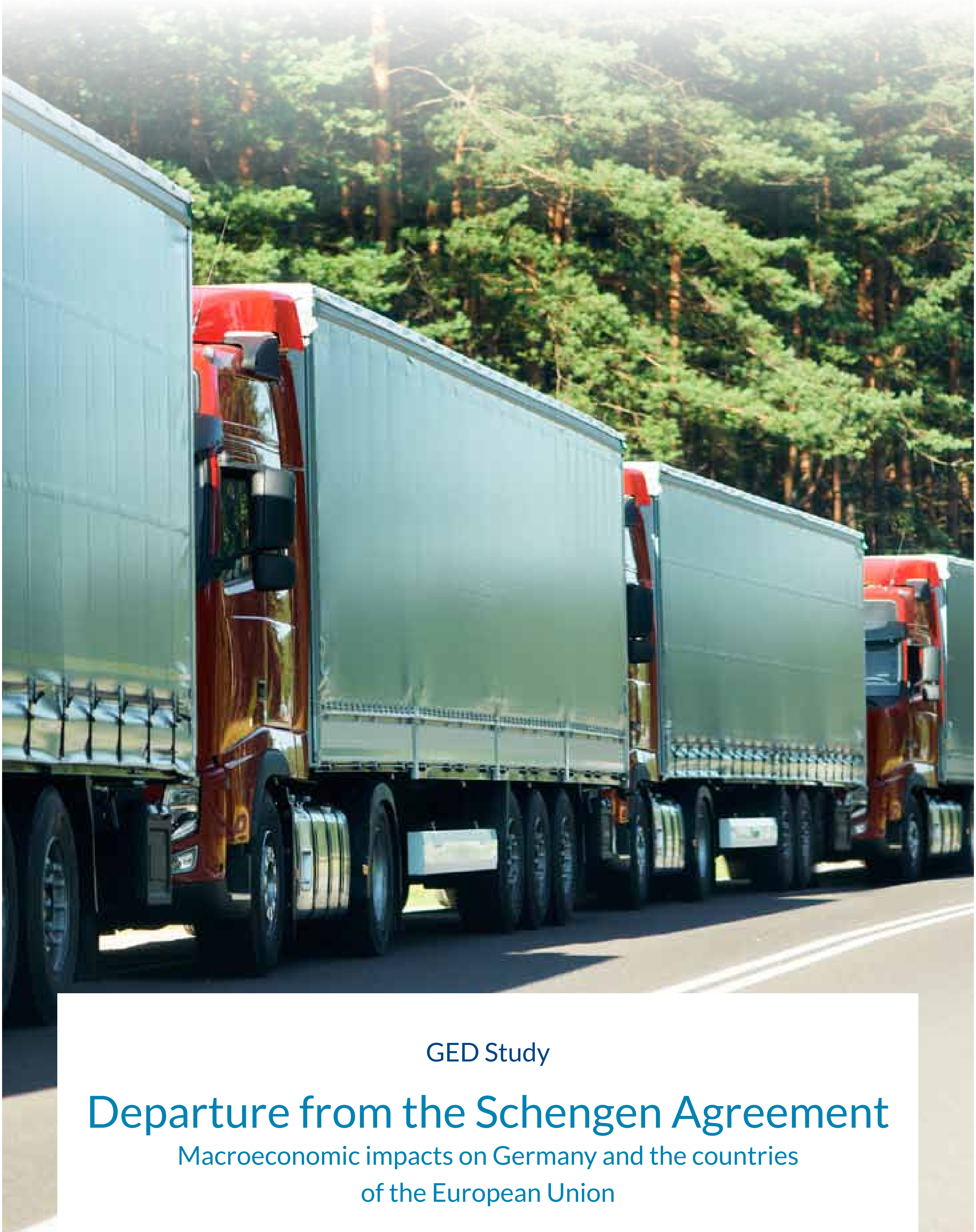
GED
Global Economic Dynamics



GED Study

Departure from the Schengen Agreement

Macroeconomic impacts on Germany and the countries of the European Union

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Table of contents

1 Background Information

The Schengen Agreement entered into force in 1995 and today it is comprised of 26 states. This includes all European Union members with the exception of the United Kingdom, Ireland, Romania, Bulgaria, Cyprus and Croatia, as well as the non-EU countries of Norway, Iceland, Liechtenstein and Switzerland. The agreement provides for the abolition of the requirement to check persons at internal borders within the Schengen area. The Convention Implementing the Schengen Agreement also regulates the standardisation of entry and residency requirements, as well as, the issuing of visas for the entire Schengen area. At the time, police and judicial cooperation measures were also agreed upon, in addition to asylum provisions.

In the wake of sharply rising refugee movements into Europe, a partial restoration of border controls has been implemented. European Union countries have seen a significant increase in asylum seekers. The civil war in Syria in particular has contributed to this, but also years of political instability in countries like Afghanistan or Pakistan and the difficult economic and political situation for many people in the Western Balkans. EU countries affected include Austria, Germany and France, as well as Sweden and Denmark.

While a clear, temporary, limited suspension of the Schengen Agreement is legally possible, some parties have discussed the reintroduction of permanent border controls within the European Union, and therefore in practice the termination of the Schengen Agreement. Due to its geographical location, Germany finds itself surrounded exclusively by Schengen states and so is particularly affected by the Agreement. Open internal borders are considered a key aspect of intensive cross-border trading within the European Union.

This short study examines the economic impact that might arise from a permanent departure from the Schengen Agreement, and therefore the permanent reintroduction of checks at EU internal borders, on Germany and other EU countries, as well as for the European Union as a whole. The evaluation period extends to the year 2025.

2 Methodological approach

In the event of a permanent reintroduction of checks on persons at the EU's internal borders, travel documents and, where appropriate, the vehicles of people who want to cross the border would be checked. This is expected to lead to longer waiting times for truck drivers, commuters and tourists. In order to estimate the expected cost increases, we have concentrated on border controls on the movement of goods. Thereby, we have assumed that controls take place at all EU internal borders, but that other European single market regulations such as duty-free remain unaffected.

From a business point of view, companies must take into account higher personnel costs, for example, or replenishment of their stocks, because just-in-time delivery would hardly be possible. This would lead to an increase in transport costs for cross-border trade in the European Union.

Macroeconomic modelling starts with this increased cost of imports. These are essentially based on time spent at the border crossing, which must be calculated in relation to the value of the goods and then set out in monetary terms. Scientific studies frequently model this form of transaction costs using tariff equivalents (Smith and Venables 1988, Harrison, Rutherford and Tarr 1994, Keuschnigg and Kohler 1996, Aussilloux and Le Hir 2016 etc.). Tariff equivalents are then added as a percentage on import prices. Older analyses of single market integration mostly use a surcharge of 2.5%, whereby it usually includes customs controls, different standards or additional administrative expenses grouped by declarations of origin. Aussilloux and Le Hir (2016) estimate an in crease of the value of the goods to be 3% to simulate longer wait ing times at the borders alone. Harrison, Rutherford and Tarr (1994) quantify the costs of border controls with a surcharge of 1.7%. Flam (1995) modelled transaction costs caused by border controls in the form of a tariff equivalent of 1.4%. Border controls in particular affect road transport.

The literature review shows that the amount of transaction costs incurred as a result of a departure from the Schengen Agreement is difficult to quantify precisely. From today's perspective many factors that play a role remain uncertain, such as the efficiency and frequency of border controls or the adaptability of the logistics companies. Against this background, we can define two different scenarios to narrow down the range of the effects caused by a departure from the Schengen Agreement. Findings from the literature show that in fact it is highly likely that the expected costs would be in this range:

- Scenario 1 (conservative assumption): border controls within the Schengen area increase import prices in intra-European trade by 1%.

- Scenario 2 (pessimistic assumption): border controls within the Schengen area increase import prices in intra-European trade by 3%.

The associated increases of import prices are implemented in VIEW, the global forecast and simulation model from Prognos AG, which simulates macroeconomic consequences. This model cap tures interactions and feedback between different countries, which play an important role for close trading connections within Europe.

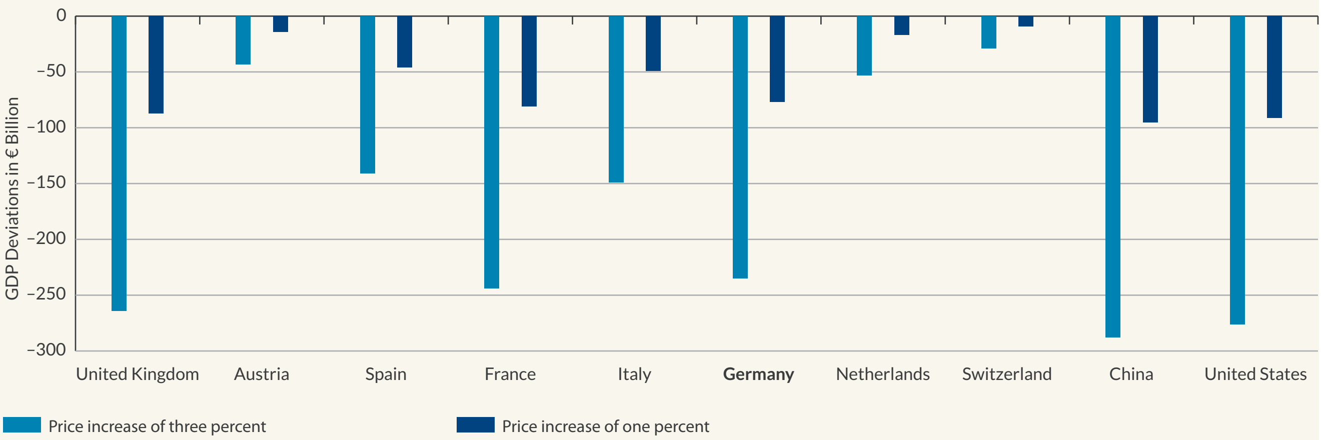
Das VIEW – model

In the event of higher import prices, the medium to long-term macroeconomic chain of effects can be traced in VIEW as follows. Import prices influence the development of prices in a national economy. Prices for imports rise due to the reintroduction of border controls, and so initially the general price level rises accordingly. These price increases reduce the real income of households and businesses who then reduce consumption and investment. In response to this inflationary push, wage dynamics grow in order to compensate for the rise in prices. Temporarily, the wage-price spiral is thus accelerated, since higher wages mean that unit labour costs increase, causing prices to rise further. At this point in the chain of effects, foreign trade also comes into play because higher wage costs weaken the international competitiveness of an economy. The export performance of these countries suffers from the deterioration of the real exchange rate. By way of adapting to rising prices, (nominal) interest rates increase. This means that interest payments increase.

The results of both „non-Schengen“ scenarios are compared with the result of our baseline forecast (reference scenario). In terms of calculations, this is looked at in light of a medium time horizon up to 2025. The effects will be taken into account over the entire period, so as to estimate the total costs of a departure from the Schengen Agreement.

3 Results

FIGURE 1 **Cumulative GDP deviations from reference scenario in selected countries to 2025; data in billions of euros**



Source: Prognos AG 2016

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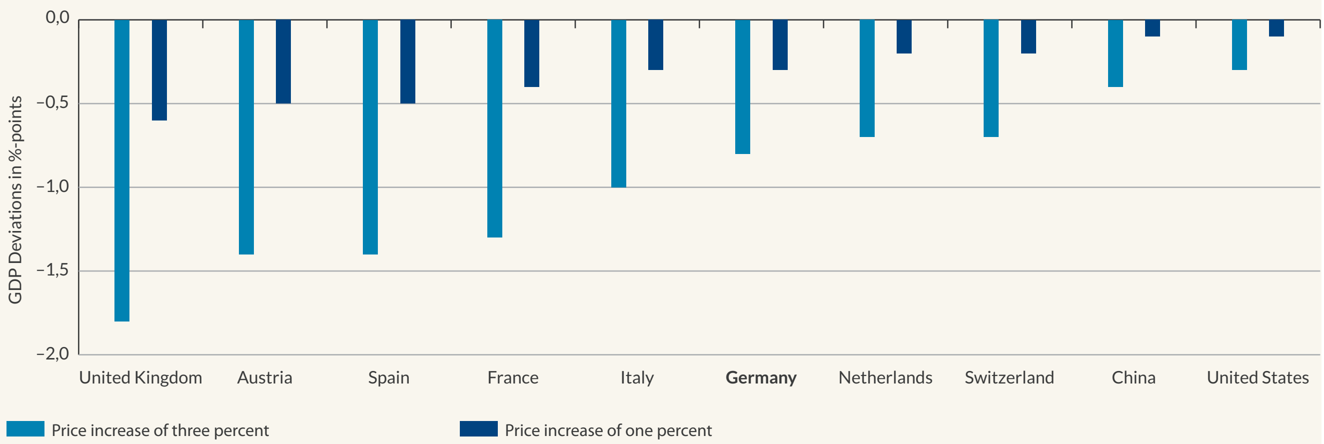
In line with the conservative assumption (scenario 1), by 2025 Germany's economy would grow an average 0.03 percentage points less per year than the baseline forecast, which was based on the borders remaining open. Over the entire evaluation period of 10 years (2016–2025), the reintroduction of border controls would cost Germany alone around €77 billion. The economic effects are, as expected, higher in scenario 2. In this case, the departure from the Schengen Agreement would reduce annual GDP growth in Germany by an average of 0.08 percentage points. By 2025, this annual growth loss would amount to €235 billion (Figure 1). From the current perspective, the reason that Germany would not be affected to a greater extent is due to the fact that the economy is currently in a comparatively robust position, one in which burdens of this kind could likely be better compensated for than in other historical situations.

The economic strength of other EU States would also be negatively affected by a permanent reintroduction of border controls. The Western European countries examined in Table 1 would, according to the conservative forecast, lose between 0.02 and 0.06 per centage points of GDP per year by 2025 (scenario 1). In scenario 2, these values would be between 0.07 and 0.18 percentage points. Figure 2 shows that, relatively speaking, border controls would have significant consequences, in particular for the economies of Austria, Spain and the United Kingdom. Despite favourable economic development, according to our calculations the United Kingdom would be affected to a significantly greater extent than Germany by a long-term reintroduction of checks on persons at internal EU borders. We estimate that by 2025, border controls would cost the United Kingdom between €87 billion (scenario 1) and €264 billion (scenario 2). The economic costs in absolute terms for France of abandoning the Schengen Agreement would be similar to those for Germany. Over the evaluation period from 2016

FIGURE 2 **GDP deviations from reference scenario in selected countries 2025; data in %-points**



Source: Prognos AG 2016

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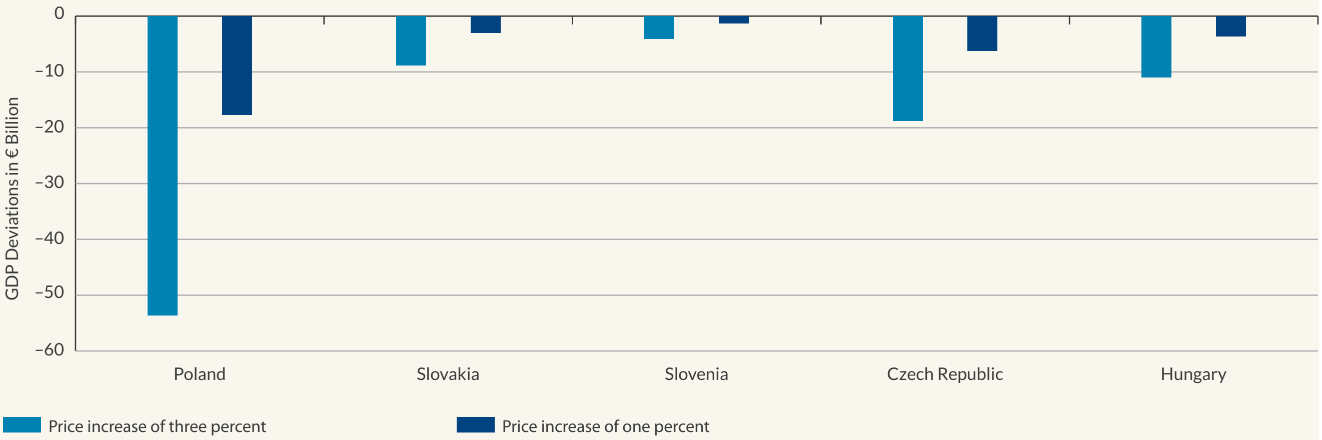
until 2025 economic costs would be between €81 billion and €244 billion on an accumulated basis. How great the impact would be on different economies depends on a complex interaction of country-specific characteristics. Among other things, these include the economic situation at the point at which the Schengen Agreement were to be abolished and wage adjustment mechanisms. This can differ, for example, depending on the structure of the labour market or the bargaining power of trade unions.

Eastern European economies would also be significantly impacted by a suspension of the Schengen Agreement. Annual economic growth in Poland, Slovenia, Slovakia, the Czech Republic and Hungary would be reduced. The results of scenario 1 suggest annual growth losses by 2025 for these countries in the amount of 0.03 to 0.05 percentage points in comparison with the baseline forecast. If scenario 2 were to occur, then annual GDP growth in these countries would be reduced by 0.10 to 0.14 percentage points.

Poland would be affected particularly strongly. Among the Eastern European countries being examined, the negative effects of border controls within the EU would to the greatest extent affect Poland, not only in absolute, but also in relative terms (Figure 3). In terms of gross domestic product, Poland is by far the largest economy in this selection of countries. The reintroduction of border controls would cost the country between an estimated €18 billion (scenario 1) and €54 billion (scenario 2). Slovakia, Slovenia, the Czech Republic and Hungary are characterised, in contrast to Germany, by high import quotas, i.e. they import many goods and services in relation to their GDP. Should the price of imported goods increase over the course of the reintroduction of border controls, the impact on prices would be particularly strong in these countries.

Starting from the calculations for individual countries, the effects at a European level can be quantified (Table 1). In line with scenario 1, we expect an annual loss of growth

FIGURE 3 **Cumulative GDP deviations from reference scenario in selected countries to 2025; data in billions of euros**



Source: Prognos AG 2016

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for the EU-24[1] in the amount of 0.04 percentage points in comparison to the GDP development set out in the reference scenario based on open borders. Summing up the annual values, the EU-24 would see accumulated macroeconomic GDP losses of €471 billion by 2025. In line with the more pessimistic scenario 2, there is a greater impact, as expected. Over the 2016–2025 evaluation period, the economic performance of the European Union would be lower by approximately €1.43 trillion than in the reference scenario. This value is almost the same as Italy's economic performance in the last year (€1.55 trillion).

Due to close trading connections, it would not only be Member States of the European Union that would be affected by a longer-term suspension of the Schengen Agreement. A reintroduction of checks on persons at the EU's internal borders would have an indirect but significant impact on the two largest non-European economies, those of the United States and China. The differences in GDP development between the „non-Schengen" scenarios and the reference scenario were lower in these countries than in the countries of the European Union. The average annual growth of the U.S. economy would be between 0.01 (scenario 1) and 0.03 (scenario 2) percentage points below the predicted GDP growth in the case of open EU internal borders. For China, a range between 0.01 and 0.04 percentage points would be the difference depending on the scenario. The loss of growth in absolute terms in these large economies would still be high. The costs resulting from unrealised economic growth for the United States, are, in absolute terms, even higher than in Germany, France or the UK. Over the entire period from 2016 to 2025, we estimate overall losses of between €91 billion and €276 billion for the United States. For China, the costs would be between €95 billion and €288 billion.

1 The EU-24 includes all EU Member States with the exception of Luxembourg, Malta, Cyprus and Croatia.

TABLE 1 GDP variations in Western Europe, 2016–2025

Western Europe	Scenario 1		Scenario 2	
	Deviation from reference scenario in % points p.a.	**Cumulative effect, in € billions**	**Deviation from reference scenario in % points p.a.**	**Cumulative effect, in € billions**
Germany	–0.03	–77.2	–0.08	–234.8
France	–0.04	–80.5	–0.13	–244.3
United Kingdom	–0.06	–87.2	–0.18	–264.3
Italy	–0.03	–48.9	–0.11	–148.5
Austria	–0.05	–14.2	–0.14	1–43.2
Switzerland	–0.02	–9.4	–0.07	1–28.7
Spain	–0.05	–46.2	–0.14	–140.8
EU-24	**–0.04**	**–470.5**	**–0.12**	**–1430.1**

Source: Prognos AG 2016

4 Further costs of departure from the Schengen Agreement

A termination of the Schengen Agreement would have not only economic costs, but also far-reaching social and political consequences. Even in terms of economic costs, only a portion can be quantified.

Further economic impact

In terms of economic costs, the import price indicated by the reintroduction of internal border controls illustrates only one, albeit weighty, element of the impact. While storage capacities have been virtually eliminated thanks to the accurate delivery of inputs, a reintroduction of border controls would make just-in-time deliveries and decentralised production processes significantly more difficult to achieve over European internal borders. Modern value chains, where inputs originate from various European countries, would be associated with higher costs. This would have an effect on the structure and the level of value chains, foreign direct investment, location decisions of companies, as well as price competitiveness. These effects can only partly be quantified.

The reintroduction of border controls would also have consequences for tourism. For EU citizens, the effective loss of time that would arise crossing through border controls is expected to at least lead to a decline in short trips and day visits. The resulting loss in value would likely lead to a noticeable decline in visitor numbers, in particular for locations close to the borders. These effects can be quantitatively estimated by defining appropriate assumptions.

Furthermore, interstate commuters (border workers) may also be particularly affected by a reintroduction of border controls. Their place of residence and place of work are in different countries. As a rule, arrival to and departure from the place of work takes place on the same day. Due to border controls, commuting time would noticeably increase, especially in the busy rush hours particularly used by commuters. As a result, there might be restricted job mobility, greater heterogeneity of regional job markets and an uneven development of real estate prices. Border controls would further intensify already existing difficulties (social security systems, direct taxation, social services, etc.) associated with working in other EU countries. To the best of our knowledge, there is no sufficient data available covering the number of border workers that include all the countries of the Schengen area. Potential effects on the extent and structure of commuter movements, which could grow by introducing controls on persons, can be difficult to derive or estimate.

The abolition of internal border controls is the best known and most noticeable pillar of the Schengen Agreement. However, the Schengen visa is another factor that is often even more important for companies in the hospitality industry. It involves the uniform issuing of visas, as well as, mutual recognition within Schengen countries. For citizens from third countries who require a visa to travel in the Schengen area, a Schengen visa from one country allows them to visit all of the other Schengen countries within a certain period of time. Should these regulations be repealed in the course of a shift away from the Schengen Agreement, then visa applications would have to be once again processed at a national level. The administrative burden would rise significantly, while at the same time the number of foreign visitors would probably decline. The magnitude of the decline, as well as, the economic impact cannot be quantified.

Without the Schengen Agreement, there would be little sense in cross-border traffic infrastructure projects such as the Magistrale for Europe (TEN-T Project 17), the aim of which is the establishment of a high-speed rail axis between Paris and Budapest/Bratislava. A journey from Paris into the Rhineland would, for example, take considerably longer if border controls had to be respected and carried out. Representatives of European transport-sector operators doubt that the international railway service would be possible to this extent without the freedom of movement of the Schengen Agreement.

Political impact

In addition to the economic impacts, the termination of the Schengen Agreement would bring about political consequences. The exchange of safety-relevant data, which currently takes place via the Schengen Information System (SIS), would once again have to be bilaterally regulated in the future. The SIS is an information system for the security authorities of the Schengen countries and is used for automated manhunts and tracing items. Without the SIS, automatic entries and requests across all Member States would no longer be possible. Coordinated efforts to combat people smuggling and drug-related crime, as well as organised crime and international terrorism, would become more difficult. Judicial cooperation between countries would also be adversely affected by a suspension of the Schengen Agreement.

In addition, the Schengen Agreement provides the basis for a common asylum and refugee policy. The implementation of a pan-European coordination of refugee and migration flows is de facto and de jure barely possible without the Schengen Agreement.

The termination of the Schengen Agreement would be a unique event in the history of postwar Europe. For the first time in the European integration process, a central pillar of the European integration process would disappear without being replaced. It would not put a temporary halt to the unification process as would have been the case in the past, but it would be a noticeable regression.

The abolition of the Schengen system would have serious consequences not only for EU states, but also for Western European countries that are not members of the European Union. The Schengen Agreement, as well as, participation in the single market has so far been an opportunity for third countries to participate in the progress and achievements of the European unification process. By virtue of this, eurosceptical Switzerland is a member of the Schengen area. Norway, Iceland and the Principality of Liechtenstein are also members of the Schengen area and the EU single market. Without the Schengen Agreement, connecting factors with European non-EU countries would only be possible through the single market.

Social significance

The Schengen Agreement and the resulting advantages such as border-free travel, for example, are noticible to the European population and are supported by the people. This has been confirmed by surveys of public opinion (Allensbach, 2014). Alongside the euro, citizens regard border-free travel as the most noticeable representation of the European unification process. The reintroduction of border controls within the Schengen area has accordingly great symbolic value.

Separate work and living areas or short shopping trips to neighbouring countries in the European border regions are hard to imagine in the event of permanently reintroducing border controls. Cultural exchanges, cross-border movements and cross-border experiences would decline. It is not possible to put a figure on the social and political costs of terminating the Schengen Agreement.

5 Conclusion

The permanent reintroduction of checks on persons at internal EU borders would entail a noticeable negative impact on the national economies of the European Union. The loss of time resulting from border controls applied to the movement of goods would trigger a complex economic chain of effects, the impact of which would be different for each country. Depending on the initial economic situation, import quotas or wage-price dynamics, border controls would have more of an effect on some countries than others.

According to our scenario calculations, expected loss of growth in Germany alone would amount to at least €77 billion by the year 2025. Under more pessimistic assumptions, macroeconomic costs would add up to €235 billion. Other EU states such as France, Spain, Great Britain, Austria and Poland would also be strongly affected by a suspension of the Schengen Agreement. By 2025, the cumulative economic performance of the EU overall would be between nearly €500 billion and approximately €1.4 trillion lower than in the case of open EU internal borders. Additional negative economic effects on commuters in border areas, on the tourism industry or on medium-term adjustments to international value chains have not yet been taken into account. Our calculations show that the impact would not just be limited to Europe. Due to close trading connections, China and the United States would be noticeably impacted by border controls within the EU as well.

Furthermore, the present study identifies several political and social impact vectors and consequences. Border-free travel within the EU would no longer be possible. In addition, a departure from the Schengen Agreement complicates the cross-border exchange of data for national security authorities. Finally, the political symbolism in particular of a termination of the Schengen Agreement would be of enormous importance to the European unification process.

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Imprint

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