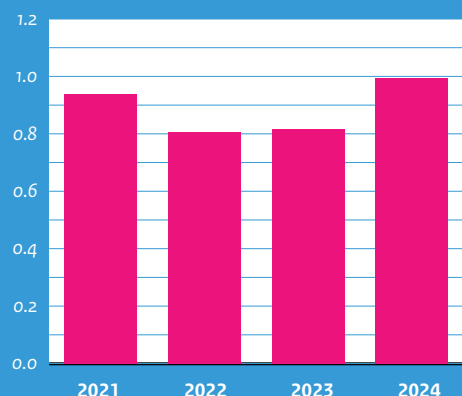




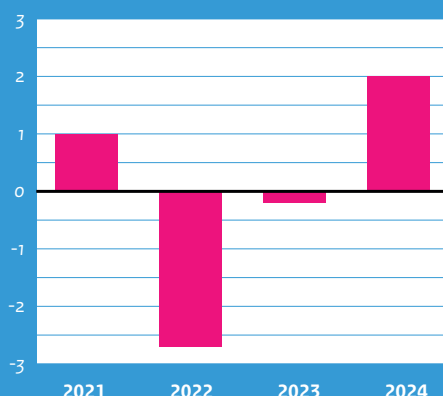
Central Economic Plan 2023

Purchasing power restored through wage growth,
but more people living below the poverty line.

Number of people below
poverty line (mln)



Purchasing power
in %



Highlights



Outlook for public
finances to 2031

page 10



Effect of energy price
shock on income
distribution

page 16



Study of economic
effects of nitrogen
problem

page 19

The Dutch economy is projected to grow in 2023 and 2024 despite

- inflation
- weaker international trade
- falling house prices

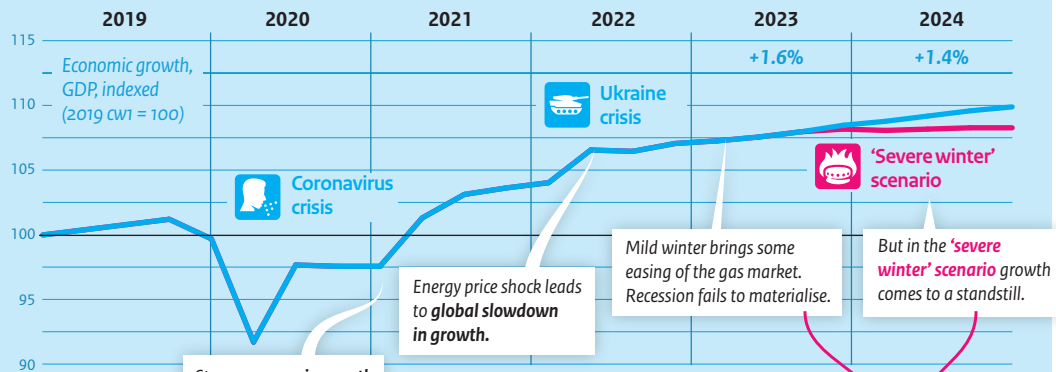


CPB Projections

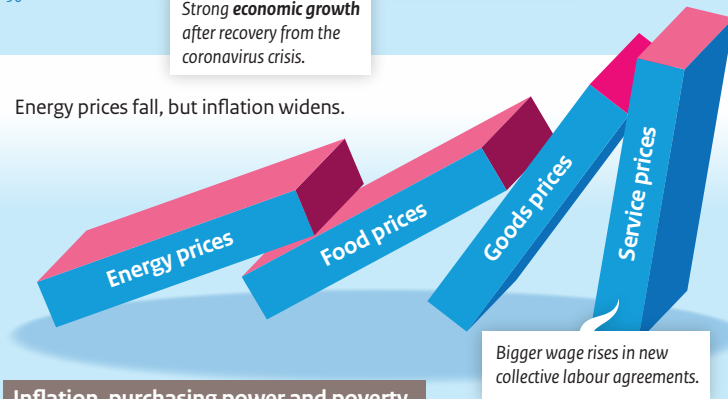
March 2023

Central Economic Plan 2023

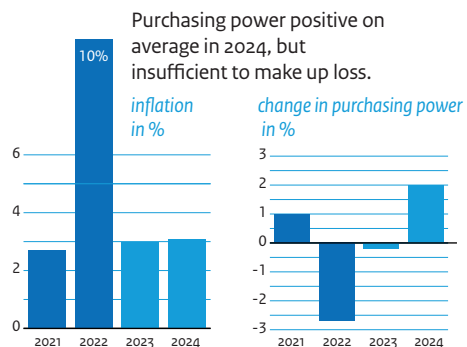
Purchasing power restored through wage growth, but more people living below the poverty line.



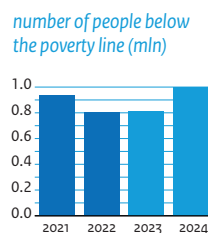
Energy prices fall, but inflation widens.



Inflation, purchasing power and poverty



Poverty increases in 2024 due to termination of policies focused on lowest incomes.



Sustainability

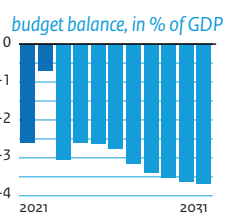
Even with a more favourable price trend, a commitment to sustainability remains sensible, because it reduces vulnerability to high energy prices.

Energy conservation also eases tension in the energy market.

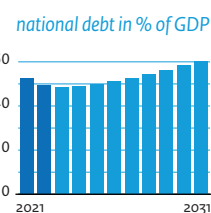


Public finances

Public finances have apparently absorbed the shocks well...



... but outlook to 2031 shows underlying deterioration.



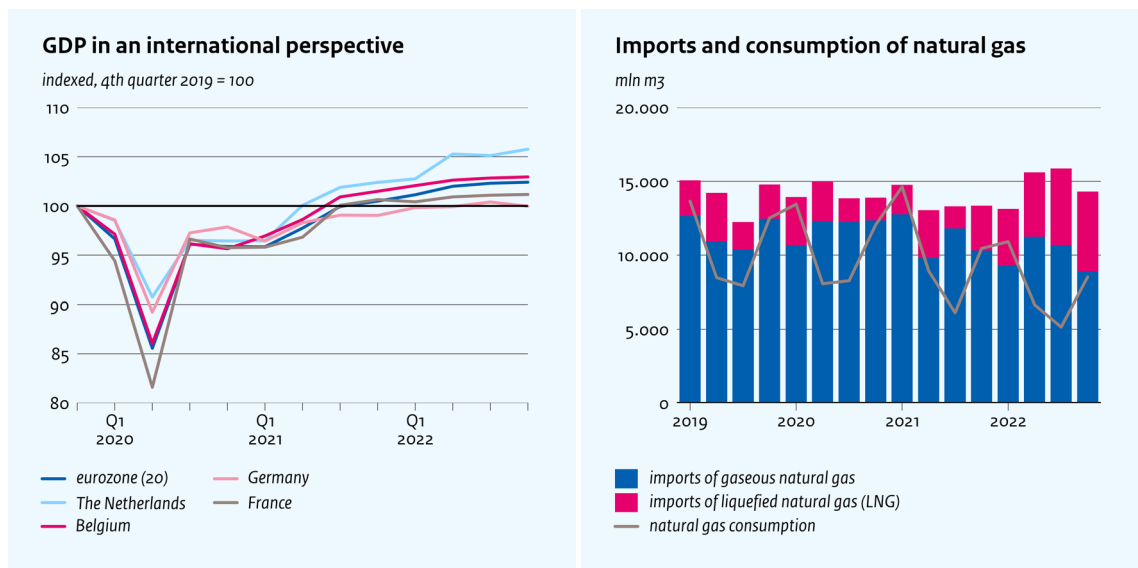
1 Main points of economic development in 2023 and 2024

In brief

- The Dutch economy is projected to grow in 2023 and 2024 despite inflation, the cooling of the global economy, higher interest rates and a correction in the housing market.
- Median purchasing power grows in 2024, but does not entirely compensate for last year's decline; poverty rises.
- Public finances have apparently withstood the inflation shock well, but temporary factors mask an underlying deterioration.

The inflation shock has slowed economic growth, but has not led to a recession. The sharp rise in energy prices due to the war in Ukraine led to a global slowdown in growth in the second half of last year. Energy-intensive businesses are struggling to cope with rising production costs and households are seeing their disposable income fall as a result of high inflation. Europe has been spared a recession, partly because the mild European winter led to some easing of the gas market. In the Netherlands, additional public expenditure has also played a role. The tight labour market is also contributing to a soft landing; even when things are going less well, businesses are reluctant to let go of staff who were difficult to recruit.

Figure 1.1 Dutch economy grows relatively strongly; the energy mix was rapidly adapted after the shut-off of Russian gas



Source: Eurostat and Statistics Netherlands ([link](#))

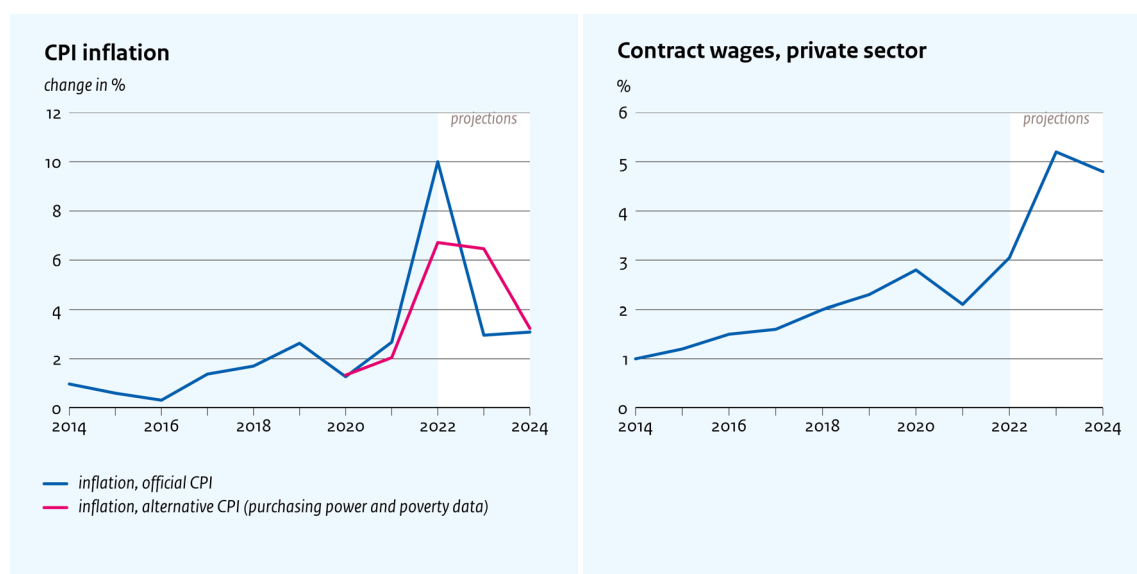
The Dutch economy has once again proved highly adaptable. Despite two crises in three years, the economy has grown by more than 5%. The Dutch economy is also performing relatively well in an international perspective. It was notably resilient and adaptable during the coronavirus crisis, and last year too it proved able to absorb major shifts. The energy mix changed fundamentally last year, for example, while industrial production held up. The various shocks will continue to pass through to the economy: changes in relative prices (of energy-intensive products, for example) will ultimately impact demand and the sector structure. This

adaptation process may take place in fits and starts, but so far that does not appear to be the case. The feared wave of bankruptcies after the coronavirus crisis has failed to materialise, for example.

Underlying the macro picture, however, there are strong distributional effects, with wages reacting to inflation with a time lag. The energy price shock is having a very uneven impact on different businesses and households. There are also differences between businesses and households, with the labour income share (LIS) falling this year. The government has cushioned part of the impact on households through redistribution. Wages react to inflation with a time lag. They will catch up this year and next year, with collectively agreed rises now significantly higher than a year ago. Wages are projected to rise by 5% in both 2023 and 2024. The LIS will consequently move back towards the long-term level in 2024. For an analysis of the distribution at the macro level, see also the section entitled 'With higher wages, the government can take a step back'.

Inflation falls rapidly due to lower energy prices, but core inflation continues to rise and will not ease until 2024. Wholesale energy prices have fallen sharply in recent months. This is feeding through to consumer energy prices with a time lag, and those prices are now approaching the level of the price cap. Inflation has now broadened out, however, with food prices rising first, followed by prices of other goods and now also service prices. Core inflation reached an all-time high of 6.7% in February. Headline inflation (CPI) is projected at 3% in 2023 (including a 1 percentage point downward effect due to the price cap) and at 3.1% in 2024.¹

Figure 1.2 The alternative CPI stays high for longer; wages react to inflation with a time lag



Source: Statistics Netherlands and CPB ([link](#))

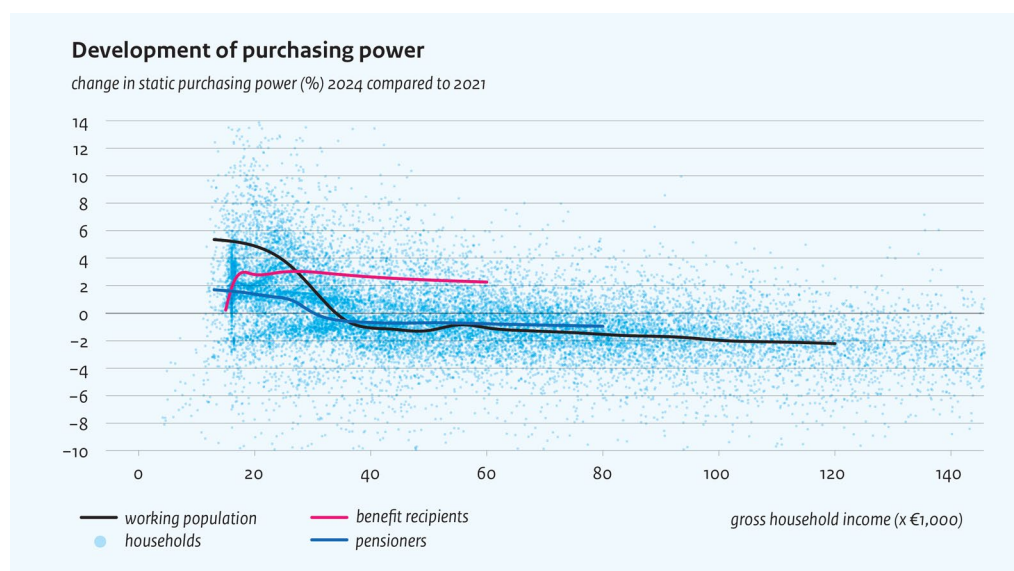
In the baseline projections, the economy grows by 1.6% in 2023 and 1.4% in 2024. Unemployment rises slowly to 4.1% in 2024. Growth is depressed by a number of inhibiting factors in the international environment: exports are facing a slowdown in international trade, while investments are affected by high geopolitical uncertainty and rising interest rates.

¹ This is according to the official definition used by Statistics Netherlands, based on the price of new energy contracts. CPB has also calculated an alternative CPI, which takes account of the delayed pass-through of energy prices due to current energy contracts. This alternative CPI has been used in the purchasing power and poverty calculations, because it more closely reflects the inflation experienced by households. See subsection 1.4 of the elaboration document to the CEP 2023 ([link](#)) for further details of the alternative CPI series. Statistics Netherlands also intends to amend the definition of the CPI ([link](#)).

The housing market correction weighs on growth; it is unclear to what extent the nitrogen problem also has a negative impact. Besides international developments, there are also forces inhibiting growth in the Netherlands, particularly the downturn in the housing market. Thanks to reforms since the financial crisis, the risk of a large-scale fall in house prices pushing borrowers into negative equity is limited this time. Falling house prices do nevertheless have a negative impact on household spending and housing investments. The uncertainty surrounding the nitrogen problem may worsen the investment climate and ultimately constrain growth. In the short term, the impact of this issue outside agriculture appears to be confined mainly to investments in infrastructure and, to a lesser extent, housebuilding, partly because construction also has to contend with other constraints, such as manpower shortages. An exploration of the impact of the nitrogen problem on investments can be found in the section entitled '[Investments stifled? An explorative study](#)'.

Purchasing power looks set to develop relatively favourably in the year ahead, but will be negative for most households over the 2022-2024 period. Median purchasing power will remain broadly unchanged this year. Policy makes a positive contribution (price cap, increase in national minimum wage (NMW) and various measures to support incomes). For many people, however, inflation continues to outpace wage growth, because we calculate it using an alternative CPI that takes into account the start-up of new energy contracts. In 2024, median purchasing power increases by 2.0%, because wages rise much faster than prices and the delayed pass-through of inflation has a favourable impact on parameters in the tax system (such as the indexation of labour tax credits). The rise in purchasing power in 2024 still does not fully compensate for the sharp decline in 2022. Over the 2022-2024 period as a whole, purchasing power for the median household decreases by around 1%. The purchasing power of lower-income groups rises because they benefit most from the government's policy. It should be borne in mind, however, that low-income households often have to spend a larger proportion of their income on energy. This 'inflation inequality' is not taken into account in the purchasing power calculations.

Figure 1.3 Purchasing power develops negatively for most households over the 2021-2024 period, but there is a wide spread of outcomes

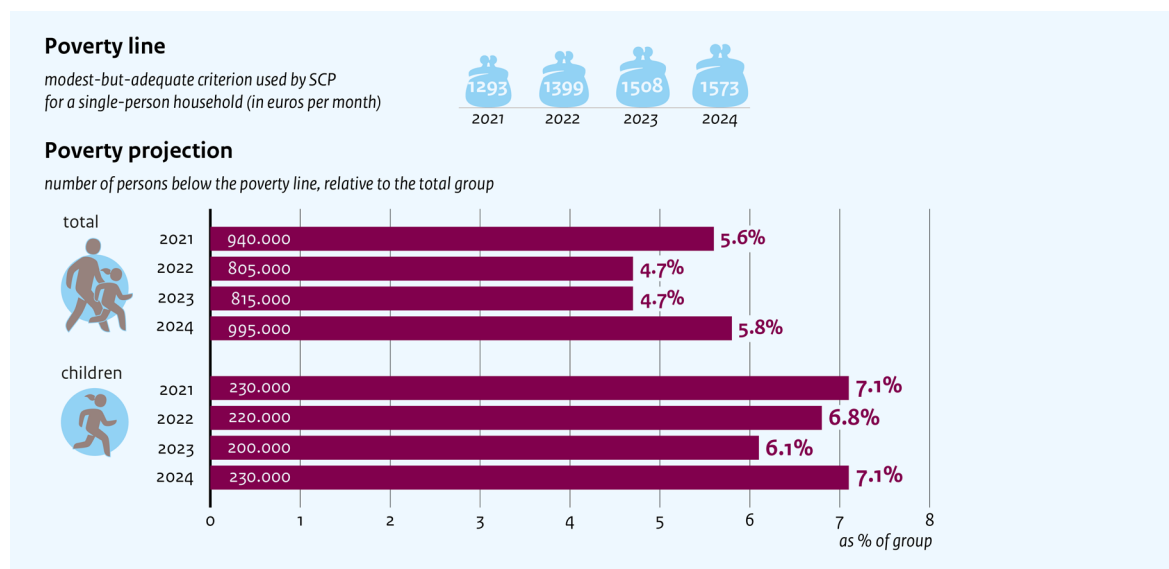


Source: CPB ([link](#))

The number of people in poverty rises in 2024 to 5.8% of the population and the number of children in poverty rises to 7.1% of children, due to the termination of temporary policies focused on the lowest-income groups. An increase in poverty is avoided in 2022 and 2023 by a combination of measures aimed at the lowest-income households, such as the energy allowance paid through local authorities, the rise in the national minimum wage and associated welfare benefits and an increase in the care and rent allowance.

Poverty still rises in 2024, however, since most of those policies are temporary. Without supplementary policy, the government will fail to meet its objectives (having child poverty by 2025 and general poverty by 2030). See also the '[Outlook to 2031](#)' section.

Figure 1.4 Poverty rises in 2024 due to termination of temporary policies focused on lowest-income groups



Source: CPB and SCP ([link](#))

Although the energy markets now appear to have entered calmer waters, uncertainty remains high. The mild winter has dispelled fears of empty gas storage facilities for the moment. The gas futures market shows a limited rise in prices for the forthcoming winter. Nevertheless, gas consumption, and hence the price trajectory, remain highly uncertain. A scenario has therefore been drawn up in which a severe winter at the end of 2023 requires additional gas purchases, leading once again to higher prices. In such a scenario, median purchasing power decreases by 0.8% and GDP growth is 1 percentage point lower in 2024; see also the '[Severe winter scenario](#)' text box.

It is very important to accelerate sustainability where possible. The futures markets suggest that energy prices will remain markedly higher than we have been used to for many years to come. Bringing energy-saving measures forward will therefore be highly cost-effective. Unlike income measures, policies focused on sustainability are a more targeted way to tackle energy affordability issues. Financial support can then be limited to a small group of households in financial difficulty. Even if prices rise less than currently anticipated, raising the level of sustainability remains sensible because it reduces vulnerability to high energy prices. Energy conservation also eases tension in the energy market and is consistent with the long-term energy transition objectives.

Public finances have apparently withstood the inflation shock well, but temporary factors mask the underlying picture. The EMU balance in 2023 is projected to be -3.0% of GDP and we now estimate the cost of the price cap at €5.1 billion. The government debt ratio remains stable below 50% of GDP in 2023 and 2024, with the EMU balance improving somewhat to -2.6% of GDP. That is partly based on an assumption that the government will be unable to spend the budgeted funds due to the tight labour market. This effect wanes over the medium term, while the additional expenditure under the coalition agreement continues to rise. Moreover, the rise in interest rates will ultimately lead to higher interest expenditure. As a result of these developments, the deficit rises and the debt ratio enters a rising trajectory: EMU debt amounts to 60% of GDP over eight years. See also the '[Outlook to 2031](#)' section.

Table 1.1 Main data for the Netherlands, 2019-2024

	2019	2020	2021	2022	2023	2024
changes per year in %						
International economy						
Relevant world trade volume, goods and services	4.1	-8.7	8.4	6.9	2.2	2.9
Competitor prices (a)	3.6	-0.8	5.9	10.7	2.8	1.9
Oil price (in USD per barrel)	64.3	41.8	70.7	100.8	84.3	79.7
Euro exchange rate (USD per euro)	1.12	1.14	1.18	1.05	1.07	1.08
Long-term interest rate, the Netherlands (in %)	-0.1	-0.4	-0.3	1.4	2.3	2.3
Volume of GDP and spending						
Gross domestic product (GDP, economic growth)	2.0	-3.9	4.9	4.5	1.6	1.4
Household consumption	0.9	-6.4	3.6	6.6	1.7	1.4
Public consumption	2.8	1.6	5.2	0.7	2.8	1.6
Investments (including stocks)	7.7	-6.3	2.9	1.5	1.3	1.5
Exports of goods and services	2.0	-4.3	5.2	5.3	3.7	2.3
Imports of goods and services	3.2	-4.8	4.0	4.4	4.2	2.5
Prices, wages, purchasing power and poverty						
Price level, gross domestic product	3.0	1.9	2.5	5.4	6.2	3.0
Export prices of goods and services	0.4	-2.9	8.3	16.9	0.6	1.6
Import prices of goods and services	-0.2	-3.6	10.2	20.6	-0.1	1.2
Inflation, national consumer price index (CPI)	2.6	1.3	2.7	10.0	3.0	3.1
Alternative CPI (purchasing power and poverty data) (b)	2.6	1.3	2.0	6.7	6.5	3.2
Inflation, harmonised index of consumer prices (HICP)	2.7	1.1	2.8	11.6	2.9	3.2
Wage rate, business sector (per hour) (c)	2.6	7.9	0.1	3.1	6.1	5.1
Contract wages, business sector	2.4	2.8	2.2	3.1	5.0	5.0
Purchasing power, static, median all households (d)	1.1	2.6	1.0	-2.7	-0.2	2.0
People in poverty (in %) (d, e)	6.0	5.6	5.6	4.7	4.7	5.8
Labour market						
Labour force	1.5	0.4	0.9	2.4	2.2	0.8
Working population	2.0	0.0	1.5	3.1	1.8	0.6
Unemployed labour force (x thousand persons)	423	465	408	349	395	415
Unemployed labour force (in % of labour force)	4.4	4.9	4.2	3.5	3.9	4.1
Employment (in hours)	2.6	-2.8	3.3	4.3	1.2	0.4
Other items						
Labour income share, business sector (in %)	73.9	76.3	74.5	72.7	71.3	72.2
Labour productivity, business sector (per hour)	-0.5	-1.5	2.5	0.5	0.4	1.1
Private savings (in % of disposable income) (f)	5.2	12.8	11.5	7.4	8.3	8.6
Current account balance (in % of GDP)	6.9	5.1	7.2	6.5	6.6	6.8
in % of GDP						
Public sector						
EMU balance	1.8	-3.7	-2.6	-0.7	-3.0	-2.6
EMU debt (year-end)	48.5	54.7	52.4	49.3	48.4	48.7
Public financial burden	39.3	39.9	39.7	39.1	38.3	38.1
Gross public expenditure	42.5	48.2	47.0	44.5	45.2	44.4

(a) Goods and services, excluding natural resources and fuels.

(b) The alternative CPI takes account of prices of both new and existing energy contracts. See subsection 1.4 of the elaboration document to the CEP 2023 ([link](#)) for further details of the alternative CPI series and see Statistics Netherlands ([link](#)).

(c) The NOW wage cost subsidy and the continuity contribution in health care have an upward impact on wage rate changes in the business sector of 3.3 percentage points in 2020 and a downward impact of 2.0 percentage points in 2021 and 1.2 percentage points in 2022.

(d) The figures for median purchasing power and people in poverty are based on the alternative CPI.

(e) Ratio of the number of persons in households below the poverty line to the total number of persons. The modest-but-adequate criterion used by the Netherlands Institute for Social Research (SCP) has been adopted as the poverty line.

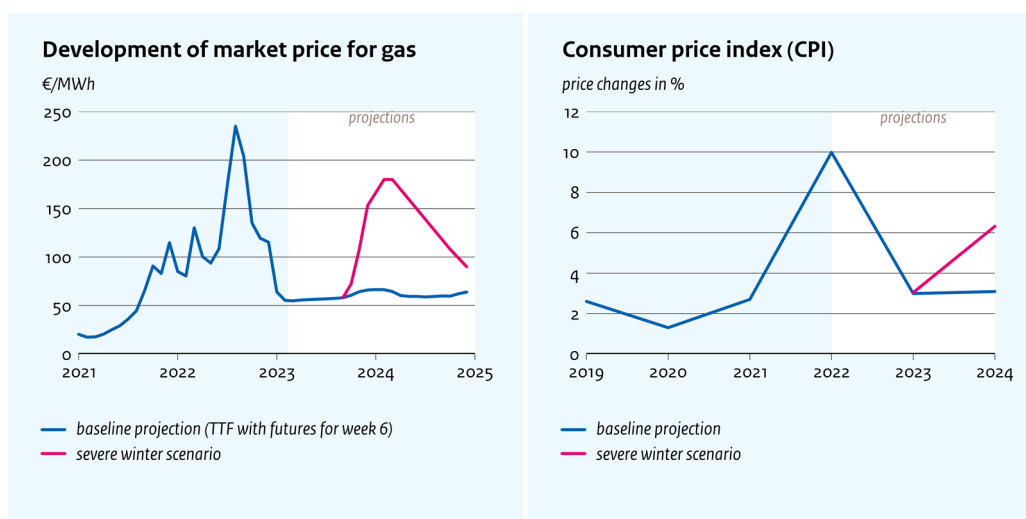
(f) Level of disposable family income includes public savings.

Severe winter scenario

Energy prices may greatly influence the outcomes in these projections, particularly if the forthcoming winter proves to be severe. To illustrate this, we present a scenario showing what a severe winter would mean for the economic outlook. Since peaking at €230 in August 2022, the market price for gas has fallen to around €50 per MWh. This price is expected to remain stable – apart from a slight rise at the end of the year. European gas stocks are still well filled. Economic risks from the energy markets therefore appear limited up to the forthcoming winter, although new geopolitical tensions or unexpected setbacks, such as disruptions to production facilities, cannot be ruled out. Temperature remains a source of uncertainty. An unexpectedly severe winter at the end of 2023 could lead to a new surge in prices.

If a cold winter sets in early, the gas price may rise rapidly (see figure on left). Gas stocks will then be depleted faster than in our baseline projections. Those stocks will then have to be replenished at higher spot prices. In this scenario, we assume that gas consumption will be 15% higher than in an average winter.¹ The effects of a severe winter linger into 2024, as a larger proportion of stocks have to be replenished at a higher gas price than that used in the baseline projections.

Gas prices rise to €180 in early 2024, pushing inflation substantially higher



Source: Datastream, Statistics Netherlands and CPB ([link](#))

The higher gas price has a delayed effect on consumers' budgets. The price cap limits the impact of a higher gas price on households in 2023. In the severe winter scenario, the cost of the price cap rises slightly, to €5.4 billion, due to higher gas consumption. Tax revenues are lower due to weaker economic growth. At the same time, the government's revenues from natural gas sales increase by around €7 billion in 2024, so the effect on the EMU balance is ultimately limited. Inflation is 3% higher in 2024 due to higher consumer tariffs for energy, so purchasing power actually falls in 2024 rather than rising.

The lower purchasing power leads to less consumption, so in this scenario a severe winter reduces economic growth by 1 percentage point in 2024. Low-income households are more affected by higher energy prices than the median purchasing power figures show, because energy accounts for a larger proportion of their spending. In this scenario, targeted support for financially vulnerable households is therefore even more urgent.

Table 1.2 Baseline projections and severe winter scenario, 2022-2024

	2022	2023	2024	2023	2024
	baseline			severe winter scenario	
Gross domestic product (GDP, economic growth, %)	4.5	1.6	1.4	1.6	0.4
Household consumption (volume in %)	6.6	1.7	1.4	1.7	0.0
Unemployed labour force (in % of labour force)	3.5	3.9	4.1	3.9	4.2
National consumer price index (CPI, %)	10.0	3.0	3.1	3.0	6.3
Purchasing power; static; median all households (%) (a)	-2.7	-0.2	2.0	-0.2	-0.8
EMU balance (in % of GDP)	-0.7	-3.0	-2.6	-3.2	-2.8
(a) The figures for median purchasing power and people in poverty are based on the alternative CPI. The alternative CPI takes account of prices of both new and existing energy contracts. See subsection 1.4 of the elaboration document to the CEP 2023 (link) for further details of the alternative CPI series and see Statistics Netherlands (link).					

¹ as in December, we base this on gas consumption in the winter of 2010 (the coldest year of the last 20 years).

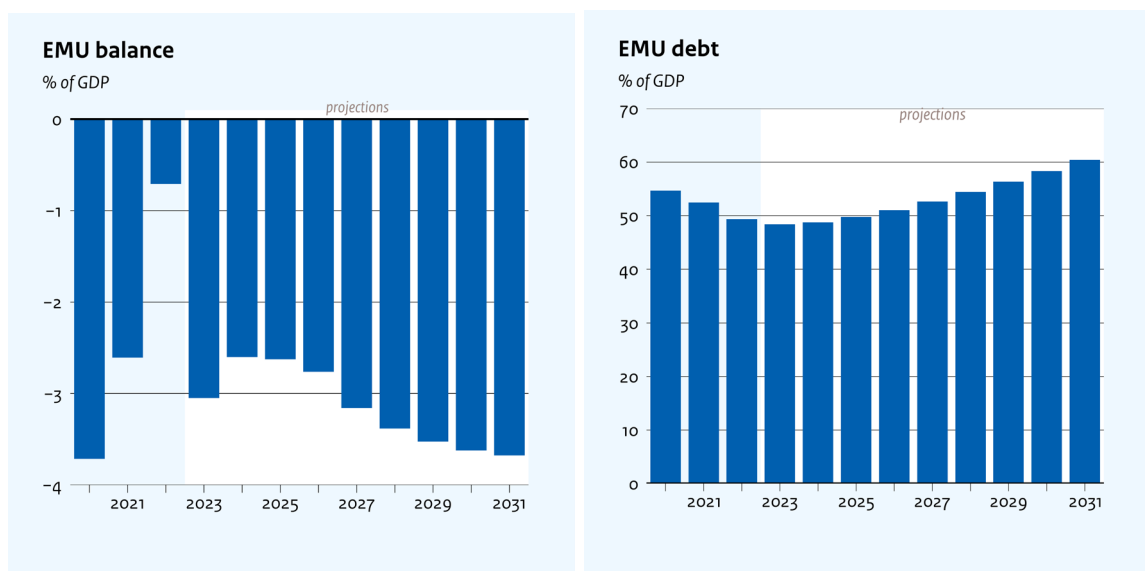
2 Outlook to 2031

In the medium term, public finances deteriorate due to the effect of population ageing, the additional expenditure under the coalition agreement and higher interest rates. Purchasing power is projected to rise to a limited extent over the next few years, but the medium-term trend in poverty shows that the government's objectives will not be met without supplementary policy. If policy remains unchanged, health care expenditure will rise further and the effect of the Integral Health Care Agreement (IZA) will be modest. With regard to geriatric care, various spending cuts have negated more than half of the original investment in the quality framework for care homes. The intended quality improvement is therefore unlikely to have been achieved.

A study of the economic and fiscal trajectory over the medium term shows a deterioration of public finances in the years ahead.² The EMU balance deteriorates to -3.7% of GDP in 2031, below the Brussels threshold of -3% of GDP. The debt ratio enters a rising trajectory: EMU debt amounts to 60.4% of GDP in 2031, also outside the European norm.

The decline is the result of population ageing, additional expenditure under the coalition agreement and higher interest rates. Population ageing leads to higher state pension payments, while labour supply growth levels off. We also assume that the underinvestment (the government being unable to spend all the budgeted funds) that is currently improving the EMU balance will disappear over the medium term. In addition, various increases in spending under the coalition agreement (such as funds for climate and nitrogen issues) and additional defence ambitions will only reach full maturity later in the government's term of office or even beyond that time. The rise in interest rates has a delayed impact due to the refinancing of national debt; interest expenditure rises gradually to €18 billion in 2031.

Figure 2.1 Widening EMU deficit leads to steady rise in EMU debt



Source: Statistics Netherlands and CPB ([link](#))

In this study, the baseline for health care expenditure assumes an unchanged policy, implying a further increase in that expenditure. Unlike most expenditure categories, health care expenditure is not subject to a

² It has been assumed that growth will evolve in line with historical trends and the latest insights into population growth. A more detailed substantiation of the assumptions can be found in Section 2 of the elaboration document to the CEP 2023 ([link](#)).

budget limit in principle, partly because scientifically proven treatments are automatically reimbursed as part of the basic health insurance package. The rise is therefore higher than just the rise resulting from demographic growth.

The Integral Health Care Agreement (IZA) has a modest impact on the projections: the overall macro framework of the IZA has no binding effect for the first few years, because the projected expenditure remains below the level of this framework. In subsequent years the IZA does have a downward impact on expenditure, but not to the extent calculated before the health care agreement was concluded between the Ministry of Health, Welfare and Sport and the health care providers.

Spending cuts in geriatric care mean the intended quality improvement is unlikely to have been achieved. In 2017, the government decided to increase investment in geriatric care (the quality framework), but since then more than half of the additional investment has been negated. Overall, it is therefore unlikely that the intended quality improvements have been achieved. See also the '[Eroding quality framework](#)' text box.

In the medium term there is a limited rise in purchasing power. Real incomes rise slightly, partly because of an assumed catch-up in real wages after the decline in 2022. This effect is countered by rising health insurance premiums. Policy effects remain limited after 2024.

The medium-term trend in poverty shows that the government's objectives will not be met without supplementary policy. After rising in 2024, the trend levels off to 6.4% of persons and 8.3% of children in 2031. At the underlying level, incomes rise slightly, but the policy (phasing out double tax credits in the minimum wage for social welfare benefit) has a slightly negative effect. Based on this trajectory, the government's objective of halving poverty compared to 2015 will not be achieved.³

³ In 2015, the proportion of people below the poverty line was 6.3%, while the proportion of children below the poverty line was 9.1%.

Table 2.1 Main data for the Netherlands, 2005-2031

	2005- 2008	2009- 2013	2014- 2017	2018- 2021	2022- 2026	2027- 2031
changes per year in %						
International economy						
Relevant world trade volume, goods and services	6.1	1.6	4.8	1.7	3.5	2.3
Competitor prices (a)	-0.2	1.2	1.8	1.7	3.6	1.3
Oil price (in USD per barrel, level in final year)	96.3	107.8	54.3	70.7	72.0	66.1
Euro exchange rate (USD per euro, level in final year)	1.47	1.33	1.13	1.18	1.11	1.19
Long-term interest rate, the Netherlands (in % in final year)	4.2	2.0	0.5	-0.3	2.3	2.1
Volume of GDP and spending						
Gross domestic product (GDP, economic growth)	2.9	-0.4	2.1	1.3	1.9	1.0
Household consumption	0.9	-0.8	1.4	0.0	2.4	1.4
Public consumption	3.9	0.8	0.7	2.8	1.6	1.9
Investments (including stocks)	5.5	-3.7	5.5	1.9	1.6	1.0
Exports of goods and services	5.0	2.2	5.0	1.7	3.3	2.1
Imports of goods and services	5.0	1.7	5.3	1.7	3.4	2.8
Prices, wages, purchasing power and poverty						
Price level, gross domestic product	2.2	0.8	0.7	2.5	4.0	2.2
Export prices of goods and services	2.9	0.9	-1.0	1.9	3.8	1.1
Import prices of goods and services	2.9	1.3	-1.4	2.0	4.0	0.9
Inflation, national consumer price index (CPI)	1.7	2.0	0.8	2.1	4.2	2.2
Alternative CPI (purchasing power and poverty data) (b)	.	.	.	1.9	4.3	2.2
Inflation, harmonised index of consumer prices (HICP)	1.7	2.0	0.5	2.0	4.4	2.1
Wage rate, business sector (per hour) (c)	2.8	1.9	0.6	3.1	4.9	3.7
Contract wages, business sector	2.0	1.6	1.3	2.3	4.5	3.3
Purchasing power, static, median all households (d)	0.5	-0.7	1.3	1.1	0.2	0.8
People in poverty (in % in final year) (d, e)	.	7.7	5.4	5.6	6.0	6.4
Labour market						
Labour force	1.3	0.5	0.3	1.0	1.2	0.0
Working population	1.8	-0.2	0.9	1.4	1.1	-0.2
Unemployed labour force (x thousand persons, level in final year)	427	754	546	408	450	540
Unemployed labour force (in % in final year)	4.8	8.2	5.9	4.2	4.4	5.2
Employment (in hours)	1.5	-0.6	1.6	1.4	1.2	-0.2
Other items						
Labour income share, business sector (in % in final year)	70.5	74.1	73.3	74.5	73.4	74.8
Labour productivity, business sector (per hour)	1.5	0.4	0.5	0.1	0.8	1.2
Individual saving share (in % disposable income in final year) (f)	-1.4	2.4	3.5	11.5	8.3	8.0
Current account balance (in final year in % of GDP)	2.2	8.0	8.9	7.2	6.7	4.8
in final year in % of GDP						
Public sector						
EMU balance	0.1	-3.0	1.4	-2.6	-2.8	-3.7
EMU debt	54.7	67.7	57.0	52.4	51.0	60.4
Public financial burden	35.9	36.1	38.7	39.7	39.1	39.8
Gross public expenditure	43.5	46.9	42.9	47.0	45.3	47.0

(a) Goods and services, excluding natural resources and fuels.

(b) The alternative CPI takes account of prices of both new and existing energy contracts. See subsection 1.4 of the elaboration document to the CEP 2023 ([link](#)) for further details of the alternative CPI series and see Statistics Netherlands ([link](#)).

(c) The NOW wage cost subsidy and the continuity contribution in health care have an upward impact on wage rate changes in the business sector of 3.3 percentage points in 2020 and a downward impact of 2.0 percentage points in 2021 and 1.2 percentage points in 2022.

(d) The figures for median purchasing power and people in poverty are based on the alternative CPI.

(e) Ratio of the number of persons in households below the poverty line to the total number of persons. The modest-but-adequate criterion used by the Netherlands Institute for Social Research (SCP) has been adopted as the poverty line.

(f) Level of disposable family income includes public savings.

Table 2.2 Additional main data for the Netherlands, 2005-2031

	2005- 2008	2009- 2013	2014- 2017	2018- 2021	2022- 2026	2027- 2031
changes per year in %						
Investments and exports						
Gross investments, business sector (excluding housing)	6.7	-0.9	3.5	2.4	1.5	1.1
Business investments in housing	4.3	-12.0	14.9	3.8	0.1	1.0
Exports of domestically produced goods and services (excluding	2.9	2.3	5.3	-0.3	3.1	2.1
Re-exports (excluding energy)	9.1	1.0	6.1	5.7	3.4	2.1
Prices; public sector; derived CPI and contract wages in private sector						
Export prices of goods and services (excluding energy)	1.4	0.7	0.2	1.6	3.8	1.3
Derived national consumer price index (CPI)	1.7	1.5	0.7	1.7	4.4	2.2
Wage rate in public sector (a)	3.5	2.3	1.9	2.2	5.2	3.7
Price of public consumption: employee remuneration (a)	1.9	0.9	1.3	2.8	5.1	3.3
Price of material public consumption (IMOC)	2.4	1.0	0.3	2.2	3.6	1.6
Price of intermediate public consumption	2.7	1.8	1.4	2.3	3.5	1.9
Price of gross public investments (IBOI)	2.5	1.5	0.3	2.2	3.2	1.9
Price of national expenditure	2.2	1.1	0.6	2.7	4.1	2.2
Price added value, business sector	2.1	0.6	0.5	2.2	3.9	2.1
Contract wages, private sector	1.9	1.5	1.3	2.3	4.5	3.3
level in final year						
Various main data						
Gross domestic product (GDP in billions of euros)	647.2	660.5	738.1	856.4	1147.3	1346.4
Children in poverty (%) (b)	.	10.2	7.6	7.1	7.8	8.3
Population (in thousands of persons)	16405	16780	17082	17475	18240	18680
Labour force (in thousands of persons)	8950	9187	9290	9663	10250	10240
Gross average income (euros per year)	31500	32500	34000	37000	47500	56500
EMU balance, structural (EC method; % of GDP)	-1.0	-0.8	0.6	-1.9	-2.7	-3.3
<p>(a) The closure of parts of the government, combined with continued salary payments, and the NOW wage subsidy have an upward impact of 0.2 percentage points on the change in 2020. In 2021 and 2022, there is a downward impact of 0.1 percentage point.</p> <p>(b) The figures for children in poverty are based on the alternative CPI. Ratio of the number of children in households below the poverty line to the total number of children. The modest-but-adequate criterion used by the Netherlands Institute for Social Research (SCP) has been adopted as the poverty line.</p>						

Eroding quality framework

The government made an additional gross sum of €2.7 billion available on a structural basis for quality improvement in geriatric care in 2017.¹ This so-called quality framework for care homes amounted to an increase of around 20% in expenditure on geriatric care under the Long-Term Care Act (WLZ) in 2021. Various spending cuts in subsequent years negated more than half of the original investments in geriatric care. This is likely to lead to less care and/or lower care quality than was intended in the quality framework for care homes.

The quality framework for care homes set new standards for nursing home care in 2017.² The associated staffing rule stated, among other things, that during the day and in the evening more than two employees must be present for each group of eight residents in a care home.³ Six years ago it was expected that care homes would accordingly have increased the number of staff with care duties by over 40% in 2022.

The total gross cost of the quality framework was budgeted at €2.7 billion on a structural basis in 2017. The cost of the quality framework turned out to be €0.6 billion lower on a structural basis, because it was expected that care homes would be able to operate more efficiently by means of benchmarking. To that end, health care providers would be paid on the basis of differentiated tariffs to compensate them for cost differences arising from factors outside their control, on the basis of so-called *integral comparison*. The structural net cost of the quality framework therefore amounted to €2.1 billion.

Table 2.3 Quality framework for care homes and subsequent geriatric care policy (in billions of euros)

	Structural effect ^a
Quality framework	+2.7
of which net expenditure on quality framework	+2.1
of which efficiency assignment (through introduction of integral comparison)	+0.6
Subsequent geriatric care policy	-1.6^b
of which cover for lost efficiency gain (due to scrapping of integral comparison)	-0.6c
of which cover for loss of limit on income and other growth (due to scrapping of integral comparison)	-0.4
of which spending cut as part of reinterpretation of quality framework	-0.4
of which spending cut under multiannual contracts in geriatric care	-0.1
of which spending cut as part of separation of residence and care	-0.1
of which spending cut as part of transfer of treatment and pharmaceutical drugs from Long-Term Care Act to Health Insurance Act	-0.1 ^d
of which other items	+0.0
Remaining quality framework	+1.1

^a The measures are not allocated to a single price year. This has a minor effect on the overall picture.
^b Due to rounding differences, the measures below do not amount to this total.
^c This cover is based on the original projection of the efficiency assignment at the time of the 2018 Macro Economic Outlook ([link](#)), which is also included in the quality framework. The efficiency assignment was subsequently adjusted upwards, mainly by means of a longer projection horizon (see [link](#)).
^d This is a generic measure under the Long-Term Care Act. We allocate 55% of this to geriatric care (see Footnote 7).

After the introduction of the quality framework, structural cuts totalling €1.6 billion were made to geriatric care. Table 2.3 provides an overview of all the policy⁴ for welfare benefits⁵ in geriatric care under the WLZ⁶ since the introduction of the quality framework⁷. Transfers from and to the WLZ and efficiency-raising policy measures leading to savings without any loss of quality have been disregarded.

The eroding of the quality framework results to a large extent from the scrapping of the integral comparison. The introduction of the integral comparison was scrapped in 2022, because the coalition parties opted for other measures during the formation of the government⁸. Spending cuts were then necessary to absorb the loss of the intended efficiency gain and growth restriction⁹ from the integral comparison. The combined consequences of this policy choice account for more than half of the total spending cuts.

Due to the abandonment of the staffing rule, care homes can employ fewer staff than originally intended. The staffing rule in the quality framework was abandoned from 2022. That means there is no longer a uniform guideline on the number of employees per patient in a nursing home.

This is likely to lead to less care and/or lower care quality than was intended in the quality framework. A lower budget means there is less money to spend on each elderly person. That means fewer bedside staff when care homes cannot absorb budget reductions through increased efficiency. Care homes are unlikely to be able to absorb all the net budget reduction of €1.6 billion annually through efficiency gains.¹⁰

¹ Parliamentary Papers II 2016-2017, 31.765, 261.

² See Quality Framework for Care Homes, 13 January 2017 ([link](#)).

³ See Nursing Home Care Impact Analysis 2017, 31 March 2017 ([link](#)) and the annex ([link](#)).

⁴ Targets are thus included up to a maximum set by CPB for each term of office.

⁵ This does not include the management costs under the WLZ and the additional coronavirus-related costs under the WLZ.

⁶ WLZ measures aimed specifically at geriatric care are included in full, but generic WLZ measures on a 55% basis (see [link](#)) and WLZ measures specifically not aimed at geriatric care are not included.

⁷ The quality framework was incorporated fully in the Macro Economic Outlook 2018 ([link](#)). This calculation includes all policy measures subsequently incorporated by CPB.

⁸ See the coalition agreement 'Looking out for each other, looking ahead to the future', 15 December 2021 ([link](#)) and the budget annex ([link](#)).

⁹ Such control of growth was possible due to the combination of the integral comparison and an emergency brake procedure. See page 6 of: Zeilstra, Den Ouden & Vermeulen, 2019. *Middellangetermijnverkenning zorg 2022-2025*. CPB Communication ([link](#)).

¹⁰ Around the time of the introduction of the quality framework for care homes, the maximum possible efficiency gain was estimated at €560 million, as included in the Macro Economic Outlook 2018 ([link](#)).

3 With higher wages, the government can take a step back

Rising energy prices dominated the economic news last year. The question soon arose as to whether the energy price shock would affect the distribution of income between households and businesses. Did businesses make record profits thanks to inflation while wages rose only slowly? Or did businesses mainly bear increased costs? This section shows that the distribution of wages and profits in non-energy-producing sectors did not change significantly in 2022 as a result of the energy price shock, but that wages this year are lagging behind the expected growth of profits. At the same time, the government has absorbed part of the impact on households' purchasing power. These generic and unfunded compensation measures are of a temporary nature. Higher wage growth is a more structural solution to households' loss of purchasing power.

Rising energy prices have a varying impact on businesses. Some businesses benefit from high energy prices and see their profits rise, such as electricity producers and businesses that extract oil and gas in the Netherlands. Other businesses, meanwhile, see their costs rise, because energy is a production factor. These businesses can raise their prices, and this is reflected in rising food and core inflation. What happens to these businesses' profits depends partly on how much of the cost rises they pass on.

Initially, employees' income does not change as a result of higher energy prices. They continue to receive their pay as normal. However, inflation means they have less to spend and will therefore demand higher wages to compensate for the increased cost of living. Recent collective labour agreements therefore show a substantially higher wage increase for 2023 than the 3.1% rise that employees received on average in 2022.

Whether the energy price shock changes anything in the distribution of income between households and businesses therefore depends on the one hand on the reaction of prices and on the other hand on wages. If businesses pass on the increased costs quickly in their selling prices, but wages do not respond, labour income will fall relative to corporate profits, and vice versa. The government can also redistribute between different households, between households and businesses, or to the detriment of future generations when allowing debt to rise.

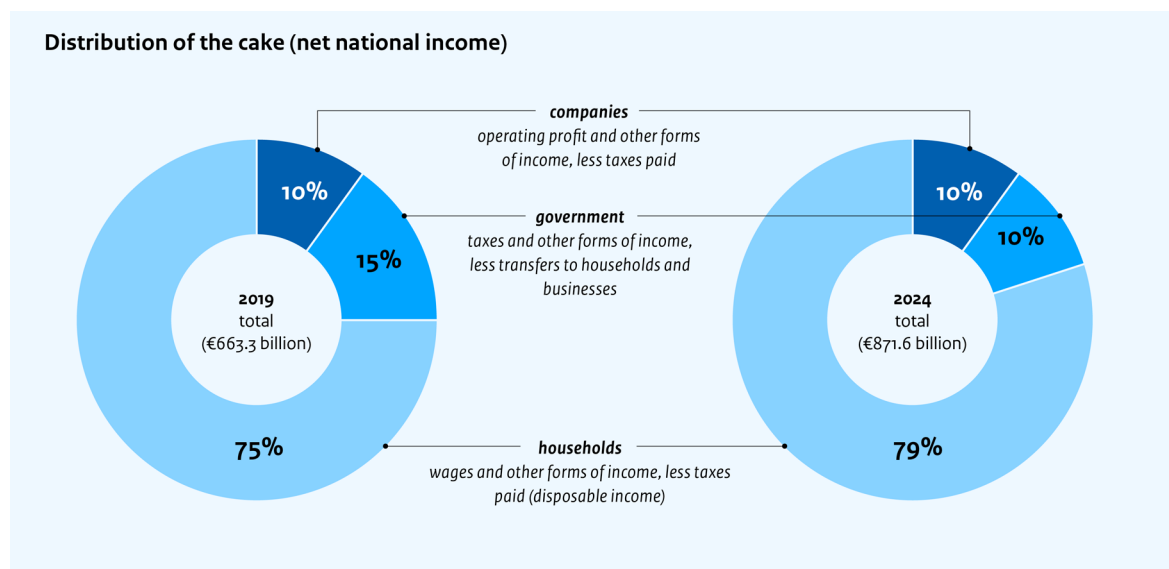
In our projections, the labour income share falls because corporate profits increase relative to labour income. The labour income share (LIS) is a measure showing the distribution of domestic income between labour and capital.⁴ The LIS fell in 2022, but this was mainly due to an increase in profits in mineral extraction and energy production – where relatively few people are employed. The added value in these sectors increases as energy prices rise. The LIS excluding these sectors falls by 0.2 percentage points, see Figure 3.2 on left. This means that profits in other sectors have barely increased relative to total wages. For 2023 we expect the LIS to decline further and broadly, i.e. also outside energy sectors. This is mainly due to businesses raising prices further because the cost increase has not been passed on fully in all sectors. It should be noted that the LIS only indicates the distribution at the macro level; there may be large differences between and within sectors.

Lagging labour income does not necessarily mean that household income is declining relative to corporate income, because there may be shifts in the government's redistribution. The LIS looks at the relationship between wages and profits. The government taxes both households and businesses and returns a

⁴ For the LIS, CPB uses the definition 'businesses', which includes all sectors excluding public administration and public services and education. The LIS measures the ratio of wage income of employees and self-employed people to total money earned, which includes not only total wages but also businesses' operating profit.

portion of these revenues. We include these taxes and transfers when looking at the distribution of net national income (the national cake) between households, businesses and the government.⁵ The figure below shows how the distribution of the cake changed between 2019 and 2024.

Figure 3.1 The government share of the national cake in particular decreases in 2024 relative to 2019



Source: Statistics Netherlands and CPB ([link](#)). As a result of rounding, the total may be just above or just below 100%.

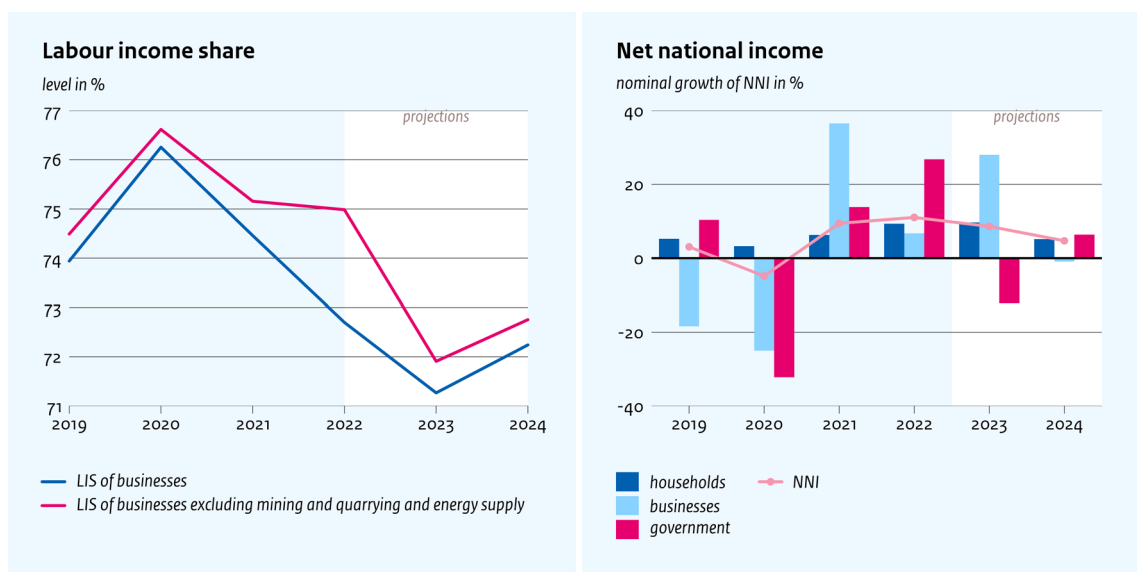
Households' share of the cake increases, with the government compensating for the decline in relative labour income. The LIS is lower in 2024 than in 2019, so corporate profits have increased relative to wages. The cake analysis shows, however, that the government has compensated for this through income policy, because household income as a proportion of national net national income does not decline. As a result, the share of income that the government has left over for government spending falls because tax revenues do not rise to the same extent. Since spending itself does not decrease, this leads to a lower EMU balance, so the cost of the energy support will be borne partly by future generations.

Corporate profit income declined in 2022 but improves again in 2023. In 2022, the growth of corporate income lags behind the growth of net national income, even with a fall in the LIS. This is mainly due to an increase in tax revenue (from corporate income tax)⁶ and higher revenues from natural gas sales for the government, which also come from businesses (in the mineral extraction sector). In this way, part of the increase in added value from mineral extraction is paid to the government. In 2023, businesses increase their profit compared to 2022 by raising their selling prices. These are mainly businesses in non-energy-producing sectors, so a smaller part is paid to the government.

⁵ Net national income is the total income earned by the Netherlands. Gross domestic product is the value of production in the Netherlands. These two differ somewhat because part of the production in the Netherlands generates income for foreign countries, and vice versa. Depreciation is also disregarded in the case of net national income.

⁶ The high corporate income tax revenue in 2022 is not the result of major policy shifts. See also electronic Annex 14 to this CEP ([link](#)). Part of the corporation tax payments are from prior-year profits.

Figure 3.2 The LIS only falls in 2023 if energy-producing sectors are excluded; corporate income then also rises more than total net national income



Source: Statistics Netherlands and CPB ([link](#)).

Rising wages take over part of the government's compensating role. In 2023, the government sets aside money for the purchasing power package to mitigate the impact of higher energy prices on households. Since part of the support expires, government income improves in 2024. The position of households improves thanks to positive real wage growth. Partly as a result of this, corporate profits grow only slightly.

The lag in the LIS indicates that there is room for this wage increase, although this will differ greatly depending on the business or sector. If wage growth is in line with domestic inflation⁷, this will lead to equal development of wages and profits, even after an energy price shock. This is a more structural solution to the loss of households' purchasing power than government support. The long-term consequences of higher wage growth for inequality and consumption growth are discussed in Katz, 2023 ([link](#)).

⁷ The GDP price, i.e. not automatic price compensation based on the CPI, because the CPI is not the same as inflation from domestic producers, particularly at times of high imported inflation.

4 Investments stifled? An explorative study

The tackling of the nitrogen problem has major consequences for agriculture. The impact on other sectors appears to be more limited in the short term, as there are often other economic constraints causing bigger problems, such as the tight labour market and rising interest rates. But the uncertainty surrounding the nitrogen problem may cause a deterioration in the investment climate and, ultimately, may affect economic development. Buying out farms is unlikely to create additional nitrogen headroom for other sectors in the short term. Any headroom created should primarily benefit the natural environment. A long-term vision is also needed for the natural environment in the Netherlands.

The impacts of the nitrogen problem on investments and economic development are difficult to pinpoint. This is an explorative study. To conduct this study, CPB met with various nitrogen experts, ministries and representatives of various sectors. A brief literature review was also carried out for the study. Here we describe only the possible economic consequences for various sectors. The effects on welfare across the board, including effects on the natural environment and well-being, are not considered here. Ultimately, these are the effects on which the policy is principally focused.

Excessive nitrogen deposition⁸ from compounds arising in agriculture, transport and industry has negative effects on the natural environment.⁹ The EU Habitats Directive states that the Netherlands must protect the natural environment, particularly the so-called Natura 2000 areas, and prevent any deterioration. Excessive nitrogen deposition has a negative impact on the natural quality of these areas. In most of the 160-plus Natura 2000 areas, the specified maximum nitrogen deposition is being exceeded. Nitrogen emissions in the Netherlands must therefore be reduced. This has implications for activities that emit nitrogen, such as agriculture, construction, manufacturing and transportation.

The government wants to buy out farms in order to reduce nitrogen emissions substantially over the long term. In the Nitrogen Reduction and Nature Improvement (PSN) Programme, the Rutte III administration has made around €7 billion available until 2030, including €3.7 billion for nitrogen reduction, €3.1 billion for restoration of the natural environment and €0.2 billion for programme costs.¹⁰ The Rutte IV coalition agreement includes a supplementary nitrogen transition fund, in which €25 billion has been set aside for restoration of the natural environment, technology to reduce emissions in agriculture and farm buyouts. The government recently announced a Peak Pollution Approach¹¹ that gives two to three thousand businesses the opportunity to shut down, relocate or switch to a different method of operation under the most favourable conditions possible. This intended nitrogen policy is aimed among other things at reducing agricultural emissions through farm buyouts. The precise details are not yet clear, but for now a rough estimate is that a total of €8 billion will be spent on farm buyouts (future transition fund plus PSN from 2020).

These farm buyout measures reduce the total production from agriculture. The consequences for the regional economy may differ widely. On the basis of a study by Wageningen University & Research (WUR),

⁸ By nitrogen we mean nitrogen oxides and ammonia.

⁹ The agriculture sector is the biggest contributor to nitrogen deposition in the Netherlands. According to the RIVM, agriculture was responsible for 50% of nitrogen deposition in the Netherlands in 2021. Foreign countries contributed a further 29%. This was followed by transport with 13% (road, maritime and air traffic) and then manufacturing, construction, services and households with a combined 8% ([link](#)).

¹⁰ See Nitrogen Reduction and Nature Improvement Programme, page 74 ([link](#)).

¹¹ See Parliamentary letter entitled 'Progress on integral approach to rural areas and follow-up to Council of State ruling on Porthos' ([link](#)).

the buyout measures mean that production in agriculture falls by around 9% (i.e. €2.8 billion¹²).¹³ This may turn out higher if a larger part of the transition fund is used for buyout measures. The fall in production will impact both suppliers, such as veterinary service providers, and buyers, such as the food industry. The regional impact will differ greatly, depending on the number of farms, suppliers and buyers operating in the region. Another factor is how many agricultural entrepreneurs and suppliers are able to develop other activities. This will determine the ultimate regional economic impact. Previous experiences with sharply contracting sectors (textiles, mining) are not directly comparable, because they were more concentrated at the local level. At the same time these examples do indicate the importance of careful flanking policies in areas that are most impacted.

The nitrogen headroom made available does not necessarily facilitate the granting of permits to other sectors, such as construction and aviation. The PSN has the statutory purpose of protecting the natural environment. Reduced nitrogen deposition is intended to benefit the quality of the natural environment and not the granting of new permits. Another factor is that an undertaking has already been given that – should the nitrogen deposition reduction be higher than necessary for the natural environment – the so-called PAS notifiers¹⁴ will be given priority in the granting of new permits. The main way in which it is still possible to apply for a new permit at present is to offset the extra nitrogen emissions internally or externally.¹⁵

Moreover, without a long-term vision for Natura 2000 areas in the Netherlands, it is difficult to determine when the nitrogen deposition has been reduced sufficiently for the natural environment and when headroom has been created for other activities. At the moment the provincial authorities and central government have no vision of how the natural environment in these areas will be maintained and improved in the long term. This is mandatory under the EU Habitats Directive. Without this long-term vision, any risk of deterioration due to nitrogen must first be eliminated. This means that the deposition must be reduced below the *critical deposition value*¹⁶. The Netherlands can shape its own long-term vision for the natural environment. It makes sense to broaden this vision beyond just nitrogen deposition and, for example, also to include other European environmental objectives such as water and air quality and the reduction of greenhouse gas emissions.¹⁷

The short-term impact of the nitrogen problem on residential and non-residential construction appears limited in the light of other constraints.¹⁸ The weakening economy, rising interest rates, labour shortages and increasingly numerous objection procedures are currently more of a hindrance to construction activity in general and to housebuilding in particular. Around 90% of housebuilding causes so little nitrogen deposition in Natura 2000 areas that those construction activities can continue without additional measures.¹⁹ But the nitrogen problem is an additional inhibiting factor in the construction of new homes. The nitrogen problem generates higher costs and delays, particularly because additional investigations and permits are required. In some cases it is not possible to obtain the permits and projects are cancelled. The impact is generally greater

¹² Based on total production of €30.6 billion across the agriculture sector as a whole in 2021.

¹³ The contraction rates calculated by WUR ([link](#)) due to the PSN in the pig, poultry and dairy sectors are scaled on the basis of the farm buyout budget in the overall nitrogen policy.

¹⁴ PAS notifiers are businesses and entrepreneurs who, under the Integrated Approach to Nitrogen (PAS), are only required to notify the calculated nitrogen load on vulnerable natural resources. The nitrogen ruling issued by the Council of State means that PAS notifiers must still have a permit. This is to be enabled in part by buying out the peak polluters.

¹⁵ With internal offsetting, an increase in nitrogen caused by a project or activity can be offset elsewhere within the project or business. With external offsetting, an increase in nitrogen caused by a project or the activities of a business can be offset by, for example, purchasing permitted nitrogen headroom from other businesses. The purchaser may use up to 70% of the headroom made available.

¹⁶ The critical deposition value is the maximum level of nitrogen decomposition at which there is no long-term risk of deterioration of the natural environment.

¹⁷ See also PBL, 2021, *Naar een uitweg uit de stikstofcrisis* ([link](#)).

¹⁸ See also Koning M. and T. Endhoven, 2023, *Effecten wegvallen bouwvrijstelling*, EIB ([link](#)).

¹⁹ See also Koning M. and T. Endhoven, 2023, *Effecten wegvallen bouwvrijstelling*, EIB ([link](#)).

on non-residential construction²⁰, because individual projects are larger than the average housing project and will therefore cause more nitrogen deposition.

Infrastructure projects are at greater risk of being delayed or even abandoned due to nitrogen problems.

These projects are more tied to a fixed location, which is also more often adjacent to one or more Natura 2000 areas. Housebuilding projects, by contrast, have more choice of location. In addition, much more nitrogen is emitted when an infrastructure project is operating than in the case of housing, for example. Hence there is a greater risk that infrastructure projects will incur delays due to nitrogen problems. The Ministry of Finance expects underinvestment in infrastructure to reach an estimated €3.5 billion by 2027, partly due to the restrictions surrounding nitrogen.²¹ At 14%, the infrastructure share of total construction output is limited, however, and only part of this is expected not to proceed. This does not mean the impact on the economy is limited. The social benefits of infrastructure projects may be high.²² Moreover, a postponement or cancellation of infrastructure investments may exacerbate local bottlenecks in the transportation of people and goods and thus harm regional economic activity. This may ultimately have a substantial impact on the economy.

In the case of aviation, the main issue at present is the uncertainty surrounding the framework and the government's policy. The relative share of aviation in nitrogen deposition is limited, at 0.7-1.1%²³. Around 20 Natura 2000 areas in a large region spanning various provinces are affected by nitrogen emissions related to Schiphol Airport. Schiphol and other airports have existing nitrogen emission allowances and can offset these externally when emissions exceed the permitted level. Such offsetting must be specific and localised and is complex due to the involvement of various parties. Due to a lack of clarity concerning the legal framework and the government's policy, it is uncertain whether offsetting in this way will remain fully or partly possible. This uncertainty may impact the size of the aviation sector in future. It should be noted that other restrictions (including noise limits, climate goals) may have a bigger impact on the possible size of the aviation sector.

The uncertainty surrounding the implementation of the nitrogen policy and the legal framework²⁴ are generally bad for the investment climate. A good example of the increased uncertainty is the ruling of the Council of State concerning the Porthos project²⁵. This project made use of the construction exemption²⁶ for nitrogen and therefore did not have to take account of the impact of any nitrogen emissions on the natural environment in its permit application. The Council of State interim ruling²⁷ in November 2022 cancelled the exemption for this project in particular and all construction projects in general. Since then, every construction project has still had to conduct a study of the impact of nitrogen emissions on the natural environment. This additional uncertainty concerning the construction exemption and the approach to nitrogen in general is leading to investments being postponed or even cancelled. For example, the Ministry of Economic Affairs and Climate Policy felt compelled to provide a loan for a large plant at Maasvlakte 2 because other investors

²⁰ Non-residential construction is the construction of all buildings not intended for residential use, such as offices, factories and schools.

²¹ See Government Budget 2023 ([link](#)).

²² See, for example, the high liveability benefits of tunnelling the A2 near Maastricht according to the CPB Communication by Tijm, Michielsen and Zwaneveld (2018) ([link](#)).

²³ See the Opinion of the Advisory Committee on the Nitrogen Problem, 2020, Opinion on the Aviation Sector ([link](#)).

²⁴ For example, the Council of State has yet to rule in the ViA15 case on the maximum calculation distance of 25 km for nitrogen emissions in applications for a nature permit.

²⁵ The purpose of the Porthos project is to use empty gas fields to store CO₂ from industrial producers in the port of Rotterdam.

²⁶ The construction exemption for nitrogen has been included in the Nature Conservancy Act since 1 July 2021. This exemption meant that permit applications for certain construction activities did not have to take account of nitrogen emissions.

²⁷ A study on the impact of nitrogen emissions on the natural environment had already been conducted during the proceedings for the Porthos project, but it was no longer possible to include this study in the ongoing proceedings. The Council of State has now issued an interim judgement and given the objector six weeks to respond to the report. After this, the case will continue and a final judgement will be issued (see also [link](#)).

threatened to pull out due to fear that the necessary environmental permits would not be granted.²⁸ Private operators were only prepared to lend again once this loan had been granted. These examples show how investors may postpone or even cancel their investment decisions due to uncertainty. The economic consequences of any missed investment opportunity are mainly felt over the medium term.

²⁸ See Het Financieel Dagblad ([link](#)) and ([link](#)).