



# **Baltic Economic Growth in Cross-temporal Comparison: Interwar and Restored Independence Periods**

**Prof. habil. dr. Zenonas NORKUS,**  
**Member of Lithuanian Academy of Science**  
**Department of Sociology,**  
**Faculty of Philosophy, Vilnius University**



# Baltic Anniversaries and Comparisons

**Most important dates, anniversaries and public holidays in the modern Baltic history**

## Independence Days:

**Lithuania 16.02.1918; Estonia 24.02.1918; Latvia 18.02.1918**

TWENTY YEARS (1918-1920 independence wars; only 20 year for peaceful work)

## Restoration Independence Days

**Lithuania 11.03.1990; Latvia 04.05.1990; Estonia 20.08.1991**

(Not May 8, 1990, when newly elected Supreme Council of the Republic of Estonia changed the name of Estonian Soviet Socialist Republic to the Republic of

Estonia) **ESTONIANS WILL CELEBRATE THE QUARTER OF RESTORED INDEPENDENCE NEXT YEAR (NOT THIS, WHEN LITHUANIANS DID)**



# There remains some hope that next (2016) year Estonian scholars will repeat what they did in 2011, celebrating 20 year anniversary of independence restoration

2010/2011 Estonian  
Human  
Development  
Report

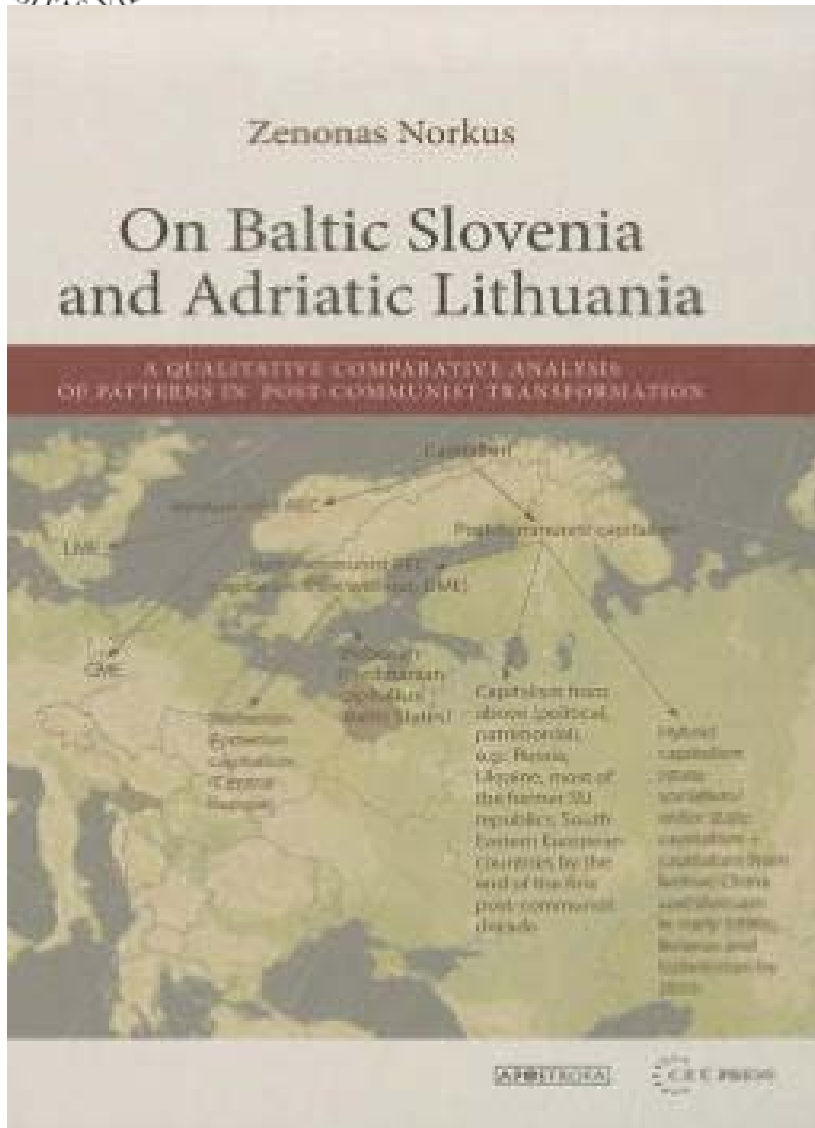
Baltic Way(s) of Human  
Development: Twenty Years On



- Estonian Human Development Report 2010/2011 with Marju Lauristin as Editor-in-Chief starts with chapter
- Comparative survey of social and economic transformation (economy, demography, politics, education, social policy and subjective wellbeing, linguistic situation)  
[http://kogu.ee/public/eia2011/eia\\_eng\\_2011.pdf](http://kogu.ee/public/eia2011/eia_eng_2011.pdf)



# What about/why not a sequel: „Baltic Ways 25 Years On“?



There is a lot of comparable data (at the very least, since 1994-1995 when Baltic states are closely monitored by Eurostat, World Bank and other international databases

There is body of literature discussing differences in the course and outcomes of post-communist transformation in the Baltic States considered in the broader international context

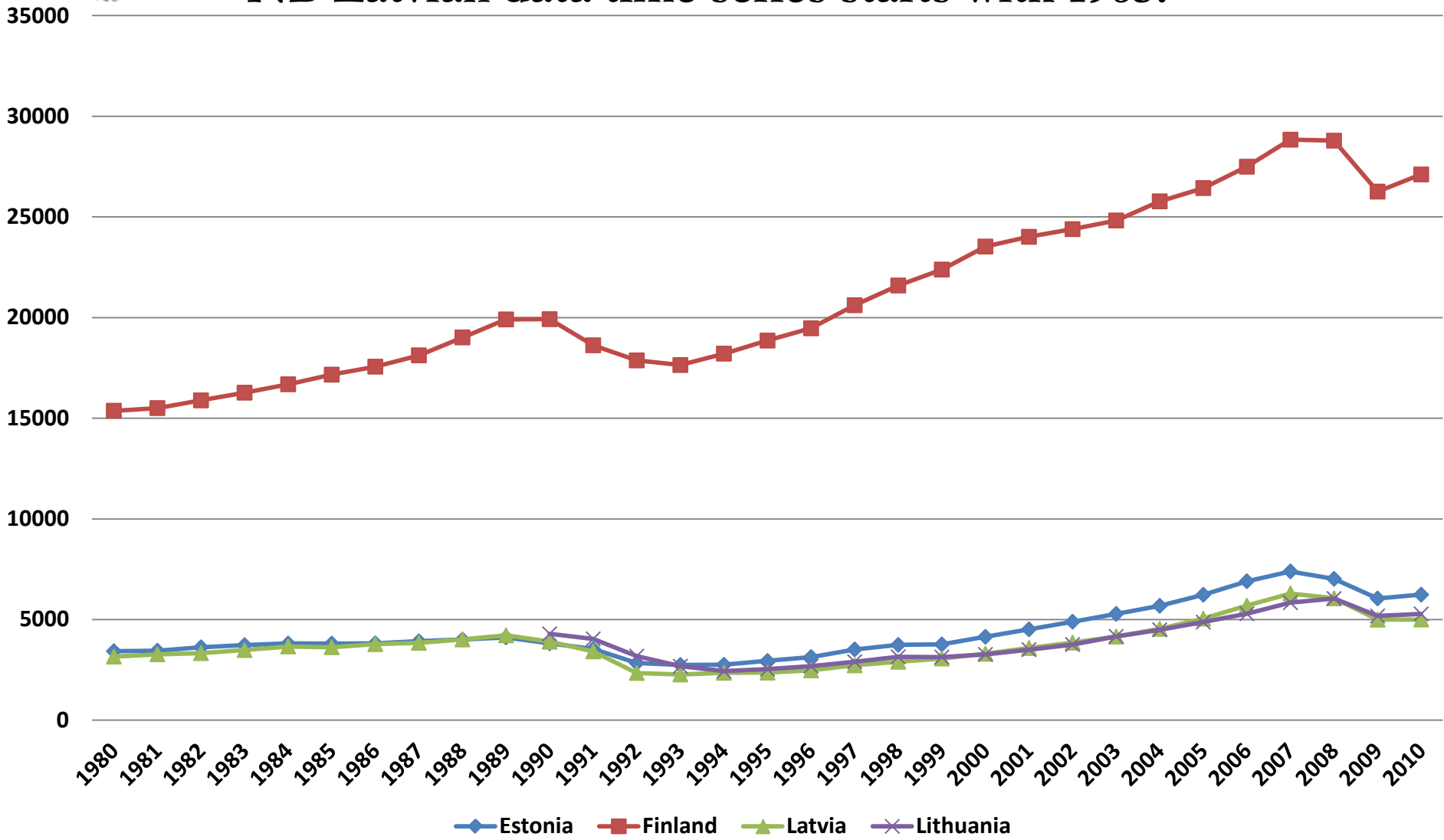
This makes the comparison of post-communist period easy task



# GDP per capita change in 1980-2010 in Baltic countries, FX rate (constant 2000 US\$). Source: World Development Indicators

**2011** (in later editions, time series for Estonia starts with 1995)

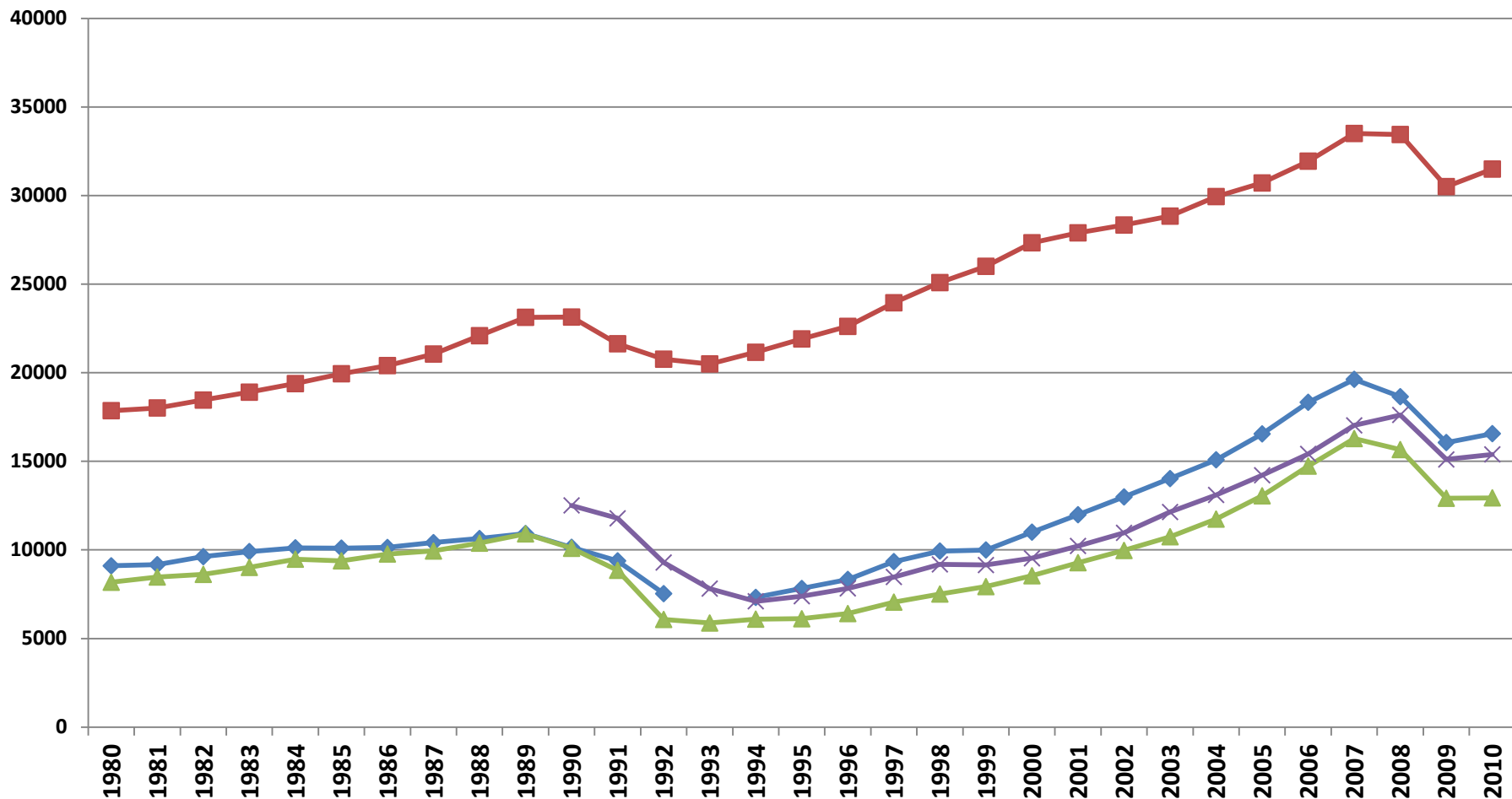
**NB Latvian data time series starts with 1965!**





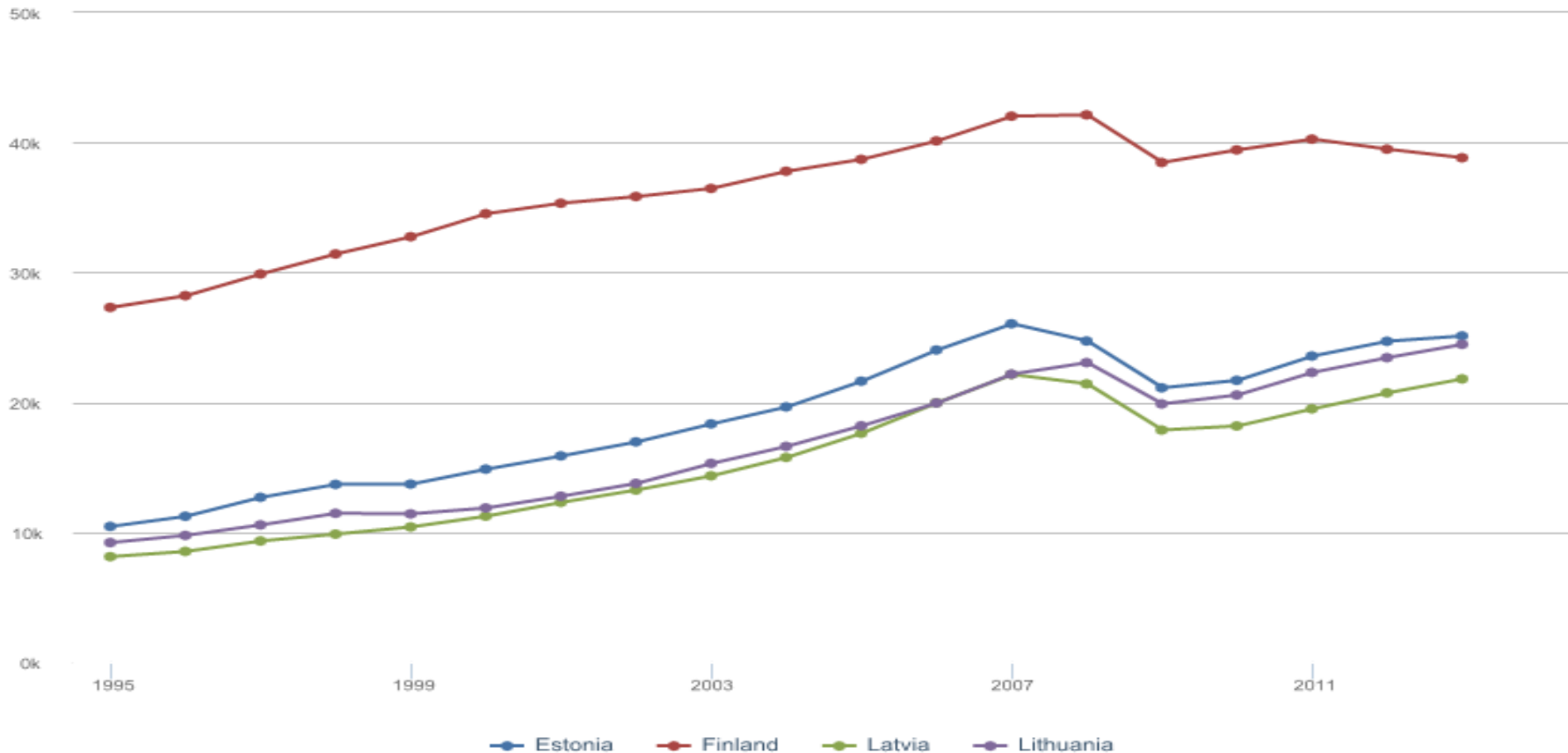
# GDP per capita, PPP (constant 2005 international \$) change in 1980-2010 in Baltic countries. Source: World Development Indicators 2011 (in later editions, time series for Estonia starts with 1995)

◆ Estonia    ■ Finland    ▲ Latvia    ✕ Lithuania





# GDP per capita, PPP (constant 2005 international \$) change in 1995-2013 in Baltic countries. Source: World Development Indicators 2014

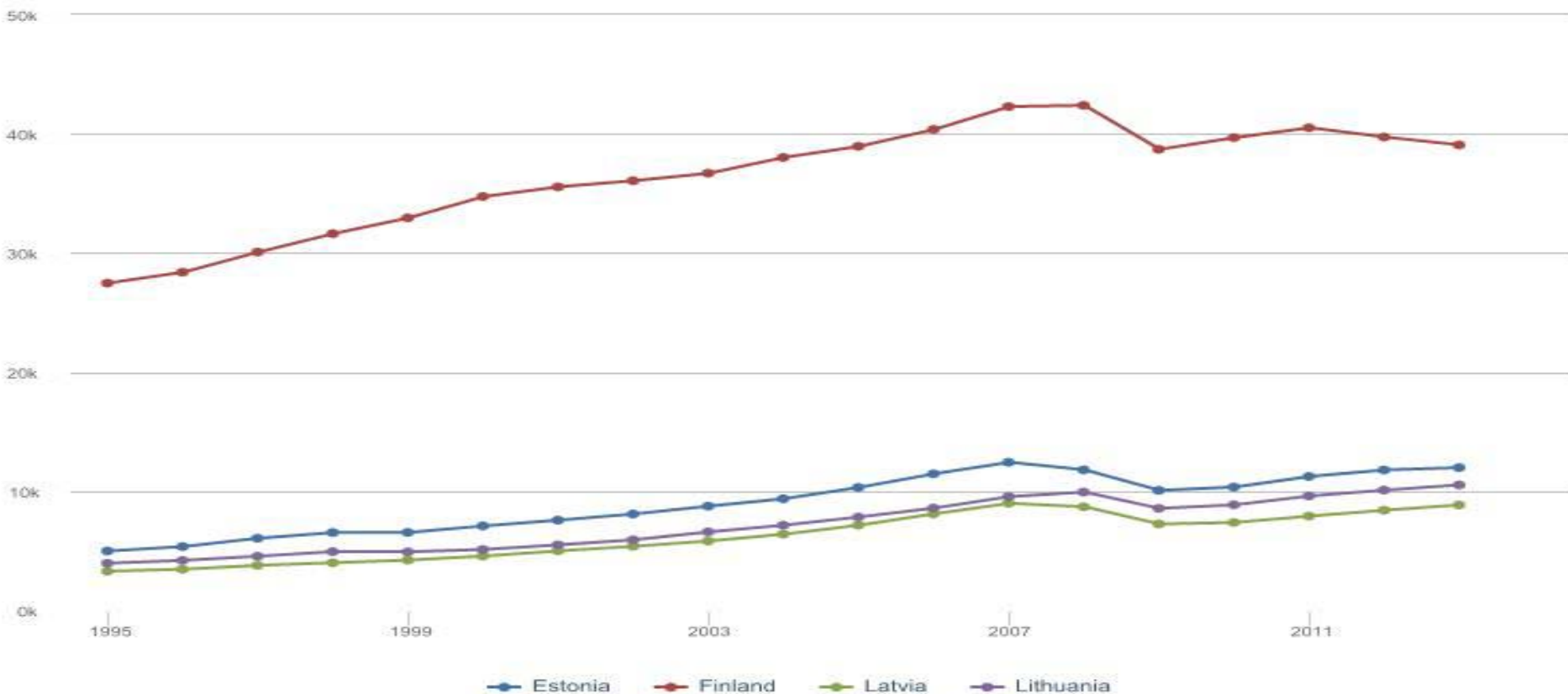


Series : GDP per capita, PPP (constant 2011 international \$)

Created from: World Development Indicators

Created on: 03/31/2015

**GDP per capita, PPP (constant 2005 international \$) change in 1980-2010 in Baltic countries. Source: World Development Indicators**  
**GDI) 2011 (in later editions, time series for Estonia starts with 1995)**

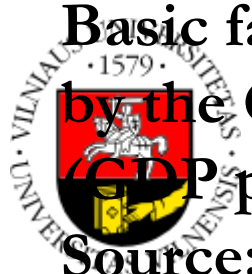


Series : GDP per capita (constant 2005 US\$)

Created from: World Development Indicators

Created on: 03/31/2015





# Basic facts about economic progress of Baltic State, measured by the Gross Domestic Product (GDP) growth in 1990-2007

## (GDP per capita at PPP, constant 2005 international \$) Data

Source: WDI 2011

Baltic countries in 1990, rank order

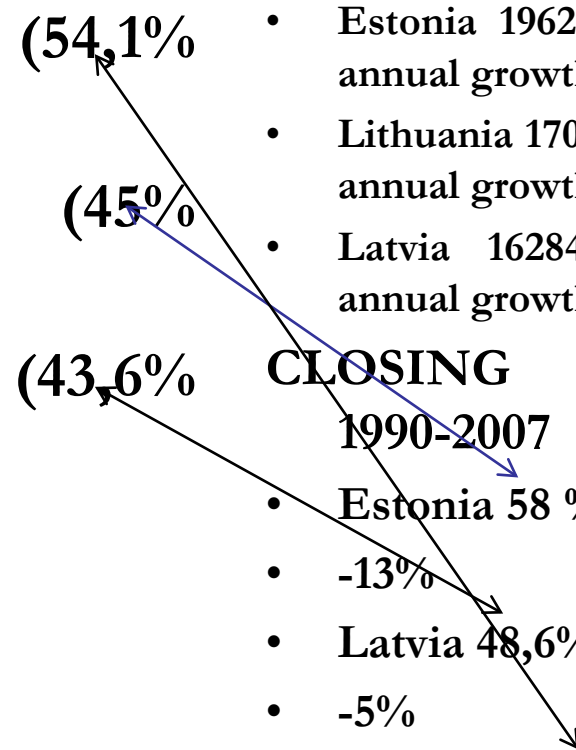
- Finland 23141 (=100%)
- Lithuania 12511 (54,1% (Finland=100))
- Estonia 10416 (45% (Finland=100))
- Latvia 10089 (43,6% (Finland=100))

Baltic countries in 2007, rank order

- Finland 33500 (44,8% (1990=100), 2,2% annual growth)
- Estonia 19626 (88,4% (1990=100), 3,8% annual growth)
- Lithuania 17026 (36,1% (1990=100), 1,8% annual growth)
- Latvia 16284 (61% (1990=100), 2,9% annual growth)

### CLOSING "FINLAND GAP" 1990-2007

- Estonia 58 % (100=Finland), -13%
- Latvia 48,6% (100=Finland), -5%
- Lithuania 50,8% (100=Finland), +3,3





# Basic facts about economic progress of Baltic State, measured by the Gross Domestic Product (GDP) growth (I)

- As early as 1994 Estonia was hailed by foreign economic analysts as “a shining star from the Baltics” (Hansen and Sorsa 1994) for its economic performance
- In 1997, the European Union (EU) recognized Estonia’s stronger performance by inviting it to begin negotiations on accession two years ahead of the other Baltic States.
- During the Parliamentary elections in 2007, the Reform Party leader, Prime Minister of Estonia in 2005-2014 Andrus Ansip promised that Estonia would rank among the five richest countries in Europe by 2022 (on a par with Switzerland and Luxembourg)
- <http://bnn-news.com/2011/02/21/baltics/estonia/estonia-plans-rank-europe%E2%80%99stop5-richest-countries-2020/>

# Basic facts about economic progress of Baltic State, measured by the Gross Domestic Product (GDP) per capita growth in 1990-2007 (GDP per capita at PPP, constant 2011 international \$). Data Source: WDI 2014

(Figures differ because of the change of calculation year basis (2005 instead of 2011))

## Baltic countries in 2007, rank order

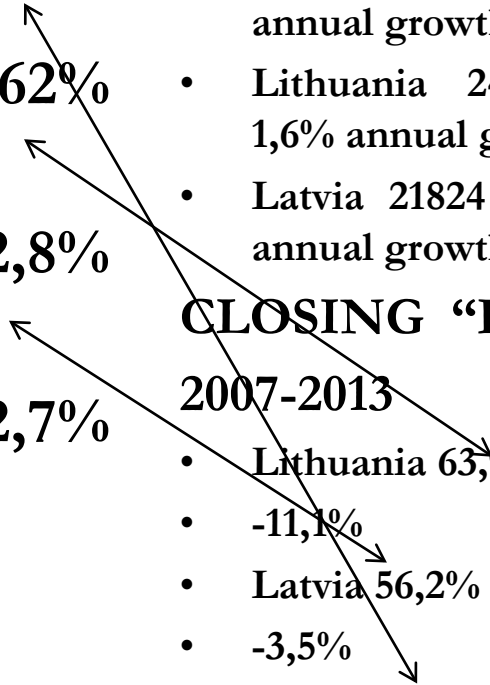
- Finland 42046 (=100%)
- Estonia 26067 (62%)  
(Finland=100)
- Lithuania 22193 (52,8%)  
(Finland=100))
- Latvia 22159 (52,7%)  
(Finland=100)

## Baltic countries in 2013, rank order

- Finland 38845 (92,4% (2007=100), -1,1% annual growth)
- Estonia 25132 (96,4% (2007=100), -0,5 % annual growth)
- Lithuania 24824 (118,5% (2007=100), 1,6% annual growth)
- Latvia 21824 (98,5% (2007=100), -0,2% annual growth)

## CLOSING "FINLAND GAP" 2007-2013

- Lithuania 63,9% (100=Finland)  
-11,1%
- Latvia 56,2% (100=Finland),  
-3,5%
- Estonia 64,7 % (100=Finland),  
-2,7%



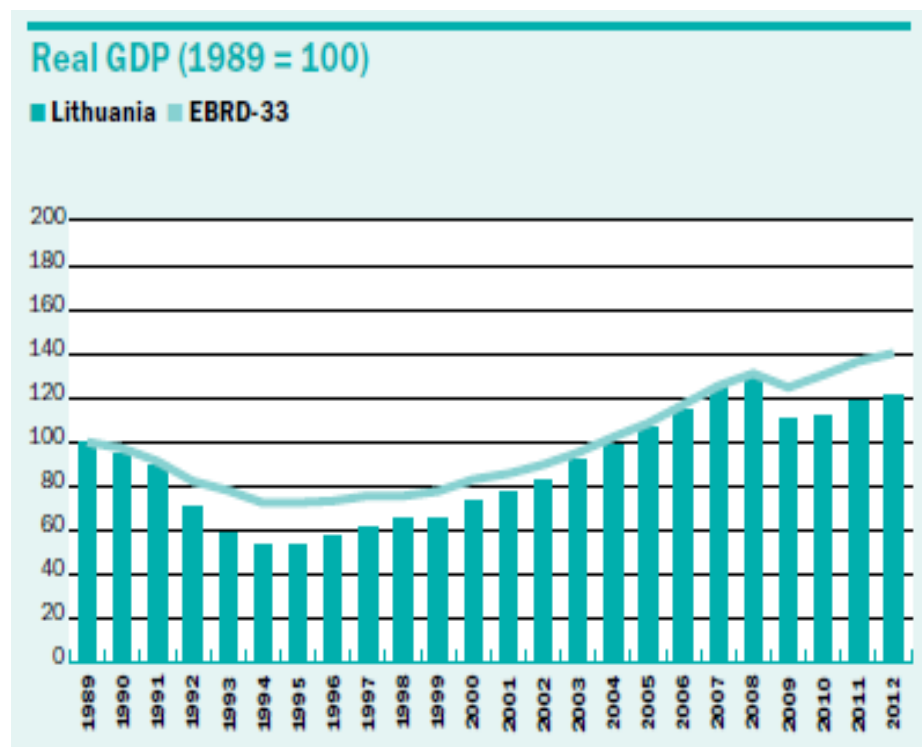
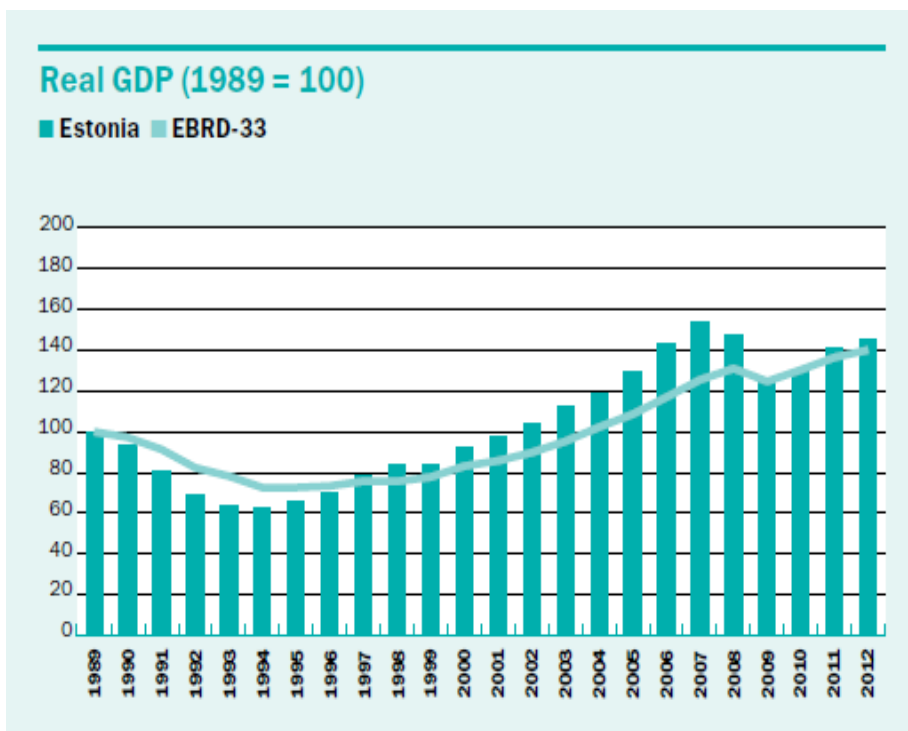


# Change of real (e.g. at constant prices) total GDP in Estonia and Lithuania in Comparison

Lithuania had greatest emigration in 2007-2012, so its GDP per capita could grow even if total volume of GDP in 2012 still was below 2007 level

(source: EBRD Transition Report 2012)

(since 2013 EBRD Transition reports do not provide data about GDP change in comparison with 1989)





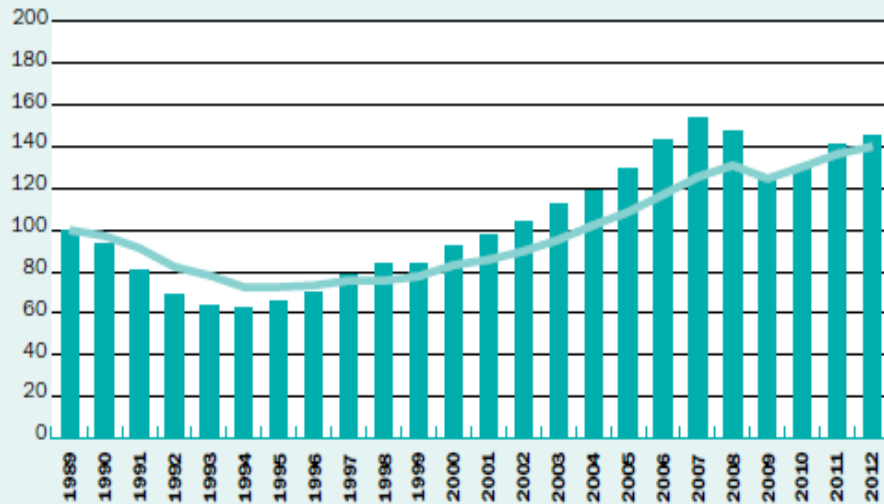
# Change of real (e.g. at constant prices) total GDP in Estonia and Latvia in Comparison

(source: EBRD Transition Report 2012)

since 2013 EBRD Transition reports do not provide data about GDP change in comparison with 1989)

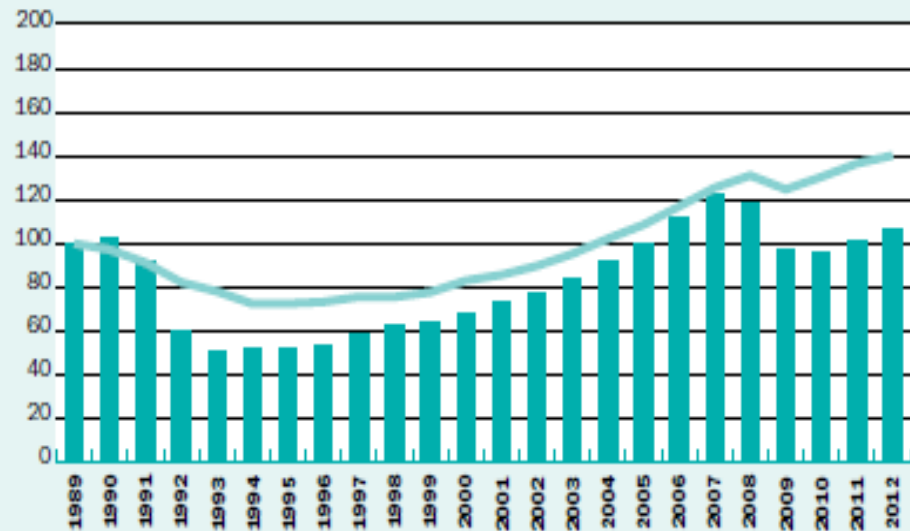
Real GDP (1989 = 100)

■ Estonia ■ EBRD-33



Real GDP (1989 = 100)

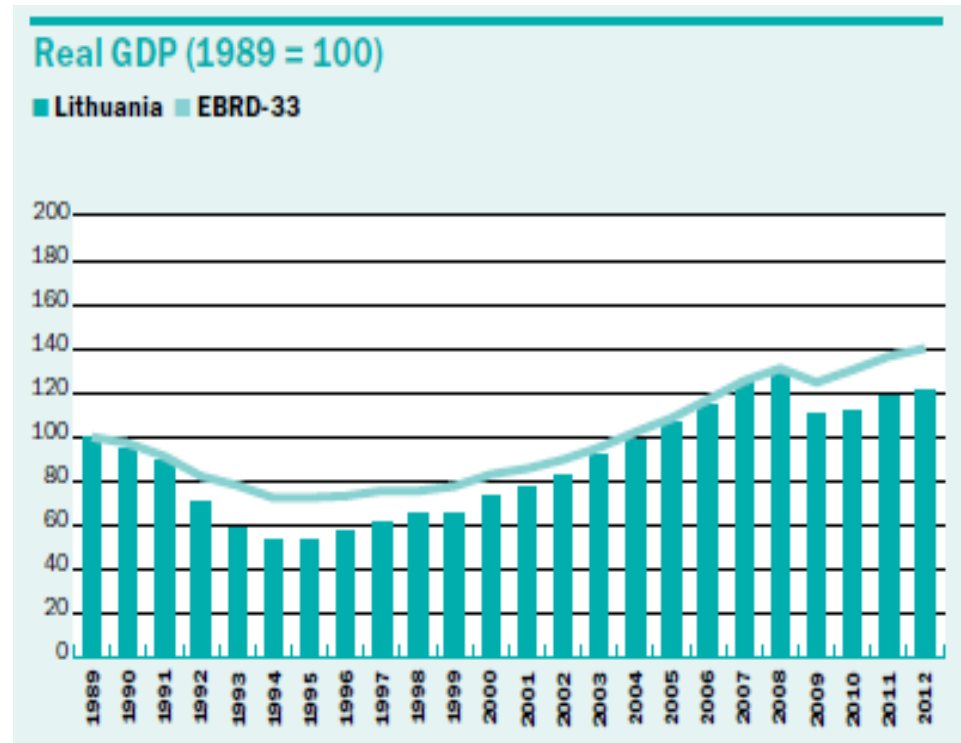
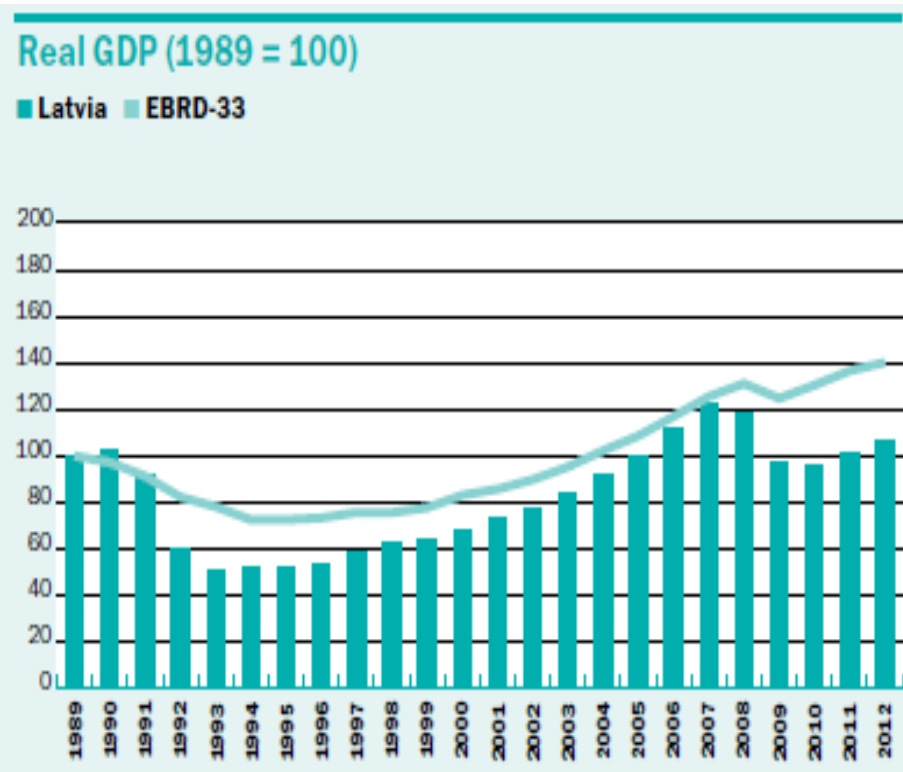
■ Latvia ■ EBRD-33



# Change of real (e.g. at constant prices) total GDP in Latvia and Lithuania in Comparison

(see EBRD Transition Report 2012)

(since 2013 EBRD Transition reports do not provide data about GDP change in comparison with 1989)





# Big sensation in Lithuania

<http://www.delfi.lt/verslas/verslas/z-mauricas-pavojingiausi-bvp-spastai-xxi-a-lietuvos-finansu-istorijoje.d?id=67362192>

(Most dangerous GDP trap in the XXI th century history)

## Ž. Mauricas. Pavojingiausi BVP spastai XXI a. Lietuvos finansų istorijoje (41)

Žygmantas Mauricas, banko „Nordea“ vyr. ekonomistas,  
Žurnalas „Valstybė“  
2015 m. kovo 8 d. 19:10



Eurostato duomenimis, Lietuvos bendrasis vidaus produktas (BVP) vienam gyventojui 2013 m. išaugo iki 73 proc. Europos Sąjungos (ES) vidurkio ir ne tik tapo didesnis nei Latvijos (64 proc.) ar Lenkijos (67 proc.), bet ir susilygino su Estijos (73 proc.). Tačiau ne viskas yra auksas, kas auksu tviška. Džiaugsmo ašaros greitai gali virsti liūdesio ašaromis, jei Lietuva pasieks pavojingą 75 proc. ribą, nes tada ES struktūrinę paramą matysime kaip savo ausis.

- In the 2013, Lithuanian public was shocked by the news that Lithuania caught up with Estonia by its GDP per capita, calculated at the purchasing power parity. In 2013, GDP per capita at PPP of both countries made out 73% of EU (EU=28) average (in Latvia – 64%; Finland =113%)
- Comparing at F/X rate, Estonian GDP per capita is still higher, but this is just because Estonia is more expensive country



# Total GDP and GDP per capita growth in 2007-2013 (PPP, constant 2011 \$)

**Total GDP Change 2007-2013,  
Billions \$**

**GDP per Capita Change  
2007-2013**

	2007	2013
<b>Estonia</b>	<b>34,9</b>	<b>33,3 (95,4%, 2007=100)</b>
<b>Finland</b>	<b>222,2</b>	<b>211,1 (95%, 2007=100)</b>
<b>Latvia</b>	<b>48,7</b>	<b>43,9 (90,1%, 2007=100)</b>
<b>Lithuania</b>	<b>71,7</b>	<b>72,3 (100,8%, 2007=100)</b>

	2007	2013
<b>Estonia</b>	<b>26 067</b>	<b>25 132 (96,4%, 2007=100)</b>
<b>Finland</b>	<b>42 046</b>	<b>38 845 (92,4%, 2007=100)</b>
<b>Latvia</b>	<b>22159</b>	<b>21 824 (98,5%, 2007=100)</b>
<b>Lithuania</b>	<b>22193</b>	<b>24 824 (118,5%, 2007=100)</b>





# POPULATION CHANGE in BALTIC COUNTRIES 2007-2013 (population in thousands)

	<b>2007</b>	<b>2013</b>
<b>Estonia</b>	1,341	1,318 (98,3%, 2007=100)
<b>Finland</b>	5,289	5,439 (102,8%, 2007=100)
<b>Latvia</b>	2,200	2,012 (91,5%, 2007=100)
<b>Lithuania</b>	3,231	2,958 (91,6%, 2007=100)



# Why there was not very much joy in Lithuania about catching up with Estonia

- Average wages (at FX rate, now in Euros) 43% and average old age pensions 45% higher in Estonia (Eurostat data)
- In Latvia average wages (FX rate or Euro) 9%, and old age pensions 16% higher than in Lithuania (Eurostat data)
- DOES THIS MEAN THAT LITHUANIA IS MOST COMPETITIVE AS ECONOMISTS WOULD SAY ☺?
- If the cause of superior Lithuanian growth performance in 2007-2013 are lesser wages and pensions, this superiority does not seem sustainable in the long run...

As the GDP with EU average diminish, the balance of payments into/from EU budget will become negative, and transfers from structural funds will stop



# Economic Development in the post-communist and interwar Baltic States: to compare: what and how?


- Cross-national comparison: which Baltic State was most rich by 1938 (=had highest national income or GDP)?
- Cross-temporal comparison (I): Which of them increased its national income/GDP most in 1913-1938? (there is no reliable and sometimes no statistical information for 1914-1922 period)?
- Cross-temporal comparison (II) Did GDP/national income increase more in relative terms (%) during first independence or second, taking as base year the last year under Russian/Soviet rule (1913-1938) and (1989/1990-2013) ? (most difficult)
- Importantly, during both periods main development problem integration into world market after political and economic breaking away from Russia



# How/are cross-temporal national income comparisons possible?

Screenshot of a web browser displaying the Maddison Project homepage. The browser address bar shows the URL: <http://www.ggd.net/maddison/maddison-project/home.htm>. The search bar contains the text "angus maddison".

## Maddison Project



Maddison Project Database Publications Conferences Original Maddison Homepage Contact | GGDC

### Maddison Project

The Maddison Project has been initiated in March 2010 by a group of close colleagues of Angus Maddison, with the aim to support an effective way of cooperation between scholars to continue Maddison's work on measuring economic performance for different regions, time periods and subtopics.

The Maddison Project database presented below builds on Angus Maddison's original dataset. The original estimates are kept intact, and only revised or adjusted when there is more and better information available. Angus Maddison's unaltered final dataset remains available on the [Original Maddison Homepage](#).

#### New Maddison Project Database

The Maddison Project has launched an updated version of the original Maddison dataset in January 2013. The update incorporates much of the latest research in the field, and presents new estimates of economic growth in the world economic between AD 1 and 2010. The new estimates are presented and discussed in Bolt and Van Zanden (2013). The First Update of the Maddison Project; Re-Estimating Growth Before 1820, [Maddison Project Working Paper 4](#).

- > [Maddison Project Database](#)
- > [Documentation](#)

Please cite our data as follows: Bolt, J. and J. L. van Zanden (2013). The First Update of the Maddison Project; Re-Estimating Growth Before 1820. Maddison Project Working Paper 4.

#### Maddison Project Structure

The project consists of a two tier structure:

# Maddison Project Dataset (1A.D.-2010) – standard data source for cross-national and cross-temporal GDP comparisons (at PPP in 1990 international Geary-Khamis dollars: 1990 GK\$)



Original Maddison Homepage | Home Maddison

File Edit View Favorites Tools Help

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GGDC

Groningen Growth & Development Centre

Back to homepage

## Angus Maddison (1926-2010)


**Emeritus Professor**  
**Faculty of Economics**  
**University of Groningen**

This is the last version of the Angus Maddison homepage, last updated on March 2010. Further information can be found on the [Maddison-Project Website](#)

### TABLE OF CONTENTS

#### Personal information

New Books:(1) [Contours of the world Economy, 1-2030 AD; Essays in Macroeconomic History, Oxford University Press, September 2007](#)  
(2) [Chinese Economic Performance in the Long Run, 960-2030, OECD, Paris, October 2007](#)  
[Royal Decoration, October 2006](#)  
[Honorary Doctorate, Hitotsubashi University, Japan, October, 2007](#)  
[Curriculum Vitae](#)  
[Autobiography](#)  
[Research Objectives & Results, 1952-2002](#)  
[A Scurrilous Book Review by a Murky Malthusian](#)



100%

Links >> LT

10:20  
2014.04.10



# Economic progress of Finland in 1913-1938 and 1990-2010 according to Maddison Project dataset

## Finland 1913-1938

GDP per capita in Finland  
1913:

2 111 1990 GK\$ (all-Russian  
mean was 1 414 1990 GK\$)

GDP per capita in Finland  
1938:

3 589 1990 GK\$

(170% (1913=100) increase,  
2,1% annual growth)

Growth in 1924-1938 – from 2224 to 3589 or 61,4%, (1924=100)  
annual growth rate 3,5%

## Finland 1990-2010

GDP per capita in Finland  
1990:

16 866 1990 GK\$

GDP per capita in Finland  
2010:

23 290 1990 GK\$ (138,1%  
increase (1990=100) 1,6%  
annual growth)

In 1990 an average Finn was 4,7 times more  
rich than his grandfather in 1938, and in 2010  
6,5 times



## **CAN WE KNOW SOMETHING LIKE ABOUT (OTHER)**

### **BALTIC STATES? (in 1918-1940 Finland was considered as one of them)**

- **In Maddison Project dataset, there are time series only for 1990-2010 for Estonia, Latvia, and Lithuania**
- **As far my aim was to close the comparison with the data points as close to present (2015) as possible, I did not use this source. Besides that this source seems somewhat exaggerating Estonia's performance in 1990-2010.**
- **For Finnish economic historians, it took some 25 years of work and several research projects supported by Bank of Finland to calculate continuous GDP time series since 1860**
- **I have a dream that analysts of National Banks of Estonia, Latvia and Lithuania, relieved from most duties after the switch to Euro will do something like in the next future**
- **Meanwhile I can offer only guesses, based in metanalysis of available sources – calculations of national income of Baltic States in current or constant prices**
- **Where calculations at constant prices are available, it is possible to estimate the extent of the growth of GDP**



# National income of interwar Lithuania: sources and historiography

Albinas Rimka for 1924 (with Klaipėda district):

1266 mil Litas total, 582 per capita

F. Šipica (Lithuania without Klaipėda district) in 1938 1165 mil. total, 482 Litas per capita;  
1939 m. 1259 mil. total, 515 Litas per capita.

Recalculation at constant 1924 prices by Kazimieras Meškauskas:

in 1938 – 2460 mil. Litas total, 1017 Litas per capita

in 1939 – 2499,7 mil. Litas total, 1023 Litas per capita.

**REAL INCREASE SOMEWHAT GREATER BECAUSE RIMKA'S NUMBERS REFER TO LITHUANIA WITH KLAIPĖDA DISTRICT, WHILE ŠIPICA'S DOES NOT INCLUDE (ALSO FOR 1938)**

Lithuanian historians agree that Lithuanian economy did recover after WWI and independence war losses in 1924

So growth of total size of national income in 1924-1938 was 194% (1913=1924=100).

Annual growth in 1924-1938 – 4,8%

Annual growth of national income per capita in 1924-1938 – 4,1%

(Less than growth of total size of GDP because of significant increase of population (some 15% in 1923-1938))





# National income of interwar Estonia: sources and historiography

- **Calculations of national income at current prices**
- Janusson Juhan. *Eesti majanduslik areng*, Tallinn: Põllumajanduslik Konjunkturbüro, 1932 (**FOR 1928-1930**)
- Janusson Juhan. „Eesti majanduse arengu perspektiive“, *Konjunktuur*, Nr. 3/4 (28/29), 1937, lk. 134-144 (**FOR 1929-1936**)
- Horm Arvo. *Eesti elatusstandard*, Tartu: Akadeemia, 1940 (**JANUSSONS CALCULATIONS FOR 1929-1936 + NATIONAL INCOME FOR 1937-1938 WITHOUT INFORMATION ABOUT SOURCE**)
- **Calculations of national income of Estonia in 1923-1938 at constant (1929) prices:**
- Valge Jaak. „Uue majanduse lätteil. Eesti sisemajanduse kogutoodang aastatel 1923–1938“. *Akadeemia*, 10-12, 2003, p. 2202–2228, 2443–2487, 2712–2735.
- Klesment, Martin. „Eesti majandusarengu dünaamikanäitajaid sõdadevahelisel perioodil“, *Tuna. Ajalookultuuri ajakiri*, 1, 2008, p. 25-37.
- **VALGE AGREES WITH ARNO KÖÖRNA THAT IN 1913 THERE WAS A PARITY BETWEEN FINLAND AND ESTONIA IN NATIONAL INCOME PER CAPITA AND ESTIMATES THAT IN 1925 ESTONIAN GDP PER CAPITA WAS 90% OF FINLAND'S GDP PER CAPITA (2 280 1990 GK\$)**
- Kõörna, Arno. *Suure Sotsialistliku Oktoobrerevlutsiooni majanduslikud eeldused Eestis*, Tallinn: Eesti Riiklik Kirjastus, 1961.



# National income and GDP of Estonia in 1923-1938 (J. Janusson's, A.Horm's, J.Valge's data)

Year	National income of Estonia at current prices (J.Janusson and A.Horma), millions EEK	GDP of Estonia at current (producer's or factor prices) according J. Valge, millions EEK	National income of Estonia at constant 1929 (producer's or factor prices) according J. Valge)	Total GDP % (1929=100; J.Valge)	GDP of Estonia per capita % (1929=100; J. Valge)	GDP of Estonia per capita in 1990 GK\$ (J.Valge's estimation)
1923	nd	377,6	419,6	82,3	83,0	1 811
1924	nd	458,2	545,5	106,9	107,1	2337
1925	nd	506,3	532,9	104,5	104,5	2280
1926	nd	532,6	566,6	111,1	111,1	2422
1927	nd	478,5	525,8	103,1	103,1	2249
1928	nd	498,9	514,3	100,8	100,9	2201
1929	342	510,1	510,1	100,0	100,0	2182
1930	315	484,1	543,9	106,6	106,8	2330
1931	260	415,4	519,3	101,8	101,7	2219
1932	224	361	494,5	96,9	96,7	2110
1933	249	381,4	560,9	110,0	109,3	2385
1934	259	391,4	575,6	112,8	112,0	2443
1935	284	417,3	613,7	120,3	119,1	2598
1936	318	470,8	611,4	119,9	118,5	2585
1937	342	533,1	658,1	129,0	127,4	2779
1938	376	552,5	650,0	127,4	125,8	2745



# National Income Growth in Estonia 1913-1924-1938

- Assuming (with J. Valge and A. Kõörna) that in 1913-1924 national income of Estonia was on a par with Finland (some 2100 1990 GK\$), GDP per capita of Estonia did increase by 30,7% (from 2100 to 2745 1990 GK\$) in this period (annual growth rate 1%)
- As far as Estonian economy recovered to prewar level in 1923-1924 its annual growth rate in 1924-1938 was circa 2%
- Differently from interwar Lithuania, there was no significant population growth Estonia (1,15 mil. in 1913, 1,11 mil. in 1924 and 1,13 mil. in 1938, so there is no discrepancy in the percentual total GDP and GDP per capita change)



## NATIONAL INCOME OF LATVIA IN 1925-1938: sources

Kalniņš, J., Pinke G. „Okupācijas zaudējumu noteikšana: Latvijas attīstības trajektorijas hipotētiskais novērtējums, ja tā nebūtu okupēta”, Prikulis, J. (zinātniskais redaktors) *Padomju Savienības nodarītie zaudējumi Baltijā*, Rīgā, 2011. gada 17.-18. jūnijs : starptautiskās konferences materiāli, Rīga: Latvijas Okupācijas izpētes biedrība, 2012, lpp. 117-125  
 lp.119

UNHAPPILY, I DO NOT KNOW ANY ATTEMPTS TO RECALCULATE LATVIAN GDP AT CONSTANT PRICES

### Latvijas tautas ienākuma aprēķinu avoti un rezultāti 1925-1938

Gadi	Tautas ienākums faktiskajās cenās, milj.latu									
	Alfreda Ceihnera aprēķini				Kārļa Ziverta publikācijas		Latvian Economic Review, Nr.2(6), April 1937, p.29	Reichs kommissar für des Ostland, Ostland in Zahlen, Riga, 1942, 21.lpp.	Latvju enciklopēdija. Otrais sējums, Stokholma, 1952-53, 1364.lpp.	Arnolds Aizsīnieks, Latvijas samniecības vēsture 1914-1945. Daugava, 1968, 834.lpp.
	Ekonomists, Nr.11, 1927 [Tautas mantas un tautas ienākums]	Ekonomists, Nr.17, 1931 [Tautas ienākums]	Ekonomists, Nr.15/16, 1933 [Tautas ienākums krīzes gados]	Latviešu konversācijas vārdnīca, 11.sējums, 1934-35, 20775.lpp. [Tautas mantas]	Latviešu konversācijas vārdnīca, 21.sējums, 1940, 42303.lpp. [Tautas ienākums]	Latvju enciklopēdija. Trešais sējums, Stokholma, 1953-55, 2228.lpp. [Samniecības vēsture]				
1925	911									
1925/26						800				
1928						925				
1930						1150				
1929/30		1188	1151	1224				1151		
1932			744	817		750				
1933							895.7			
1934							961.0	896.8	896.8	
1935							980.9	896.1	981	
1936						965.3	965	965.3	965.3	
1937						1163.5	1149	1149.2	1149.2	
1938						1256.0	1200	1256.0	1256.0	



# National Income Growth in Latvia 1913-1938

*The Conditions of Economic Progress*. 2d ed. completely rewritten London: Macmillan, 1951, p.118.

Dresdner Bank 1930. *The Economic Forces of the World*. Third Issue Completely Revised.

	National Income, million lats	Do., at 1929 Prices	Do., million I.U.	Do., + Allowance for Retail Valuation of Home-produced Goods Consumed on Farms	Occupied Population, thousands	Real Product per Head, I.U. per Year	Average Hours per Year	Average Product per Hour, I.U.
1913	865	1020	288	342	1023	335	(3000)	·112
1925-26	800	875	242	288	747	385	(2500)	·154
1928	925	990	280	327	757	431	(2500)	·172
1930	1150	1138	322	367	763	481	(2500)	·192
1932	750	881	250	295	769	383	2270	·169
1936	965	1265	358	400	783	510	2345	·217
1937	1149	1380	391	430	791	544	2380	·229
1938	1200	1345	381	420	793	530	2380	·223

National income 1913-28, Dresdner Bank ; 1930-32, A. Ceichners, *Lettlands Oekonomist*, 1933 ; 1936-38, *Economist*, 24th June 1939.



# National Income Growth in Latvia in 1913-1938: estimations based on C.Clark's data

- During World War I Latvia suffered greatest loss of population, which was not restored by 1938
- Population in 1913: 2,5 mil.
- Population of Latvia in 1938: circa 2 mil.

Therefore in 1913-1938

the national income per capita growth from 137 to 212 1929 international \$ (154,7% (1913=100), 1,8% annual growth)

was more significant

than the growth of its total size (from 342 to 420 million 1929 international \$, i. e. 123% (1913=100), annual growth rate 0,8%)

BECAUSE OF THE TERRITORIAL HETEROGENEITY OF LATVIA (SOCIOECONOMIC DISPARITY BETWEEN UNDERDEVELOPED LATGALE AND OTHER LANDS) IT IS VERY DIFFICULT

(1) ASSESS THE INTERNATIONAL STANDING OF AGGREGATE LATVIA IN 1913 (KURLAND AND LATVIAN PART OF LIVLAND GOVERNMENTS WAS PROBABLY MORE ADVANCED THAN FINLAND)

(2) TO FIND OUT, WHEN INDEPENDENT LATVIA'S NATIONAL INCOME PER CAPITA DID SURPASS 1913 LEVEL



# Colin Clark's famous international comparison of the national income at PPP per economically active person averages for 1925-1934 (ten years) period

Clark C. 1938. „Internationaler Vergleich der Volkseinkommen“, *Weltwirtschaftliches Archiv*, Bd. 47, 1938, S. 51–76.

p.66

## Volkseinkommen je Kopf der Beschäftigten 1925/34 (\$ einheitlicher Kaufkraft)

Land	Einkommen je Kopf	Land	Einkommen je Kopf
Vereinigte Staaten . . . .	1397	Norwegen . . . . .	539
Kanada . . . . .	1380	Österreich . . . . .	511
Großbritannien . . . . .	1069	Tschechoslowakei . . . . .	455
Schweiz . . . . .	1036	Griechenland . . . . .	397
Neuseeland . . . . .	1000	Finnland . . . . .	380
Australien . . . . .	952	Ungarn . . . . .	359
Niederlande . . . . .	855	Polen . . . . .	352
Irischer Freistaat . . . . .	770	Lettland . . . . .	345
Schweden . . . . .	695	Estland . . . . .	341
Frankreich . . . . .	694	Italien . . . . .	338
Dänemark . . . . .	680	Südafrika . . . . .	276
Deutschland . . . . .	646	Bulgarien . . . . .	259
Spanien . . . . .	628	Rumänien . . . . .	243
Belgien . . . . .	600	Litauen . . . . .	207



# National Income of Interwar Baltic States: Cross-Country Comparison for 1925-1934

Calculations by Vaskela G. *Tautiniai aspektai Lietuvos ūkio politikoje 1919-1940 metais*, Vilnius: Lietuvos istorijos instituto leidykla, 2014, p.78 used

- **C. Clark's country ranking is for national income calculated per economically active person.**

**Recalculating per person (using 1930 population numbers) annual average 1925-1934 national income was (in 1929 international \$)**

**Finland 138 \$**

**Latvia 131 \$ (95 % of Finland's national income per capita value)**

**Estonia 124 \$ (90% of Finland's national income per capita value)**

**Lithuania 80 \$**

**So Lithuanis's national income per capita was 58% of Finland's, 61% of Latvia's and 64% of Estonia's national income per capita.**

**THESE NUMBERS REFLECT THE SITUATION IN 1913 AS WELL AFTER RECOVERY FROM WORLD WAR I AND INDEPENDENCE WAR DESTRUCTIONS**





# National Income of Interwar Baltic States: Cross-Country Comparison for 1938 (I)

**DIFFERENTLY FROM ESTONIA AND ESPECIALLY LATVIA, LITHUANIA IN 1938 STILL WAS COMPLETELY AGRARIAN, ONLY PARTLY COMMERCIALIZED ECONOMY.**

**THEREFORE, IT SUFFERED LESS FROM THE LOSS OF RUSSIAN MARKET (NO DEINDUSTRIALIZATION, BECAUSE THERE WERE ONLY VERY FEW INDUSTRIES WORKING FOR ALL-RUSSIAN MARKET) AND COULD USE CLASSICAL “ADVANTAGES OF UNDERDEVELOPMENT” (CP. ALEXANDER GERSCHENKRON)**

**The received historiographical wisdom about the relative progress of Lithuanian economy in 1924-1938 (to recall: Lithuanian economy did recover after WWI and independence war losses in 1924 ; growth of total size of national income in 1924-1938 was 94% (1913=1924=100); annual growth in 1924-1938 – 4,8% ; annual growth of national income per capita in 1924-1938 – 4,1%)**

**Supports tentative conclusion that by 1938**

**Lithuania reduced the national income per capita disparity with Estonia and Latvia, surpassing Bulgaria and Romania, or so I argue in my recent book**



# National Income of Interwar Baltic States: Cross-Country

## Comparison for 1913-1938

### Recent estimates and calculations of GDP per capita in 1990

#### GK\$:

1913

FINLAND 2111\$ (Maddison Project data 2013)

ESTONIA 2100\$ (A.Köörna 1961 and Valge 2003)

LATVIA ???? Probably no less than 2100

RUSSIA 1414\$ (without Poland and Finland) (Maddison Project data 2013)

LITHUANIA:

Gediminas Vaskela (2014) more than 1414\$

Z.Norkus 1200-1400\$

1938

FINLAND 3589\$ (Maddison Project data 2013)

ESTONIA 2745\$ (Valge 2003)

LATVIA 2800 (Gediminas Vaskela 2014: 115)

USSR 2150\$ (Maddison Project data 2013)

LITHUANIA:

Gediminas Vaskela (2014: 116): two estimates under different assumptions 1800-1900\$; 1820-1960\$ 1990 GK\$

Z. Norkus (2014: 109) 2000-2200\$

So in 1938 Lithuanian GDP per capita was 56-61% of Finland's, 70-80% of Estonia's and Latvia's value



# GDP per capita growth in 1913 – 2010 in selected European countries, PPP in Geary Khamis \$(GK\$)

Source: The Maddison-Project, <http://www.ggd.net/maddison/maddison-project/home.htm>, 2013 version, with interpolations

	1913	1924	1938	1938 % 1913=100	1973	1990	2010	2010 % 1990=100
Ireland	2736	2569	3052	<b>111,5</b>	6867	11818	22013	<b>186,3</b>
Albania	811	nd	nd	nd	2273	2499	5375	<b>215,1</b>
Bulgaria	1137	1026	1499	<b>131,8</b>	5284	5597	8496	<b>151,8</b>
Czechoslovakia	2096	2353	2882 (1937)	<b>137,5</b>	7041	8513	n/d	<b>n/d</b>
Estonia	2100 (?)	2337	2745	<b>130,7</b>	8657	10820	19032 (?)	<b>175,9 (?)</b>
Lithuania (Z. Norkus)	1200- 1400 (?)	1200- 1400	2000- 2200	<b>175,8</b>	7593	8663	11004	<b>127,0</b>
Lithuania (G.Vaskela)	>1400	1200- 1500	1800- 1900	<129- <b>135,8</b>	7593	8663	11004	<b>127,0</b>
Latvia	2100 (?)	??	2800	<b>133,3</b>	7846	9916	11898	<b>120,0</b>
Finland	2111	2224	3589	<b>170</b>	11085	16866	23290	<b>138,1</b>
Russia	1414	891	2150	<b>152</b>	6582	7779	8660	<b>111,3</b>
Denmark	3 912	4528	5762	<b>147,3</b>	13945	18452	23513	<b>127,4</b>
Greece	1177	2057	2667	<b>226,5</b>	7655	10015	14691	<b>146,7</b>
Spain	2056	2331	1790	<b>87</b>	7661	12055	19797	<b>164,2</b>
Italy	2305	2457	2830	<b>122,8</b>	10414	16313	18520	<b>113,5</b>
Yugoslavia	973	1256	1249	<b>128,4</b>	4533	5646	n/d	<b>n/d</b>
U.K.	4921	4921	6266	<b>127,3</b>	12025	16430	23777	<b>144,7</b>
Poland	1739	2117 (1929 year.)	2182	<b>125,5</b>	5340	5113	10762	<b>204,8</b>
Norway	2447	2715	4262	<b>174,2</b>	11324	18466	27987	<b>151,6</b>
Portugal	1250	1401	1747	<b>139,8</b>	7063	10826	14279	<b>131,9</b>
Romania	1741	1152	1242	<b>71,3</b>	3447	3511	4653	<b>132,5</b>
Sweden	2874	3366	4901	<b>170,5</b>	13494	17609	25306	<b>143,7</b>
Hungary	2098	2476	2655	<b>126,5</b>	5596	6459	8353	<b>129,3</b>
Germany	3648	3199	4994	<b>136,9</b>	11966	15929	20661	<b>129,7</b>

# Basic facts about economic progress of Baltic State, measured by the Gross Domestic Product (GDP) per capita growth in 1990-2007 (GDP per capita at PPP, constant 2011 international \$). Data Source: WDI 2014 (Figures differ because of the change of calculation year basis (2005 instead of 2011))

## Baltic countries in 2007, rank order

- Finland 42046 (=100%)
- Estonia 26067 (62%)  
(Finland=100)
- Lithuania 22193 (52,8%)  
(Finland=100)
- Latvia 22159 (52,7%)  
(Finland=100)

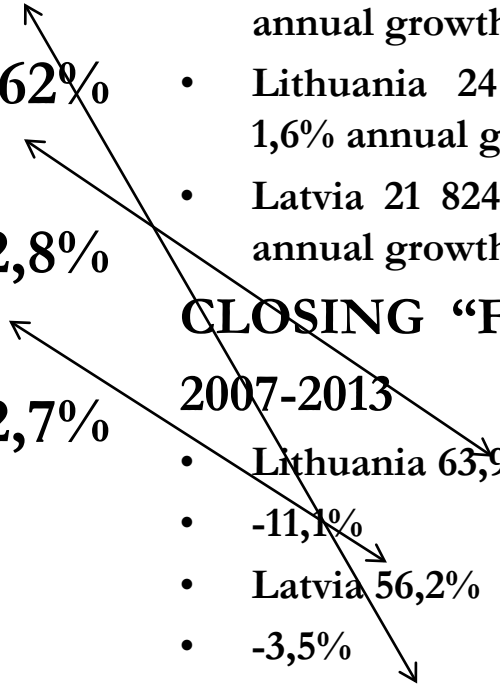
## Baltic countries in 2013, rank order

- Finland 38 845 (92,4% (2007=100), -1,1% annual growth)
- Estonia 25 132 (96,4% (2007=100), -0,5 % annual growth)
- Lithuania 24 824 (118,5% (2007=100), 1,6% annual growth)
- Latvia 21 824 (98,5% (2007=100), -0,2% annual growth)

## CLOSING "FINLAND GAP"

### 2007-2013

- Lithuania 63,9% (100=Finland)
- -11,1%
- Latvia 56,2% (100=Finland),
- -3,5%
- Estonia 64,7 % (100=Finland),
- -2,7%



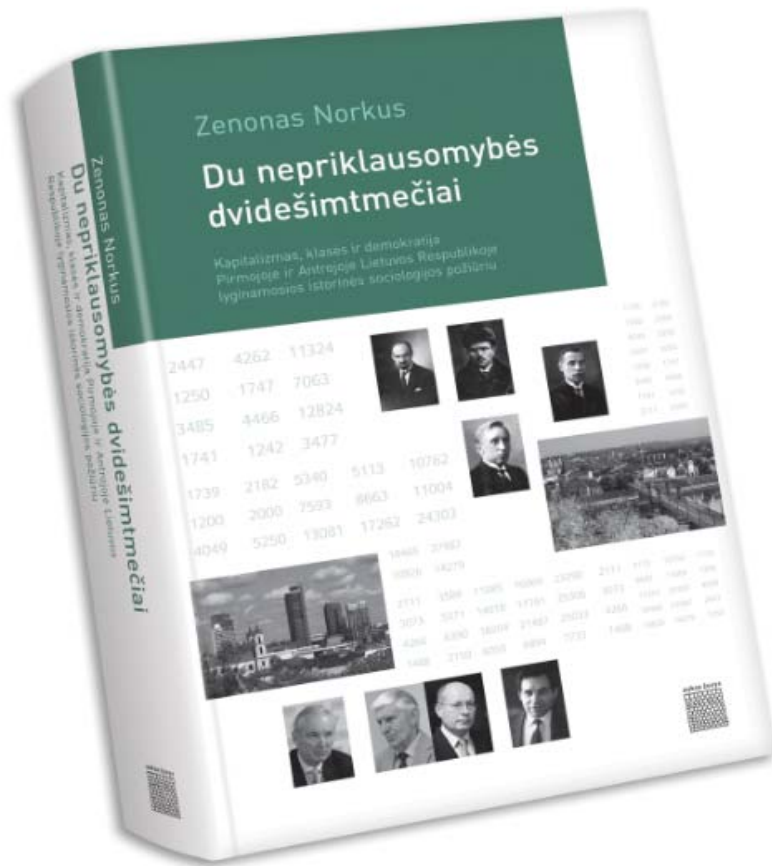


# CONCLUDING OBSERVATION

- **IN 2013 ALL FORMER “SOVIET BALTIC REPUBLICS” ARE NEARLY IN THE SAME RUNNING POSITION (AT THE SAME RUNNING DISTANCE BEHIND) FINLAND WHERE LITHUANIA (MOST UNDERDEVELOPED BALTIC STATE) WAS IN 1938**
- **NOW LITHUANIA PROBABLY IS SLIGHTLY FIRST ... BEHIND FINLAND ☺**



# ECONOMIC, SOCIAL AND POLITICAL DEVELOPMENT OF FIRST (1918-1940) AND SECOND REPUBLIC OF LITHUANIA (1990-2012 ) IN COMPARISON



**“Two Twenty-Year Periods of Independence:**

**Capitalism, Class and Democracy in the First and Second Republics of Lithuania from the Point of View of Comparative Historical Sociology”**

Vilnius: Aukso žuvis, 2014

**Contents and Summary in English**

<http://web.vu.lt/fsf/z.norkus/files/2014/02/Du20me%C4%8Diai.pdf>

**„Two Decades of Independence: Kaunas (1918-1940) and Vilnius (1990-2012) Republics of Lithuania from the Viewpoint of Comparative Historical Sociology“**

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