

SPEECH

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SPEAKER: First Deputy Governor Anna Breman  
VENUE: Norrbotten Chamber of Commerce, Kiruna

## How trade barriers affect the Swedish economy and inflation<sup>1</sup>

Thank you for inviting me to speak here in Kiruna! We have had a turbulent start to the year 2025. It is likely that we will continue to receive conflicting statements from the United States on economic policy, not least with regard to their trade policy. This contributes to financial market volatility and general uncertainty about the outlook for economic activity and inflation.

Kiruna is closely linked to Swedish exports through the mining industry. Like other Swedish industries, the mining industry may be adversely affected by the developments we are now seeing abroad. I would therefore like to focus my speech today on how the Swedish economy and inflation are affected by the risk of escalating trade barriers, and what we in Sweden can do to counteract the negative effects.

Trade barriers are particularly negative for an export-dependent country like Sweden.<sup>2</sup> However, their impact will depend on the scope of the tariffs, which countries are affected and how these countries respond with various countermeasures.

If the United States introduce extensive tariffs and other trade barriers in, and the EU responds with countermeasures, Swedish growth would be dampened, while the effect on inflation in Sweden is uncertain. Trade barriers tend to lead to higher inflation. But, on the other hand, poorer economic performance can lead

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<sup>1</sup> I would like to thank Maria Sjödin and Liza Tchibalina for excellent work on the speech and Björn Andersson, Hanna Armelius, Aino Bunge, Charlotta Edler, Mattias Erlandsson, Jens Iversen, Björn Lagerwall, Tanja Lind, Emelie Nordeman, Anna Seim and Ulf Söderström for valuable comments. I would also like to thank Elizabeth Nilsson for the skilful translation into English.

<sup>2</sup> Trade barriers refer to tariffs and other measures affecting global trade, such as import quotas. They can cover both goods and services. The announcements made so far by the US administration have mainly focused on import tariffs on goods.

to lower demand, which leads to lower inflation. I will discuss this later in this speech.

Sweden is well positioned to manage global uncertainty. Sweden has a diversified and competitive business sector that has shown a high capacity to adapt to new conditions. Moreover, we have strong public finances, and we at the Riksbank have both the tools and the preparedness to act to keep inflation at a low and stable level.

Today I would also like to emphasise that one additional way of counteracting the negative effects of trade barriers is to invest in reforms that strengthen productivity. An economy with high productivity growth can have faster growth, a strong labour market and rising real wages without high inflationary pressures. All else being equal, high productivity protects an economy against inflation. It is positive that competitiveness and productivity are the focus of the European Commission's new work programme, and that we have a Productivity Commission and an AI Commission in Sweden that contribute with concrete proposals for reforms.<sup>3</sup>

Let me start by talking about the impact of increased trade barriers and what they could mean for the Swedish economy. I will then discuss why an increased focus on productivity and competitiveness is important in the uncertain world we live in. Finally, I will comment on how the risk of escalating trade barriers might affect monetary policy.

## **Trade barriers can lead to both lower growth and higher inflation**

Firms that trade internationally are on average larger, more knowledge-intensive and have higher productivity than other firms. To streamline production and strengthen competitiveness, many companies divide their production both inside and outside the country's boundaries. This can be done, for example, by producing components for a product in several different countries and then assembling them in yet another country. We usually talk about these as global value chains. Global value chains contribute to cheaper production, more

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<sup>3</sup> On 29 January 2025, the European Commission published an action plan to strengthen the EU's competitiveness. The action plan contains a list of some 50 actions and initiatives aimed at realising the three main recommendations of the Draghi report: boosting innovation, the green transition while maintaining competitiveness, and enhancing security.

specialised firms, increased competition and the diffusion of technologies and knowledge.<sup>4</sup>

Increased trade barriers would be detrimental to global economic activity, as they hamper trade and limit competition, the pace of innovation and the ability to benefit from economies of scale. This ultimately leads to lower productivity and gross domestic product (GDP) than would otherwise have been the case.<sup>5</sup>

Sweden is an export-dependent country and over time the value of Swedish exports has grown steadily. In 2023, exports accounted for around 55 per cent of GDP. Goods make up the largest share of exports, and most of the goods we export end up with our Nordic neighbours or in other European countries. But the United States is also an important export market.

In recent years, our exports have performed well, despite weak performance in some important markets such as Germany. Sweden's most important export products are road vehicles and machinery, pharmaceuticals, paper and pulp, petroleum products, iron, steel and iron ore. However, there is a strong trend for services exports to become increasingly important. Exports of services now account for around 30 per cent of total exports from Sweden.

Figure 1 shows that both exports of goods and services have developed favourably over the past five years. But it is clear that it is mainly exports of services that have contributed to growth, with growth rate of 50 per cent compared to 10 per cent for goods over the same period.

Trade barriers can affect both goods and services, but the measures introduced and announced by the United States have so far focused on goods. Sweden's strong services exports may provide some resilience to tariffs, but we would nevertheless probably be negatively affected if trade barriers are escalated. The export of services is complex and has many parts.<sup>6</sup> There are links between exports of goods and exports of services, as exports of services can be service contracts linked to a good being sold. We also know that some services exports are related to intellectual property rights and royalties that are related to goods exports.

When countries introduce import tariffs, they are often intended to protect domestic industries from foreign competition and to encourage the purchase of

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<sup>4</sup> See, for example, Alcalá and Ciccone (2004), Bernard and Jensen (1995), Criscuolo and Timmis (2017) and Melitz (2003).

<sup>5</sup> Studies show unequivocally that raised domestic import tariffs have negative effects on the real economy in both the country that has raised its import tariffs and the countries that are impacted by them. The negative effects are amplified by the existence of global value chains with the greatest negative impacts on countries and sectors further down the production chain. See Dellmo (2025).

<sup>6</sup> See the forthcoming *Staff memo* from the Riksbank on large Swedish companies and foreign trade in services.

domestically produced goods. There is also a hope that the higher import tariffs will improve the trade balance. Trade barriers, however, lead to higher costs for households and companies, especially in the country that has introduced or raised import tariffs. Studies of the tariffs imposed by the United States during Donald Trump's previous term show that they led to lower growth and higher inflation in the United States.<sup>7</sup> These tariffs were less extensive than those now being proposed.

For Sweden, the increase in tariffs in those years is estimated to have had a limited effect on GDP and inflation.<sup>8</sup> What the impact of tariffs would be today depends on their extent, which countries are affected and how these countries respond with various countermeasures.<sup>9</sup> It is not certain that tariffs in the United States would lead to higher inflation in Europe, as they could at the same time slow down growth in Europe - and low demand can dampen inflation. Moreover, other countries facing lower demand from the United States may choose to sell goods to Europe at lower cost. However, we are likely to see some impact on inflation in Europe if the United States imposes tariffs on us, and if we also respond with import tariffs on US goods and services.

In addition to these effects, we also need to take into account the effects through financial markets. The exchange rate of the country imposing import tariffs tends to appreciate, which can counteract the effects of the tariffs.<sup>10</sup> We have already seen large fluctuations on the financial markets following various statements on tariffs from the White House. For example, the Swedish krona weakened against the US dollar in the autumn, but has recently strengthened, despite continued signals of increasing trade tariffs in the United States.

Uncertainty and volatility on the financial markets make it difficult for households and firms to plan ahead, and this can reduce their willingness to consume and invest.

It is important to emphasise that we do not yet know how extensive the trade barriers will be. With the uncertainty surrounding the scope and design of the tariffs, we should be cautious about precise figures as to how the Swedish

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<sup>7</sup> See Dellmo (2025) for an overview of the research literature.

<sup>8</sup> See Dellmo (2025).

<sup>9</sup> The Riksbank published a couple of scenarios in the December Monetary Policy Report that illustrate, for instance, how the Swedish economy could be affected by a trade conflict between the United States and the rest of the world, and how this could affect monetary policy going forward.

<sup>10</sup> The initial shift in demand from foreign to domestic production tends to result in a counteracting exchange rate appreciation. One reason is that higher inflation often leads to higher interest rates relative to other countries. The nominal exchange rate may appreciate if imports decline significantly and demand for foreign currency falls. An appreciation in the exchange rate hampers exports, but makes imports cheaper, which counteracts the effect of the tariffs.

economy and inflation would be affected. However, it is important to continuously monitor developments and to be prepared to act.

One way to counter the possible effects of US tariffs is for Europe to trade more with other countries. Diversification in terms of both trading partners and products makes a country less vulnerable. Otherwise, it is important to build a resilient and strong economy through reforms that increase productivity and competitiveness. This is the focus of the European Commission's new work programme. For Sweden, this means working on the measures we can take to strengthen Swedish competitiveness and productivity. But what exactly is productivity, and how do we achieve higher productivity growth?

## Trade boosts productivity and growth

Let me begin with an example from the mining industry. In the early 1950s, annual ore production in Sweden was around 23 million tonnes. 70 years later, the number of employees has decreased but production has increased to over 80 million tonnes.<sup>11</sup> Output per employee or per hour worked has thus increased, that is, productivity has increased. Higher productivity makes it possible to increase real wages, that is, wages adjusted for inflation.

But, it is not only miners who have gained higher real wages. Thanks to productivity increases in the Swedish economy, real wages in general have risen substantially, especially since the inflation target was introduced in 1995 (see Figure 3).

In this example, the increase in productivity is due to miners having better training and more advanced tools. Machines and robots have to some extent replaced people in the mines. Nevertheless, labour shortages are one of the mining industry's biggest problems. In Kiruna, unemployment is 2.2 per cent, one of the lowest in Sweden, and here a lack of labour with the right skills is an obstacle to expanding the mining industry in the region.<sup>12</sup>

At a macroeconomic level, higher productivity has meant increased welfare and the creation of new jobs. Over longer periods, it is productivity that drives growth. The usual measure of how much we produce is GDP.

Since 1980, Swedish GDP has more than doubled (see Figure 2). About 25 per cent of that growth comes from the fact that we have had a growing population and increased employment, which means that the hours worked have increased. But

<sup>11</sup> [www.sgu.se/mineralnaring/mineralstatistik/](http://www.sgu.se/mineralnaring/mineralstatistik/)

<sup>12</sup> [www.regionfakta.com/norrbottnens-lan/](http://www.regionfakta.com/norrbottnens-lan/)

the other 75 per cent of growth comes from higher output per hour worked, that is, higher productivity.

Productivity varies over time. During periods of high productivity, it becomes relatively cheaper to produce goods and services, as the so-called unit labour costs are dampened.<sup>13</sup> In this way, developments in productivity and unit labour costs are often mirror images (see Figure 5). High productivity growth can thus dampen cost pressures in the economy. All else being equal, this means lower inflationary pressures.

## How to achieve higher productivity

In the short term, productivity can be very volatile. For policy makers, it is therefore often important to try to discern the more trend-like developments. But determining if or when there has been a shift in a trend can be difficult.<sup>14</sup>

Productivity growth has been weak in Europe since the financial crisis and we have seen the same pattern in the United States, until the pandemic. After that, productivity growth picked up in the United States. No such sign of a positive trend reversal has been seen in Europe and Sweden (see Figure 6).<sup>15</sup>

Sweden has historically had strong productivity growth in line with the United States, and it has been higher than in many European countries. While there are global trends in productivity growth, there are significant differences between countries.<sup>16</sup>

Increased productivity can come from three main areas: increased capital intensity, labour force composition and higher multifactor productivity.<sup>17</sup>

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<sup>13</sup> Unit labour costs are important for a firm's competitiveness. They describe how much labour has to be paid to produce one unit of a product or service.

<sup>14</sup> See, for example, Cline, Kahn and Rich (2025).

<sup>15</sup> The Draghi report highlights weak productivity as the biggest challenge for Europe. The new Commission Work Programme focuses on this. Productivity has also been weak in Canada, for example, as highlighted by Rogers (2024) at the Bank of Canada. Pilat (2023) summarises the analytical work and policy recommendations of ten national productivity commissions: Australia, Belgium, Denmark, Finland, France, Germany, Ireland, the Netherlands, New Zealand and Portugal between 2019 and 2022, and makes some comparisons with the UK Productivity Commission.

<sup>16</sup> See, for example, the SNS Economic Policy Council Report 2024 and Growth Analysis (2021). Productivity varies between industries and also between firms. In Sweden, as in many other countries, the spread in productivity between firms appears to have increased over time, see Growth Analysis (2022).

<sup>17</sup> See, for example, the Productivity Commission (2024) for an overview on productivity. The OECD (2024) emphasises that successful reforms to raise productivity need to increase the incentives and capabilities of firms and workers. Policies should take into account challenges both for companies at the forefront of technology, which are the main contributors to innovation, and companies that are lagging behind, which are mainly dependent on catching up. It also argues that policies need to promote a productive allocation of resources – capital and labour – in the economy, in particular by fostering a healthy level of business dynamism.

*Capital intensity* refers to investment in new technology, such as a machine or computer programme that allows employees to work more efficiently. Reforms that make it easier for firms to obtain financing for investment can contribute to higher capital intensity. Investments in infrastructure such as roads, railways and fast and efficient digital infrastructure can also boost productivity in both the private business sector and the public sector.

*Labour force composition* refers to the total human capital of the workforce, that is people's skills, knowledge, talents and education. Therefore, the quality, orientation and dimensioning of the education system are of great importance, but so is the possibility for continuous learning throughout life. Reforms that strengthen education, research and further education boost productivity.

*Multifactor productivity* measures how efficiently capital and labour are used.<sup>18</sup> It reflects technological progress, organisational improvements and so on. Reforms that reinforce this can include those that promote competition, economies of scale, 'management practices' and the ability of firms and institutions to adopt new technologies, such as Artificial Intelligence, AI.

The strong productivity in the United States in recent years has been highlighted in a couple of recent speeches by Federal Reserve Board members Adriana Kugler and Lisa Cook. Dr/Governor Kugler (2025) highlights three main potential explanations for the rising productivity growth in the United States: (1) better matching of unemployed and vacant jobs in the labour market following the pandemic, (2) good business dynamics with many new firms, and (3) technological advances, especially linked to AI. Dr/Governor Cook (2024) emphasises technology developments with a focus on AI, and its potential to boost productivity.<sup>19</sup> It is interesting to analyse how these factors have developed here in Sweden in recent years. Three interesting patterns can be found.

First: First, an analysis by the Riksbank shows that matching in the Swedish labour market has improved somewhat in recent years, but that it is still worse than it was before the financial crisis (see Figure 7).<sup>20</sup> We still have high structural unemployment, and many people leave school without the necessary grades. There is reason to believe that reforms that strengthen education and labour market matching would yield significant productivity gains for the Swedish economy.

Second: We do not see any trend towards increased entrepreneurship in Sweden. On the contrary, there has been a period with a trend decline in the number of

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<sup>18</sup> This is also called total factor productivity.

<sup>19</sup> The period after 1995 when US productivity growth accelerated is also largely linked to information technology, see, for example, Bloom, Sadun and Reenen (2012).

<sup>20</sup> See Häkkinen-Skans and Wasén (2025).

new business formations (see Figures 8 and 9). Sweden has a competitive business sector, but it is mainly characterised by large multinational companies that have been around for a long time. There is great potential here to stimulate the emergence of new firms, which can contribute to higher competition in different sectors and at the same time contribute to the use of new technologies, including AI.

Third: According to international comparisons, Sweden is not at the forefront of new technologies in AI.<sup>21</sup> Infrastructure and incentives during the 1990s are considered important factors for Sweden's good track record of adopting new technologies and making investments. Reforms that strengthen the adoption of AI technologies could help boost productivity.

It is positive that Sweden has both a Productivity Commission and an AI Commission. The Productivity Commission has published an interim report and will present its final report in October.<sup>22</sup> The AI Commission has published a long list of proposals with measures to promote the use of AI in Sweden.<sup>23</sup>

I am optimistic that Sweden can once again become a country with high productivity growth. Sweden has long been good at adopting new technologies and also at enabling labour market transitions. Instead of protecting industries vulnerable to restructuring, we have chosen to be open to trade and competition, while facilitating re-skilling/re-training of the labour force.<sup>24</sup> But for that to happen now, we need to ensure that the AI Commission's and Productivity Commission's proposals lead to actual reforms and investments.

It is also important to recognise that technological changes are not always painless. Two of the 2024 Nobel Laureates in Economics (formally known as the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel), Daron Acemoglu and Simon Johnson, describe in their book "Power and progress" how new technology can create instability in society. The debate surrounding the regulation and implementation of AI is therefore important.<sup>25</sup> They also describe

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<sup>21</sup> In its report, the AI Commission points out that Sweden is lagging behind in AI development, which is reflected, among other things, in a deterioration in Sweden's ranking in the Global AI Index (from Tortoise Media). In the overall index, Sweden falls from 17th place (in 2023) to 25th place (in 2024) out of 83 countries that were compared. Among EU countries, we rank 10th, behind both Finland and Denmark. In terms of the components of the Global AI Index, Sweden's conditions are particularly weak in terms of political governance, where we are in 57th place.

<sup>22</sup> In the interim report the commission proposed measures such as regulatory reform that could boost productivity in various sectors, including housing and construction.

<sup>23</sup> The AI Commission's report "Färdplan för Sverige" (Road map for Sweden - only available in Swedish) notes that measures are needed to improve productivity in Sweden and the EU. It calls for leadership with regard to AI and for the government to ensure that the basic conditions are in place. The report argues that "comprehensive traffic regulations, fuel supply and AI targets" are needed. The Commission emphasises that there is a substantial need for investment in digital infrastructure.

<sup>24</sup> See SNS Economic Policy Council Report 2024 and the Productivity Commission's interim report.

<sup>25</sup> See, for example, the AI Commission report "Färdplan för Sverige" and Fjaestad and Vinge (2024).



how positive effects can take a long time to translate into increased growth and prosperity, and that institutions affect how wealth is distributed in an economy. Nor does higher productivity always lead to higher real wages. There are major differences between countries. In the United States, for example, real wages have stagnated in the 2000s, despite strong productivity growth (see Figure 4).

What is the Riksbank's role in promoting higher productivity? The Riksbank cannot create higher productivity, but we can contribute to it indirectly in several ways. By adjusting monetary policy to keep inflation low and stable, it becomes easier for firms to plan and invest. In Sweden, there is confidence that the central bank will bring inflation back to target if it deviates. This creates security and predictability regarding price developments over time. In this way, monetary policy contributes to investments that boost productivity.

I would also like to emphasise that the combination of an inflation target and the Industrial Agreement, where the social partners in the manufacturing sector set the 'benchmark' in wage negotiations, has contributed to low and stable inflation over time. It has also helped real wage growth to follow productivity growth closely.<sup>26</sup> This means that reforms that boost productivity have the potential to benefit everyone through higher real wages.

## **Monetary policy in a world characterised by uncertainty about trade barriers**

Let me return to the challenges we face in 2025 and what they mean for current monetary policy. Inflation is presently low and stable and the prospects for keeping inflation close to the target are favourable. Companies' pricing plans, inflation expectations and wage growth are all in line with inflation close-to-target even in the medium term. The Riksbank's focus is to maintain low and stable inflation while supporting the rebound in the Swedish economy.

Since May last year, the Riksbank has implemented six interest rate cuts totalling 1.75 percentage points. The cuts have already had an effect on the interest rates faced by households and firms, and they will have an increasingly clear impact during 2025. The lower interest rates give households increased purchasing power and companies lowers financing costs. We have seen positive signs that household consumption is beginning to pick up. The overall picture is therefore that Sweden is well placed for an economic recovery in 2025.

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<sup>26</sup> After the 1990s crisis, major changes were made to Swedish economic policy frameworks. In January 1993, the Riksbank announced that an inflation target of 2 per cent would enter into force with effect from 1 January 1995. For further information, see <https://www.riksbank.se/en-gb/monetary-policy/the-inflation-target/>.

Since the most recent monetary policy meeting in January, inflation has come in slightly higher than expected. This was mainly due to the so-called CPI basket effect and goods prices. We will have more information about the economic outlook ahead of the next monetary policy meeting, including one further month of inflation outcome. In the Riksbank's current business survey, we are asking specific questions on increased trade barriers, which may provide an indication of how Swedish firms are adapting to the threat of tariffs. An overall assessment of the outlook for inflation and economic activity will determine the next steps for monetary policy.

My current assessment is that our forecast for the policy rate in December is holding up well. The forecast indicates an unchanged policy rate going forward, but at the same time we are prepared to both raise and lower the policy rate if the outlook changes. It is important to have patience to see the effects of the implemented rate cuts. In addition, monetary policy should not respond to short-term volatility, be it financial market fluctuations or short-term month on month variations in inflation. But monetary policy must act if there is a risk of inflation lastingly overshooting or undershooting the target.

Having said that, it is likely that there will be significant uncertainty regarding trade policy for a long time. There is also considerable uncertainty about the United States' position on other key issues, such as geopolitics and energy and climate policy, and how Europe will respond to the potential effects of this. This uncertainty can lead to households and firms in Sweden postponing consumption and investments. The risk scenario therefore includes an unexpectedly protracted recovery in the Swedish economy and. There is also a risk, if trade barriers escalate, that this could lead to higher inflationary pressures in the medium term, also in Sweden.

Let me conclude by once again emphasising that Sweden is well positioned to manage global uncertainty. We have a competitive business sector, strong public finances and we at the Riksbank have both the tools and the preparedness to act to keep inflation at a low and stable level.

Higher productivity in Sweden would make us even more resilient in an uncertain world. Increased productivity is important for the Swedish economy, regardless of whether or not we see further trade barriers. Productivity generates growth while also dampening inflationary pressures. This is a fundamental prerequisite for increasing welfare, strengthening competitiveness and enabling real wage growth. At the same time, productivity has not taken off in Sweden in the same way as it has in the United States in recent years. The most important reforms for Sweden that would boost productivity are investing in education that strengthens matching in the Swedish labour market, investing in new technologies, including

AI, as well as promoting entrepreneurship and facilitating a dynamic business environment.

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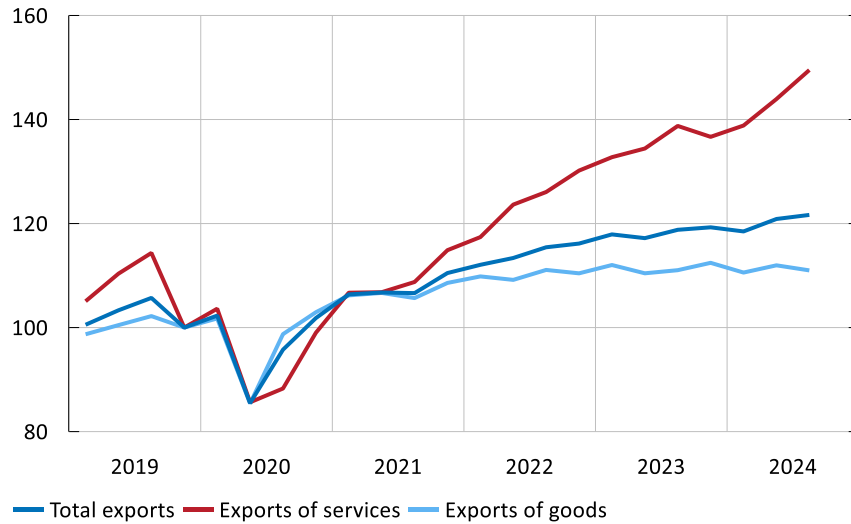
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## Figures

**Figure 1. Swedish exports**

Index, 2019 Q4 = 100

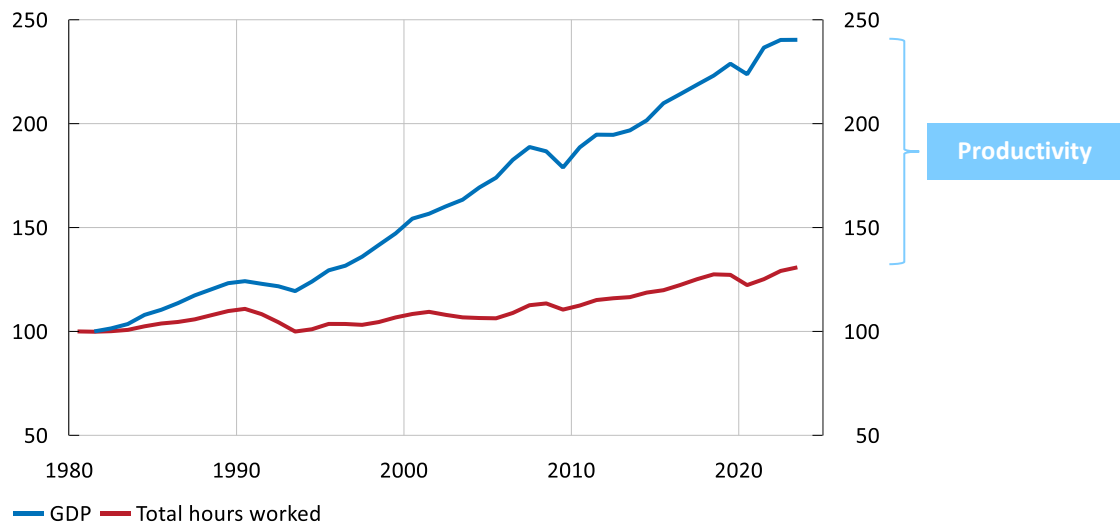


Note. Quarterly data.

Source: Statistics Sweden.

**Figure 2. GDP and total hours worked in Sweden**

Index, 1980 = 100.

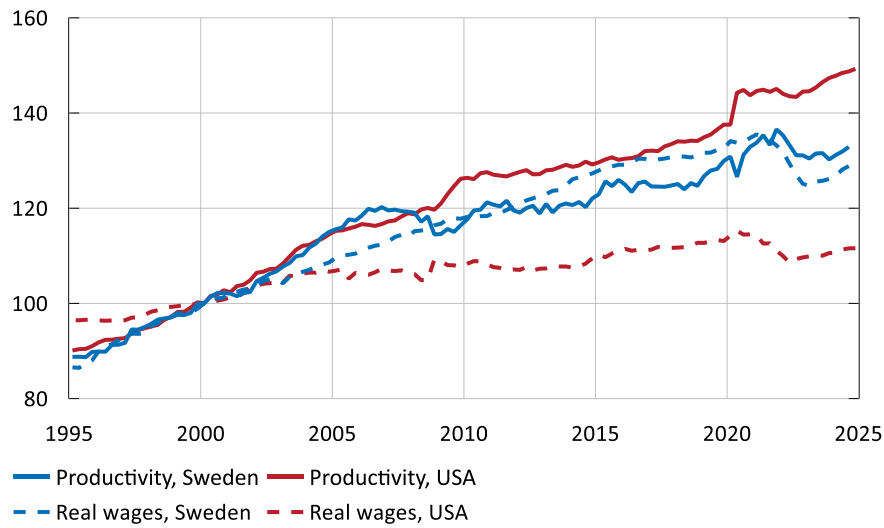


Note. Annual data. The difference between GDP and the total hours worked should correspond to the level of productivity.

Sources: Statistics Sweden and the Riksbank.

**Figure 3. Productivity and real wages in Sweden and the USA**

Index, 2000 Q1 = 100.

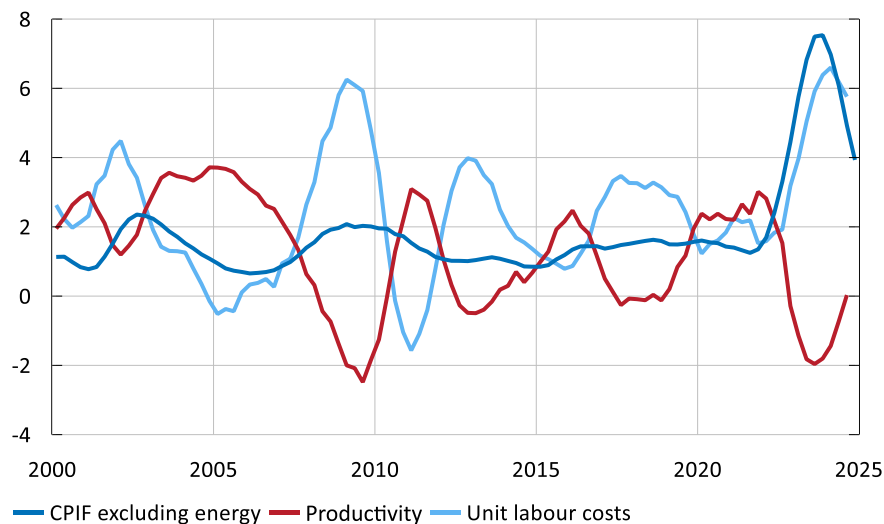


Note. Quarterly data. Productivity is labour productivity measured in the number of worked hours. The real wage is deflated with CPIF for Sweden and CPI for USA.

Sources: The Riksbank and BLS.

**Figure 4. Inflation, productivity and unit labour costs**

Annual percentage change

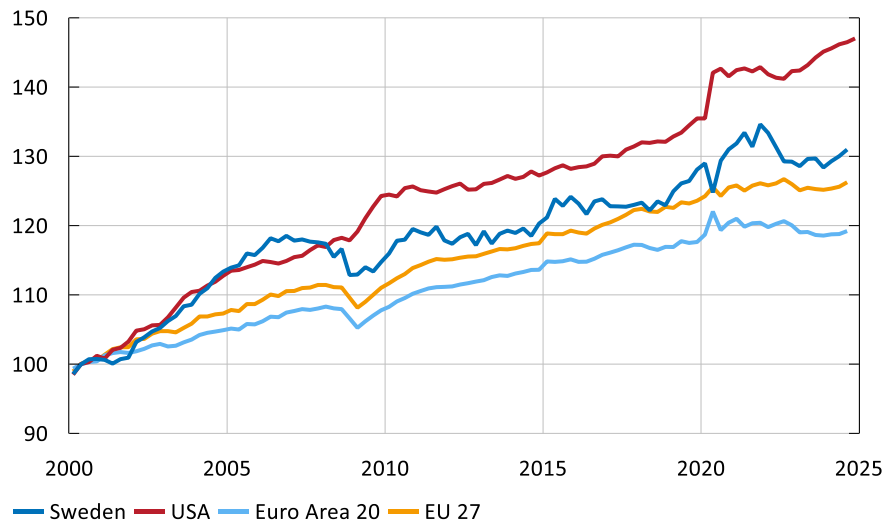


Note. Quarterly data. Six-quarterly moving average. Productivity is labour productivity measured in the number of worked hours. Unit labour costs describe how much labour has to be paid to produce one unit of a product or service.

Sources: Statistics Sweden and the Riksbank.

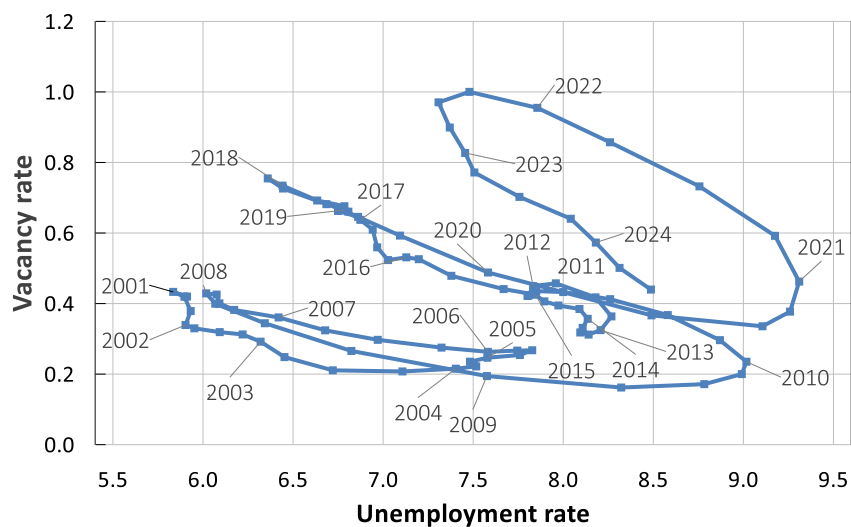
**Figure 5. Productivity in different countries and regions**

Index, 2000 = 100



Note. Quarterly data. Productivity is labour productivity measured in the number of worked hours.

Sources: U.S. The Bureau of Labor Statistics and Eurostat.

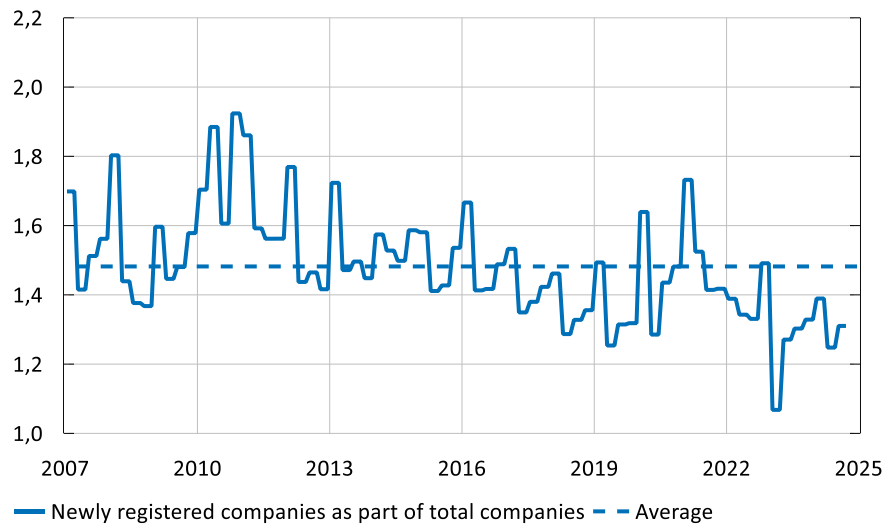
**Figure 6. Beveridge curve 2011–2024**

Note. The vacancy rate is defined as the number of vacancies in relation to the number of persons in the labour force. Statistics Sweden's short-term statistics on vacancies ended in the first quarter of 2024. Vacancies for the second and third quarter of 2024 has been projected with the aid of the Swedish Public Employment Service's newly registered job vacancies.

Sources: Statistics Sweden and the Riksbank.

**Figure 7. Newly registered companies in Sweden**

Per cent

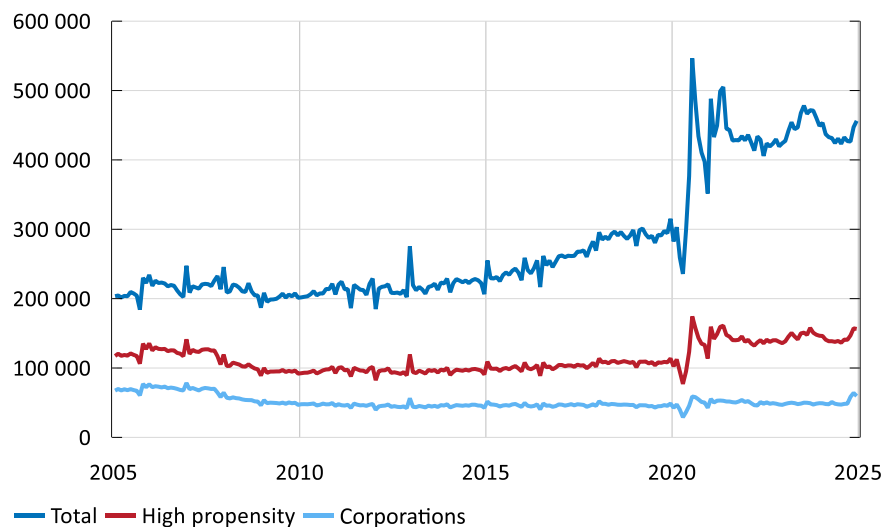


Note. Monthly data. The dashed line is an average of the number of newly registered companies in Sweden during the period 2007-2024.

Source: Growth Analysis.

**Figure 8. Business applications in the USA**

Number



Note. Monthly data. High-propensity business applications are a subset of the total number of business applications. To be considered in the "high propensity" group, the company needs to recruit employees, advertise or plan the payment of the first salary or belong to a certain industry. Business applications belonging to the "high propensity" group also have their own subgroups, one of which is whether the business is a corporation.

Source: U.S. Census Bureau.