Too High or Just Right? Cost-Benefit Approach to Emigration Question

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Introduction

Globalization processes lead towards fading, at least in economic terms, of state borders and consequently intensify international migration. In fact, international labour migration is as much the concurrent part of globalization and economic development, as is the international movement of trade goods or capital, even if the barriers for labour mobility are the last to subside.

Raising the infamous “iron curtain” half-opened the door for migration from the post-communist countries, however it was the full-fledged membership to the European Union and the subsequent removal of many migration barriers that threw that door wide open. As a result many Eastern European countries experienced significant swell of migration flows after the entrance to the EU on May, 1, 2004.

Lithuania was among the most significantly affected: according to the World Bank statistics (World Bank, 2006), about 3.6% of total working age population of Lithuania were lost to emigration during just first 20 months of EU-membership. Lithuania had by far the largest negative net migration rates in EU in 2004 and 2005 (-2.8 and -2.6 per thousand of population, respectively), and with -1.7 net migration rate in 2007 Lithuania ranked forth from the top, being superseded only by Poland, Bulgaria and Romania1. It is estimated that since 1990 Lithuania has lost nearly 11% of its population due to emigration outflow (Statistics Lithuania, 2006).

After Eastern enlargement of the EU the upsurge of migration flows sparked a number of attempts to analyze and evaluate the consequences of this phenomenon. Interesting enough, the attention of Western European researchers was and is mainly focused on the cost and benefits of migration for the receiving country. While some authors discussed potential benefits of immigration (Borjas, 1995, Hansen, 2002), others pointed out that it will likely result in increased unemployment of unskilled natives, redistribution of welfare payments and other indirect negative effects (see Coleman, 1992, Coleman, 1995, Hansen, 2003, Boeri and Brücker, 2005).

On the contrary, most demographers and economists of the post-transition countries tend to conclude that emigration caused large workforce losses are prevalently detrimental to the donor country (Rangelova and Vladimirova, 2004, Wolfson, 2006, Kaczmarczyk and 1 See EUROSTAT (2005, 2006, 2008). These are official estimates of migration. However, results of statistical survey conducted by the Statistics Lithuania indicate that non-declared and thus unaccounted emigration is more than twice as large as the declared one (Statistics Lithuania 2006, 2008a).
Okolski, 2008). Adverse effects of emigration for the home country are emphasized in many academic studies and public discussions in Lithuania (Kazlauskienė and Rinkevičius, 2006; Nacionalinės plėtros institutas, 2006; Karpavičius, 2007), and are often inflated by the media.

As it is aptly noted by linguists (see R. Marcinkevičienė, 2004) the very semantics of public discourse on emigration question carries an unmistakable negative connotation: emigration is more often than not defined as disaster, calamity, tragedy or even catastrophe, and usually is characterised by the “wet” colloquialisms, such as “wave” and “drain”.

The purpose of this article is to challenge the assumption of the “unequivocal” calamity of emigration by pointing out that it can also trigger quite a few offsetting feedback effects that could bring gains for the sending country. The object of the research is emigration phenomenon and its economic consequences for the donor country. The methods of comparative analysis and descriptive statistics were employed for this research.

Costs and benefits of emigration

An ever growing number of studies indicate that positive effects of international migration accrue to both receiving and sending country, and they might offset or even outweigh costs. Existence of the offsetting feedback effects of emigration, enhanced by economic multipliers, has led some researchers (e.g. Beine, Docquier and Rapoort, 2001) to the speculation that there may be an optimal level of emigration – not too large, but not zero either- at which net benefit of migration for the donor country is the largest. The term “net benefit” here refers to the difference between positive and negative effects of migration for the sending country. If such approach towards emigration is assumed, then the main policy question is not “what to do to prevent emigration”, but “what to do to enhance the net benefit of emigration”.

Theoretically speaking, optimal emigration would be achieved at the point when its marginal benefit equals marginal cost. However, actual finding of that particular point is quite complicated as this would require evaluation and modeling of both direct and feedback effects of migration and their institutional setting, as well as reflection of their dynamic role in the development of particular countries and regions. Meanwhile, the first step would be to establish if emigration is efficient, that is if its positive contribution to the development of donor country exceeds incurred loses. Naturally, such approach raises the question of comprehensive assessment of both losses (costs) and gains (benefits) related to emigration. Comprehensiveness in this case means that both direct and indirect, primary and secondary, short term and long term effects should be taken into consideration.

Usually the following negative impacts (costs) of emigration are cited:

- Depletion of country’s human capital assets, resulting in lower productivity and retarded development;
- Smaller tax base;
- Loss of return on investment in education;
- Larger poverty and inequality in donor country.

To start with, it shall be pointed out that migration does not necessary imply labour shortages or immediate loss of productivity for the source country. Intensity of international migration flows usually strongly correlates with unemployment levels at the source country. If those who leave have been unemployed or underemployed at home, their departure may not actually result in a huge loss to the donor country. According to the survey conducted by Statistics Lithuania, in the period of 2001-2005 every third undeclared working-age emigrant was unemployed in the home country (Statistics Lithuania, 2006). In purely economic terms, such migration is to be taken as a simple reallocation of labour resources – from the relatively labour-abundant areas to the ones experiencing labour-shortage, and as such it is likely to lead to the higher overall efficiency. If unemployment numbers are significant in the donor country, emigration presumably will create new employment opportunities for previously unemployed or underemployed. This can lead to several gains: decline of unemployment level due to internal labour mobility and filling in job vacancies by the previously unemployed and, as secondary effect, entailed reduction of demand in unemployment benefits and other welfare payments. Analysis of relevant data for Lithuania reveals closely related patterns of growth in the number of working-age (over age 16) of emigrants and decline of unemployment numbers (Figure 1).

It is obvious though that if country loses its skilled and demanded workforce, then emigration could retard its development. However, “could” does not necessarily mean “should”, as it can also trigger feedback effects that bring gains for sending country in the long run.

One of the latter, as it is often pointed out, is that some of those who leave might later return with greater skills and experience. To the extent that returnees are more productive and still retain working capacity, they would give an extra impulse to the home country’s development. However, what really counts for development is not the return of emigrants by itself but the return of skilled workforce. If returnees come back only to retire, their contribution to the home country’s economy might be limited only to the increased consumption demand (plus income multipliers that their spending creates). Furthermore, penchant to return is inversely proportional to the time that migrants stay abroad: the longer they stay, the more they integrate into host communities, and the less likely they will return to home country before retirement, if at all. Thus, often voiced self-comforting hopes that emigrants will some day return en masse can be delusive.

On the other hand, the assumption that emigration leads to the increase of inequality and poverty in donor country can be as much delusive. Sure enough, prima facie data of emigration impact seemingly supports such premise. Surveys of emigration fairly consistently reveal that the most vulnerable to emigration “pull” are middle-income households, as they are likely to have both will and means to emigrate. Rich households, notwithstanding relativity of their opulence compared to the level of life in richer countries, have much less reason to consider migration.
The noted findings of R. Easterlin indicate that feelings of fulfillment and happiness depend not so much on the level of accumulated wealth as on the relative richness in particular society (Easterlin, 1974). Whereas poor households while having a strong incentive to migrate often can not afford costs of international migration. Dwindling of the middle-income segment of society inevitably contributes to the increase of inequality. This effect is enhanced by remittances that pioneer migrants send back home in order to support their immediate and extended family: the same middle-income migrant-sending households are first to reap direct benefit of remittances.

Recent economic studies, however, have come up with evidence that such inequality-raising impact might be of a temporary nature. As reported by Taylor et al. (Taylor, 2005), analysis of data obtained in rural Mexico indicates that remittances from international migration tend to increase inequality in regions with a small percentage of migration, however inequality diminishes in regions where migration, and accordingly remittance volume, is high. This leads us to the hypothesis that effect of remittances on inequality is somewhat similar to the famous “environmental Kuznets curve” that relates levels of atmosphere pollution in city to the level of prosperity of its inhabitants. That is, the impact of migration on inequality, “migration Kuznets curve”, is likely shaped as an inverse “U” – increasing initially (up to certain migration and remittances level) and then descending.

There is little doubt that remittances, irrespectively of their direct income-equalizing effect on the households in donor countries, positively contribute to their economic development. For example, as reported by Taylor (Taylor, 2006), international remittances were equivalent to 11% of gross domestic product of Guatemala and 16% of GDP of El Salvador in 2004. In the same year remittances constituted 78% of El Salvador exports value, and for Nicaragua this figure was as high as 108%. In a way, one might presume that human workforce “export” is the most important foreign exchange generator for those developing countries. Comparable data for Eastern Europe and Former Soviet Union, given by Mansoor and Quillin (2007), indicate that relatively largest remittance flows in 2004 went to Moldova – they represented some 27% of GDP value. This was closely followed by Bosnia and Herzegovina (22% of GDP value) and Albania (about 15% of GDP).

Compared to those countries Lithuania’s portion of remittances is quite modest: in 2007 they were estimated to be equivalent to 3.7% of GDP and to about 8.3% of exports value. Nevertheless, statistical overview of remittance flows over the past 12 years indicates that their volume increased dramatically during that period, and its growth pattern was closely following the cumulative emigration numbers (Figure 1).

Interesting enough, according to the official data the real spurt of remittance flows took place only in the year 2000 when officially recorded remittances increased nearly 17 times compared to the previous year. Such radical change should be regarded cautiously, as it most probably reflects improved statistics rather than a sudden warming up of migrants towards their remaining families.

Nonetheless, some part of it can be due to the fact that usually it takes some time until earnings of migrants rise to the level at which they are able to afford substantial remittances. Furthermore, one should bear in mind that official data on remittances is to be taken only as a lower estimate of real flows because it does not include sums send outside the formal financial channels. Some analysts believe that the hidden amount of remittances is several times higher than the observable one. In any case, the amount of remittances received by Lithuania by far exceeds financial contributions from the EU cohesion fund and structural funds (Figure 3).

The amount of remittances notwithstanding, their impact on economic growth can vary. From the theoretical point of view it is clear that remittances can fuel rates of investment and consumption in the country, and contribute to financing of trade deficit (Pradhan et al., 2008). However,
the exact scale of economic impact of remittances is far from being well-marked. There is an obvious scarcity of empirical research on this issue, and that in turn is due to unavailability and low reliability of empirical data on behavioural patterns of remittance recipients. The latter problem is particularly acute in the post-transition countries, Lithuania no exception, thus at this point we will have to resort to the findings of other studies and speculation on indirect evidence of impact of remittances on Lithuanian economy.

![Figure 2. Emigration and remittance volumes, Lithuania, 1996-2007](image1)
*Source: Authors’ calculations, based on data provided by Bank of Lithuania (2007) and Statistics Lithuania (2006, 2008a)*

![Figure 3. EU financial support and remittance volume, Lithuania, 1996-2007](image2)
*Source: Authors’ calculations, based on data provided by Bank of Lithuania (2007) and LR Finansų ministerija (2008a, 2008b)*

It is natural to expect that, like any sort of income, some part of remittances is spent on consumption, some is saved for future consumption or investment, and some part is directly invested. Traditional macroeconomics stipulates that investment would render direct and stronger boost for the economic growth. It is speculated that inward investment by the migrant workers can be stimulated by their spiritual link to home country. However, even if majority of remittances are spent on consumption it might stimulate production and employment - to the extent this consumption is oriented towards domestic products. Furthermore, empirical research provides evidence that remittances induce growth multiplier effects that reverberate throughout the economy (see Taylor, Adelman, 1995; Taylor, 2006; Durand et al., 1996). These “income multiplier” effects can be quite significant: according to the findings of
research conducted by Durand et al., every “migradollar” spent on goods and services in migrant sending area can generate as much as $4 of new income in the local economy (Durand et al., 1996). While this figure seems to be on the high side, most of researchers tend to agree that the remittance income multiplier is in the range of $2-$3. The additional consumption would increase indirect tax receipts (via VAT or sale tax) of government, thus alleviating previously noted migration-caused shrinking of tax base.

However, it should be noted that remittances can have both positive and negative economic effects. Some researchers (Chami et al., 2006) conclude that while remittances increase consumption and add to economic growth, they may also contribute to increased macroeconomic risk through higher business cycle volatility, e.g. increasing inflation rates. It is worthwhile to mention in this context that many experts tend to agree that at least part of the tremendous boost of real estate prices in Lithuania during recent years was fuelled by the remittance money spent on purchases of apartments or houses.

Another positive feedback effect of migration is that it may stimulate trade between donor and recipient countries. Immigrant communities tend to retain affection for the familiar food products, cultural goods (such as books, newspapers, and music recordings), etc., and this consequently expands imports from their country of origin. Research findings (Head and Ries, 1998) suggest that 10% increase in the number of immigrants from a given country leads to roughly 4% increase in trade with that country: some 3% of increase in imports from and 1% increase in exports to it.

Our analysis of Lithuania revealed closely related patterns of growth in the number of migrants to the main countries of destination and growth of exports of foodstuff (including beverages and spirits) and tobacco products to these countries. Correlation of migrant numbers and exports is especially obvious for Ireland – country that up to the middle of 90-ies had virtually no Lithuanian diaspora (Figure 4). The same pattern is clearly discernable also in cases of Great Britain, Germany and U.S.A., especially if one takes into account that prior to Lithuania’s accession to European Union in 2004 many Lithuanian immigrants to those countries were staying and working there illegally, and thus had every motive to stay “invisible” for official statistics.

It is usually pointed out that the shrinkage of labour supply in the source country may result in the slacking of labour discipline and quality, increase of labour price and costs, and this can lead to the slumping of productivity. While this can be true at the initial stage, in the long run gains can be derived from the enhanced productivity, as a consequence of industrial restructuring and technological change. It is obvious that the relative prices of labour and capital influence corporate investment decisions. If wage rates go up and labour becomes relatively expensive production factor, employers have greater incentive to look for a labour replacing technologies. Swapping labour for new technology is likely to lead to overall efficiency increase, at least in the long run. Thus, migration caused wage increase might create overall long-term productivity gains that would outweigh immediate economic losses.
Moreover, increase of wages in the home country weakens migration stimulus, and reaching certain wage level that could be deemed by potential migrants as being competitive with expected income abroad (all tangible and intangible costs of migration deducted) it can even become an incentive for migrants to return. Intensity of these processes is, of course, sector dependent. First signs of such development are already observable in Lithuania: for example, migration-caused shortage of skilled workers steeply increased level of wages in building and construction sector, and this was followed by the numerous cases of returns of builders from emigration, as reported in local media.

Still another positive impact of emigration, often overlooked by researchers, is the shrinkage of shadow economy. Migration-induced relative shortage of labour changes the power balance in wage negotiations: it shifts towards workers. They become much less vulnerable to the whims of employers, and are less likely to surrender to demands of the latter to take part of their pay as non-taxed black money. This would lead to at least partial legalisation of wages that previously were paid “under the table” (such payments in Lithuania are called “envelope wages”). It is extremely hard to obtain reliable estimation of volume of legalised “envelope wages” and contribution of this process towards increase of government tax receipts. Nevertheless, some Lithuanian experts assess that 30% to 50% of significant wage level increase observed within the last few years was due to the shrinkage of shadow economy. Again, it should be pointed out that wage increase, as well as remittances-induced spending, can add to inflationary pressures in the local economy.

The danger of brain drain

While increasing number of migration studies tend to conclude that benefits of unskilled migration for sending country might outweigh its costs, usually such optimism is not reserved for the “brain drain” phenomenon, the very term of which carries an unmistakable negative connotation.

Despite relatively long history of research, it seems that so far there is no agreement as to the precise definition of brain drain. A large amount of highly skilled emigration with little return is generally taken for an indicator of brain drain. The term “highly skilled” is often interpreted to indicate educational attainment – meaning those with or at tertiary education level. The term “large amount” is considered to refer to more than 10 percent of the tertiary-educated population (Adams, 2003). However, an open question remains if brain drain definition should include migrants who enter and/or complete their tertiary education abroad where they choose to stay afterwards. Moreover, today brain drain might be both physical and virtual: virtual brain drain occurs in the case of “outsourcing” when highly skilled workers (e.g. IT specialists, translators, economic analysts and consultants, marketing specialists, etc.) stay in the native country while working for the foreign-based company. Thus, the new developments of the IT age call for the revision of traditional brain drain term: its contents should be expanded to accommodate the “virtual brain drain” phenomenon (Čekanavičius and Kasnauskienė, 2006).

Unfortunately, lack of reliable data on magnitude of brain drain, its cost and feedback effects, does not allow obtaining an accurate judgment of this phenomenon for Lithuania. Occasional empirical case studies of brain drain (e.g. Kazlauskiene and Rinkevicius, 2006) usually limit itself to the study of available demographic observations and attempts to explain reasons of brain drain. Thus by default this piece of our analysis is limited mostly to the theoretical reflections on the issue.

One of the main reasons of skilled emigration is return-on-brain differences in sending and receiving country. Those differences are caused by:

- gap between supply and demand for brains in donor country;
- low “brain purchasing power” of donors compared to recipients;
- brain productivity differences at donor and recipient location.

These factors are closely related to each other. Gap between supply and demand for brains in donor country refers to the possibility of structural inconsistency between availability of particular sort of brains and the need for it. Even if particular kind of skills is in demand, availability of specialists might exceed request for them if domestic demand falls behind the rate of “production” of university graduates. If domestic labour market cannot offer to native-born university graduates a job that corresponds to their training, it will be a brain waste for them to stay at home. “Better brain drain than brain in the drain”, as it was eloquently put by Rajiv Gandhi, late premier minister of India. Matter of fact, for such cases the very term of “brain drain” is inappropriate: the process should rather be titled as “brain spillover”.

Low “brain purchasing power” of donors refers to relatively low salary level in donor location compared to earning opportunities elsewhere. Brain productivity differences mean that skilled workforce at the recipient location can produce larger output than at home. The latter can happen due to the better research/work infrastructure and pooling with other high quality brains. In regards to the skilled workforce (“brains”), work or research infrastructure performs the same role as technical capital towards labour capital – better equipped labour is more productive. Moreover, pooling with other high quality brains evokes synergistic effects and further enhances brain productivity. Working in the challenging and encouraging environment, alongside recognized specialists in the field and/or under supervision of peers, leads to better work results, i.e. to higher added value of brains. It also creates better opportunities for development of skills and knowledge2.

Ultimately, in the long run, increased volume of trade and global benefits generated by the higher brain productivity should bring efficiency gains to both donors and recipients of brain mobility. The following types of “intangible” benefits of higher brain productivity can contribute and accelerate those efficiency gains:

2 It should be noted, however, that larger brain productivity in the receiving country is not a “blanket phenomenon” – it relates to specific professions and occupations. In some cases, for instance, in medicine, nursing, teaching at primary school, the higher productivity is rather dubious.
• Establishment of a global “brain net” (“brain bank”).
• Creation of bases for internships of former associates.
• Earning for donor an invaluable reputation of “brain cradle”.

The so-called global brain net or brain bank means creating links and initiating of distant cooperative work through which “brain diaspora” could effectively be mobilized and associated to the development of donor country or region even without its physical return to it. This can be done via international research projects or multinational corporations, expatriates can facilitate access to socio-professional networks. There is also abundant evidence that the mobility provided opportunity to unfold and develop talents can lead to the real breakthrough that might significantly push forward frontiers of knowledge. This would bring glory to the emigrant’s country of origin, earning for it an invaluable reputation of a “brain cradle”.

Recently published exhaustive survey of macro-econometric studies on the impact of brain drain for sending countries (Docquier, 2006) provides an empirical support for these speculations. Analysis revealed that a limited positive rate of skilled migration is very likely to be beneficial for both sending and receiving countries. The optimal skilled migration rate for the sending country was found to be somewhere between 5% and 10% of the native skilled labour force, and threshold of positive net gain might be as high as 15%.

However, while it is reasonable to expect that in the long run more efficient allocation of “brains” will yield net global benefits, in the short run there remains the challenge of prevention of the deadweight brain drain.3

Conclusions

The general conclusion of this analysis is that artificial attempts to inhibit migration – via legal or economic restrictions of movement – are to be deemed as short-sighted. The real task is not to prevent migration but to promote and strengthen its positive impact for both sending and receiving country. That means that instead of regarding migration as a calamity, governments should concentrate on its optimisation.

What are the policies that can be employed to make migration a more productive tool for accelerating donor country’s development? Based on the results of this research, as well as on the insights generated by the other studies in the field, the following policy design options can be suggested:

• Reducing remittance transfer costs.
• Improving market and institutional infrastructure, macro-economic and micro-economic environment in order to ensure easy and productive investment of remittances in migration source country. E.g. making legitimate using remittances as regular income substitute for obtaining bank credits, offering special government “remittance bonds” to be sold for migrants abroad with an attractive rate of return, etc.

In regards to the prevention or mitigation of brain drain the key principle of policies should be to strive to create higher added value of brains. Strengthening of domestic educational institutions and science and technology policies are key in this regard: specializing in the fields in which there is potential for break-through, developing centers of excellence for scientific research and framing the conditions for innovation and high tech entrepreneurship may encourage highly skilled to stay in (or return to) their country of origin.

Meanwhile, in order to avoid subsidization of migration receiving countries, devising and implementation of scheme of payment for tertiary education (e.g. via conditional loans) should be given consideration as well.

References


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3 By the term “deadweight brain drain” we refer to the loss of brain just because of the low brain purchasing power in the donor country, and not because of the markedly higher productivity at the recipient location.
Linas Ėckanavičius, Gindra Kasnauskienė
Pernelyg auškta ar pati tai? Kaštų ir naudos požiūris į emigraciją
Santrauka
Subyręs Sovietų Sąjungai paklusti „geležinė užanga“ praverė du gyvenimo emigracijai iš pokimoniškių šalių, o pilnateis narystė Europos Sąjungoje (ES) šių dienas atvejai labai plačiai. Dauguma šių šalių, tapusios ES nariams, patyrė pastebeti darbo jėgos emigracijos mastų padėjimą. Lietuva atsidūrė tarp šio proceso lyderių: gynosių neigiamos migracijos mastai joje 2004 m. ir 2005 m. buvo didžiausi ES (atitinkamai -2,8 ir -2,6 migrantų tūkst.) įgąvęjų. Nors 2007 m. neigiamos migracijos lygis šalyje sumažėjo iki -1,5 tūkst. gyvenimo emigracijų, emigracijos mastų ir jos padorių problemas vis dar išlieka aktualios. Lietuvos statistikos departamento vertinimais nuo 1990 m. dėl tarpautinės emigracijos šalies neteko apie 11 procentų gyvenimo emigracijos procesus ES naujokėse šalyse, yra linkę manyan, kad didelė išvystytojo darbo jėgos netektis yra vienareiškis tai svarbių šalies ekonomikos ir visuomenės gyvenimui. Galimybės iš jų padidinti galėtų būti teikiamos papildomai informacijai ir tobulinimam reikalavimų įgūdžių, skirtų egzistuojančių neišvystytų emigracijų papildymui. Tai gali padidinti naudos, o neigiamai - mažinti.<ref>

Taip vadinamojo „protų banko“ sukūrimas, ryšių su gimtinėje likusiais kolegomis plėtra ir gilinimas, neįkainojama šalies „protų lopšio“ reputacija – tai didelis šalių, iš kurių jie išvyko, laimėjimas.

Apibendrinant galima formuluoti išvadą, kad bandymai teisinėmis ir ekonominėmis priemonėmis stabdyti emigraciją – tai trumparegiško požiūrio išaiškinta. Emigraciją reikia ne stabdyti, o skatinti ir stiprinti dėl jos atsiradusias teigiamas padarinius ir migrantų kilnės šalims, ir juos gaunančioms šalims. Šalių viršutynės neturėtų vertinti emigracijos kaip katastrofos. Joms derėtų skirti didesnį dėmesį migracijos procesams optimizuoti ir atitinkamos, skatinančios šalies plėtrą, migracijos politikos priemonėms įgyvendinti.

Teorinės straipsnio išvalgos iliustruojamos autorių pateikiamais Lietuvos statistiniais duomenimis.

Raktažodžiai: emigracija, protų nuotėkis, pasekmės, grįžtamieji ryšiai, kaštai, nauda, politika.

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