Policy Brief
No. 7

NÁRODNÁ BANKA SLOVENSKA
EUROSYSTÉM

The Economic Benefits of Slovakia's EU Membership

Pavel Gertler
Reiner Martin
Juraj Zeman

Nearly 20 years have passed since Slovakia became a member of the EU in 2004. Now is a good time to take stock of the economic benefits that Slovakia derives from being part of the EU.

In this Policy Brief, we attempt a first, partial, assessment about how much welfare Slovakia is obtaining from it's membership in the EU. More specifically, we are looking at three of the main channels how the EU impacts the Slovak economy: i) direct payments from the EU and their impact on growth, ii) costs of financing public debt and iii) welfare effects of international trade.

Looking at these three channels only, we estimate that EU membership increases the level of Slovak GDP by more than 15% of GDP. In nominal terms, EU membership results in additional annual income of up to 4000 EUR per capita, or 16000 EUR additional income for a family of four.

For the sake of brevity we are not covering in this Policy Brief the wider effects of EU regulation or the impact of membership in the euro area but will to do so in the future.

The most important benefits of EU membership for Slovakia arrive from value-added of trade.

Access to the EU Single Market lifts the Slovak GDP level by more than 15%.

Net payments from the EU account for close to 20 EUR per person every month and another additional 40 EUR in long-term returns on investment.

As a member of the EU, Slovakia is saving 11 EUR per person every month in lower interest payments on government debt.

In total, these benefits amount to the price of a small-medium passenger car for a family of four in 5 years time.

Introduction

Almost 20 years of EU membership had deep and overwhelmingly positive effects on the Slovak economy. In this Policy Brief we are looking at three of the main channels through which EU membership impacts the Slovak economy. First, we are looking at net direct payments from the EU. Second, we are looking at the impact of EU membership on the costs of financing Slovakia's public debt and third, we are looking at the impact of EU membership on Slovak trade and the value added created in Slovakia because of its deep integration in European trade flows. Overall, we find strongly positive effects for all three channels.[1]

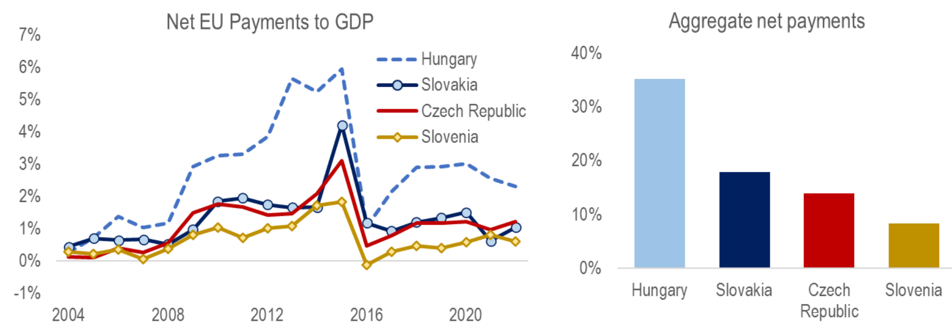
We are not analysing separately the impact of Slovakia's accession to the euro area. It is realistic to assume, however, that the adoption of the euro yielded additional benefits as regards two of the channels that we are looking at, namely the costs of financing Slovakia's public debt and its integration into European trade flows. From an institutional perspective, it is also worth recalling that adoption of euro is not possible without membership in the EU.

1. Direct EU Payments to Slovakia

One of the main aims of the EU is to enhance economic, social, and territorial cohesion and solidarity among EU countries. EU Member States, especially relatively lesser wealthy ones, therefore, receive a range of payments. In quantitative terms the most important payments come from the EU's Common Agricultural Policy (CAP) and EU Cohesion Policy (CP) but there is also a range of other EU policies that imply some financial flows. At the same time, every EU member state provide contributions to the EU. Hence it is important to look at net rather than gross EU payments.[2]

Figure 1

Net EU payments to GDP across time and beneficiaries



Source: ECB Government Finance Statistics (GFS)
Note: Net payments include all EU programs and schemes of direct payments less contributions to the EU budget. Chart on the right represents a cumulative amount of direct flows (2004-2022) as a share of 2022 nominal GDP.

Figure 1 above shows the development of net payments to Slovakia over the period 2004-2022. Slovakia received already so-called 'pre-accession' funding prior to joining the EU in 2004, but the accession resulted in a large increase in net payments. Overall, Slovakia received more than 24 bn EUR net in total during the 2004-2022 period (in

[1] There are also other important effects of EU membership, which are somewhat harder to quantify. For example, the impact of the free movement of labour within the EU on the Slovak labour market, the impact of the free flow of capital on FDI and asset values in Slovakia and – very generally – the overall role of EU regulation for the Slovak economy. Cross-country academic research suggests that most of these effects are also on balance positive. We will be looking at these effects from a specific Slovak perspective in a later stage of this project.

[2] Contributions to EU Budget account to 42% of disbursed funds in Slovakia, 45% in Czech Republic, 60% in Slovenia, but only 26% in Hungary, making Hungary by far the most efficient in tapping the EU programs (in last 10 years).

NÁRODNÁ BANKA SLOVENSKA EUROSYSTÉM

2022 prices). This translates into nearly 4500 EUR per capita during the 2004-2022 period or 20 EUR per person every month. Relative to 2022 GDP, Slovakia received more EU funding than Slovenia and Czechia but less than Hungary.

Most EU funding is not intended as permanent income support but as support for investments that improve countries' medium-term growth prospects. From this perspective, Cohesion Policy (CP) is arguably the most important EU policy. It is a very complex policy area, combining several policy objectives, most importantly, the convergence of per-capita income levels between EU Member States and support for disadvantage regions within Member States. The main idea behind CP is to enhance productivity in the supported countries and regions, mainly via investments in infrastructure and human capital. In addition, and increasingly, CP contains also social and environmental objectives. The impact of CP has been comprehensively evaluated in numerous academic papers, e.g., the overview paper by Darvas et al. (2016). The results of these evaluations suggest that CP can provide important benefits for the recipient countries and regions. There is, however, no guarantee of success. The latter depends first and foremost on the quality of national planning and implementation.

Looking specifically at the impact of CP on Slovakia, Radvansky et al. (2016), find substantial positive effects for the period 2007 – 2015. In particular, the authors find that EU Cohesion Policies alleviated the impact of the global economic and financial crisis on the Slovak economy. In gross terms, direct CP flows to Slovakia during this period represented on average 1,5% of GDP (after deducting direct subsidies, as CAP). With an estimated multiplier of 2-3, CP flows separately could have a longer-term positive impact on the economy between 1,5-3% of GDP (we take the central estimate of 2,3%). This multiplier estimate relates to an earlier period and is at the upper end of comparable analyses. It should thus be seen as upper limit (optimistic scenario) for the indirect economic benefits from EU Cohesion Policy.

More recent experience with EU funds in Slovakia shows that the full and efficient use of EU funds cannot be taken for granted. Labaj (2023) argues that EU funds crowd out domestic public investments in Slovakia. In addition, the savings resulting from this substitution are not used to reduce budget deficits but to increase public consumption. This shows that, although EU funding can have a major positive impact on growth, it is up to the countries themselves, to fully use the opportunity created by EU Funds. Looking forward, Slovakia can benefit even more from EU CP.

2. Financing Public Debt

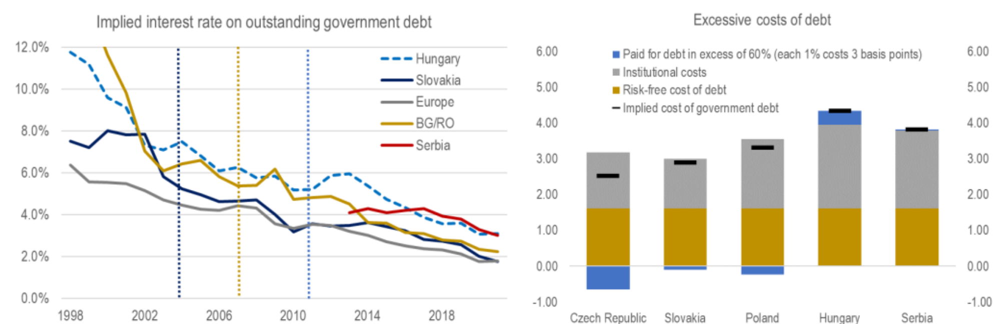
Small open economies like Slovakia have always been highly exposed to swings in the costs of financing government debt. Markets tend to ask smaller risk premia, i.e., lower interest rates, from economies that adopt conservative economic policies and strengthen their institutions. Therefore, interest rates for the public debt of euro area countries with a sustainable fiscal position tended to be rather low, even during large turbulences such as the Global Financial Crisis or the Covid pandemic. At the same time, countries that were seen as having unsustainable public finances such as Greece during the euro area sovereign debt crisis was asked to pay very high interest rates for some years

Higher risk premium on government debt is costly. Risk however is not only attained by excessive debt levels, but also by uncertainty of fiscal outlook that could originate in weakened institutions, non-cooperative mode of policymakers or higher probability of unguided policies, i.e., when expectations of negative fiscal outlook are rising. Expectations about running out of fiscal space could be more detrimental than being short of fiscal space. In other words, although market charges penalties mainly

for excessive debt, it may charge even more for threats embedded in adverse policies, or unnecessary exposure.

To certain degree, evidence reveals the story. Plotting interest payments paid by government to holders of its debt (Figure 2, left, actual cost of debt), a clear distinction can be made between declining costs of integrating member states (Slovakia after its EU accession, Bulgaria, and Romania around 2014), and persistent risk premium of Serbia as non-EU country and of Hungary as a member state with less cooperative policy-making mode and weakened institutions, especially since 2011. After subtracting risk-free rate and fiscal space (or excess penalty) with regard to the 60% debt-to-GDP threshold (following Blanchard and Zettelmeyer, 2018), one percentage point remains in average a residual excess debt service cost (Figure 2, right).[3] Considering nominal government debt of Slovakia is over 70bn EUR, this makes for savings of 700mil EUR per year or 130 EUR per capita.

Figure 2
Implied interest rate on outstanding government debt



Source: Eurostat and NBS calculations
Note: Left chart depicts interest payments on gross public debt as a share of total gross public debt. Horizontal lines show when Slovakia (navy blue), Romania and Bulgaria (gold) entered EU, and Hungary (light blue) entered a period of less cooperative mode of governance.

3. Effects of Trade

Economically, the driving force behind European integration have always been the benefits of the Single Market and free movement of factors of production. The Slovak economy, being traditionally very open to trade has benefitted strongly from the Single Market. It's trade openness (the share of trade to GDP) is now more than 180%.[4] By comparison, the trade openness of small open economies outside the Single market is below 100% (Figure 3, right). The very high trade integration implies also that the Slovak economy could be hit particularly hard by exiting the Single Market. The negative impact for Slovak exports and production would in the long-run likely be similar to that of Brexit, but more severe, due to much more intensive trade flow (trade openness in the UK is only close to 60%).[5]

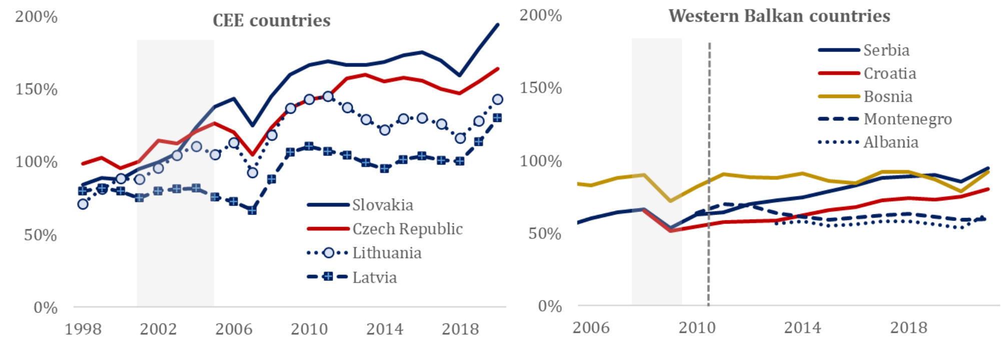
Based on a value-added component in trade we estimate that 36% of Slovak GDP would become exposed from a potential loss of access to the Single Market in the longer run. This is a combined quantity considering both direct and indirect effect of loss of trade partners. The impact of exiting the EU would not materialize immediately, and trade would be ultimately cleared, but very likely loss of access would incur costly

[3] These results also align with the older findings of Zeman (2014) confirming that country default risk is positively related to fiscal fundamentals but also differentiated in terms of governance, i.e., that non-integrated economies are paying heavier penalties in turbulent times.
[4] According to Feenstra et al. (2015), Penn World Table (2019).
[5] Given the close geographic proximity of Slovakia to the EU and the existing business infrastructure built over almost 20 years of EU membership, a partial rather than a full loss of trading markets would most likely materialize.

delays and consequently trade partners starting to look for alternative solutions in the medium term.

Figure 3

Trade openness of EU members and Balkan countries



Source: UNCTAD and Eurostat.

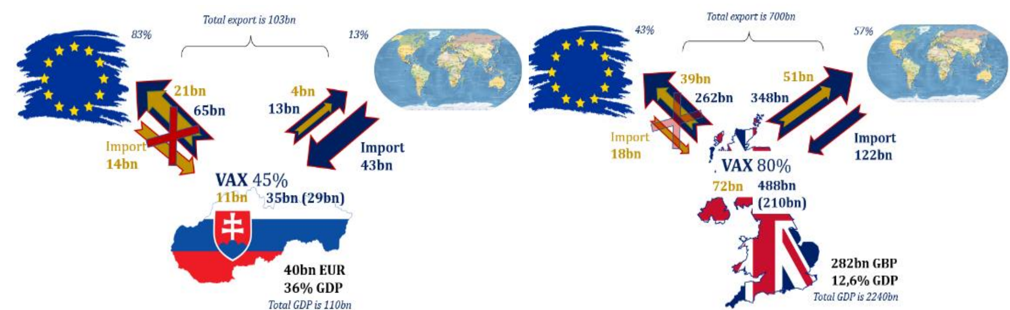
Note: Trade openness is calculated as a share of export plus import over GDP. Last observation is 2022.

In case of Brexit, less than half of the exposure materialised. We applied the same methodology to the UK, and estimated UK GDP exposure to loss of trade at 12,6%. Given the central estimate of overall long-term loss in the UK GDP was about 5,5% of GDP, we have a better picture of the extent to which losses may materialise. Applying this pattern to the case of Slovakia, we concur that overall benefit of the Slovak membership in the EU is close to 15%. Most of this benefit arises from international trade. We identify international trade with the EU Single Market is responsible for almost 50 percentage points in trade openness.[6]

The exposed GDP reflects the value-added that potentially may not materialise given the EU border becomes impossible to cross for either import or export flows. The estimate of GDP exposed to trade is based on decomposition of value-added components by source country and source industry in the input-output framework. Looking at the trade flows of Slovakia and the UK, it becomes evident that Slovakia is much more dependent on trade as it needs more intensive import to produce one unit of export (value-added ratio is 45% compared to 80% in the UK).

Figure 4

International trade flows and value added within trade



Source: FIGARO and National Bank of Slovakia.

Note: The scheme represents import and export flows between Slovakia and the EU and Slovakia and rest of the world (left). Total gross export in 2022 reached 103bn EUR, 83% of which was directed towards the EU and 17% to the rest of the world. Domestic value added of export equalled to 45% (VAX ratio). This means that export of 25bn EUR required 14bn EUR of import and 11bn EUR was the value added by economic activity in Slovakia (these flows marked in yellow refer to imports from the EU). The same distribution rules are applied to exports that refer to imports from the rest of the world (marked navy blue), however only part of the value-added that refers to goods and services exported to the EU would be affected (value in parenthesis). Combined volume (40bn) is the value-added exposed to trade disruptions due to a regime change at the EU borders. The same mechanics is applied to the trade flows in the case of UK on the righthand scheme.

[6] Given that added value to trade intensity (export + import) in Slovakia is 28%, every one unit of value-added needs a multiple of 3,5 in international trade (1/0,28). It could therefore be expected that trade openness of Slovakia without access to the Single Market would decline to around 130% of GDP. (3,5*15%~50%, Single Market component. This is somewhat above, but not too far from close to 100% levels attained by the Western Balkan countries)

4. Conclusion

Looking at the selected channels through which EU membership impacts the Slovak economy, we identified considerable economic benefits for Slovakia.

1. Direct EU net payments – 1,1% of GDP per year
Slovakia received more than 24 bn EUR in total net EU payments during the 2004 to 2022 period (in 2022 prices). This translates to 4500 EUR per capita during the 19 years period or 20 EUR per person every month.

2. Indirect economic benefits of EU transfers – up to 2,3% of GDP per year
Economic benefit of these transfers was likely substantially higher. This 'multiplier effect' depended and will depend in the future on the effectiveness with which national authorities utilise EU funding to increase growth potential.

3. Lower cost of debt – 0,6% of GDP per year
Being part of the EU and adopting a broadly cooperative institutional attitude towards the EU reduces the costs of serving Slovakia's public debt by around 700 million EUR per year.

Combining the above three directly measurable short and mid-term effects we can conclude that annual benefit of Slovak EU membership could amount up to 4% of GDP. In nominal terms, this translates to annual 830 EUR per person.

4. Trade integration – 15% of GDP in the long run
Finally, we estimate that up to 36% of Slovak GDP is exposed to trade within the EU. After accounting for trade related added value in stake, we concur that access to the EU Single Market ads close to 15% to Slovak GDP in the long run.

Given that Slovakia is one of the globally most open and trade dependent economies and most of the trade is executed with its natural partner, which is the EU Single Market, membership in the EU provides Slovakia in the long run with additional higher level of income coming from trade. Considering share of labour compensation in GDP in Slovakia is about 55%, we can conclude that **the additional long run benefit of EU integration to an average household of four in just 5 years-time nears 16 thousand EUR, which could translate into having or not having one small sized passenger car** (Figure 5). **One third of this amount of welfare is however dependent on how efficiently the available funds are allocated.**

Figure 5
Summarizing the benefits

Direct EU payments

Multiplier effect

Savings on excessive cost of debt

Long-term benefits of trade

Annual benefit of up to 4% of GDP

Level benefit 15% of GDP

Nominal GDP Slovakia, 2022	**110 bn EUR**
Share of labour compensation in GDP	**55%**
Benefits from EU membership	
Level effect of trade	**15%**
Annual effects	**up to 4%**
In 5 years time ([5*0,04 + 0,15]*0,55*110bn)	**21,2 bn EUR**
Per capita benefit (population of 5,3 mil.)	**4 000 EUR**
Per family benefit (family of four)	**16 000 EUR**

NÁRODNÁ BANKA SLOVENSKA
EUROSYSTÉM

References

[1] Blanchard, O, and Zettelmeyer J. (2018), The Italian Budget: A Case of Contractionary Fiscal Expansion? PIIE.

[2] Darvas, Z. et al. (2019), Effectiveness of cohesion policy: Learning from the project characteristics that produce the best results. European Parliament. Budgetary Affairs Study [Link]

[3] De Gauwe P. and Mongelli F.P. (2005): Endogeneities of optimum currency areas what brings countries sharing a single currency closer together? ECB Working Paper Series no.468. [Link]

[4] De Grauwe and Ji Y. (2012): Mispricing of sovereign risk and multiple equilibria in the Eurozone. (CEPS Working Document, No. 36). Brussels: Centre for European Policy Studies. [Link]

[5] Dhingra S., Ottaviano G., Sampson T. and Van Reenen J**.** (2016)**:** The consequences of Brexit for UK trade and living standards, Centre for Economic Performance, London School of Economics and Political Science. [Link]

[6] Ebell M. and Warren J. (2016): The long-term economic impact of the UK leaving the EU, National Institute Economic Review, Volume 236, May 2016, pp. 121 – 138, [Link]

[7] Frenkel, J.A. and Rose A.K. (1996): The Endogeneity of the Optimum Currency Area Criteria. NBER Working Paper no.5700. [Link]

[8] Giannone D. and Reichlin L. (2006): Trends and cycles in the euro area: How much heterogeneity and should we worry about it? ECB Working Paper Series no.595. [Link]

[9] Labaj (2023): Achillova päta Slovenska - eurofondy. NBS Blogpost. 13.7.2023 [Link]

[10] Radvansky, M. et al. (2016), Impact of Cohesion Policy on Regional Development in Slovakia - Ex-post Assessment of National Strategic Reference Framework 2007 – 2013. EU-SAV. [Link]

[11] Springford J. (2022): The cost of Brexit to June 2022, Centre for European Reform [Link],

[12] Zeman J. (2014): Determinants of government bond yield spreads in EU countries, Journal of Economics (Slovakia), 62/2014, No.6, 598-607 [Link]