative price levels of GNP from Penn World Table against Germany 1992-1999

	1992	1993	1994	1995	1996	1997	1998	1999
US	76.01	79.58	77.59	68.69	72.57	84.11	85.81	90.32
Germany	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Sweden	121.06	96.16	94.93	91.44	103.03	105.54	103.39	105.37
Estonia	12.18	13.19	17.95	23.20	28.67	31.98	34.36	34.12
Russia	11.91	11.05	19.45	22.17	28.91	33.48	23.32	14.80
Poland	29.01	28.91	30.10	31.39	35.04	37.99	40.50	39.60
Czech Rep	20.36	24.16	26.24	27.57	30.17	31.50	33.38	33.31
Hungary	36.13	38.10	38.30	35.13	36.92	40.61	40.35	41.37
Argentina	63.94	57.97	57.18	50.81	52.66	59.82	59.52	60.67
Turkey	37.34	39.42	29.06	31.00	32.69	35.74	36.80	36.38
Japan	108.75	127.97	133.97	126.03	112.59	116.24	108.41	128.25
China	16.37	18.94	14.94	15.67	17.66	21.48	20.56	21.23

Source: Heston et al., author's calculations.

The price level of properties have increased in Estonia at higher pace than in western developed countries. The price level in Estonia's capital Tallinna has partly exceeded or equal to that of Germany and the US. In January 2006 the leading construction company in Estonia Merko Ehitus proclaimed auction for the apartment in the new building under construction where starting price was 5000 euros per square meter. In the old town of Tallinn in some transactions the price level has reached above 7600 euros per square meter. The price level of these transactions is similar to price level of apartments in New York, Manhattan.

The high price level of nontradable assets in Eastern and Central Europe can be explained by massive foreign investments inflow. The high price level of assets is also reflected by high valuation of businesses (stock prices). The indicators of high valuations are high P/E (price-to-earnings) and P/B (price-to-book) ratios. The latter is analogical to Tobin's q ratio from economic theory which indicates attractiveness of new investments into business assets. But it is important to remember that emerging markets have been characterised by volatile capital flows. In case we know that the fundamental value of the assets is lower than current market value, and current price level is due to foreign investor's speculative activities, we should take cautious standpoint on current price levels.

In the following table 4 relative price level of average house in Tallinn to US median house is calculated. The relative real purchasing power is also calculated. One of the main weakness is different work capacity of houses. Most of US houses are situated in more southern areas than Estonia and take less thorough construction. But this difference is compensated by older buildings on average in Estonia and smaller size. We must also keep in mind that economic policy insitutions of the US think of US

property market as overheated and bubbly. Relative price level for Tallinn to the US would be probably higher in absence of bubble in the US.

Table 4. Calculation of relative price of average house in Tallinn

		4Q 02	4Q 03	4Q 04	4Q 05
House median price US, USD	A	161200	172167	187467	213033
Avg hourly wage US, USD	B	15.1	15.4	15.8	16.3
Cost of house in hours US	C = A/B	10647	11153	11855	13070
Avg hourly wage in Tallinn, EEK	D	45.56	50.22	52.14	55.25
Estonian kroon exc. rate against USD	E	15.48	12.96	11.82	13.20
Avg hourly wage in Tallinn, USD	F = D/E	2.94	3.87	4.41	4.19
Avg house price in Tallinn, EEK	G	1100000	1200000	1300000	1500000
Cost of house in Tallinn in hours	H = G/D	24 144	23 895	24 933	27 149
Avg house price in Tallinn, USD	I = G/E	71 043	92 569	109 949	113 663
House relative price in Tallinn	J = I/A	0.44	0.54	0.59	0.53

Source: EcoWin, Eesti Statistikaamet; authors calculations.

It is possible to see from Table 4 that average house price in Tallinn constituted 53% of US median house price. Growth tendency of this ratio reversed in 2005 probably due to surprising appreciation of dollar exchange rate. Without this change the ratio would have been 60%. Average hourly wage in the US was 3,89 times higher than in Estonia in Q4 2005. The ratio between the ratio of house price and hourly pay comes from given variables. Namely, 0.53 x 3.89 = 2.06. The ratio is in equilibrium and fair if Estonian workers are less effective at construction than US workers.

Historical data shows that on average average US house price is equal to 9000 average hourly wage in the US. If we take an average hourly wage in Tallinn, which is 55 kroons, the equilibrium house price in Tallinn would cost: 9000 x 55 = 495 000 kroons. We can take on the other hand the actual price and the number of equilibrium working hours and calculate corresponding hourly wage: 1500000 / 9000 = 167 kroons. If we assume that lower deciles of income does not take part in property market, it is possible to come to this average pay if we exclude lower deciles. But in this case we would argue that income distribution in Tallinn is more unequal than in the US, which is quite unequal country. In 2000 the Gini coefficient in the US was 0.462 (Wikipedia) and in Estonia it was 0.372. Therefore the income inequality in Estonia was higher.

In author's opinion, there is reason to doubt in that relative and absolute purchasing power parity holds in Estonia in average future perspective. It is not reasonable to expect that purchasing power parity holds for nontradables. For tradables absolute purchasing power parity seems to hold in Estonia. The prices of home appliances and apparel belong to the same calibre in Estonia and western countries. Existing differences in tradables price level can be explained by different taxes, competitive situation and in smaller extent by lower labour costs.

Most likely price differences among the EU and eurozone members remain to exist although decrease from current level. Does purchasing power parity holds? Current view is that in big picture it holds but measured differences in price levels may remain very long or even infinitely. In case the most productive resources will be drawn out from periphery, relative productivity in periphery may decrease and the difference in price levels increase. Then it is hopeless to expect purchasing power parity to hold or beginning to hold.

The other factors influencing price level, which cause purchasing power parity not holding, are the different pace of economic growth in countries and different availability of investment opportunities.

Conclusions

In order to estimate price level development in Estonia-like transition country, it is necessary to estimate its absolute price level, not only relative price level change in time without estimate about its absolute levels. During the transition process absolute price level should change very substantially. Economics theory provides ICP-type exchange rate calculation methodologies to satisfy this need. The best-known ICP-type exchange rates are those used to compare GNP-s of different countries at PPP price level and Big Mac index.

According to the author's views consumer price indices are insufficient to follow and analyze price level and dynamics of it. Those price indices used to compare GNP-s are much more exhaustive and has more meaning.

The large differences in price levels among the EU countries will remain significant also after eurozone enlargement to Eastern Europe countries. This view is supported by current large price level differences and the long time period required for convergence of income levels.

In order to make optimal decisions in economy, economic agents need a lot of information about prices and price levels. Therefore the topic of relative prices and relative price levels and calculating those remain in high importance. Especially in time period when labour force leaves massively Estonia and other Eastern European countries.

References

1. APESMA. Burgernomics. December 2005/January 2006. [http://www.apesma.asn.au/].
2. **Boršič, D.** The Validity of Purchasing Power Parity Theory in Transition. University of Maribor.
3. **Cumby, R. E.** Forecasting Echange Rates and Relative Prices With the Hamburger Standard: Is What You Want What You Get With McParity? Department of Economics, Georgetown University. May 1997. [http://www.georgetown.edu/cumby/papers/bigmac97.pdf].

4. **Elbadawi, I. A.** Estimating Long-Run Equilibrium Real Exchange Rates. In: Williamson, J. Estimating Equilibrium Exchange Rates. Institute for International Economics, 1994, pp. 93-131.

5. **Fujiki, H, Kitamura, Y**. The Big Mac Standard: A Statistical Illustration. Institute for Monetary and Economic Studies, Bank of Japan. Institute of Economic Research, Hitotsubashi University. October 2003. [http://www.ier.hit-u.ac.jp/Common/publication/DP/DP446.pdf].

6. **Hinkle, L. E., Nsengiyumva, F.** External Real Exzchange rates: Purchasing Power Parity, the Mundell-Fleming Model, and Competitiveness in Traded Goods. In: Hinkle, E., Montiel, P. J. Exchange Rate Misalignment Concepts and Measurement for Developing Countries, 1999, pp. 41-112.

7. Ikea-index, November 2003. Hallvarsson&Halvarsson AB. [http://willmann.bwl.uni-kiel.de/~gerald/econ429/ikea-index.pdf].

8. **Heston A., Summers R., Aten B.** Penn World Table Version 6.1, Center for International Comparisons at the University of Pennsylvania (CICUP), October 2002. [http://pwt.econ.upenn.edu/php_site/pwt_index.php].

9. **Montiel, P. J., Hinkle, L. E.** Exchange Rate Misalignment: An Overview. In: Hinkle, E., Montiel, P. J. Exchange Rate Misalignment Concepts and Measurement for Developing Countries, 1999, pp. 1-37.

10. **Ong, 1997,** From **Pakko M. R., Pollard P. S.** Burgernomics: A Big Mac™ Guide to Purchasing Power Parity. [http://research.stlouisfed.org/publications/review/96/01/9601mp.pdf].

11. **Pakko M. R., Pollard P. S.** Burgernomics: A Big Mac™ Guide to Purchasing Power Parity. [http://research.stlouisfed.org/publications/review/96/01/9601mp.pdf].

12. **Shinkle K.** Investor's Business Daily. Bernanke Faces Tough Choices As He Takes Over As Fed Chief. Yahoo! Finance. [http://biz.yahoo.com/ibd/060130/general.html?.v=1].

13. Wikipedia. Gini coefficient [http://en.wikipedia.org/wiki/Gini_coefficient].

Kokkuvõte

ABSOLUUTSE HINNATASEME HINDAMINE EESTIS

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Tartu Ülikool

Lähema ühe kuni viie aasta jooksul asendab Eestis ühisraha euro kohaliku valuuta Eesti krooni. Sellega kaob võimalus arvutada Eesti-spetsiifilist reaalkurssi ehk hinnataset nominaalse vahetuskursi järgi, nii palju kui seda oli. Sellegipoolest jääb suhtelise hinnataseme arvutamise vajadus aktuaalseks teemaks. Viimase dekaadi jooksul on peamine osa Eesti suhtelise hinnataseme muutusest toimunud nominaalsete hindade muutuse kaudu, mitte nominaalse vahetuskursi muutuse kaudu. Seega jääb suhtelise hinnataseme arvutamise ülesanne sarnaseks varasemaga. Suhtelise hinnataseme arvutamise vajadus EL-s isegi kasvab, sest majandussidemed nende riikidega järjest tihenevad.

Suhteliste hinnatasemete absoluutse taseme mõõtmiseks kasutatakse ICP tüüpi vahetuskursse. Kõige tuntumad neist on vahetuskursid, mida kasutatakse erinevate riikide RKP-de võrreldavaks muutmisel. Samasse klassi kuulub tuntud hinnataseme indikaator Big Mac indeks, mis vaatamata oma lihtsusele on osutunud ootamatult kasulikuks hinnatasemete hindamise ja vahetuskursside prognoosimise vahendiks. Big Mac indeksi kasutusvõimaluste kohta on kirjutatud juba suur hulk teaduslikku kirjandust. Lisaks absoluutse suhtelise hinnataseme arvutamisele on võimalik arvutada suhtelist hinnataset sissetulekute suhtes.

Kinnisvarahinnad on hea indikaator üldise hinnataseme hindamiseks, sest nende objektide hinnaliikumisi ei tasanda rahvusvaheline kaubeldavus.

Autori arvates jääb Eesti agregeeritud hinnatase veel pikaks ajaks, kui mitte igavesti, madalamaks Lääne-Euroopa arenenud riikide hinnatasemest. See arvamus tugineb praegusel suhteliselt suurel hinnaerinevusel ning sissetulekute ühtlustumiseks vajaliku ajaperioodi suhteliselt suurel pikkusel.

Majandusotsuste langetamiseks vajavad majandussubjektid põhjalikku informatsiooni üksikute kaupade suhtelise hinna ja kaupade grupi suhtelise hinnataseme kohta. Investeerimisotsuste langetamiseks on oluline informatsioon varade suhteliste hindade kohta.

Estonia ranked 67th vs 35th for Italy in the list of the most expensive countries in the world. The average after-tax salary is enough to cover living expenses for 1.3 months in Estonia compared to 1.2 months in Italy. Estonia. Italy. ðŸš¶ Cost of living One person. Salary adjustment calculator the estimated difference in money purchasing power. Estonia. Italy. Prices in Estonia vs Italy. Estonia. Italy. Eating Out. Property prices in Estonia - in rubles, euros and dollars on Propimo.com. Found 57 objects. Other commercial property Tallinn, Estonia. Tallinn, Estonia Details. Experto International group. For Sale. 294 700 â,¬ 3 930 â,¬ / sq.m. Other commercial property Tallinn, Harjumaa, Estonia. Purchasing power parity (PPP) is a measurement of prices in different countries that uses the prices of specific goods to compare the absolute purchasing power of the countries' currencies. In many cases, PPP produces an inflation rate that is equal to the price of the basket of goods at one location divided by the price of the basket of goods at a different location. The PPP inflation and exchange rate may differ from the market exchange rate because of poverty, tariffs, and other transaction costs.