Economic Developments and Outlook

December 2021
Issue 22

DeNederlandscheBank

EUROSYSTEEM

Summary and policy recommendations

Outlook for the Dutch economy

The Dutch economy has shown a rapid and strong recovery from the coronavirus (COVID-19) recession of 2020. The gradual lifting of the containment measures led to a strong rebound in household spending in the spring, aided by the revival of confidence. The global upturn in economic activity was so fast and convincing, however, that production chains have been unable to keep pace with the recovery in demand. From early 2021 goods production was increasingly constrained by shortages of materials and long delivery times. The Dutch economy consequently reached its capacity limits soon after the 2020 coronavirus recession.

After the sharp contraction in 2020 (-3.8%), GDP (gross domestic product) is expected to grow by 4.5% in 2021. Assuming that the growing spread of the COVID-19 virus this autumn is gradually brought back under control, the economic recovery will continue in 2022, with projected GDP growth of 3.6%. The economy will then enter calmer waters in 2023 with growth of 1.7%. Uncertainty about the evolution of the pandemic, and hence the economy, remains high, however.

To a far greater extent than usual, the macroeconomic figures in this projection conceal the underlying differences among businesses and institutions. A proportion of the entrepreneurs and employed persons are still being severely impacted by the ongoing pandemic and the renewed measures, for example in the hospitality and cultural sectors, leaving them facing greater uncertainty and unfavourable economic prospects.

The labour market again became very tight shortly after the coronavirus recession. After unemployment quickly rose to 4.6% of the labour force over the course of 2020, the unemployment rate has averaged 3.3% in 2021. The figure will rise slightly from 2022 but is set to remain low (3.4% in 2022 and 3.5% in 2023). This represents a marked improvement compared to our June 2021 projection. Some businesses are still having to deal with substantial revenue losses, however, due to the containment measures, while in other sectors the economic recovery is leading to growing staff shortages and pressure for higher wage settlements. Negotiated wage growth in the private sector is expected to average 2.0% in 2021. The projection sees negotiated wage growth rising slowly to 2.4% in 2022 and 2.6% in 2023.

HICP inflation has risen sharply in 2021 and reached 5.9% in November. The inflation projection for full-year 2021 has consequently been adjusted upwards to 2.7%. This is due in particular to the unexpectedly rapid rise in energy prices. Bottlenecks in many goods supply chains have also led to higher production costs, which to some extent are being passed on in consumer prices. Inflation is set to remain high in the years ahead, averaging 3.0% in 2022 and 2.9% in 2023. Temporary government measures (cuts in energy taxes and tuition fees) push projected inflation downwards in 2022 and upwards in 2023. Inflation (excluding energy) is also being driven by the continued tight labour market, leading to higher wages and hence to rising unit labour costs. The transmission between wages and prices is not currently strong enough to trigger an undesirable wage-price spiral.

The government budget deficit is expected to be 4.4% of GDP in 2021. This is comparable to the high level recorded in 2020 as a result of coronavirus-related expenditure. The deficit is set to improve sharply in 2022, to 1.9% of GDP, and to decrease further to 0.8% of GDP in 2023. The government debt-to-GDP ratio has risen to 55.7% in 2021, compared to 54.4% in 2020, and is set to fall to 52.0% in 2023. Despite the substantial government deficit, the increase in debt is not too severe relative to the size of the economy, thanks to the strong GDP growth.

The economic outlook is more uncertain than usual. In an alternative scenario the pandemic develops in such a way that substantial containment measures remain necessary for longer and have to be tightened again. This could cut next year's GDP growth by over 2 percentage points to 1.4%. In a second alternative scenario, global commodity prices remain high over the long term, in combination with persistent supply disruptions and a stronger wage-price spiral. Partly as a result of higher energy prices, Dutch inflation in that scenario rises faster to around 4% in 2022 and 2023, and GDP growth in those years is on average 1 percentage point per year lower than in the baseline projection.

This projection is based on data available up to 30 November 2021. The effects of the recently presented coalition agreement have therefore not yet been included.

Policy recommendations related to the projection

The course of the pandemic remains uncertain. Many businesses and institutions have recently been severely impacted again by new containment measures. It is also possible that we will face regular waves of infection in the future. In that case we must learn to live with coronavirus. This will require further reflection on the organisation of the economy and society so that extensive government support measures are no longer necessary or taken for granted. After all, they place a great strain on public finances and ultimately disrupt healthy economic dynamics.

The impact of the pandemic on public finances has so far been much greater in most other euro area countries than in the Netherlands. The debt levels, which were already very different before the pandemic, have consequently diverged further.

The European Commission has recently restarted the consultation process on the revision of European budget rules. It is important to reach credible agreements on debt sustainability, with rules that leave sufficient room for stabilisation in difficult times and are not overly complex.[1]

A long period of low inflation has come to a sudden end. In order to curb the likelihood of a strong wage-price spiral, inflation expectations must remain anchored around the ECB inflation target of 2% over the medium term. Against this background, automatic index-linking of wages to prices to maintain purchasing power amid the current exceptionally high and mainly energy-driven inflation would be undesirable, because it would further drive up inflation.

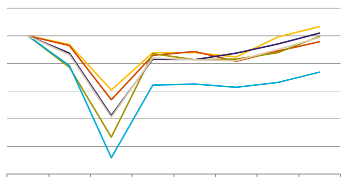
The Dutch labour market is so tight during the projection period that the shortage of suitable staff becomes increasingly acute. This requires a broad package of measures on the supply and demand sides of the labour market to stimulate labour participation and mobility. The new government and the social partners should urgently address the issue of labour shortages; the Social and Economic Council of the Netherlands and the Dutch Labour Foundation also have a role to play in this regard.

1 See our Dutch-language position paper on possible reforms of the SGP (for round-table discussion in the Dutch House of Representatives).

1 The Dutch economy in 2021-2023

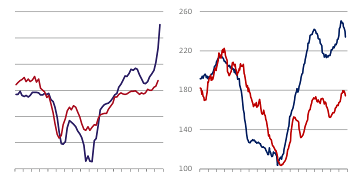
1.1 Economic growth

- New uncertainties after strong economic recovery
- Supply constraints hold back growth



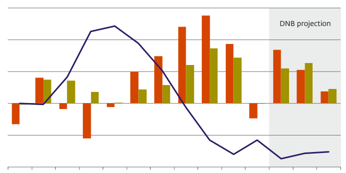
1.5 Housing market

- Unprecedented tightness in the housing market
- House prices continue to rise



1.2 Employment

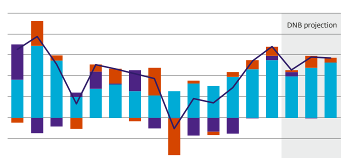
- Employment recovers rapidly
- Labour market tightness becomes acute



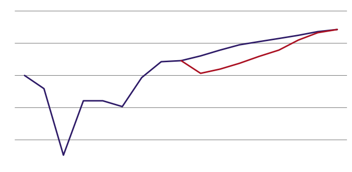
Box 1 Economic impact of material shortages in manufacturing and construction

1.3 Wages

- Slow rise in wage growth

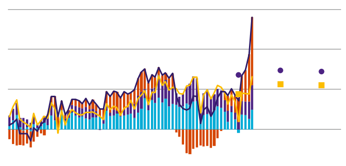


Box 2 A downward pandemic scenario



1.4 Prices

- Higher energy prices
- Inflation well above 2%



Box 3 Inflation may spur wage rises

1.1 New uncertainties after strong economic recovery

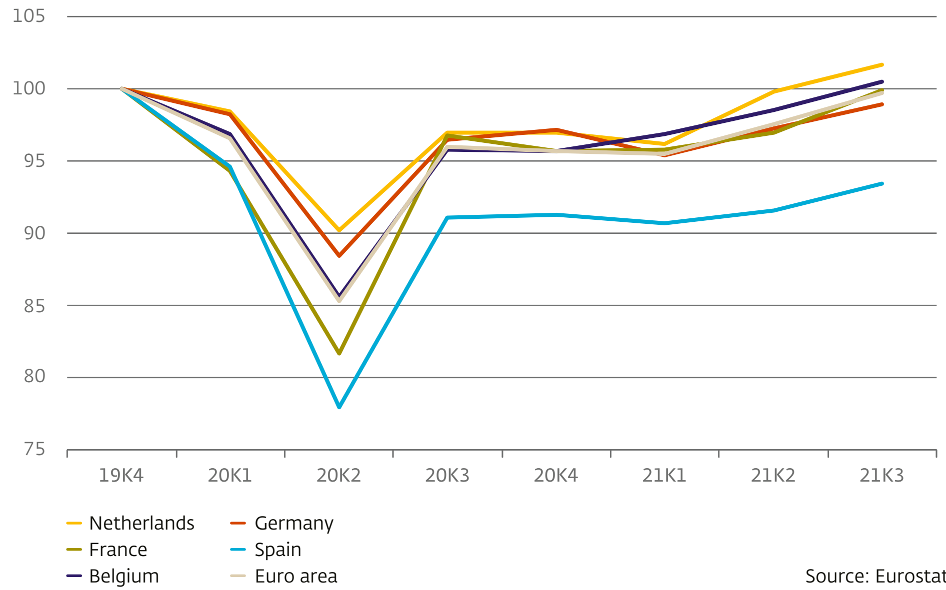
The Dutch economy has recovered faster and more strongly than expected from the coronavirus (COVID-19) recession. GDP (gross domestic product) is expected to grow by 4.5% in 2021, i.e. 1.5 percentage points more than we projected six months ago. The economy recorded strong growth particularly in the second and third quarters, driven mainly by consumption underpinned by a return of confidence and the easing of containment measures. To a far greater extent than usual, the macroeconomic figures in this projection conceal the underlying differences among businesses, institutions and households. A proportion of the businesses, institutions, self-employed people and households are still being severely impacted by the ongoing pandemic and the renewed measures, for example in the hospitality and cultural sector, leaving them facing greater uncertainty and unfavourable economic prospects.

As was the case last year, the Dutch economy in 2021 is dominated by developments surrounding the COVID-19 virus. The vaccine roll-out and the gradual lifting of containment measures led to renewed confidence and a strong recovery in household consumption in the spring. Supply side bottlenecks also became evident, however. The upturn in international economic activity was so fast and convincing that global production chains have been unable to keep pace with the recovery in demand. From early 2021 goods production was increasingly constrained by shortages of materials and long delivery times, with businesses dependent on imported products experiencing particular difficulty. Prices of commodities, energy, intermediate products and end-products have risen sharply. Coupled with the very tight labour market, this meant that the Dutch economy reached its capacity limits soon after the coronavirus recession.

The Netherlands is recovering faster from the pandemic than other countries and is less affected by the bottlenecks on the supply side of the economy. GDP in the third quarter of 2021 was already 1.7% above the immediate pre-pandemic level (Figure 1).

Figure 1 GDP developments in selected countries since the pandemic outbreak

2019Q4 =100; volume



Source: Eurostat.

The overwhelming majority of euro area countries still had GDP below the pre-coronavirus level at that time. This is largely due to the favourable sector structure, owing to which the Dutch economy is less impacted by the fall in tourism and worldwide supply chain bottlenecks. The sectors hit hardest by supply problems, such as the automotive sector, account for a relatively small part of Dutch GDP. Furthermore, the Netherlands' sizeable machinery sector is actually benefiting greatly from the stronger demand for semiconductor production equipment. Box 1 takes a closer look at the impact of material and staff shortages on production in each sector and places the Dutch situation in an international perspective.

Box 1 Economic impact of material shortages in manufacturing and construction

The rapid recovery in international demand, combined with disruption in production chains, results in an unusually large imbalance between supply and demand for goods. Supplies of many goods are under pressure from material shortages due to a lack of commodities and transport equipment, low initial business inventories and congestion at international ports. This is leading to considerably longer delivery times for goods around the world. These constraints are now also being felt by Dutch producers. In October 2021 35% of Dutch industrial producers saw their production constrained by a shortage of materials.[1] Consequently, the difference between firms' order intake and actual production is at an all-time high.

To find out which sub-sectors in particular are being affected by current material shortages, we first calculate a threshold value. This is the historical average value of the percentage of constrained firms in the sector as a whole plus three standard deviations. If the percentage of constrained firms in a sub-sector is greater than or equal to this threshold value, we consider this sub-sector to be 'significantly constrained'. On this basis we find that 21 of the 24 sub-sectors in the Dutch manufacturing sector are being significantly constrained by material shortages (Table 1). The motor vehicles and trailers sector is the hardest hit. In the Netherlands, this sector accounts for a fairly limited share of the total added value of the manufacturing sector, whereas it accounts for a relatively large in Germany.[2]

If for each 'significantly constrained' sub-sector we multiply the percentage of firms constrained by material shortages by the associated share of Dutch manufacturing, we find that around 33% of the added value in manufacturing is significantly constrained by material shortages. For the construction sector the figure is 25%. That amounts to around 5.2% of Dutch GDP. In the case of Germany this percentage is almost four times higher, at 19.4% of GDP. This is due not only to the automotive sector's much higher share of German manufacturing, but also to the fact that other sub-sectors are being hit harder by the material shortages. For the euro area as a whole, the percentage is equivalent to 9.7% of GDP.

It is notable that the Dutch machinery sector is actually benefiting from the material shortages. This is particularly due to the sharp rise in demand for advanced semiconductor equipment produced by ASML. The importance of the machinery sector in Dutch manufacturing as a whole is also relatively high (14.4%). This effect is also evident in the industrial production figures, which would have been around 5% lower in September 2021 were it not for the machinery sector. Overall, this analysis shows that the macroeconomic impact of the material shortages in the Netherlands is substantial, but currently not as bad as in other countries.

1 The percentage of firms is weighted by firm size. Source: European Commission.
2 See "Impact of supply constraints on the Dutch economy from an international perspective", DNB, 13 December 2021.

Table 1 Material shortages in manufacturing and construction (October 2021)

Percentage changes

	Netherlands		Germany	
	Share of sub-sector within sector (%)	Number of firms constrained by material shortages (%)	Share of sub-sector within sector (%)	Number of firms constrained by material shortages (%)
Manufacturing sector				
Motor vehicles and trailers	3.4	72	20.4	100
Electrical equipment	3.6	67	6.7	100
Electronic products	5.1	27	6.4	100
Rubber and plastic products	3.6	40	4.5	100
Machinery	14.4	51	15.8	93
Other transport equipment	1.7	27	2.3	n.a.
Metal products	8.8	36	8.6	83
Chemicals	13.4	30	6.9	75
Paper	2.3	35	1.7	87
Printing and reproduction	1.6	35	1.0	87
Repair and installation of machinery	4.3	18	2.4	n.a.
Furniture	1.7	35	1.2	79
Pharmaceuticals	3.2	15	3.8	53
Wood products	1.3	31	1.0	52
Coke and petroleum	1.7	11	0.7	100
Other products	4.5	8	2.4	48
Textiles	0.5	27	0.6	74
Basic metals	2.6	60	3.4	55
Building materials	2.5	21	2.7	46
Beverages	1.8	46	0.9	36
Food products	14.1	18	5.7	60
Wearing apparel	0.5	9	0.4	63
Leather and footwear	0.4	35	0.1	63
Tobacco	3.2	24	0.4	n.a.

	Netherlands		Germany	
	Share of sub-sector within sector (%)	Number of firms constrained by material shortages (%)	Share of sub-sector within sector (%)	Number of firms constrained by material shortages (%)
Construction sector				
Specialised construction activities	52.0	24	-	-
Construction of buildings	33.9	24	50.0	40
Civil engineering	14.0	34	50.0	27

	Total share of production that is hampered (%)	
	Netherlands	Germany
Manufacturing sector	33	80
Construction sector	25	34
Total as % of GDP	5.2	19.4

Source: European Commission and own calculations.

Note: n.a. = not available.The cells marked in red show percentages, weighted by business size that differ significantly from their historical averages. The deeper the red colour, the greater the distance between the percentage and the calculated threshold value and, hence, the harder the sub-sector is hit. For the Netherlands (Germany) the threshold value is equivalent to 12.4% (24.4%). For Germany, no share figures are available for the construction sub-sectors. For this purpose, the sub-sectors are assumed to have equal shares in the sector. In some German sectors, the percentage of companies experiencing material shortages exceeded 100% due to seasonal data adjustments. These percentages have been truncated to 100%.

The positive macro picture of the Dutch economy nevertheless conceals major sectoral differences. Production in a number of sectors that were still being severely impacted by the containment measures at the start of the year recovered strongly in 2021. In culture, leisure & other services, for example, production grew by 23% and 13% respectively in the second and third quarters (compared to the previous quarter). The trade, transport & hospitality sector also recorded two successive quarters of growth exceeding 6%. On the other hand there are sectors where production has been hit by supply constraints since the third quarter due to supply chain bottlenecks and the very tight labour market. The economic recovery from the coronavirus recession has been accompanied by a return of pre-pandemic staff shortages, for example in manufacturing, where the capacity utilisation rate has now also returned to the pre-pandemic level (Figure 2). Manufacturing output contracted by 0.5% in the third quarter of 2021 after four quarters of growth. In the construction sector, output in the third quarter of 2021 declined by 3.5%, the biggest contraction since the start of the pandemic. The issue of government restrictions on nitrogen emissions was a factor in this decline, alongside staff and material shortages.

Looking ahead, the extent to which the pandemic can be brought under control remains a relevant factor for economic development. At the time of closing this projection, the international health situation looks unexpectedly less bright than it did shortly before. Measures have been tightened again in many countries, the virus continues to mutate and there is a growing realisation that herd immunity will be more difficult to achieve and that vaccination provides less complete protection than was originally believed. In the Netherlands too the health situation has rapidly become fragile and is being exacerbated by a reduction in care capacity due to additional sickness absence in this sector. Vaccination coverage increased steadily from the second quarter of 2021 to more than 80% (of the population aged 12 and over) at the beginning of the fourth quarter. At the same time the number of new

Figure 2 Capacity utilisation rate and labour shortage in manufacturing

Standard scores

Source: European Commission.

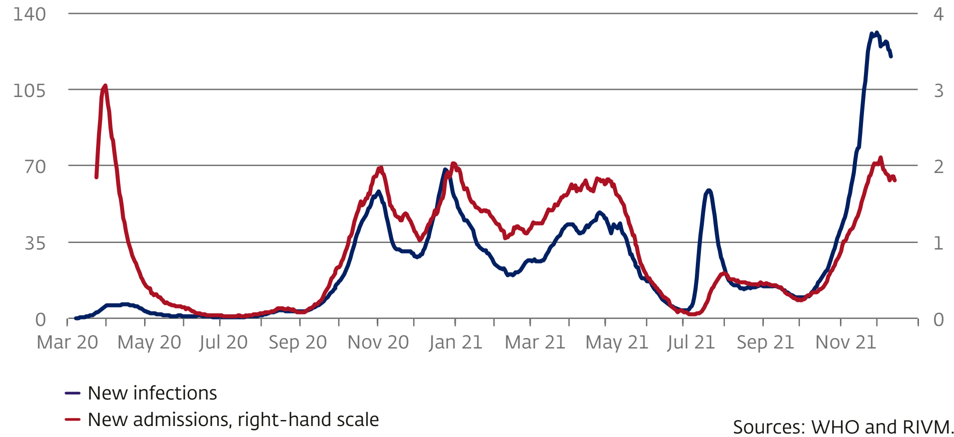
hospital admissions fell (Figure 3). This suddenly changed in the autumn, with hospital admissions rising sharply in October and the Omicron variant of the COVID-19 virus emerging in November. More stringent measures were reimposed on hospitality, contact professions and retailing in the Netherlands from 18 November. The immediate impact of the new measures on macroeconomic activity so far appears limited, although many institutions and businesses are being severely impacted, such as the hospitality and culture & leisure sectors. Moreover, all businesses and households once again face great uncertainty.[2]

2 The projection is based on information available on 30 November 2021. The assumptions for relevant world trade, exchange rates, international commodity prices and interest rates have been adopted by ECB and euro area national central bank experts for use in 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. The broad assumptions for the evolution of the pandemic and the containment measures have also been adopted at ECB level. More background to the DNB projections can be found at www.dnb.nl/the-state-of-the-dutch-economy.

Figure 3 COVID-19 in The Netherlands

New infections and new hospital admissions

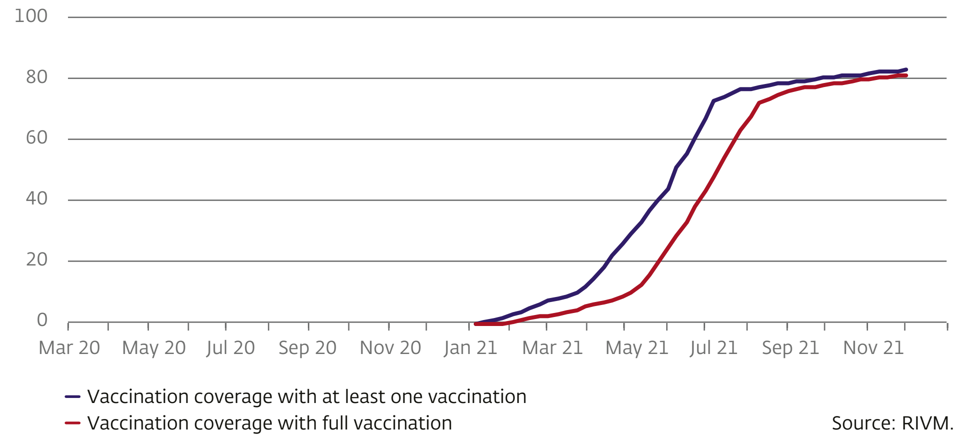
Per 100,000 inhabitants; 7-day moving average



Sources: WHO and RIVM.

Vaccination coverage

Percentage of the population aged 12 and over; weekly figures



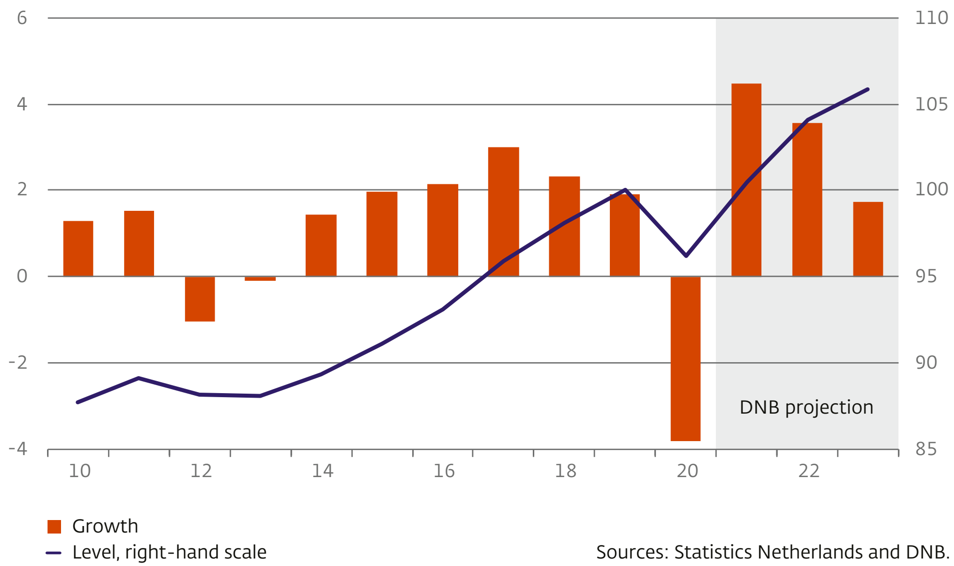
Source: RIVM.

The baseline projection assumes that the spread of the COVID-19 virus is gradually brought back under control in 2022, partly as a result of medical developments and increased vaccination coverage around the world. New waves of infection and containment measures cannot be ruled out, but any measures are expected to be less stringent and to have no substantial economic impact on the macroeconomic projection. In view of the recent developments relating to the pandemic, the growth estimates for 2022 and 2023 are nevertheless subject to downside risks. As an uncertainty variant for this projection, Box 2 explores the economic consequences of a more adverse pandemic scenario.

The year 2021 is expected to end with GDP growth of 4.5%, despite the tightening of the containment measures in the autumn. The strength of the recovery is demonstrated among other things by the fact that the June projection still expected growth of 3.0% in 2021. The economic recovery is set to continue in 2022, with projected GDP growth of 3.6% (Figure 4). This is driven particularly by private consumption and exports, despite the assumption that the supply constraints will only start to ease gradually in the second half of 2022. The economy is expected to enter calmer waters in 2023 with GDP growth no longer dominated by the consequences of the pandemic. Growth accordingly slows to a more normal pace of 1.7%. The underlying growth of public expenditure also normalises, with no further rise expected from pandemic-related expenditure. Household spending also grows less strongly in 2023 due to less favourable growth in real disposable income and a slower rise in the value of owner-occupied homes. Employment in the projection is in line with GDP growth, with strong growth in 2021 and 2022 followed by a slight downturn in 2023. Over the projection period as a whole the unemployment rate remains very low, albeit rising slightly from 3.3% in 2021 to 3.5% in 2023. Production, meanwhile, remains on average well above the normal capacity of the economy, with an output gap of well over 2% in 2022, rising further to around 3% in 2023.

Figure 4 Gross domestic product

Volume; year-on-year percentage changes and 2009 = 100



Sources: Statistics Netherlands and DNB.

The estimate of year-on-year growth of the expenditure components can be found in the Key data table. Figure 5 shows the extent to which the expenditure categories contribute to GDP growth. The downside GDP shock in 2020 was almost entirely attributable to private consumption and exports. These two expenditure components are also the pillars of the recovery in 2021. Both re-exports and domestically produced exports are benefiting from the recovery in world trade. Exports are also an important pillar of GDP growth in the projection for 2022 and 2023. Private consumption also makes a strong contribution to growth in 2022.

Box 2 A downside pandemic scenario

The course of the pandemic remains uncertain at present, for example due to the emergence of vaccine-resistant mutations or the spread of more infectious variants. This box discusses an economic scenario in which substantial containment measures remain necessary for longer and are tightened again.

This scenario assumes that in the first three quarters of 2022 more stringent coronavirus measures will remain in force, comparable to the measures in the spring of 2021 when the Netherlands was partly in lockdown. The support packages will be continued accordingly. This scenario assumes a gradual easing of the measures from the fourth quarter of 2022, while new waves of infection may arise from time to time. It is only in mid-2023 that the virus is brought under control and containment measures are no longer necessary. The more stringent measures hold back economic activity, although the economy is less sensitive to the measures than at the start of the pandemic. The economy has become more resilient in the past eighteen months; households and businesses have on the whole been able to adapt gradually to the economic consequences of the pandemic and the associated measures.[1] Nevertheless, the continued uncertainty still produces negative confidence and spending effects that significantly impact economic activity. Relevant world trade also grows less strongly, because other countries also have to contend with new waves of infection.

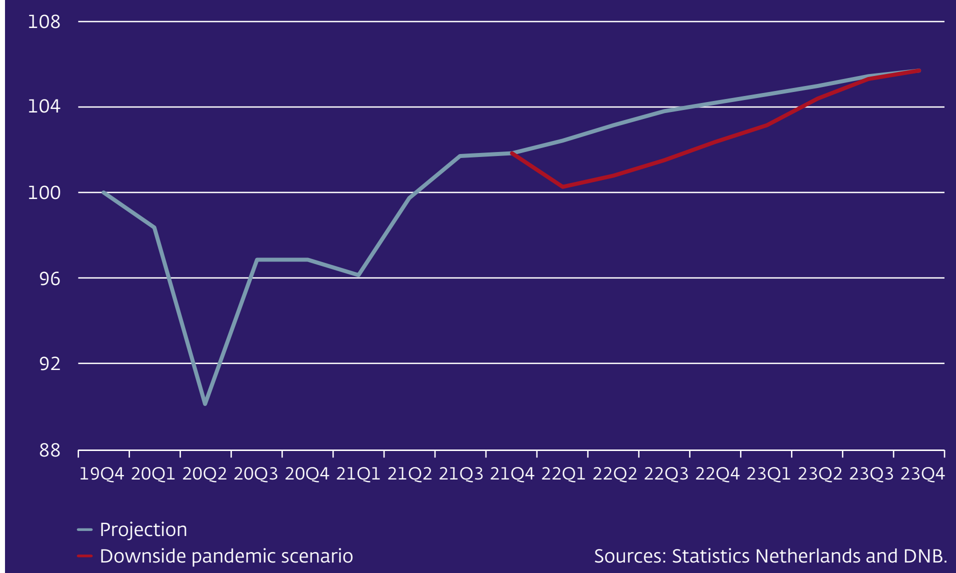
1 International research suggests that the economic impact of the new containment measures is only one-third of that seen in the first wave of coronavirus in March 2020 (World Economic Outlook, IMF, October 2021).

In this scenario GDP growth in 2022 is limited to a meagre 1.4%, which is over 2 percentage points lower than in the projection (Table 2). Partly because the economy has adapted better and the behavioural response will be smaller, an economic recovery gets under way fairly rapidly. In this scenario, the decline in growth is largely made up for in 2023 when the measures are eased and the virus resurgence is brought under control (Figure 11). Confidence also increases again and consumption expenditure and business investment recover strongly. GDP growth in 2023 is therefore 1.6 percentage points higher than in the projection, at 3.3%.

Although assumed new support packages soften the blow for businesses and households, the unemployment rate in 2023 is more than 1 percentage point higher, than in the projection after a time lag. The public finances deteriorate sharply, in line with the initially lower growth, higher unemployment and longer-lasting support measures. This results in EMU balances that are 1.6 and 0.6 percentage point lower in 2022 and 2023 respectively than in the projection. Government debt is on average around 3 percentage points per year higher than in the projection, but the debt-to-GDP ratio remains well below the EMU limit of 60% of GDP.

Figure 5 GDP according to baseline projection and downside pandemic scenario

2019Q4 = 100; volume



Sources: Statistics Netherlands and DNB.

Table 2 Downside pandemic scenario

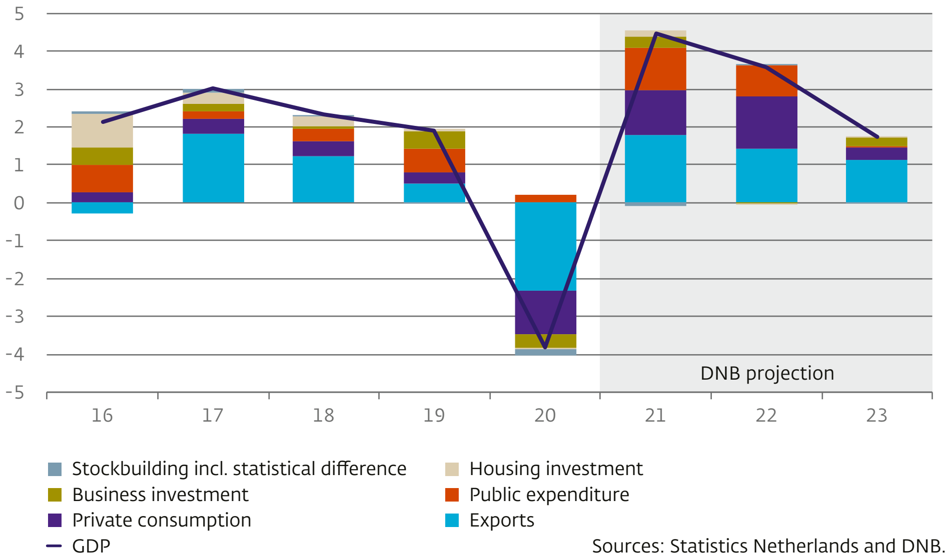
Percentage changes, unless stated otherwise

	2022	Difference vs projection	2023	Difference vs projection
Gross domestic product	1.4	(-2.2)	3.3	(1.6)
Unemployment (% of labour force)	3.7	(0.3)	4.6	(1.1)
EMU balance (% of GDP)	-3.5	(-1.6)	-1.4	(-0.6)
EMU debt (% of GDP, based on end-of-period)	57.5	(3.7)	54.4	(2.4)

Source: DNB.

Figure 6 Sources of GDP growth

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



Sources: Statistics Netherlands and DNB.

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

This is partly due to government subsidies, which have supported employment and hence household incomes. The government also contributes directly to GDP growth through public expenditure, which is expected to be considerably higher in 2021 and 2022 due to the additional pandemic-related outlays, including for healthcare (National Institute for Public Health and the Environment and municipal health departments) and education (National Education Programme). The growth contribution from business investment is smaller in 2021 than the average in the years preceding the coronavirus recession. The growth contribution ceases completely in 2022, mainly due to supply constraints, and only turns slightly positive again in 2023.

1.2 Tight labour market after rapid recovery in employment

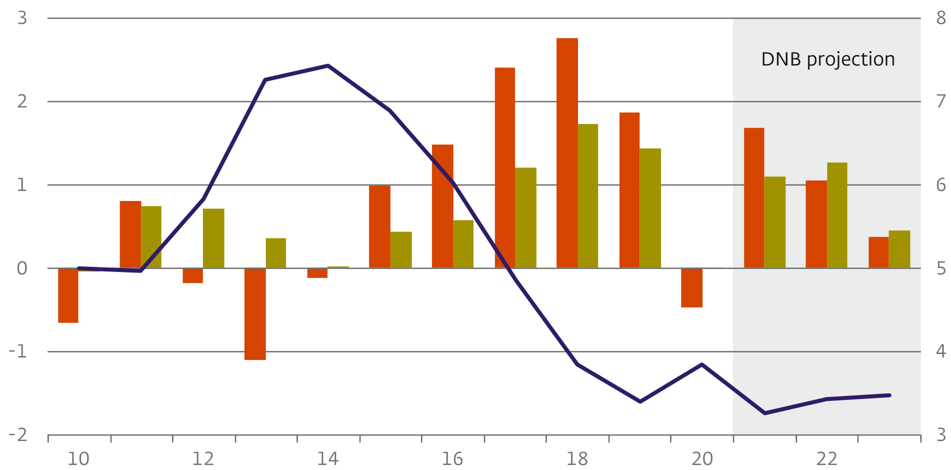
The fast and strong recovery from the coronavirus recession has been accompanied by a similar recovery in employment, which returned to the pre-pandemic level in the summer. After contracting in 2020 (-0.5%), the number of employed persons is expected to grow by 1.7% in 2021 (Figure 6). Many people found a job particularly in the second and third quarters of 2021 following the gradual lifting of the containment measures. Employment growth continues at a reasonable pace in 2022 (1.1%), before slowing to 0.4% in 2023.

The speed of the recovery in employment is not uniform across the economy. A number of sectors still employed fewer people in the second quarter of 2021 than in the final quarter of 2019. This was the case in hospitality, transport & trade services (-49,000 persons), business services (-37,000) and culture & leisure (-29,000). Up until now every new wave of infection, with the associated containment measures, has entailed job losses. By contrast, there was substantial growth in the number of people employed in the public sector (+101,000, half of them in healthcare) and information & communication (+27,000) in the same period. At present there are no indications of a structural shift in employment from the hardest-hit sectors to the growth sectors. Unemployed people often find a new job within the same or a related sector.[3]

3 It should be noted that some shifts are not visible in the figures: temporary employees who move, for example, from hospitality to a municipal health department remain statistically in the temporary employment sector. See Dutch-language article Weinig mobiliteit tussen krimp- en groeisectoren tijdens coronacrisis (Little mobility between contraction and growth sectors during coronavirus crisis) (esb.nu).

Figure 7 Labour market

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



Sources: Statistics Netherlands and DNB.

The upturn in macroeconomic activity and the associated demand for labour prompts more people to look for a job. Labour supply is expected to grow by 1.1% and 1.3% in 2021 and 2022 respectively. The percentage of the population (aged 15 to 75) in or seeking employment rose to 72% in October, the highest level since records began. Young workers (up to the age of 25), who were relatively likely to lose their jobs at the beginning of 2021 and sometimes even turned their backs on the labour market, also returned to it in the course of 2021.[4]

The unexpectedly rapid recovery in employment relative to the labour supply caused the labour market to become very tight again shortly after the coronavirus recession. Unemployment rose rapidly to 4.6% of the labour force in 2020 but decreased steadily to 2.7% in November 2021.[5] The unemployment rate is expected to average 3.3% in 2021. Unemployment will rise slightly from next year but is set to remain very low (3.4% in 2022 and 3.5% in 2023). This represents a substantial adjustment compared to the June 2021 projection, which assumed an unemployment rate of 4.5% in 2022 and 4.1% in 2023.

The exceptional tightness of the labour market can be seen not only in low unemployment. In the third quarter of 2021 there were 126 vacancies for every 100 unemployed persons, the highest level since measurements began in 2003. Other indicators, such as the number of vacancies (371,000) and the vacancy rate (43 vacancies per 1,000 jobs), also reached record highs in the third quarter of 2021. Staff shortages have thus been the biggest obstacle for businesses since the end of 2021. At the beginning of the fourth quarter 30% of employers were experiencing production constraints due to staff shortages, although the nature of the shortage differs depending on the business. The proportion of businesses experiencing staff shortages this quarter is particularly high in temporary employment (73%) and among cleaning companies, gardeners and security firms (around 55-60%) as well as IT companies (42%), while the aviation sector (0.3%) and tour operators (7%), for example, are experiencing few staff shortages, if any.[6]

4 See "Young people take hardest blows on the labour market" (DNBulletin, 1 April 2021).
5 From 2022 a new method (Dutch) will be used to measure the labour force and unemployment. This will lead to a higher unemployment rate, including in other European countries. Under the new system the unemployment rate in October was 4.0% rather than 2.9%. This is still low compared to the revised figures for other European countries.
6 Statistics Netherlands' Business Survey Netherlands.

The Dutch labour market is so tight during the projection period that the shortage of suitable staff is becoming increasingly acute. This requires a broad package of measures on the supply and demand sides of the labour market to stimulate labour participation and mobility. The new government and the social partners should urgently address the issue of labour shortages; the Social and Economic Council of the Netherlands and the Dutch Labour Foundation also have a role to play in this regard.

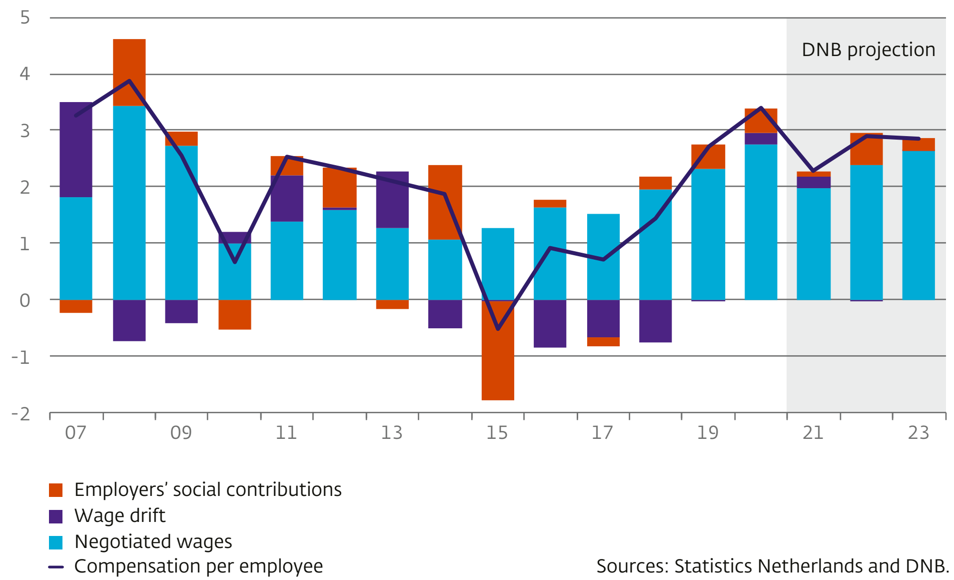
1.3 Wage growth picks up slowly

The strong economic recovery and consequent tight labour market and growing staff shortages are increasing the pressure for higher wage settlements. At present this is only evident in some collective labour agreements. In early 2021, collective bargaining appeared to produce two opposite outcomes: on the one hand agreements to raise wages by 0% to 1% and on the other hand rises of around 2%.[7] Negotiated wage growth in the private sector is expected to average 2.0% in 2021. This is less than in 2020, when wage growth peaked at 2.7%, but the decrease in wage growth is smaller than in the previous projection (June 2021). Since mid-2021 new collective bargaining settlements have gradually risen to an average of 2% to 2.5%.[8] The projection therefore assumes that negotiated wage growth will rise slowly to 2.4% in 2022 and 2.6% in 2023 amid the continuing labour market tightness, higher inflation and the ongoing economic recovery. Box 3 looks in more detail at the relationship between inflation and wage growth.

Compensation per employee exceeds the growth in contractual wages in the projection period, particularly due to employers' social security contributions (Figure 7). The contribution from wage drift was slightly positive in 2021. Firms seeking to recruit or retain staff will more readily pay one-time remuneration on top of the collectively agreed wage increase. This effect is expected to continue in the years ahead. Changes in the composition of the working population also affect the contribution from wage drift.[9] Overall employment growth in the years ahead will most likely be generated mainly by lower paid jobs, thereby depressing the average wage level. In 2022 and 2023 the positive contribution from additional wage drift and the negative contribution from this composition effect will balance each other out.

Figure 8 Compensation per employee (private sector)

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



Sources: Statistics Netherlands and DNB.

7 The differences reflect the extent to which businesses have been affected by the coronavirus crisis, with higher wage rises in sectors in better economic shape. See Dutch-language website article Tussenevaluatie van het huidige cao-seizoen (Interim evaluation of the current collective bargaining season) (AWVN, 2021).
8 See Dutch-language website article AWVN Cao-kijker.
9 A more detailed explanation can be found in a joint study by DNB and CPB Netherlands Bureau for Economic Policy Analysis.

Box 3 Inflation may spur wage rises

Higher inflation generally prompts higher wage demands from trade unions, albeit after a time lag. After all, real wages are an important determinant of employees' purchasing power. Projected inflation therefore generally rises if negotiated wages also rise. Firms' wage costs are in turn an important component of production costs and are ultimately passed on to consumers. This can lead to a wage-price spiral, whereby initially temporary price rises take on a long-term character.

We examined the extent to which inflation has fed through to negotiated (contractual) wages in recent years.1 We considered two questions: 1) Do negotiated wages react differently to energy inflation than to headline inflation and 2) do negotiated wages react more strongly to inflation when there is a positive output gap? Over the 2000-2020 period we find no significant reaction from negotiated wages to energy prices in the Netherlands. A possible explanation is that energy prices are generally volatile. Factoring these prices into a wage agreement that will often be concluded for a year or more is therefore not a straightforward matter. This finding also means that the current high level of inflation, driven largely by energy prices, may impact wages less strongly than inflation that is not driven by energy prices. A key assumption here is that the rise in energy prices is temporary.

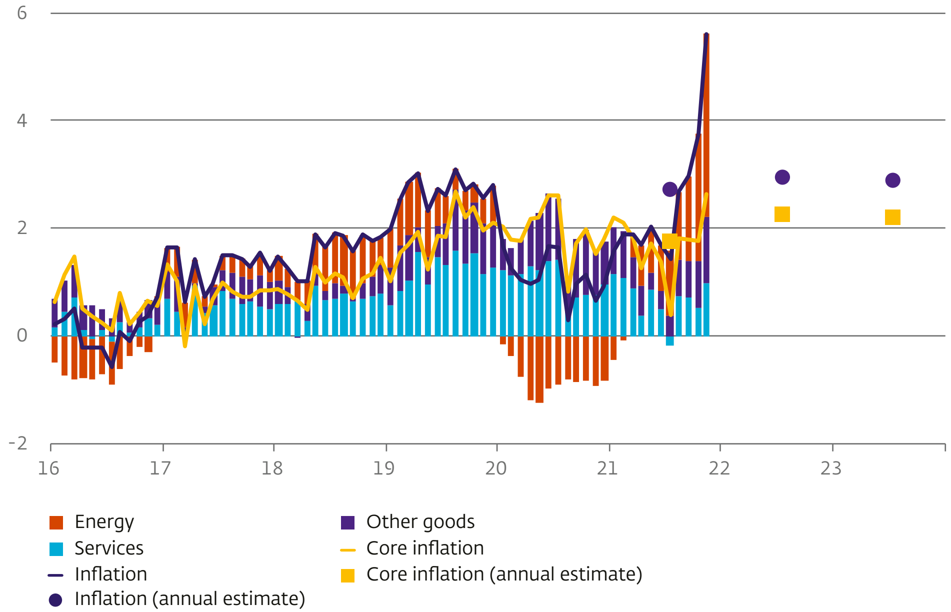
If energy prices remain high, there may be a significant impact on wages and wage negotiations. Energy prices could stay high for longer if, for example, the government were to price CO_2 emissions at a higher level and tax the consumption of fossil fuels.

In the Netherlands the impact of inflation on negotiated wages appears to depend particularly on the output gap. In the case of a positive output gap the economy has higher-than-potential output and the impact of inflation on negotiated wages is much stronger. The output gap is expected to be positive again in 2021 and to remain above (or well above) 2% in the subsequent years, with rising inflation. In 2022 the combination of high inflation, a positive output gap and a tight labour market could therefore put greater upward pressure on wages than in the baseline projection. The projection of a possible wage-price spiral is nevertheless highly uncertain. Chapter 3 looks at a scenario in which international inflation rises faster and has a stronger impact on wage growth.

1 Van der Heijden, Hoeberichts and Rutgers, forthcoming DNB Analysis.

Figure 9 HICP and core inflation

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

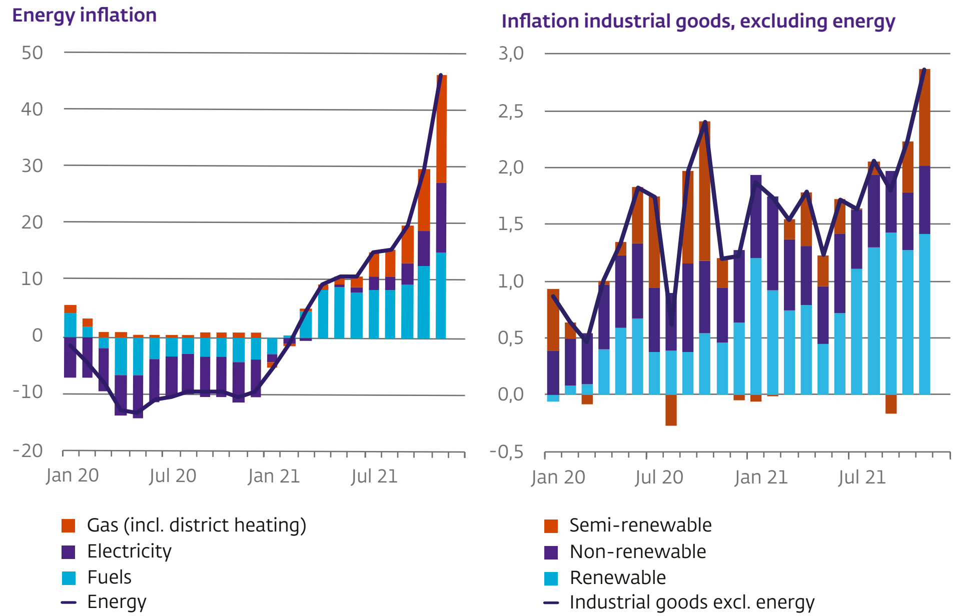


Sources: Statistics Netherlands and DNB.

Note: Core inflation = total excluding food and energy.

Figure 10 Components of inflation

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



Source: Statistics Netherlands.

1.4 Energy prices drive inflation higher

The economic recovery from the coronavirus recession is accompanied by substantially higher inflation. HICP inflation in 2021 rose to 3.7% in October and 5.9% in November (Figure 8). The projection for 2021 is an average of 2.7%. This is substantially higher than the 1.5% we projected in June. The main explanation for this is the unexpectedly rapid rise in energy prices, particularly those of electricity, gas and automotive fuels. Energy inflation in October 2021 was 30% (Figure 9, left) and in November even exceeded 40%. Fuel prices, which move closely in line with oil prices, were 27% higher in October than a year earlier. Gas and electricity prices were up more than 30% on the previous year. Without these components, inflation in October 2021 would have stood at 1.5%.

In addition to energy, the prices of consumer durables, such as cars, furniture and computer equipment, show notably strong rises (Figure 9, right). Partly because of technological developments and globalisation, these goods have actually contributed to lower inflation in recent years. The unexpectedly rapid recovery in demand after the coronavirus recession has resulted in bottlenecks in many goods supply chains. These are reflected in the high prices of commodities, semiconductors and container transport as well as producer prices. We previously expected that the supply problems would be resolved rapidly through supply adjustments. The projection assumes that the supply problems will persist in 2022 and be resolved at the end of 2023. The longer these production and supply chain disruptions last, the greater will be the proportion of cost rises that producers pass on to consumers to prevent excessive margin erosion.

On the services side, package holidays and airline tickets are more expensive in 2021 than a year earlier. The rise is due in part to higher fuel prices, but also to higher demand for these services. Although volumes have not yet returned to the pre-pandemic level, demand has risen strongly from the low level in 2020, when air traffic was shut down for a long period and long-distance travel was impossible. The prices of these services have recovered again after the dip in 2020. Housing is also contributing less to inflation than before the summer due to the limited rise in rents.[10] Overall service inflation in November was relatively high at 2.3%, although this figure is artificially low due to the halving of tuition fees in September to compensate students for the coronavirus impact on the previous academic year. Without this measure service inflation would have exceeded 3% in November.

The projection for the years ahead assumes inflation well above 2%. HICP inflation is set to average 3.0% in 2022 and 2.9% in 2023. The high inflation is due partly to energy prices, without which prices would rise by an average of 2.3% in 2022 and 2.2% in 2023. In addition to the aforementioned supply problems, inflation excluding energy is driven by the continued tight labour market, leading to higher wages and hence to rising unit labour costs. Although the collectively agreed pay rises have so far been relatively modest, the tightness in the labour market is expected to lead to higher wage demands. This will contribute to higher production costs that businesses will pass on fully or partly in prices. Temporary government measures will also continue to affect inflation through to 2023. The temporary cuts in energy taxes and tuition fees will be followed by increases a year later. Inflation in full-year 2022 is reduced by 0.8 percentage point due to the temporary reduction in energy taxes and by 0.1 percentage point due to the halving of tuition fees. The reversal of these government measures pushes inflation higher by 1.1 percentage point in 2023. In an alternative scenario, Chapter 3 explores the economic consequences of higher global inflation due to the sustained high level of commodity prices on the global market combined with persistent supply disruptions.

1.5 House prices continue to rise

Despite the pandemic and the deep recession, the Dutch housing market is tighter than ever. According to NVM (the Dutch association of real estate agents) barely 17,000 homes were on the market in the third quarter of 2021, the average time to sell was just 23 days and the proportion of homes sold above the asking price was exceptionally high at 80%. A robust labour market, a further decrease in interest rates, a reduction in property transfer tax for first-time buyers and inadequate supply are all factors that have contributed to the substantial price rises in the recent period. The price rise in the Netherlands is now far outstripping the average rise in the euro area (Figure 11, left).

The rise in house prices is expected to average 15% in 2021. This is higher than we anticipated in the June projection. The spending margin – a combination of purchasing power, borrowing conditions and mortgage interest – is higher than

10 Home ownership costs increased by 6.5% (year-on-year) in 2021Q2 but are not yet included in the inflation figures. They will be included in a few years' time, according to a decision taken in the summer of 2021 as part of the strategic review of the ECB.

Figure 11 Housing market

Sources: Statistics Netherlands and DNB.

Source: Statistics Netherlands.

Note: For euro area new and existing own homes, for The Netherlands existing own homes.

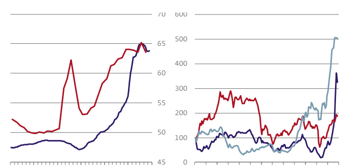
we previously expected. We have adjusted the unemployment outlook upward, and mortgage interest rates are considerably lower (1.7% in the current projection compared to 2.1% in the June projection). The projection for 2022 shows a further increase in the spending margin. The uptick in mortgage interest rates in 2022 and 2023 will have a slight dampening effect on prices in the years ahead. House prices are expected to rise sharply by a further 11.3% in 2022, followed by a slower rise of 5.0% in 2023, in line with the slowing pace of income growth.

On the supply side of the market, house prices are being driven higher by shortages of staff and building materials. The construction sector is also having to deal with uncertainty surrounding the policy measures to reduce nitrogen emissions. The construction exemption in the Nitrogen Reduction and Nature Improvement Act means that nitrogen will now only be an issue in the usage phase and no longer in the construction phase. The construction sector has therefore been spared to some extent, but there may still be substantial nitrogen emissions in the usage phase in the case of construction projects outside urban areas. Future nitrogen emissions may therefore continue to have a constraining effect on current new-build projects. At present, the growth in the number of permits and hence future new construction activity looks set to continue (Figure 11, right).

2 A closer look at the economic outlook

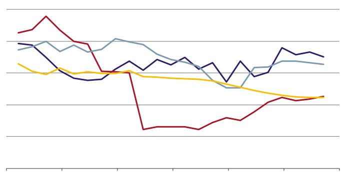
2.1 International assumptions

- World trade hit by disruption to supply chains
- ECB revises monetary strategy



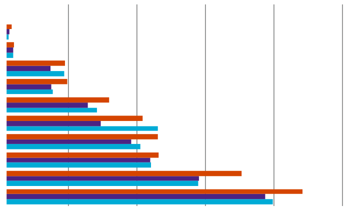
2.4 Businesses

- Supply constraints hold back business investment
- Low number of business failures



2.2 Exports

- Strong export growth in 2021 and 2022
- Current account surplus remains high

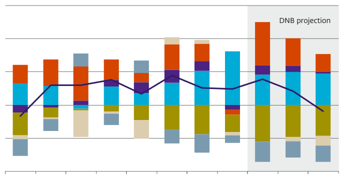


2.5 Corporate lending

- Corporate bank lending continues to grow

2.3 Households

- Private consumption continues strong recovery
- High savings rate gradually falls back



2.6 Government

- Budget deficit remains high in 2022
- Debt-to-GDP ratio remains below 60%

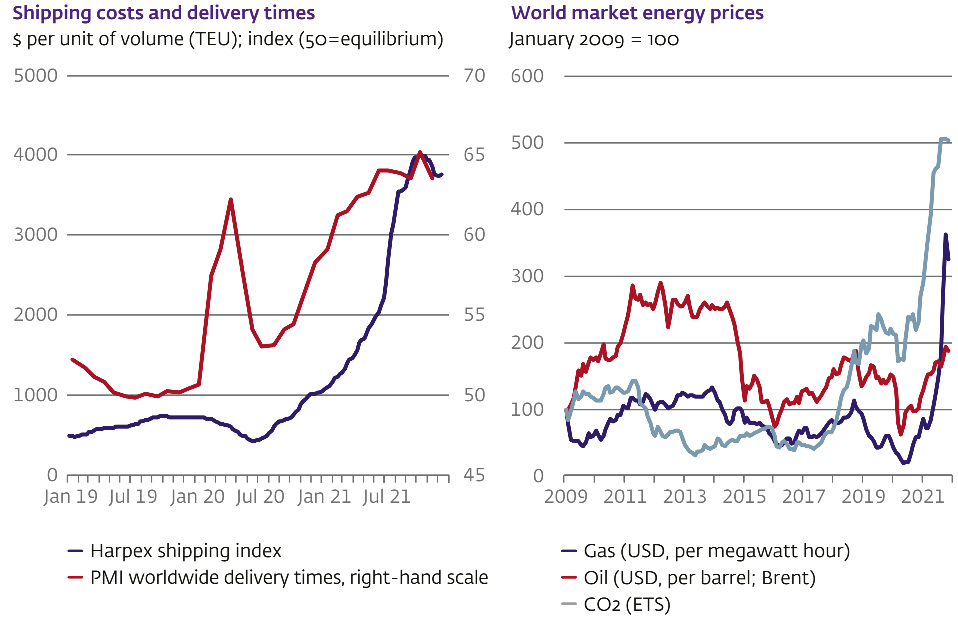
2.1 Consequences of the pandemic remain a source of uncertainty internationally

The projections for the Dutch economy are part of the half-yearly projections by the Eurosystem 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 (see also Footnote 2). According to the forecast of the European Central Bank (ECB), global GDP (excluding the euro area) will grow on average by 6% in 2021, a strong recovery after the 2.3% decrease in 2020. The recovery in international activity lost momentum from the second half of 2021, particularly as a result of supply chain disruptions. These supply constraints are expected to weigh further on the growth of the international economy in 2022. In the projection the impact of the pandemic on activity gradually eases as economies adapt and vaccinations progress. The ECB estimates that the global economy (excluding the euro area) will grow by 4.5% in 2022 before returning to the long-term average of 3.9% in 2023.

The international supply chain disruptions continue for longer than we anticipated in the June 2021 projection. These restrictions reflect an international imbalance between supply and demand for goods. The unexpectedly rapid recovery in demand has given rise to shortages, including of semi-finished products, such as semiconductors, and transport equipment and supplies, such as shipping containers. Since the start of the pandemic the supply of goods and the availability of transport equipment have also been disrupted, with factories and ports in various countries being closed due to successive waves of virus infections. As a result, delivery times and transport costs worldwide have now risen sharply (Figure 12, left).

The strong recovery of demand has also led to a shortage of commodities, taking the oil price to an average of $71.6 a barrel in 2021. The gas price has recently also risen and this is also a factor in the rise of the CO_2 price in the European Emissions Trading System (Figure 12, right). The projection assumes that the oil price will rise further in

Figure 12 Global supply restrictions



Source: Refinitiv.

2022 to an average of $77.5 a barrel before falling back to $72.3 a barrel in 2023. In the projection the ETS price reaches €69.8 per tonne of CO_2 at the end of 2021, before stabilising in subsequent years at around €75 per tonne of CO_2.

International inflation has risen sharply in 2021. Prices in the OECD countries (the largest developed economies) rose by an average of 5.2% in October 2021. As in the Netherlands, global inflation has risen due to the combination of higher energy prices (Figure 13, left) and higher prices of container transport and semi-finished goods.

The Federal Reserve (Fed) has changed its monetary policy stance in response to the sharp rise in inflation in the United States. US inflation rose to 6.8% in November (Figure 13, right), when there were still four million fewer people in paid employment than before the pandemic. According to the Fed, the higher prices were therefore not caused by an excessively tight labour market but were mainly the result of the global supply constraints. Against this background the Fed decided in November 2021 to gradually unwind its accommodative monetary policy. The monthly asset purchases have been reduced by $15 billion, while the interest policy remains unchanged at present.

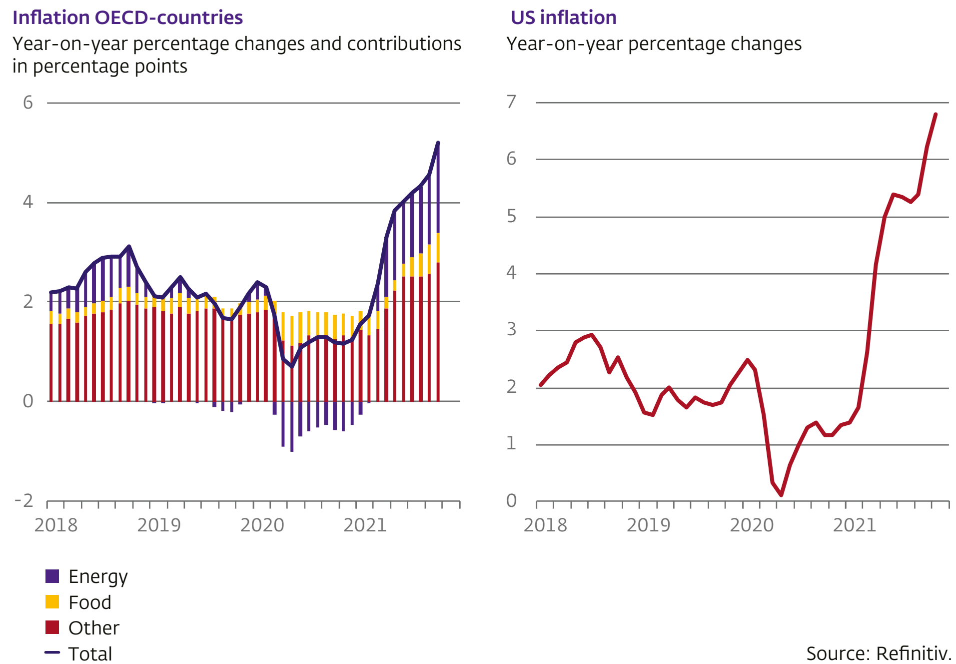
The ECB completed its strategic review in the summer of 2021. The revised monetary strategy includes an inflation target of 2% over the medium term. The new target is thus somewhat higher than the previous target (below but close to 2%) and is explicitly symmetric. To support the new target, the forward guidance on the expected key policy rate was also modified in July. The ECB will only raise interest rates if it sees inflation reaching 2% well ahead of the end of the projection horizon and durably for the rest of the projection horizon. Progress in underlying inflation (inflation adjusted for volatile components, such as the oil price) must also be sufficiently advanced to be consistent with inflation stabilising at 2%.

Euro area inflation stood at 4.9% in November, driven mainly by the higher energy inflation. In the euro area projection, core inflation, excluding food and energy prices, reaches 1.4 in 2021, before rising to 1.9 in 2022 and edging down to 1.7 in 2023.

2.2 Exports grow partly due to favourable sector structure

Prospects for the international environment are of great importance to the open Dutch economy, and they are reflected in the projection of the volume of world trade. World trade relevant to the Netherlands is expected to grow by 7.5% in 2021 and 4.9% in 2022, after which the growth accelerates to 5.6% in 2023 (Table 3).

Figure 13 Global inflation



Source: Refinitiv.

Due to the ongoing disruptions in global supply chains, the growth outlook for world trade is not as bright as was anticipated six months ago. The logistical bottlenecks in container transport, for example, are hampering international trade in goods, around 90% of which goes by sea. In line with the forecast of continued supply constraints in 2022, we have lowered world trade growth by 0.5 and 1.1 percentage point in 2021 and 2022 respectively compared to the June projection. Since the supply constraints are expected to be resolved by the end of 2023, relevant world trade growth is adjusted upwards by 2.3 percentage points for that year.

Table 3 Dutch exports and competitiveness

Percentage changes

	2020	2021	2022	2023
Volume				
Relevant world trade (1)	-9.7	7.5	4.9	5.6
Exports of goods and services (2)	-4.8	6.8	5.4	4.5
domestically produced	-7.6	3.4	5.3	4.3
re-exports	-0.8	11.6	5.4	4.8
Trade performance (2-1)	5.4	-0.6	0.4	-1.1
Exports of goods and services excl. energy	-4.6	7.1	5.4	4.5
domestically produced (3)	-7.3	3.7	5.3	4.3
re-exports	-0.5	11.8	5.4	4.8
Market performance (3-1)	2.6	-3.5	0.4	-1.2
Price				
Competitor price (4)	-2.9	6.9	5.0	0.8
Exports of goods and services	-2.5	7.2	4.8	0.5
domestically produced excl. energy (5)	-0.1	1.6	3.3	2.5
Price competitiveness (4-5)	-2.8	5.3	1.7	-1.6

Sources: DNB and ECB.

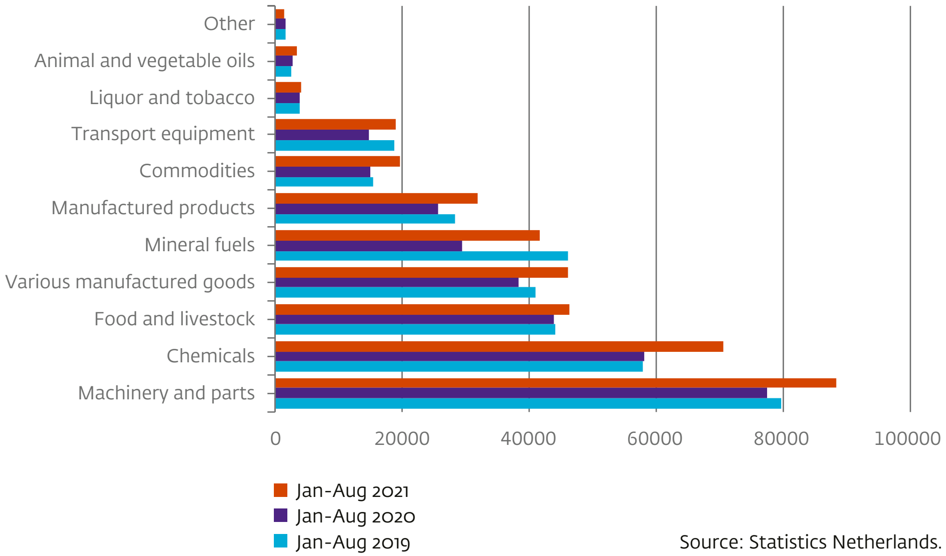
Dutch exports of goods and services are expected to grow by 6.8% in 2021. That is a slight upward adjustment of the June 2021 projection, despite the downward adjustment of world trade growth. It reflects the sharp rise in demand for semiconductor equipment due to the international shortage of semiconductors. This benefits the Dutch machinery sector, which accounts for over 25% of Dutch goods exports (including re-exports). In the first eight months of 2021 the export value of machines and parts was 14% higher than in the same period in 2020 and 11% higher than in the same period in 2019 (Figure 14). The pandemic has also boosted demand for pharmaceuticals, and in the first eight months of 2021 the value of Dutch pharmaceutical exports was the highest ever recorded. Export growth in 2021 has been driven strongly by the growth of re-exports (excluding energy), which are expected to amount to 11.8% in 2021. Dutch re-exports largely comprise ICT products, such as computers and electronics, for which demand has also risen as a result of the containment measures to combat the pandemic.

Exports of goods and services grow by 5.4% in 2022. Growth in re-exports (excluding energy) slows to 5.4% in 2022, party as a result of weaker global demand for ICT-related products. Under pressure from increasing globalisation, the growth of domestically w exports falls to 4.3% in 2023 and thus lags behind the growth in relevant world trade. At the same time the price competitiveness of these goods is under pressure. Partly due to rising wage costs, the price of domestically produced exports (excluding energy) rises by 3.3% in 2022 and 2.5% in 2023. At the end of the projection horizon the market share of domestically produced exports is below the level recorded before the coronavirus recession.

In 2020 the current account balance fell by 2.4 percentage points to 7.0% of GDP, well below the long-term average (2010-2019) of 9.0%. This was mainly due to a decrease in the external income balance (Figure 15). The economic consequences of the pandemic have led in particular to a substantial decrease in profit from foreign equity holdings, while profit earned by foreign investors from equity holdings in the Netherlands decreased much less sharply. This is probably because the Dutch economy contracted less sharply than most other economies in 2020. In line with the projected recovery of international activity, it is assumed that profit from foreign equity holdings will recover during the projection period, driving up primary income earned abroad. Signs of such a recovery in primary income earned abroad were already evident in the first half of 2021. Partly for this reason the current account

Figure 14 Dutch exports by commodity type

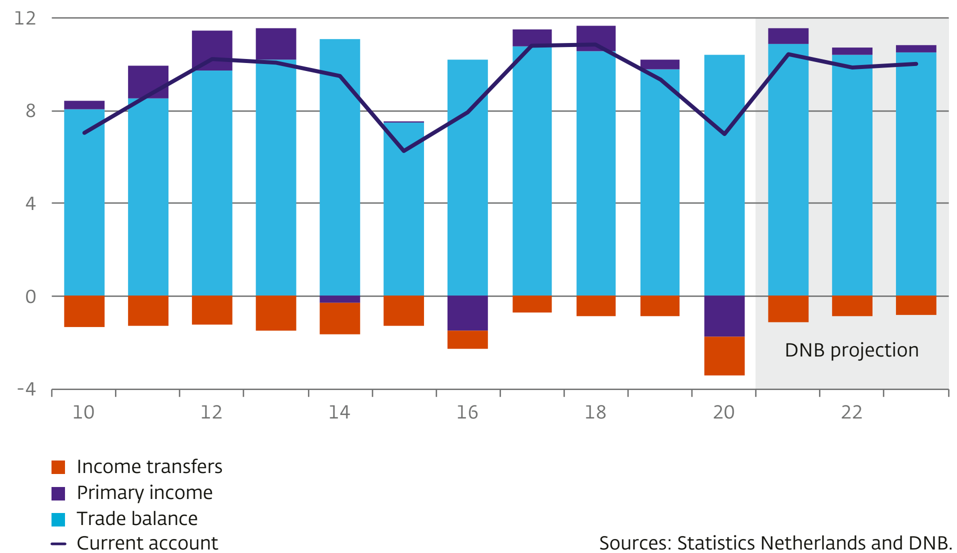
EUR million



Source: Statistics Netherlands.

Figure 15 Current account surplus

Percentage of GDP



Sources: Statistics Netherlands and DNB.

Note: Income transfers including correction for changes in pension rights.

balance rises to 10.4% in 2021. It then falls again in 2022, particularly due to the strong growth in consumption expenditure, which has a large import component. At the end of the projection period the current account balance is at approximately the same level as before the coronavirus recession.

2.3 Strong recovery in household consumption after easing of measures

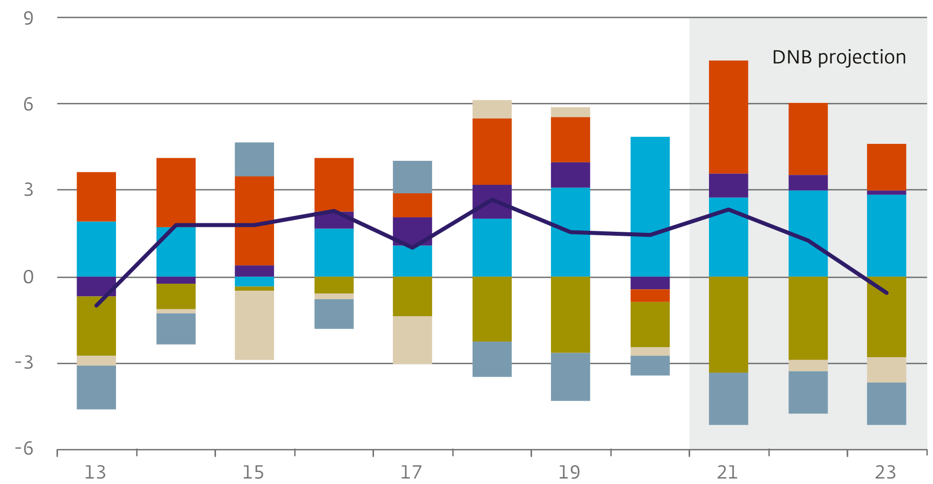
The pandemic has also had a major impact on households' consumption expenditure. Private consumption contracted by 6.6% in the 2020 recession year. Following the more stringent measures introduced at the end of 2020, consumption contracted further in the first quarter of 2021. As the measures were gradually eased, however, consumption recovered strongly, in both the second and third quarters, buoyed by improved consumer confidence. Almost all of the initial loss suffered during the coronavirus recession has thus been reversed. In real terms the level of private consumption in the third quarter of 2021 was just 1% below the pre-pandemic level. The projected growth of private consumption in 2021 is 3.2%.

The consequences of the pandemic drove household savings sharply higher in 2020 and 2021. On the one hand households' income was supported by the government measures aimed at preventing lay-offs and bankruptcies. On the other hand consumption fell sharply. The individual savings rate, which expresses free savings as a percentage of disposable income, stood at 17% in the first quarter of 2021, compared to an average of 4.5% in 2019. Households nevertheless expect to spend only a small part of their "coronavirus savings" on consumption. On average, they plan to use 14% of the additional savings for consumption purposes. Around half of the coronavirus savings are expected to remain in bank accounts, while a quarter will be invested in residential property or other assets.[11] In the 2021 projection the individual savings rate decreases in the second half of the year, taking the average for 2021 to 10.9%, which is still considerably higher than the level of the end of 2019.

Growth in private consumption is expected to accelerate to 5.6% in 2022. This is in line with the assumption that no new, substantial containment measures will be necessary from 2022. Some catch-up consumption is also to be expected as consumption opportunities gradually increase. As a result, private consumption grows substantially in 2022. At the same time rising energy prices depress the growth of real disposable income. Rising energy prices in the second and third quarters of 2021 have contributed negatively to the growth of real disposable income, and the negative effect in the third quarter was the biggest since the turn of the century. Energy inflation will also depress growth in real disposable income in 2022, although this effect will be partly offset by government mitigating measures to ease the sharp rise in households' energy costs. Looking further ahead, the projected growth of private consumption in 2023 decreases sharply, to 2.1%.

Figure 16 Real disposable household income

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



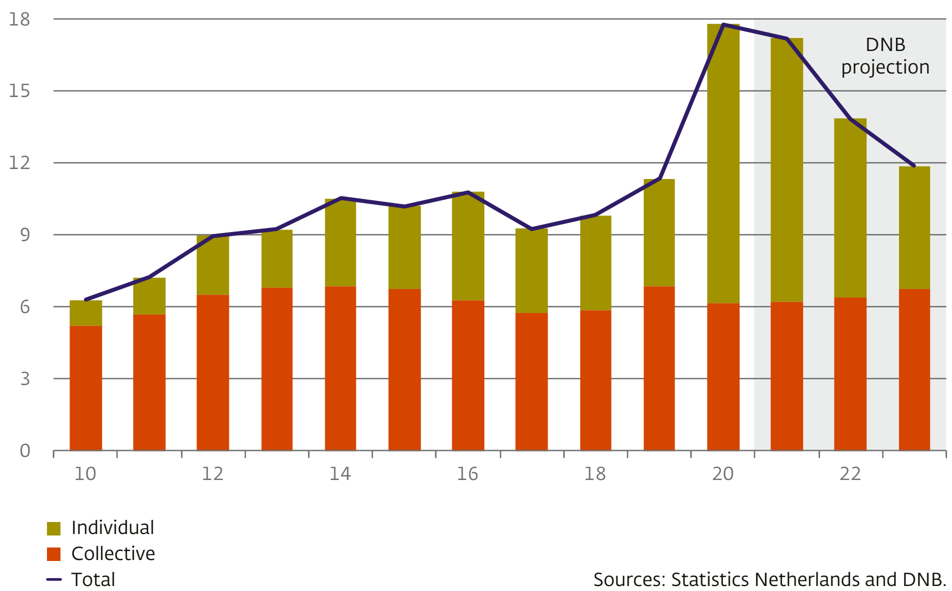
Sources: Statistics Netherlands and DNB.

Real household disposable income is expected to contract by 0.6% in that year, making it the first year of contraction since 2013. This is mainly due to high inflation, the levelling off of growth in self-employed incomes and the slowdown in employment growth (Figure 16).

11 The remainder will be gifted or used to pay down debt. See "Households expect not to spend the vast majority of savings accumulated during the pandemic period on consumption" (DNBulletin 26 August 2021).

Figure 17 Individual and collective household savings

Percentage of disposable income (including adjustment for net equity in pension fund reserves)



Sources: Statistics Netherlands and DNB.

The strong revival of private consumption in 2022 is accompanied by a further decrease in the individual savings rate to an average of 7.4%. The savings rate then decreases further and in the final quarter of 2023 amounts to 4.7%, just above the level seen at the end of 2019 (Figure 17).

2.4 Business investment inhibited by supply constraints

Business investment recovered in the first quarter of 2021 after the sharp contraction of over 6% in 2020. The initial financial position was favourable, as profit held up even during the 2020 recession year. Business confidence turned slightly positive again in the first half of 2021. Expected investment growth in full-year 2021 increased to 6% in manufacturing, whereas a 3% contraction was anticipated at the end of 2020. Business confidence increased further in the third and fourth quarters and was even positive across all surveyed sectors, although the November 2021 containment measures had not been announced by the time of the survey.

Against this background it is notable that the investment growth in early 2021 turned into a contraction in the second and third quarters. This is partly due to the unexpectedly strong upturn in the economy, with rapidly growing shortages of materials and production resources, which severely impacted the transport sector, for example. The Business Survey Netherlands (COEN) conducted by Statistics Netherlands showed in October 2021 that an average of 13.7% of businesses were facing shortages of materials, production resources and space. In manufacturing the figure was as high as 25.5% (see also Box 1).[12] Businesses are also having to deal with a very tight labour market. The proportion of businesses reporting staff shortages is 30.4% (compared to 23.1% three months earlier), with outliers up to 53.4% in the rental and other business services sector.

12 See the Statistics Netherlands' Business Survey Netherlands.

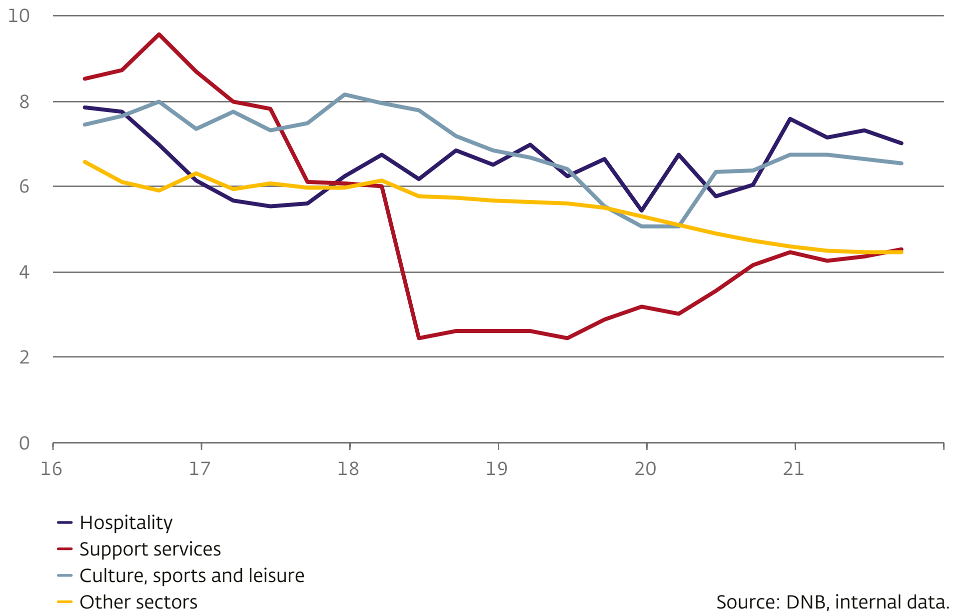
After the contraction in the second and third quarters of 2021 the projected annual growth of business investment is therefore much lower than we previously expected. Business investment is projected to rise by 3.6% in 2021. The shortages of materials and production resources will continue to inhibit business investment in the year ahead. Growth in business investment consequently falls to 0.9% in 2022. The gradual easing of these supply constraints translates into business investment growth of 3.9% in 2023.

The winding down of support packages from October 2021 has not so far resulted in a significant rise in bankruptcies. The number of bankruptcies remains relatively low in historical terms. The number of business closures has also been substantially lower in recent quarters than in 2020. Since January 2021 businesses in financial difficulty have been able to make use of the Act on the Confirmation of Out-of-Court Restructuring Plans (Wet Homologatie Onderhands Akkoord – WHOA) in order to reach a debt restructuring agreement with their creditors. A total of 134 WHOA initiation declarations had been filed by 1 October 2021.

The low number of bankruptcies suggests that government support, combined with leniency on the part of creditors and improved revenues, has enabled many businesses to meet their immediate obligations. The credit ratings that banks allocate to loans also show that businesses have on the whole weathered the coronavirus recession in relatively good shape. The proportion of non-performing corporate loans even fell on average in 2020 and 2021.[13] That was not the case in all sectors, however. The number of non-performing loans increased in the hardest-hit sectors, such as hospitality, support services (including leasing, employment services and travel agencies) and culture, sports & leisure (Figure 18). These are also the services that saw the highest growth in the labour income share in 2020.[14]

Figure 18 Non-performing loans of Dutch banks

Percentage of outstanding credit



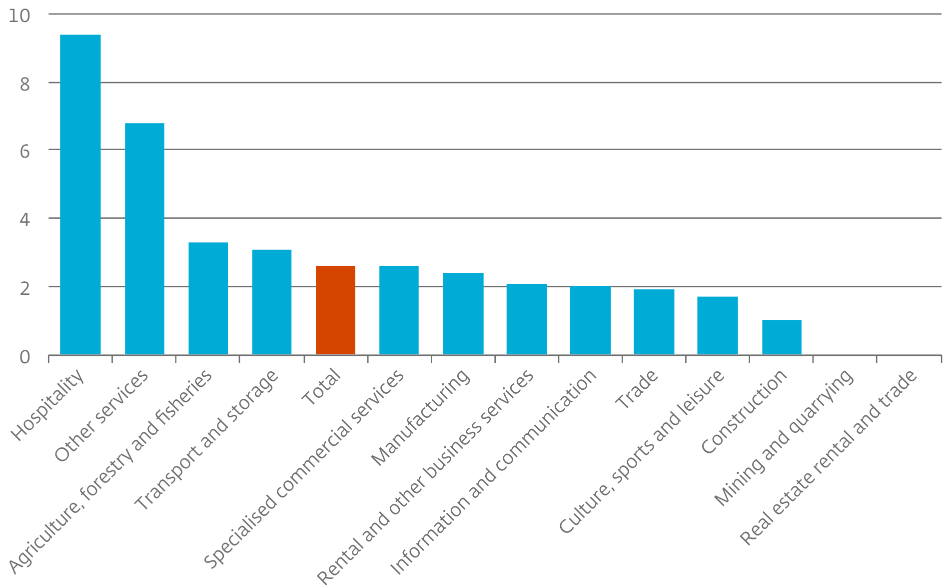
Source: DNB, internal data.

Substantial payment arrears have also arisen in various sectors. In the third quarter an average of 14.7% of all businesses said they still owed tax, 2.1% were in arrears with their landlord, 0.7% with their suppliers, 1.8% with lenders and 0.7% with other parties. These averages again conceal a wide dispersion, with around 37.5% of hospitality businesses but only 1.1% of real estate operators having tax debts. In the fourth quarter of 2021 2.6% of businesses said they expected to have

13 See "Dutch businesses' creditworthiness: so far, so good" (DNBulletin, 28 October 2021).
14 See "Stable distribution of labour and profit income despite coronavirus crisis" (DNBulletin, 2 December 2021).

Figure 19 Expected debt problems per industry

Percentage of industries



Source: Statistics Netherlands' Business Survey, fourth quarter 2021.

Note: Percentage of industries who expected in October 2021 to have debt-servicing difficulty in 2022.

difficulty meeting their debt obligations in 2022. In hospitality, the corresponding figure is 9.4% (Figure 19). The Dutch tax administration allows long repayment periods for outstanding debts and will be fairly lenient in the case of debt rescheduling agreements. The accumulated arrears, in some cases combined with permanently lower revenues, will nevertheless compel some businesses to reorganise or face bankruptcy. The number of bankruptcies is ultimately expected to return to pre-2020 values, so a rise is likely.

2.5 Slight increase in corporate lending

Corporate bank lending in the third quarter of 2021 was almost unchanged from the previous year's level, even though year-on-year growth turned positive again for the first time in September and October. Lending to SMEs in the third quarter was also almost unchanged from the same quarter last year, ending a run of nine quarters of contraction. Corporate lending still lags behind credit growth elsewhere in the euro area, although lending in the Netherlands has also been supported by the ECB's monetary policy, government guarantee schemes and a lowering of systemic buffers for banks since the coronavirus pandemic. This lower credit growth in the first phase of the pandemic was associated with the relatively generous government support packages, which largely satisfied liquidity needs. Governments in other countries tended more to use guarantees issued through the banking sector for this purpose. Government guarantees for bank loans were also issued in the Netherlands at the beginning of the coronavirus recession but their uptake decreased in the final months of 2021.

In the case of SMEs in particular, credit growth had been low compared to the rest of the euro area for a long time before the coronavirus recession, so this is a more structural phenomenon. This is partly due to the alternative forms of financing used by SMEs, such as their own resources. Dutch SMEs are in relatively good financial health from a European perspective. However, there are also indications that SMEs are finding it relatively difficult to obtain credit. The number of loan applications rejected in the Netherlands is relatively high. Nevertheless, the 'Survey on the access to finance of enterprises' (SAFE survey) reveals that SMEs are by and large still slightly negative about their access to bank credit, but their pessimism decreased markedly in the first half of 2021. The number of rejected credit applications also decreased. The creation of a credit register to make lending to SMEs easier could be considered.

Banks expect demand for credit among large corporates and SMEs to rise in the fourth quarter of 2021, but they also expect lending conditions to be tightened. Although banks made no changes to underwriting standards for corporate loans in the third quarter of 2021, a large proportion expect the criteria to be tightened in the fourth quarter. In the ECB's Bank Lending Survey (BLS), banks say demand for corporate credit decreased in the third quarter of 2021, with the biggest decline being seen among SMEs. At the same time they expect an increase in demand for credit in the fourth quarter, particularly from SMEs. Overall, the growth in lending in the projection amounts to 0.5% in 2021 and 0.4% in 2022. In 2023 the rate of growth rises slightly to 0.7%, partly due to the upturn in business investment.

2.6 Recovery of public finances in 2022 and 2023

The coronavirus pandemic has again had a major impact on public finances in 2021. The deficit remains close to the previous year's high level as a result of coronavirus-related expenditure. The debt-to-GDP ratio has consequently risen further in 2021. The projection for 2022 and 2023, which does not take account of the new coalition agreement, shows a strong improvement in public finances. This is due both to the termination of the coronavirus-related expenditure and to the economic recovery. The strong upturn in the economy translates into higher tax revenues and lower unemployment expenditure. The public finances are thus able to withstand the consequences of the pandemic better than we previously estimated.

The budget deficit is expected to be 4.4% of GDP in 2021 after 4.2% of GDP in 2020 (Table 4). In 2022 the expected deficit falls to 1.9% of GDP and subsequently declines further to 0.8% of GDP in 2023. In the fourth quarter of 2021 the government reactivated the financial support schemes in conjunction with the coronavirus measures that came into force in November 2021. The projection takes account of the support measures in the fourth quarter and assumes they will not be extended further.[15] News that the support measures were in fact being extended to the end of the first quarter of 2022 came after the close of the projection and has therefore not been taken into account. It is possible that regular waves of infection will occur in the future. This will require further reflection on the organisation of the economy and society so that extensive government support measures are no longer necessary or taken for granted. After all, they place a great strain on public finances and ultimately disrupt healthy economic dynamics.

Table 4 Public sector key data

Percentage of GDP

	2020	2021	2022	2023
Public expenditures	48.1	47.4	44.1	43.4
Taxes and social security contributions	39.7	38.9	38.2	38.6
Other income	4.2	4.1	4.0	3.9
Primary balance	-3.5	-3.9	-1.5	-0.4
EMU balance	-4.2	-4.4	-1.9	-0.8
EMU debt (based on end-of-period)	54.4	55.7	53.8	52.0

Source: DNB.

At over 47% of GDP, collective expenditure in 2021 is higher than before the pandemic, but in the projection for 2022 and 2023 it returns to a more normal level. This is due in particular to the temporary nature of the support measures. The main measures in 2021 are the wage subsidy (NOW) and the Reimbursement of Fixed Costs (TVL). There are also substantial medical costs relating to testing and vaccinations. Policy measures in other areas also put upward pressure on expenditure in 2022 and subsequent years. These include additional budget for youth care, compensation for the victims of the child benefits scandal, climate measures,

15 We took the 2021 Autumn Memorandum into account in the projection.

the National Education Programme and public sector salaries. The collective tax burden is depressed in 2022 by the temporary cut in energy taxes to compensate for high gas prices. Remaining policies have little effect on the tax burden over the remainder of the projection period.

The government debt-to-GDP ratio rises to 55.7% of GDP in 2021, against 54.4% in 2020. Despite the substantial government deficit, the increase in debt is less onerous relative to the size of the economy, thanks to strong GDP growth, which is known as the denominator effect. The debt-to-GDP ratio in 2021 was also pushed higher in 2021 by the tax deferral granted to businesses, which this year amounted to more than 2% of GDP and will be gradually repaid in the years ahead. Due to the strong improvement in the balance in 2022, the debt-to-GDP ratio starts to fall rapidly during that year. Debt is expected to reach 53.8% of GDP in 2022 and to decrease further to 52.0% in 2023. It thus returns almost to the pre-pandemic level (49% of GDP) and, partly due to that solid starting position, remains well below the European 60% rule.

The impact of the pandemic on the public finances of most other euro area countries has so far been much greater. The debt levels, which were already very different before the pandemic, have consequently diverged further. The European Commission has recently restarted the consultation process on the revision of European budget rules. It is important to reach credible agreements on debt sustainability, with rules that leave sufficient room for stabilisation in difficult times and are not overly complex.[16]

16 See our Dutch-language position paper on possible reforms of the SGP (for round-table discussion in the Dutch House of Representatives).

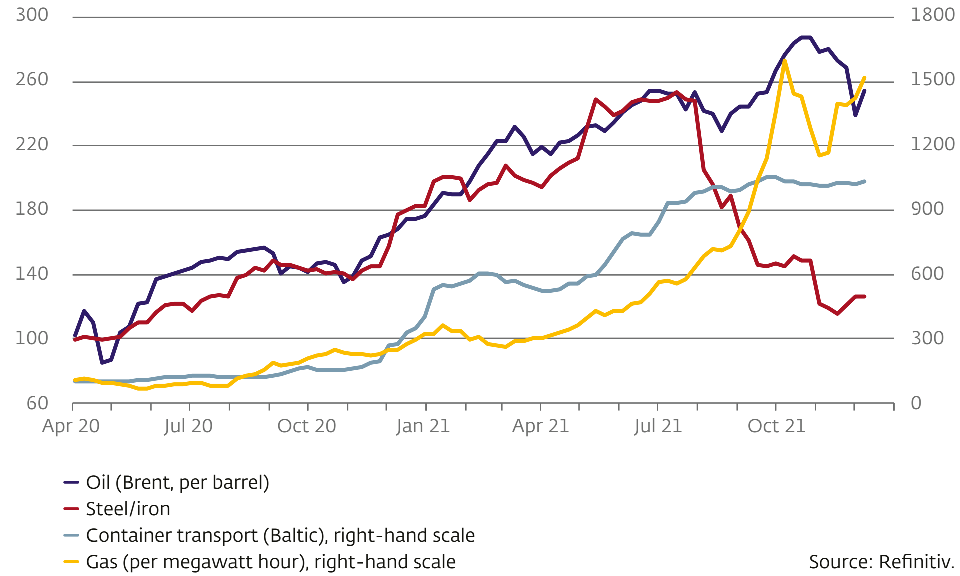
3 Higher inflation worldwide: an alternative scenario

Energy and commodity prices have risen sharply, driven in part by the strong rebound in global demand. At the same time the supply side of the economy is having difficulty keeping pace with the economic recovery. Persistent supply problems in international production chains caused by the pandemic are leading to growing material shortages. Many businesses are also having to contend with staff shortages. Any prolonged continuation of these supply disruptions and higher commodity prices will dampen global GDP growth and world trade, while inflation will remain stubbornly at a higher level. This may cause substantial damage to the Dutch economy.[17]

Figure 20 illustrates the tightness that has arisen in the economy on the basis of recent price developments in a number of commodities, semi-finished goods and transportation services. Research shows that higher commodity prices feed through to consumer prices after a time lag, so the substantial rise in prices earlier this year and last year remain important for inflation.[18] How long this period of high commodity prices and supply problems will persist remains very uncertain, however. The longer it continues, the more likely it is that further price rises will affect the behaviour of consumers and businesses. Upward price pressure may lead to higher wage demands, in turn leading to higher labour costs. This possible development of a wage-price spiral will be an important factor in monetary policy-making in Europe and the United States.

Figure 20 Price development during pandemic outbreak

April 2020 = 100; USD; 4-week moving average



Source: Refinitiv.

In the alternative scenario that we present in this chapter, it has been assumed that energy and commodity prices in 2022 and 2023 will be 20% higher than in the central projection.[19] The supply problems cut production capacity by 1 percentage point, exacerbating the tightness in the economy. This scenario also assumes that the

17 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.
18 See "Supply bottlenecks visible in inflation" (DNBulletin, 5 November 2021).
19 The 20% rise in energy and commodity prices concerns oil, gas, metal, coal, food and agricultural commodities. This assumed price trend is not unusual in a historical context. For example, commodity prices at the beginning of 2009 rose by over 80% within two years, which is comparable to the assumption in this scenario. The oil price in the second half of 2008 was even around 80% higher than in the second quarter of 2021.

higher prices in both the United States and the euro area due to labour market tightness have a stronger-than-usual impact on wage formation. Employee wage growth is thus increased by 0.5 percentage point in 2022 and 2023. We assume that from mid-2022 the monetary policy authorities in the United States and Europe will respond to the rising consumer prices by raising interest rates according to a standard response function, the so-called Taylor rule.[20]

All kinds of products on the world market become more expensive, causing import and export prices to rise worldwide. Higher domestic prices and rising capital costs depress spending by households and businesses, and hence global economic growth. The volume of world trade relevant to the Netherlands consequently decreases and in 2023 is more than 4% lower than in the central projection (Table 5).

The decline in relevant world trade leads to lower export volumes of Dutch goods and services (Table 6). The higher import prices and tightness of supplies immediately drive domestic prices higher, with the result that inflation in 2022 and 2023 is on average 1 percentage point higher than in the central projection. Since the higher prices lead to a stronger increase in nominal wages, the overall effect on real disposable income is relatively limited. Growth in consumption expenditure falls by an average of 0.6 percentage point per year. As a result of reduced demand and rising capital costs due to rising interest rates, business investment also decreases relative to the baseline. Economic growth in the Netherlands falls by an average of 0.8 percentage point per year in 2022 and 2023 relative to the central projection.

Employment initially holds up, but because the drop in demand rapidly dominates the tightness of supply, unemployment gradually rises to 4% in 2023, or 0.5 percentage point higher than in the projection. Consumer confidence also decreases in line with the higher unemployment, rising oil prices and falling share prices. As a result of this brake on confidence combined with lower housing investment and rising interest rates, the housing market cools somewhat. The rise in house prices in 2023 is 1.2 percentage points lower than in the central projection. The effect on the public finances in the projection period is limited, partly because unemployment barely rises in 2022 and nominal tax receipts initially hold up due to higher prices.

Table 5 Assumptions of inflation scenario

Percentage deviations from central scenario, unless stated otherwise

	2022	2023
Relevant world trade	-2.2	-4.1
Competitor price	1.8	3.1
Oil price	20.0	20.0
Share price	-2.6	-1.8
Short-term interest rate (in pp)	0.3	0.9
Long-term interest rate (in pp)	0.3	0.3

Source: DNB.

Notes: Assumptions simulated with NiGEM v4.21.

20 The scenario was simulated using the NiGEM global model and DNB's macroeconomic DELFI model. It has been assumed that economic agents form their expectations in a rational (forward-looking) manner and that the budget policy has an accommodative effect on the basis of a fiscal solvency policy rule.

Table 6 Results of inflation scenario

Percentage changes, unless stated otherwise

	2022	Difference vs projection	2023	Difference vs projection
Gross domestic product	3.0	(-0.6)	0.8	(-0.9)
Private consumption	5.3	(-0.3)	1.3	(-0.8)
Business investment	0.4	(-0.5)	1.4	(-2.5)
Housing investment	-0.5	(-0.3)	0.4	(-1.0)
Exports of goods and services	3.5	(-1.9)	2.5	(-2.0)
Imports of goods and services	4.8	(-1.6)	3.1	(-2.1)
Consumer confidence (level)	-14.4	(-2.7)	-14.8	(-7.9)
Compensation per employee, private sector	3.5	(0.6)	4.2	(1.3)
Harmonised index of consumer prices	3.9	(0.9)	4.0	(1.1)
energy	13.6	(3.9)	10.8	(0.6)
total excluding energy and food	2.9	(0.6)	3.4	(1.2)
House prices, existing own homes	11.0	(-0.3)	3.8	(-1.2)
Unemployment (% of labour force)	3.4	(0.0)	4.0	(0.5)
EMU balance (% of GDP)	-1.9	(0.0)	-0.9	(-0.1)

Source: DNB.

Key data in forecast for the Dutch economy

Percentage changes, unless stated otherwise

	2020*	2021	2022	2023
Volume of expenditure and output				
Gross domestic product	-3.8	4.5	3.6	1.7
Private consumption	-6.6	3.2	5.6	2.1
Public expenditure	1.1	3.4	4.3	1.2
Business investment	-6.3	3.6	0.9	3.9
Housing investment	-2.6	4.1	-0.2	1.4
Exports of goods and services	-4.8	6.8	5.4	4.5
domestically produced	-7.6	3.4	5.3	4.3
re-exports	-0.8	11.6	5.4	4.8
Imports of goods and services	-5.5	5.3	6.4	5.2
domestically used	-8.8	1.1	7.1	5.5
Wages and prices				
Negotiated wages, private sector	2.7	2.0	2.4	2.6
Compensation per employee, private sector	3.4	2.3	2.9	2.9
Unit labour costs, private sector	8.9	-0.7	-0.4	1.3
Prices of domestically produced exports	-1.8	7.1	4.6	1.1
Harmonised index of consumer prices	1.1	2.7	3.0	2.9
House prices, existing own homes	7.8	15.0	11.3	5.0
Labour market				
Employment (persons, growth)	-0.5	1.7	1.1	0.4
Labour supply (persons, growth)	0.0	1.1	1.3	0.5
Unemployment (persons x 1,000)	357	306	331	341
Unemployment (% of labour force)	3.8	3.3	3.4	3.5

	2020*	2021	2022	2023
Public sector and financial				
EMU balance (% of GDP)	-4.2	-4.4	-1.9	-0.8
EMU debt (% of GDP, based on end-of-period)	54.4	55.7	53.8	52.0
Current account (% of GDP)	7.0	10.4	9.9	10.0
Residential mortgages (based on end-of-period)	1.9	3.6	2.4	2.3
Bank lending to NFC (based on end-of-period)**	0.4	0.5	0.4	0.7
International assumptions				
Volume of relevant world trade	-9.7	7.5	4.9	5.6
Volume of GDP US	-3.4	5.5	4.2	3.0
euro area	-6.4	5.1	4.2	2.9
emerging markets	-1.5	6.4	4.8	4.6
Short-term interest rate in the euro area (%)	-0.4	-0.5	-0.5	-0.2
Long-term interest rate in the Netherlands (%)	-0.4	-0.3	0.0	0.1
Euro exchange rate (USD)	1.14	1.18	1.13	1.13
Competitor prices	-2.9	6.9	5.0	0.8
Oil price (UK Brent in USD per barrel)	43.4	71.6	77.5	72.3
Commodity prices excluding energy (USD)	3.5	34.4	5.7	-2.2

Source: DNB and 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