

June 2018  
Number 15

# Economic Developments and Outlook

DeNederlandscheBank

EUROSYSTEEM



# Economic Developments and Outlook

June 2018, number 15

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Closing date: 14 June 2018

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## Summary

4 Economic recovery peaked in 2017, with GDP growth reaching 3.3%. For the years 2018 to 2020 we project growth at gradually slowing rates of 2.5%, 2.2% and 1.9%, respectively. This means economic activity is set to remain above its trend level, and all signs point to a sustained boom. With corporate utilisation rates high on average and labour markets tightening further, a growing part of the economy will start to feel the squeeze as businesses are hampered by shortages of staff and other resources. Over the projection horizon, this will put a drag on economic activity, mostly through rising wages and prices. Employment growth will gradually level off amid decelerating economic growth and increasing difficulty in finding suitable staff. Unemployment is expected to fall another year, from 3.8% of the working population on average in 2018 to around 3.5% in 2019 and 2020.

The composition of GDP growth is shifting from foreign to domestic demand this year. Household consumption should expand by 3%, the highest rate seen since 2000, and is due to show further robust growth. The higher net compensation per employee will be the principal driver pushing up disposable household income. This means employed people will benefit more strongly from the economic recovery. Business investment growth should remain stable over the next few years, hovering around the average rate seen over the past 40 years. Investment conditions for businesses are benign, as is apparent from their financial situation, producer confidence, utilisation rates and order books.

Average inflation will remain low in 2018, at 1.1%, but rise steeply to 2.5% in 2019. The increases in energy tax and the low VAT rate (from 6% to 9%) – both announced for 2019 – will be factored into prices. Inflation is subsequently expected to weaken to 1.7% in 2020. In 2018, gross compensation per employee in the corporate sector should regain momentum, growing by 1.9%. Our projections show that it will be 3.5% in 2019 and 4.0% in 2020, assuming the usual wage-price dynamics. House price increases are expected to peak at 9.5% this year and gradually decelerate in subsequent years. Growth in housing investment will slow down considerably, landing at 7.8% in 2019, and ease further, to 5% or 6% in both 2019 and 2020. Increasingly, construction firms are facing capacity constraints, while housing transactions are declining.

Flaring up protectionism, possibly culminating into a trade war between the United States (US), China and the European Union (EU), poses a risk to the projected economic developments. In an alternative scenario featuring an escalating trade conflict, the Dutch economy will be severely affected, with annual GDP growth 0.5 percentage points lower in all three years.

# 1 The Dutch economy in 2018-2020

## Economic boom lasts, but growth will be less exuberant

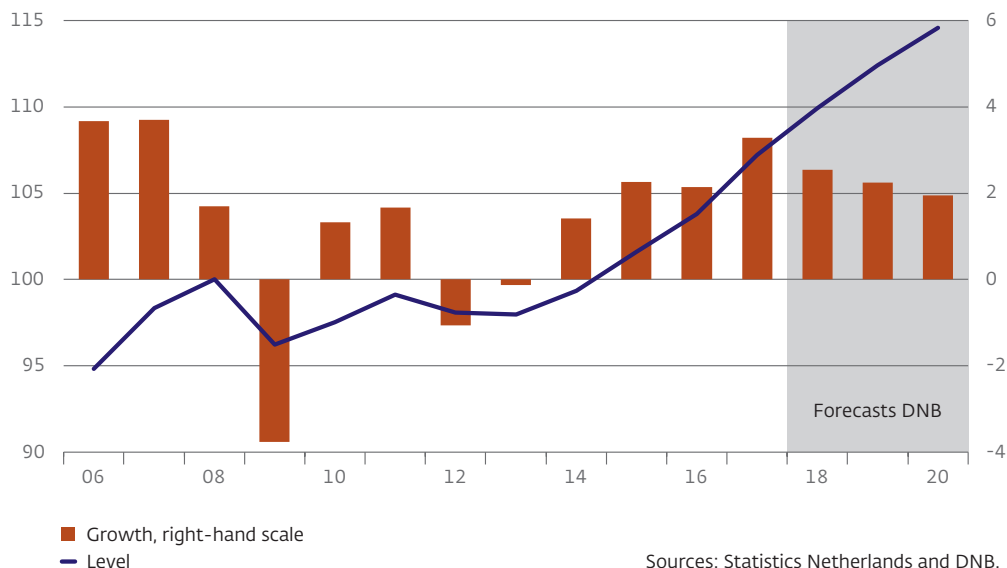
Over the 2018-2020 period, the Dutch economy should continue to show growth at above-trend but gradually slowing rates. Gross domestic product (GDP) peaked at 3.3% in 2017 and we project growth for 2018 to be slightly lower at 2.5%. This figure is set to ease gradually to 2.1% in 2019 and 1.9% in 2020 (see Figure 1). The output gap will widen and bottlenecks will increasingly emerge, notably in the labour market.

The fact that the cyclical upswing has been maturing since 2017 is also evident from the shifting composition of GDP growth, which is now dominated by domestic drivers. The robust economic performance of 2017 was driven in part by the upswing in world trade, which showed the highest growth in six years. Dutch exports benefited relatively strongly. This year, world trade growth is expected to be somewhat lower and exports will contribute significantly less to growth, as already shown by preliminary actual figures for the first quarter.

The effect of the lower contribution of net exports to GDP growth will be partly compensated for by higher domestic expenditure. Increases in household income will be the main driver of domestic expenditure growth. Real disposable household income is set to expand by an average of 2.8% a year, the highest growth rate recorded since 2001. This is fuelled more than before by growth in compensation per employee, rather than by a larger number of persons employed. Household consumption will also continue its solid growth trend on the back of

**Figure 1 Gross domestic product**

Volume; 2008 = 100 and year-on-year percentage changes



6 lower direct taxes in 2019 and 2020. In addition, public expenditure will grow somewhat stronger. The coalition agreement refers to additional spending, mostly in 2018.

The slight contraction of exports in the first quarter compared with the fourth quarter of 2017 (-0.1%) was more than offset by exceptionally buoyant private consumption growth (1.7%). Despite slightly weaker quarterly GDP growth, other indicators have recently pointed at sustained domestic growth momentum. Consumer confidence has consistently been at a record high since end-2016. Businesses are also exuberant, with producer confidence at a 30-year high throughout the first five months of 2018.

## International environment shows less dynamism and downward risks

Although economic expansion continues across the globe, recent data point to a slight slowdown in dynamics. The European Central Bank (ECB) projects global growth, excluding the euro area, to reach 4% in 2018 and gradually moderate to 3.7% in 2020.<sup>1</sup> Exporting emerging market economies benefit from the upswing in world trade, while advanced economies benefit from the expansionary monetary policy and expansive fiscal policy in the United States. Growth in the United States is expected to pick up soon, fuelled by more robust export growth. The US labour market is tight, with unemployment below 4%. Looking further ahead, growth in the United States will level off somewhat as the fiscal stimulus wears off, supply restrictions are increasingly felt and monetary policy is further tightened. In Japan, growth should likewise slow down, owing to less expansionary fiscal policy. Moderate domestic demand in the United Kingdom is compensated for by accelerated export growth, fuelled by the weaker pound sterling, resulting in a subdued growth path. Chinese growth should gradually abate due to reduced fiscal incentives and measures that curb credit growth.

The ECB projects euro area GDP growth of 2.1% in 2018, 1.9% in 2019 and 1.7% in 2020. In Italy, the formation of a new government restored calm in the financial markets to some extent. Further economic consequences will not become clear until the coalition government's financial plans have been fleshed out. In the short term, its plans to boost public spending could stimulate economic growth in Italy. However, if the government's budgetary position should become unsustainable, this may have adverse economic consequences. Likewise, rising risk premiums could also weigh on Italian growth.

Based on these assumptions, we estimate growth in world trade relevant to the Netherlands at 4.3% in 2018, 4.4% in 2019 and 3.7% in 2020. The outlook for the world economy is surrounded by several uncertainties. The risk of intensifying protectionism has recently increased.

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<sup>1</sup> The assumptions underlying the development of relevant world trade, exchange rates, international commodity prices and interest rates are based on information available on 22 May 2018.



The United States has imposed high import tariffs on European steel and aluminium, and it is studying measures against the European car industry (see also section 3, Escalating trade conflict: an alternative scenario). In addition, a Chinese hard landing cannot be excluded as the country transitions towards a path of more subdued and sustainable growth. In addition to the as yet uncertain political developments in Italy, the manner in which Brexit will ultimately take place presents a significant downward risk for the Dutch economy. The latter risk mainly concerns the medium and long term, given that the transitional period agreed upon runs from 31 March 2019 to the end of 2020.

The oil price went up significantly recently, and we expect it to be 20% higher in 2018 on average than we anticipated in our December 2017 projections. The rise in oil prices reflects stronger demand and compliance by oil exporters with recently agreed production limits. Our projections assume a gradual easing of the oil price over the remaining projection period following the peak in 2018. In May 2018, the euro exchange rate expressed in US dollars was just below the December 2017 level. We assume average exchange rates of USD 1.20 for 2018 and USD 1.18 for both 2019 and 2020.

## Domestic spending drives growth

Table 1 lists the key data in the forecast for the Dutch economy for 2017-2020. Although the period of economic upswing, which started in 2014, will not end during the projection horizon, growth will begin to level off in 2018. Initially, growth in domestically produced exports of goods and services will be more subdued in 2018. Private consumption growth should be elevated at 3.0% this year and subsequently decelerate to a rate that remains high, at 2.1%. The past three decades only occasionally saw consumption growth exceed 2% in consecutive years. Similarly, housing investment will revert to more moderate growth, following last year's boisterous near 13% increase. Housing investment depends in part on the number of transactions, which receded in the first quarter of 2018, partly due to tightening supply. This year's growth in business investment (excluding housing) will outpace last year's, at 4.2%, and growth will subsequently moderate to 2.9% in 2019 and 2.3% in 2020, due mainly to economic growth levelling off.

Figure 2 shows that GDP growth will be largely driven by domestic spending over the projection horizon. The composition of GDP growth is clearly shifting from exports to domestic factors in 2018, in a pattern usually seen in the late upward phase of a business cycle. Contributions to growth made by private consumption are high, at 0.9 percentage points in 2018 and 0.6 percentage points in both 2019 and 2020. These are the highest growth contributions recorded since the turn of the century. The contribution to growth from public expenditure is set to double to 0.6 percentage points, which is related to additional expenditure under the coalition agreement. The contributions of both business and housing investment have been receding from their 2015 peak and should revert to their long-term averages by the end of the projection horizon.

Table 1 Key data in forecast for the Dutch economy

Percentage changes, unless stated otherwise

	2017*	2018	2019	2020
<b>Volume of expenditure and output</b>				
Gross domestic product	3.3	2.5	2.2	1.9
Private consumption	1.9	3.0	2.1	2.1
Public expenditure	1.5	2.5	2.4	1.6
Business investment	3.5	4.2	2.9	2.3
Housing investment	12.7	7.8	5.9	5.4
Exports of goods and services	6.4	4.0	4.3	3.5
of which domestically produced	6.1	3.1	2.8	2.4
of which re-exports	6.7	5.0	6.0	4.6
Imports of goods and services	5.7	5.2	4.9	3.9
of which domestically used	4.9	5.3	3.9	3.3
<b>Wages and prices</b>				
Negotiated wages, private sector	1.6	2.1	2.6	3.1
Compensation per employee, private sector	1.0	1.9	3.5	4.0
Unit labour costs	0.2	2.1	2.4	2.4
Prices of domestically produced exports	2.8	2.5	1.3	1.4
Harmonised consumer price index	1.3	1.1	2.5	1.7
House prices, existing own homes	7.6	9.5	6.6	3.6
<b>Labour market</b>				
Employment (persons, growth)	2.2	2.3	1.4	0.6
Labour supply (persons, growth)	1.0	1.3	1.2	0.7
Unemployment (persons x 1,000)	437.8	346.2	326.7	337.4
Unemployment (% of labour force)	4.9	3.8	3.5	3.6
<b>Public sector and financial</b>				
EMU balance (% of GDP)	1.1	0.5	0.8	0.4
EMU debt (% of GDP)	56.7	53.4	49.9	47.1
Current account (% of GDP)	10.1	9.0	7.8	7.5
Mortgage loans (based on end-of-period)	1.4	3.2	4.5	4.6
Bank lending to NFCs (based on end-of-period)**	-3.1	0.2	1.0	2.0
<b>International assumptions</b>				
Volume of relevant world trade	4.9	4.3	4.4	3.7
Volume of GDP				
US	2.3	2.8	2.5	2.1
euro area	2.4	2.1	1.9	1.7
emerging markets	4.5	4.7	4.7	4.7
Short-term interest rate in the euro area (%)	-0.3	-0.3	-0.2	0.2
Long-term interest rate in the Netherlands (%)	0.5	0.7	0.9	1.1
Euro exchange rate (USD)	1.13	1.20	1.18	1.18
Competitor prices	1.8	0.5	2.3	2.1
Oil price (UK Brent in USD per barrel)	54.8	74.6	73.5	68.7
Commodity prices excluding energy (USD)	7.9	9.3	2.5	4.1

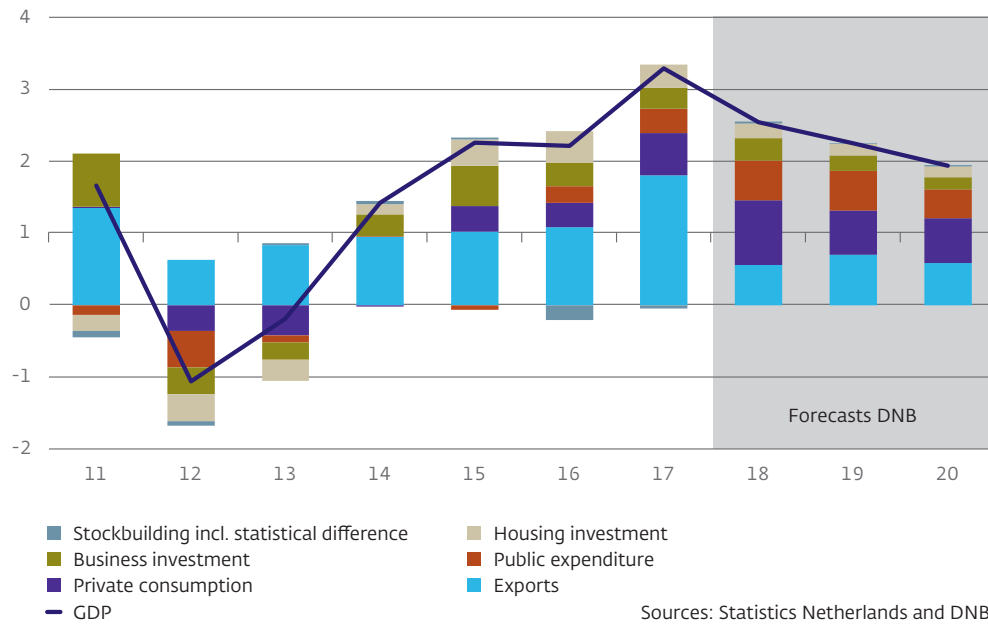
Sources: DNB and ECB.

\* 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.

Figure 2 Sources of GDP growth

Percentage changes and contributions in percentage points



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

### Boom is starting to squeeze resources

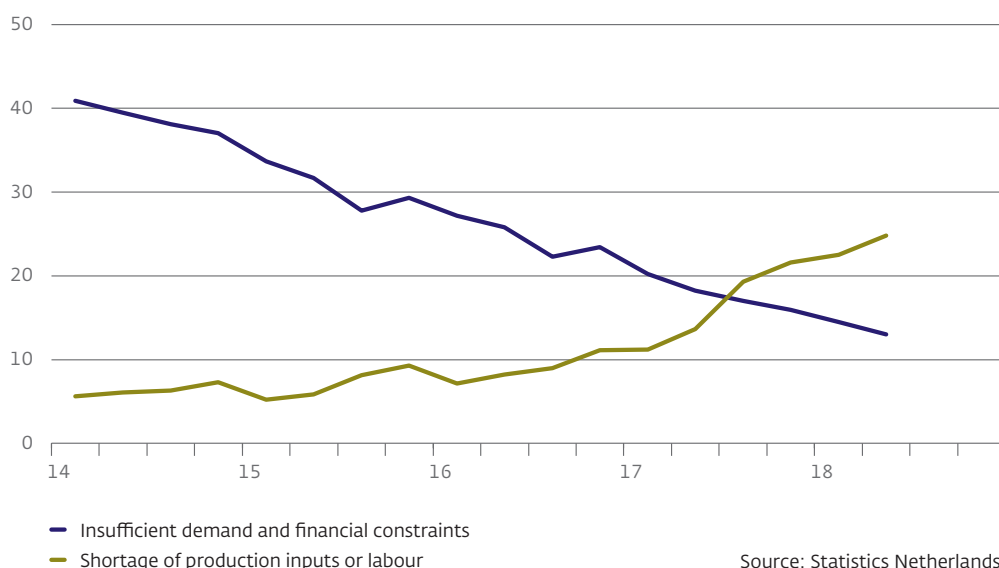
GDP growth has exceeded projected potential growth of around 1.7% a year since 2014. This improves the output gap, which has been negative almost without interruption since 2008. By 2017, it had narrowed to 0.5%, confirming that the Dutch economy is going at full speed. Our projections assume further gradual improvement of the output gap to 2.0% in 2020, a figure last seen in 2000 and 2008, when the previous boom periods peaked. The positive and improving output gap suggests that the production capacity available in the economy is highly utilised. This has already created increasing tensions and bottlenecks in labour and product markets.

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Among other things, this is apparent from surveys, in which firms increasingly say shortages are hampering production. At year-end 2016, 10% of the surveyed firms said they had a shortage of staff or resources, more than doubling to 25% by May 2018. At the same time, much fewer firms say they experience obstacles caused by insufficient product demand or financial constraints (see Figure 3).

### Figure 3 Shift in production obstacles points to boom

Percentages non-financial corporations

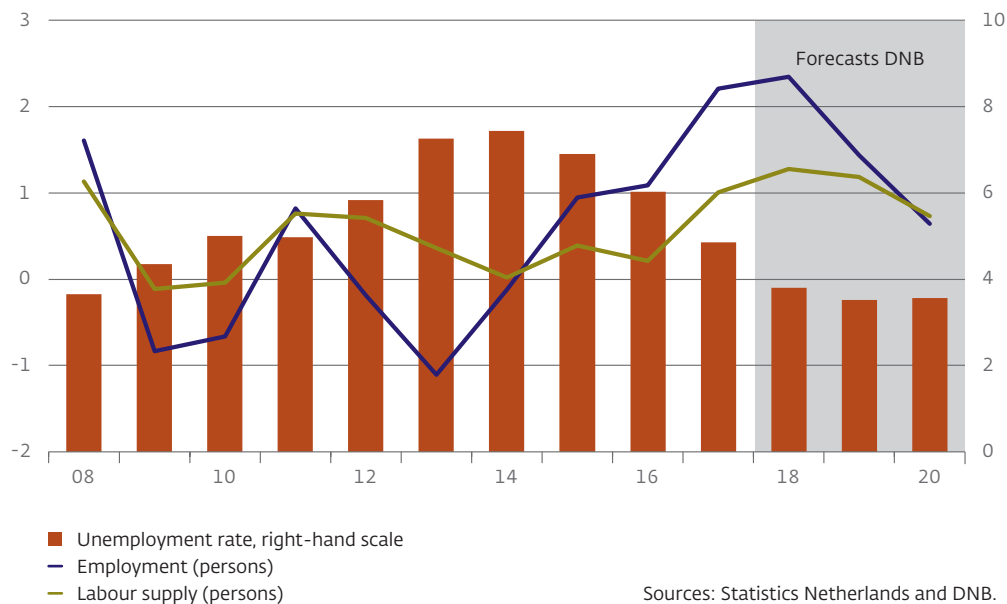


### Employment growth to peak this year

In the first quarter of 2018 the number of persons employed rose by 70,000 on the previous quarter, representing the largest increase since the credit crisis broke out. This year's increase should be 2.3%, marginally up from 2017 (see Figure 4). Employment growth will subsequently slow down to 1.4% in 2019 and 0.6% in 2020, due not only to the projected production growth flattening out, but also to an increasingly tighter labour market. This will make it more difficult to fill open positions and will accelerate the rise in real wage costs, thereby depressing labour demand.

**Figure 4 Labour market supply and demand**

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



The number of employees on permanent contracts has steadily risen since 2016, following a six-year decline. The increase gained momentum in the past three quarters, accelerating to 124,000 persons on an annual basis in the first quarter of 2018. This is a larger increase in both absolute and relative terms than that seen in flexible contracts, which has momentarily put a halt to the decline in the proportion of permanent contracts in total employment.

### Labour market tightness is broadening

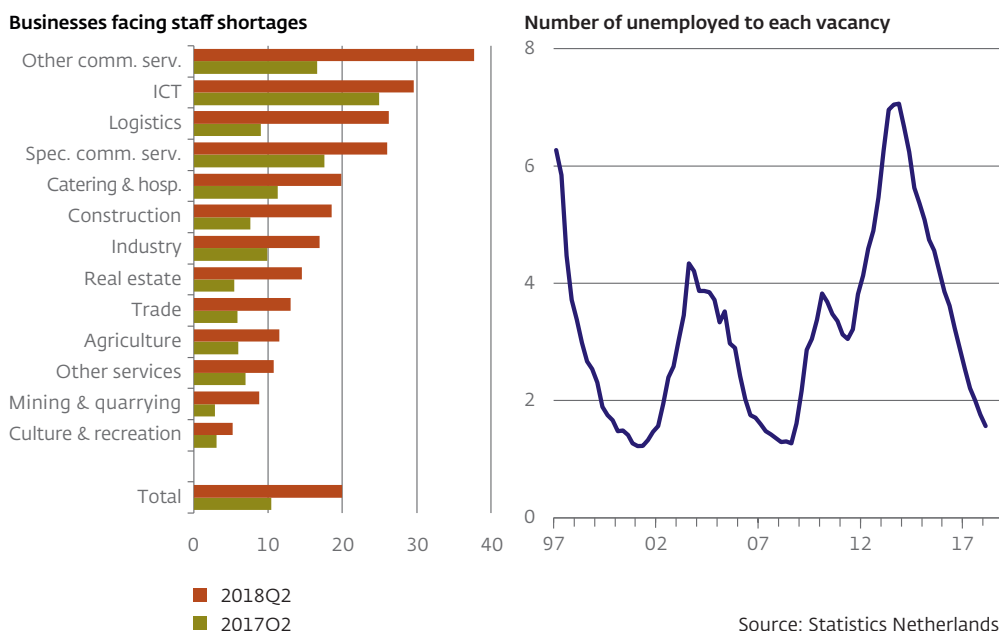
Between 2014 and 2016, the initial years of the economic upswing, labour supply increased by a mere 0.2% per year. By contrast, benign labour market conditions should cause labour supply to grow by 1.1% annually on average between 2018 and 2020. This means it will again lag behind labour demand, with unemployment falling significantly, notably this year, to 3.8% of the working population on average. In 2019 and 2020 unemployment is set to stabilise at around 3.5%, the lowest level seen in 45 years, with the exception of the 3.1% rate recorded in 2001.

A growing number of businesses are having difficulty recruiting staff. In the second quarter of 2018, 20% of surveyed businesses said their operations were hampered by staff shortages, against less than 3% when the economic recovery set in halfway through 2014. While not all businesses suffer from staff shortages to the same extent, it is a major issue in business services, a sector that includes employment agencies, information and communications

services, and logistics (see Figure 5, left-hand chart). An increasing number of businesses are starting to feel the squeeze, however. A year ago, in only four sectors more than 10% of businesses said their operations were hampered by staff shortages. In the first quarter of 2018, this was the case in all sectors except mining & quarrying and culture, sports & recreation. Similarly, the ratio between unemployed and unfilled vacancies points to increasing tension in the labour market (see Figure 5, right-hand chart). In the first quarter of 2018, there were 1.6 unemployed persons on average to each vacancy, almost as few as in early 2008, when the ratio stood at 1.4. In 2014, just before economic recovery set in, it was 7.1.

**Figure 5 Tighter labour market**

Weighted percentages and numbers



### Wage growth shifts into higher gear

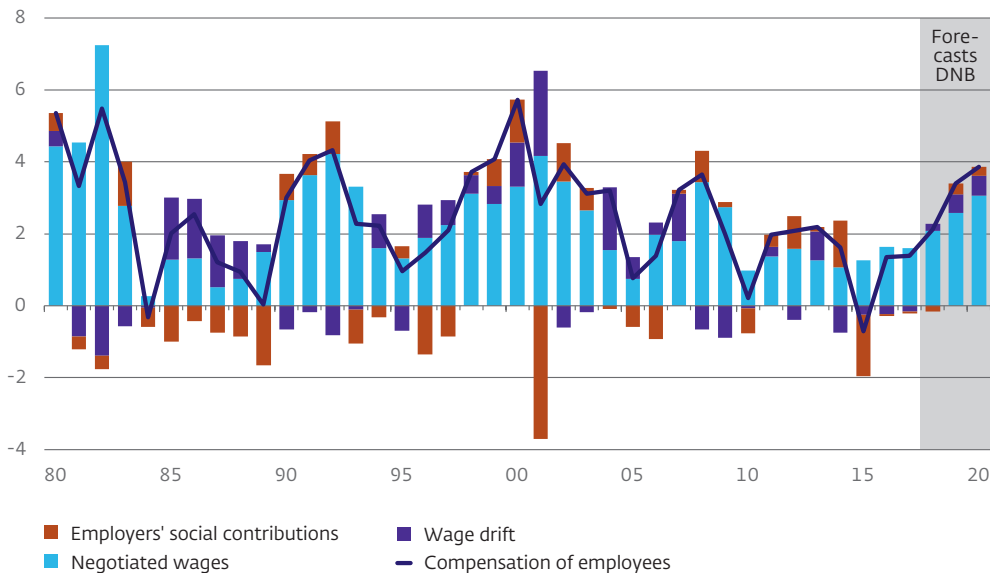
Nominal negotiated wage growth in the corporate sector is expected to accelerate by 0.5 percentage points each year, from 1.6% in 2017 to 3.1% in 2020. Tension in the labour market is an important factor in this. Although pay rises for 2018 have already largely been agreed upon, recently concluded wage agreements confirm the pick-up in negotiated wage growth, with increases topping 2.5% on an annual basis being no exception.

The trend in total employee compensation depends not only on negotiated wage growth, but also wage drift (see Figure 6). In turn, wage drift depends on additional individual remuneration (periodic pay increases, bonuses and promotions), as well as on compositional shifts in employment. Employment has increased mainly in relatively low-paid labour categories in the past few years, such as young people, first-time employees and workers on flexible contracts. This has depressed the average wage amount, resulting in a negative contribution of wage drift. Our projections show that this contribution should turn positive again on the back of the increase in the number of permanent contracts (see Box 1 Labour market flexibilisation and wage developments).

The higher tension in the labour market, through the pick-up in wage growth and higher self-employment income, also significantly pushes up the labour income share (LIS) of businesses, which is projected to increase by 2.4 percentage points, to 74.8%, between 2017 and 2020. As a result, it will just exceed the long-term average of 74.6% (1978-2017).

**Figure 6 Breakdown of wage developments in the private sector**

Year-on-year percentage changes; wage developments based on number of persons



Sources: Statistics Netherlands and DNB.

### Box 1 Labour market flexibilisation and wage developments

The large number of employees on flexible contracts is a typical feature of the Dutch labour market. A flexible contract brings not only more job insecurity, but also lower compensation. Data from Statistics Netherlands show that the hourly wage of an employee on a flexible contract averages two-thirds of that of an employee on a permanent contract, with temporary workers and on-call workers earning slightly less. Background characteristics are an important factor in explaining the differences in compensation found, as workers on flexible contracts are relatively young with lower levels of education on average. Even so, a Statistics Netherlands study shows that the difference between permanent and flexible contracts remains after adjusting for personal and job characteristics. In 2014, average gross annual income of employees on flexible contracts was a mere 51% to 83% of that of employees on permanent contracts. The increase in flexible labour over the past few years has therefore resulted in relatively stronger growth in lower-paid jobs. The persistent increase in the proportion of employees on permanent contracts therefore lowers the arithmetic mean of gross wages.

The ongoing labour market flexibilisation can also affect wage trends indirectly. The cost of dismissing workers on flexible contracts are lower, which means this category is at a disadvantage in terms of negotiating pay rises. In addition, they generally have a lower level of engagement with employee organisations, meaning they are less well represented in trade unions. At the same time, if a business uses large numbers of flexible workers, this could weaken the negotiating position of employees on permanent contracts forced to compete with cheaper flexible workers. Lastly, flexibilisation may result in productivity growth lagging behind, as employers invest less in expanding the knowledge and skills of their flexible workers. As a result, the latter see their potential being underutilised, reducing the likelihood of promotion or higher compensation.

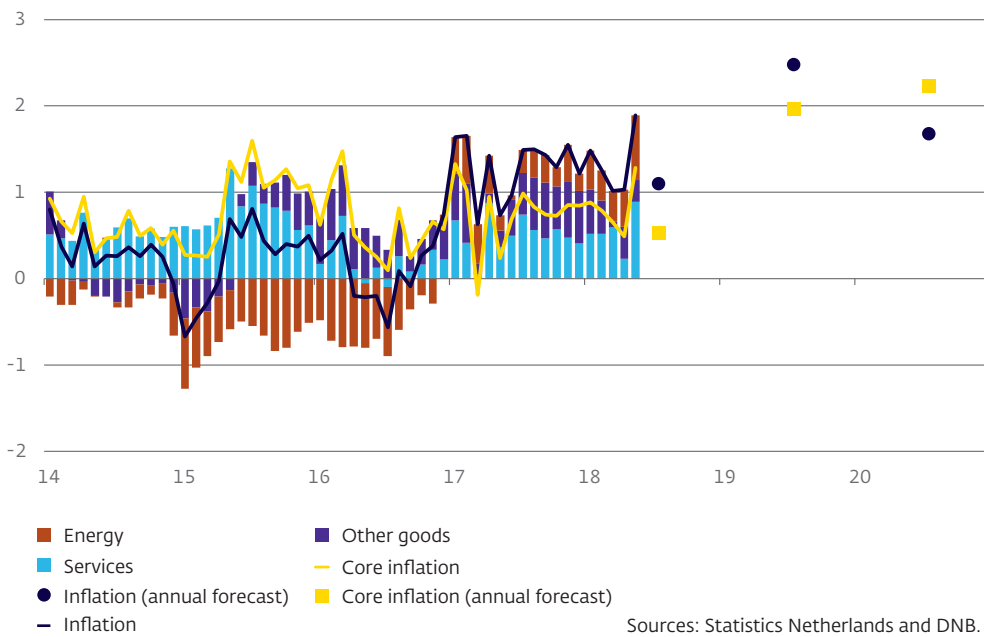
### Inflation to remain low this year

Following three years of just above zero inflation, HICP inflation rose to 1.3% on average in 2017, fuelled mainly by higher energy prices. The upsurge should stagnate in 2018, with HICP inflation expected to average 1.1% (see Figure 7). Like last year, most of the price increases will be driven by the positive contribution of energy prices. Core inflation, by contrast, which excludes energy and food, will be a mere 0.5% in 2019, due in part by falling prices of industrial goods, which include clothing.



Figure 7 HICP inflation

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



Note: Core inflation = total excluding food and energy.

HICP inflation will be given a boost in 2019, as the low VAT rate is to be raised from 6% to 9% and energy tax will go up. Our projections assume that these increases will immediately be factored into consumer prices, resulting in 1.3 additional percentage points in inflation. This is expected to push HICP inflation to an average 2.5% in 2019, the first time since 2013 to exceed 2%.

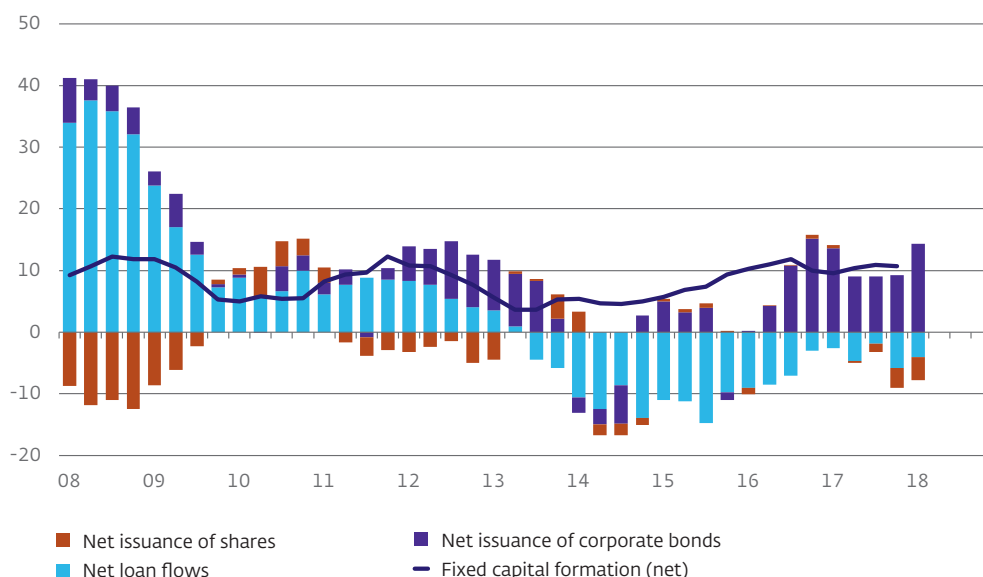
In 2019, core inflation is expected to pick up considerably, to 2.0% on average. This is due partly to the higher VAT rate, but it is also related to wage increases, which are set to go up significantly in 2019. Especially in the services sector, labour costs are an important determinant of price movements. Unit labour costs for the economy as a whole are projected to rise to 2.1% in 2018 from 0.2% in 2017. Subsequent increases will be 2.4% in both 2019 and 2020. Assuming the usual wage-price dynamics, core inflation should climb to 2.2% in 2020, as the effect of the higher VAT rate dissipates. With the effect of energy price increases also having worn off, HICP inflation is projected at 1.7% in 2020.

16 Improved financing possibilities for the corporate sector

Bank lending to businesses continues to shrink, meaning that the amount in newly granted loans has again remained below the amount in repayments of previously granted loans. The extent of the decline has reduced since 2016, however (see Figure 8, light blue bars). This is in line with climbing business investment and the resulting growth in corporate financing needs. Larger businesses increasingly turn to share and bond issues to raise capital. Since mid-2016, net bond issuance has been going up again. Small and medium-sized enterprises (SMEs), however, continue to depend mainly on bank loans. In recent surveys for October 2017 to March 2018, again fewer SMEs reported obstacles in obtaining bank loans, their percentage having more than halved since 2013. Moreover, the third and fourth quarters of 2017 showed a turnaround in growth of SME lending. For the first time since observations begun, in the final quarter of 2014, SME bank lending showed a slight increase in the fourth quarter of 2017 relative to the preceding year. Loans in excess of EUR 1 million as yet account for the full increase. Smaller loans are still contracting, if at a gradually slowing pace.

Figure 8 External financing for non-financial corporations

In EUR billion; four-quarter sums



Sources: Statistics Netherlands and DNB.

The short-term outlook for total bank lending is positive. A majority of banks expect demand for loans to go up in the second quarter of 2018, while also envisaging eased acceptance criteria for business lending. Our projections show that the improvement in credit growth should persist.

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## Private sector indebtedness remains high

Debt levels among Dutch households and businesses are high, from both a historical and an international perspective. In 2017, debts of non-financial corporations were 103% of GDP and of households 105% of GDP. Household indebtedness is projected to slide to 103% of GDP in 2018 and remain flat through 2020. Our December 2017 issue of Economic Developments and Outlook explains the impact of an interest rate shock scenario on the Dutch economy.<sup>2</sup>

If capital market rates should go up, households and businesses will not immediately face higher interest charges, as these depend on such factors as maturity and interest renewal dates. Households in this respect have the advantage over businesses of interest rates that are usually fixed for longer periods. 80% of household debt involves contractual reviews after two years or more, against approximately 30% of business debt. Accordingly, households would appear to be more resilient against interest rate increases than businesses, thanks to such factors as longer maturities and more distant interest renewal dates.

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<sup>2</sup> See also Financial Stability Report, spring 2018, DNB.

## 2 A closer look at spending and public finances

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### Dutch exports grow at a slightly slower rate than world trade

The outlook for Dutch exports is less benign than last year, when goods and services exports grew at a vigorous 6.4% (see Table 2). Growth in world trade relevant for the Netherlands is set to slacken, and the Netherlands' price-competitive position will worsen, due in part to the appreciation of the euro. Total export growth is projected to slow down to 4% in 2018. In the years ahead, Dutch exports should grow at a slower rate than relevant world trade, causing the market share of Dutch exports to shrink slightly, after having steadily improved over the past years (see Figure 9). The projections do not reflect the import tariffs which the United States recently imposed on European steel and aluminium. An alternative scenario shows the consequences of an escalating trade conflict for the Dutch economy (see section 3).

Re-exports continue to make a key contribution to exports, and the market share in re-exports excluding energy is set to grow. Domestically produced exports excluding energy will still show relatively robust growth of 5.1%, before slowing down to 3.2% in 2019 and 2.6% in 2020. On balance, the market share of domestically produced exports will shrink. As in 2017, energy exports will be lower in 2018, due in part to natural gas production cutbacks, and grow nearly 3% in both 2019 and 2020 (see Box 2 Economic consequences of reduced gas production will be limited).

**Table 2 Dutch exports and competitiveness**

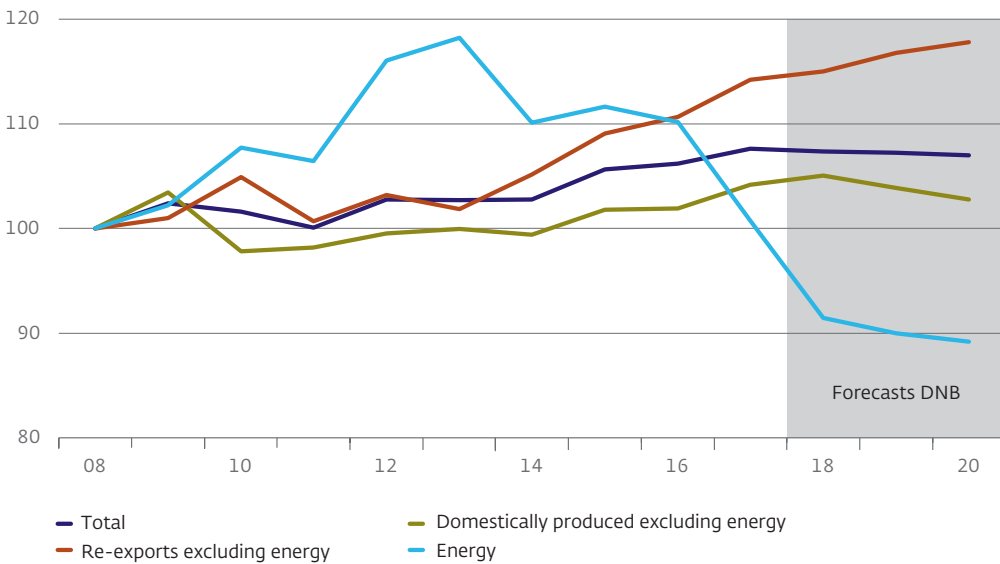
Percentage changes, unless stated otherwise

	2017	2018	2019	2020
<b>Volume</b>				
Relevant world trade (1)	4.9	4.3	4.4	3.7
Exports of goods and services (2)	6.4	4.0	4.3	3.5
domestically produced	6.1	3.1	2.8	2.4
re-exports	6.7	5.0	6.0	4.6
Trade performance (2-1)	1.4	-0.3	-0.1	-0.3
Exports of goods and services excl. energy	7.7	5.1	4.4	3.5
domestically produced (3)	7.3	5.1	3.2	2.6
re-exports	8.3	5.0	6.0	4.6
Market performance (3-1)	2.3	0.8	-1.1	-1.1
<b>Price</b>				
Competitor prices (4)	1.8	0.5	2.3	2.1
Exports of goods and services	3.2	2.7	1.7	1.0
domestically produced, excl. energy (5)	1.0	1.1	1.0	1.7
Price competitiveness (4-5)	0.8	-0.6	1.3	0.4

Sources: DNB and ECB.

Figure 9 Market share of exports

2008 = 100; volume



Sources: Statistics Netherlands, ECB and DNB.

Note: Index is the category in question divided by relevant world trade.

## Robust private consumption growth

In the past three years, private consumption showed growth of 1.8% on average, which is amply above the average figure recorded since 2000, which is 0.7%. The recovery of consumption growth that started in 2014 is largely related to the return of confidence, the housing market recovery and the improvement in employment. In 2018, these factors will also fuel consumption growth. The flash estimate for the first quarter of 2018 shows that consumption was 1.7% higher than in the preceding quarter. In part, this high growth rate was driven by additional gas consumption due to relatively low temperatures, but spending on cars and other durable consumer goods also increased. The high quarterly growth also affects the annual projection for 2018, which now amounts to 3.0%.

The tax cuts planned for 2019 and 2020 are not expected to have any near-term impact on consumption growth. Experience shows that changes in real income are initially largely cushioned by savings, and spending takes some time to react.

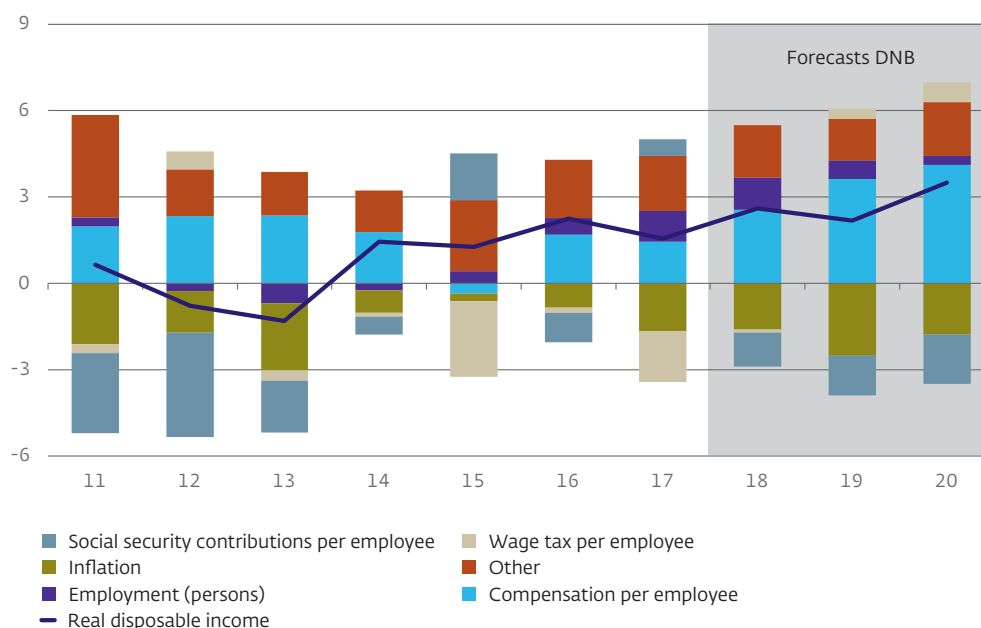
## Highest household income growth seen since 2001

Real disposable household income is set to expand by an average of 2.8% per year over the 2018-2020 projection horizon, which is the highest growth rate recorded since 2001. This represents a significant improvement over the 2002-2013 period (0.2% per annum) and a stark contrast when set against average growth seen in the past 35 years (1.6% per year). By 2020, real disposable income should have risen almost 16% from its 2013 level.

The steep income growth will be noticeable in compensation per employee in the years ahead, and will not be the result of growth in the number of persons employed to the same extent as in previous years. Figure 10 shows that disposable income growth is dominated by the contribution of compensation per employee in the projections. By contrast, the contribution of employment to disposable income growth should gradually diminish from 1.1 percentage points in 2017 and 2018 to 0.3 percentage points in 2020. The positive impetus from lower personal income tax can be seen in 2019 and 2020, with positive contributions of 0.3 and 0.7 percentage points, respectively. Other primary income will continue to make positive contributions, also owing to the rising number of self-employed people.

Figure 10 Real disposable household income

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



Sources: Statistics Netherlands and DNB.

Note: other = balance of income, benefits, taxes and social security contributions of non-labour and self-employed persons.

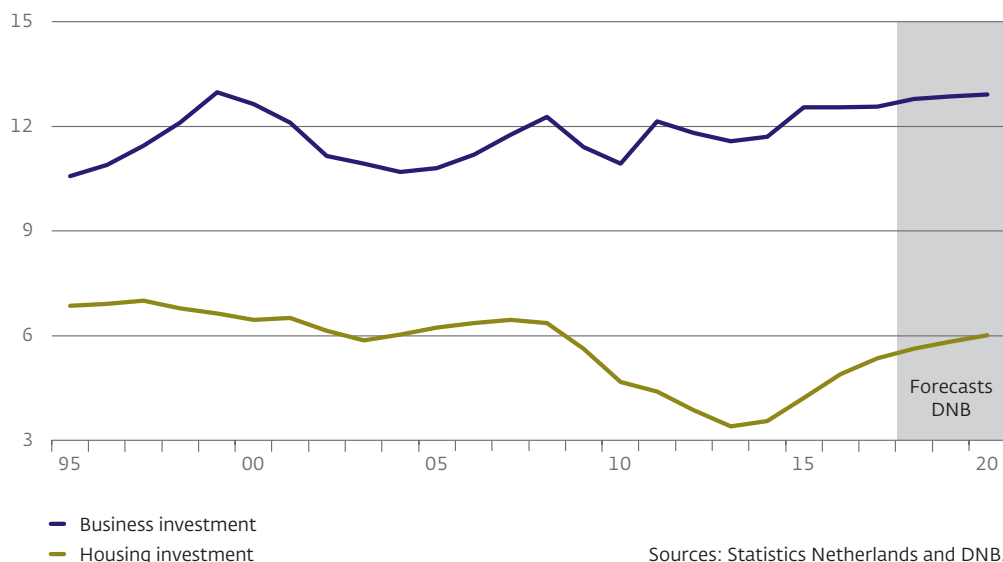
## Steady growth in business investment

Growth in business investment (excluding housing) slowed down unexpectedly in the third and fourth quarters of 2017, landing at 3.5% for the year. Investment in means of transport in particular showed slower growth than expected. The first quarter of 2018 made up for this, however, with quarter-on-quarter growth of 3.8%. The tight labour market and high capacity utilisation rates are leaving businesses no choice but to expand their production capacity. In May 2018, industrial businesses expected they would make 25% additional investment in tangible fixed assets compared with 2017 against 16% six months earlier. In addition, 16% of businesses indicated their order positions were too large, against roughly half that percentage two years ago.

The projections show investment growth to accelerate to 4.2% in 2018, before slowing down slightly to 2.9% in 2019 and 2.3% in 2020. The slowdown is due to the accelerator effect, according to which investment responds to changes in economic activity. Despite these lower projected investment growth figures, the investment ratio – the ratio of real business investment to real GDP – will edge up from 12.6% in 2017 to 12.9% in 2019 and 2020 (see Figure 11). With the exception of 1999, this level of investment has not been witnessed since 1977. It means that the stock of capital goods is being expanded or replaced at a rapid pace, which in the longer run will benefit the economy’s production capacity.

**Figure 11 Investment**

Percentage of GDP; volume



## House prices continue to increase; transactions have peaked

House price increases were 7.6% (year-on-year) in 2017, which is the highest growth since 2001. By the summer of 2017, average prices had returned to the level seen during the previous peak in the summer of 2007. Tension in the housing market has risen considerably. It is not difficult to see why from the demand side: much of the recent demand for housing is pent-up demand from the deep recession seen between 2008 and 2013. Demand is also fuelled by robust income growth, falling unemployment and low mortgage interest rates. In contrast to expanding demand, supply has significantly contracted. In the first quarter of 2018, a home buyer could choose from an average of 4 or 5 houses, as opposed to 30 in 2013. Back in 2006, building permits issued stood at just over 100,000, slightly above the long-term average since 1977. The crisis sent this figure down, and it bottomed out at 27,000 in 2013. A partial recovery has occurred since then, with 70,000 permits issued in 2017. Our projections show a gradual slowdown in the growth of housing investment, to 6% of GDP in 2020, still below the level seen just before the credit crisis (see Figure 11).

Increasing market tightness is starting to have a bearing on the number of transactions. In 2017, 242,000 houses were sold – the highest number seen since 1995. After five years of sharp increases, however, transactions fell over the first five months of 2018. Relative to real GDP however, taking into account the size of the economy, transactions almost match the volume seen shortly before the downturn of 2008 (see Figure 12). There are also other indicators,

**Figure 12 Housing transactions**

2010 = 100



Note: number of housing transactions relative to real GDP. Four-quarter sums.

Sources: Statistics Netherlands.



besides the levelling-off of transaction volumes, that suggest a gradual cooling of the housing market. The indicator compiled by the Dutch Home Owners Association (VEH) has shown a downward trend since mid-2016, if remaining at a high level. The VEH observed that since March 2018, relatively few people have deemed this the right time to buy a house. In addition, prices have been going up in Amsterdam and Utrecht at a slower rate since mid-2017. In view of this, our projections assume that price increases will initially accelerate somewhat in 2018, to reach 9.5%, before slowing down to 6.6% in 2019 and 3.6% in 2020.

## Budget surplus to last

The budget surplus (EMU balance) for 2017 amounted to 1.1% of GDP. This is the highest level since 2001. Our projections show a slight decrease to 0.5% in 2018, followed by 0.8% in 2019 and 0.4% in 2020. The structural balance remains above the European target of -0.5% of GDP (see Table 3).

Public expenditure as a percentage of GDP is set to decrease on balance over the projection horizon, in spite of additional public spending, including on education and defence. In part, this is caused by the lower interest burden and unemployment benefits. Tax revenues will go up through 2019 on the back of the cyclical upswing and measures aimed at raising taxes and contributions, including VAT and energy tax. In early 2020, the government plans to lower taxes and contributions on balance, including gradually reducing corporate and personal income tax rates.

Public debt is set to shrink to 47.1% of GDP in 2020 from 56.7% in 2017. The decline will be largely driven by budget surpluses and economic growth, and some additional factors including the further reduction of the government holding in ABN AMRO.

## Table 3 Public sector key data

Percentage of GDP

	2017	2018	2019	2020
Public expenditures	42.5	43.0	43.0	42.7
Taxes and social security contributions	39.0	39.2	39.4	38.9
Other income	4.6	4.3	4.3	4.2
Primary balance	2.1	1.4	1.6	1.2
EMU balance	1.1	0.5	0.8	0.4
Structural balance (EC method)	0.6	0.0	0.0	-0.1
EMU debt	56.7	53.4	49.9	47.1

Source: DNB.

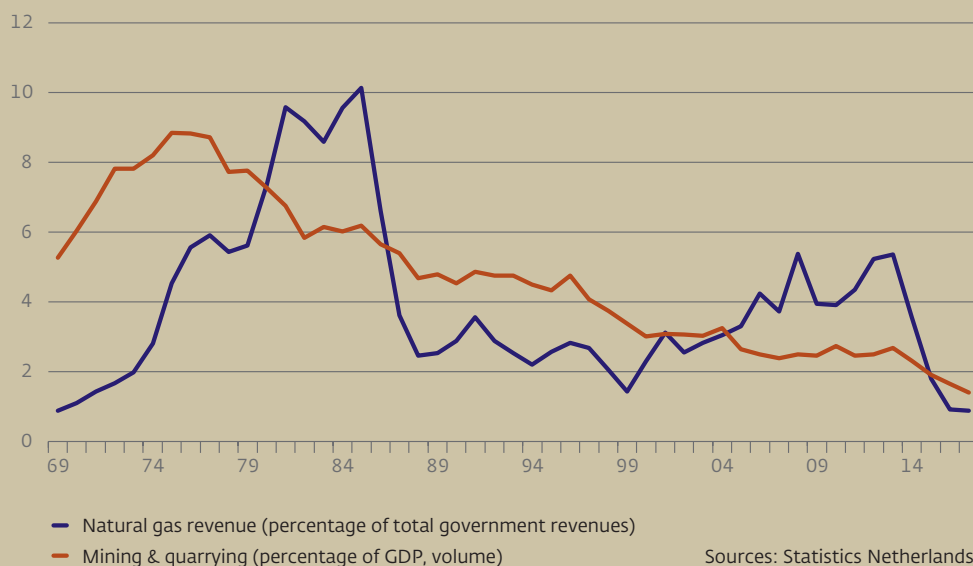
### Box 2 Economic consequences of reduced gas production will be limited

The Dutch cabinet has decided that natural gas production in the province of Groningen must be reduced to below 12 billion cubic meters a year by 2022, which is half the volume produced in 2017. With output from other fields expected to diminish, total gas production will come to a virtual standstill over the next two decades. This will bring an end to the positive boost from gas production to public revenues and GDP since 1960. The Netherlands Court of Audit (2014) established that proceeds from gas production were roughly EUR 265 billion by the end of 2013. Between 1969 and 2017, the annual GDP share of mining & quarrying, of which 90% was gas production, averaged 4.7% in real terms.

Even so, the economic consequences of cutbacks in gas production will be limited over the projection horizon. Gas production has become substantially less important over the years. Production almost halved between 2013 and 2017, from 82.4 billion cubic meters to 43.9 billion cubic meters. Over the same period, gas revenue declined from 5.4% to 0.9% of public revenues, and the share of mining & quarrying in real GDP dropped from 2.7% to 1.4% (see Figure 13). Lower gas production in Groningen is expected to depress real GDP growth by 0.1 percentage points annually between 2018 and 2020. This effect will be due mainly to lower net gas exports, meaning that phasing out gas production will also slightly dampen the Dutch current account surplus. Production cutbacks should only have a limited impact on the Dutch government budget.

Figure 13 Natural gas revenue, and mining & quarrying

Percentages



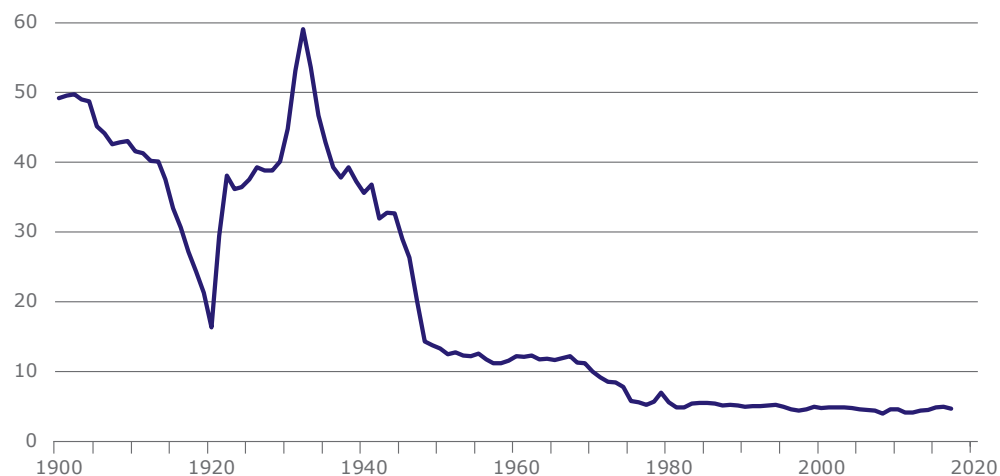
### 3 Escalating trade conflict: an alternative scenario

Intensifying international protectionism poses a major threat to the global economy, as a wave of trade restricting measures is bound to put a drag on world trade growth and darken the global economic outlook. An escalating trade conflict between the United States and other countries will cause mounting financial insecurity and declining confidence, and it could affect the open Dutch economy disproportionately. Since the beginning of 2018, the US administration has taken a range of restrictive trade measures to protect the domestic corporate sector. While they initially involved import duties imposed on various products from China, the United States recently decided to impose import tariffs on other trade partners, including the EU. Both China and the EU took retaliatory actions. The imminent danger is that these measures and countermeasures touch off a spiral of escalation in the trade conflict. Import duties are not a new element in international trade politics. Figure 14 illustrates the average US import tariff imposed since the start of the 20th century. A striking feature is the huge tariff peak at the start of the Great Depression, which marks the adoption of the Smoot-Hawley Tariff Act in 1930. The act triggered a chain reaction of mutual tariff increases, culminating in disastrous consequences for the global and US economies.

This section illustrates the impact which increased protectionist tendencies in international trade could have on the Dutch economy. Although just over 4% of all Dutch goods exports were destined for the United States in 2017, the Dutch economy could suffer considerably as a result of US protectionist policies through indirect adverse trade effects on other countries.<sup>3</sup>

**Figure 14 US import tariffs**

Percentages, average import duty rates



Source: U.S. Department of Commerce.

<sup>3</sup> Furthermore, higher trade tariffs could distort international production chains, for instance due to inefficient cross-border labour distribution.

**Table 4 Assumptions about trade conflict of US versus China and EU**

Percentage deviations from baseline scenario, unless stated otherwise

	2018	2019	2020
<b>For the United States</b>			
Tariff on Chinese and EU imports	5	10	10
Gross domestic product	-0.2	-1.0	-1.3
Private consumption	-0.1	-0.8	-0.9
Business investment	-0.9	-3.6	-3.8
Exports of goods and services	-0.2	-2.7	-4.1
Imports of goods and services	-0.6	-3.1	-3.4
Real disposable household income	-0.2	-0.6	-0.6
Private consumption deflator	0.3	1.2	1.6
Unemployment (% of labour force)	0.1	0.2	0.2
Long-term interest rate (level)	0.0	0.0	-0.1
Short-term interest rate (level)	0.3	0.5	0.2
<b>For China and EU</b>			
Tariff on US imports	2.5	10	10
<b>International</b>			
Risk premium, globally (bps)	50	100	100
Producer confidence, globally (%)	-10	0	0
<b>For the Netherlands</b>			
Volume of relevant world trade	-0.5	-2.4	-3.0
Euro exchange rate (USD, level)	-0.3	-0.3	0.0
Competitor prices	0.3	2.2	2.4
Equity prices	-8.5	-16.1	-15.2

Sources: DNB and ECB.

Notes: Results for the United States and assumptions for the Netherlands are based on NiGEM. GDP, expenditure components and global trade are in real terms.

Not included in this alternative scenario is the long-term impact which restrictive trade policies will have on labour productivity. After all, protecting domestic markets will enable less productive domestic businesses to survive, resulting in higher costs and prices, less innovation and lower average productivity.

The scenario assumes the United States implements a 10% import tariff for all goods and services imported from China and the EU from the third quarter of 2018 onwards. In retaliation, both impose an identical 10% tariff on all goods and services imported from the United States, with a three-month delay. The scenario also includes the budgetary impact of these measures.<sup>4</sup> In addition, it is not unlikely that an escalating trade conflict causes turbulence in financial markets, which is why we have assumed risk premiums to go up by 100 basis points globally, driving up the cost of finance for businesses. This is accompanied by falling equity prices and declining producer and consumer confidence (see Table 4). By comparison, during the Lehman crisis in the fourth quarter of 2008, risk premiums in the United States went up more than 200 basis points, the S&P 500 fell over 25% and producer confidence in the EU decreased around 30%.<sup>5</sup> Most of the economic impact will be felt in 2019 and 2020.

With US products becoming more expensive in the world market, US exports will drop sharply (see Table 4). Higher import prices will send inflation higher and erode the purchasing power of US consumers. Lower purchasing power and steeply declining equity prices will depress consumer spending in the United States. Similarly, corporate investment will be significantly revised downwards due to the decline in economic activity. Ultimately, US real GDP will be 1.0% below our baseline projection in 2019 and 1.3% in 2020. The sharply lower US expenditure and higher import prices across the globe will have immediate negative effects on other countries' import and export volumes. Higher prices, lower private consumption and sluggish corporate investment will weigh down economic growth around the world. The volume of world trade relevant to the Netherlands will suffer a major blow and end 3.0% below the baseline projection in 2020.

The lower volume of relevant world trade will send export volumes of Dutch goods and services lower (see Table 5). Sluggish demand, mounting capital costs and falling confidence will depress business investment. Economic growth in the Netherlands will suffer drops of 0.8 percentage points in 2019 and 0.5 percentage points in 2020, causing unemployment to end 0.8 percentage points higher than projected in 2020. Lower real disposable incomes, negative wealth effects caused by lower equity prices, and higher unemployment will depress consumer spending. Although import prices will go up, their effect on inflation will be limited due to loss of demand and lower wages. The Dutch EMU balance will hold up, as additional revenues from import duties largely cancel out reduced tax revenues caused by the worsened economic conditions.

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4 We have assumed that any net revenues of import tariffs are gradually fed back into the economy, both in the United States and in other countries, through what is known as a "fiscal solvency rule". We have also assumed that monetary policies are pursued and that economic agents model their forecasts rationally (forward-looking forecasts). The scenario was simulated using the global NiGEM model and DNB's macroeconomic model DELFI. Due to the complexity of the scenario, the results should first and foremost be considered as an illustration of the impact that will occur.

5 Producer confidence, as measured by the European Commission's Economic Sentiment Indicator, will show a one-off 10% decline in the third quarter of 2018, with an immediate impact on investment.

**Table 5 Impact of trade conflict of US versus China and EU on Dutch economy**

Percentage changes, unless stated otherwise

	Deviation from 2018 projection		Deviation from 2019 projection		Deviation from 2020 projection	
Gross domestic product	2.3	(-0.2)	1.4	(-0.8)	1.4	(-0.5)
Private consumption	2.9	(-0.1)	1.3	(-0.8)	1.1	(-1.0)
Business investment	3.5	(-0.7)	-0.2	(-3.1)	0.7	(-1.6)
Exports of goods and services	3.5	(-0.5)	2.5	(-1.8)	2.8	(-0.7)
Imports of goods and services	4.7	(-0.5)	2.9	(-2.0)	2.9	(-1.0)
Negotiated wages, private sector	2.1	(0.0)	2.5	(-0.1)	2.8	(-0.3)
Harmonised consumer price index	1.1	(0.0)	2.6	(0.1)	1.8	(0.1)
Unemployment (% of labour force)	3.8	(0.0)	3.9	(0.4)	4.4	(0.8)
EMU balance (% of GDP)	0.6	(0.1)	1.0	(0.2)	0.4	(0.0)

Source: DNB.



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