Economic Developments and Outlook

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Summary and policy recommendations

Outlook for the Dutch economy

The war in Ukraine is affecting the Dutch economy, which is reaching its capacity limits again after recovering from the COVID-19 recession. The shock of the war is driving energy prices higher, causing uncertainty and depressing the growth of world trade. Economic growth this year will still amount to 2.8%, mainly due to carry-over from 2021. From the end of 2022 GDP growth will pick up, with fiscal policy playing a supporting role. Projected GDP growth is set to exceed the potential (trend) growth rate in both 2023 (1.5%) and 2024 (1.7%).

Inflation is initially high mainly due to energy prices, but is spreading to other goods and services. It is projected to average 8.7% this year, mainly due to the exceptionally high rise in energy prices. Thereafter it is set to fall to 3.9% in 2023 and 2.4% in 2024. The projected core inflation rate (excluding energy and food) will reach 3.6% in 2022 before easing to 2.6% in both 2023 and 2024.

The labour market is extremely tight again immediately after the COVID-19 recession, with staff shortages being felt across the economy. Employment will barely grow next year, but the supply of labour is also reaching its limit. The unemployment rate is projected to average 3.3% in 2022. This is followed by a slight increase (3.6% and 3.4%). The tightness of the labour market and higher inflation are driving wage rises higher. The increase in negotiated wages (private sector) is expected to rise from 2.9% in 2022 to 3.9% in 2023 and 4.0% in 2024.

The government budget deficit and debt-to-GDP ratio are set to fall, despite strong growth in government expenditure in 2023 and 2024. The balance will improve from -2.1% of GDP in 2022 to -1.7% of GDP in 2023 and -1.6% of GDP in 2024.

If the war in Ukraine is more protracted and takes a more serious course than that assumed in the projection, uncertainty will persist, energy and food prices will remain high and world trade growth will fall further. This is the basis for an alternative scenario for the Dutch economy, according to which GDP growth in 2022 is 0.8 percentage points lower than projected, while inflation rises further to 10.8%. GDP would then contract by 0.4% in 2023, with 5.1% inflation, before growing slightly by 1.3% in 2024. In an extension of this scenario, Russia also halts energy supplies to Europe, causing companies to cut production. In that case a recession follows, with growth of 0.4% in 2022 and a contraction of 1.5% in the following year. Growth in that scenario recovers to 3.0% in 2024.

Policy recommendations related to the projection

The government cannot prevent the real income effects of higher energy prices, but it can redistribute them. The macroeconomic inflation rate masks the fact that not all households are affected by price rises to the same extent. Lower-income households in particular are feeling the impact of the sharp and sudden rise in energy and food prices, possibly leading to energy poverty. Although the government cannot negate this macroeconomic income loss, targeted measures can help to spread the burden of inflation more evenly. With the current tightness in the economy, it is important to avoid further fiscal stimulus at the macroeconomic level. In other words, funding for any targeted compensation will have to be found elsewhere in the budget. The measures already taken to compensate for higher energy prices should remain temporary.

Where there is room for wage rises, they can absorb part of the impact of high inflation for working people. Wage indexation, however, would further fuel inflation. The period of stagflation in the 1970s and 1980s is different from today's economic situation. The labour income share is lower than at that time and is projected to fall even further. On the macroeconomic level, this gives companies room to absorb higher wages. Hence although there is room for wage increases in several individual companies and sectors, steps must also be taken to prevent wages rising automatically and fully in line with inflation. That would further fuel inflation and undermine economic activity.

Measures to maintain security of supply and affordability of energy cannot be taken without considering their impact on sustainability. In the short term, measures are needed to secure the supply of sufficient energy. This policy could be used as an opportunity to take steps towards sustainability objectives and the necessary energy transition. Coordination and cooperation at EU level is essential in that regard. Not all groups of citizens have the same financial opportunities to increase sustainability, however. Targeted measures can make sustainability more affordable for all households. At the same time, price incentives must remain in place, for example in the cost of public transport as compared to car use.

In order to ease the negative impact of the tight labour market on companies, the government could introduce support measures on both the supply and demand sides of the labour market. Tax solutions should be considered to make more jobs attractive, provide support for training and guidance of job-seekers and stimulate investment in labour-saving technologies. In specific sectors, particularly government and semi-government, such as education and healthcare, the need for staff may become even more acute without additional policies, placing a strain on service delivery. This also requires a tailor-made approach.

The housing market needs more new building, with fewer tax breaks for homeowners. The projected rise in interest rates will curb demand for homes, which in itself is desirable due to the overheated market. At the same time, affordability for first-time buyers will come under additional pressure, as the rise in interest rates outpaces the restraining effect on house prices. More supply is therefore needed to increase accessibility. The tax advantage of home ownership also impedes accessibility, and hence an inclusive housing market, leading to unintended wealth inequality. It is therefore important to look at owner-occupied homes when designing the new wealth tax. By ultimately transferring the treatment of home ownership from box 1 to box 3 for income tax purposes, different types of assets can be treated equally, thereby helping to reduce the risks and imbalances in the housing market.

1 The Dutch economy in 2022-2024

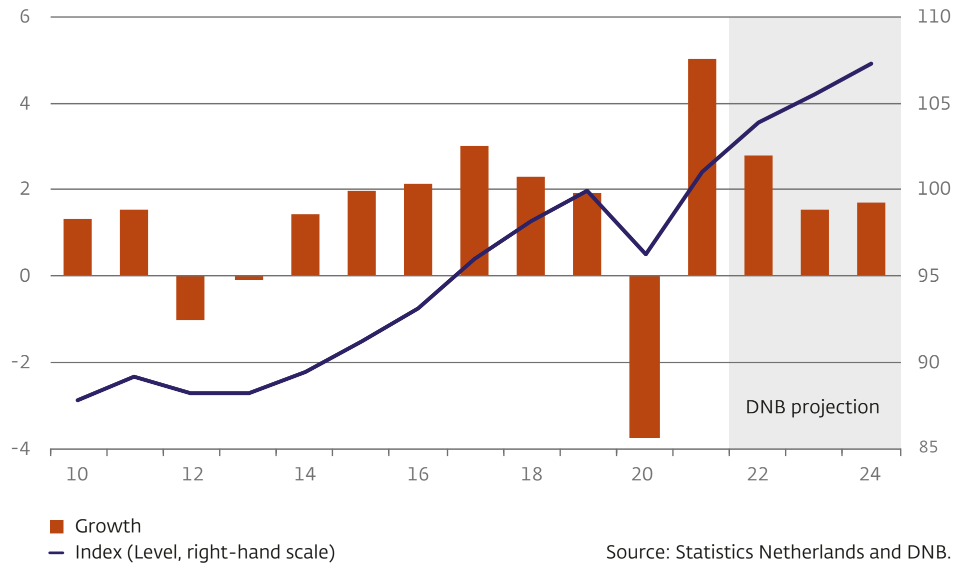
1.1 New shock hits economy after recovery from COVID-19 recession

On the heels of the COVID-19 pandemic, the global economy is again facing major challenges with the outbreak of the war in Ukraine. A combination of substantially higher energy prices, international trade sanctions and heightened uncertainty, including with regard to the availability of energy, is dampening the economic outlook. The economic recovery from the COVID-19 recession already began to reach its limits last year. Thanks to the rapid upturn in spending, the Dutch economy is even operating at full capacity again. However, the increasing demand for transport equipment, semi-manufactured goods and commodities is running into persistent supply chain bottlenecks linked to the pandemic. The combination of these bottlenecks and the steep increase in demand has pushed prices of commodities, intermediate products and finished products sharply higher since mid-2021.

The Dutch economy rebounded strongly from the COVID-19 recession in 2021, and GDP in the first quarter of 2022 was back to 3% above the end-2019 level. The economy is now under pressure from external developments, however. First, the shock effect of the war makes businesses and especially households reluctant to spend – at least in the short term. Exports of goods and services are also being affected by the war. Sanctions and declining activity in the affected countries are dampening the growth of international trade.[1] The depressing effect of supply chain disruptions on world trade has also been intensified by the recent lockdowns in China associated with the country's COVID-19 policy. The downward pressure on spending is being exacerbated by rapidly rising inflation. In the Netherlands, inflation reached an all-time high in the first quarter of 2022, mainly due to energy. This is having a severe financial impact on some households, especially the lower income groups. On the other hand, spending is being supported by the measures in the coalition agreement and the additional plans in the May 2022 Spring Memorandum, including lower tax rates (in 2023) and additional spending on climate, education and defence. On the macroeconomic level, the cooling of the economy, which was becoming overheated, is contributing to downward pressure on prices.

Figure 1 Gross domestic product

Volume; year-on-year percentage changes; 2019 = 100



Source: Statistics Netherlands and DNB.

The Dutch economy grew by 5.0% in 2021, more than previously expected (Figure 1). Growth in the last three quarters of the year was so high that it had a particularly strong carry-over effect on growth in 2022. If the economy were to stagnate at the end-2021 level, GDP would still be 2.7% higher in 2022 than in 2021. The projected

1 'Consequences of the war in Ukraine for the economy of the Netherlands', DNB, 17 March 2022.

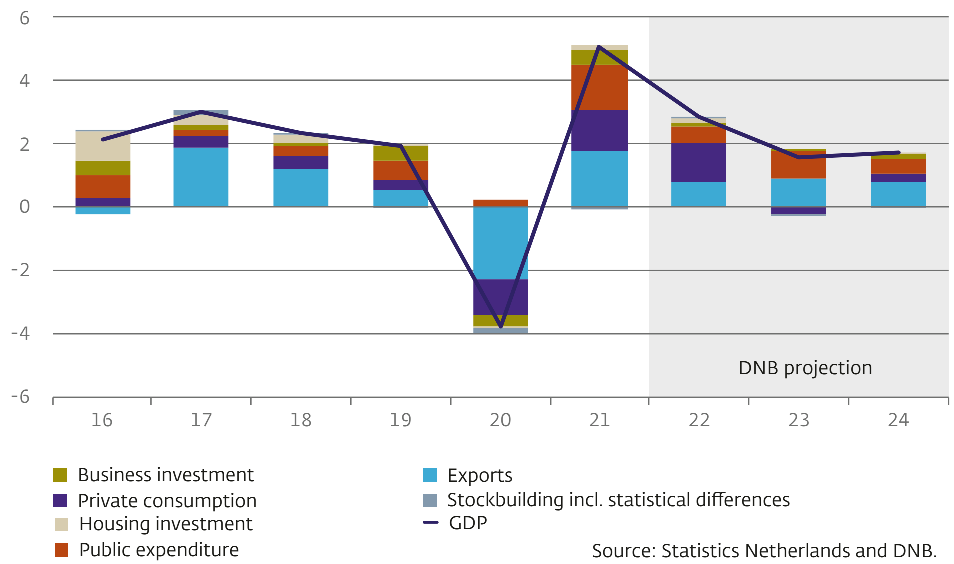
2022 growth of 2.8% is only slightly higher than the carry-over.[2] Surging inflation, higher interest rates and slowing growth of world trade are putting downward pressure on projected GDP growth (in real terms). Economic growth is set to recover somewhat from the end of 2022, assuming that energy prices and uncertainty subside and world trade gradually picks up. Chapter 3 presents a scenario in which this normalisation fails to materialise and the Ukraine war has a more severe and longer-lasting impact on the economy.[3] Box 1 compares the current economic picture with the period of stagflation in the 1970s and 1980s.

In 2023, the projected growth slows, mainly because private consumption hardly rises at all. Households not only have to contend with a real loss of income, but also see their wealth grow less fast due to the slowdown in house price growth. Due to the strong growth in government consumption, GDP growth is still projected to reach 1.5% in 2023, hence remaining above the potential (trend) growth rate. By 2024, the supply chain disruptions should be over and the economic recovery is expected to continue, with projected GDP growth of 1.7%. A full overview of the projection for the 2022-2024 period can be found in the Key Data Table.[4]

Figure 2 shows the extent to which the expenditure categories contribute to economic growth. Throughout the projection horizon, exports contribute positively to GDP growth, albeit to a decreasing extent. In 2022, the growth contribution from private consumption remains positive, purely as a result of the carry-over from 2021. This is followed by a period of slightly declining consumption, so the projected growth contribution is negative in 2023 and only slightly positive in 2024. The government makes a positive contribution to GDP growth throughout the projection period. The low growth contribution from private investment over the projection period is particularly notable. Contributory factors are the cooling housing market, declining consumption growth and the tight labour market.

Figure 2 Sources of GDP growth

Year-on-year percentage changes and contributions in percentage points



Source: Statistics Netherlands and DNB.

Note: Net contributions to GDP growth. Final and cumulative intermediary imports have been deducted from the related expenditure categories.

2 These projections are based on information available on 24 May 2022. The assumptions for relevant world trade, exchange rates, international commodity prices and interest rates were adopted by ECB and euro area NCB experts as part of the Eurosystem projections. These international assumptions feed into the projection for the Dutch economy and we describe them in Sections 2.1 and 2.2 of this publication. More background to our projections can be found at www.dnb.nl/the-state-of-the-dutch-economy.
3 While the economic impact of the COVID-19 pandemic and associated containment measures has eased greatly, there remains a risk that new variants will impede economic growth.
4 We carry out our projections in part using the DELFI macroeconomic model. We also use it to assess the consequences for the Dutch economy of changes in economic policy or other variables. The DELFI tool on the DNB website can be used by anyone as an easy means of visualising the impact of alternative assumptions on the projection.

The projected trend in employment follows the pattern of GDP growth, as usual with a lag of around one year. Headcount employment sees very strong growth in 2022, which is still linked to the recovery following the relaxation of COVID-19 measures. Unemployment thus falls sharply in 2022 and remains very low during the projection period. The tightness in the economy is also reflected in the difference between projected and potential GDP, i.e. the output gap. It is 1.4% in 2022 and rises to as much as 2.2% in 2024. The combination of a tight labour market and high inflation puts upward pressure on wages during the projection period. In 2022, nominal wage growth still lags well behind inflation, but average real wages grow again thereafter. With labour productivity growing strongly, the ratio of domestic earned income to nominal GDP, the labour income share (LIS), declines over the projection period.

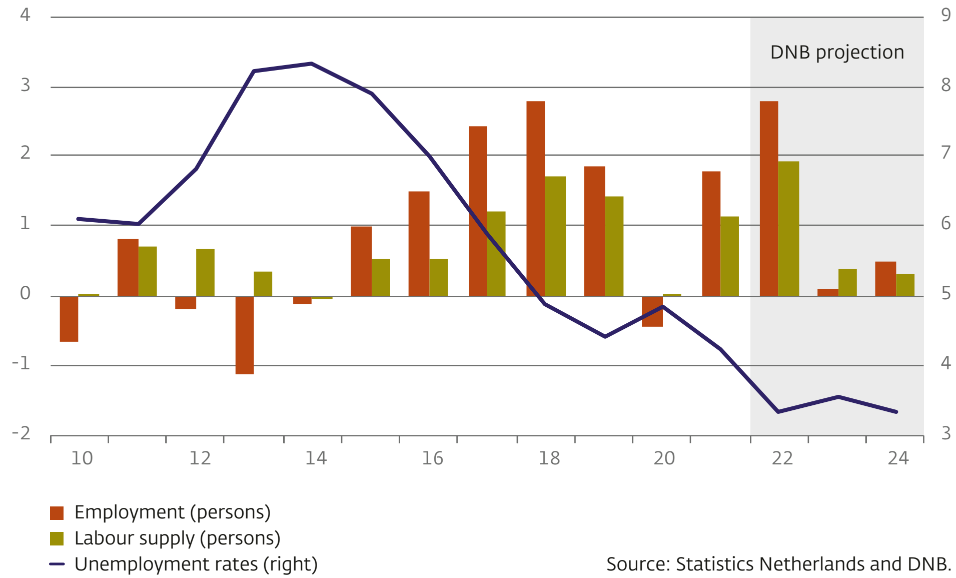
1.2 Labour market remains tight despite declining employment growth

Due to the strong recovery from the COVID-19 recession, projected employment growth peaks at 2.8% in 2022 (Figure 3). The end of the lockdown and containment measures gave an additional boost to labour demand in the first quarter of 2022. The number of employed persons rose by 106,000, representing substantial growth of 1.1% compared to the previous quarter. Employment grew most in business services, including temporary employment (65,000). There was also strong growth in the number of persons employed in healthcare (13,000), trade, transport & catering (10,000) and education (9,000). In the first quarter of 2022, the vacancy rate fell to a record low of 51 vacancies per 1,000 jobs. One-third (33.6%) of businesses experienced problems due to a shortage of personnel.

After peaking in 2022, projected employment growth falls sharply to 0.1% in 2023 and 0.5% in 2024, mainly due to lower economic growth. The labour market nevertheless remains tight. The unemployment rate declines to an average of 3.3% of the labour force in 2022. Thereafter, unemployment is projected to show a slight, temporary rise to 3.6% in 2023 before easing to 3.4% in 2024. Decelerating growth in labour supply is

Figure 3 Demand and supply labour market

Year-on-year percentage changes and percent of labour force



Source: Statistics Netherlands and DNB.

a further factor preventing declining employment growth from pushing unemployment substantially higher. The deteriorating economic picture will mean fewer people entering the labour market. More importantly, however, the labour supply is running up against its limits. In the first quarter of 2022, 74.3% of 15-74-year-olds were active in the labour market and 71.7% were in paid employment. Both percentages are high, including by international standards. Nevertheless, labour market slack remains substantial: in the first quarter of 2022, in addition to 338,000 persons unemployed, 301,000 were semi-unemployed (unavailable to start work immediately or not actively seeking work) and 491,000 part-time workers indicated a willingness to work more hours. From this perspective, there is still scope to stimulate labour participation and labour mobility, with the government able to provide support with measures on both the supply and demand sides of the labour market.

1.3 Higher wage growth due to inflation and tight labour market

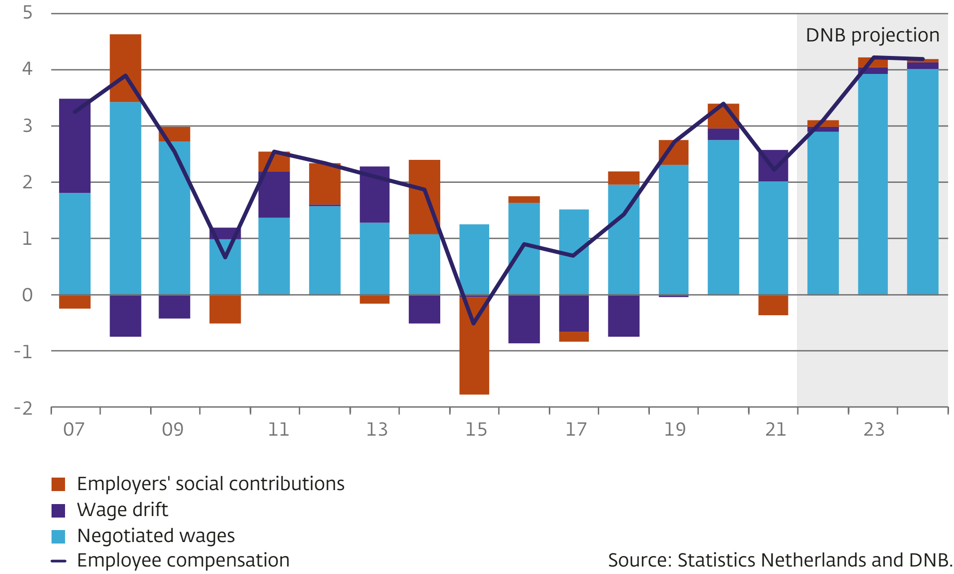
After negotiated wage growth in the private sector fell to 2.0% in 2021, it is expected to recover in the years ahead to 2.9% in 2022, 3.9% in 2023 and 4.0% in 2024 (Figure 4). Nominal negotiated wage growth has not been this high since 2001 (4.2%). Due to growing and increasingly widely felt labour market tightness and rising inflation, trade unions are – successfully – pushing for higher nominal wages. The fact that projected wage growth in 2024 barely increases further is due to the expected gradual decline in inflation. On the other hand, low unemployment should continue to have a favourable impact on workers' bargaining position.

In January 2022, according to Statistics Netherlands figures, collectively agreed wage growth in the private sector averaged 2.3% compared to a year earlier. In May, this figure rose to 2.7%, indicating that new agreements on average include higher wage increases. This can also be seen in the indicator used by the AWVN employers' organisation, which measures the increase in negotiated wages in recent collective labour agreements. The average wage agreement in new collective agreements was 2.6% (12-month basis) in January 2022, but by May 2022 it had risen to 3.8%. An analysis shows that the two wage growth indicators are closely correlated, with the AWVN indicator leading the Statistics Netherlands data by about two to three quarters.

Due to the tight labour market and the strong recovery from the COVID-19 recession, gross wages for some employees are rising more than collectively agreed wage growth. In order to attract or retain employees, companies are awarding employees additional remuneration, for example in the form of extra periodic wage increases, a promotion or an individual bonus. This puts upward pressure on wage drift. Changes in the composition of the working population also affect wage drift. Overall employment growth in the years ahead will most likely be generated mainly by lower paid jobs for young people, people with less work experience and flex workers, thereby depressing the average wage level. During the projection period the positive contribution to wage drift from additional remuneration and the negative contribution from this composition effect more or less balance each other out.

Figure 4 Compensation per employee (private sector)

Year-on-year percentage changes and contributions in percentage points, in FTEs



Source: Statistics Netherlands and DNB.

The labour income share, the compensation for labour of employed and self-employed persons as a percentage of total gross value added, decreases by more than one percentage point during the projection period. Although wage growth accelerates, it lags behind nominal labour productivity growth. This means that, from a macroeconomic point of view, the projected wage growth is not "too high", in the sense of putting pressure on average corporate profitability. There will not be room for higher wage growth in every sector, of course, but where there is, it can contribute to a more balanced distribution of welfare growth.

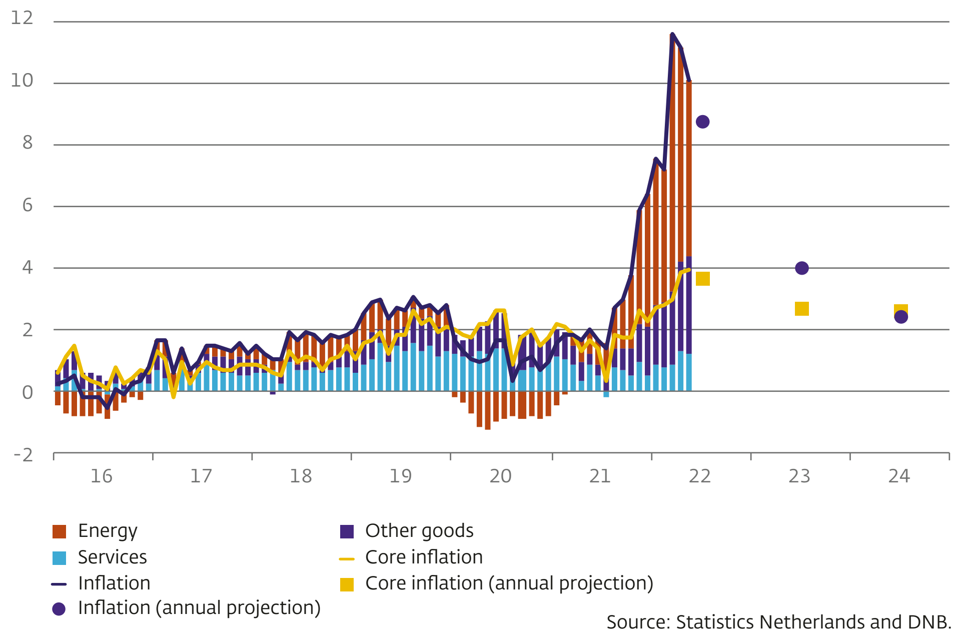
1.4 Exceptionally high inflation

HICP inflation is expected to average 8.7% in 2022 and will only ease significantly, to around 6%, in the final quarter (Figure 5). This exceptionally high level is due largely to energy prices. Consumer prices for gas, district heating, electricity and motor fuels are more than 56% higher in 2022 than in 2021 and contribute around 6 percentage points to the projected inflation in 2022. In addition to energy, food and related products have become much more expensive as a result of the war in Ukraine, a major food producer. In the projections for 2022, the price of food rises by an average of 6.1%. The rise in energy prices is also an important factor here, because the higher heating costs for greenhouse horticulture and the costs of production, processing, transport and storage are passed on to consumers.

Although high energy prices are undeniably a major contributor to inflation, the prices of other goods and services are also rising sharply. This is reflected in the core inflation rate (HICP excluding energy and food) of 3.6% in 2022. This inflation is partly due to higher prices for energy, commodities and transport feeding through into prices of industrial goods such as furniture, cars and computer equipment. Other contributors to high core inflation are the supply chain disruptions, tight labour market and increased aggregate demand. These factors also contribute to services inflation, which is historically very high at 3%. This broad-based rise means that high inflation will play a more significant role in inflation expectations

Figure 5 HICP and core inflation

Year-on-year percentage changes and contributions in percentage points



Source: Statistics Netherlands and DNB.

Note: Core inflation excludes food and energy.

and in the behaviour of households and companies, for example in wage negotiations. Box 2 details this broadening of inflation.

High inflation erodes households' real income and depresses consumption in the course of 2022. Low-income households are particularly vulnerable. They spend a relatively large part of their income on energy and often have no buffer to absorb the large rise in energy prices. It should be noted that the difference between inflation in the Netherlands and other European countries is affected by the method used to measure energy inflation, see Box 3.

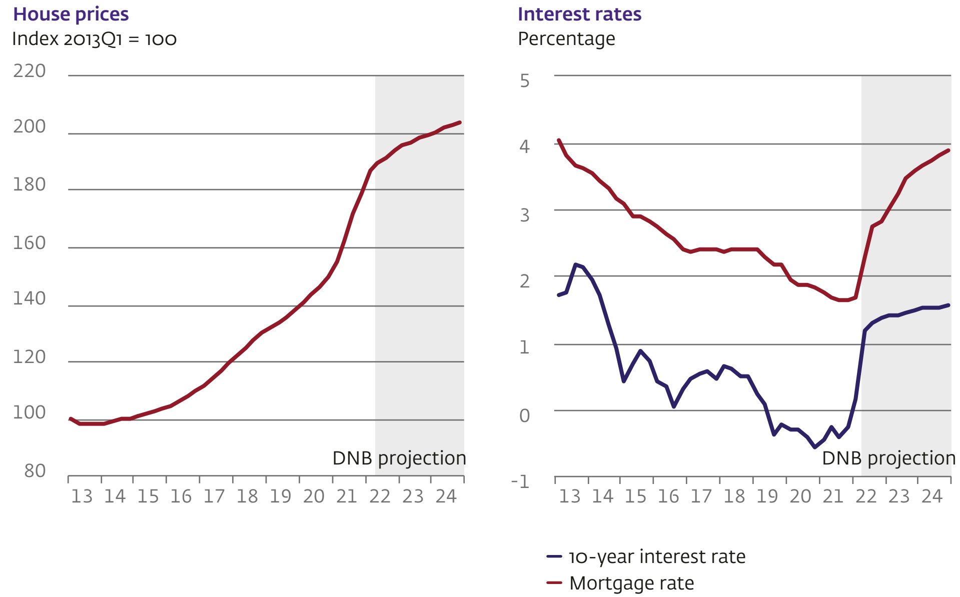
In 2023 projected inflation falls to 3.9%, still well above the ECB's 2% target for the euro area. The rise in energy prices is expected to ease to 11.7% but to remain a significant contributor to inflation, partly because temporary energy tax cuts are likely to be reversed in 2023. Core inflation also remains high at 2.6%. The development of wage costs is an important factor in this figure. Core inflation is fuelled by unit labour costs, which are set to rise by 2.6% in 2023. This cost increase is in turn driven by the 3.9% rise in negotiated wages in 2023. In 2024, unit labour costs are expected to rise further by 2.8%, while core inflation remains unchanged at 2.6%. Since energy inflation is forecast to fall sharply in 2024, the projected inflation rate turns out slightly lower at 2.4%.

1.5 House price growth levels off due to higher mortgage interest rates

House prices nationally have almost doubled since the low point in 2013. Falling mortgage interest rates, the reduction in transfer tax and the inadequate housing supply have contributed to this. On average, prices in 2022 are expected to be 13.9% higher than in the previous year. This price rise largely occurred in 2021 and the early months of 2022. Even if house prices remained unchanged after the first quarter of 2022, the price increase for the full year would be 11.6% due to this carry-over effect. In 2023 and 2024, house prices are expected to continue rising moderately by 3.7% and 2.5% (Figure 6, left), which is roughly equivalent to projected inflation for those years.

The levelling off of house price growth in 2022 and beyond is mainly due to the expected trend in borrowing capacity. A household's borrowing capacity depends largely on nominal income and the mortgage interest rate. Whereas expected income growth contributes positively to borrowing capacity, rising mortgage rates contribute negatively. Heightened global economic uncertainty, surging inflation and tightening monetary policy have recently pushed capital market interest rates higher. This is expected to lead to further rises in mortgage interest rates (Figure 6, right). According to the projection, the average interest rate on new mortgage contracts will therefore rise from 1.7% in 2021 to 3.8% in 2024. The last time mortgage interest rates rose by around two percentage points was in the 2005-2008 period.

Figure 6 House prices and interest rates in the Netherlands



Note: The 10-year rate is the average rate on 10-year Dutch government bonds at the time of issue and the mortgage rate is the average mortgage rate on all maturities on new contracts at the time of inclusion in the issuer's balance sheet. House prices based on the house price index of existing owner-occupied houses with 2013Q1 = 100.

Sources: Statistics Netherlands and DNB.

Interest rates on new mortgage contracts react after a time lag to the rates published by mortgage lenders. These published rates have therefore already risen more than the average rates on actual mortgage contracts. For example, the 20-year fixed rate on an NHG mortgage was over 3% in May 2022.[5] That is an increase of 1.6 percentage points compared to the end of 2021, whereas rates on new contracts have risen by only 0.7 percentage points since then. Aside from the delayed effect of rate adjustments, increases in mortgage interest rates are also being dampened by the fact that households are increasingly opting for shorter fixed-interest periods. As short-term interest rates are generally lower than long-term rates, this moderates the average interest rate on new mortgage contracts. The proportion of new bank mortgages with a fixed-interest period of more than 10 years has recently decreased, from 62% in the final quarter of 2021 to 58% in the first quarter of 2022. For a quarter of the total mortgage debt, the fixed-interest period expires within five years.[6] The fact that existing homeowners can take their relatively low-interest mortgage with them when they move also cushions the effect of an interest rate rise on affordability to some extent. This obviously does not apply to first-time buyers: they are immediately confronted with higher interest rates, higher monthly costs and more limited borrowing capacity.

5 National Mortgage Guarantee.
6 And 61% within ten years, see Financial Stability Report, DNB, Spring 2022.

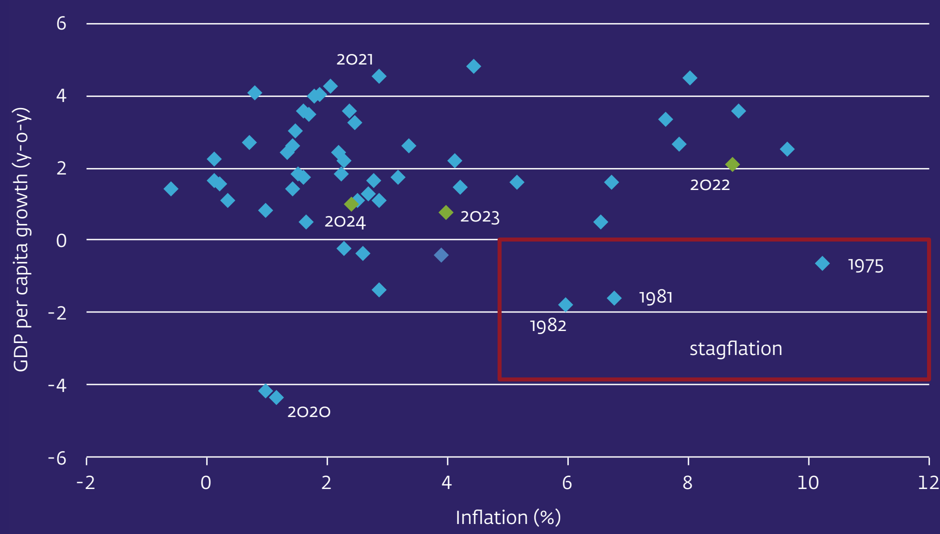
Box 1 Comparison with periods of stagflation

Stagflation involves high inflation and a stagnating economy. In the Netherlands this occurred after the oil price shocks in 1973 and 1979 (Figure 7). The stagflation in the 1970s had several causes. Like today, the global economy had to contend not only with oil price shocks but also with food price shocks. Commodity prices then remained high for a long time. This increased companies' production costs and put pressure on their activities. Policymakers in many countries responded with stimulative fiscal and monetary policies, which fuelled even higher inflation.

There were also institutional factors at the time that prevented any fall in real wages. General index-linking of wages and benefits – in force in the Netherlands until 1982 – stimulated a wage-price spiral. The nominal wage bill per employee rose considerably more than labour productivity (Figure 8). Unit labour costs consequently rose sharply. That eroded companies' competitiveness and profits, which translated into a high labour income share (averaging around 83% in 1978-1979). Business investment consequently fell. The deep recession caused unemployment in the Netherlands to rise to more than 10% in the early 1980s.

Like the two oil crises, the Ukraine war is causing a negative supply shock to the global economy. This shock has led to bottlenecks in supplies of commodities and other goods, higher production costs for businesses and rising inflation. This entails downside risks to economic growth. However, there are some differences between the current situation and the stagflation of the 1970s and 1980s:

Figure 7 Years of stagflation in the Netherlands, 1970-2024



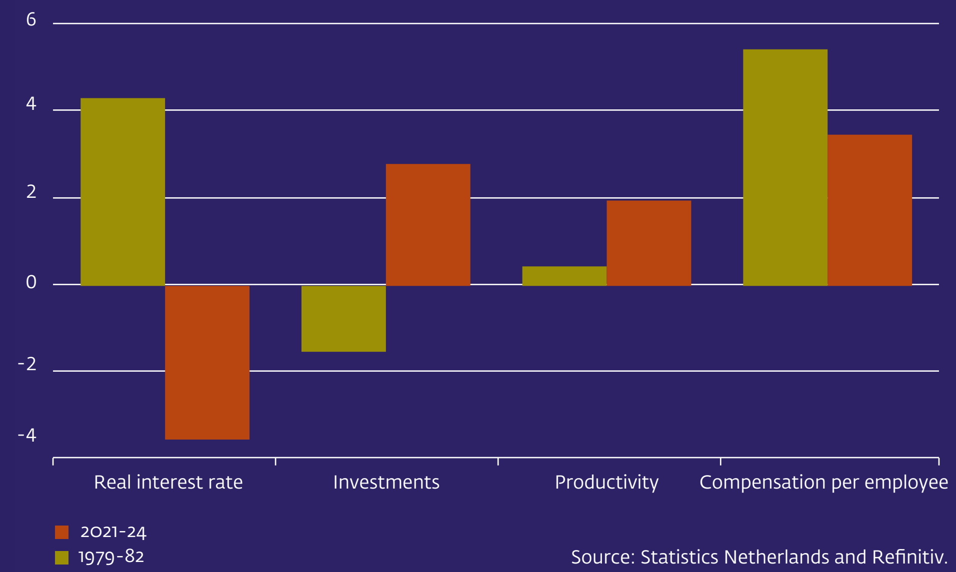
Source: Statistics Netherlands and DNB.

Note: Stagflation is defined as a year in which annual real GDP per capita growth is 0% or lower and inflation is higher than the average plus 1 standard deviation (representing an inflation rate of 5.8% or higher, measured over the period 1970-2021, annualised). Inflation is CPI in 1970-1996 and HICP from 1997. Inflation and GDP per capita growth in 2022-2024 are the estimates in this publication.

- Central banks aim to anchor inflation expectations around their inflation target. This contrasts with the earlier period, when it was assumed that there was also a long-term trade-off between inflation and unemployment, with stimulative monetary policy having long-term positive effects on employment. As a result, central banks pursued stimulative policies at the expense of stable prices. Since then, central banks have focused mainly on price stability, partly because research has shown that in the long term there is no trade-off between inflation and unemployment. The real interest rate is currently negative, indicating that monetary conditions are accommodative (Figure 8).
- Since nominal wages are now less directly linked to inflation, real wages adjust faster than before; they already fall in the first year of the projection. In addition, the increased flexibility in the labour market reduces the risk of a wage-price spiral. The current tightness in the labour market is nevertheless exerting upward pressure on wages. The labour market was also tight in the early 1970s.
- Since wages are currently rising at a slower pace, a larger part of the inflation is directly impacting households' purchasing power. Households with sufficient savings can use them to maintain their spending level. The government's compensation measures are also helping in this regard.
- Dutch businesses are generally in better shape now than last time: the profit share of non-financial corporations in 2020-21 was over 41% (compared to an average of 34% between 1972 and 1982), with a labour income share of less than 75%. This means companies have more room to absorb cost increases.

Figure 8 Comparison of economic figures Netherlands

Average annual percentage changes; real interest rate in percentage points



Source: Statistics Netherlands and Refinitiv.

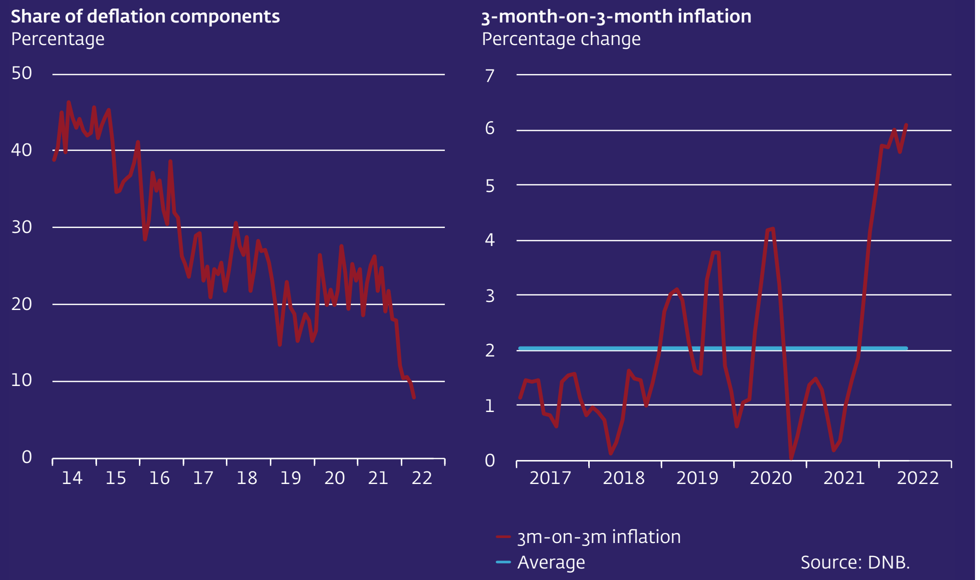
Note: The figures for 2022-2024 are the projections in this publication.
Real interest rate is the 10-years government bond corrected for inflation.

Box 2 Inflation higher across a broad front, not just due to energy

Inflation has risen sharply since the summer of 2021. This is mainly due to the sharp rise in energy prices, but underlying inflation has risen across a broad front. This is reflected, for example, in higher core inflation and a declining share of spending on goods and services with falling prices. The prices of some goods and services fall even during inflationary times. The share of these deflation components in the HICP inflation basket has ranged between 20% and 30% in recent years. They often include telephones, telephone contracts, electrical goods and IT. In the early months of 2022, however, the share of deflation components fell below 10%. A notable example is tuition fees, which were halved in September 2021. Over 90% of the consumer basket has therefore increased in price.

The inflation dynamics excluding energy also point to broad-based inflationary pressure. Figure 9 shows HICP inflation excluding energy. Instead of the usual year-on-year price increase, the figure shows the rise in the average price level over three months compared to the previous three months (annualised and seasonally adjusted). Changes in price dynamics are reflected more rapidly in this measure than in the year-on-year price increase. In the figure, this measure of inflation has ranged between 0% and 4% since 2017, with an average of 2%. Since January 2022, however, the increase has been well above 5%, which clearly indicates that prices of goods and services other than energy are also rising rapidly. The price increase of energy alone is also exceptionally high according to this measure: in the case of the energy components it averages 138% in 2022.

Figure 9 Indicators of broader inflationary pressure



Source: DNB.

The broader inflationary pressures also imply that high inflation is more persistent, and will remain high for some time after energy inflation subsides. This also increases the risk of second-round effects through higher inflation expectations and wages.

Box 3 Inflation differential vs euro area and role of energy inflation

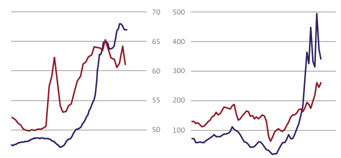
Dutch HICP inflation has exceeded that of the euro area since November 2021. Since March 2022, the difference has been as much as four percentage points, higher than at any time since the start of EMU in 1999. In April, Dutch inflation was 11.2%, compared to 7.4% in the euro area. If we exclude rises in energy prices, the difference is only 0.5 percentage points. The prices of food (+7.2%) and industrial goods (cars, clothing, furniture, +4.9%) have risen more strongly in the Netherlands than in the euro area over the past 12 months. The rise in prices of services (+3.1%) has been slightly lower in the Netherlands, partly due to the reduction in tuition fees in September 2021.

So what explains the difference in energy inflation? The increase in the price of energy in April in the Netherlands was 83% compared to April last year. That is more than twice as much as in the euro area as a whole. This was due not to motor fuels, where the price increase in the Netherlands was actually lower, but to movements in gas and electricity prices. These rose by 136% in the Netherlands, compared to 39% in the euro area. This difference has three main causes. First, electricity prices depend on the generation method. Natural gas is an important generation source in the Netherlands, whereas in other countries other sources have a larger share. Second, in some countries the government has frozen energy prices, thereby dampening, or at least slowing, the rise in prices in the euro area. Third, gas and electricity price movements are measured differently in the Netherlands than in most other euro area countries. Statistics Netherlands (CBS) measures movements in prices offered by the energy companies in new contracts. A large proportion of consumers have fixed-term contracts for gas and/or electricity, however. Consequently they are not yet being impacted by the high energy prices, even though they have already been fully included in the HICP inflation rate. It would help if Statistics Netherlands took this into account when determining the HICP inflation.

2 A closer look at the economic outlook

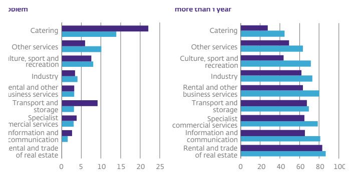
2.1 International assumptions

- International economy marked by war in Ukraine
- Monetary policy expected to tighten



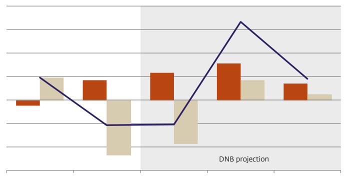
2.4 Businesses

- Uncertainty weighs on investment
- Bankruptcies remain low



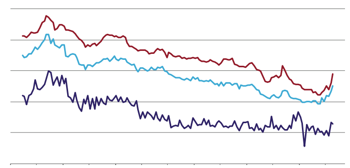
2.2 Exports

- Exports hit by decline in world trade growth
- Terms-of-trade loss due to higher energy prices



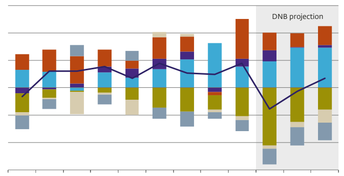
2.5 Corporate lending

- Corporate lending grew strongly in 2021
- Tighter conditions and higher interest rates expected



2.3 Households

- Private consumption hit by energy inflation
- Lower savings rate expected



2.6 Government

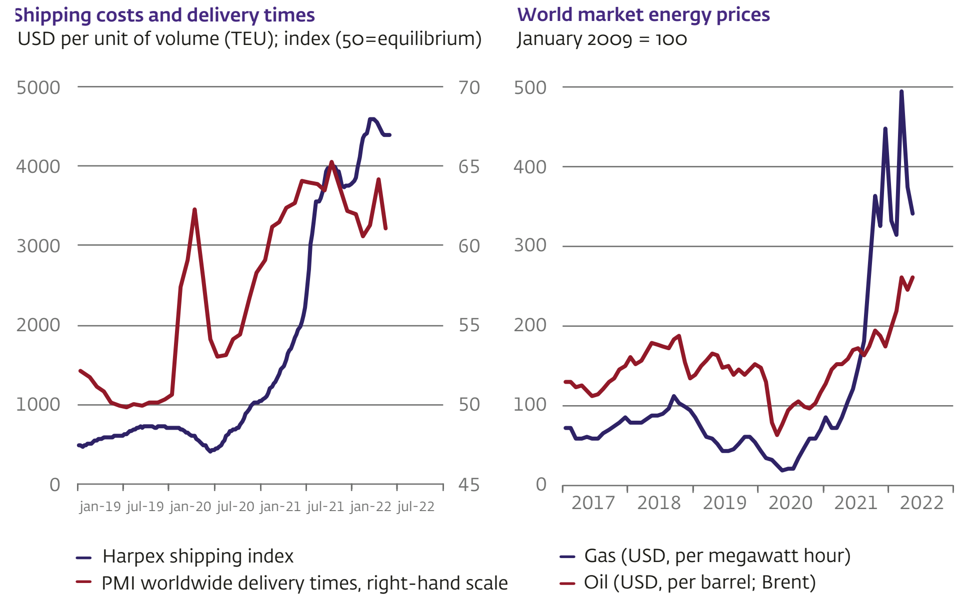
- Public finances emerge from COVID-19 recession in good shape
- Further improvement in budget balance projected

2.1 International economy marked by war in Ukraine

These projections are part of the half-yearly projections by the European Central Bank (ECB) for the euro area economy. For their national projections all central banks use the same international assumptions, which have been adopted jointly with the ECB. The lockdowns in Asia and the war in Ukraine have had a major impact on these assumptions. According to the ECB's forecast, global GDP (outside the euro area) will grow by an average of 3.0% in 2022, over three percentage points less than in 2021. In the projection, international activity remains constrained by supply chain disruptions into 2023. Steep rises in commodity prices and geopolitical uncertainty put additional downward pressure on GDP growth. The projection assumes that the impact of these factors will gradually diminish from the second half of 2022. The ECB projects growth of the global economy (outside the euro area) at around 3.5% in both 2023 and 2024, close to the long-term average (3.8%).

Supply chain disruptions continue to weigh on international economic activity, as evidenced by longer delivery times and high transport costs (Figure 10, left). The war in Ukraine has disrupted supplies of agricultural products and commodities such as metals. The projection assumes that commodity prices excluding energy will be 14.4% higher (measured in USD) in 2022, after a 42% increase in 2021. These prices will remain relatively high in 2023-2024. International energy prices have risen sharply due to the sanctions against Russia and heightened uncertainty surrounding energy supplies (Figure 10, right). The projection assumes that the oil price will remain high at an average of USD 104 a barrel in 2022 and fall to USD 93 and USD 84 a barrel respectively in the subsequent two years. On average over these years, this is about 30% higher than the oil prices assumed in the previous projection (December 2021). It also assumes that there will be no significant disruptions to gas supplies from Russia. The scenario in Chapter 3 assumes stagnation of energy imports from Russia.

Figure 10 Global supply restrictions



Source: Refinitiv.

In response to soaring inflation in the United States, the Federal Reserve (Fed) has raised the federal funds rate twice in 2022 by a total of 75 basis points. It has also been announced that the Fed will reduce its balance sheet by reinvesting only part of the redemptions of previously purchased bonds. In April, US inflation was 8.3% with an unemployment rate of 3.6%. Due to the tight labour market, US wages increased by an average of around 6% year-on-year in the first quarter. Driven by expectations of further interest rate hikes and the unwinding of the Fed's balance sheet, US capital market interest rates rose by around one percentage point in 2022. In their wake, US mortgage rates rose to over 5% (for a 30-year fixed-interest period).

In the euro area, inflation reached 7.4% in April (and provisionally 8.1% in May), mainly due to higher energy inflation. The rise in core inflation to 3.5% (and provisionally 3.8% in May) suggests that the rise in inflation is spreading. Due to the upside risks to price stability, the ECB decided in March to accelerate the unwinding of net asset purchases in the Asset Purchase Programme (APP) and to terminate it in the third quarter. The first increase in the ECB key policy rate will take place sometime after the ending of net purchases, depending on economic developments.[7] Accordingly, the projection for 2023 and 2024 assumes that both short- and long-term interest rates will be 1.5 percentage points higher than in the December 2021 projection.

2.2 Falling world trade growth affects exports

World trade relevant to the Netherlands is expected to grow by 4.3% in 2022, 0.7 percentage points less than in the December 2021 projection. The projected growth rate falls to 2.7% in 2023 and 3.3% in 2024 (Table 1). Continuing disruptions to global supply chains, sanctions and surging commodity prices are weighing on world trade relevant to the Netherlands. In addition to the lockdowns in China, the war and the sanctions have led to further supply chain bottlenecks. This is reflected in disruptions to the supply of commodities and materials from Russia and Ukraine, as well as in logistics and transport blockages in the affected region. The projection assumes that the sanctions remain in place, but that their impact on international trade wanes in 2023-2024, for example because trade flows shift and substitutes are found for the necessary commodities and materials.

Dutch goods and services exports are expected to grow by a mere 1.0% in 2022. The Statistics Netherlands Exports Radar (May 2022) confirms that the picture for Dutch exports has become less favourable due to developments in foreign sales markets. Re-export growth stagnates in 2022 after the strong rebound in 2021. The persistent supply chain bottlenecks are putting a strain on trade and transport of international goods flows through the Netherlands. The growth in domestically produced exports is falling less sharply, but it will still lag behind the growth in world trade relevant to the Netherlands in 2022. As a result, exporters of these domestically

Table 1 Dutch exports and competitiveness

Percentage changes

	2021	2022	2023	2024
Volume				
Relevant world trade (1)	9.4	4.3	2.7	3.3
Exports of goods and services (2)	6.6	1.0	3.9	3.3
domestically produced	3.2	1.8	3.2	2.9
re-exports	11.4	-0.1	4.7	4.0
Trade performance (2-1)	-2.5	-3.2	1.1	0.1
Exports of goods and services excl. energy	7.1	0.9	3.8	3.3
domestically produced (3)	3.3	1.6	3.0	2.8
re-exports	12.2	0.1	4.7	4.0
Market performance (3-1)	-5.6	-2.6	0.3	-0.4
Price				
Competitor price (4)	8.2	14.2	2.5	0.9
Exports of goods and services	8.4	12.0	3.0	0.4
domestically produced excl. energy (5)	5.2	6.4	4.1	3.5
Price competitiveness (4-5)	2.8	7.4	-1.5	-2.5

Source: DNB and ECB.

7 The ECB decision of 9 June 2022 came after the conclusion of this projection.

produced goods and services lose considerable market share (Table 1). This is accompanied by a projected rise in the export prices of domestically produced goods and services, as Dutch exporters pass on part of their higher commodity prices and production costs to customers.

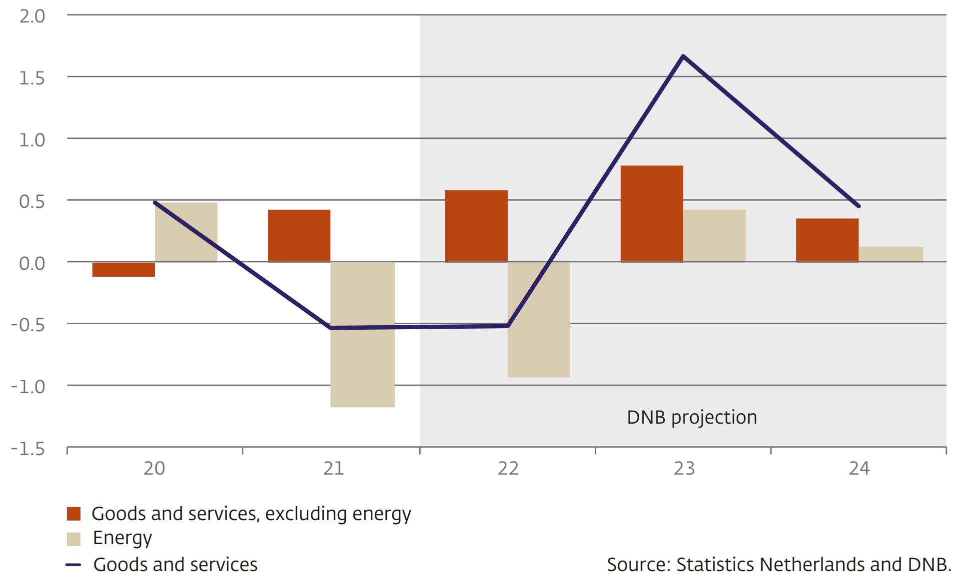
The increased commodity prices are a key determinant of the terms of trade (the ratio of export prices to import prices). The terms-of-trade effect, whereby price changes are weighted by the GDP share of imports and exports, shows the change in the current account trade balance due to price effects. The terms-of-trade effect was negative in 2021, due to the sharp increase in the price of the Netherlands' net energy carrier imports (Figure 11). As a result, the Netherlands lost 1.2% of GDP in income on foreign trade in energy products in 2021. The energy terms-of-trade effect is also negative in 2022. This is partly offset by the rise in export prices of other goods and services. From the third quarter of 2022 the terms-of-trade effect is expected to turn positive again, partly due to the expected decline in energy prices. In 2022-2024, the external income balance also improves due to the recovery in profits from foreign participations. After remaining negative in the previous two years due to the pandemic, the primary income balance turns positive again from 2022.
This contributes to the current account balance, which remains high at over 9% of GDP on average in 2022-2024.

2.3 Private consumption is affected by higher energy prices

After a sharp contraction in 2020, household consumption grew again by 3.5% in the following year. This was mainly due to the gradual easing of containment measures between the second quarter and mid-December 2021, when the measures were tightened again. In real terms, the level of goods consumption in the fourth quarter of 2021 was above the pre-pandemic level, whereas the level of services consumption was still more than 4% below that level. According to preliminary figures, private consumption in the first quarter of 2022 contracted by 0.1% compared to the previous quarter. This was due in part to the partial lockdown between mid-December and mid-February. Weather conditions in the first quarter were milder than usual, which may have weighed on energy consumption. It is also possible that many households cut their energy consumption due to the steep rise in energy prices.

Figure 11 Terms of trade

Year-on-year change in percent GDP, on basis of fixed GDP weights 2019



Source: Statistics Netherlands and DNB.

Note: Due to the weighting of import and export price changes with the GDP weights, the terms of trade effect of energy and the terms of trade effect of goods and services excluding energy do not necessarily add up to the total terms of trade effect.

Private consumption is expected to grow by 3% in 2022. This growth is entirely due to the carry-over effect of the strong growth in 2021. On a quarterly basis, projected household spending will continue to contract slightly over the rest of the year. The sharp drop in consumer confidence and the heightened uncertainty surrounding the war in Ukraine play a role in this. Rising energy prices are also placing a significant strain on real disposable income, which is set to shrink by 2.4% in 2022, the first year of contraction since 2013. Higher earners in particular can draw on savings to maintain their level of spending. At the macro level, households are therefore partly absorbing the pressure of high energy inflation through a lower savings rate. Free savings fall sharply from 10.9% of disposable income in 2021 to 6.4% in 2022.

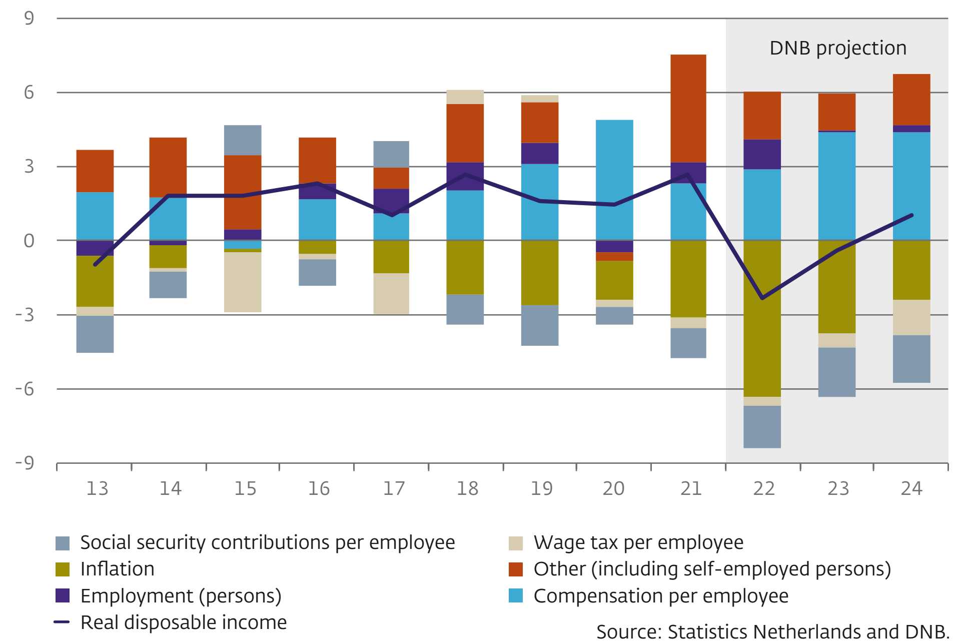
Consumption growth will fall substantially to 0.3% in 2023. Real disposable household income is expected to shrink by 0.5% this year (Figure 12). This is largely due to high inflation, higher (net) interest payments on mortgages and lower growth in employment. The effects of the increased uncertainty and decreased consumer confidence due to the war in Ukraine will continue to be felt in that year. In addition, the cooling housing market provides much less stimulus to household spending than in previous years. In 2024, real household disposable income will grow again by 1%, thanks to the pick-up in employment growth, negotiated wage growth and lower inflation. Coupled with the expected improvement in consumer confidence, this will contribute to a projected 1.6% rebound in private consumption in 2024. The individual savings rate is expected to continue its gradual decline in 2023 and 2024, to 5.7% and 5.2% of disposable income respectively, but that is still above pre-pandemic levels.

2.4 Various challenges for business investment

Business investment growth turned out higher than previously expected at 5.4% in 2021. Investment growth was particularly strong in the fourth quarter. The financial position of the private sector therefore developed favourably in 2021, according to the Business Survey Netherlands (COEN) of Statistics Netherlands. There was also a significant upturn in business confidence last year. In the first quarter of 2022, confidence fell again slightly and business investment contracted. The conflict in Ukraine probably caused an additional uncertainty shock. The conflict has also aggravated the long-standing bottlenecks and shortages on the supply side of the economy. The proportion of businesses hampered by a shortage of production resources rose further in the second quarter to 18.9% and to as much as 34.6% in manufacturing. The proportion of businesses reporting labour shortages rose to 33.6% in the second quarter. Although corporate profitability has held up on average

Figure 12 Real disposable household income

Year-on-year percentage changes and contributions in percentage points



Source: Statistics Netherlands and DNB.

since the COVID-19 pandemic, the sharp rise in purchase prices poses new challenges. For 2022, the projected investment growth is still positive at 0.8%, mainly due to the carry-over from 2021. Thereafter it is set to rise to 1.6% in 2023. In line with the pick-up in GDP growth, the projected investment growth increases slightly to 2.2% in 2024.

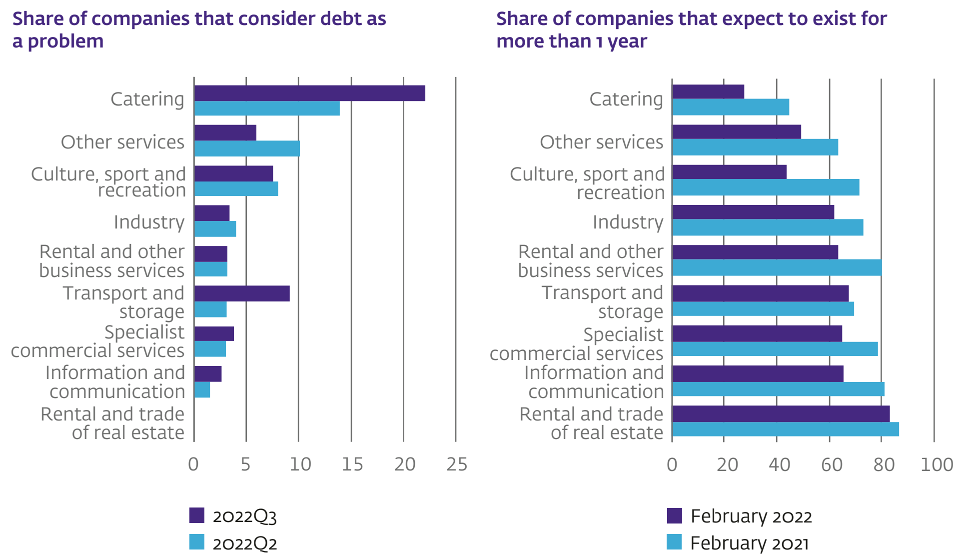
Although the number of business failures rose slightly in the first half of 2022, the level remains very low. The number of business closures nevertheless rose by almost 50% in the first quarter of 2022 compared to the previous year. Deteriorating debt positions due to the COVID-19 recession may be an important factor in business closures. For about half of businesses with outstanding tax debts, repayment may be a challenge.[8] Businesses are nevertheless more optimistic about their finances: the proportion that consider their debt problematic decreased on average from 4.7% to 3.7% in the second quarter of 2022. Businesses also believe their survival chances have improved (Figure 13).

The number of bankruptcies is expected to rise again eventually, which is also consistent with healthy economic dynamics. Research by DNB suggests that the misallocation of labour in particular increased sharply during the COVID-19 period.[9] This means that workers are deployed less in the most productive parts of the economy. The substantial support packages, which also kept less productive companies alive, likely increased such misallocation.

2.5 Corporate lending almost stable

Lending to Dutch businesses increased substantially by 4% in 2021. This figure is considerably higher than the growth rate seen in recent years and is driven by a remarkably rapid rise in the final quarter. Credit growth was therefore more in line with the rest of the euro area, whereas it had been structurally lower in recent years.

Figure 13 Financial situation of enterprises



Note: Entrepreneurs who have not indicated that they will be operational for more than another year do not always expect to stop the next year.

Source: Statistics Netherlands; COEN survey

The projection for lending growth in 2022 is -0.9%. This slight contraction is due to an expected normalisation of lending after the strong growth at the end of 2021. Positive credit growth of 1.0% and 1.5% is expected in 2023 and 2024 respectively.

In the short term, businesses are expected to face stricter underwriting standards and higher interest rates. In the Bank Lending Survey (BLS), banks indicate that they

8 See "Coronavirus support has been effective, but different approach needed for the future", DNB Analysis, 30 March 2022.
9 Bun, M.J.G and J.M. de Winter (2022) Misallocatie kapitaal en arbeid tijdens coronacrisis verder toegenomen, Economisch Statistische Berichten 107(4811), 2-5 (Dutch).

expect these underwriting standards to be tightened in the second quarter of 2022. In particular, this shows that banks' risk perception and risk appetite have changed significantly under the pressure of recent international political and financial developments. SMEs indicated in the Survey on the Access to Finance of Enterprises (SAFE) that they experienced obstacles in obtaining bank credit slightly more often in the first half of 2022. Rising capital market interest rates and banks' funding costs also translate into higher interest rates on corporate credit. Figure 14 shows that the years of declining interest rates on new business loans have come to an end. Higher corporate funding costs may therefore be an additional pressure on corporate profitability. In the BLS banks indicate that demand for credit increased in the first quarter of 2022 and that they expect a further increase in the second quarter.

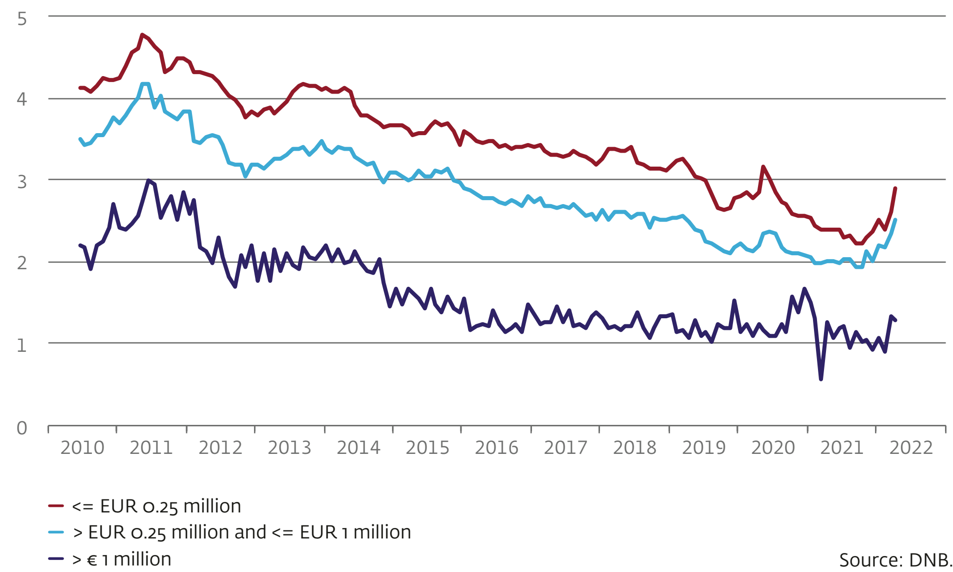
2.6 Budget deficit better than expected

Public finances have weathered the COVID-19 recession better than previously expected. Despite the significant support measures, the budget deficit reached 2.5% of GDP in 2021, following a deficit of 3.7% of GDP in 2020 (Table 2). This means the European deficit rule of 3% is being complied with again. The strong economic recovery, accompanied by higher tax revenues, contributed significantly to this improvement.

A further reduction in the deficit to 2.1% of GDP is projected for 2022. This is mainly due to a sharp drop in COVID-19 support measures.[10] This outweighs the impact of the measures in the coalition agreement and the Spring Memorandum. In 2023 and 2024, the deficit is expected to be slightly lower, at 1.7% and 1.6% of GDP respectively. On the one hand, the measures in the coalition agreement put downward pressure on the net figure. These include, for example, additional funds for climate and the environment, education and defence. On the other hand, tax revenues are higher,

Figure 14 Interest rates on new corporate loans

Percentage



Source: DNB.

for example due to the expiry of temporary compensation for high energy prices (such as lower VAT on energy and fuel excise duties).

The key points of the May 2022 Spring Memorandum have been incorporated in the projection.[11] These include the government's allocation of additional funding to defence and the increase in the state pension. To cover these expenses, the government is introducing several tax measures, also to compensate for the Supreme Court ruling on wealth tax in box 3. The budget deficit is lower in this projection than in the Spring

10 Two key support measures, the Emergency Measure for Bridging Employment (NOW) and the Contribution towards Fixed Costs (TVL), were only available in the first quarter of 2022.
11 See Spring Memorandum 2022, Parliamentary Paper, 20 May 2022 (Dutch).

Memorandum. The difference is 1.3 percentage points in 2022 and somewhat less in the subsequent two years. These differences are probably due in part to the fact that the projected growth in government consumption was adjusted downwards on the basis of Statistics Netherlands data for the first quarter. The projection also assumes lower expenditure on COVID-19 policy.[12] For 2023 and 2024 projected revenue is higher, due to differences in the underlying macroeconomic picture, as the Spring Memorandum is based on the CPB projection of March 2022.[13]

The debt-to-GDP ratio was 52.1% in 2021, compared to 54.3% in 2020. This ratio is expected to fall further to 50.3% of GDP in 2022 and to be slightly below 48% of GDP at the end of the projection period. This decrease is due on the one hand to the relatively low government deficits and on the other to high nominal GDP growth (real growth plus inflation), which reduces the debt-to-GDP ratio through the denominator effect. Furthermore, businesses that deferred their tax liabilities due to the pandemic are required to start repaying them from October 2022, which has the effect of reducing debt. This takes into account the assessment in the Spring Memorandum that part of the deferred tax liabilities will not be repaid.

With the debt-to-GDP ratio set to return to the pre-COVID-19 level next year, it can be concluded that public finances are on a sound footing. This is also due to the effectiveness of the support measures in preventing economic damage. However, this does not mean the government should absorb the financial damage of all economic shocks. Hence it is not desirable to compensate everyone fully for the additional burden of the recent surge in energy prices. The more expensive energy imports result in a terms-of-trade loss, which is borne by the Dutch economy and makes the country as a whole poorer. Any compensation for energy price rises should therefore be as targeted and temporary as possible, taking into account sustainability objectives. In addition, with the current tight labour market and high capacity utilisation, stimulus policies are in any case less appropriate than during an economic downturn, given that the economy is cooling down due to a negative supply shock. This is precisely the policy that fuelled inflation in the 1970s and ultimately caused a loss of control of public finances.[14] This highlights the need to adhere to the government's financial frameworks in the event of setbacks and new policies, partly with a view to a possible increase in debt after the government's term of office.[15] Finally, debt levels are significantly higher in some euro area countries. Agreement should therefore be reached as soon as possible on adjustments to the budgetary rules to make the framework more realistic and credible.

Table 2 Public sector key data

Percentage of GDP

	2021	2022	2023	2024
Public expenditures	46.4	44.3	45.0	44.6
Taxes and social security contributions	39.6	38.5	38.7	39.2
Other income	4.2	3.7	4.6	3.9
Primary balance	-2.0	-1.6	-1.2	-1.1
EMU balance	-2.5	-2.1	-1.7	-1.6
EMU debt (based on end-of-period)	52.1	50.3	48.7	47.8

Source: DNB.

12 The Spring Memorandum is based on the expenditure of the ministerial budgets, whereas our projection is based on the national accounts. Consequently it is not possible to provide a full breakdown of the differences.
13 See Central Economic Plan, CPB, 2022.
14 See also Box 1 in this publication.
15 See CPB calculation of the consequences of the coalition agreement and Central Economic Plan CPB, 2022.

3 More severe economic impact of the war in Ukraine: an alternative scenario

In addition to the serious personal suffering and social disruption in Ukraine, the Russian invasion has had negative economic impacts worldwide. The projection takes these into account as far as possible. It assumes that the surging energy and commodity prices and heightened uncertainty will gradually return to more normal levels from 2023 onwards. A more severe economic impact cannot be ruled out, however, and represents a significant downside risk to the projection. It is possible that the energy and commodity markets will be disrupted to such an extent that global prices remain high for longer. The war in Ukraine may also be accompanied by increased uncertainty, rising funding costs and further falls in consumer and producer confidence.[16] An additional risk is the possibility of an "energy stop", whereby the supply of all energy resources from Russia comes to an abrupt halt, for the whole of the EU.

In the scenario analysed in this chapter, the war continues unabated until the end of 2023.[17] This is accompanied by a sharp rise in geopolitical tensions from the third quarter of 2022, with the assumption that additional embargo and sanctions measures will remain in force until the end of 2024. World trade growth consequently falls sharply.[18] In particular, world trade relevant to the Netherlands is severely impacted in 2023 through direct trade flows, supply chain disruptions and spillover effects. It is 6.5% lower than in the baseline, with a gradual recovery only getting under way in 2024 (Table 3).

Table 3 Assumptions for alternative scenario

Percentage deviations from baseline projections. unless stated otherwise

	2022	2023	2024
Relevant world trade	-1.9	-6.5	-6.0
Oil price	25.1	53.2	34.7
Gas price	90.5	170.4	109.5
Commodity prices	2.4	11.3	15.3
Mortgage loan rate (in percentage points)	0.4	0.7	0.7
Interest rate corporate loans (in percentage points)	0.4	0.9	0.8
Uncertainty (CISS index)	38.2	45.5	23.7

Source: ECB en DNB.

Note: Uncertainty measured by Composite Indicator of Systemic Stress (CISS) with (calibrated) impulse on consumption and investment. Source: ECB and DNB.

Due to the tougher sanctions packages and growing uncertainty surrounding oil and gas availability, energy prices continue to rise worldwide in this scenario. The oil price rises rapidly in the second half of 2022 and is on average more than 50% higher than in the projection in 2023. Thereafter, this difference gradually decreases to around 35% in 2024. The price of natural gas is assumed to be around 170% higher than projected in 2023 and more than 100% higher in 2024. Since Ukraine and Russia

16 See for example Verdieping Centraal Economisch Plan, CPB, 2022 (Dutch).
17 This scenario, including the underlying assumptions regarding the international picture, has been agreed with the ECB and other central banks.
18 In this scenario, real GDP and real Russian imports in 2023 are on average around 30% and 60% lower respectively than in the baseline.

are major commodity producers, it has been assumed that other commodity prices (such as agricultural goods and metals) will also remain high for a protracted period, on average more than 10% above the baseline. The increasing uncertainty also causes additional volatility in financial markets. Consequently, interest rates on corporate loans and mortgages rise more than projected. This is accompanied by lower equity prices and falling confidence. We assume no active monetary policy response in the euro area, so key policy rates are at the same level as in the baseline.

The results of the scenario for the Netherlands are shown in Table 4.[19] The higher energy and commodity prices cause inflation to peak at 10.8% in 2022, 2.1 percentage points higher than in the projection. Thereafter inflation eases back gradually to 5.1% in 2023 and 2.5% in 2024. Due to sluggish demand, mounting capital costs and falling confidence, business investment is sharply lower, especially in 2023.
Economic growth throughout the projection period is on average 1.0 percentage point below the projection, with slightly negative GDP growth in 2023.
The unemployment rate in 2024 consequently reaches 5.3%, 1.9 percentage points higher than in the projection. Lower real disposable incomes, negative wealth effects and higher unemployment weigh on consumer expenditure, causing it to contract by 1.9% in 2023. With no rapid rise in unemployment as yet in 2022 and with nominal tax revenues initially holding up due to higher prices, the adverse effect on the public finances initially remains limited. From 2023 the public finances deteriorate, partly due to rising unemployment, but the budget balance remains above the EMU limit of -3% of GDP.

Scenario extended to include Russian energy stop

The economic damage would be much more severe in the event of a shut-off in Russian supplies of oil and gas products.[20] To estimate the additional effect of this on

Table 4 Results of alternative scenario

Percentage changes. unless stated otherwise

	2022	Difference with projection	2023	Difference with projection	2024	Difference with projection
Without energy stop:						
Gross domestic product		(-0.8)	-0.4	(-1.9)	1.3	(-0.4)
Private consumption		(-0.8)	-1.9	(-2.2)	0.2	(-1.4)
Business investment		(-0.6)	-3.0	(-4.8)	1.8	(-1.2)
Housing investment		(-0.1)	-2.7	(-2.8)	-0.6	(-2.5)
Exports of goods and services		(-1.7)	-0.4	(-4.3)	3.3	(0.0)
Imports of goods and services		(-1.4)	0.1	(-4.6)	3.6	(-0.6)
Equity prices	-9.4	(-4.7)	-0.3	(-2.7)	5.5	(3.0)
Consumer confidence (level)	-35.3	(-6.6)	-33.9	(-17.4)	-23.2	(-13.9)
Compensation per employee. private sector	3.0	(-0.1)	4.3	(0.1)	3.8	(-0.4)
Harmonised index of consumer prices	10.8	(2.1)	5.1	(1.2)	2.5	(0.1)
House prices. existing own homes	13.6	(-0.3)	2.0	(-1.7)	1.0	(-1.5)
Unemployment (% of labour force)	3.3	(0.0)	4.4	(0.8)	5.3	(1.9)
EMU balance (% of GDP)	-2.3	(-0.2)	-2.6	(-0.9)	-2.8	(-1.2)
EMU-debt (% of GDP)	50.8	(0.5)	50.7	(2.0)	50.6	(2.8)
With energy stop:						
Gross domestic product	0.4	(-2.4)	-1.5	(-3.0)	3.0	(1.3)
Harmonised index of consumer prices	10.8	(2.1)	5.5	(1.6)	2.3	(-0.1)
Unemployment (% of labour force)	3.4	(0.1)	5.7	(2.1)	6.9	(3.5)

Source: ECB en DNB.

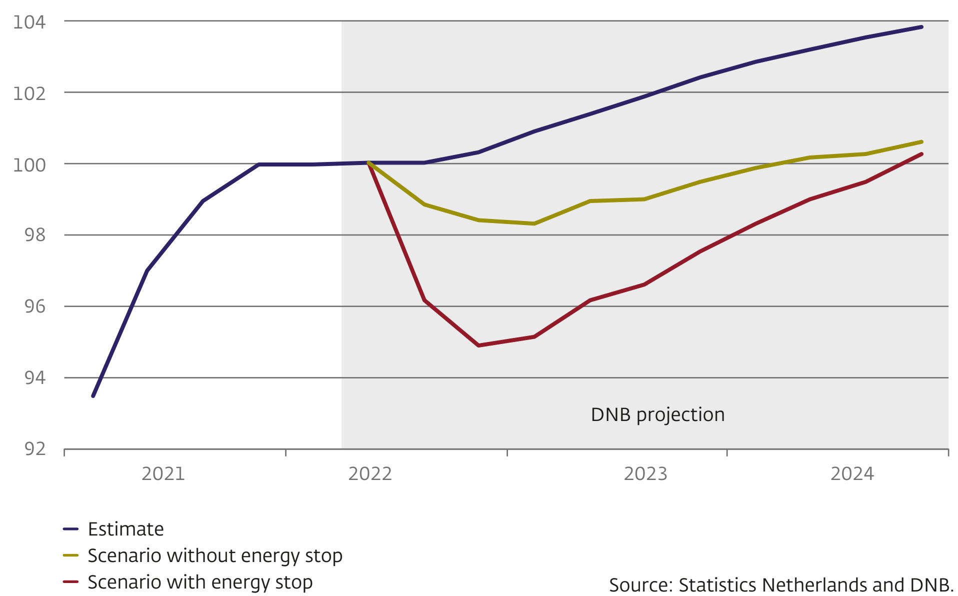
19 The scenario was simulated using DNB's DELFI macroeconomic model.
20 In the European context, the Netherlands has indicated that it intends to reduce its dependence on Russian fossil fuels as quickly as possible while maintaining security of energy supply (Letter to Parliament, 22 April 2022).

GDP, inflation and unemployment, it has been assumed that supplies of Russian energy to Europe come to a complete halt from the third quarter of 2022. Particularly for imported natural gas, the short-term substitution potential is very limited due to the constraints of the physical infrastructure. At the same time, the global demand for substitute energy products (such as liquefied natural gas) will increase sharply. In the short term, this leads to energy scarcity, high global prices and production cuts by industrial energy consumers.[21] The scenario assumes that the substitution potential gradually improves after four quarters and that energy markets rebalance. We estimate the additional effects of this simulated energy stop based on (1) the share of Russian energy in the total Dutch energy imports, (2) the value of imported energy in relation to GDP and (3) plausible values for the short- and long-term substitution elasticity between imported energy and other production factors The negative impact on GDP initially consists of the estimated production loss at the end of 2022, when hardly any replacement energy sources or stocks are available (Table 4).[22]

With domestic production slumping due to the sudden fall in energy imports, real GDP growth in 2022 is just 0.4%, or 2.4 percentage points lower than projected. In 2023, the simulated fall in growth is three percentage points, leading to a real GDP contraction of 1.5%. The following year sees a recovery, as energy markets rebound, energy prices fall, global uncertainty subsides and world trade starts to pick up. As a result, real GDP growth in 2024 (3%) is more than 1 percentage point higher than in the baseline. Due to the downturn in 2022 and 2023, house prices cool somewhat faster than projected, but the additional effects on inflation remain relatively limited. The unemployment rate rises sharply due to the steep fall in real GDP growth, reaching just under 7% in 2024.

Figure 15 GDP in baseline and alternative scenario

2022Q2 = 100; volume



Source: Statistics Netherlands and DNB.

Figure 15 shows the level of real GDP in the scenario without the energy stop (green line) and in the scenario with the additional effect of the energy stop (red line). The difference between the green and red lines reflects the (negative) additional effect on GDP of the assumed energy stop. This effect peaks at the end of 2022 and then gradually decreases. As the tougher sanction measures remain in force into 2024 (and are considered effective), real GDP will not return to its mid-2022 level until the end of 2024.

21 Under the solidarity principle, EU Member States are bound by agreements to supply natural gas to each other, especially to protected gas users such as households in neighbouring countries.
22 In the case of the Netherlands these shares are set at 20.0% and 4.9% respectively, with corresponding substitution elasticities of 0.035 in the short term and 0.176 in the long term. The additional negative effect on GDP has been calculated on the basis of an assumed CES production function.

Key data in forecast for the Dutch economy

Percentage changes, unless stated otherwise

	2021*	2022	2023	2024
Volume of expenditure and output				
Gross domestic product	5.0	2.8	1.5	1.7
Private consumption	3.5	3.0	0.3	1.6
Public expenditure	4.5	1.3	4.8	3.0
Business investment	5.4	0.8	1.8	3.0
Housing investment	3.3	2.8	0.1	1.9
Exports of goods and services	6.6	1.0	3.9	3.3
domestically produced	3.2	1.8	3.2	2.9
re-exports	11.4	-0.1	4.7	4.0
Imports of goods and services	5.1	0.3	4.7	4.2
domestically used	1.0	0.5	4.7	4.4
Wages and prices				
Negotiated wages, private sector	2.0	2.9	3.9	4.0
Compensation per employee, private sector	2.2	3.1	4.2	4.2
Unit labour costs, private sector	-1.5	2.1	2.6	2.8
Prices of domestically produced exports	8.3	11.1	2.7	1.5
Harmonised index of consumer prices	2.8	8.7	3.9	2.4
House prices, existing own homes	15.2	13.9	3.7	2.5
Labour market				
Employment (persons, growth)	1.8	2.8	0.1	0.5
Labour supply (persons, growth)	1.1	1.9	0.4	0.3
Unemployment (persons x 1,000)	408	329	358	341
Unemployment (% of labour force)	4.2	3.3	3.6	3.4

	2021*	2022	2023	2024
Public sector and financial data				
EMU balance (% of GDP)	-2.5	-2.1	-1.7	-1.6
EMU debt (% of GDP, based on end-of-period)	52.1	50.3	48.7	47.8
Current account (% of GDP)	9.5	9.0	9.9	8.9
Residential mortgage rate (based on end-of-period)	4.4	3.0	1.2	1.0
Bank lending to NFCs (based on end-of-period)**	4.0	-0.9	1.0	1.5
International assumptions				
Volume of relevant world trade	9.4	4.3	2.7	3.3
Volume of GDP United States	5.7	2.5	1.9	2.0
euro area	5.4	2.8	2.1	2.1
emerging markets	6.9	3.2	4.1	4.4
Short-term interest rate in the euro area (%)	-0.5	0.0	1.3	1.6
Long-term interest rate in the Netherlands (%)	-0.3	1.0	1.5	1.5
Euro exchange rate (USD)	1.18	1.07	1.05	1.05
Competitor prices	8.2	14.2	2.5	0.9
Oil price (UK Brent, in USD per barrel)	70.8	104.4	93.4	84.3
Commodity prices excluding energy (USD)	42.1	14.4	-4.9	-6.3

Source: DNB en ECB.

* Annual figures have been calculated based on seasonally adjusted quarterly figures and may therefore deviate marginally from the most recent National Accounts.
** Excluding cash pooling, adjusted for securitisations and breaks.

Figures