Dutch Economy Chart Book

Maintaining growth momentum

ING Economics Department

Amsterdam • January 2018
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After a record breaking formation process that took 209 days, the Netherlands installed a new four-party government, with Prime-Minister Mark Rutte starting his third term. In the meanwhile, the Dutch economy was pacing on steadily. The Dutch economy is forecast to outpace the Eurozone for the fourth year in a row. Dutch GDP expanded by 2.2% in 2016, 2017 is expected to come in at 3.2% and for this year our forecasts pencil in 2.9%.

Despite geopolitical uncertainty (Brexit, protectionism), export order books continue to look very healthy. Re-exports and domestically-produced exports are both performing well and are forecast to continue to do so, facing only some slowdown due to politically imposed gas production limits.

Profits of non-financial businesses are rising, but the profit ratio on domestic activity still has a lot of ground to cover to the 2008 level. The number of bankruptcies is at the level last seen in 2000. The investment rate of businesses has already approached 2008 levels and is expected to rise further. All non-financial business sectors except construction produce more than before the crisis.

Consumers are set to increase their spending further. Confidence is high. Disposable income is rising, helped by the stronger labour market.

Meanwhile, the housing market will be contributing somewhat less to the economic recovery, but the number of house sales will remain high and prices continue to rise. Supply is running dry, especially in large cities. Price-to-income ratios are on the rise again, but nowhere near precrisis levels.

The economy has only just about reached its potential output. Unemployment is falling rapidly, but there is still hidden slack in the labour market. The labour participation rate has still room to bounce up and wage growth has still only been moderate. Nevertheless, firms are increasingly reporting shortages of workers as main factor limiting production, especially in IT services.

Inflation has been rather moderate in 2017 and is expected to increase only a little in 2018. It might take a while longer before starting labour market pressures feeds into significantly higher inflation rates.

Government finances are improving benefitting from the economic recovery. The budget already showed a surplus in 2016 and debt dropped below 60% in 2017. Public finances would have turned out even brighter if the new government had not decided on an (pro-cyclical) fiscal expansion.
## ING forecast table – The Netherlands

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<td><strong>Demand and output</strong></td>
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<td>-0.1</td>
<td>0.3</td>
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<td>1.2</td>
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<td>-4.2</td>
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<td>6.7</td>
<td>5.4</td>
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<tr>
<td>of which private</td>
<td>7.8</td>
<td>-6.2</td>
<td>-4.6</td>
<td>3.4</td>
<td>12.3</td>
<td>6.5</td>
<td>8.4</td>
<td>5.7</td>
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<td>Net exports (%-point contribution to GDP)</td>
<td>0.9</td>
<td>1.1</td>
<td>1.0</td>
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<td>-0.6</td>
<td>0.6</td>
<td>1.1</td>
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<td><strong>Labour and housing market</strong></td>
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<td>Employment (in hours worked)</td>
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<td>-0.9</td>
<td>0.7</td>
<td>0.6</td>
<td>2.0</td>
<td>2.0</td>
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<td>Unemployment (% of labour force)</td>
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<td>5.8</td>
<td>7.3</td>
<td>7.4</td>
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<tr>
<td>House prices</td>
<td>-2.4</td>
<td>-6.5</td>
<td>-6.6</td>
<td>0.9</td>
<td>2.8</td>
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<td>3.9</td>
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<tr>
<td>Existing home sales (in 000s)</td>
<td>121</td>
<td>117</td>
<td>110</td>
<td>154</td>
<td>178</td>
<td>215</td>
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<td><strong>Government finances</strong></td>
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<tr>
<td>Government budget (% of GDP)</td>
<td>-4.3</td>
<td>-3.9</td>
<td>-2.4</td>
<td>-2.3</td>
<td>-2.1</td>
<td>0.4</td>
<td>0.7</td>
<td>0.5</td>
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<tr>
<td>Government debt (% of GDP)</td>
<td>61.6</td>
<td>66.3</td>
<td>67.8</td>
<td>68.0</td>
<td>64.6</td>
<td>61.8</td>
<td>57.4</td>
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<td><strong>Prices and rates</strong></td>
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<tr>
<td>Inflation (HICP)</td>
<td>2.5</td>
<td>2.8</td>
<td>2.6</td>
<td>0.3</td>
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<tr>
<td>Euribor, 3 month (% eop)</td>
<td>1.4</td>
<td>0.2</td>
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<td>-0.3</td>
<td>-0.3</td>
<td>-0.3</td>
<td>0.1</td>
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<tr>
<td>Dutch gov't bond yield, 10yr (% eop)</td>
<td>2.2</td>
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<td>2.2</td>
<td>0.7</td>
<td>0.8</td>
<td>0.4</td>
<td>0.6</td>
<td>0.9</td>
<td>1.2</td>
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</tbody>
</table>

* Not adjusted for working days

Forecasts as of 14 December 2017 (interest rates as of 1 December, 2017)
Dutch economy continues to outpace Euro area ‘core’

From growth laggard to leader
Gross domestic product, volume, change year-on-year, in %

No more drag from housing
In 000s

...and austerity turned to stimulus
Net budget effect of Rutte III agreement

Including negative gas effect on growth (-0.4ppt)
Domestic demand is the key growth engine

Strong growth trend in GDP per capita
Index, 2008 = 100

Domestic demand remains growth engine
Contribution to GDP growth, in percentage points

Forecast

GDP per capita

Private consumption
Government expenditures
Private investment (incl. stocks)
Exports (net)
Output gap closed, but no considerable overheating yet

Growth is above trend and economy only just above potential in 2018

Change year-on-year, in % (lhs)  
Difference between actual and potential GDP level, in % of potential GDP (rhs)
Exports

- Despite stagnating world trade growth in 2015-2016, the volume of Dutch exports continued to increase steadily. The weakness in world trade was largely driven by emerging markets, but that’s not the main Dutch export destination. Relevant world trade maintained its steady pace and continued to do so in 2017. Exports from the Netherlands are heavily focused on developed markets in Europe and the US, which recovered further in 2017. Hence, Dutch exports outperformed world trade for a number of years, although recent figures suggest that this trend might have come to an end.

- Re-exports have posted the strongest growth, but exports of domestically-produced goods have expanded well too. Despite the recent appreciation of the euro, the competitiveness of the Netherlands improved in recent years. Internationally, the Dutch national savings and current account surplus are still very high. Strong order positions point to further growth in the coming months.

- In nominal terms, the export growth was subdued in the past few years. This was caused by low commodity prices. The recent movements in oil prices has pushed the current account balance back up. Income on Dutch FDI is tightly linked to oil revenues. All in all, nominal exports were on the rise again in 2017.

- Between 2013 and 2016, Dutch exports of energy products declined by more than 50%, as the result of a shift in the gas production policy. Exports of high-tech products offset part of the decline in energy exports. Going forward, additional pressure on Dutch exports comes from the government’s decision to further lower the maximum allowed gas production in the Northern Province Groningen. Unless 2018 turns out to be a very hot year, the 10% reduction in production leaves less gas for foreign markets and will lead to higher energy import.

- Although it might be more relevant some years further down the road, Brexit is still a considerable risk to the export outlook. In value added terms, the UK accounts for 8% of Dutch exports. So, a slowdown of the British economy will not go unnoticed.
A very competitive economy: Dutch are ranking high

<table>
<thead>
<tr>
<th>Index</th>
<th>Position in 2010</th>
<th>Current rankings from 2016 or 2017. *The somewhat lower rank in Ease of Doing Business is i.a. due to strict spatial planning, a lack of an elaborate public credit registry and high cost of litigation.</th>
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<td>WEF Global competitiveness Index</td>
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<td>Global Innovation Index</td>
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<td>Network Readiness</td>
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<td>Global Enabling Trade Report</td>
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<td>Logistics Performance Index</td>
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<td>Ease of Doing Business*</td>
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<td>Corruption Perceptions</td>
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<td>Human Development</td>
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<td>Prosperity Index</td>
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Current rankings from 2016 or 2017. *The somewhat lower rank in Ease of Doing Business is i.a. due to strict spatial planning, a lack of an elaborate public credit registry and high cost of litigation.
Main trading partners of the Netherlands

**Imports**
Share, turnover

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Germany</td>
<td>18%</td>
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<tr>
<td>Belgium</td>
<td>10%</td>
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<tr>
<td>China</td>
<td>9%</td>
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<tr>
<td>France</td>
<td>8%</td>
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<tr>
<td>UK</td>
<td>6%</td>
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<tr>
<td>Russia</td>
<td>4%</td>
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<td>Italy</td>
<td>4%</td>
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<tr>
<td>Spain</td>
<td>2%</td>
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<td>Denmark</td>
<td>2%</td>
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<td>Switzerland</td>
<td>2%</td>
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</tbody>
</table>
Almost €600 billion of Dutch exports in year

Mostly goods, but more than a quarter now consists of services
In billions of euro

Goods (73%)

78 57 79 76 135 160

Services (27%)

Agri exports are dominated by domestically produced goods, high-tech is mostly re-exports
Share of domestically produced goods in exports, per category

agri  energy  chemicals  low/mid-tech  high-tech
Strong export performance

Recent pick-up in nominal exports, after long ‘flat’ period
Per month, in € billion, seasonally-adjusted

Strong increase in high-tech, rebound in energy exports
Per month, in € billion, seasonally-adjusted

- Total monthly exports, goods
- Agri
- Chemical
- High-tech
- Energy
- Low-/mid-tech
Oil price moves current account surplus up and down

Current account surplus down and then up again
% of GDP, seasonally-adjusted

Income balance dominated by “Shell-effect”
% of GDP €/barrel

Oil prices have impacted Shell’s revenues, and thus income on Dutch FDI

Exports
In volume terms, Dutch exports have outpaced world trade

Dutch exports rose faster than world trade volume
Index, 2010 = 100, seasonally-adjusted

Sharp rise in re-exports, recent minor slowdown in ‘made in NL’
Index, 2014 = 100, seasonally-adjusted

Exports of goods, constant prices, Netherlands
Re-exports volume, the Netherlands
Domestically-produced exports volume, the Netherlands
Risk: NL could be hit relatively hard by Brexit

Sensitivity to UK: NL ranks third within EU
% of total added value dependent on demand from UK

Dutch sectors that are most exposed to the UK

- Wholesale
- Transport
- Industry
- Business services

Exports
For now, exporters are still very positive on outlook

Industrial export order books are continuing to fill up

Index

Base case: steady growth in main export markets
Change year-on-year, constant prices, in %

NEVI/Purchasing Managers’ Index – export orders

Merchandise exports, the Netherlands

Industrial production in main Dutch export markets*

* Proxied by Eurozone, UK, US and China. Approximate share in Dutch exports used as weights.
International competitive position has improved

Since mid-2017, euro up against USD and slightly against GBP

Currency per euro

Dutch competitiveness has, on balance, improved since 2008

Index, Q1 1999 = 100, an increase means worsening of price competitiveness
Non-financial businesses

- In 2017 all major market sectors increased their production levels further.
- Most sectors have recovered to precrisis levels. Main exception is the construction sector, which is still some 4% smaller than in 2008. The gas sector (35% below 2008) was hit by the decision to lower the maximum allowed production in 2015. In 'gas year' 2017-2018 and years ahead, the production will be lowered further.
- The financial situation of companies is improving. The number of bankruptcies has dropped back to levels last seen in 2000. Pre-tax profits of non-financial companies hit a record high at the start of 2017. These numbers are, however, skewed by income from foreign affiliates. The gross operating surplus – which excludes FDI income – paints a clearer picture of profitability in the Dutch domestic market. The profit ratio – operating surplus as % of valued added – has improved too, but it's still below 2008 levels.
- Indicators show that the economic recovery is gaining a firmer foothold among SMEs. Smaller firms now also report higher profitability, but their growth lags that of larger companies.
- Investment levels have increased strongly in recent years. Private investment (as a percentage of GDP) excluding dwellings is close to its previous peak. The combination of higher output levels and rising profits induces companies to continue to step up investment, but at a slower pace than in previous years. Spending on vehicles and machines is just surpassed 2008 levels, while ICT- and R&D-related investment is even 38% higher, mainly driven by investments in software.
- Credit conditions improved while credit demand is no longer falling.
All sectors, bar construction and gas, have recovered to 2008 levels

Goods-producing sectors: mixed picture
Output, index, 2008 = 100

Commercial services: trending up

Public services: stable

Gov’t has lowered maximum allowed gas production

* No quarterly data available
Higher profits for non-financial companies

Total profits (incl. foreign affiliates) in euro's at a record high, but...
In euro billions, seasonally-adjusted

...margins on domestic operations still average
Gross operating surplus as percentage of gross value added

Pre-tax profits of Dutch non-financial companies
Profits of foreign affiliates of Dutch non-financial companies
Recovery is filtering through to smaller firms

SMEs: more confidence and improved finances
Net % of firms reporting improvement (+) or deterioration (-), NSA

Positive trend in profitability, also among SMEs
Net % of firms reporting higher (+) or lower (-) profitability in last 3 months
Much fewer bankruptcies

Number of bankruptcies at multi-year lows
Per month, seasonally-adjusted

Bankruptcies per month

Declines in all sectors, strongest in com. services and trade
Bankruptcies per month, 6M moving average

Business
Business investment rate has recovered, construction not yet

Total investment rate recovering, private investment near peak...

As % of GDP

...helped by trend in ICT investments and recovered equipment

Index, 2008 = 100
Further investment growth, but at slower rate

Manufacturing expects to invest more...since need for extra capacity has went up
% change in fixed investment

Growth in comm. services normalises
Index, dev. from LT-average  Change YoY, in %

Business confidence services (lhs)
Investment volume com. services excluding retail and wholesale (rhs)

Expected increase in investment manufacturers
Actual investment manufacturers

Industrial firms reporting shortage of materials and/or equipment as main limit to production

Business
Demand for bank credit stable

Credit standards have been eased slightly
Net percentage of banks reporting tighter (+) or eased (-) standards

Credit demand stable, some pick up among SMEs
Net percentage of banks reporting stronger (+) or weaker (-) demand
Consumers

- Spending power has risen strongly in the past few years, helped by more jobs, higher wages and low inflation. Not all households reacted by boosting their spending at an equal rate. Part of the income increase was put aside or used to pay down on mortgages. Spending power will continue to rise due to the economic momentum and fiscal stimulus.

- Debt is still rising, but at a much lower rate than previously. Households are deleveraging the ‘soft’ way (also see slide 57). Total net wealth of households has hit the highest level ever recorded. However, most of the increase is in non-liquid assets, such as pension assets and housing wealth. Some but not all of the lost housing wealth has recovered. As the result of pension policies ensuring the continuation of contributions and the increase in the statutory pension age accumulated pension wealth continued to increase during the crisis and has never been higher. Yet, also pension liabilities increased.

- Confidence is high among consumers. The increase in confidence is most prevalent among younger people. Consumers are above-average optimistic about the general economic climate and willingness-to-buy is also high now. Consumers currently view it a very good time to make large purchases.

- As a result of the strong confidence in combination with increasing income, households are stepping up their spending pace. Spending on both goods and services is rising. Within the goods category, electronics are the standout. The long lagging housing-related spending is now also finally starting to pick up, while the recovery in home sales took off much earlier. While all durables are clearly on the rise, the recovery in car sales has remained muted compared to prior to the crisis. Consumption of hospitality & recreation services as well as food rose above precrisis levels.
Consumers confidence strikes post-crisis high

Consumer confidence highest in 9 years

Especially younger people are full of confidence
More spending power on the back of recovery and public spending

Purchasing power is rising due to recovery and policy
Change year on year, in %

Increase in overnight deposits points to higher spending
Inflation-adjusted index, 2010 = 100

- Static
- Dynamic (adjusted for changes in type of income)

- Overnight deposits, total balance of households (3M lead)
- Non-food retail sales, excluding fuel
Private consumption growth is steaming ahead

Increased spending on both goods and services
Private consumption by type, volume index, 2008 = 100

Breakdown of consumer spending, 2016
% of total

€311 billion
(100%)

- Housing: 57%
- Hospitality & recreation: 22%
- Transport & comm.: 14%
- Health: 6%
- Financial: 4%
- Other services: 4%
- Food: 15%
- Beverages & tobacco: 17%
- Clothing: 6%
- Electronics: 4%
- Furniture: 4%
- Vehicles: 6%
- Energy & water: 4%
- Other goods: 4%
- Durable goods: 4%
- Food, beverages & tobacco: 15%
- Other: 4%

Private consumption growth is steaming ahead. Increased spending on both goods and services.

Consumers
**Consumer spending trends: pickup in durables**

**Services: more on housing and health**
Index, constant prices, 2008 = 100

**Electronics surge, food edging higher**

**Durables: cyclically-driven uptrend in clothing and housing-related**
More and more online

Double-digit rise in online sales volumes
Retail sales volume, change year-on-year, in %

Number of web shops up, traditional stores down
In thousands

- Consumers
Income has increased slightly faster than spending

Household income has increased faster since 2014...

Income > spending = higher saving rate

...leaving ‘free' savings rate in positive territory

% of disposable income

-4 -2 0 2 4 6 8

2002 2007 2012 2017

In billions of euros

Total household disposable income
Consumer spending

Free savings (income less spending)
Mandatory savings (pension premiums less payouts)

Positive saving rate = increase in wealth

forecast

Consumers
Households are taking up much less debt

For a long period, debt increased much faster than liquid assets, but that has changed

In billions of euros

For a long period, debt increased much faster than liquid assets, but that has changed.

Change in financial assets, excluding pensions (i.e. bank accounts, stocks, bonds, etc.)
Change in net financial wealth (excluding pensions)
Change in debt (mostly mortgages)

Line shows changes in wealth due to financial transactions (price/valuation change are excluded)
Total net wealth increased further during crisis

Total net wealth at record high
In billions of euros

Increase in pension assets has offset temporary decline in housing wealth
In billions of euros

- Non-financial wealth (mostly dwellings and land)
- Other financial assets
- Insurance and pension entitlements
- Debt

In billions of euros

Consumers
Labour market

- Employment growth has maintained its high pace in recent quarters. The number of people employed is now much higher than it was when the crisis hit the economy. In terms of total hours worked, the labour market has bounced up even stronger.
- Leading indicators point to further employment growth. The indicator of the number of unfilled vacancies is the highest since early 2009, but it is not yet as high as before the crisis.
- Sector-wise, temporary job agencies have been the largest contributor to the increase in jobs. Nevertheless, also the number of fixed contracts finally started to grow with considerable numbers in 2017 Q3.
- The public sector (incl. health) and construction sector started hiring again. That is a positive development, after many years of low employment in these sectors.
- The unemployment rate is falling rapidly and has already passed its long term average. All age groups show a decline.
- Despite the strong improvement in the labour market, there is no sign of serious overheating yet. Wage growth is moderate and there is more slack in the labour market than the unemployment data suggests. In addition to the near 400k unemployed, there appears to be potential labour supply of at least about 300k men and women if participation rates were to return to pre-crisis levels. Nevertheless, the share of businesses reporting a shortage of workers as factor limiting activity has started increasing, in industry, construction and most of all the IT sector.
- Since the start of the crisis, the gross participation rate has declined and not fully recovered. The decline in labour market participation has been strongest amongst males of 25 to 45 years old. Before the crisis, there was a very strong uptrend in participation.
- The number of persons unemployed per vacancy went from 7 in 2013 to 2 in 2017. This signals tightening of the labour market.
Employment is rising

Number of jobs strongly increasing, in hours worked even faster

1995 vs 2016: more jobs in services
Share in total employment, in %

- Total employment, number of employees and self-employed people (lhs)
- Employment in total hours worked (rhs)
More work in fixed contracts

Number of fixed contracts increasing at substantial pace
Contribution to quarterly change in labour force, in percentage points, seasonally adjusted

Job growth driven by commercial services, public hiring again
Contribution to yearly change in employment, in percentage points

- Total employed labour force
- Employee, fixed
- Self-employed w/o pers. ("zzp")
- Employee, flex
- Other (e.g., self-employed with employees)

- Public
- Industry
- Construction
- Trade/transport
- Temp agencies
- Other sectors (e.g., business services, IT, finance, real estate)
Leading indicators point to further job growth

Consumers and firms have positive employment expectations
Index, standardised

Unfilled vacancies and temp hours are rising
Index
Quarterly change, in %

- Businesses’ employment expectations* (lhs)
- Consumers’ unemployment expectations (rhs, inverted)
- Vacancy indicator (left)
- Temp hours worked (right)

* Weighted average of manufacturing, construction, retail and services
Steady drop in unemployment while below long term average

Unemployment still markedly above previous lows
Share of unemployed in labour force, in percentage

Lower unemployment in all age groups
Share of unemployed in labour force, in percentage

- Unemployment rate (harmonised)

- Aged 15-25
- Aged 25-45
- Aged 45+
Labour market is getting tighter

Number of unemployed persons per open vacancy has fallen significantly, but not yet as low as in 2008

Ratio of number of unemployed persons and number of unfilled vacancies
Labour shortages more prevalent

Percentage of firms reporting shortage of workers (note: charts do not have same axes)
Lower labour participation points to ‘hidden’ potential supply

*Potential* labour force has outpaced *actual* labour force

Index, 2009 = 100

Since start of crisis, participation rate has, on balance, fallen

Actual labour force as percentage of potential labour force aged 15-74

Reasons for withdrawal:
- Discouraged
- Study/re-training
- Care-taking
- Sick/disability

<table>
<thead>
<tr>
<th>Year</th>
<th>Potential labour force (aged 15-74)</th>
<th>Actual labour force (aged 15-74)</th>
<th>Gross labour participation rate, aged 15-74</th>
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<td>2017</td>
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Extra potential labour supply of around 300k people

**Male participation rate has dropped**
Actual labour force as percentage of potential labour force aged 15-74

![Graph showing男 participation rate has dropped](image)

150K extra men if participation returned to 77%
Number of males active (and potential) on the labour market, in millions

![Graph showing 150K extra men if participation returned to 77%](image)

**Strong upward trend in female participation rate stalled**
Actual labour force as percentage of potential labour force aged 15-74

![Graph showing strong upward trend in female participation rate stalled](image)

150K extra female if participation rose to 68% based on trend
Number of females active (and potential) on the labour market, in millions

![Graph showing 150K extra female if participation rose to 68% based on trend](image)
Inflation

- Headline consumer price inflation (CPI) fell in the first half of 2017 on the back of decreasing core inflation. Core inflation showed a similar but less volatile pattern. In the second half of 2017, both CPI and core inflation remained rather flat, ending the year only slightly higher. CPI increased somewhat in the second half of 2017 due to increasing energy and fuel prices.

- Wage grew, but at a modest pace in 2017. Underutilisation of the economy, such as hidden unemployment, kept a lid on the increase in core inflation. Inflation excluding food and energy remained at 0.8% on average in 2017.

- The European harmonised inflation measure (HICP), which excludes the cost of owning a home, rose at similar pace as CPI in recent months, after a period of lagging behind CPI.

- Inflation expectations among businesses remained flat for the next three months to come. In contrast, consumers expect hefty increases in the twelve month ahead, most likely anticipating the intended increase in the low-VAT rate from 6% to 9% in January 2019.

- After 1.4% in 2017 on average, headline consumer price inflation is set to rise only a little to 1.5% in 2018, which hides an underlying pattern of increasing monthly inflation rates partially due to moderate labour market tightening. Core inflation is forecasted to edge up to 1.2% in 2018. HICP is forecast to rise from 1.3% in 2017 to 1.6% in 2018.
Inflation expectations increasing among consumers

Inflation is creeping higher from low levels...
% year-on-year

...and consumers expect a considerable increase anticipating VAT-hike
Net % of respondents
Inflationary pressures are building only slowly

Commodity price increases could to feed through...

Change year-on-year, in %

...and hourly wage costs rising at moderate but increasing pace

Change year-on-year, in %

- Energy
- Raw materials
- Agricultural
- Metals & minerals
- Manufacturing
- Commercial services
- Construction
- Non-commercial services

Catch-up after period of wage freeze
Rising core inflation will push headline inflation upwards

Headline inflation was rather stable, but is forecasted to increase

Contribution to consumer price inflation, in percentage points
Housing market

- The housing market has been an important driver of economic activity during the crisis. Since the trough of 2013, the economy has expanded by 10%. The pick-up of the housing market explains more than a quarter of this recovery and more than half of the growth in private consumption. Investment in dwellings has surged 74%, benefitting builders, industry and DIY stores. The number of home sales has more than doubled between 2013 and 2017. Estate agents, surveyors, notaries, lenders, mortgage advisors and furniture shops reap the benefits of this.

- Home buying activity hit a new record high in 2017 and this has pushed supply of existing homes to very low levels. Currently, existing supply is only four times as large as the number of monthly transactions.

- Regionally, all provinces have shown double-digit increases in home sales since the low point of 2013. In regions where the population is ageing faster, the increase has been held back. Meanwhile, in large cities, the very low supply has already led to fewer transactions, but the level of transactions is still high.

- Demand for housing remains strong in the years ahead, as the result of the strong growth momentum, record high confidence and further down the road fiscal boosts to disposable income. New supply is not enough to counter foreseen household growth. The mixture of strong demand and low supply warrants further house price increases. In 3Q17, prices rose on average by close to 8% YoY. Compared to pre-crisis levels, most regions have room for further increases. Nationwide, in November 2017 prices were still 4% below the 2008 peak. The largest cities lead the price increases. In Amsterdam, prices are already over 25% above the previous peak, but there the foundation for significant price increases is eroding.

- Housing affordability has already started to weaken on average, but it remains favourable compared to 2008 levels. Price-to-income levels are on the rise, but not anywhere near the levels as in the Netherlands in 2008.
Home buying activity still near record levels

Housing market sentiment still strong...
Index, 2008 = 100

...keeping homes sales close to record high levels
Monthly sales, seasonally-adjusted, in thousands

- **Housing Market Indicator VEH (homeowners’ association)**
- **Google searches for ‘hypotheek’ (= mortgage)**
- **Existing homes**
- **New homes**
Affordability has started to weaken, but still better than in 2008

Housing affordability has deteriorated slightly
After-tax mortgage cost as % of income, directly after purchase*

Mortgage rates have edged higher from historic low levels
In %, by fixed interest duration

* Using average house price and average household income. Since 2013, interest on new mortgages is only tax deductible for ammortising mortgages.
Broad-based surge in home sales, but main urban areas lose steam

North & east: trend is still up except for Groningen
Index, 2013 = 100

South & west: fewer sales in Randstad
Index, 2013 = 100

Friesland
Groningen
Drenthe
Overijssel

Noord-Holland
Utrecht
Zeeland
Limburg

Noord-Brabant
Zuid-Holland

Gelderland
Flevoland

Fall in sales in Utrecht and N-Holland (A'dam)
Supply is becoming tighter

Unsold existing supply at pre-crisis lows...
Available housing supply versus monthly rate of sales, in months

...while new supply picked up slowly from record lows
In 000s

Total building permits
Historical house price trends

In real terms, Dutch house prices are still significantly below the last peak

Index, adjusted for consumer price inflation, 1970 = 100
Large cities lead house price recovery

Northern & eastern provinces
Index, 2008 = 100

Western & southern provinces

Largest cities

The Hague
Amsterdam
Rotterdam

Housing

Groningen
Friesland
Overijssel
Flevoland
Gelderland
Flevoland
Noord-Holland
Zeeland
Noord-Brabant
Zeeland
Noord-Holland
Zeeland
Noord-Brabant
Western & southern provinces

Amsterdam
The Hague
Rotterdam
National average

Groningen
Friesland
Overijssel
Flevoland
Gelderland
Flevoland
Noord-Holland
Zeeland
Noord-Brabant
Zeeland
Noord-Holland
Zeeland
Noord-Brabant
Western & southern provinces

Amsterdam
The Hague
Rotterdam
National average

Amsterdam
The Hague
Rotterdam
National average
House price-to-income ratio increasing again

Price-to-income in Sweden and the UK far above long-term average, NL and Denmark somewhat

House price-to-income, deviation from long-term average, 1980-2016 = 100
Measures have been taken to curtail mortgage debt growth

- Households are only allowed to deduct interest payments on the mortgage up to a maximum period of 30 years.
- Interest payments resulting from mortgage equity withdrawal cannot be included in the tax deduction.
- Intro. code of conduct (cost of living ratios, reference rate for mortgage with interest rate <10yr)
- 2001
- 2004
- 2007
- 2011
- 2013
- 2014
- 2020
- Maximum interest deductibility lowered in steps of 3%-points from 49% in 2019 to 36,93% in 2023
- Tightening code of conduct (max 50% interest-only)
- Interest on new mortgages only tax deductible for amortising mortgages (annuity/linear mortgage)
  - Max loan-to-value gradually lowered from 106% to 100% in 2018
- For the higher income tax bracket, tax deduction will be gradually reduced from 52% to 38% in 2042.
Mortgage debt is falling, in relative terms

Debt levels are falling as income rises and households have increased pre-payments

Mortgage debt as % of household disposable income
Government finances are improving. They continue to benefit from the fast growing economy. Ahead of forecasts, the budget already showed a surplus last in 2016 (+0.4% of GDP); the first since 2007. Debt is dropping fast too. In the first quarter of 2017, government debt fell below 60% of GDP.

Revenues increased, while expenditures were merely stable. This hides a pattern increasing ageing cost (health and pension). On the other hand, the share of expenditures on interest payment is low and still decreasing. Both interest rates and the interest differential with Germany faced by the Dutch government are low.

In the interest of the rest of the Eurozone and internal rebalancing, international organisations such as the European Commission, the IMF, the OECD and the European Central Bank in recent years have encouraged the Dutch government to increase spending. Despite little fiscal room in terms of sustainability balances, the Rutte III indeed decided on a more expansive fiscal stance. It will spend more money on defence, education, R&D, civil service and infrastructure in 2018 and on tax cuts in 2019.

The output gap appears to be closed, meaning that the expansionary fiscal policy will be pro-cyclical.

Despite additional public spending and tax cuts, budget surpluses are expected to remain during the entire term of the third government with Mark Rutte at the helm. Public finances are and will remain in line with European norms. Government debt has already dropped below the 60% GDP norm and will continue decreasing as a result of cumulating surpluses and the continuation of the sale of the ABN AMRO bank and insurer ASR.

Due to the loser fiscal stance of the government, public finances are no longer sustainable, according to strict definitions of the sustainability gap as calculated by CPB a.k.a. Netherlands Bureau of Economic Policy Analysis. Nevertheless, they still appear favourable in international comparisons.
Dutch government bond yield still at historically low levels

Yield on Dutch 10-yr government is still very low...
Yearly average, %

...with a stagnating pick-up

Yield on Dutch 10-yr government bond

‘Long-term’ rate

Gov’t
Low spread versus Germany

Yield spread with Germany back at low levels

%
Small budget surplus

Income has exceeded expenditures again...
In euro billions, per quarter, seasonally-adjusted

...pushing the fiscal balance back into positive territory
As % of GDP, seasonally-adjusted

Government expenditure
Government revenue
Actual balance
ING forecast
European target

Income has exceeded expenditures again, pushing the fiscal balance back into positive territory.
Revenues have increased

Income & company taxes are surging...
...as are social contributions...
...but gas revenues have plunged

4Q sum, in billion euros. Note that chart on right-hand size has different axis.

- VAT/excises
- Income and company tax
- Other taxes
- Contributions, employees
- Contributions, employers
- Sale of products and other income
- Income on wealth (mainly gas revenues)
Government expenditures have, on balance, been stable

Old-age costs are rising...

4Q sum, in billion euros. Note that chart on right-hand size has different axis

...civil servant wages have picked up...

...but interest payments are in decline

4G-auction*

* Proceeds are booked as negative expenditure
Compliant with the rules of the Stability and Growth Pact

Structural balance above Medium Term Objective...
As % of GDP

...and government debt back below 60%
As % of GDP

- Headline balance
- Structural balance (headline adj for cycle and one-offs)
- Underlying primary balance (structural less interest and excl. gas)
Long-term of government finances nearly sustainable

Long-term fiscal surplus achieved by reforms spent by new government

As % of GDP

*The sustainability balance shows how much policy measures need to be taken (in % of GDP) to ensure that future generations can benefit to a similar degree from public services at a constant tax burden (as a percentage of GDP) as is faced by present generations. This balance shows whether future tax revenues are sufficient to cover future government expenditures. The current modest sustainability surplus means that the debt level will stabilise under the assumption of consistent arrangements.

Strong increase in pension age

Statutory pension age in years

From 2024 onwards, the entitlement age for state old age will be linked to life expectancy.
## Data sources

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