



Small Great Nation

The EU membership – a good deal for Denmark?

April 2021



Preface

For many years, Denmark's position in the world has been affected by Danish membership of large organisations: NATO has been the fundamental guarantor of military threats. The EU has secured free trade and worked for common ground among member states on everything from democracy to climate. Few can imagine that Denmark would not be a member of the UN, including WHO and COP.

In recent years, the world has proved to be less stable: Trump withdrew the United States from WHO and the Paris Agreement, threatened to dissolve the NATO cooperation and started international trade wars. Biden is setting a completely different course, but the role of global organisations has become more uncertain. With Brexit, for the first time in history, the EU has said goodbye to a member state – perhaps the example frightens, perhaps other countries are inspired to do the same.

In this eighth report from Small Great Nation, we focus on the EU.

A key objective of the EU is to ensure economic prosperity. Analyses in the report suggest that this has been successful, and a survey shows that Danes are increasingly positive towards the EU. But Denmark has also ceded sovereignty, and it is relevant to ask whether the cooperation should be slightly increased or reduced.

The EU is also about peace and basic democratic values. Membership applicants are pulling themselves together when it comes to, for example democracy and the quality of institutions. But our analysis shows that when you are in, the progress may well reverse.

A concern in the Danish green transition has been leakage to less climate-ambitious countries. Denmark's leakage problem is significantly reduced if other EU countries also have binding climate targets, but then the EU overall has a leakage problem. The abolition of tariffs is typically economically wise and a core element within the EU. However, in order to deal with leakage, there may actually be common sense in a climate tariff around the EU if the EU pursues a particularly extensive climate policy.

We also analyse EU students in Denmark, competition in the EU, the EU's technology and digitalisation, the EU's development opportunities and much more.

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Small Great Nation

In the collaboration between Kraka and Deloitte on the Small Great Nation project, we analyse long-term development perspectives for the Danish society. The initiative is independent of political ideologies and of political and economic interests. The initiative utilises both existing research-based knowledge and contributes with new independent analyses that result in professionally based solutions to create a better Denmark.

Previous reports:

- Opportunities and challenges
- Social cohesion
- The high-hanging fruits
- Mission possible? The welfare state towards 2040
- Innovation - the key to sustainable growth
- A climate reform that delivers the magic 70 percent
- Life with corona – new opportunities for the climate and the economy?

Find these reports, analyses and discussions in the collaboration here: <https://sgnation.dk/> or here http://kraka.dk/small_great_nation.

Small Great Nation is also about conferences, webinars, podcasts, youth panel and much more. Read more about the many activities in SGN here: <https://sgnation.dk/>.

1. Executive Summary¹

The EU cooperation is standing at a crossroads

Since Denmark joined the European Union in 1973, the membership has been discussed. The cooperation has been broadened, and more countries have joined. But by the new year, Great Britain finally stepped out of the cooperation after a tumultuous process. The refugee crisis, the green transition and the corona crisis have challenged the EU's ability to create unity when it really matters. And the development of democracy in some member states is worrying. The EU is standing at a crossroads, perhaps more than ever.

Advanced free trade area or global player?

Should the EU simply be an enlarged free trade area in which the nation states themselves handle things when they come to a head? Or does the cooperation have a partially unfulfilled potential to make countries think more jointly? And can the EU become a global player that can provide solutions to challenges that the whole world is facing?

In this report, we focus on the EU cooperation. Both from a Danish perspective and from a perspective of the EU's interaction with the rest of the world. As always, our conclusions are supported by solid analyses.

Content of the report

In chapter 2, we begin with a status of the very current issues in the EU, the Danes' general satisfaction with the EU and their wishes for the development of the EU.

In chapter 3, we assess how the EU is doing the job: First, an analysis of the economic benefits gained by the EU countries from membership. Next, we look at the economic effects on Great Britain caused by Brexit and thereby what consequences might be expected if Danes were to choose to follow in the footsteps of the Brits out of the EU. The EU is also about unity, democracy, stability and peace, of which we look at the value in a separate analysis.

In chapter 3, we furthermore map out the EU's position in technological development and digitalisation, which is considered by many to be central to the development of prosperity. Finally, the difference in competitive intensity between the EU and the United States is of major importance for product prices to the disadvantage of the United States, as we also show in the chapter.

In chapter 4, we focus on what Denmark gains from the cooperation. Initially, we compare Denmark's economic gains with Denmark's net pay to the EU. However, the EU is more than economics, and in a separate analysis we assess how much EU supporters and opponents respectively value the part of the cooperation that is about more than kroner and euros. One effect of the cooperation is also that young people have been given better opportunities to study in other EU countries. We analyse the impact of Denmark attracting foreign students on Danish public finances. At the end of the chapter, we focus on the refugee cooperation, which the Danes fail well and truly.

A year ago, in the SGN collaboration, we presented a set of recommendations for Danish climate policy based on thorough analyses. A key element of the debate remains the risk of leakage – i.e. that production in a country with high climate ambitions risks moving to less ambitious countries. In chapter 5, we assess the leakage out of the EU if EU countries agree on either uniform taxes on greenhouse gases or an expansion of the CO₂ quota system to cover all emissions of all

¹ This document serves as a summary in English of the full report titled "EU-samarbejdet – en god deal for Danmark?". The full report (Danish only) is available at www.sgnation.dk

greenhouse gases. Perhaps the answer to the EU's leakage problem is a climate tariff around the EU, and we will determine how to best put it together and what practical problems there might be.

Contents of chapter 1

In the remainder of this executive summary, we summarise discussions and results from the full report. This raises a number of questions about how Denmark and the EU should develop in the future. For some, the answer may lie ahead. For others, there are difficult trade-offs involved.

1.1 Status on the EU

The very current issues

Initially, we outline the very current issues on which the EU particularly focuses. The climate negotiations make up a big part, including instrument selection in the green transition, e.g. the quota system and the possibility of a tariff wall. Work around handling Brexit is still being done, which creates significant problems for Great Britain but certainly isn't seamless for the EU either. A third very current issue is the recovery from the corona crisis, including the EU recovery plan. Finally, there is a significant focus on the regulation of digital services with a new data protection bill and the continued work to prevent companies from abusing market power.

And some central situation reports

In addition, we take the temperature on Danes' satisfaction with the EU and the Danes' view of how the EU should develop, which has traditionally been ambivalent to say the least. But there are indications that the Danes have come to look more favourably on the membership.

Danes are more positive towards the EU

Danes are satisfied with the EU

Almost 70 percent of all Danes believe that the Danish membership of the EU is good for Denmark. This is the continuation of a development in which Danes' views on the EU have become more positive since the mid-1990s. The perceived benefits are particularly expressed in terms of ensuring peace and stability in Europe and ensuring that businesses have access to the necessary labour. But certainly also in terms of the fight against crime, greater influence on the international debate, economic growth, effective competition and consumer protection, as well as the protection of the climate and environment.

But big differences across policy areas

Half of the Danes are either satisfied or very satisfied with the cooperation between EU countries, while less than 20 percent are dissatisfied with the cooperation. However, there are major differences across policy areas. For example, there is great satisfaction with the handling of health crises and economic crises, while satisfaction is more mixed in terms of climate policy. Danes are directly dissatisfied with the handling of immigration from the Middle East and Africa.

Questions for discussion

- Danes' satisfaction with the EU is at an all-time high. What has driven the growing support seen over recent decades? Should Danish politicians size up the situation and be more proactive in relation to the development of the EU?

The Danes have been sceptical

Danes want more cooperation in the EU

Since Denmark joined the European Community in 1973, a significant proportion of Danes have been sceptical about the cooperation. Among the clearest signals was the 'no' to the Maastricht Treaty, which led to Denmark's four reservations. The reservations subsequently led a narrow majority of Danes to vote in favour of the Edinburgh agreement. A scepticism that the Danes maintained when they voted against the euro in 2000 and in 2015 voted against changing the judicial opt-out.

New trends?

But a thorough questionnaire-based analysis suggests that new trends may be on the way. Because the Danes are fundamentally more positive towards the EU than previous polls indicate. Particularly young people under the age of 30 support the EU.

More Danes want more EU	There are slightly more Danes who want more cooperation in the EU than there are Danes who want less cooperation. Especially in the fight against crime and terrorism, climate policy and the fight against tax havens, many Danes want more cooperation.
The EU budget is growing	The EU budget has accounted for an almost constant share of member states' GDP since 1995, but the new EU budget for the years 2021-2027 is expected to lift the budget in terms of GDP. In addition, the proportion of EU citizens residing in other EU countries has grown rapidly since the mid-2000s. Overall, this suggests a gradual increase in European integration, which is in line with what the majority of Danes want.
And the Danes want more international cooperation	A majority of Danes also want the EU to work for more free trade with other regions of the world, while very few Danes are against it. This suggests that there is support for the EU's work to establish trade agreements with, for example the United States and South America. A large majority of Danes also expect that the EU will cooperate more with the United States on climate, trade policy and security policy after the election of Joe Biden as president.
Questions for discussion	<ul style="list-style-type: none"> • Have events such as Brexit and the period of Trump as President of the United States made the Danes become aware of the benefits of international cooperation? Can Europe no longer take the support from the United States for granted and must therefore be more prepared to face the challenges itself? • Danes have a high level of trust in the EU, but the same is not the case for the French and Italians, for example. How can the EU balance the different aspirations of Europeans while addressing current issues such as the climate challenge and the fight against crime? • Is the Danish EU policy – in which Denmark is among the "Frugal Four" working to limit the EU budget – still in line with a majority of Danes' desire for more European cooperation?

1.2 The value of European cooperation

Does the EU cooperation live up to its purpose in terms of economic gain?	In this chapter, we assess how well the EU succeeds in creating value for the member states. First, we calculate the economic benefits that countries have gained from joining the EU and we look at the cost for Great Britain as a result of leaving. The economic benefit for member states is considerable and so is the loss of Brexit.
The quality of the social institutions	Part of the overall impression of the value of membership is the second part of the EU's purpose – peace and security, including strong and stable institutions. Whether membership of the EU lifts institutional quality is the subject of a separate analysis.
Development of the use of digital technology	We also demonstrate that the EU neither develops nor uses digital technologies as much as the United States and discuss whether it is a natural division of labour or a problem caused by, for example barriers in the EU.
Competition	Competition within the EU is attracting a lot of attention these years, and here we conclude that competition is considerably better in the EU compared to the United States.
Gains of membership can arise in several ways	<p>EU membership benefits the economy</p> <p>The economic benefits of membership can arise in several ways. The single market reduces trade barriers, increasing trade between European countries, which results in specialisation gains and economies of scale. In addition, it can increase investment and access to foreign labour, thus ensuring a more efficient use of resources.</p>
The EU lifts productivity	An analysis in the report suggests that joining the EU has lifted countries' productivity. Ten years after joining the EU, productivity levels – measured by GDP per person employed – were on average 13 percent higher than if the country had not joined the EU.

Biggest win for the new EU countries	However, there is a big difference between the gains for the EU countries. For the old EU countries that joined the EU before the year 2000, entry has increased productivity by almost 7 percent ten years later, while productivity for the new EU countries was around 18 percent higher ten years after entry. The greater benefit for the new countries may be due to the fact that the free trade area was bigger when the new countries joined. Another explanation may be that the starting point of the newer countries was weaker due to their communist past.
Permanent yearly gain of DKK 47,500 per employed Dane	According to the analysis, the productivity <i>growth</i> for the old EU countries increased in the years around entry, but further growth slowed down after about five years. The temporary increase in growth resulted in a productivity boost of around 7 percent on average for countries that, like Denmark, joined before the year 2000. This permanent productivity gain equates to an additional income of DKK 47,500 per year for an average employed Dane measured at 2020 prices and levels.
Continued growth in new EU countries	For the new countries, EU membership continues to boost productivity growth every year, but the boost was biggest in the years around entry and was already present in the years leading up to entry.
Questions for discussion	<ul style="list-style-type: none"> • Our analysis points to a significant economic advantage of being a member of the EU, but with membership Danish sovereignty is also ceded. Can further market integration – e.g. a Danish switch to the euro or harmonisation of welfare systems – further increase the gains and how should it be weighed against a desire to preserve Danish sovereignty? Or, by rolling back the EU, can we win back a great deal of sovereignty at a limited economic cost?
Brexit has been expensive even before withdrawal	<p>Brexit is already expensive for Great Britain</p> <p>On 23 June 2016, a majority of the British people voted to leave the EU, and on 1 January 2021, the withdrawal agreement came into force after several years of negotiations. An analysis indicates that the vote alone and the subsequent uncertainty surrounding the withdrawal agreement have had economic consequences for Great Britain in the short term.</p>
The average Brit has lost DKK 11,100 in 2019 alone	The analysis suggests that in 2019 - three years after the vote – the UK's GDP was 3.5 percent lower as a result of Brexit, equivalent to just below DKK 11,100 per citizen, or just below DKK 23,000 per person employed. According to the analysis, the lower GDP is partly due to the fact that the UK's productivity was 1.5 percent lower in 2019 as a result of the vote. It is also due to the fact that the employment rate would have been 1.3 percent higher without the Brexit vote, equivalent to 570,000 more people employed in the UK.
Bigger effects are expected in the longer term	Brexit is still too new for the long-term effects to be calculated. Based on our analysis that EU membership boosts growth, there may be reason to believe that the UK's GDP per person employed in ten years will be just under 7 percent lower than if the vote had landed on "remain". With the Brexit deal, the UK also opted out of the EEA because the country wanted to leave "properly". A Brexit on EEA terms could probably have reduced the UK's losses going forward, while Brexit on WTO terms going forward would have increased the loss compared to agreed terms.
Even bigger consequences of a potential Dexit	The impact of Brexit on the British economy could be a benchmark for how the Danish economy would be hit in the short term by leaving the EU. However, Denmark is more dependent on trade with other EU countries, and withdrawal would therefore probably lead to even greater economic consequences.
Questions for discussion	<ul style="list-style-type: none"> • Brexit has demonstrated two things: 1. In practice, it is possible for a country to leave the EU. 2. It is expensive. Overall, has Brexit increased or reduced the support for the EU in the remaining countries? • How far should the EU go in the withdrawal agreement in order to reduce the economic consequences if other countries decide to leave the EU?

Entry is conditional on well-functioning institutions	<p>EU lifts institutional quality in new member states</p> <p>Potential member states must live up to the democratic values of the EU, have stable institutions and undertake the obligations of the economic union in order to become a member of the EU. The EU's demands include, among other things, holding democratic elections, ensuring an independent judicial system and adhering to human rights.</p>
It works near the entry, ...	<p>One of the analyses in the report indicates that entering into the EU has actually improved the quality of the social institutions among the new member states with a low starting point. Estonia, for example has seen such major improvements that it has overtaken old EU countries such as France and Belgium. The improvements benefit both the society and economy of the countries. For example, based on previously established correlations between institutional quality and economy, we expect improvements in institutional quality in Estonia and Latvia to lead to a 5-6 percent increase in GDP per person employed.</p>
... but declines too often	<p>Unfortunately, the analyses also confirm that the quality of the social institutions in Hungary and Poland, for example has declined in recent years. Several politicians have warned about the development, and a large majority of Danes want the EU to sanction member states such as Poland and Hungary that do not live up to democratic values.</p>
Questions for discussion	<ul style="list-style-type: none"> • How does the EU best ensure that the member states comply with the agreed rules of the game? Should the EU withhold funds for the member states concerned, or should it work to directly exclude these member states? Is that even possible in practice?
The EU develops and uses fewer digital technologies	<p>The EU lags behind the United States on digital technologies</p> <p>The EU develops digital technologies to a lesser extent than, for example the US, China and Korea. Among other things, this is reflected in how very few of the largest tech companies come from Europe, and in the number of approved patents in ICT and artificial intelligence, which is significantly lower in the EU. When it comes to the use of digital technologies, EU countries are keeping up better, e.g. in terms of digitisation of the public sector and the use of robots and 3D printers in the manufacturing sector. However, other indicators also point to less use of digital technologies in the EU.</p>
Problem or healthy division of labour?	<p>The smaller degree of digitalisation in the EU may be due to market failures that are greater in the EU than, for example in the US, but can also be the result of a sensible market-based division of labour. An example of a market error is the knowledge dissemination, which means that a company itself does not get the full benefit of its research and development (R&D) and therefore prioritises it less than what is socio-economically appropriate. R&D should therefore generally be supported by public funds. Another market failure may be limited access to risk capital.</p>
Unclear whether there is a problem of less digitalisation in the EU	<p>A specific public focus on digital technologies should only take place if market failures, such as knowledge dissemination, are greater in this area than in other R&D. Research does not paint a general picture of major market failures in the development and use of digital technologies compared to other technologies. Therefore, it cannot be concluded with certainty that the lower degree of digitalisation in the EU is an expression of anything other than a healthy market-based division of labour, where different countries and territories develop and use the technologies that serve them best.</p>
Market failures should be identified and remedied	<p>A political technology effort should be carried out by identifying and purposefully eliminating major market failures. In this respect, it is not enough to point to theoretical market failures. They must be able to be demonstrated empirically and have a certain size. A broad-spectrum effort without clarity of causal connection can do more harm than good.</p>
Questions for discussion	<ul style="list-style-type: none"> • Are there particularly major market failures within development and use of digital technologies that justify a specific public effort to support this rather than a general support for R&D and the use of other technologies?

Lack of competition – the snake in the paradise of the free market	<p>Competition thrives better in the EU</p> <p>Free markets and free pricing are fundamental elements of the EU and all other Western economies, and with good reason: It ensures that companies produce the goods that consumers want. If a company does badly, it perishes, and capital and labour are attracted to companies that do better. Overall, it increases productivity and thus the overall prosperity of a society. But there is a snake in paradise: It only works if competition between companies is effective.</p>
Society loses if competition is not effective	<p>For example, if a company has a monopoly on its products, it can increase the price and limit production, thereby securing extra profit. This is to the disadvantage of the consumer. Overall, society is losing exactly because higher prices reduce consumption unnecessarily. It is called the deadweight loss of monopoly. Deadweight losses can also occur if, for example two companies make price agreements or if a dominant company tries to keep competitors out of the market. Insufficient competition also hampers cost consciousness, the efficiency of resource allocation and possibly the technological development.</p>
The EU has a strong competition law and competition authority	<p>That is why Denmark and the EU have competition laws and authorities that work to make competition as effective as possible. In recent years, US tech companies are in focus, and the EU has for instance fined Google €2.42 billion for abusing a dominant position by giving its own price comparison tool an advantage.</p>
Focus on three areas	<p>Danish and EU competition law focuses on three areas: Prohibition of anti-competitive agreements, prohibition of abuse of a dominant position and merger control. Overall, it can be said that competition law today places considerable emphasis on ensuring that existing companies do not keep potential competitors out of the market.</p>
A Danish family saves DKK 2,000 per month on effective competition	<p>The United States has been a world leader in free markets and competition throughout the 20th century. Based on a number of competition indicators, we show that the EU has probably now overtaken the United States. On its own, the difference in competition means that the average Danish family's consumption is about DKK 2,000 cheaper per month than if the family had lived in the United States.²</p>
Regulation and enforcement are crucial	<p>There are several different explanations as to why the EU has overtaken the United States. For example, competition authorities in the EU enforce competition rules to a greater extent, and European countries have implemented a number of reforms that remove anti-competitive regulation and make it easier for new companies to enter the European markets.</p>
Questions for discussion	<ul style="list-style-type: none"> • The EU Commission has recently presented a legislative proposal to regulate the big tech companies so that they do not abuse their dominant market position. Is there a risk that the more robust competition legislation in the EU will restrict innovation to such an extent that it could be a contributing factor to the fewer large tech companies from the EU? Does the United States win overall by accepting lower domestic competition and in return becoming the home country of more major tech companies? • What is the benefit of countries like Denmark from the fact that part of the competition regulation takes place at an EU level rather than a national level? Should a bigger part of competition regulation be transferred to the EU?

² The socio-economic loss, however, is considerably less than the equivalent of these DKK 2,000 per month per family, as Danish companies make a smaller profit. However, a not so insignificant part of this profit goes to foreign owners of the companies.

1.3 What does Denmark get out of the EU?

In a good cooperation, you look at the whole picture

In a good cooperation, everyone wins when it is all added up. But not everyone necessarily wins in all sub-areas. If the EU cooperation is to survive, countries need to agree to lose out in sub-areas, if, overall, they each achieve a win.

Sub-areas invoke persistent interest

Despite this crucial fundamental principle of cooperation, countries in several sub-areas, such as the area of refugees, find it difficult to reach common ground. Likewise, what each country pays for and gets out of the EU's common funds is a source of constant discussion, and especially in Denmark there is a concern that significant funds are lost on educating students from other countries.

In the chapter "What does Denmark get out of the EU?" we go into depth with analyses in various sub-areas of the EU with a special focus on Denmark's advantages and disadvantages of membership.

The fight about the EU budget

The fight about the EU budget

2020 offered an intense fight about the size and distribution of the EU budget. Denmark, together with the Netherlands, Austria and Sweden, fought to limit the EU budget, while several southern European countries wanted a bigger budget. At the same time, Great Britain's exit from the EU left a huge hole in the EU budget. In December, agreement was reached on the 2021-2027 budget, which is significantly larger than previously, but not as large as for instance Italy and Spain wanted.

Denmark and the other rich countries are net contributors

Denmark, together with most other wealthy member states, is a net contributor to the EU budget in terms of the difference between our contribution to the EU budget and what we directly get back in the form of transfers from the EU. In 2019, Denmark's net contribution was approx. DKK 9 billion. Germany and the Netherlands are the only two countries with a larger net contribution measured in relation to the country's national income. On the other hand, the new member states are net beneficiaries of the EU budget. There is therefore a certain redistribution from the richer to the poorer member states through the net contributions to the EU.

Gain of approx. DKK 140 billion per year on Danish membership

However, Denmark's annual net contribution must be compared with the economic benefits that Denmark gains from the EU membership. The analysis mentioned above suggests that an early entry country such as Denmark has achieved a boost in GDP of just under 7 percent. For Denmark, this is equivalent to a boost of approx. DKK 140 billion in 2020.³ This can be compared with Denmark's annual net contribution to the EU of DKK 9 billion. The size ratios clearly indicate that the gains are much bigger than the payment to the EU.⁴

Questions for discussion

- Regardless of the size of the gains, each country has an interest in paying as little as possible to the joint EU budget, as this is not directly reflected in its gains. Overall, how do EU countries ensure the best level of the budget when each country has its own interests and wants as a net gain for itself as high as possible?

Brexit has strengthened the Danes' positive view on the EU

The question of EU membership is not just about economy

More than 70 percent of all Danes want to remain part of the EU. The support for the EU is highest among Danes under the age of 30. Uncertainty around Brexit appears to have strengthened the support for the EU, with just under one in three stating that Brexit has meant they want to stay in the EU to a greater extent. The interpretation of this is that in the eyes of the Danes, Brexit has most of all demonstrated negative consequences for a country leaving the EU.

³ Calculated in 2020 prices and level. The calculation is conservative, as the gain of almost 7 percent of GDP is after ten years, and it is likely that gains will increase over time. The 7 percent is the average value for all old EU countries, and it cannot be ruled out that the value for Denmark deviates from this.

⁴ The gain and the net contribution cannot be deducted directly from each other, as the financing of the public part of the net contribution results in economic distortions that make the socio-economic cost of the net contribution bigger than DKK 9 billion. In addition, the comparison does not take into account indirect effects associated with EU citizens who settle in Denmark and draw on public services.

Danes do not expect personal loss from withdrawal	At the same time, more than 60 percent of all Danes believe that withdrawal will not affect their income, and 6 percent believe that withdrawal will actually be good for their income. Thus, only about 30 percent think that a Danish withdrawal will affect their income negatively.
Some will pay to leave the EU, others to remain in the EU	Some Danes want to leave the EU, even if it means their income goes down. Other Danes want to remain in the EU, even if a withdrawal would give them a higher income. Fewer people want to leave the EU, but they are willing to give up a greater share of their income to leave compared to how much those who want to remain are willing to give up to remain in the EU.
Calculation example: The value of membership beyond economy	When it is all added up, our analysis indicates that the Danes attribute a value of DKK 60 billion per year to the membership in addition to the purely economic gains. In principle, this consists of the soft values, e.g. peace, community and security. However, the uncertainty attached to the result is considerable. ⁵
Questions for discussion	<ul style="list-style-type: none"> • Trump's presidency has shown that the United States does not guarantee the security of the EU countries. Is there a need for an increased focus on the parts of the EU purpose that are not directly related to the economy?
Attractive to study in Denmark	<p>Students from other EU countries are good for the Danish economy</p> <p>More foreign students have come to Denmark, and this is not surprising: It is a requirement from the EU that students from the member states should have equal opportunities to study in all of the EU. And in this context, Denmark is attractive: Study places are free, and unlike many other countries, the SU is relatively generous. Over the past ten years, SU expenditures on EU students have thus quadrupled. This is partly because students from other EU countries have gotten better opportunities to get SU and partly because more European students have come to Denmark.</p>
Are foreign students a burden on Denmark?	The development has caused concern among politicians, as there is a risk that foreign students will go to Denmark, take up a study place, receive SU and return to their home country after graduation. Fortunately, it is not that simple: Some of the students remain in Denmark after finishing their studies. And as a result, Denmark has suddenly acquired a highly qualified citizen without paying the public expenses for e.g. education during that person's childhood and early adolescence.
No, they are a win	An analysis in the report shows that a European student who commences an education in Denmark contributes almost DKK 300,000 to the public finances on average throughout life after expenses such as educational costs have been deducted.
Crucial whether they stay in Denmark after finished studies	Whether the individual student contributes positively or negatively primarily depends on how long the person stays in Denmark. Students who leave Denmark shortly after graduation make up a cost because the Danish state has incurred expenses for SU and education. In turn, students who stay in Denmark and work contribute to the public finances, which more than compensates for the cost of those who leave Denmark after a short time.
Science students contribute the most	The contribution to public finances varies according to the length of education and direction of education of the student, as well as the country the student comes from. Divided by length of education, only graduate students make a positive contribution, but at the same time they make up the majority of students. Students from educations related to science and social sciences generally make the biggest contribution. Finally, students from Southern Europe and Great Britain contribute more than others, but the total number of students from these areas is very limited.
Questions for discussion	<ul style="list-style-type: none"> • How do we make foreign students stay in Denmark? Is the solution a general reform of the SU, where SU for graduate programmes are turned into a loan and the debt canceled in case

⁵ The calculation is subject to the increased uncertainty, which among other things relates to the use of data from questionnaire surveys. In addition, the statement is based on hypothetical scenarios that may be difficult for the respondents to relate to, and it can therefore not be ruled out that part of the economic effects of membership are included in the statement of the DKK 60 billion.

of subsequent employment in Denmark? Can and should we give special consideration to students in programmes that typically benefit Denmark?

Danes are solidary but dissatisfied

Danes fail the EU's handling of asylum seekers

A majority of Danes believe that the EU's handling of refugees and asylum seekers has been poor or very poor. It is likely to be a result of the 2015 refugee crisis, when the European asylum system collapsed, and large numbers of refugees migrated up through Europe. At the same time, almost 70 percent of Danes believe that Denmark is obliged to help Italy and Greece if they again face a massive refugee influx.

The Danes want solutions outside the EU

A majority of Danes believe that in the future, the EU should strengthen controls on its external borders, work for peace and economic development in Africa and the Middle East, establish joint asylum processing outside the EU in order to limit the number of asylum seekers entering the EU and distribute asylum seekers more solidary between member states. The EU is working on solutions that incorporate several of these solutions. A significant minority of Danes believe that the EU should stop all immigration from Africa and the Middle East, even if it is contrary to the Convention on Human Rights.

Questions for discussion

- How does the EU design a solution to the asylum problem which is long-lasting – even during future refugee crises – and which can satisfy both the vulnerable countries in the South and the rest of the EU countries?

1.4 Climate policy in the EU

Increased green ambitions in the EU

The EU has raised the climate ambitions with the European Green Deal and is now significantly ahead of the US, China, Russia and Brazil on climate change. Thus, overall, the EU wants to reduce greenhouse gas emissions by 55 percent by 2030 compared to the 1990 level. However, the countries have left to agree on the instruments and the path to the goal.

Convertible quotas and uniform taxes are good instruments

The two instruments, uniform taxes and convertible quotas covering all greenhouse gases from all sources, provide the same incentive for green transition if the tax corresponds to the quota price. And both instruments minimise the socio-economic costs of the green transition.⁶ Therefore, for the EU, extending the existing quota system – the EU ETS – is an equal and obvious alternative to uniform greenhouse gas taxes. In this case, the EU ETS must be extended to include all emissions, and the number of quotas must be set so that the quota price corresponds to the relevant tax.

Instruments in Danish green transition

In December 2019, the Danish government and a broad majority in the parliament reached an agreement on the Climate Act, which obliges Denmark to reduce its greenhouse gas emissions by 70 percent compared to 1990 levels. In February 2020, we published the SGN report "A climate reform that delivers the magic 70 percent", where we calculated a concrete proposal and pointed out that greenhouse gas taxes should be a central part of the green transition.⁷

Leakage

Still, both in Denmark's and the EU's green transition, the concept of leakage plays a key role. Leakage describes a situation where current emissions are reduced by moving production and emissions abroad as a result of an ambitious domestic climate policy. The more leakage, the less real climate impact in relation to the real economic costs of converting society to less climate impact.

⁶ In practice, a quota system provides security that the objective will be achieved, but not security of the cost for businesses and consumers. Taxes provide security for the costs, but not for the achievement of the objective.

⁷ In connection with the approval of the Climate Act, it was clear that there is a Danish political desire that the change must not hit low-income groups particularly hard. Our proposal addressed the distribution problem by reducing existing energy taxes while implementing and increasing greenhouse gas taxes. This means that it is largely only people with an income higher than the average who pay for the conversion.

Climate tariffs	In order to counteract leakage caused by high domestic climate ambitions, it may be relevant for the EU to impose a climate tariff. A climate tariff is applied to goods imported into the EU from countries with a less ambitious climate policy than that of the EU. The level of tariff depends on the number of greenhouse gases emitted globally in connection with the production and transport of the goods, regardless of whether the goods imported are finished or semi-manufactured. With a climate tariff, production outside the EU is equated with production within the EU, but only for goods consumed within the EU.
Export subsidy	In order to equate goods produced inside and outside the EU when it comes to goods consumed outside the EU, it would be logical to introduce an export subsidy that in practice exempts EU exporters from the part of their costs that is a result of greenhouse gas taxes or quota purchases.
Basic allowance or free quotas ...	It is not necessarily easy to approve an export subsidy in the WTO, and we have previously recommended that Denmark should tackle the leakage problem by giving a basic allowance on the basis of the greenhouse gas tax to emission-intensive sectors. This does not reduce the incentive to emit less greenhouse gases, but it will largely maintain production in Denmark and thus lead to real global emission reductions. ⁸ If convertible quotas are chosen as an instrument, free distributions correspond to a basic allowance for taxes.
... in combination with tariffs	Thus, in order to address the leakage problem, it may be appropriate to combine a climate tariff with basic allowance in greenhouse gas taxes or an extension of the EU ETS, including an extended distribution of free quotas.
GTAP-E is used	We use the international GTAP-E model to lay out scenarios for leakage out of the EU and possible solutions, including a climate tariff and a climate coalition with the United States. The results are methodically innovative and can become central in the development of EU's climate policy, as no similar analyses have been carried out in the past. However, it is still only a model of reality, which is why the calculation results are subject to uncertainty.
The leakage out of the EU	First, we calculate the leakage out of the EU if all EU countries harmonise their climate policy in the form of uniform greenhouse gas taxes or a common quota system covering all emissions. ⁹
Leakage of just about ¼ for taxes of DKK 500 per tonne	As is to be expected, the average degree of leakage increases the higher the EU countries tax greenhouse gases or the more the number of quotas is reduced. If EU countries introduce taxes of DKK 500 per tonne of CO ₂ or limit the number of quotas so that the quota price is DKK 500 higher per tonne of CO ₂ e, the leakage out of the EU will be 28 percent. ¹⁰ That is, emissions from non-EU countries increase by just about a quarter of the emissions reduction from EU countries. The leakage is just about 20 percent for EU taxes of just DKK 100 per tonne. The leakage problem should therefore be dealt with even at less ambitious climate targets for EU countries.
Major difference in leakage from industry to industry	The leakage out of the EU is particularly large for raw materials from livestock, such as beef and colostrum, where it is almost 100 percent with the model used. Also other parts of agriculture as well as the industry will experience relatively high leakage rates, while leakage rates are largely unimportant for trade and service.
How high should the tariffs be?	We analyse how a climate tariff should be put together so that, in the context of green transition, companies in the EU are not placed at a disadvantage in competition with companies outside the EU when it comes to goods for use in the EU. Among the products that produce the highest greenhouse gas emissions are, for example raw materials from livestock, which should be charged a tariff of 45 percent on an EU tax on greenhouse gases of DKK 500 per tonne of CO ₂ e. For other

⁸ Leakage is not just a problem that arises with taxes. Technology requirements or direct reduction requirements, etc. can for instance increase production costs and move production abroad. Similarly, leakage occurs as a result of the EU quota market both today and if it is expanded to include all greenhouse gas emissions.

⁹ We assume that the EEA countries adopt the EU's climate policy in order to maintain their current access to the free trade area.

¹⁰ CO₂e stands for CO₂ equivalents, which is a weighting of the different greenhouse gases according to how powerful their greenhouse gas effect is.

animal raw materials too, a tariff of around 20 percent should be charged, and products from an energy-intensive industry should be charged a tariff of 7 percent.¹¹

Energy products can produce emissions both inside and outside the EU

Energy products such as electricity and gas are heavy items in the global climate accounts, but the production itself of for instance gas does not produce large emissions and should therefore broadly not be charged tariffs. Of course, gas flaring emits CO₂, but when it takes place within the EU, it will be subject to the common EU tax. On the other hand, electricity generation emits greenhouse gases when it is produced from fossil fuels, but not when used. Therefore, imports of electricity should be charged a tariff of just about 30 percent.

Simpler climate tariff may be necessary in practice

In practice, a climate tariff would have to be limited to fewer products. And the tariff should also be put together in such a way that it considers whether the import is from a country that also has binding climate targets. This may complicate the application of a climate tariff in practice. In this case, the calculation of the optimal climate tariff can be used to identify these products and establish an appropriate level of tariff, but it may also be appropriate to include e.g. the economic importance of an industry as a criterion for determining whether competing imports should be subject to tariffs.

What if the United States share the ambitions of the EU?

On his first day as President of the United States, Biden re-entered the United States into the Paris Agreement. This is good news for global climate action, but it is also good news for the leakage out of the EU. Our analysis suggests that the leakage out of the EU will be reduced from 28 percent to 18 percent if the United States, together with the EU, introduces taxes of DKK 500 per tonne of CO₂e.

A climate coalition between the EU and the US?

It may be attractive for both the EU and the United States to enter into a climate coalition that does not impose climate tariffs on each other's products but imposes climate tariffs on goods imported into the coalition. A climate coalition between the EU and EEA countries is necessary if free trade between these countries is to be maintained while the EU at the same time tightens climate policy and introduces climate tariffs.

Questions for discussion

- In principle, a climate tariff on the EU appears as an obvious instrument to prevent leakage in the context of a far-reaching EU climate policy. But do the practical challenges and the risk of a trade war stand in the way? How are the different interests of EU countries taken into account?
- A simpler climate tariff may be more realistic, but how should it be put together? For example, should it cover livestock farming, which is economically less important but causes high leakage?
- How can a climate tariff be put together so it considers the fact that many countries outside the EU also have or are likely to introduce binding climate targets?
- Denmark's reduction targets are more ambitious than EU's overall targets. Is a climate tariff on the EU sufficient to deal with Danish leakage caused by more ambitious Danish climate targets?
- Is it realistic that the EU can form a climate coalition with the United States?

¹¹ The analysis is carried out on aggregated product categories and is thus average for the category. It is likely that concrete products should optimally be charged either higher or lower tariffs. Ideally, the tax should be charged as a volume tax, as the emission of CO₂e is linked to the quantity of a product rather than the value of the product. However, this is hardly possible in practice due to the heterogeneous products. Therefore, tariffs are implemented as an ad valorem tax.

