

## Instructions for Style of Papers Submitted to

18<sup>th</sup> Cambridge Symposium on International Manufacturing

# Disruptive supply network models in future industrial systems: configuring for resilience and sustainability

### Manuscripts

Articles will be accepted up to 7,000 words in length. Manuscripts should be typed in single spacing on one side of A4 paper with 2.5cm margins and should be accompanied by:

- (a) a brief autobiographical note, including full name, appointment and name of organisation
- (b) an abstract not exceeding 150 words
- (c) a maximum of 5 key words or phrases to be used for indexing purposes.
- (d) whole paper should use "Times New Roman" and in 12 font. The line spacing should be single line. Please leave one line space between two paragraphs with no indentation.

Authors are asked to supply a full address and telephone or fax number.

Either American or British English will be accepted, although its use must be consistent. Authors whose mother tongue is not English are encouraged to write in the British version.

### Literature Citations

No footnotes should be used for literature citations. The work should be cited by the author's name and year of publication in the body of the text, e.g. (Zuboff, 1988); or when reference is made to specific pages (Rorty, 1989, pp. 44-46). Where the author's name is included in the text, the name should not be repeated in the reference citation, e.g. "Johnson (1989, p. ix) says ....". For identification purposes, the suffix a, b, etc. should follow the date when the bibliography contains more than one work published by an author in a single year.

### References

The manuscript should include a reference list containing only those references cited in the text. The references should be arranged in alphabetical order according to the surname of the first author. Works by the same author should be listed in order of publication. Each reference should contain full bibliographical details.

#### *Journal Reference*

Ghauri, P.N. and Holstius, K. (1996). The Role of Matching in Foreign Market Entry Process in Baltic States, *European Journal of Marketing*, 30/2, 75-88.

#### *Book Reference*

Porter, M.E. (1980) *Competitive Strategy*. New York: Free Press.

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### Footnotes

Footnotes for clarification or elaboration should be used sparingly and quoted by superscript numbers running consecutively through the manuscript. Footnotes should be written at the bottom of the page in which they appear.

# Credit Bubble Burst and New Sustainable Economy Opportunity in the Baltic States

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## Abstract

Baltic States became independent in early 90's, when iron wall collapsed in whole Eastern Europe. Thereafter, development in economic terms was rapidly manufacturing and transportation sectors were responsible for prosperity formation. However, after late 90's situation changed, and boom was apparent in credit led real estate, finance, retail and construction sectors. As these sectors are all domestically oriented, and while Baltic States in this credit boom period did not experience any trade surpluses, it was evident that credit crunch in 2008-2009 affected economies severely. This research work shows that Baltic States need to change again weight in Foreign Direct Investment (FDI) for manufacturing and transportation, sectors which have been supported previously only by European Investment Bank and EU Cohesion fund. FDI is vital for Baltic States, since they have been for long time net receivers of capital, and GDP has greatly dependent on these inflows. However, future prosperity is only built with export oriented FDI.

**Keywords:** Baltic States, FDI, loans, EU cohesion, manufacturing, transportation

## 1. Introduction

Credit crunch of USA during years 2008-2009, which led to global economic slowdown, hit hard all Baltic States (Kumpikaite et al., 2011). Experienced change in downsize was very sudden, and even private sector actors were entirely unaware of its magnitude (Kumpikaite et al., 2011). Therefore, unemployment increased within very short time (Sakiene, 2011; Kumpikaite et al., 2011) and construction sector was severely hit (Sakiene, 2011; Bobinaite et al., 2011). However, not only domestic economy led sectors were suffering, but e.g. metal industry was experiencing 40 % slump in orders in Latvia (largest export industry; Priede & Skapars, 2012).

However, root problem in Baltic States for these sudden negative changes was the economic structure formation and renewal, which took place during previous boom time. Relatively loose monetary policy of banks (international phenomenon then) resulted in fixed capital investments, and e.g. in the case of Lithuania during years 1995-2009 these fixed capital investments alone explained 91.54 % from GDP change (Bobinaite et al., 2011). Even if investments soared, and construction industry experienced boom period (Sakiene, 2011), other sectors, like export based manufacturing was continuously declining (Saboniene, 2011a; Shatreovich & Zvanitajs, 2011). Similar situation happened with e.g. agriculture (Bobinaite et al., 2011); EU support has been argued here to be effective, that this branch even exists in Baltic States today (volumes were continuously declining before EU membership; Veveris & Kalis, 2011). So, problem of Baltic States in general was that there did not exist any seriously taken industrial export arm, which could have aided their recovery out of the crisis with agreed and implemented lower salary levels. Baltic States economies remind in miniature scale that of USA; in large extent their economic growth model was based on demand alone, not on supply. Therefore, e.g. Latvia has stated that export based manufacturing is their main development objective (Shatreovich & Zvanitajs, 2011). Challenge in export industries is that they are low technology companies (e.g. food and beverages;

Saboniene, 2011b; Shatreovich & Zvanitajs, 2011), and main customers are in Europe (Bernatonyte, 2012). This low-technology status mostly concerns Lithuania and Latvia. Based on research of Bernatonyte (2011), Estonia is the most competitive in export industries, and two other Baltic States follow it with considerable distance.

Situation is not entirely hopeless, e.g. EU cohesion funding is plenty during program period of 2007-2013 for all Baltic States. Most of this granted funding was unused before the crisis, e.g. Lithuania only had used one third of them before the credit crunch (Dumciuviene, 2011). Similarly Estonia reports in program webpages, that half of the entire funding is used in their country now, but rest of the projects for the end of 2013 are agreed, and costs will accumulate in late year 2012 and 2013 (EU Structural Assistance to Estonia, 2012). These funds are of course hope for better future, since their use now in the challenging times is replicating Keynesian stimulus of economic downturns.

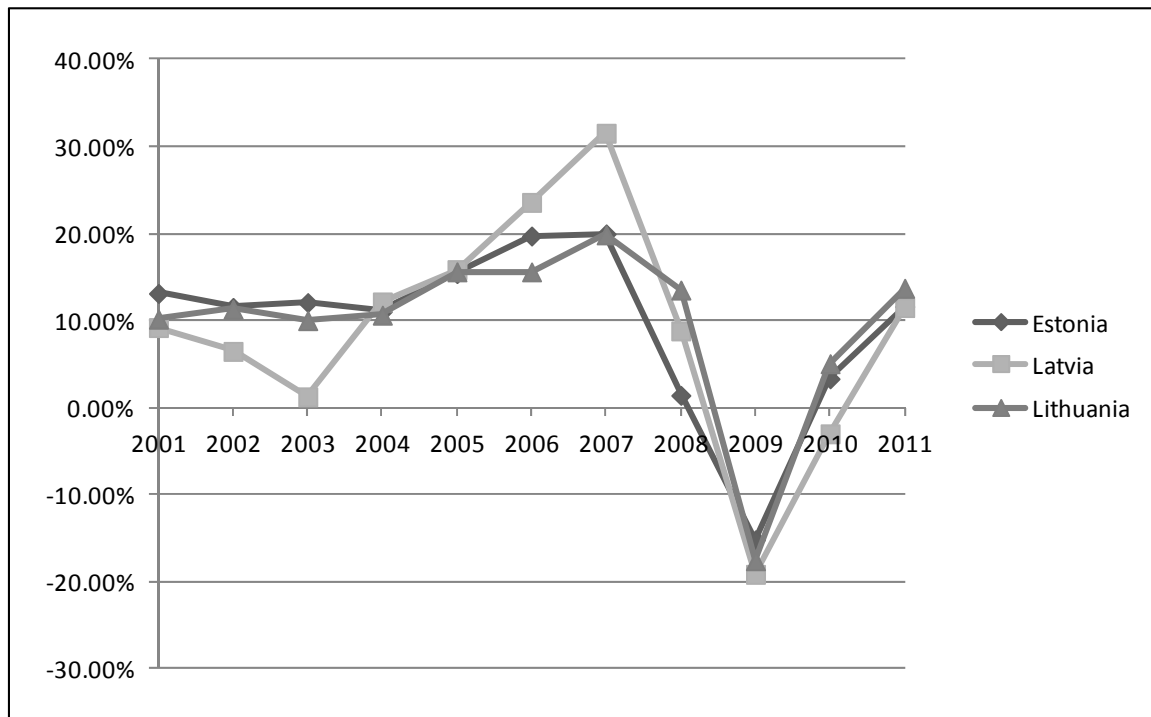
This research is structured as follows: Section 2 portrays economic development in Baltic States within recent decade. Strengths and weaknesses are reviewed briefly in this section too. Thereafter, in Section 3 FDI inflows are examined in long-term perspective from all Baltic States by industrial branches and countries involved in this activity. Role of international lending organizations (like EIB and ERBD) is analyzed in Section 4, where it is shown that loans and especially the role of EIB has increased in recent years. EU cohesion funding is reviewed in longitudinal perspective in Section 5. Research work is concluded in Section 6, where also avenues for further research are being provided.

## **2. Economic Development in Baltic States**

All Baltic States were growth tigers in the previous decade, and economic prosperity in national currency terms grew at least 10 % p. a. before credit crunch. However, if we measure GDP change in euro terms, Latvia was experiencing some IT bubble burst problems in 2002-2003, but recovered strongly out of this (in national currency GDP growth was still 10 %, but this mostly caused due to depreciation of currency). Signs of overheated economy were very much present in year 2007, when GDPs grew 20-30 % p.a. (Figure 1). As will be shown later on this research work, overheating was caused by the massive capital inflows to the countries, particularly improvement of FDI inflows. However, as uncertainties in the world economies started to be present, investment activity disappeared suddenly as confidence on future growth was hurt. This eroded economic growth rather suddenly. Of course long-term loans taken from EIB and structural funds used out of EU cohesion helped a bit, but we may note that in year 2009 decline was massive. GDPs declined by 15-19 % then. Thereafter all three countries have experienced recovery process, but still in absolute terms GDPs of year 2011 are below the level of year 2008.

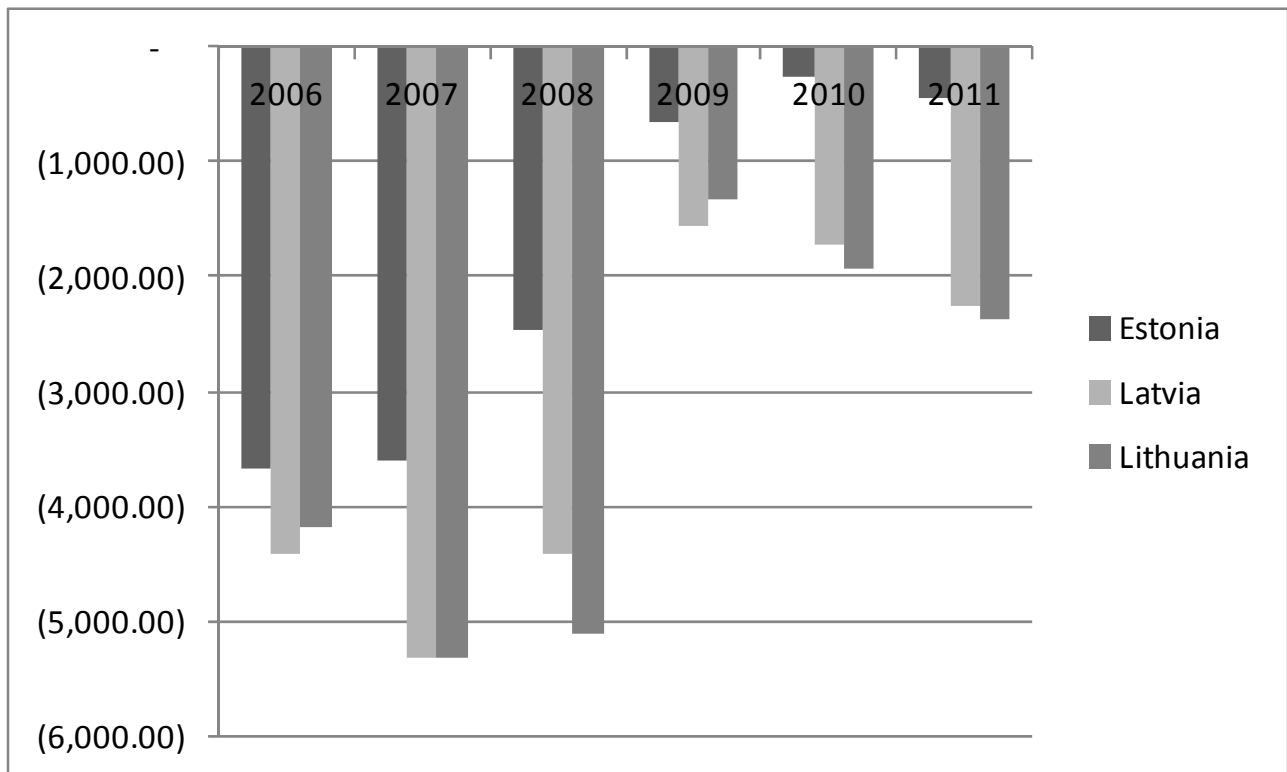
Among investment attraction, all three Baltic States hold naturally important role as transit cargo locations for eastern (Russia, Ukraine, Belarussia, Kazakhstan etc.) export of raw materials and/or import of consumer goods. This also affects greatly on employment and consumption, in turn having connection on GDP growth. In period of 2000-2009 these three countries had continuously changing position in transit cargo handling (e.g. Hilmola, 2011). For example, Estonia lost significantly coal transports during the decade perspective (development was in part fostered by small political crisis with Russia in 2007), but in turn Latvia was able to grow significantly in coal transit with sea port of Riga (capital city). However, in oil handling and fertilizers Latvia and Estonia have experienced decline in decade perspective, while Lithuania has grown considerably. In containers (general cargo) only Riga sea port in Latvia has been able to show in decade perspective clear growth – Lithuania is looking also promising in this respect. So, we could argue that transit

transport is messy topic to be connected directly in GDP growth (as it changes between three Baltic States so rapidly), however, we may conclude that crisis in year 2009 took significant part from handling volumes away, and in turn caused GDP slump in crisis year. Declines before this crisis year were in parts caused due to rapidly deteriorating business climate, but also due to political tensions.



**Figure 1.** Gross Domestic Product (GDP) change in Baltic States during previous decade (GDP converted to Euros with BOF, 2012). Source: Statistics Estonia (2012), Central Statistical Bureau of Latvia (2012), Statistics Lithuania (2012)

As an anomaly to Baltic States acts United States. Similarly to USA, all Baltic States have recorded for years significant trade deficits (these considerably widened after early 2000). After credit crisis situation has still remained, mostly due to high priced oil (was of course problematic also during growth period; see e.g. for Switzerland, Atukeren, 2011), which all Baltic States need to import from abroad. However, boom period of early 2000 was mostly caused by domestic sectors, and investments did not see manufacturing as an opportunity. Actually it is so that Baltic States enjoyed healthy manufacturing development in 90's, but in ten recent years Asia has taken over its share from this activity. Typically this meant that manufacturing units (e.g. subcontracting) were relocated to Asia. This concerns very much such branches as electronics and light weighted product production. So, in simplistic terms trade deficits mean that all three countries are in need of more capital (loans), either to be taken by private or public sector. Of course capital could appear in form of FDI too, or as EU structural support. It is open question, how long time capital in-flight could substitute uncompetitive export structures.



**Figure 2.** Trade deficit of Baltic States within period of 2006-2011 (in mill. euros). Source: UN Comtrade (2012)

As observing the development of trade account after crisis, only Estonia has started to show development, where exports could potentially in forthcoming years to be in parity with imports. However, situation in Latvia and Lithuania is repeating life before crisis – trade deficits in year 2011 were already more than two billion euros, and trend in both countries is strikingly downwards. This is not minor issue as in year 2011 Lithuanian trade deficit was one fourth from GDP, and Latvian in turn roughly one sixth.

### 3. Background: Foreign Direct Investments in Baltic States

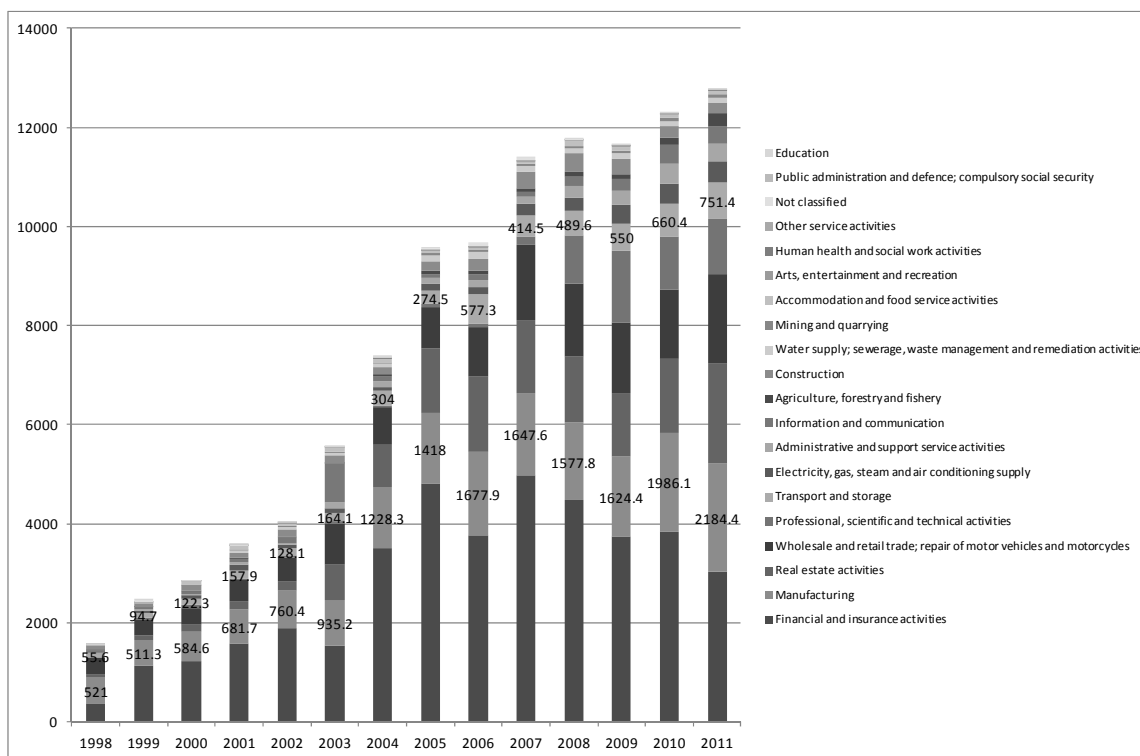
As Baltic States could be classified as emerging economies in European landscape during the previous decade time, their Foreign Direct Investment (FDI) have followed same emerging pattern. This experienced development was also the main reason, why GDP contracted in such significant manner during credit crunch, and in turn resulted in high unemployment rates. Three Baltic States economies experienced severe boom in real estate, finance, wholesale and construction sectors and in their interaction (growth was domestic oriented and endogenous interactions with increasing amount of foreign investments that created bubble). As world economy was in general going through very loose monetary policy after IT bubble burst, these sectors attracted impressive amount of funding from foreign investors. This is apparent in longitudinal development of FDI in Estonia (Figure 3), Latvia (Figure 5) and Lithuania (Figure 7). It is interesting to note that in Estonia these four mentioned domestic market focused sectors accounted more than 70 % of total FDI position in year 2007, as in Latvia more than 65 % in year 2008 and in Lithuania more than 45 % in year 2008.

During the last decade time period all Baltic States were experiencing high GDP growth (until credit crunch slump), which was accompanied with continued deficits in trade accounts (also concluded in Ojala et al., 2005). Mostly much higher amount of FDI as compared what Baltic States

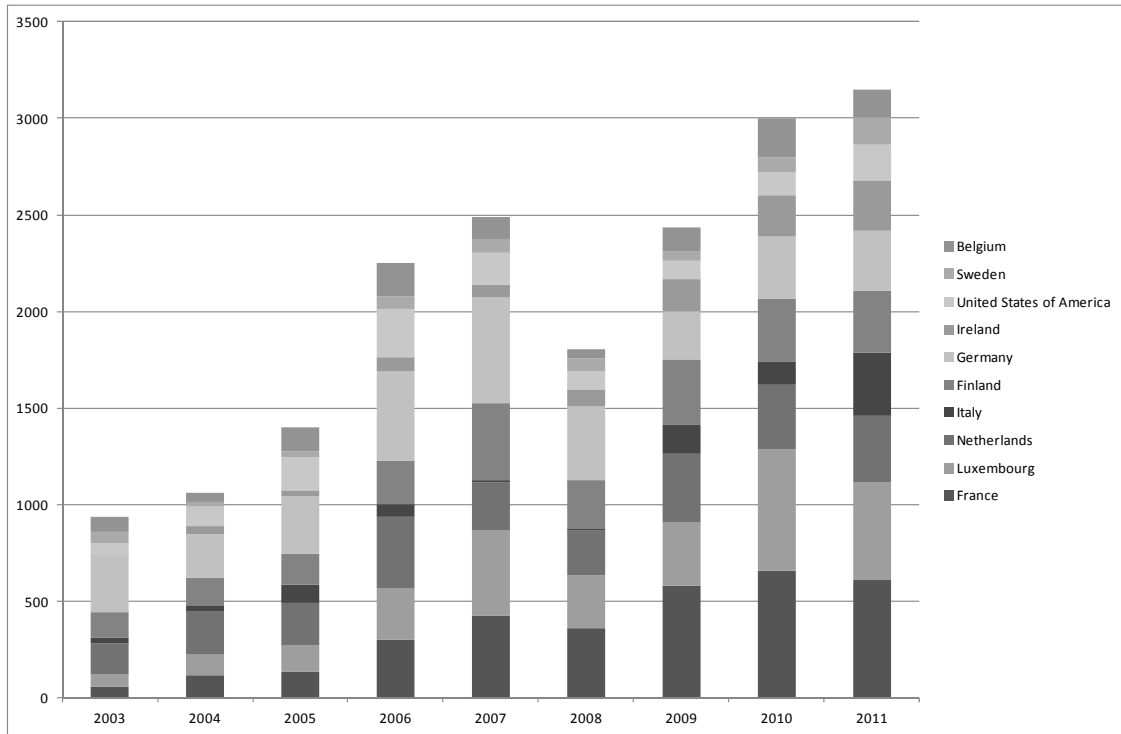
themselves invested abroad was the success formula. FDI dominance is the case still today, in Estonia country has more than 3.5 times investments from abroad than what it has invested to other countries, Latvia in turn has more than 13 times, and Lithuania nearly 7 times.

Economy overheating in year 2007 could be detected from Figures 3, 5 and 7. FDI inflows just spiked in this year rather significantly, and of course resulted on GDP growth of 20-30%. This growth stopped entirely on credit crunch crisis during years 2008-2009, but mostly caused FDI to halt (not new inflows, but investments remained). Only Lithuania experienced declining FDI development, so namely FDI outflows. It also could be argued that most recent recovery is caused by the strength of FDI inflows, particularly growth experienced in year 2011.

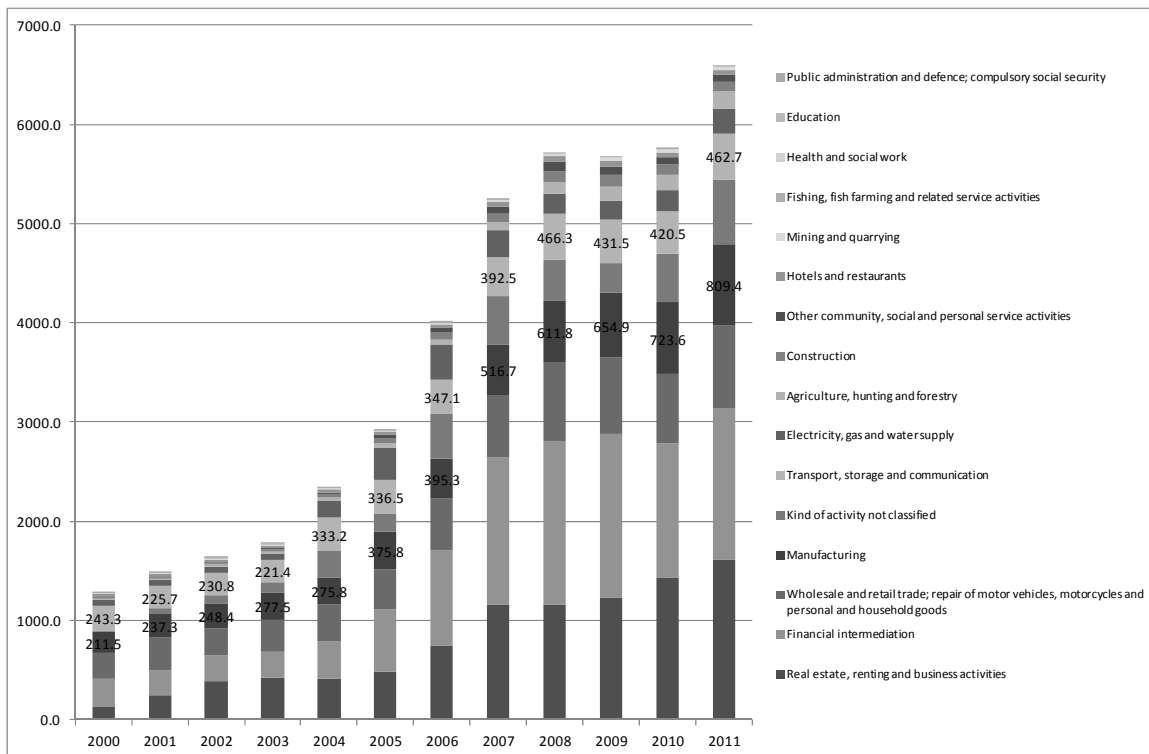
As domestic oriented sectors were taking in attention during the previous decade, manufacturing and transportation have been rather slow growing in terms of FDI. However, in positive respect these two sectors have all still shown some growth in three Baltic States within chosen observation periods. What is not apparent from FDI statistics is that manufacturing has transformed increasingly as low tech and local. Export industries which are left are most competitive in Estonia. In Lithuania large proportion of manufacturing in FDI could be explained with oil refinery ownership changes.



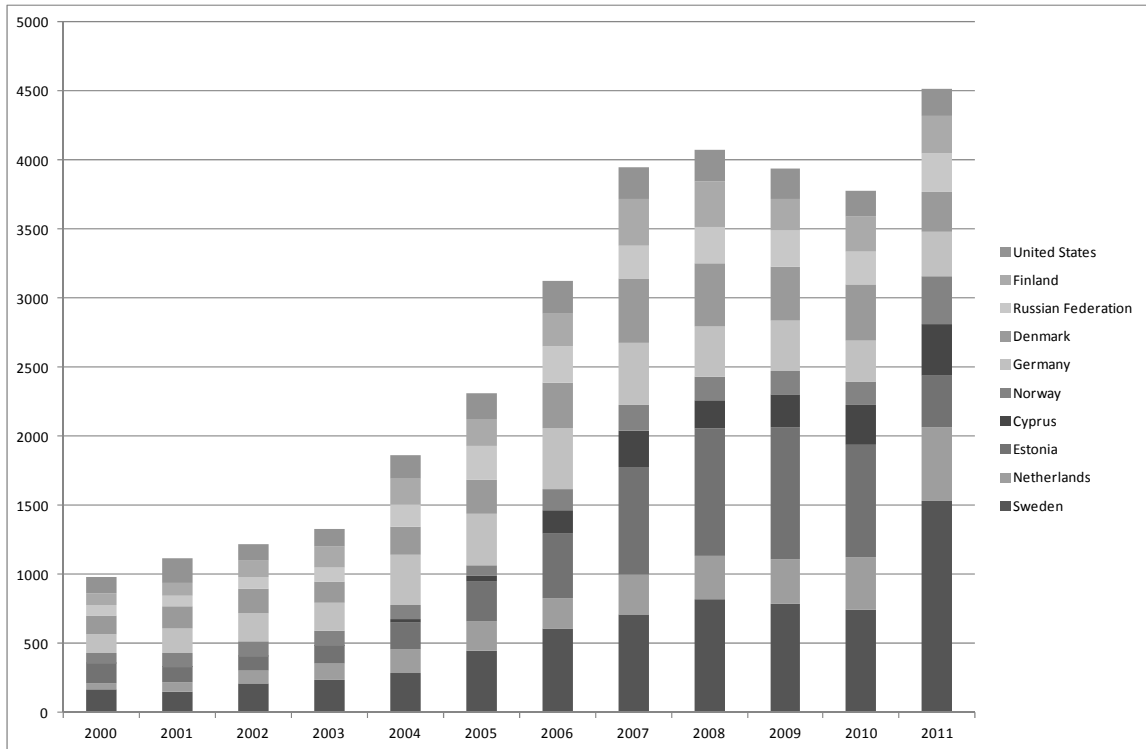
**Figure 3.** Foreign Direct Investments to Estonia (in million Euros) by branch within period of 1998-2011 (position in the end of the period). Source (data): Bank of Estonia (2012)



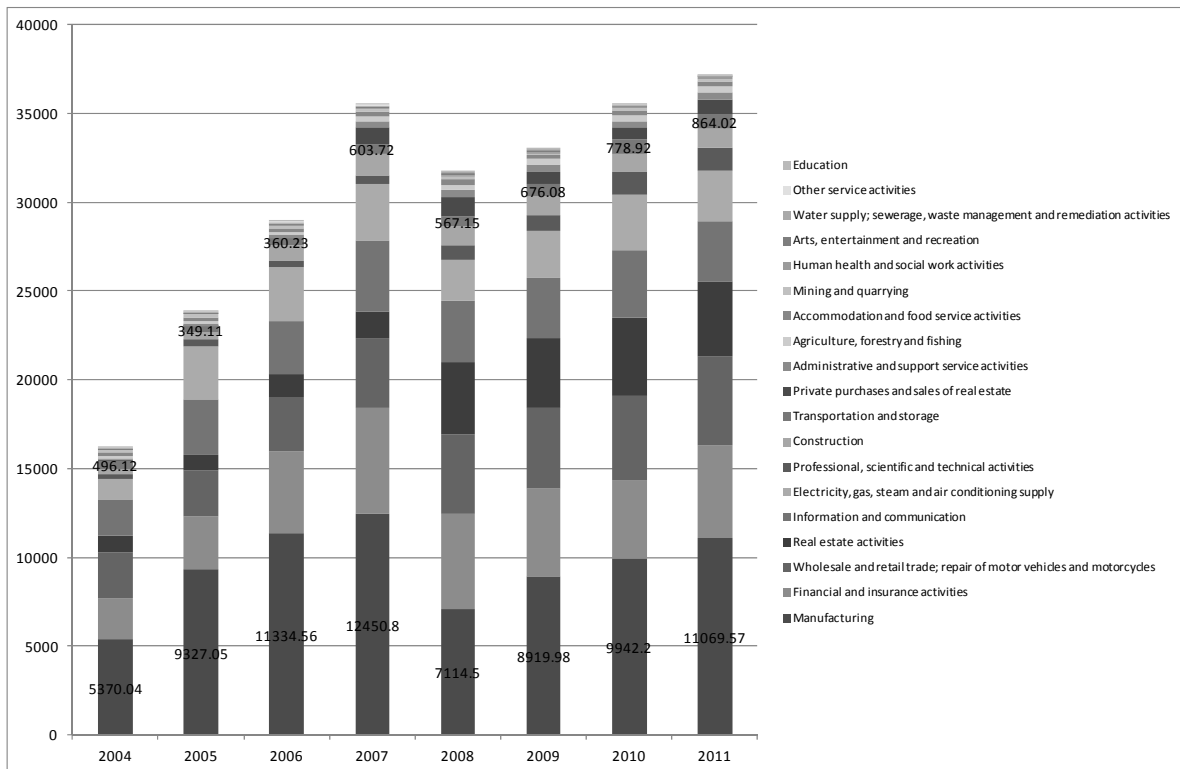
**Figure 4.** Ten most important FDI countries (in million Euros) for Estonia (ascending order with most recent year, 2011). Source (data): Bank of Estonia (2012)



**Figure 5.** Foreign Direct Investments to Latvia (in million Lats as 1 Lat was 1.423 Euros in the end of 2011) by branch within period of 2004-2011 (position in the end of the period). Source (data): Bank of Latvia (2012)

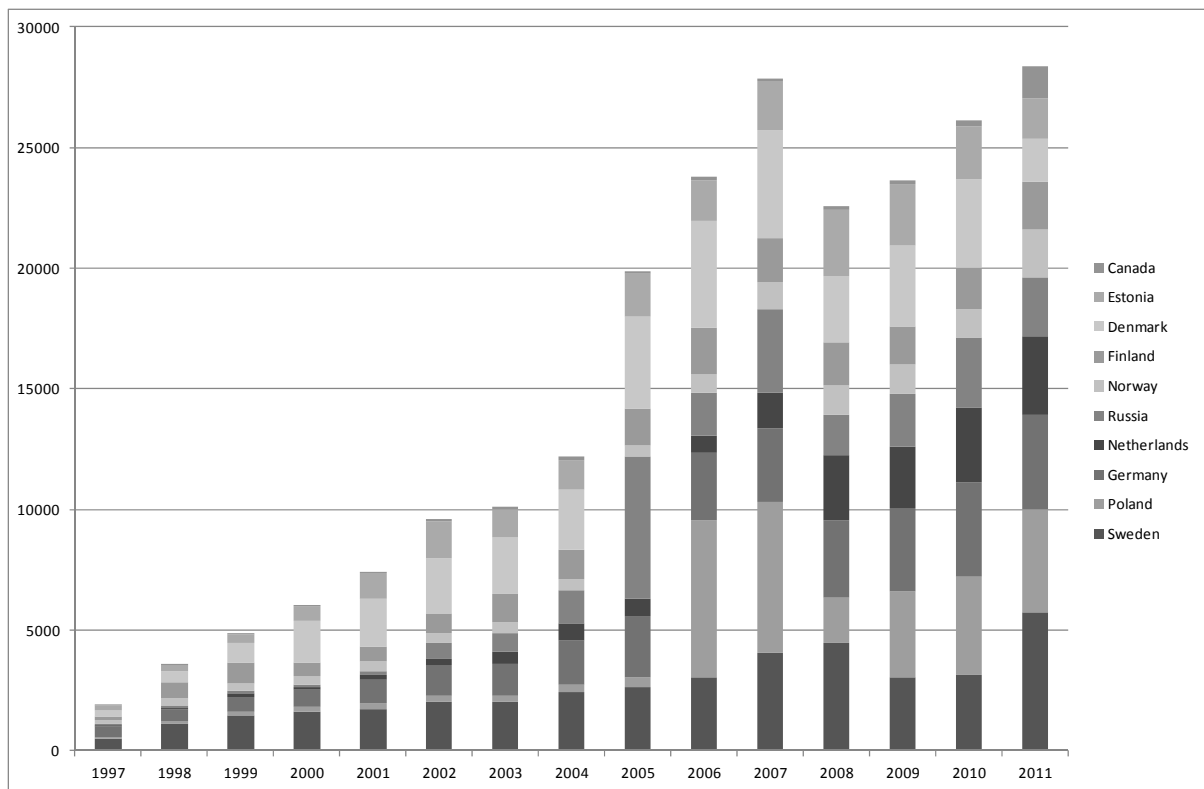


**Figure 6.** Ten most important FDI countries (in million Lats) for Latvia (ascending order with most recent year, 2011). Source (data): Bank of Latvia (2012)



**Figure 7.** Foreign Direct Investments to Lithuania (in million LTL as 1 Lita was 0.29 Euros in the end of 2011) by branch within period of 2004-2011 (position in the end of the period). Source (data): Lithuanian Central Bank (2012)





**Figure 8.** Ten most important FDI countries (in million LTL) for Lithuania (ascending order with most recent year, 2011). Source (data): Lithuanian Central Bank (2012)

In country and Baltic Sea perspective, Sweden and Finland have been active in seeing and acting upon FDI front in all Baltic States (Figures 4, 6, and 8). However, it should be emphasized that Sweden has been extremely active in Latvia and Lithuania, while Finland has been mostly interested from Estonia. Investments differ in a manner that Swedish activity is centered in banking sector. Along these two countries, Germany and Netherlands are present in ten most active countries of FDI in all Baltic States. Also Estonia has been active in other two Baltic States, but mostly so in Latvia. Country peculiarities exist too, like high importance of France and Luxemburg in Estonia and Poland in Lithuania.

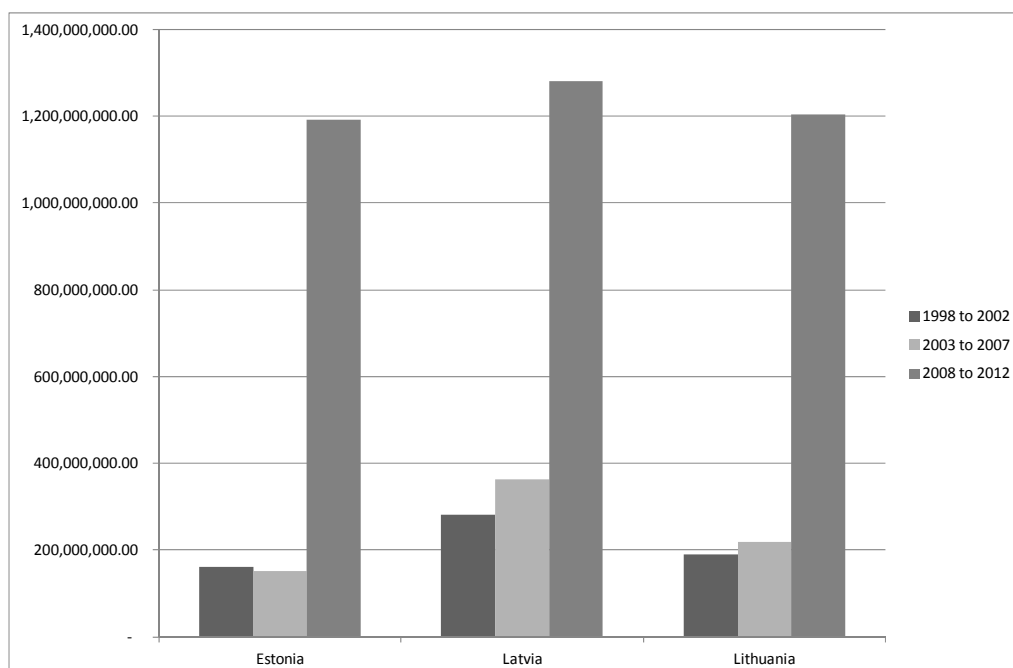
As it is today with employment and export manufacturing competence (e.g. Bernatonyte, 2011), it is also so with overall FDI attraction during observation period: Estonia leads in absolute amounts two other Baltic States, and its FDI activity was not that greatly interrupted by credit crunch. It should be noted that Estonia is having clearly lowest population from all of the evaluated countries.

Analyzed time period in three Baltic States is over-emphasizing importance of finance and real estate sectors – as these were the boom sectors during the late IT bubble burst era. However, it should be reminded that in Baltic States main FDI target sectors were during 90's telecommunications and transports, but also in parts manufacturing. It could be explained that these sectors prospered as advances of mobile telecommunications were rapidly developing and neighborhood countries, like Sweden and Finland, had leading positions in them (e.g. during 1999 from Estonian FDI Sweden and Finland together accounted 70%; see Lesser, 2000). So, in other hand these two countries were active (with Danish) in FDI in telecommunication sector (operators), but also in related manufacturing of devices and infrastructure. Transportation sector received vast interest too, but it did not turn out to be high success within eastern transit business. For example, Latvian stock market listed from governmental program, Ventspils Nafta (transit business of oil and

petroleum, mentioned as case already in Ojala & Queiroz, 2001), did not turn as major success (it has profitability, but not growth story), and could be eyed as an example that huge growth in this sector was and still is not in sight in Baltic States. Similar constrained growth story could be set up from Estonian transit oil business and railway freight company privatization, and later on its followed re-nationalization (Laisi and Poikolainen, 2010; Terk et al., 2007).

#### 4. Role of International Lending Organizations

Among cohesion funds of European Union, international lending organizations such as European Bank for Reconstruction and Development (EBRD), European Investment Bank (EIB), Nordic Investment Bank (NIB) and World Bank have played important role in the support of the development of economies in Baltic States (e.g. comprehensive analysis from the past transportation logistics projects is given in Ojala et al., 2001 & 2005). However, as all Baltic States developed in economics terms so rapidly in recent decade time period, role of direct aid type of finance changed as loans. This also increased the presence of some banks, like EIB: Growth of lending in most recent observation period (years 2008-2012) increased by factor of 3-5 times. Figure 9 illustrates this drastic change further. However, it should be emphasized that EIB loans have mostly been taken during years 2008-2009 in the most recent spike period (detailed analysis on Ketels, 2012: 94).



**Figure 9.** Amount of European Investment Bank (EIB) loans (in Euros) for Baltic States during period of 1998-2012 (March). Source: EIB (2012)

Although funding amounts have increased significantly from EIB, they have concerned transport, energy or industrial sectors in recent analyzed period (2008-2012) with not that impressive share. At least this is the case of Latvia and Lithuania (25 % from overall funding; Tables 2 and 3). In Latvia only company investing in large-scale into energy sector is state-owned Latvenergo, which is replacing old gas turbines and improving distribution network. EIB finance is 200 million EUR, but it should be reminded that EBRD provides additional 150 million EUR for this large project

(EBRD, 2012b). Apart from EU project co-financing loans, in Lithuania minor activity exist with further improvement of freight trains (have already started in period of 2003-2007) and small-scale industrial development loans.

**Table 1.** EIB financed projects in Estonia (in Euro s) within transportation and energy sectors (period of 2008-2012). Source: EIB (2012)

Project	Sector	Signature	Amount
TALLINK RO-PAX II	Transport	18/12/09	90,000,000.00
MUUGA HARBOUR INTERMODAL FACILITIES	Transport	14/12/09	11,500,000.00
EU FUNDS CO-FINANCING 2007-2013 (EST)	Transport	25/05/09	115,500,000.00
PORT OF TALLINN EXPANSION	Transport	12/02/09	40,000,000.00
TALLINN MUNICIPAL INFRASTRUCTURE	Transport	19/11/08	31,955,000.00
TALLINK ROPAX	Transport	27/06/08	25,000,000.00
<b>Total:</b>			<b>313,955,000.00</b>

Project	Sector	Signature	Amount
EESTI ENERGIA WINDPARKS	Energy	08/12/11	45,000,000.00
EESTI ENERGIA WTE	Energy	08/12/11	25,000,000.00
ESTLINK 2 TEN-E	Energy	18/11/10	75,000,000.00
EESTI ENERGIA POWER NETWORKS	Energy	25/05/09	150,000,000.00
<b>Total:</b>			<b>295,000,000.00</b>

**Table 2.** EIB financed projects in Latvia (in Euros) within energy sector (period of 2008-2012). Source: EIB (2012)

Project	Sector	Signature	Amount
LATVENERGO CHP	Energy	02/10/09	100,000,000.00
LATVENERGO POWER DISTRIBUTION	Energy	24/10/08	100,000,000.00
<b>Total:</b>			<b>200,000,000.00</b>

**Table 3.** EIB financed projects in Lithuania (in Euros) within transport and industry sectors (period of 2008-2012). Source: EIB (2012)

Project	Sector	Signature	Amount
CIE AUTOMOTIVE MULTITECHNOLOGY PARTS	Industry	23/12/09	3,000,000.00
WIENERBERGER PRODUCTION DEVELOPMENT	Industry	03/12/09	19,000,000.00
LITHUANIAN RAILWAYS II - LOCOMOTIVES	Transport	29/03/10	20,000,000.00
EU FUNDS CO-FINANCING 2007-2013 (LT)	Transport	13/03/09	226,400,000.00
<b>Total:</b>			<b>268,400,000.00</b>

Estonian industrial and energy sector project portfolio looks more diverse and double to that of two other Baltic States (Table 1). In Transport sector improvements are targeted to the maritime sub-

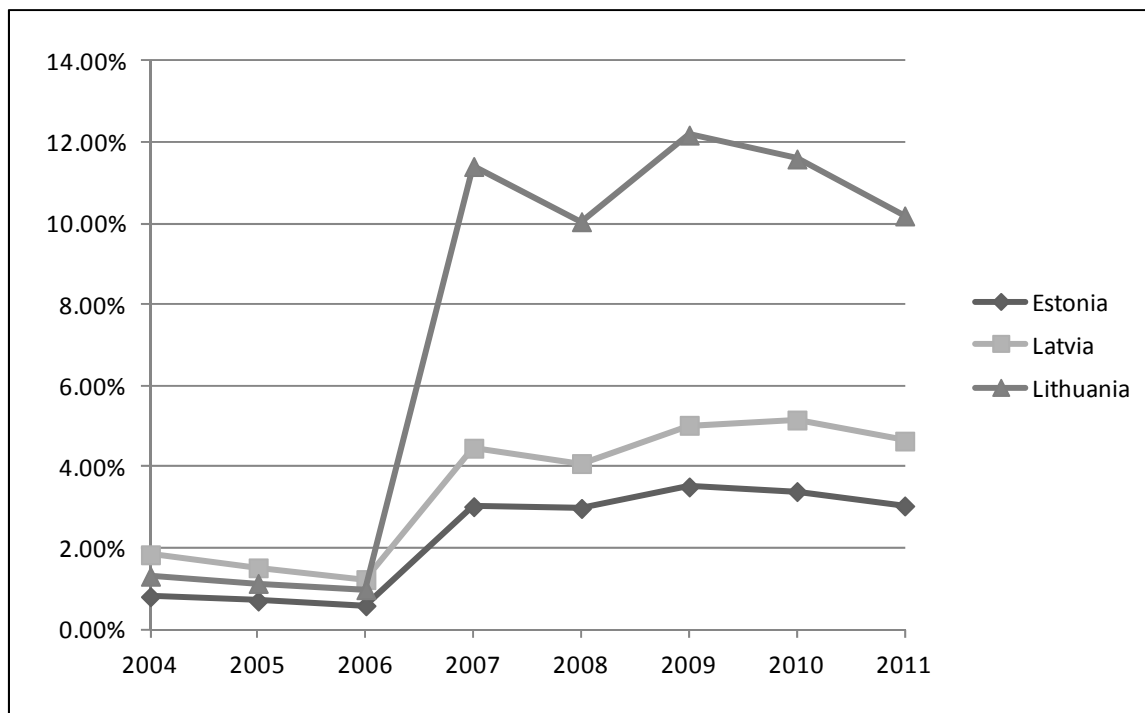
branch, which is natural, since Tallink Silja is one of the leading short sea shipping companies in Baltic Sea. Table 1 shows, how this operator modernized its fleet couple of years ago. Also improvement projects have been completed in Tallinn sea port (largest passenger sea port in Baltic States), and sea port's industrial terminal located in Muuga. Similar to Latvia, electric network and power generation is under renewal in Estonia. It is important to note that electricity distribution is not only improved within Estonia domestically, but also consist investment project of linking Estonian electricity network to Finland (submarine cable, ESTLINK 2 TEN-E). Notable is the role of wind energy, which has also been supported by EBRD (EBRD, 2012a). In overall solution for future energy needs, Estonia relies upon oil shale based energy production in the future too. It recently selected Alstom to supply power plant close to Narva (plant called as Auvere; Eesti Energia, 2012). It is unclear how finance of this power plant was case specifically organized (operational in 2015), however, should be noted that Eesti Energia gathered 300 mill. euros with bond sale from European investors in March 2011 (Eesti Energia, 2011).

In most recent information from EBRD (2012c), it is reported that they are committed in the funding of the new energy production capacity of Lithuania. This due to the closure of Ignalina Nuclear Power Plant (large-scale facility, which was closed in the end of 2009, major producer of electricity, even contributing to export). Based on EBRD (2012c) brochures, help in energy production is being implemented with the renewal of old gas turbines at Lietuvos Elektrine – sharing similarities with Latvia's gas investments.

## **5. EU Cohesion Funding**

All three Baltic States became full members of European Union (EU) during May.2004. Until today only Estonia is also member of monetary union, Euro, while Latvia and Lithuania have still in use national currencies. EU membership has enabled all three countries to access important cohesion funds (in here incl. European Regional Development Fund, European Social Fund and Cohesion Fund), which are given for the development of economically less developed regions in Europe. For program period of 2007-2013 total sums were as follows (EU Regio, 2012): 3.4 bill. euros for Estonia, 4.6 bill. euros for Latvia and 6.8 bill. euros for Lithuania. In comparison, more or less similarly sized with Baltic States, Finland and Sweden received 1.7 bill. euros and 1.9 bill. euros respectively. So, due to economical situation, Baltic States attracted nearly eight times development funds as compared to neighbors in west or north. These large sums of development funds are not only intended for transportation in infrastructure or manufacturing industry development, but are used to improve and protect environment, foster R&D and innovation as well as healthcare (e.g. EU Structural Assistance to Estonia, 2012). It could be assumed that one third or one fourth from total funds will be devoted to transportation infrastructure.

Baltic States were able to enter EU cohesion funds partly during program period of 2000-2006, as EU accession was completed in May.2004. However, funding in this period was rather limited. For transportation infrastructure following sums were granted (Steer Davies Gleave, 2010): 233 mill. euros for Estonia, 409 mill. euros for Latvia and 208 mill. euros for Lithuania. For the author other granted sums are unknown. Anyway, even if funding sums seem to be rather small, it should be remembered that for Baltic States these sums were still significant in years 2004-2006. Also it should be noted that program period was only three years long.



**Figure 10.** Share of EU Cohesion funds in Baltic States from GDP during years 2004-2011.

Importance of EU cohesion funds is illustrated in Figure 10 by estimating what is their share from respective year's GDP. In here we have distributed cohesion funds equally to program period, and for the years 2004-2006 is only devoted these known transportation infrastructure funds. At first glance it is inevitable that especially most recent program period has played key role in the economy development. It could be even argued that for Lithuania these funds play too large role, and dependence as well as economy overheating could be caused by these. It could also be argued that without this funding, all Baltic States would have suffered even more from credit crunch, and their recovery would have been much more fragile. Without a doubt these funds have played key role as an instrument to stimulate the economies.

## 6. Conclusions

As emerging economies, Baltic States have attracted significant amount of FDI after late 90's. However, this rapid growth of FDI stock showed leveling off development during year 2009 in Estonia and Latvia – in Lithuania year 2008 was showing decline. Based on our analysis, important and large scale loans were available in this moment, but were mostly used in years 2008-2009. Thereafter, three Baltic economies have showed rather cautious approach for making investments. However, in positive respect effect of credit crunch was short-term lived, and FDI has started again to increase in all countries. This growth has its limits, since very robust growth was caused earlier by domestic oriented sectors (finance, real estate, construction and retail), and growth from now onwards need to be attracted out of export oriented sectors (like manufacturing and transport).

As all three Baltic State economies are rather small ones in absolute terms, it is rather fortunate for them that they joined EU already during year 2004. From current EU cohesion funds Baltic countries (among other east and south European counterparts) receive relatively high sums. This enables them to renew e.g. transportation infrastructure in large-scale. Even if instrument could be seen as stimulating element, it should be connected more on attracting FDI inflows too. So, these

infrastructure investments should enable higher amount of transit transports through Baltic States, and as well support inauguration of export based manufacturing industries. Of course, it is problematic in EU cohesion funding perspective to support these, but taking into account this perspective, together with population well-being, should not be impossible. However, measures should be integrated into most important area of economic development: Improving trade deficit in all three countries, and in particular Latvia and Lithuania. Current situation in these two mentioned countries resembles too much life before crisis, which does not lead to sustained growth.

For the further research, we would be interested to build a model (e.g. analytical or simulation), which would take into account different forms of capital inflows in economically less developed countries in Europe, and also estimate role of capital inflows into development of GDP. Most probably private and public sector attraction of funds plays key role. For the future development we would like to seek countries or regions, where these attracted funds have resulted on investments and renaissance of export based industries. Without this important link, fund inflows are just cause of yet another recession as business confidence erodes for one reason or the other. This again leads to massive unemployment, which is entirely undesired outcome in the current state of European economy.

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