

Dutch Economy Chart Book

Continuing above-potential growth

ING Economics Department

Amsterdam • October 2018

Content

- 3 [Outlook summary](#)
- 4 [Forecast table](#)
- 5 [GDP](#)
- 9 [Exports](#)
- 22 [Non-financial businesses](#)
- 30 [Consumers](#)
- 42 [Labour market](#)
- 55 [Inflation](#)
- 59 [Housing market](#)
- 72 [Government](#)
- 78 [Sources](#)



In short

- The outlook for the Dutch economy is still very positive. ING forecasts GDP-growth of 2.9% for the Netherlands in 2018 and 2.4% for 2019. The growth rate is higher than the current Eurozone average and Dutch potential growth. Domestic demand is the main driver of growth: consumption and investment are expected to increase over 2% and 6% respectively in both years. Government measures are also providing a minor boost to GDP.
- Despite geopolitical uncertainty (Brexit, trade war and emerging market turmoil), [export](#) order books continue to look reasonably healthy. Despite some slowdown related to foreign developments and politically imposed gas production limits, re-exports and domestically-produced exports are both still performing solidly. Exports are forecast to continue to grow 2.9% in 2018 and 4.0% in 2019, both below the long term average.
- Sentiment among [non-financial businesses](#) is still above the long-term average but a number of economic indicators have softened a little in the last few months. Nominal profits are high, but profitability as a share of the economy still has a lot of ground to cover to the 2008 level. The number of bankruptcies is lower than ever before. The investment rate of businesses has surpassed 2008 levels and is expected to stay high. Non-financial business sectors produce more than before the crisis, except for gas production and culture, sport & recreation.
- [Consumers](#) are set to increase their spending further. Confidence is high. Disposable income is rising, mainly driven by the tighter labour market.
- The [housing market](#) will be contributing less to the economic recovery. The number of home sales will be slightly lower in 2018 than in 2017, while prices continue to rise fast. ING forecasts house prices to rise by 9% in 2018 and almost 6% in 2019. Supply is running dry, especially in large cities. Although the price-to-income ratio is rising again, the ratio is still below pre-crisis level.
- The economy has only just surpassed its potential output. Unemployment is falling more slowly, in part because (hidden) slack in the [labour market](#) is being used. The labour participation rate has still room to bounce up further. Wage growth has been moderate for long, but has started to accelerate. Firms are increasingly reporting shortages of workers as factor limiting production, especially in IT services and transportation .
- In July 2018, the [inflation](#) headline consumer price inflation (CPI) exceeded 2.0% for the first time in 5 years, falling back to 1.9% in September.
- [Government](#) finances are benefitting from the economic recovery. Increased economic activity is boosting tax income, which in part has been used to increase spending. Government debt is declining fast and amounted 54% of GDP mid-2018, which is below the European norm of 60% GDP

ING forecast table – The Netherlands

per cent change unless otherwise noted	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Demand and output*										
Gross domestic product	1,5	-1,0	-0,1	1,4	2,0	2,2	2,9	2,9	2,4	2,0
Private consumption	0,1	-1,1	-1,0	0,4	2,0	1,1	1,9	2,9	2,2	2,0
Government spending	-0,4	-1,2	0,0	0,6	-0,1	1,3	1,1	2,0	2,7	1,7
Investment	4,9	-6,3	-1,6	-2,4	29,2	-7,3	6,1	5,8	5,7	3,0
of which private	6,5	-5,9	-1,1	-2,2	35,3	-8,8	7,1	6,3	5,4	4,0
Net exports (%-point contribution to GDP)	1,2	1,0	0,4	1,3	-3,9	2,9	0,9	0,0	-0,3	0,0
Labour and housing market										
Employment (in hours worked)	0,7	-0,6	-0,6	0,4	1,2	1,8	2,2	2,0	1,1	0,8
Unemployment (% of labour force)	5,0	5,8	7,3	7,4	6,9	6,0	4,9	3,9	3,4	3,4
House prices	-2,4	-6,5	-6,6	0,9	2,9	5,0	7,6	9,1	5,6	2,5
Existing home sales (in 000s)	121	117	110	154	178	215	242	226	216	208
Government finances										
Government budget (% of GDP)	-4,2	-3,8	-2,3	-2,2	-2,0	0,4	1,1	0,8	0,6	0,8
Government debt (% of GDP)	60,9	65,5	67,0	67,1	64,0	61,3	56,4	53,1	50,3	47,3
Prices and rates										
Inflation (HICP)	2,5	2,8	2,6	0,3	0,2	0,1	1,3	1,6	2,7	1,7
Euribor, 3 month (% eop)	1,4	0,2	0,3	0,1	-0,1	-0,3	-0,3	-0,3	0,1	0,3
Dutch gov't bond yield, 10yr (% eop)	2,2	1,5	2,2	0,7	0,8	0,4	0,5	0,6	0,9	0,9

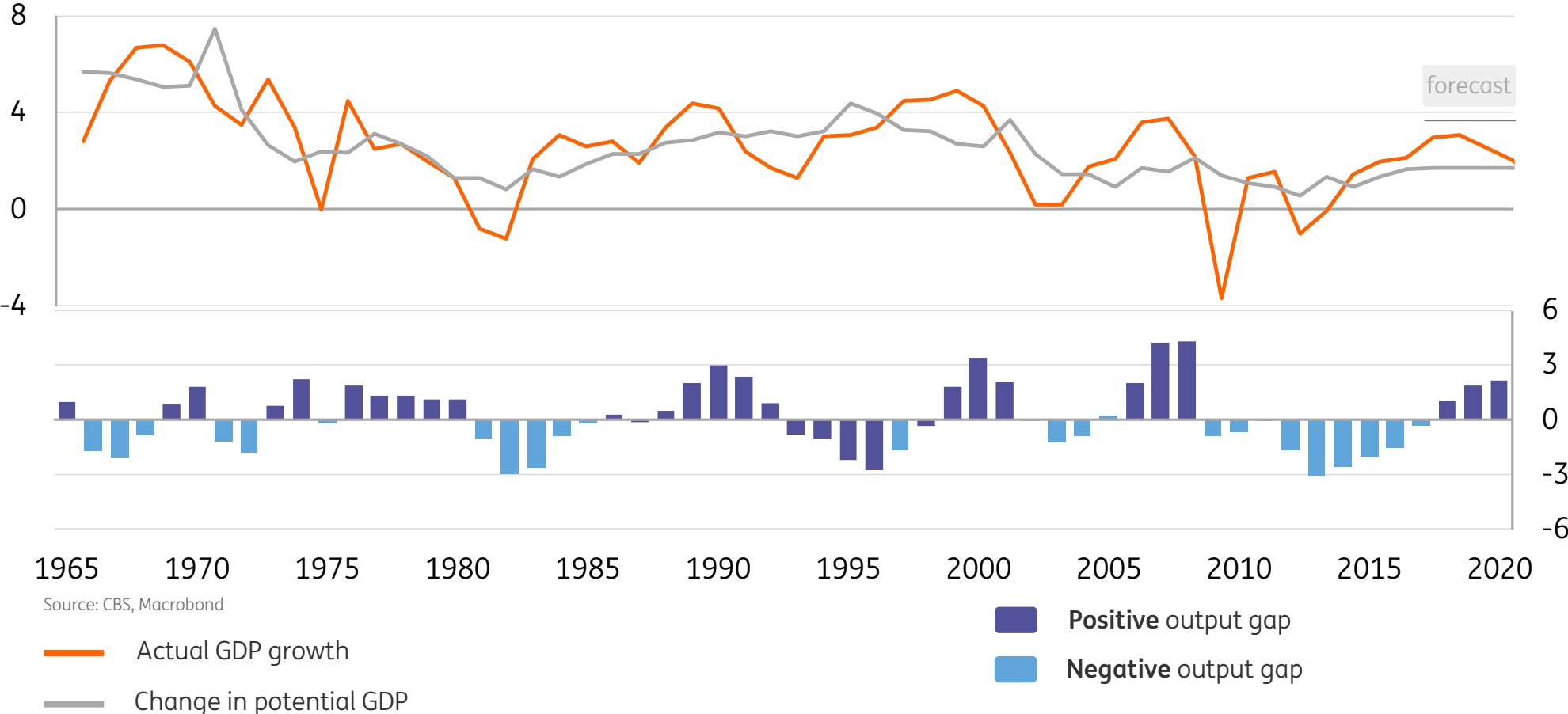
* Not adjusted for working days

[Forecasts](#) as of 24 September 2018 (interest rates as of 21 September 2018)

Output gap positive, but no precrisis overheating levels yet

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

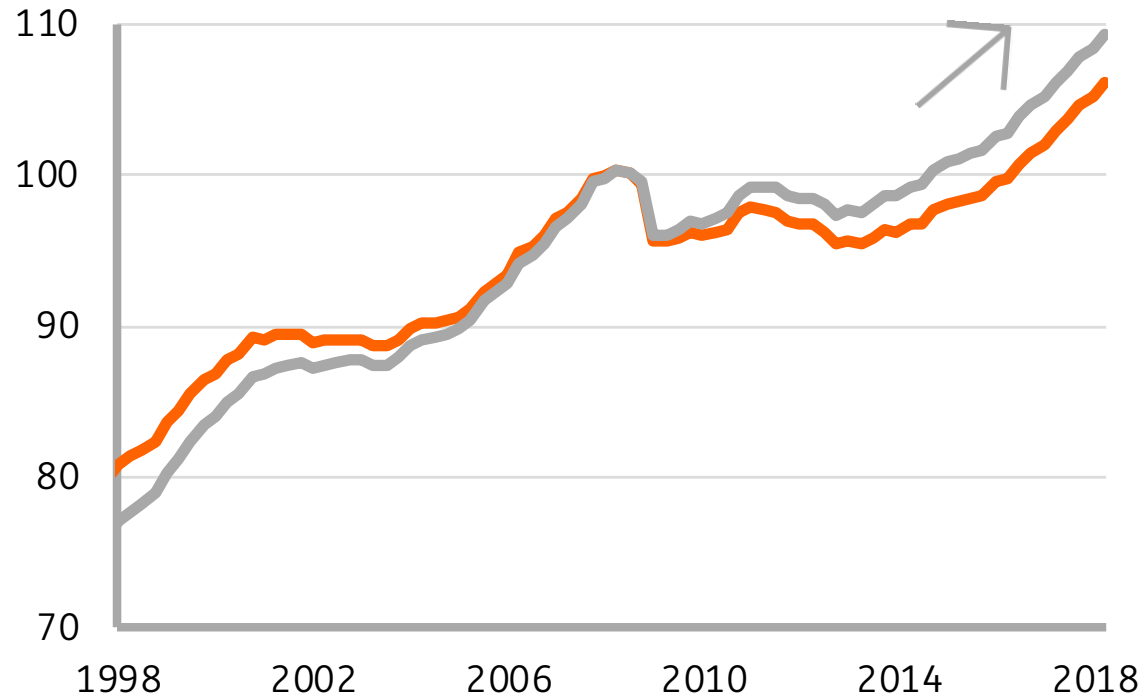
Change year-on-year, in % (lhs), difference between actual and potential GDP level, in % of potential GDP (rhs)



Domestic demand is the key growth engine

Strong growth trend in GDP and GDP per capita

Index, 2008 = 100, seasonally-adjusted

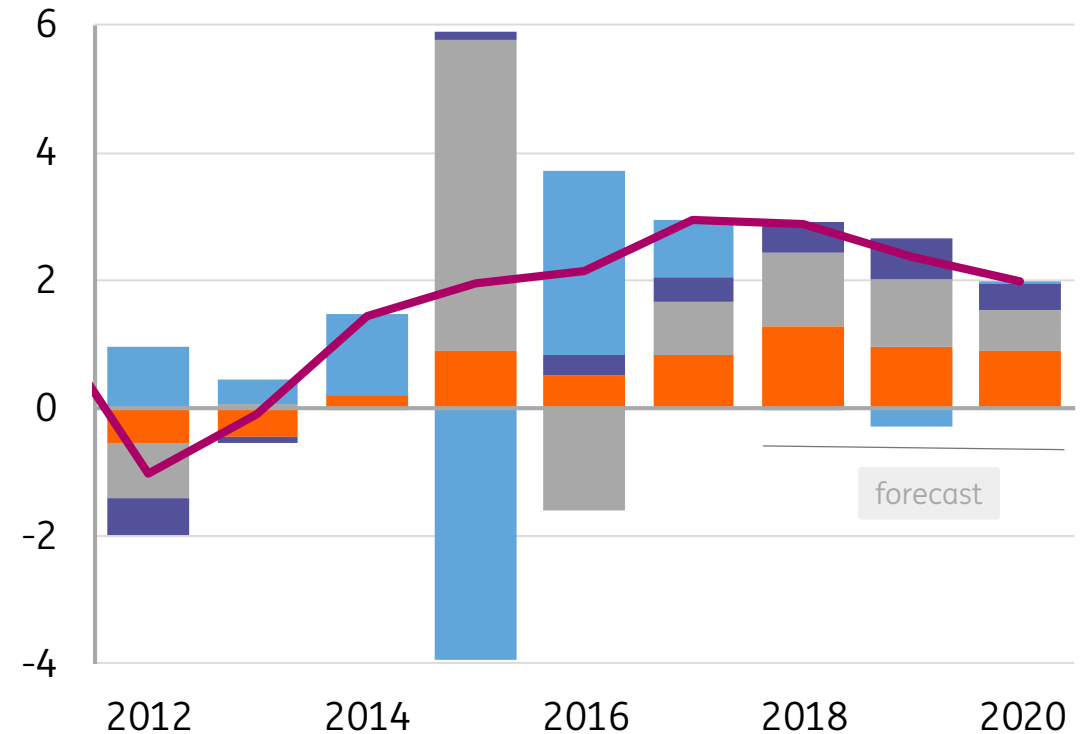


Source: CBS, Macrobond

- GDP per capita
- GDP

Domestic demand remains growth engine

Contribution to GDP growth, in percentage points



Source: CBS, Macrobond

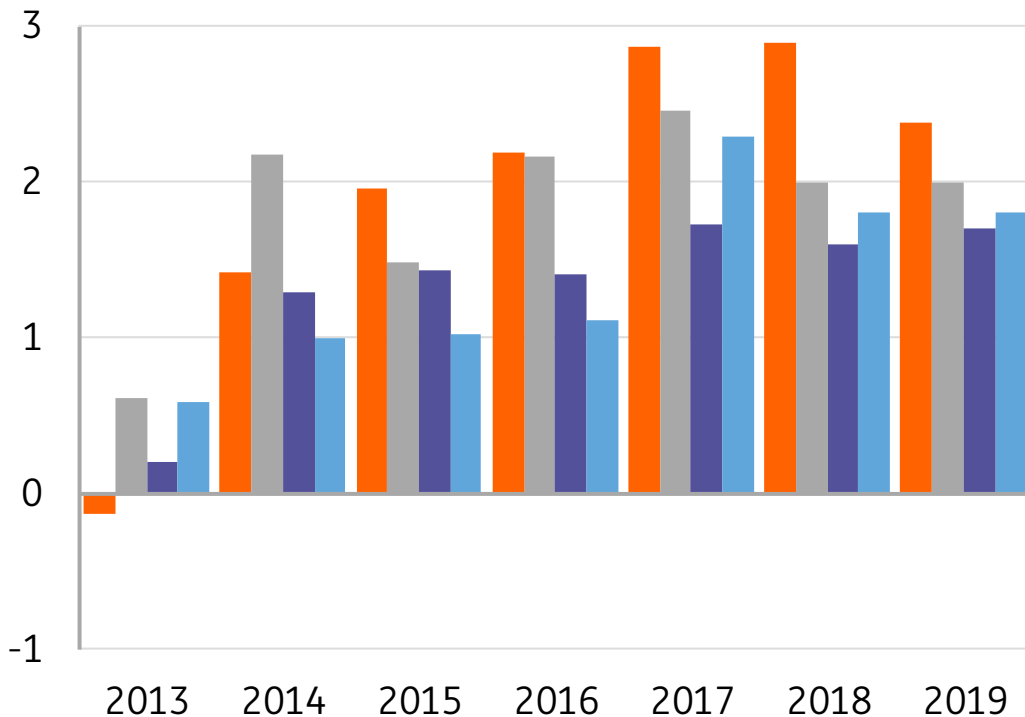
- Private consumption
- Government expenditures
- Private investment (incl. stocks)*
- Exports (net)*
- GDP

*Extreme deviations in private investment and net exports in 2015 and 2016 are caused by a large one-off purchase of foreign intellectual property (and divestment) by a Dutch multinational in the commercial service sector

Dutch economy continues to outpace Euro area 'core'

From growth laggard to leader

Gross domestic product, volume, change year-on-year, in %

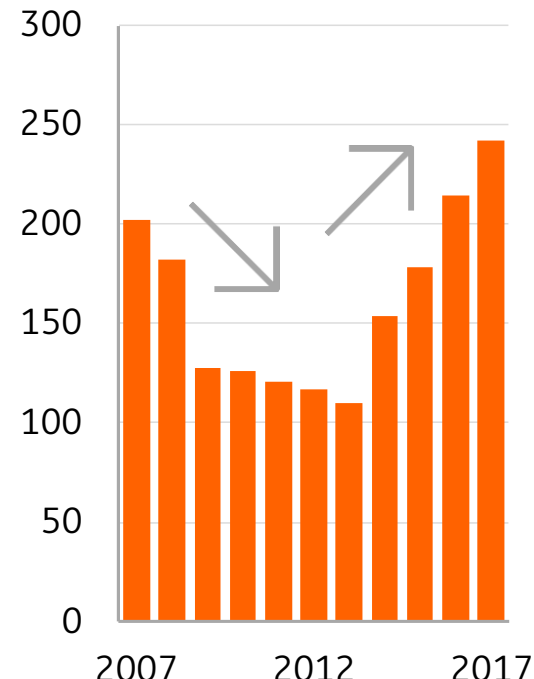


Source: CBS, Macrobond, ING Monthly Economic Update / ING Forecasts

■ Netherlands ■ Belgium
■ Germany ■ France

No big drag from housing

In thousands

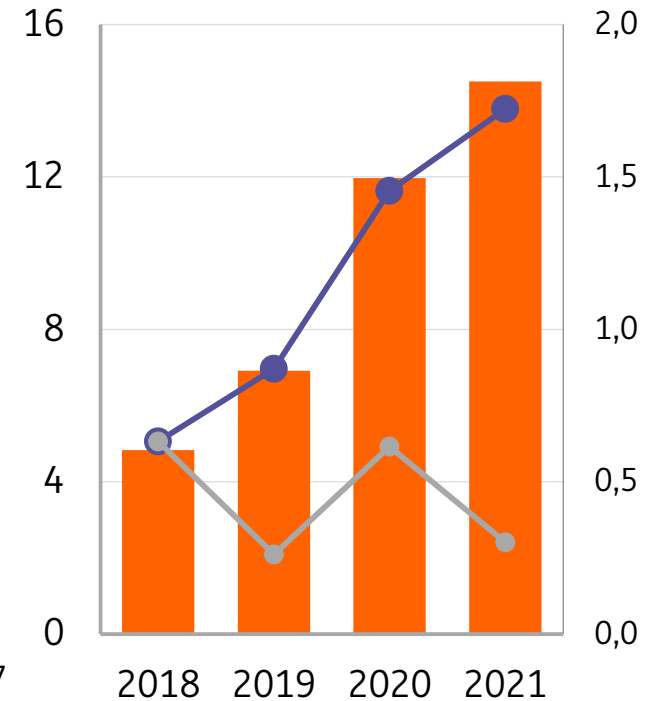


Source: CBS, Macrobond

■ Existing home sales

...and mildly expansionary budget plan

Net budget effect of Rutte III agreement, with respect to baseline of previous medium term plans



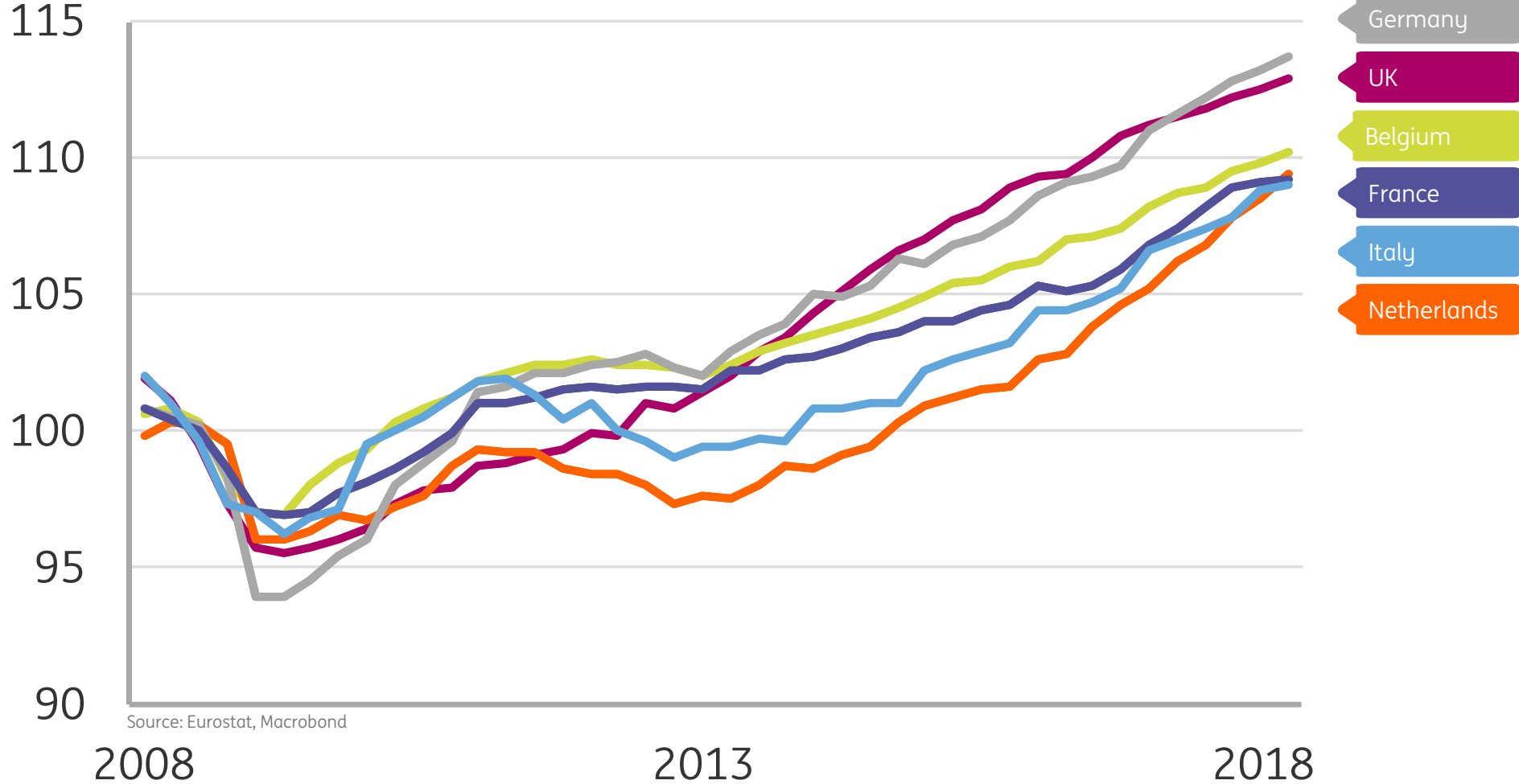
Source: CPB, Dutch coalition agreement

■ Cumulative in billion €, lhs
—●— Cumulative in % gdp, rhs
—●— Annual in % gdp, rhs

After years of lagging behind, the Netherlands is catching up

GDP of the Netherlands is catching up

Gross domestic product, constant prices, index 2008 = 100



Source: Eurostat, Macrobond

Exports

- For a number of years Dutch exports have outperformed world trade. Despite stagnating world trade growth in 2015-2016 due to a slowdown in emerging markets, the volume of Dutch exports continued to increase steadily. Exports from the Netherlands are mainly focused on *developed* markets in Europe and the US, which continued to grow steadily. In 2017, world trade growth posted its largest increase (4.5%) in six years. Dutch exports have also benefitted from this expansion in world trade and rose with more than 5%.
- Re-exports have posted the strongest growth, but exports of domestically-produced goods have expanded well too. Despite the recent appreciation of the euro, one could say that the competitiveness of the Netherlands is still very positive. In international comparison, the Dutch national savings and current account surpluses are still very high.
- In nominal terms, the export growth was subdued over the last few years. This was partly caused by low commodity prices. Upward movement in oil prices has pushed the current account balance back up. Income on Dutch FDI is (via Shell, an oil-company) tightly linked to oil revenues. Nominal exports were on the rise in 2017, while showing somewhat more moderate growth in 2018. Order positions worsened somewhat, but businesses are still moderately optimistic for further growth in the coming months.
- Due to an unusual and unexpectedly weak first quarter of 2018, Dutch exports are expected to grow at a subdued pace of 2.9% in 2018. Accordingly, we project weak import growth of 3.4%. Together, this drives the annual net contribution of foreign trade to nearly zero. During 2018 and 2019, export growth is projected to maintain its current moderate pace, which is slightly below historical averages.
- For 2019 geopolitical uncertainty such as a hard Brexit and a further escalating trade war between the US and China are still considerable risks that might affect Dutch exports. In value added terms, the UK accounts for 8% of Dutch exports and 3% of Dutch GDP. So, a slowdown of the British economy will not go unnoticed. Also a possible crisis over the government budget in Italy might affect the Dutch economy.

A very competitive economy: The Dutch are ranking highly

WEF Global competitiveness Index



Global Innovation Index



Network Readiness



Global Enabling Trade Report



Logistics Performance Index



Ease of Doing Business*



Corruption Perceptions Index



Human Development Index



Prosperity Index



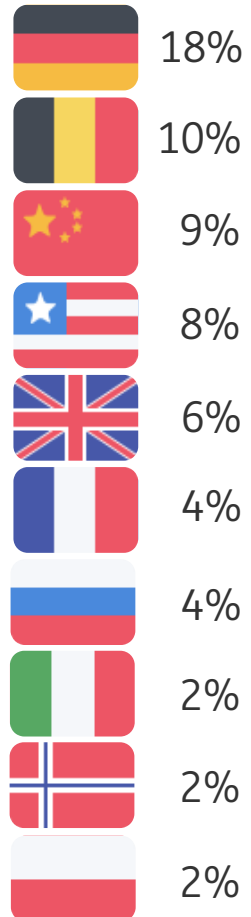
 Position in 2010

Sources: World Economic Forum, Global Innovation Index, World Bank, Transparency International, Human Development Index, The Legatum Prosperity Index

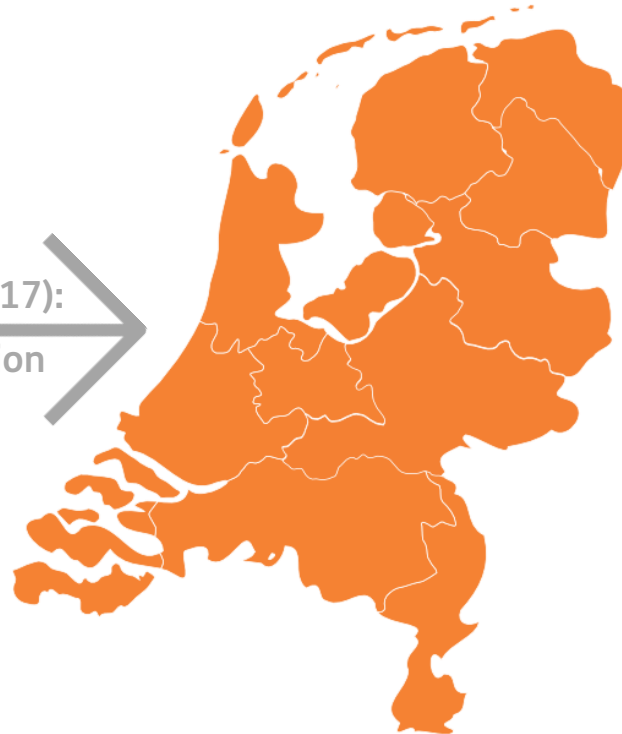
Main goods' trading partners: Germany first in two directions

Imports of goods

Share based on turnover



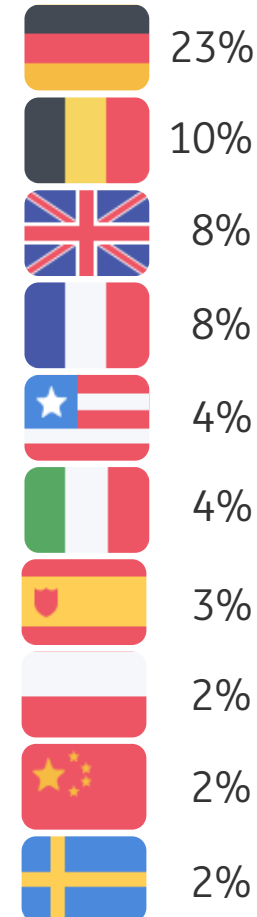
Goods (2017):
€411 billion



Goods (2017):
€469 billion

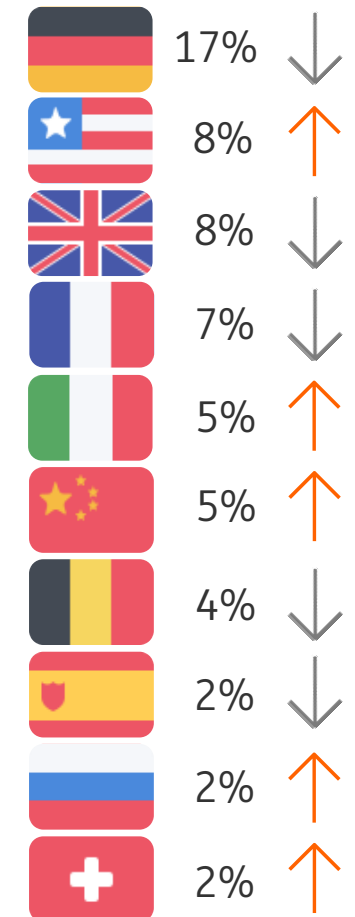
Exports of goods

Goods share based on turnover



Total exports (2014)

Share based on value added



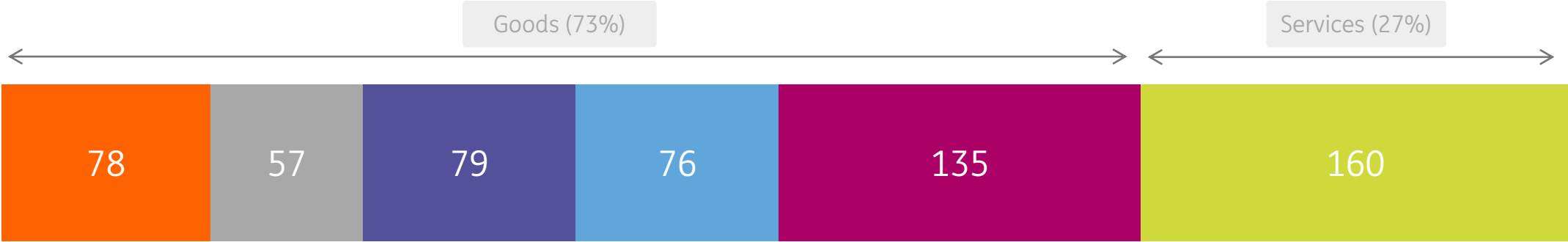
Source: CBS

Source: WIOD

Almost €600 billion of Dutch exports in year

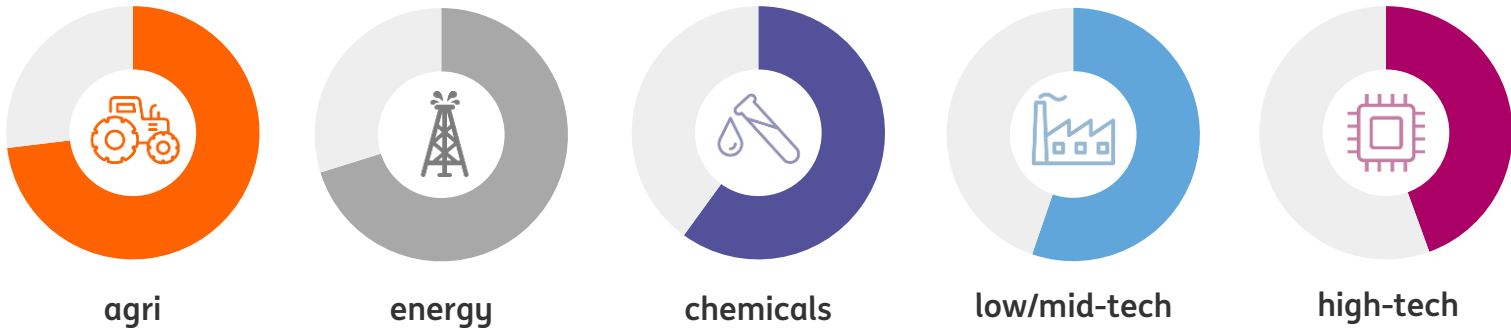
Mostly goods, but more than a quarter now consists of services

In billions of euro



Agri exports are dominated by domestically produced goods, high-tech is mostly re-exports

Share of domestically produced goods in exports, per category

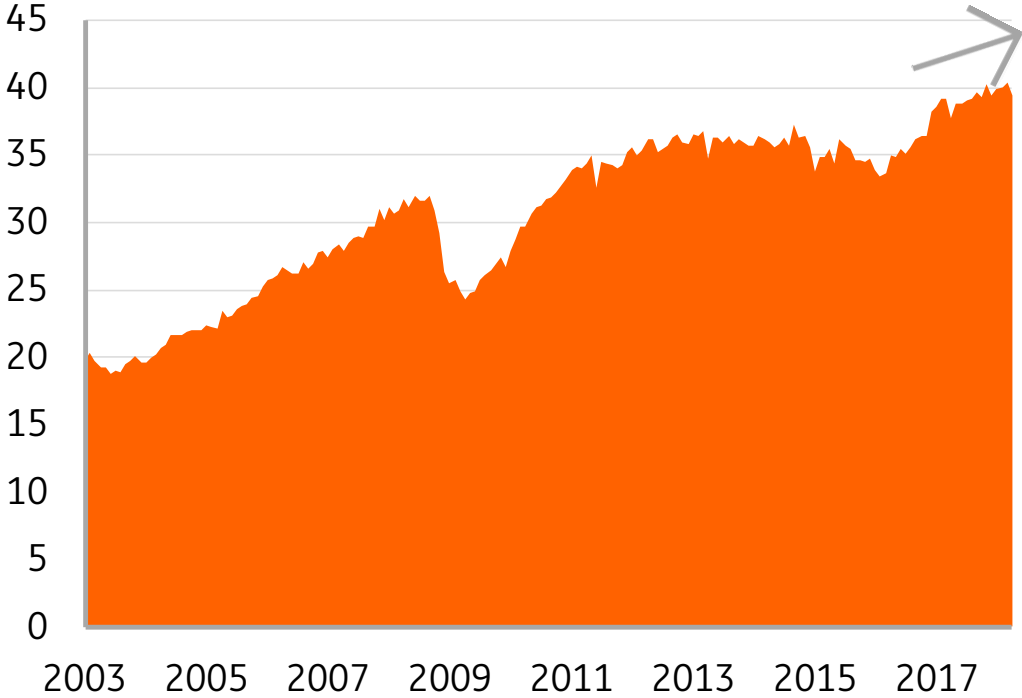


Source: CBS

Solid export performance led by high-tech

Nominal export growth now moderating after solid 2017

Per month, in € billion, seasonally-adjusted

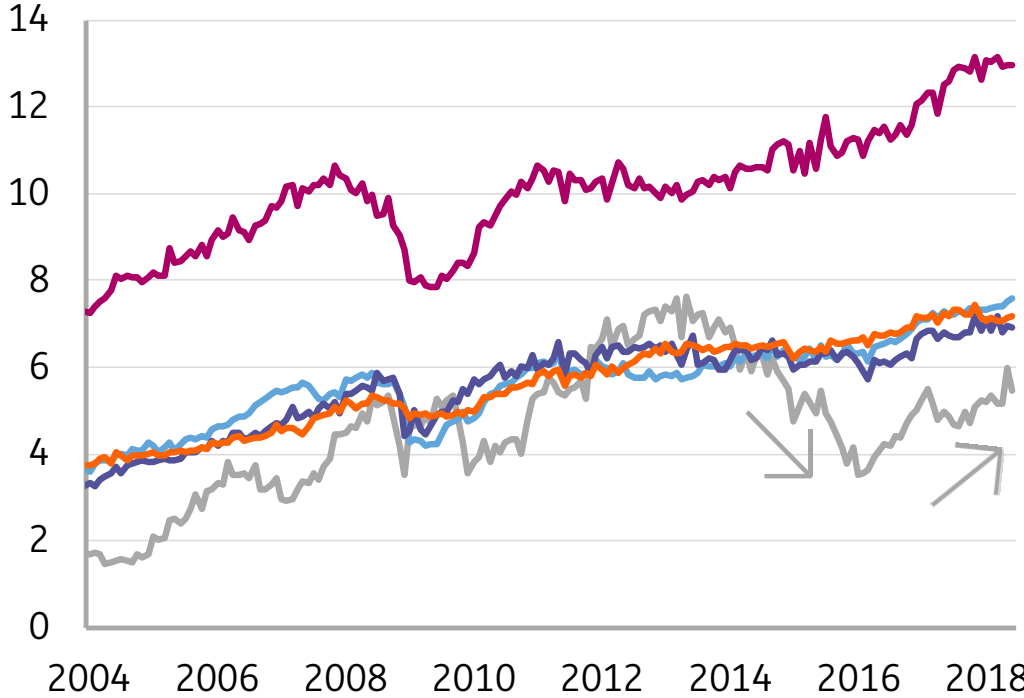


Source: CBS

— Total monthly export turnover, goods

Oil price driven rebound in energy exports, stagnating high tech

Per month, in € billion, seasonally-adjusted



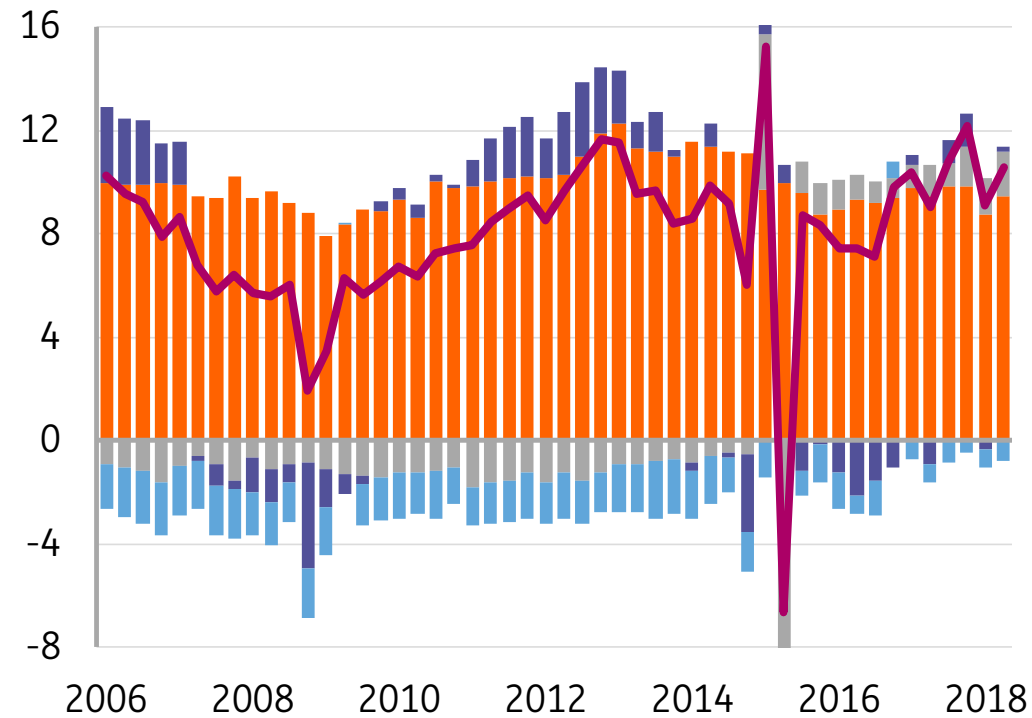
Source: CBS

— Agri — Chemical — High-tech
 — Energy — Low-/mid-tech

Oil price strong driver for current account

Current account surplus remains large

% of GDP, seasonally-adjusted



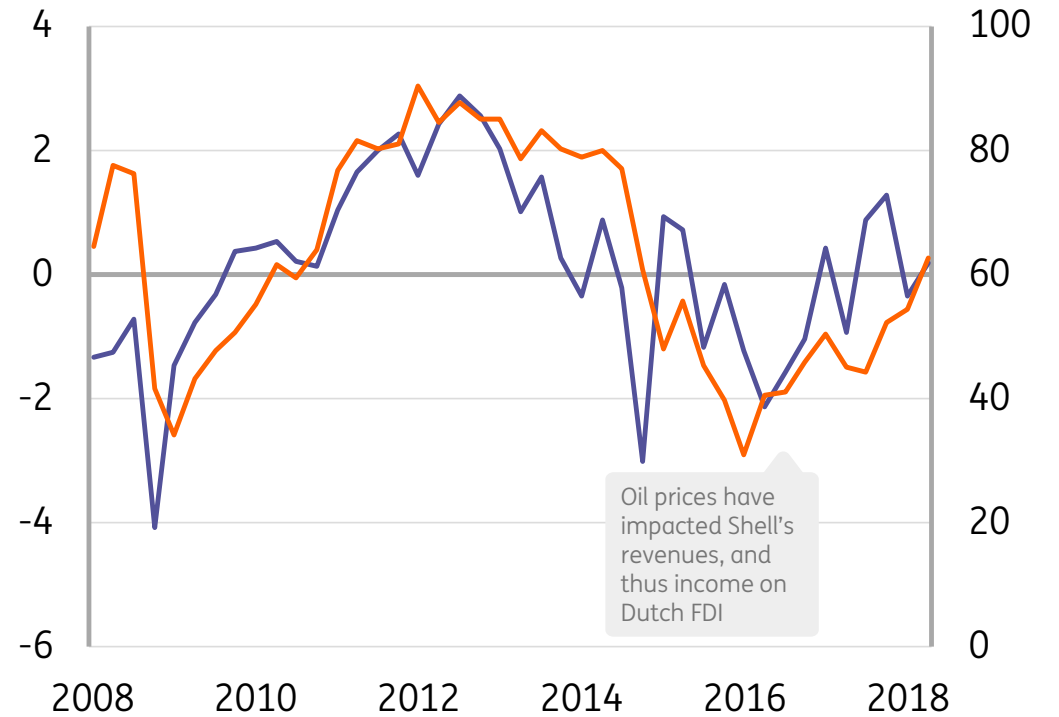
Source: CBS

- Trade, goods
- Income balance
- Balance in transfers
- Trade, services
- Current account*

Income balance dominated by “Shell-effect”

% of GDP

€/barrel

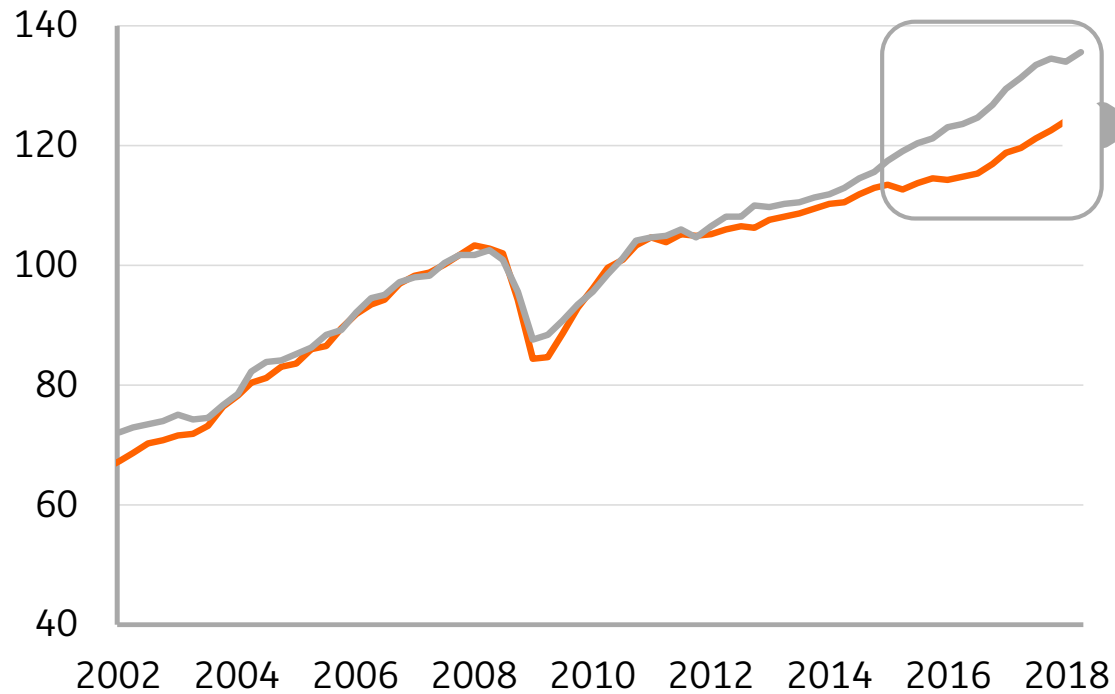


Source: CBS, Macrobond

- Income balance (lhs)
- Oil price (rhs)

In volume terms, Dutch exports have outpaced world trade

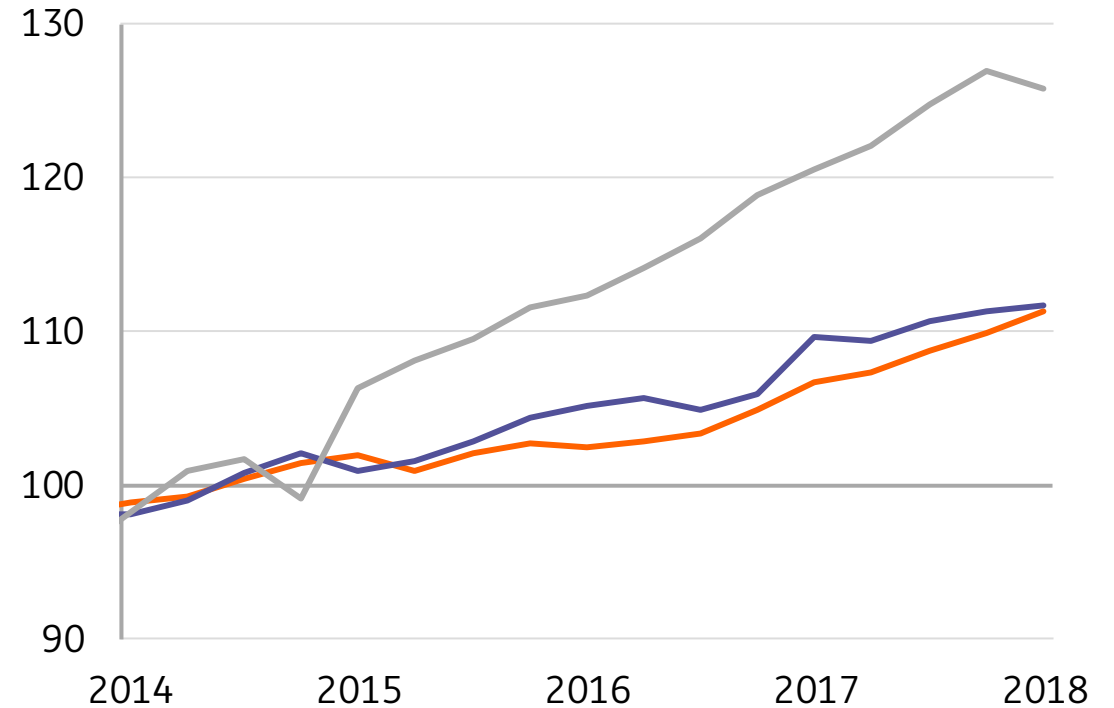
Dutch goods' exports rose faster than world trade volume
Index, 2010 = 100, seasonally-adjusted



Source: CPB World Trade Monitor, CBS, Macrobond

- World trade volume
- Exports of goods, constant prices, Netherlands

Now: sharp rise in re-exports halted, Dutch product growth slows
Index, 2014 = 100, seasonally-adjusted



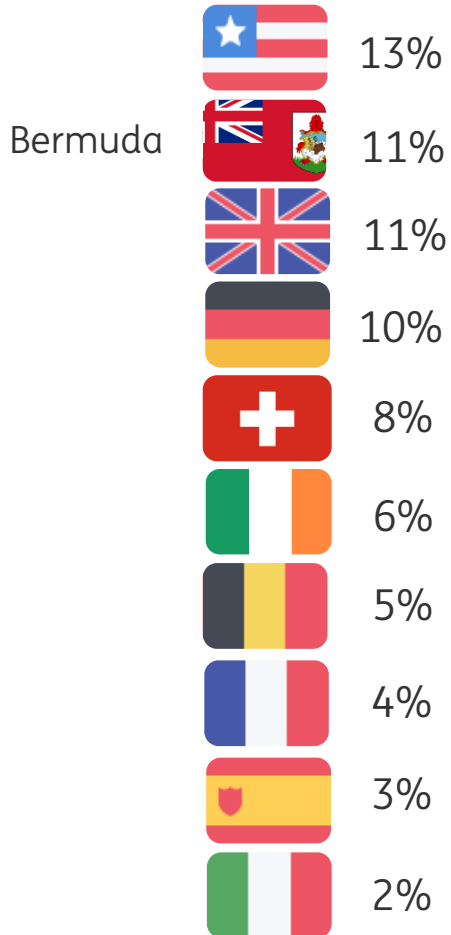
Source: CBS, Macrobond

- World trade volume
- Re-exports volume, the Netherlands
- Domestically-produced exports volume, the Netherlands

Main service trading partners: US and Germany first

Imports of services

Share based on turnover



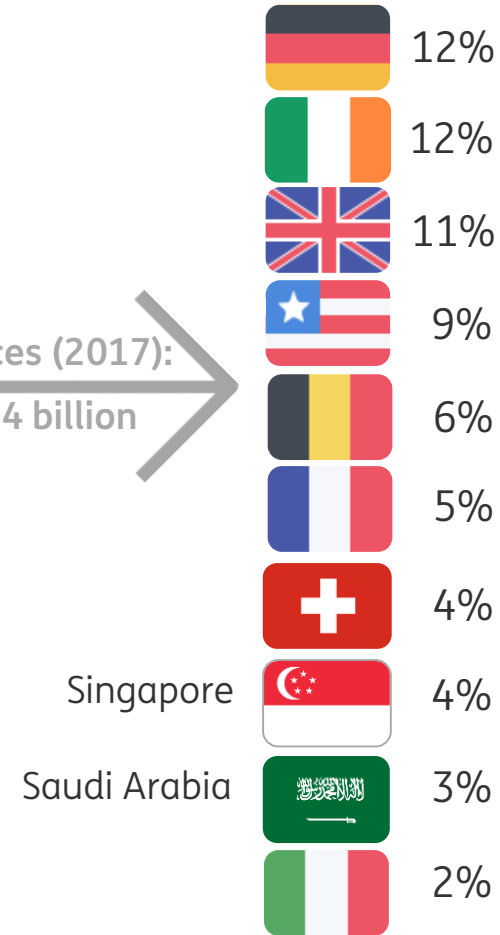
Services (2017):
€188 billion



Services (2017):
€194 billion

Exports of services

Share based on turnover

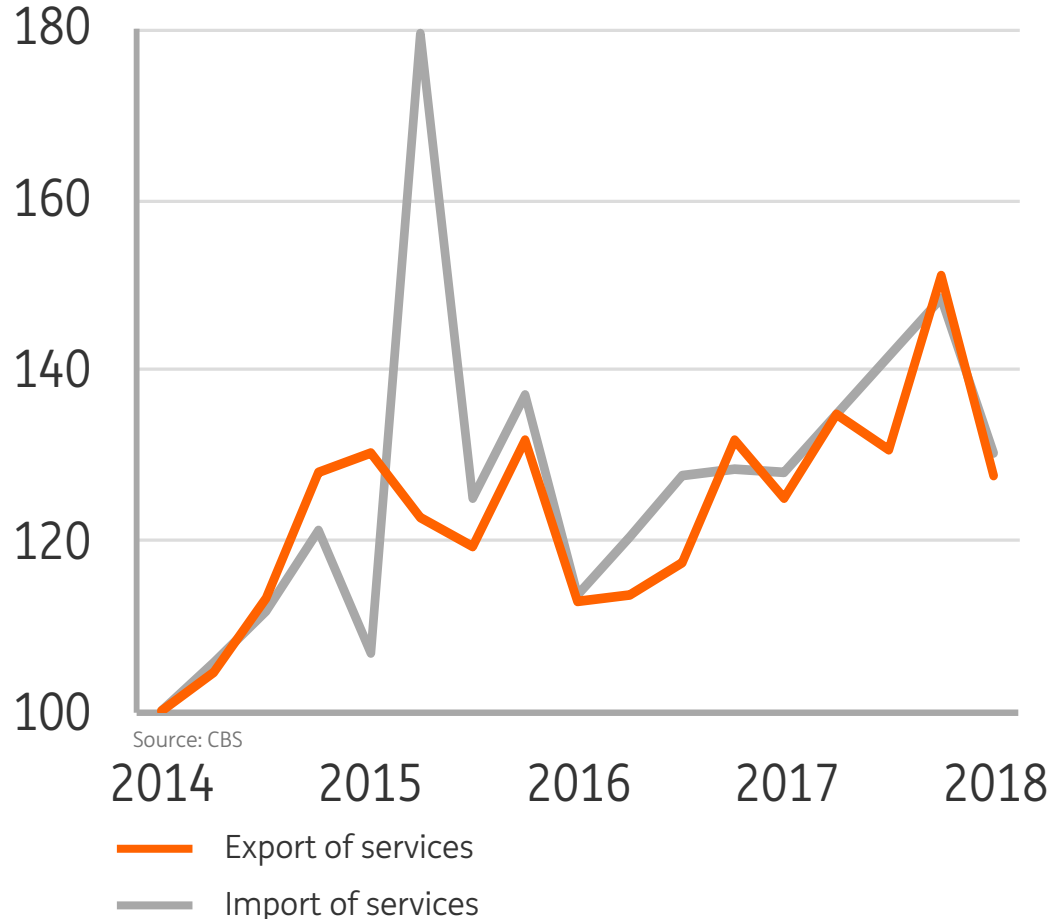


Source: CBS

Service export and imports together trending upwards

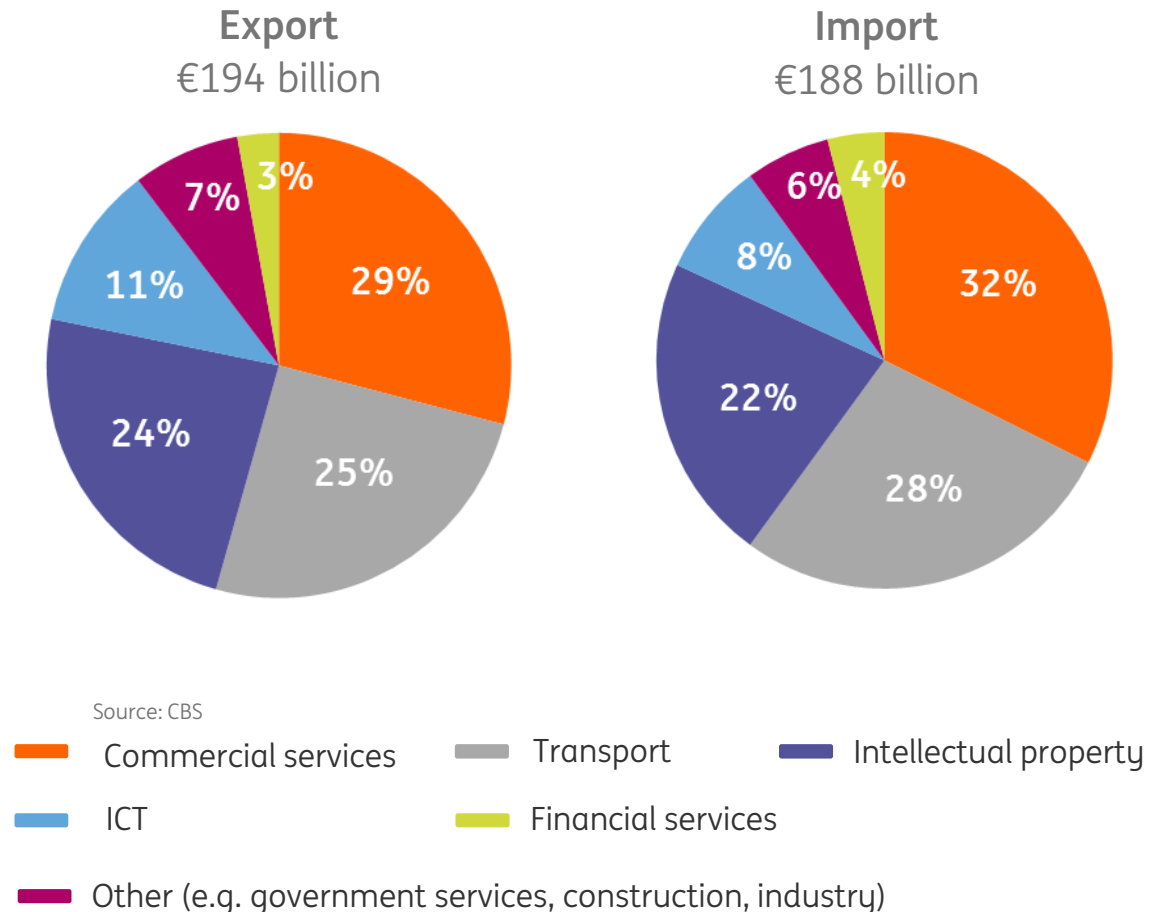
Upward trend in service exports (despite recent fall back) and high correlation with service imports

Service import and export turnover, index, 2014Q1 = 100



Composition of imports and exports quite similar: mainly commercial, transportation and intellectual property

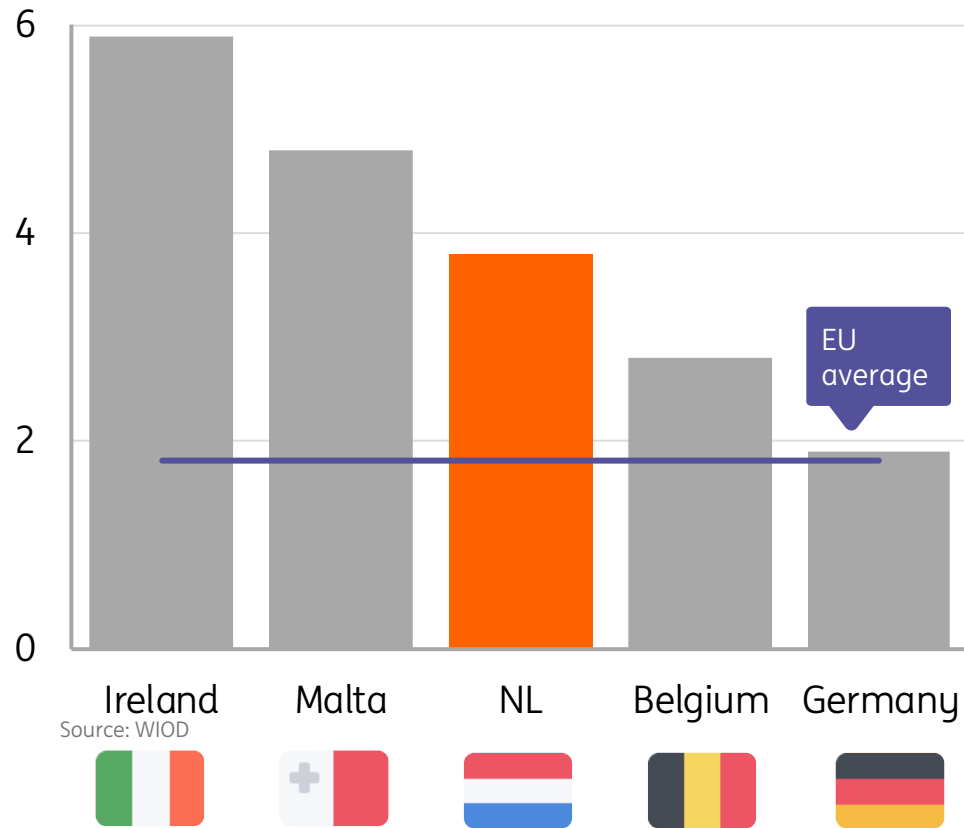
Composition of service import and exports in 2017



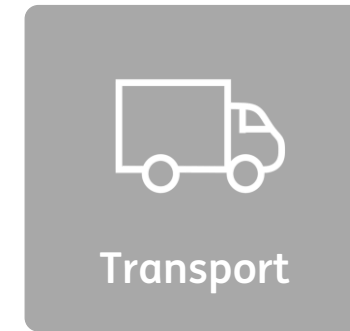
Risk: NL could be hit relatively hard by Brexit

Sensitivity to UK: NL ranks third within EU

% of total added value dependent on demand from UK



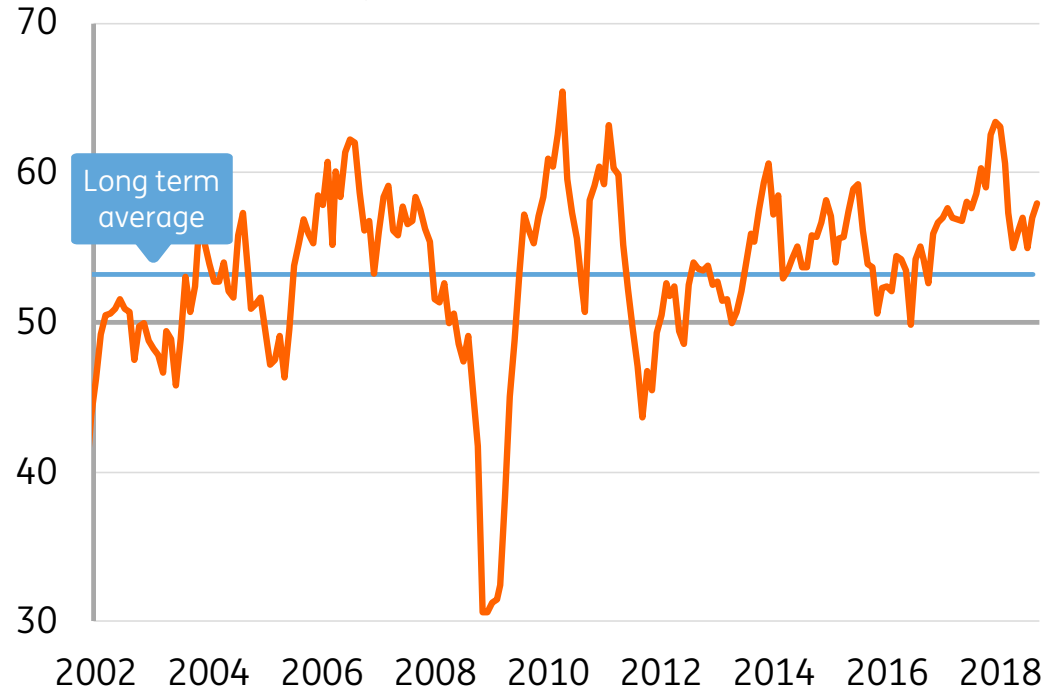
Dutch sectors that are most exposed to the UK



For now, exporters are still moderately positive on outlook

Industrial export order books are continuing to fill up, but growth from foreign demand seems to be moderating

Index, above 50 means growth

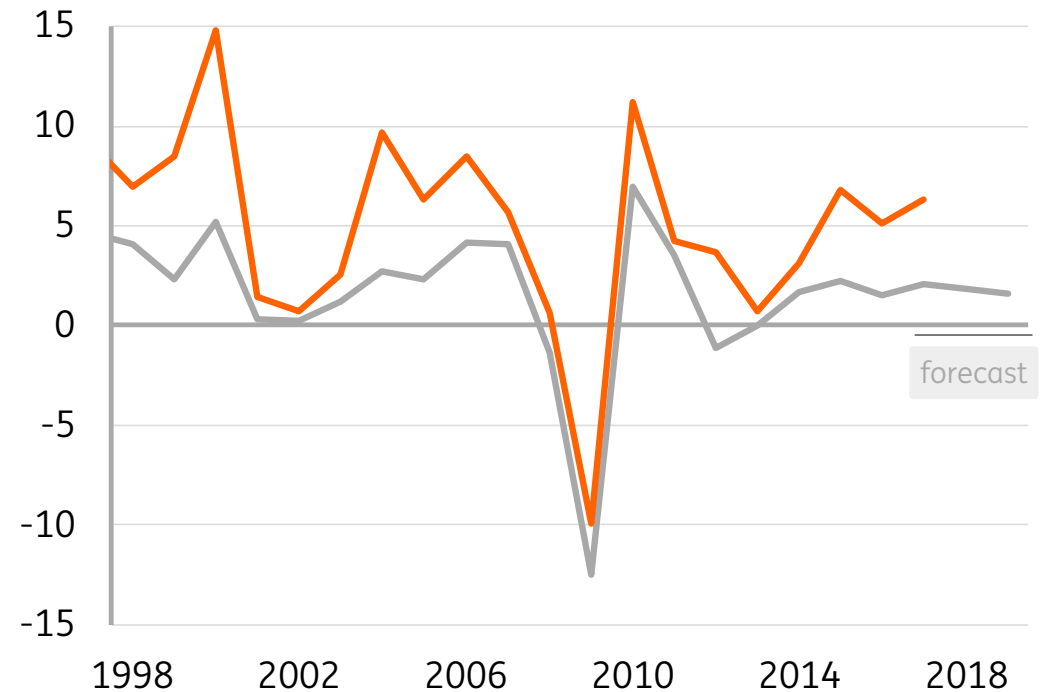


Source: NEVI PMI

— NEVI/Purchasing Managers' Index - export orders

Base case: continuing growth in main export markets

Change year-on-year, constant prices, in %



Source: CBS, Macrobond, ING Monthly Update/ING Forecasts

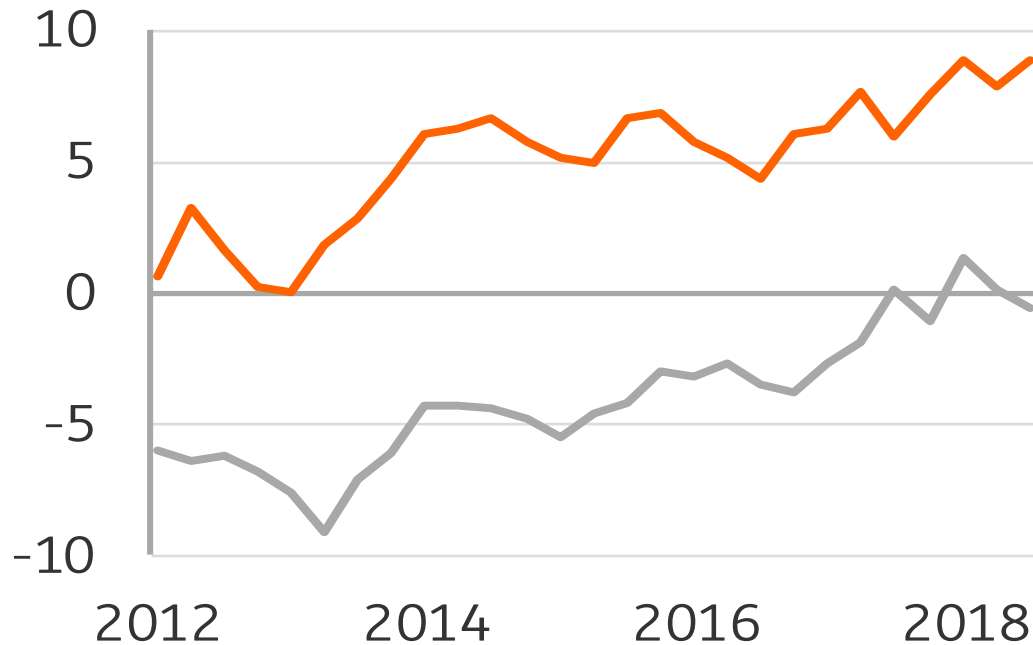
— Merchandise exports, the Netherlands
 — Industrial production in main Dutch export markets*

* Proxied by Eurozone, UK, US and China. Approximate share in Dutch exports used as weights

Non-financial businesses still confident about export position

Businesses optimistic about export orders over the next 3 months, but slightly cautious about current orders

Export orders and export orders next 3 months, net % non-financial businesses (excluding utilities) reporting increase minus decrease

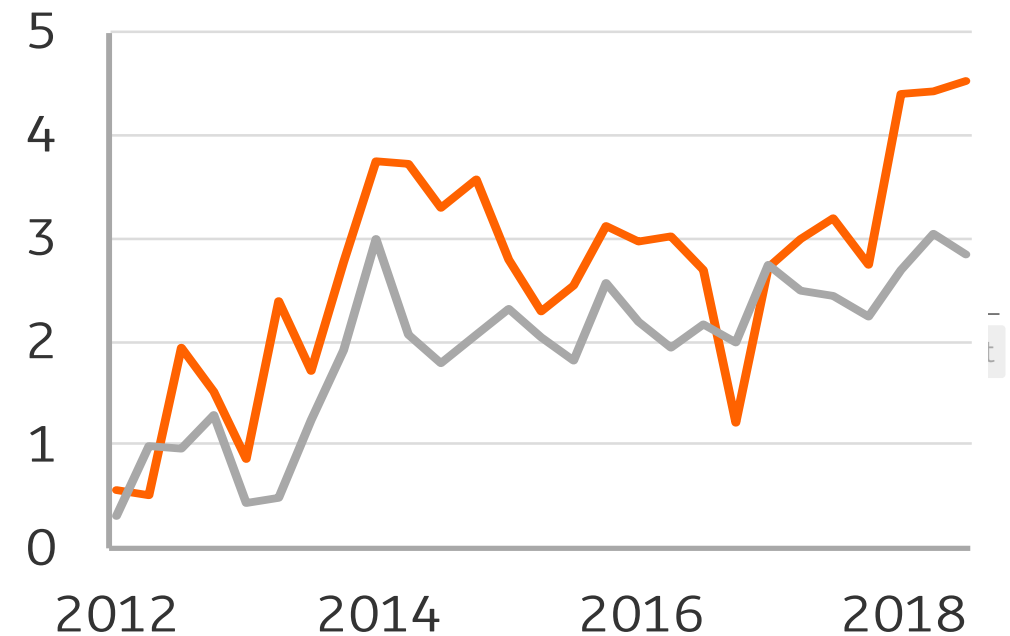


Source: CBS

- Export orders next 3 months
- Export orders

Non-financial businesses indicate that their competitiveness is improving, especially compared to other EU firms

Competitiveness in EU and competitiveness outside EU, net % non-financial businesses (excluding utilities) reporting improvement minus worsening



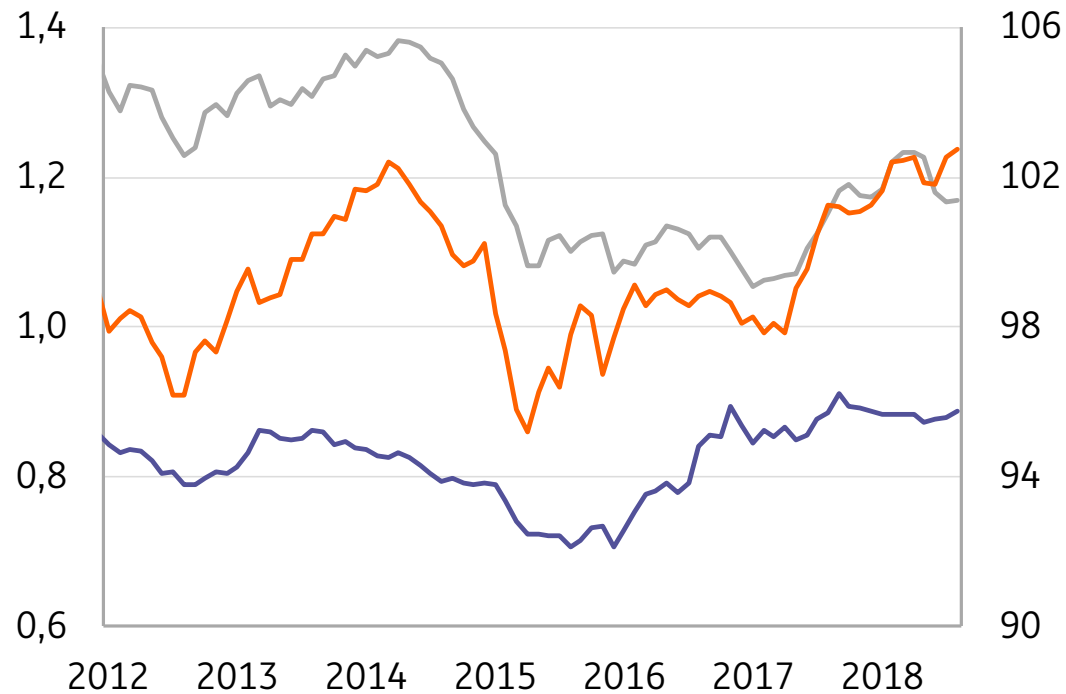
Source: CBS

- Competitiveness in EU
- Competitiveness outside EU

International price competitiveness recently slightly weaker

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

Currency per euro, index, 2010 = 100

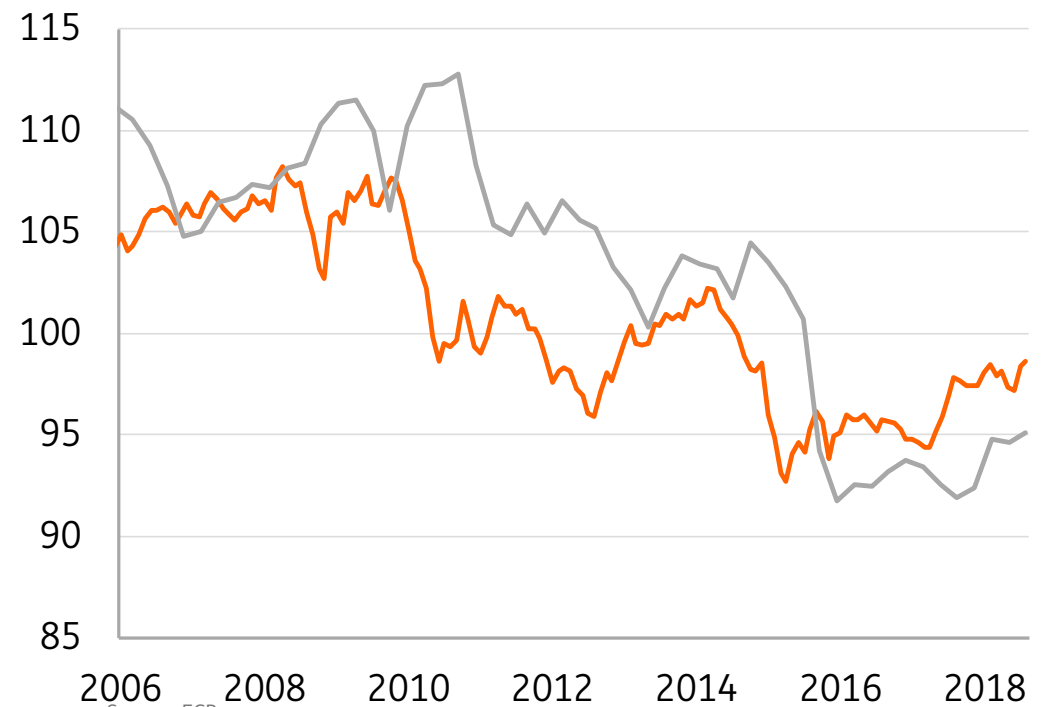


Source: Macrobond

- Nominal trade-weighted euro, Netherlands (rhs)
- USD per euro (lhs)
- GBP per euro (lhs)

Dutch competitiveness worsened slightly recently

Index, Q1 1999 = 100, an increase means worsening of price competitiveness



Source: ECB

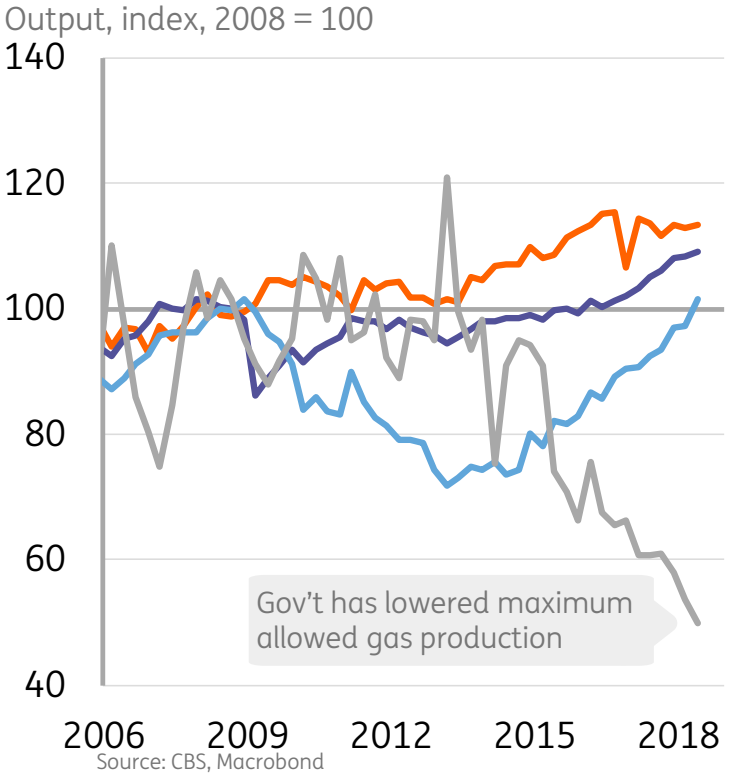
- ECB Harmonised Competitiveness Index, based on CPI
- ECB Harmonised Competitiveness Index, based on unit labour cost

Non-financial businesses

- In 2017 all major market sectors increased their production levels further . Most sectors are above pre-crisis levels again. Main exception is the mining/gas sector, which has been forced by the Dutch government to phase out gas production at one of the largest gas fields of Europe. Multiple earthquakes in the north of the Netherlands related to the gas extraction have raised political pressure to phase out gas production. By 2030 the gas extraction in the Groningen field should be reduced to zero. The maximum production for gas year 2018/2019 (1 Oct. 2018– 30 Sept. 2019) is set for 19.4 billion cubic meters (bcm). This is already much lower than the recent maximum of 53 bcm in 2012/2013. The maximum allowed production for 2021/2022 is set for 12 bcm.
- The financial situation of companies is improving. The number of bankruptcies has dropped to the lowest level of this century. Nominal pre-tax profits of non-financial companies hit a record high at the second quarter of 2018. These numbers are, however, somewhat skewed by (capital) income from foreign affiliates. An alternative macro indicator for profitability, more related to production, is gross operating surplus as percentage of valued added. This indicator is stable in the last few months and is still far below 2006-2008 boom levels.
- Indicators show that the economic recovery is gaining a firmer foothold among SMEs. Smaller firms now report more positively about profitability, but their optimism lags that of larger companies.
- Investment levels have increased strongly in recent years. Private investment (as a percentage of GDP) excluding dwellings is, excluding exceptional large one-off investments in 2015, above trend levels. The combination of higher output levels and rising profits induces companies to continue to step up investment, but at a slightly slower pace than in previous years. Spending on vehicles and machines just surpassed 2008 levels, while ICT- and R&D-related investment is even 50% higher, mainly driven by investments in software.
- Credit standards remained constant recently, while credit demand is increasing again.

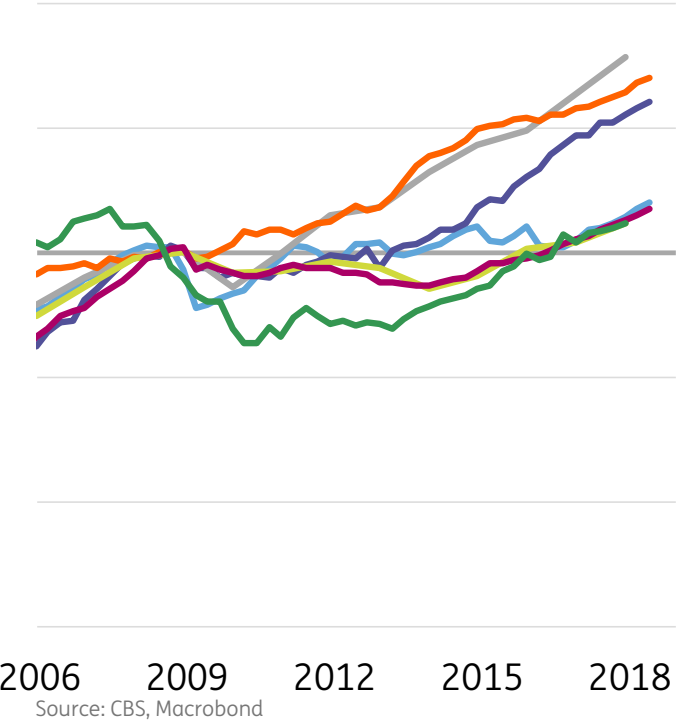
Almost all sectors back to 2008 levels, including construction

Goods-producing sectors: construction finally recovered, gas production halved



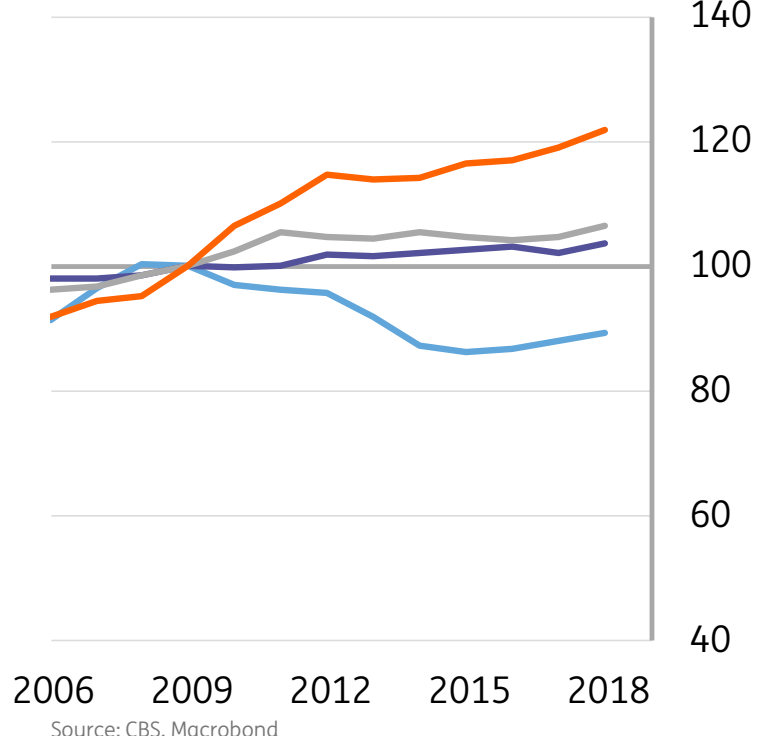
- Agriculture
- Manufacturing
- Mining/gas
- Construction

Commercial services: all trending up



- Real estate
- Transport
- Hospitality
- Wholesale*
- Other
- Retail*
- ICT

Public services: rising after years of stagnation, only cultural services lag



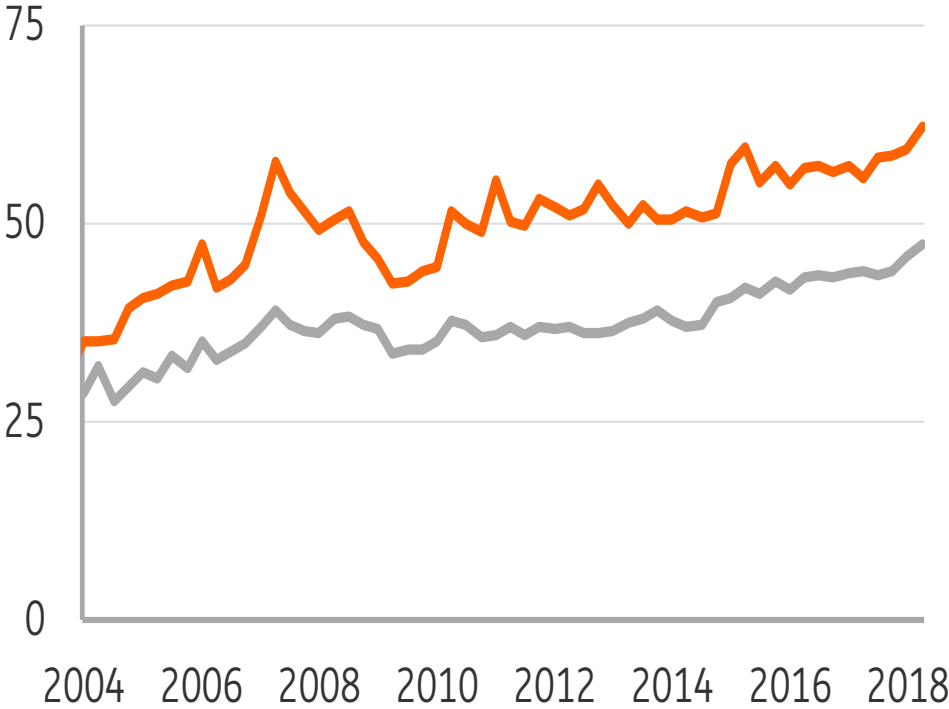
- Government*
- Health care*
- Education*
- Culture, sport & recreation*

* No quarterly data available

Profitability for non-financial companies stagnates

Total nominal profits are at record height, but...

In billion euros, seasonally adjusted

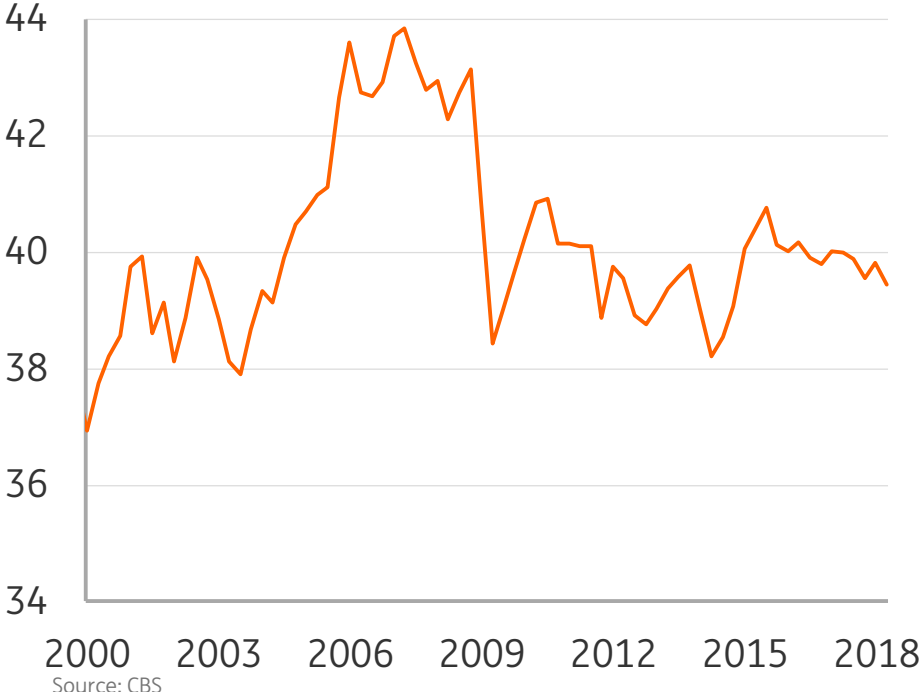


Source: CBS

- Pre-tax profits of Dutch non-financial companies
- Pre-tax profits of Dutch non-financial companies excluding profits of foreign affiliates

...profit ratio still moderate

Gross operating surplus as percentage of gross value added at basic prices, seasonally adjusted*



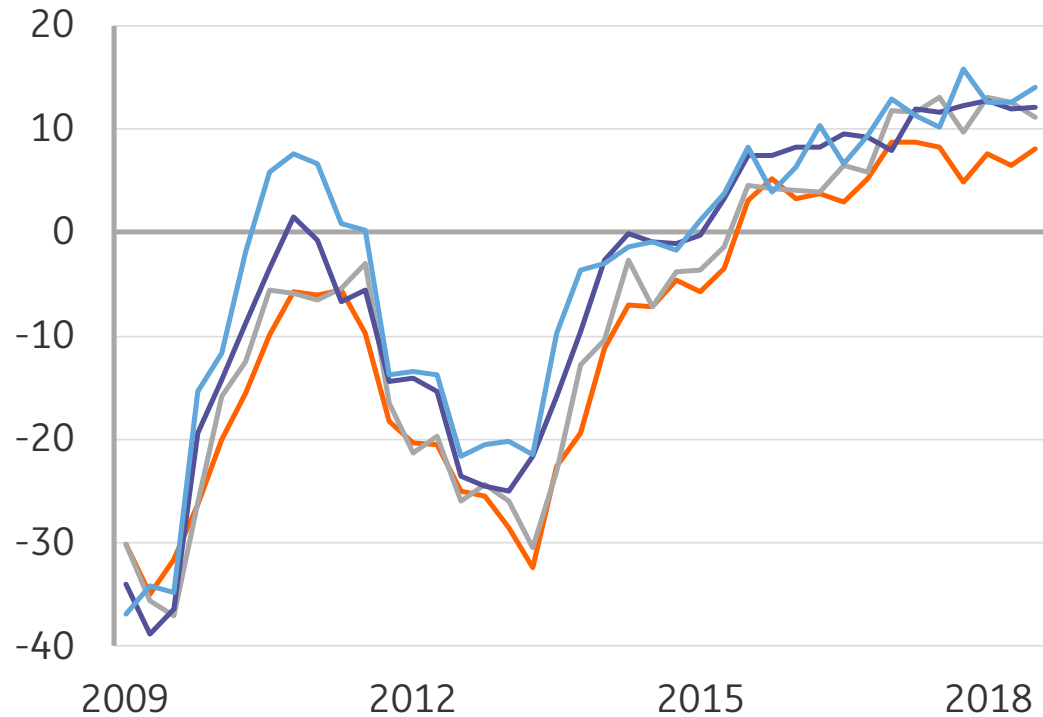
Source: CBS

- Macro profitability indicator, non-financial companies (excluding small unincorporated businesses)

Recovery is gradually filtering through to smaller firms

Positive trend in profitability, also among SMEs...

Net % of firms reporting higher (+) or lower (-) profitability in last 3 months

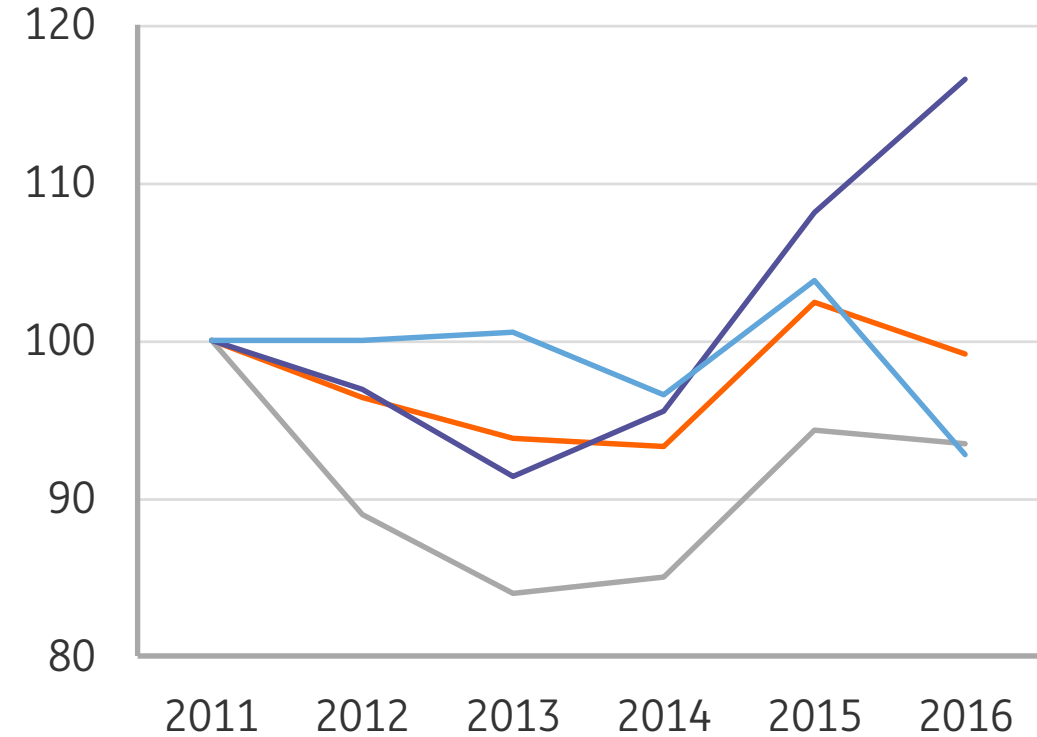


Source: CBS, Macrobond

- 5 to 20 employees
- 20 to 50 employees
- 50 to 100 employees
- 100 or more employees

Investment growth is driven by medium sized companies

Investments in tangible fixed assets; company size



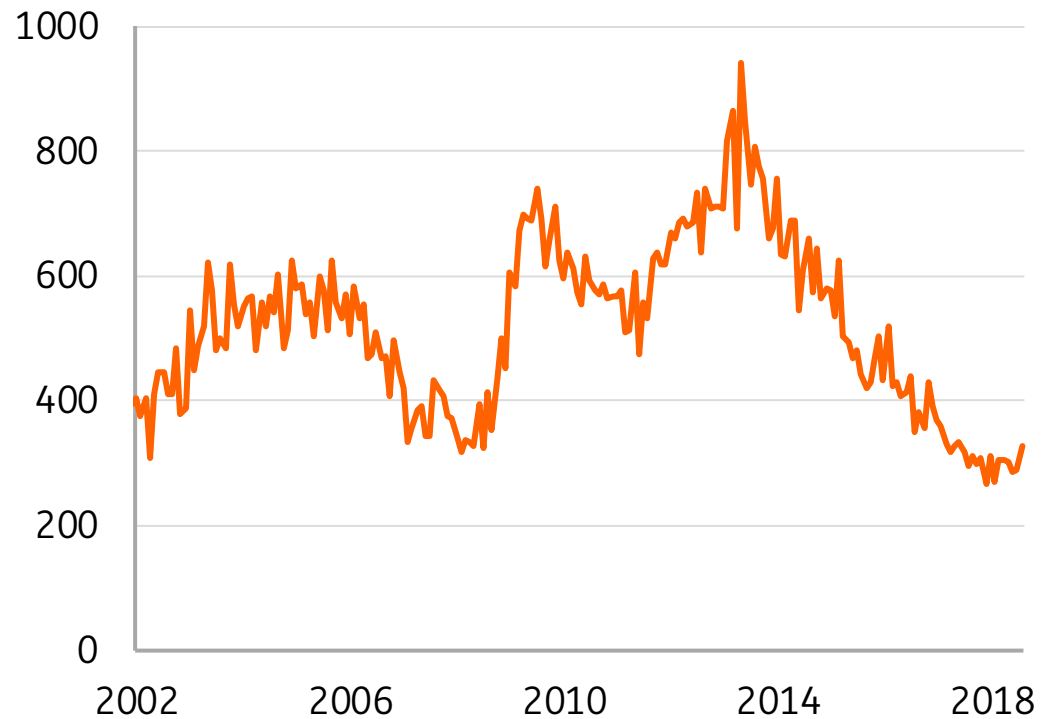
Source: CBS

- Total
- 0-49 employees
- 50-249 employees
- 250 or more employees

Number of bankruptcies bottomed out

Number of bankruptcies at multi-year lows

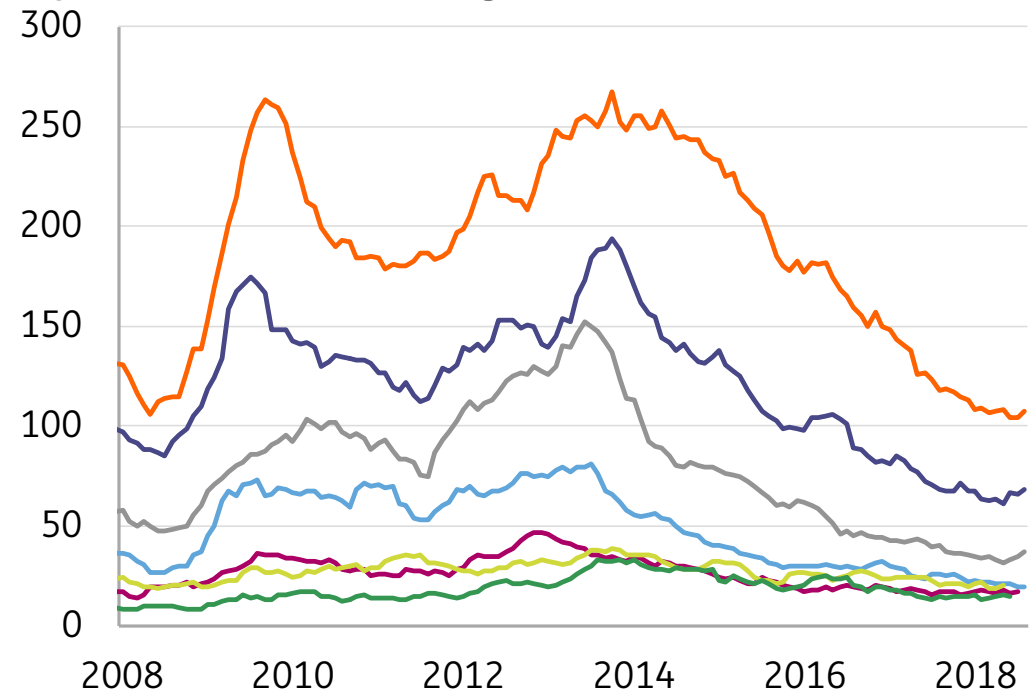
Per month, seasonally-adjusted and adjusted for number of court days



Bankruptcies per month

Declines in all sectors, strongest in com. services and trade

Bankruptcies per month, six month moving average seasonally-adjusted and adjusted for number of court days

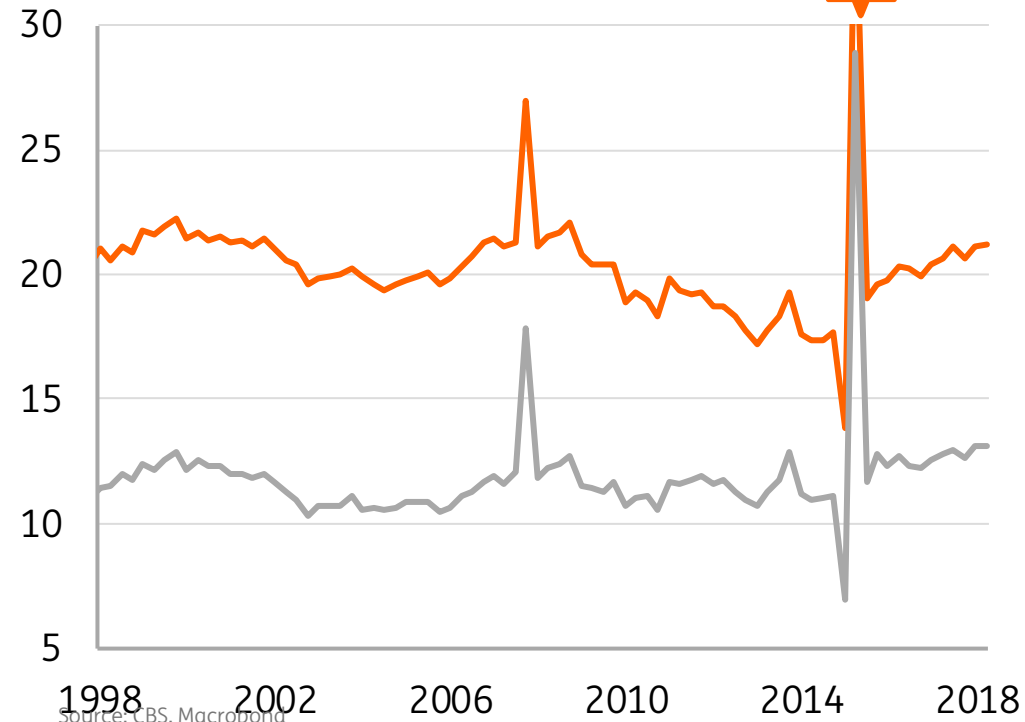


Commercial services Construction Trade
Industry Transport Hospitality
Public services (incl. health)

Business investment rate has recovered, but not yet construction

Total investment and private investment rate near structural peaks...

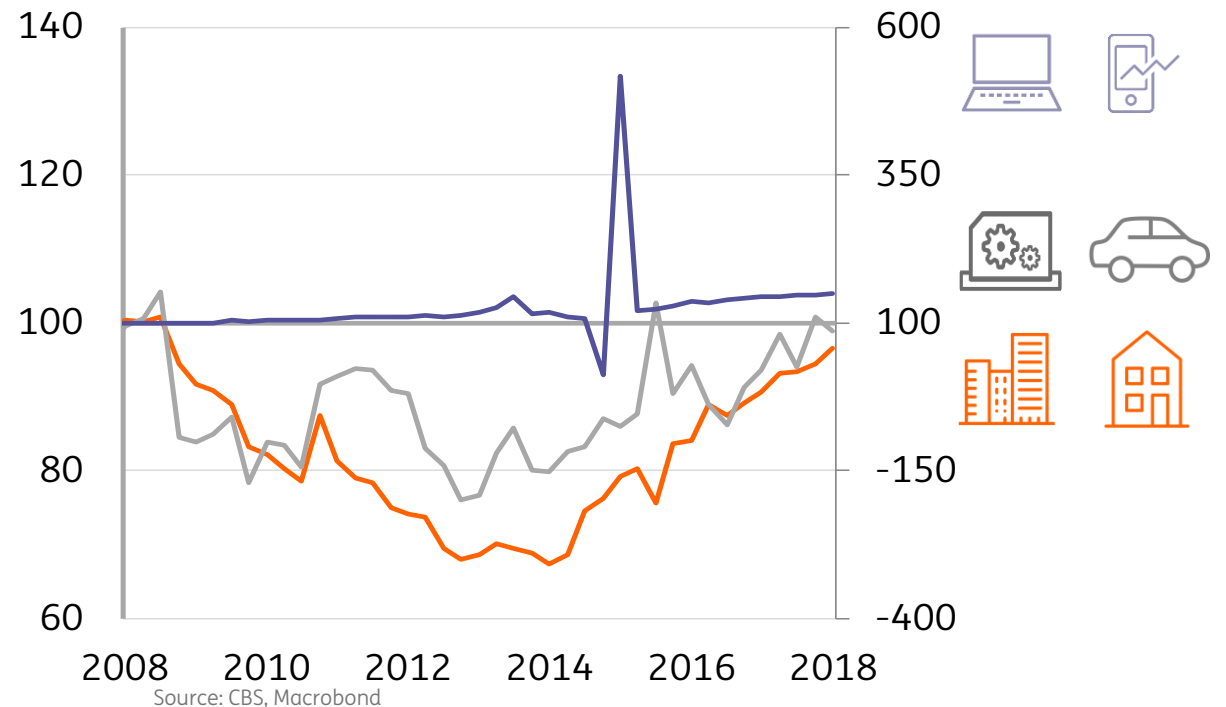
As % of GDP, seasonally adjusted volumes



- Total investment (private + public)
- Private investment, excluding dwellings

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

Seasonally adjusted volume-index, 2008 = 100



- Dwellings and other buildings (including roads, waterways, etc.) (lhs)
- Machines and transport vehicles (lhs)
- Software, computers and R&D (rhs)

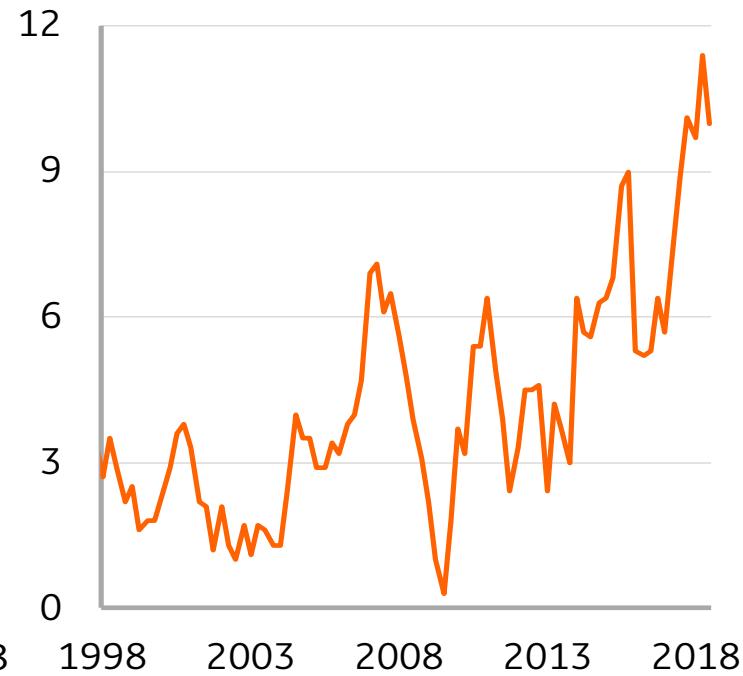
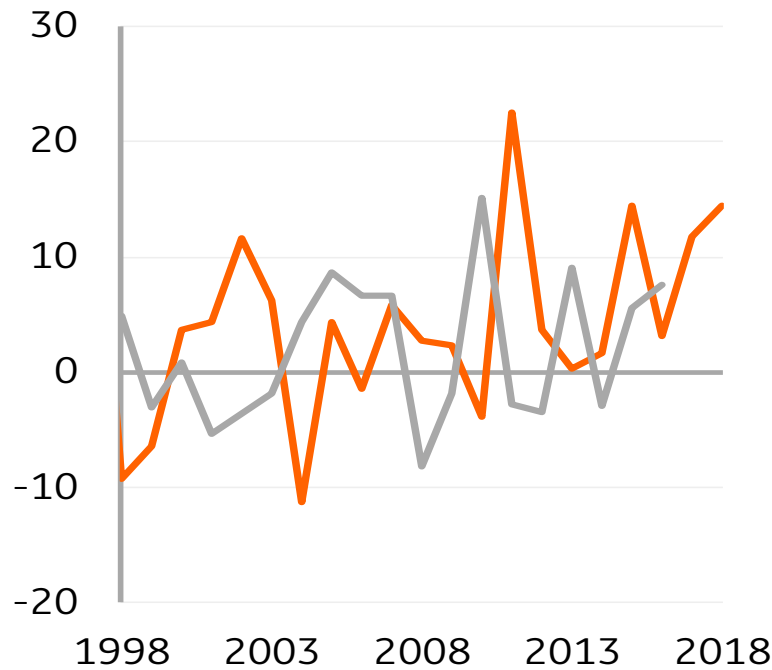
27 *Extreme spikes in investments in 2015 and 2016 are caused by a large one-off purchase of foreign intellectual property (and divestment) by a Dutch multinational in the commercial service sector

Further investment growth expected

Manufacturing expects to invest more... ..since need for extra capacity went up

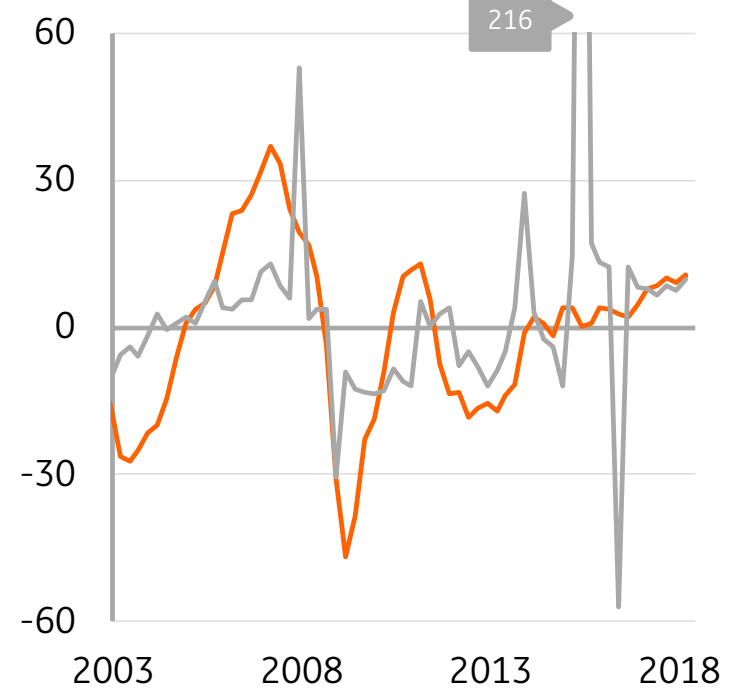
% change in fixed investment

% of firms, seasonally adjusted



Comm. service investment continues

Conf. indicator as dev. from LT-average and % change year on year, both seasonally adjusted



— **Expected** increase in investment manufacturers
— Actual investment manufacturers

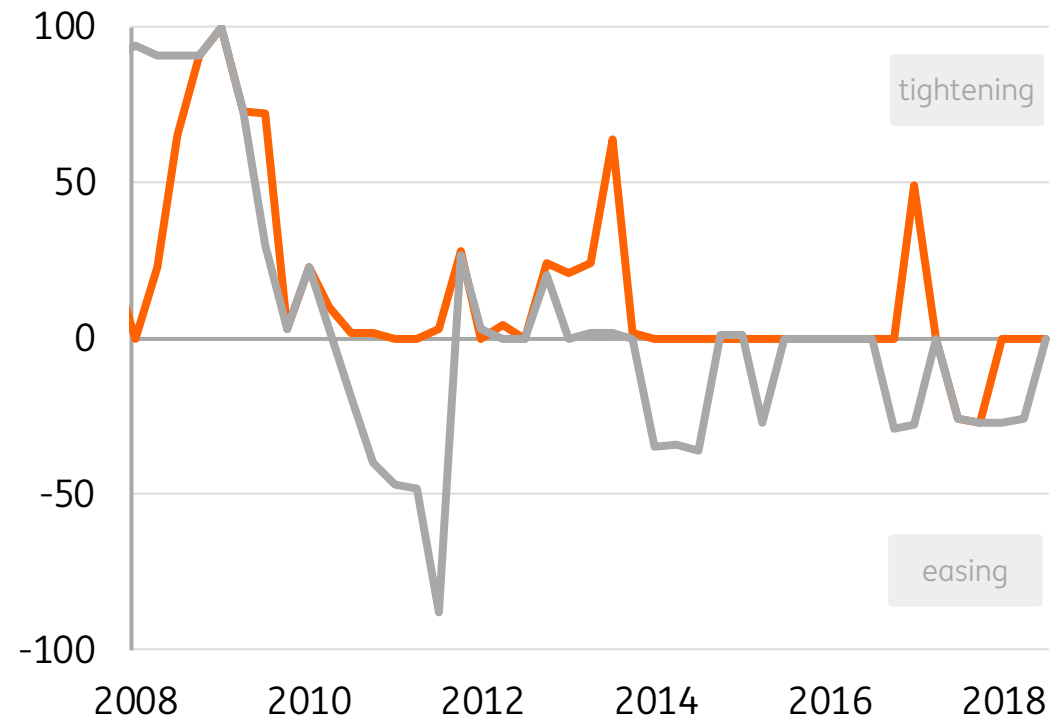
— Industrial firms reporting shortage of materials and/or equipment as main limit to production

— Business confidence com. services
— Investment volume com. services excluding retail and wholesale

Demand for bank credit is increasing

Credit standards have been unchanged

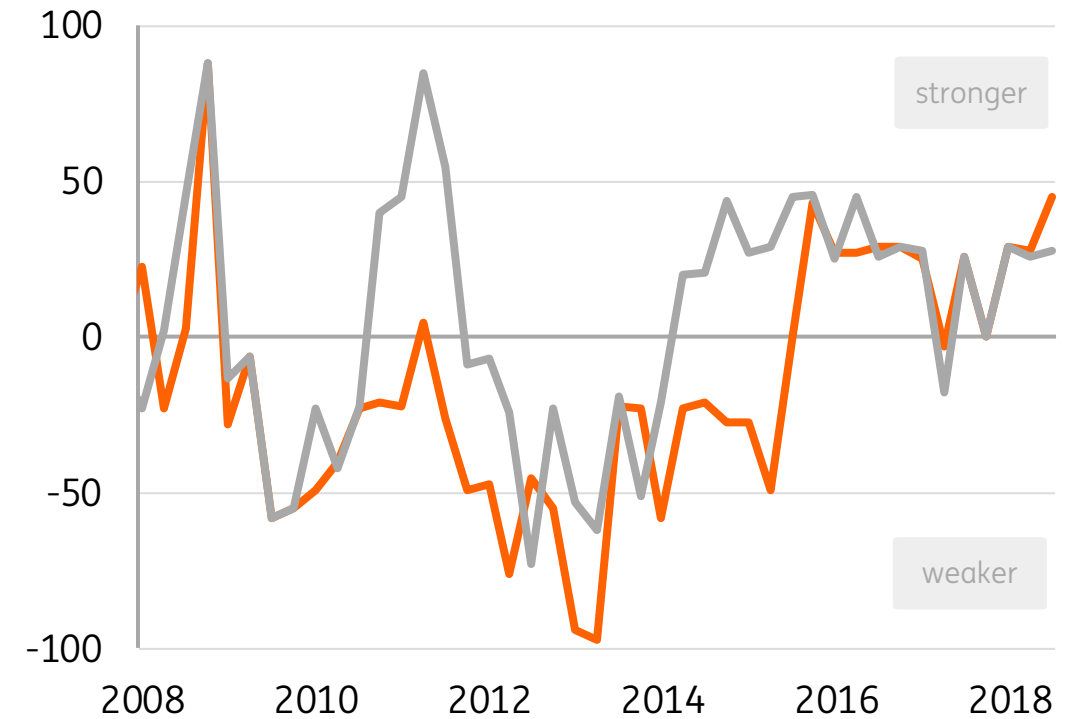
Net percentage of banks reporting tighter (+) or eased (-) standards



— SMEs
— Large firms

Credit demand for both large firms and SMEs picking up

Net percentage of banks reporting stronger (+) or weaker (-) demand



— SMEs
— Large firms

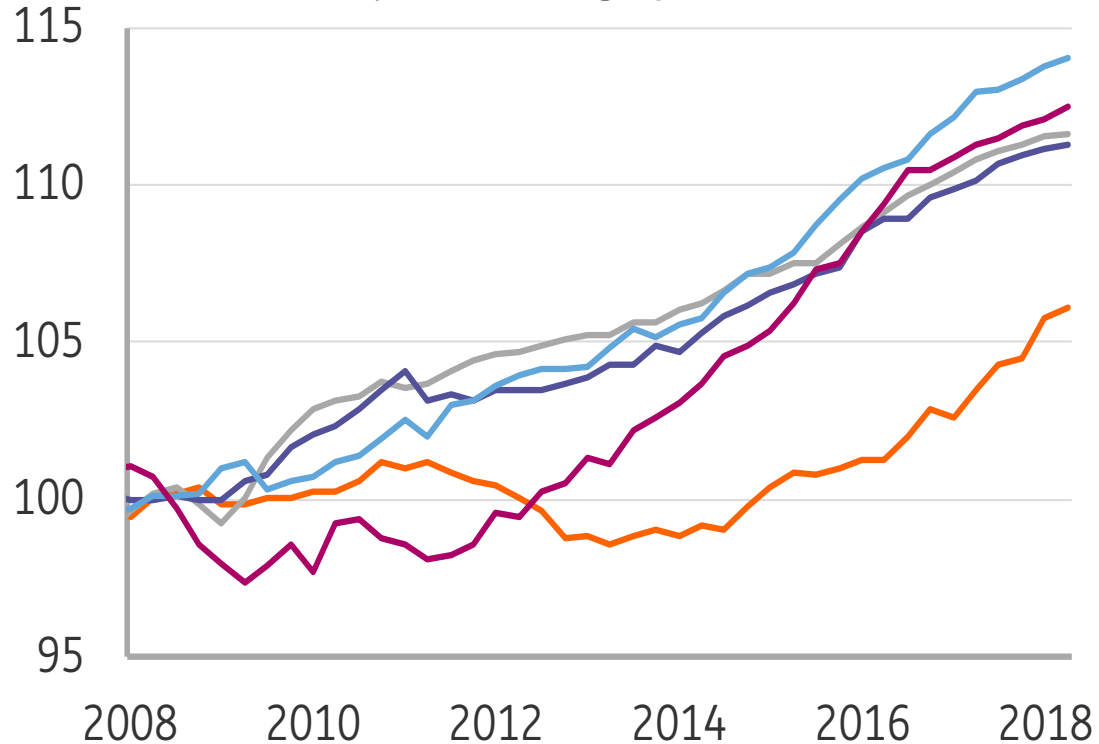
Consumers

- Spending power has risen 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 especially in 2019 due to the economic momentum and fiscal stimulus.
- Confidence is high among consumers. High 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 perceive this a good time to make large purchases, although optimism has declined a bit in recent months.
- Compared to other West-European countries, consumption growth is lagging behind other countries. At the same time, consumption as a share of GDP is decreasing in the Netherlands.
- Debt take-up is rising again, but at a much lower rate than before the crisis. Total net wealth of households hit the highest level ever recorded in 2016. However, most of the increase is in non-liquid assets, such as pension assets and housing wealth. On average the lost housing wealth has recovered. Accumulated pension wealth continued to increase during the crisis and has never been higher. This has been mainly the result of pension policies ensuring the continuation of contributions and the increase in the statutory pension age. Yet, also pension liabilities increased, hence some funds are still struggling with their coverage ratios.
- As a result of the above-average 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 standing out in volumes increases. The long lagging housing-related spending just recently passed the pre-crisis level, 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 pre-crisis levels.

Consumption lagging, but catching up

Consumption growth since 2008 is lagging behind other countries, but slowly catching up

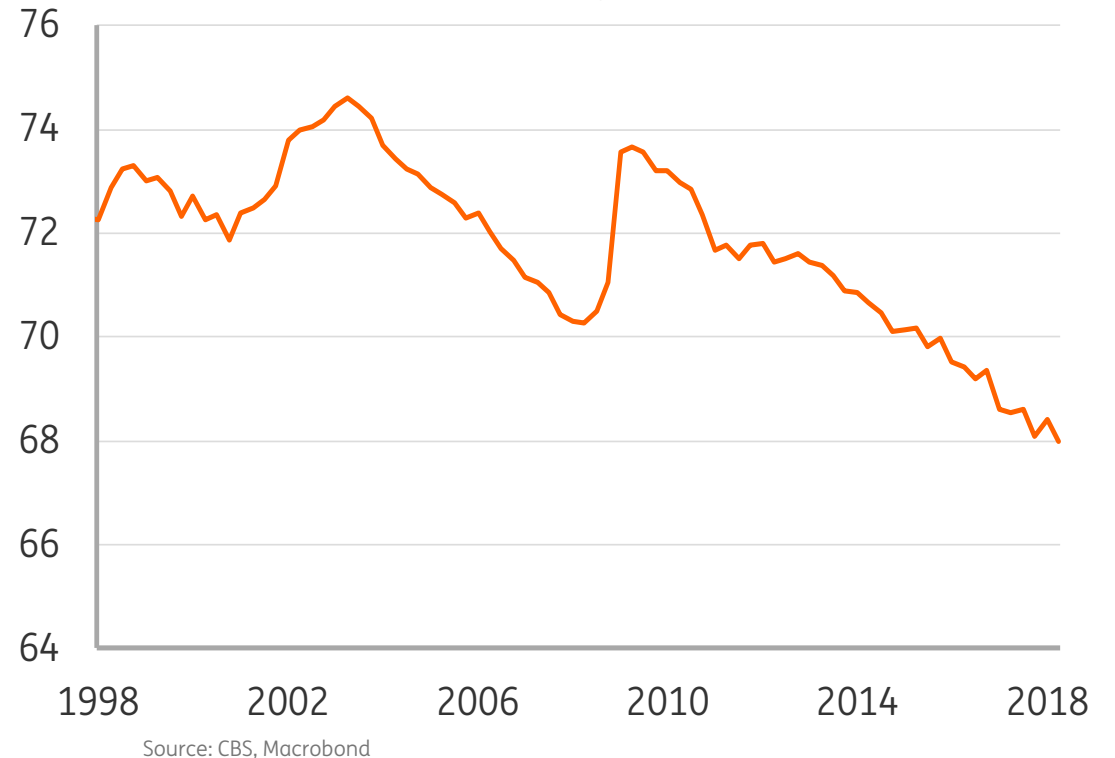
Actual individual consumption, seasonally adjusted volume index, 2008=100



Germany Belgium
United Kingdom France Netherlands

Total consumption as share of GDP still falling

Consumption as share of GDP, seasonally adjusted volumes

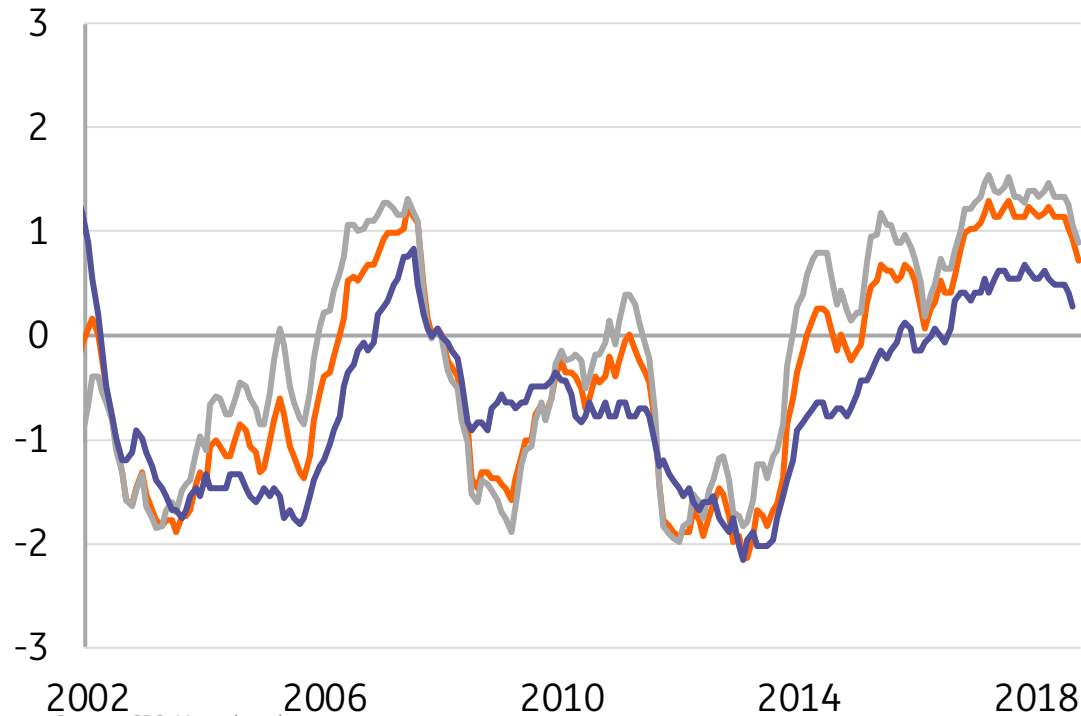


Total consumption (of households and government)

Consumers still optimistic, despite recent falls

Consumer confidence declined but still at high levels

Standardised index with 0 = long term average, net % of positive and negative answers, seasonally adjusted

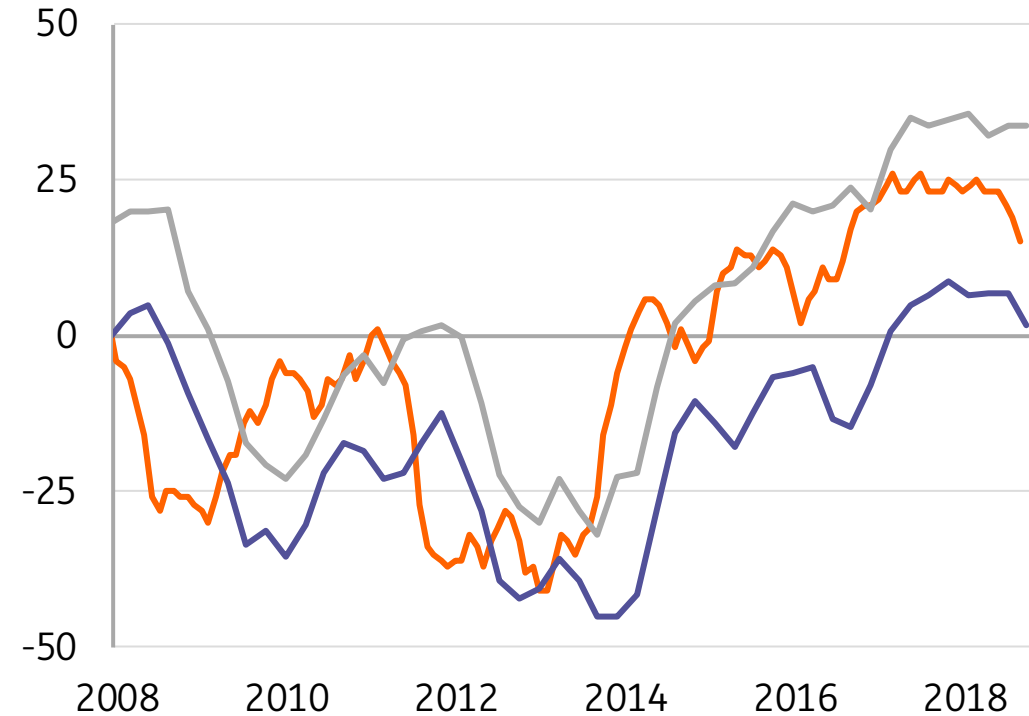


Source: CBS, Macrobond

- Consumer confidence index
- Economic climate
- Willingness to buy

Younger people confident, improvement among elderly

Consumer confidence index, net % of positive and negative answers, seasonally adjusted*



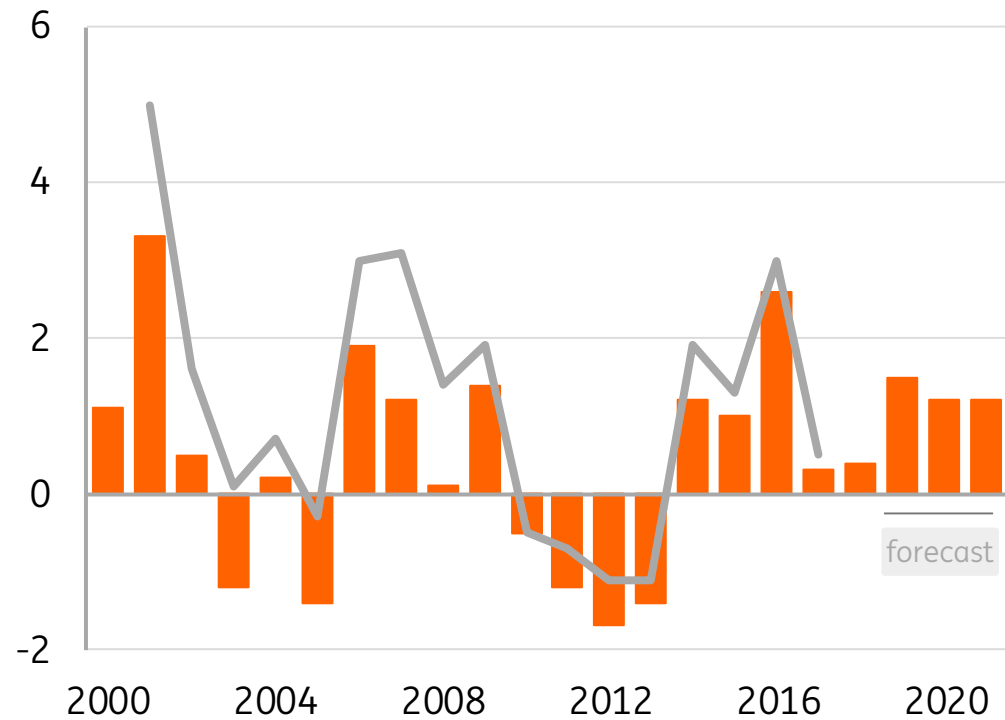
Source: CBS, Macrobond

- All ages
- 18-45 years
- 65+

More spending power on the back of recovery and public spending

Purchasing power is rising due to economic growth and policy

Change year on year, in %

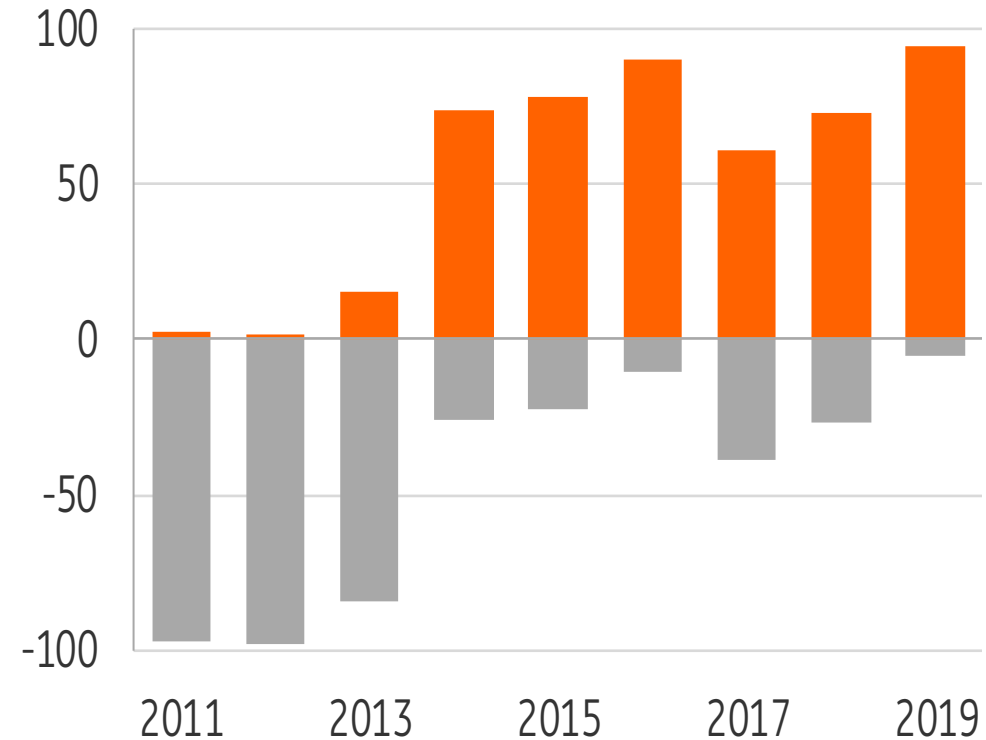


Source: CPB, CEP

- Static purchasing power
- Dynamic purchasing power (taking into account changes in type of income and household composition)

Share of households with an increase in static purchasing power expected to approach 100%

Share of households in %



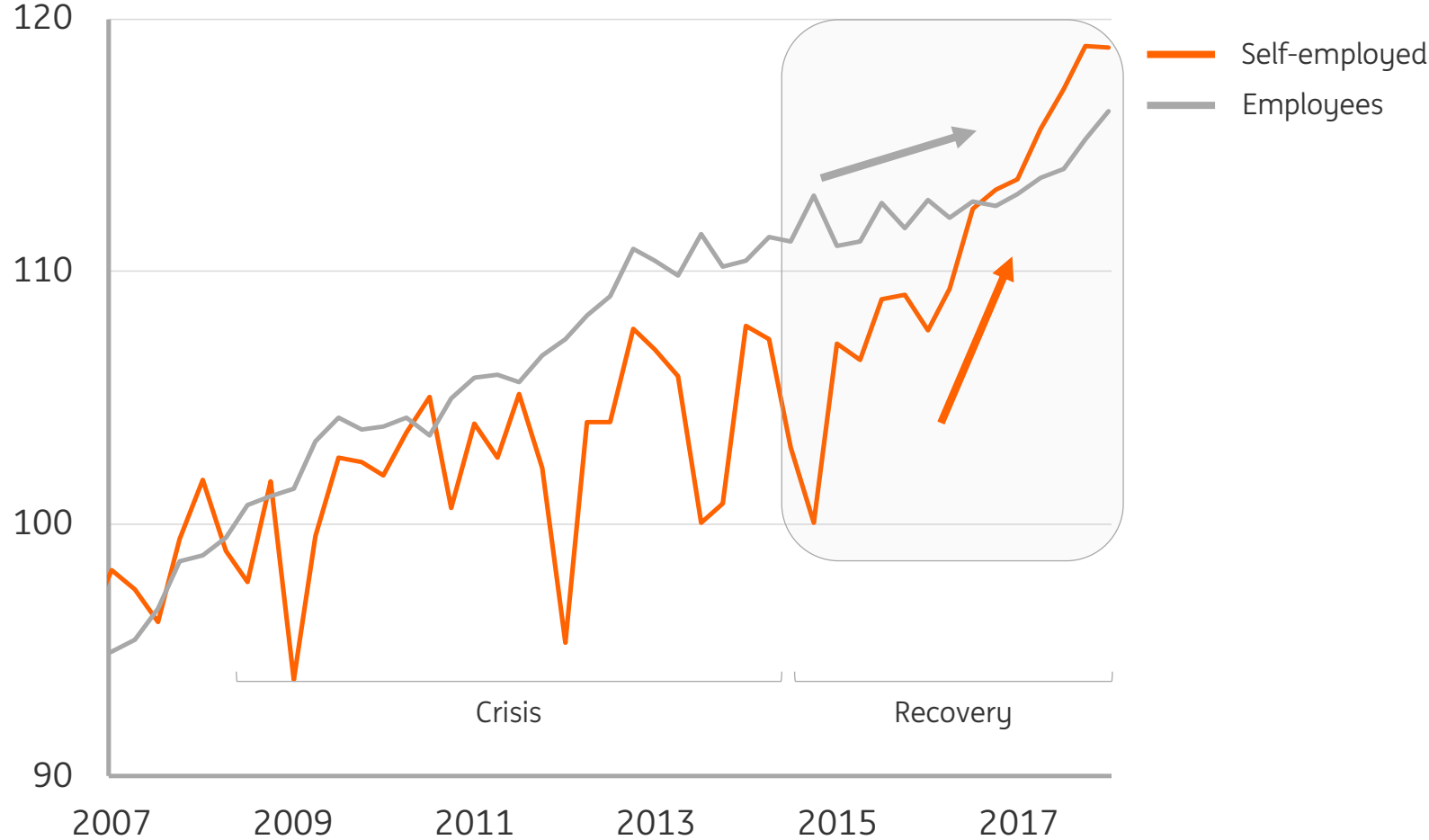
Source: CPB

- Increase in purchasing power
- Decrease in purchasing power

Hourly income of self-employed is outpacing employee income

Hourly income of self-employed more volatile than income of employees and rising faster recently

Average gross remuneration per hour worked (mixed income for self-employed, seasonally adjusted index, 2008 = 100)

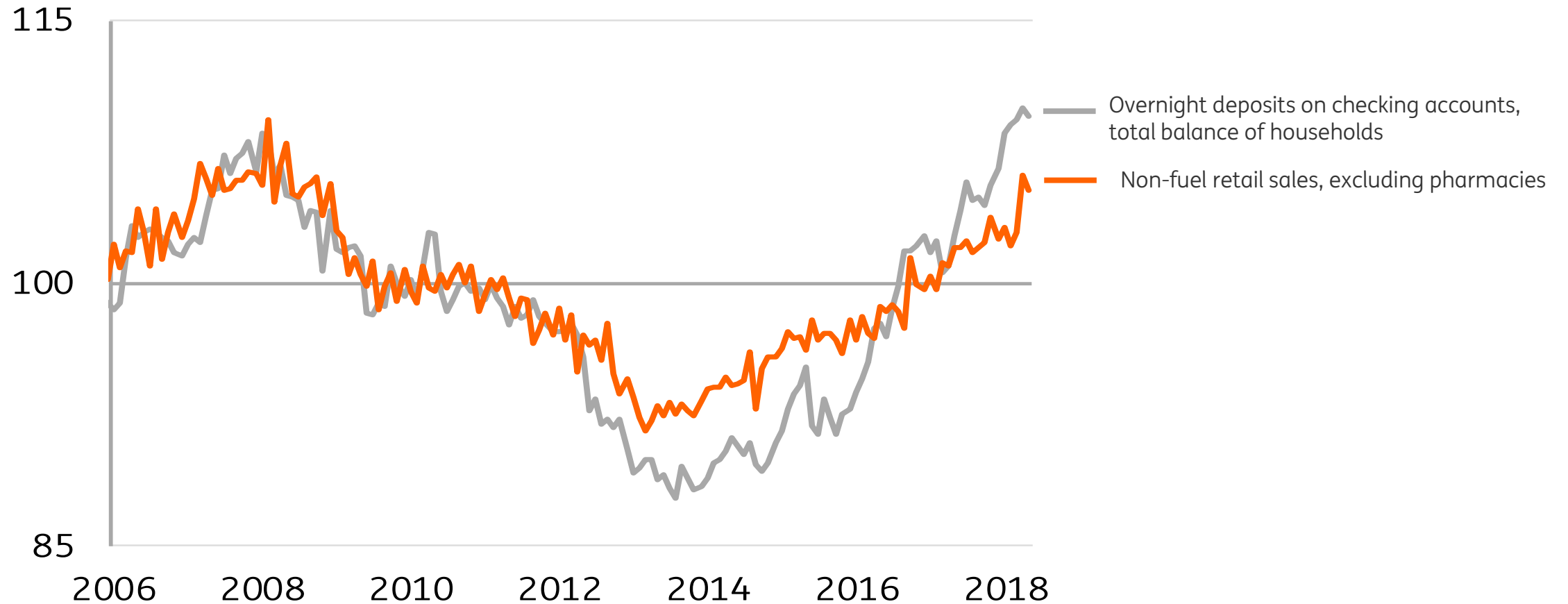


Source: CBS, ING

Deposits on checking accounts at record high

Increase in overnight deposits points to higher spending by households

CPI inflation-adjusted index overnight deposit balance of households and volume index for retail, both 2010 = 100 and seasonally adjusted

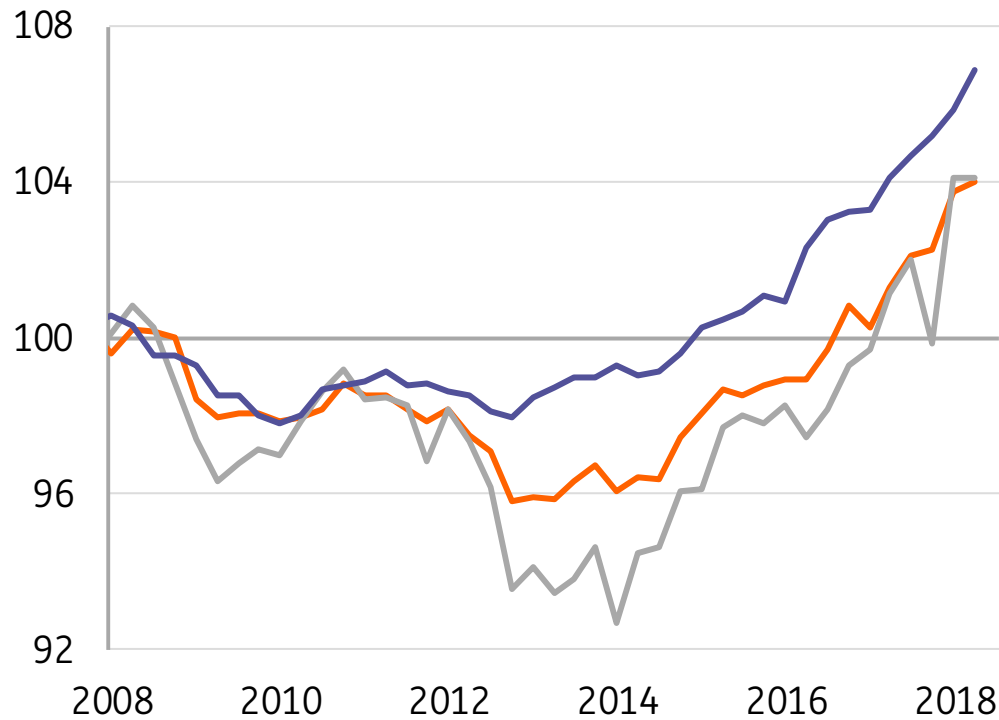


Source: DNB, Eurostat, Macrobond

Private consumption of services is steaming ahead

Increased spending on both goods and services

Private consumption by type, seasonally adjusted volume index, 2008 = 100*

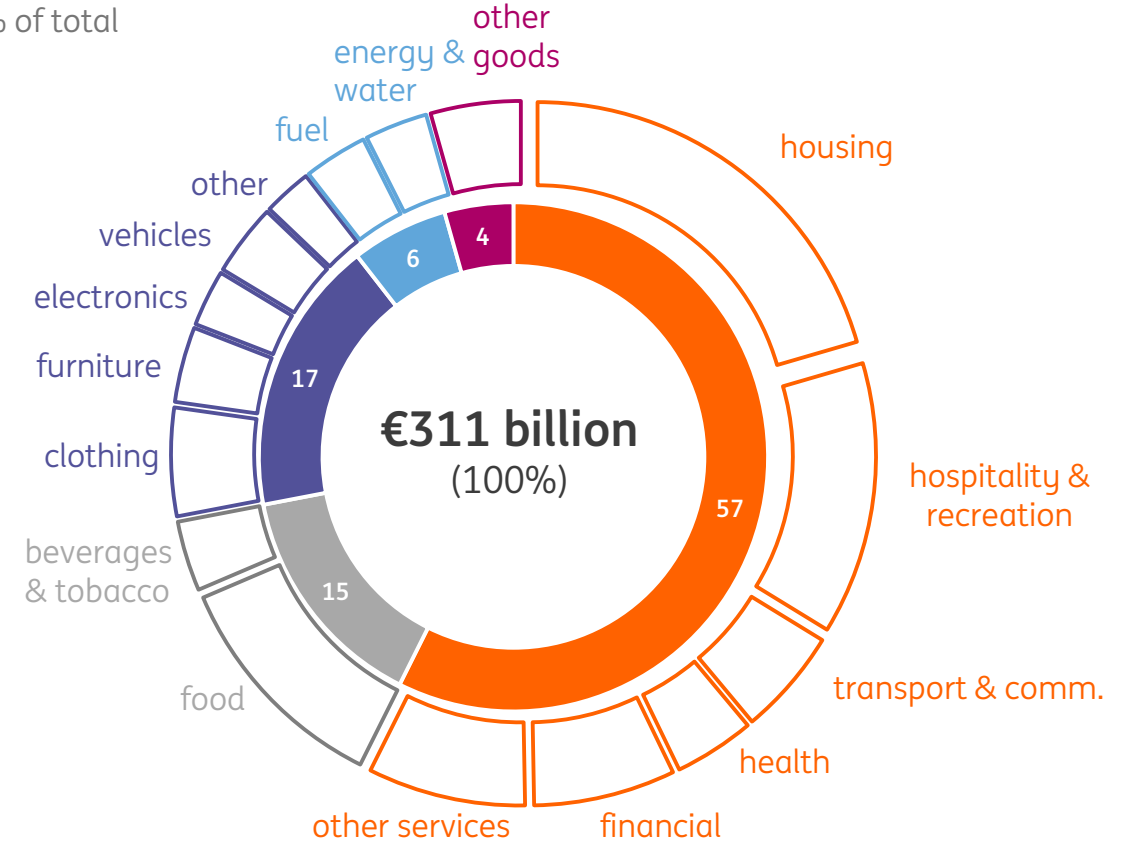


Source: CBS, Macrobond

- Total
- Goods
- Services

Breakdown of consumer spending, 2016

% of total

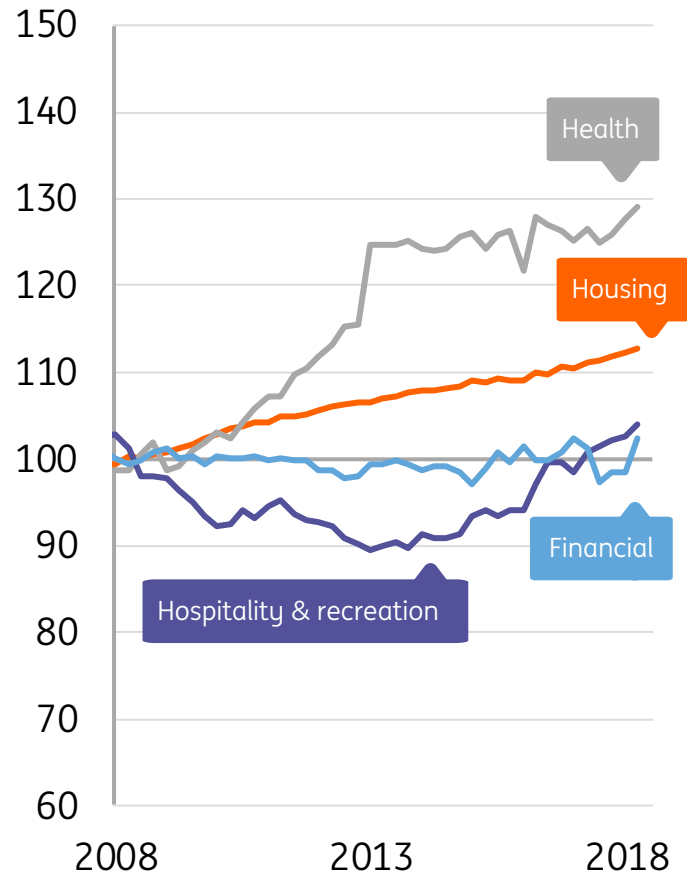


- Services
- Food, beverages & tobacco
- Durable goods
- Energy & fuel
- Other goods

Consumer spending trends: pickup in durables

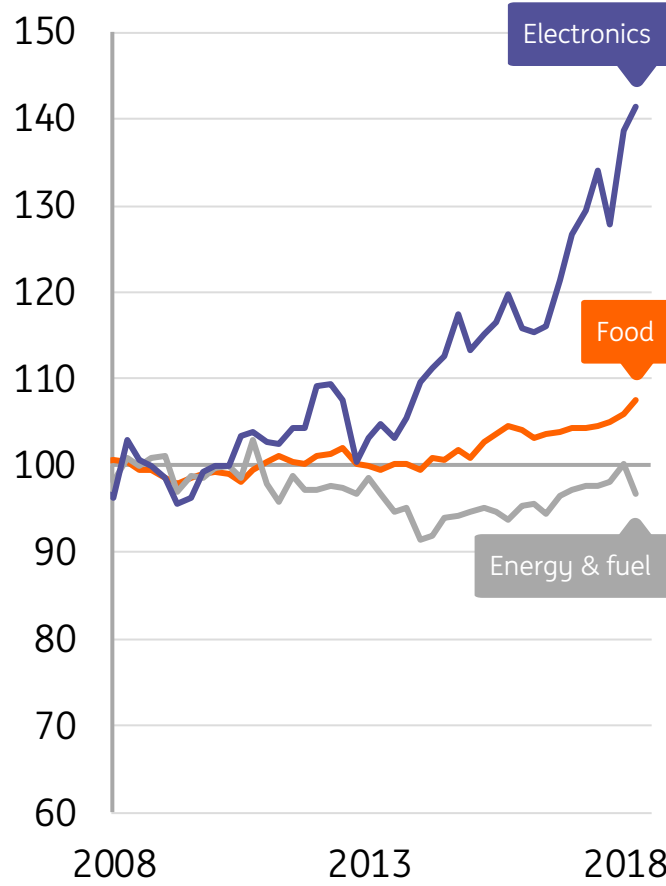
Services: all above precrises peak

Index, seasonally adjusted volumes, 2008 = 100



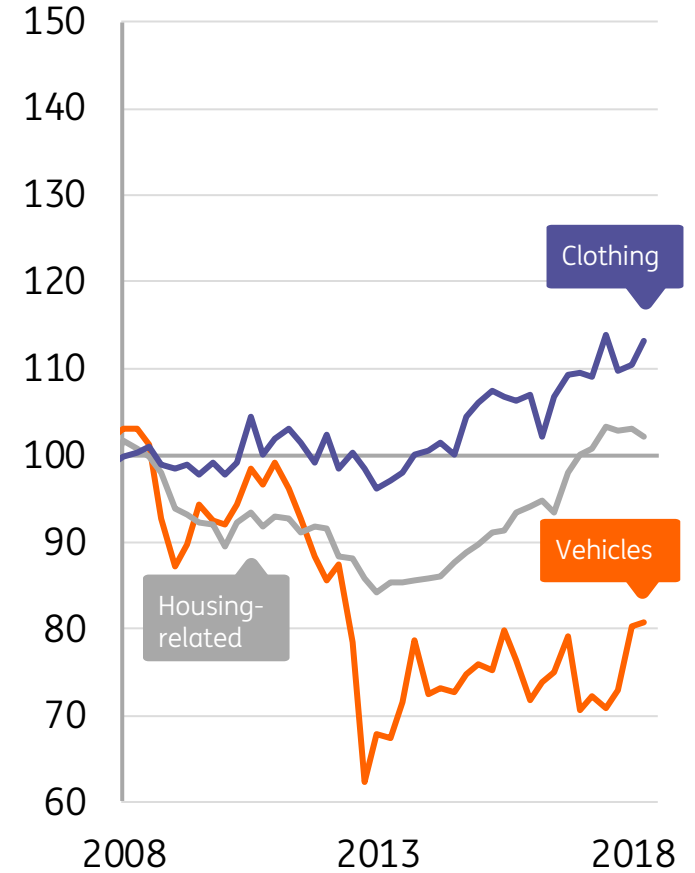
Source: CBS, Macrobond

Electronics surge, food accelerating while energy and fuel fell again



Source: CBS, Macrobond

Durables: vehicles still 20% below previous peak while housing related consumption recovered

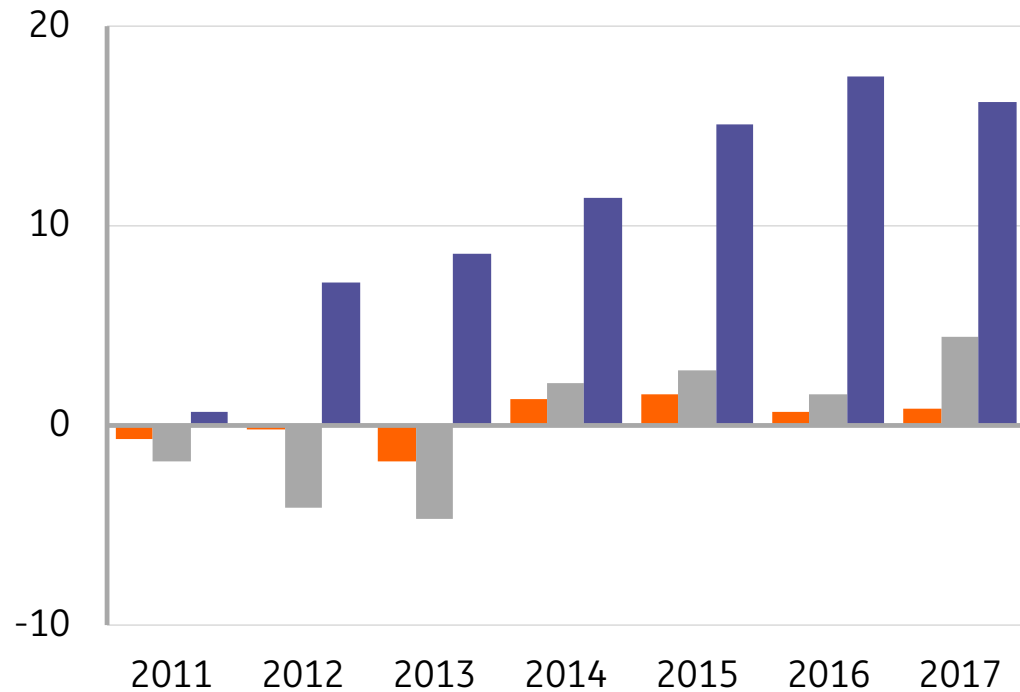


Source: CBS, Macrobond

More and more online

Double-digit rise in online sales volumes

Retail sales volume, change year-on-year, in %

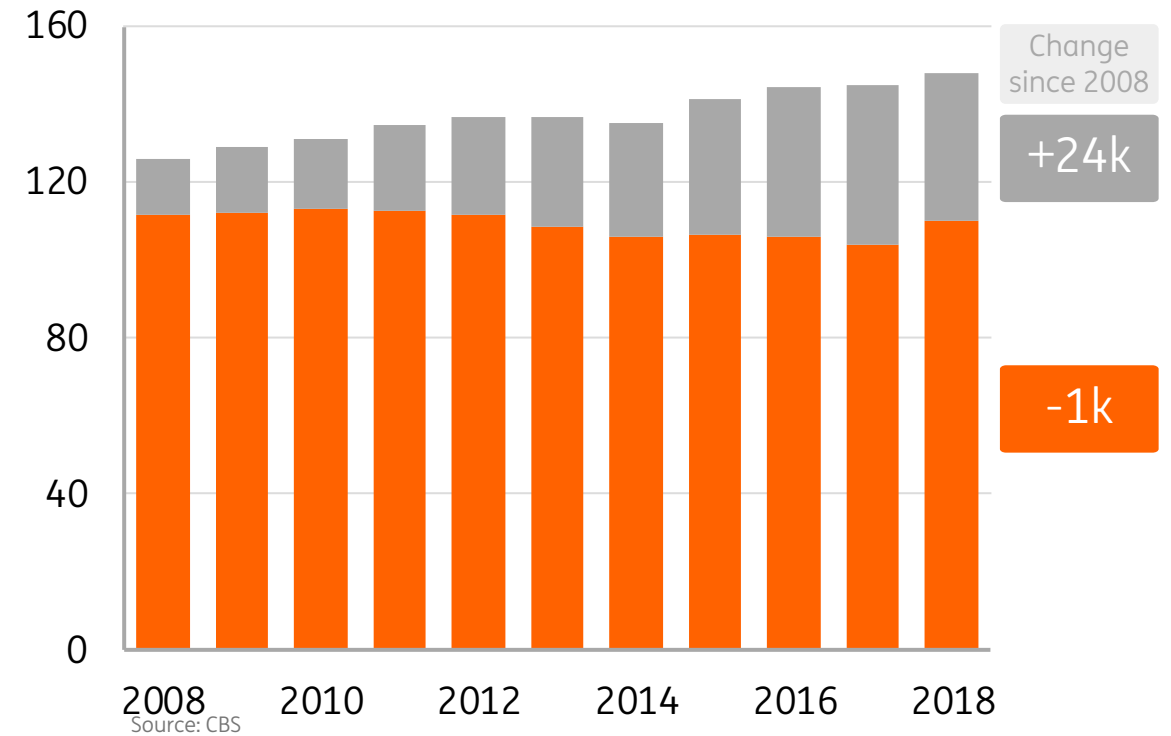


Source: Eurostat, Macrobond

- Food
- Non-food (excluding web shops)
- Post order/web shops

High growth in the number of web shops

In thousands



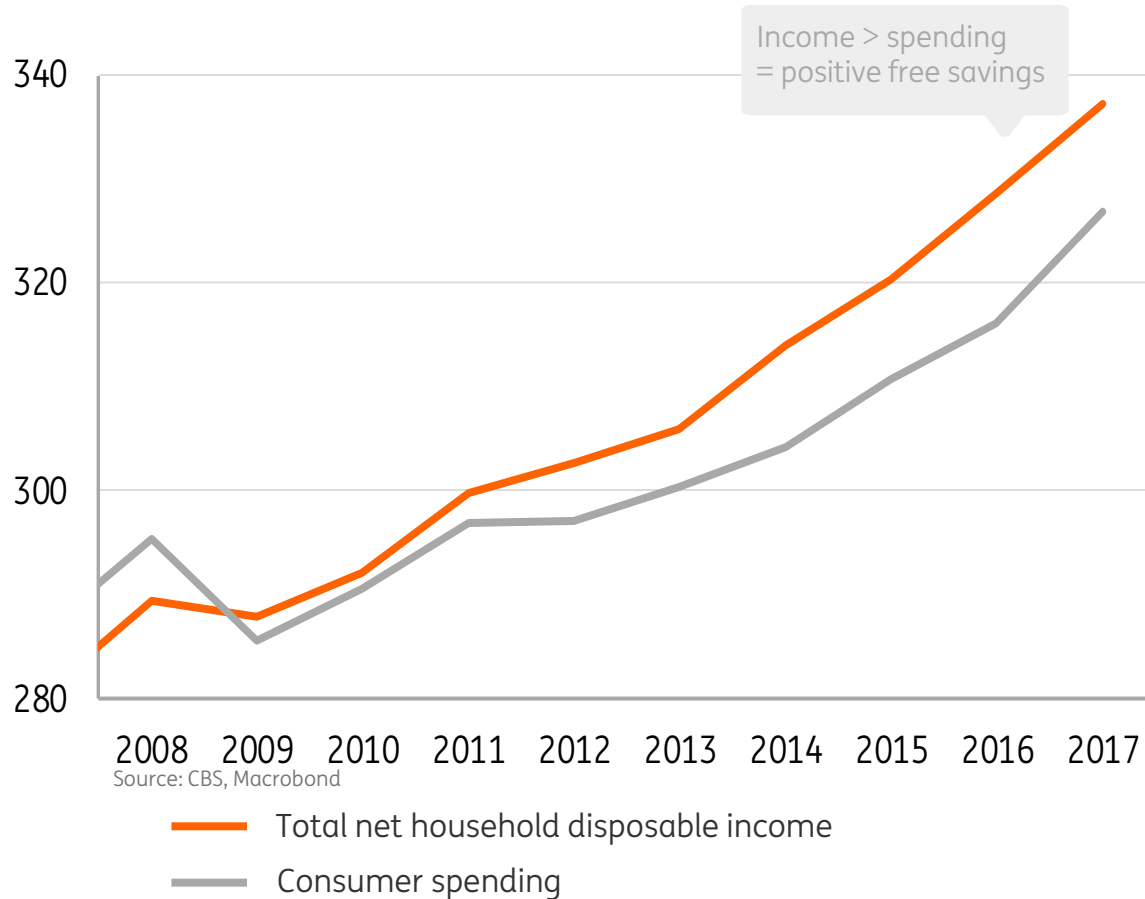
Source: CBS

- Traditional shops
- Post order / web shops

Savings positive again, but not by as much

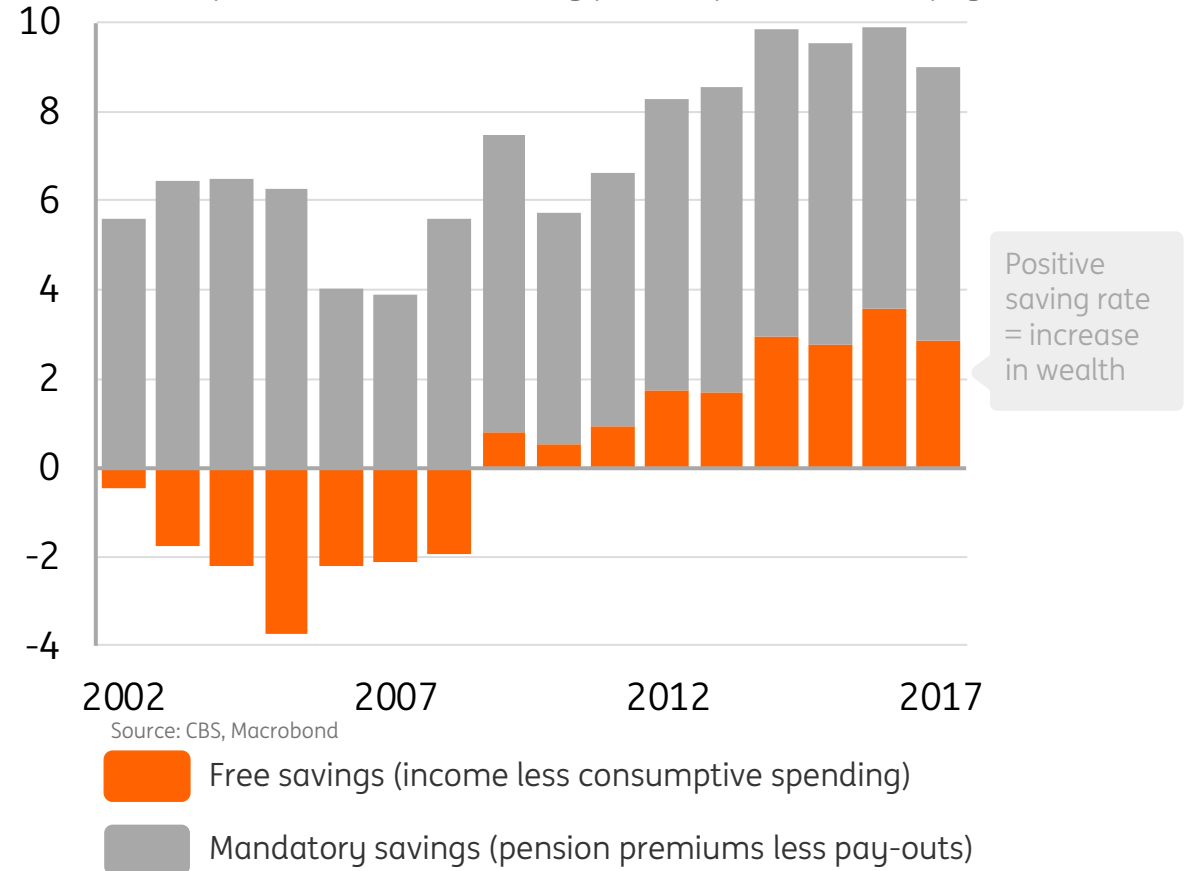
Household income higher than consumption

In billions of euros



...but especially the 'free' savings rate' falls while remaining positive

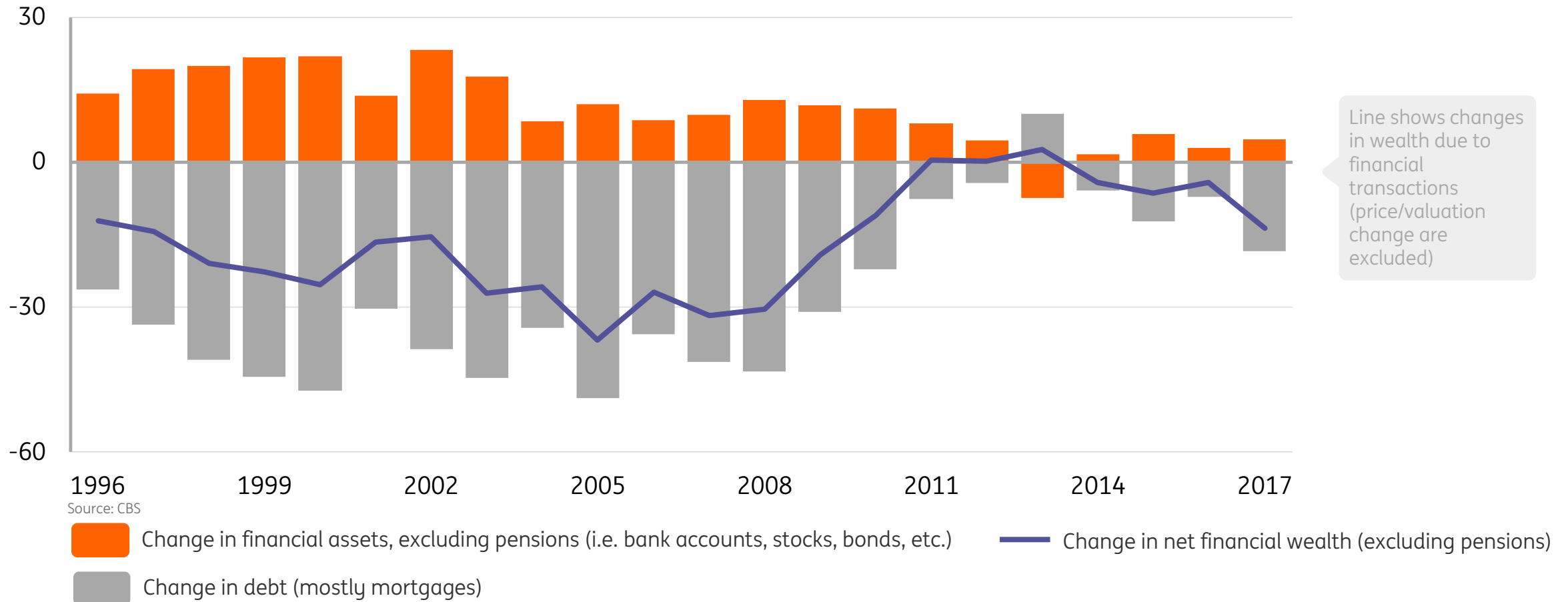
% of net disposable income (including pension premiums less pay-outs)



Households are taking up more debt again

Debt of households increased significantly faster than liquid assets again, but not yet at pre-crisis rates

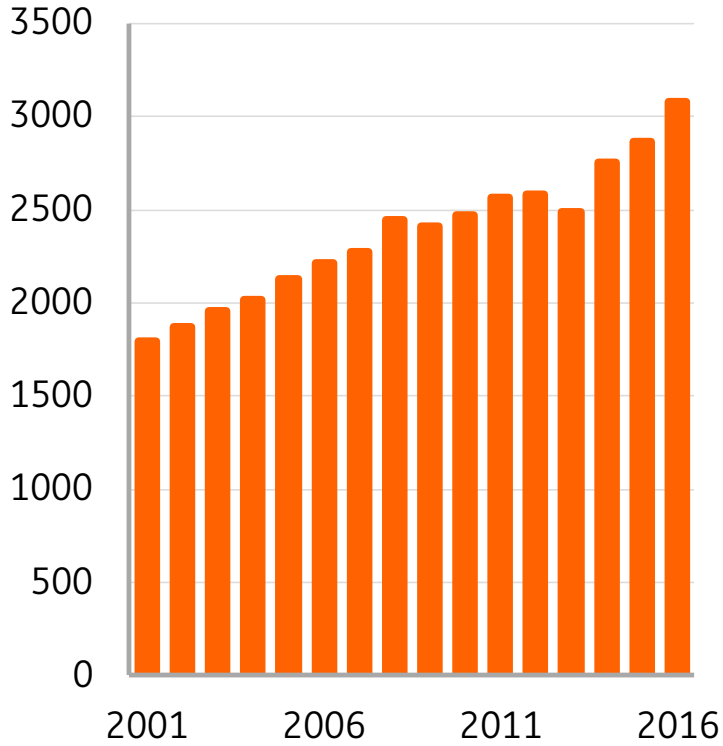
Changes in billions of euros



Total net wealth increased further during crisis

Total net wealth at record high

In billions of euros

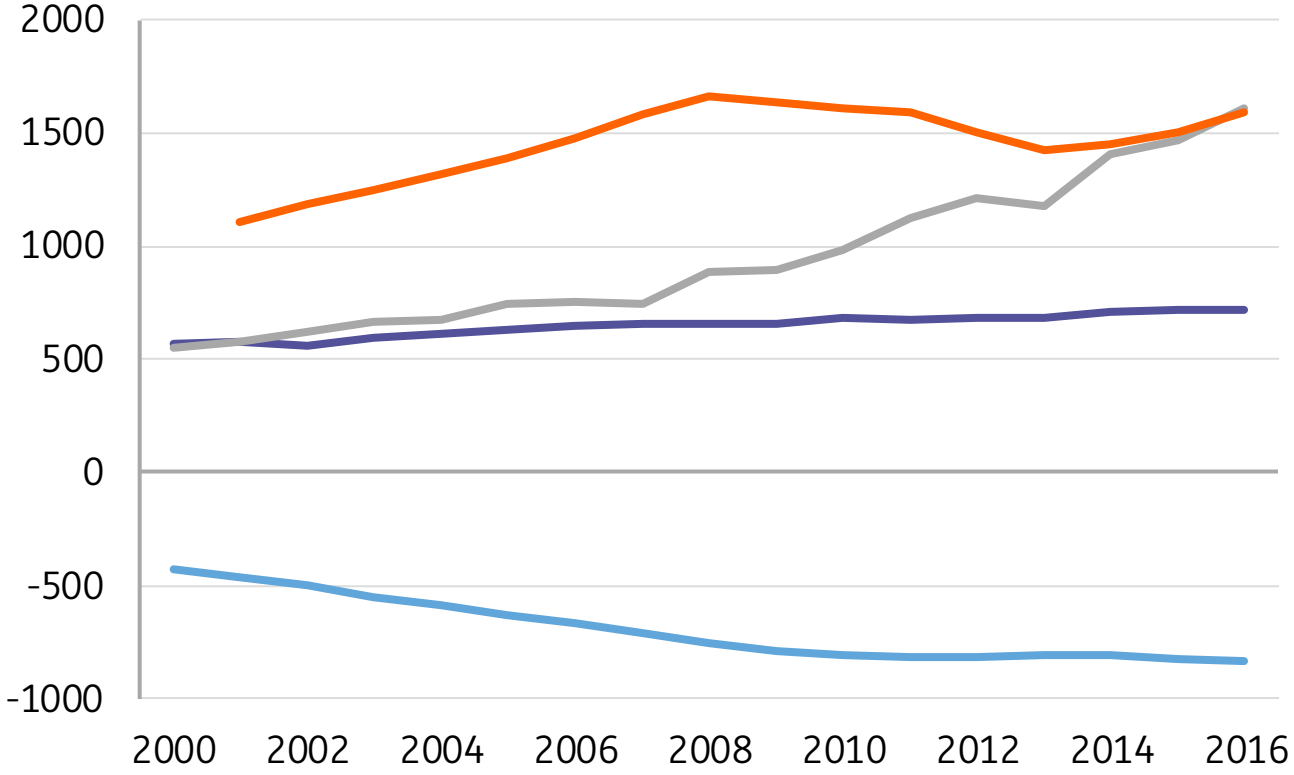


Source: CBS

█ Total net wealth (financial and non-financial)

Increase in pension assets has offset temporary decline in housing wealth

In billions of euros



Source: CBS

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

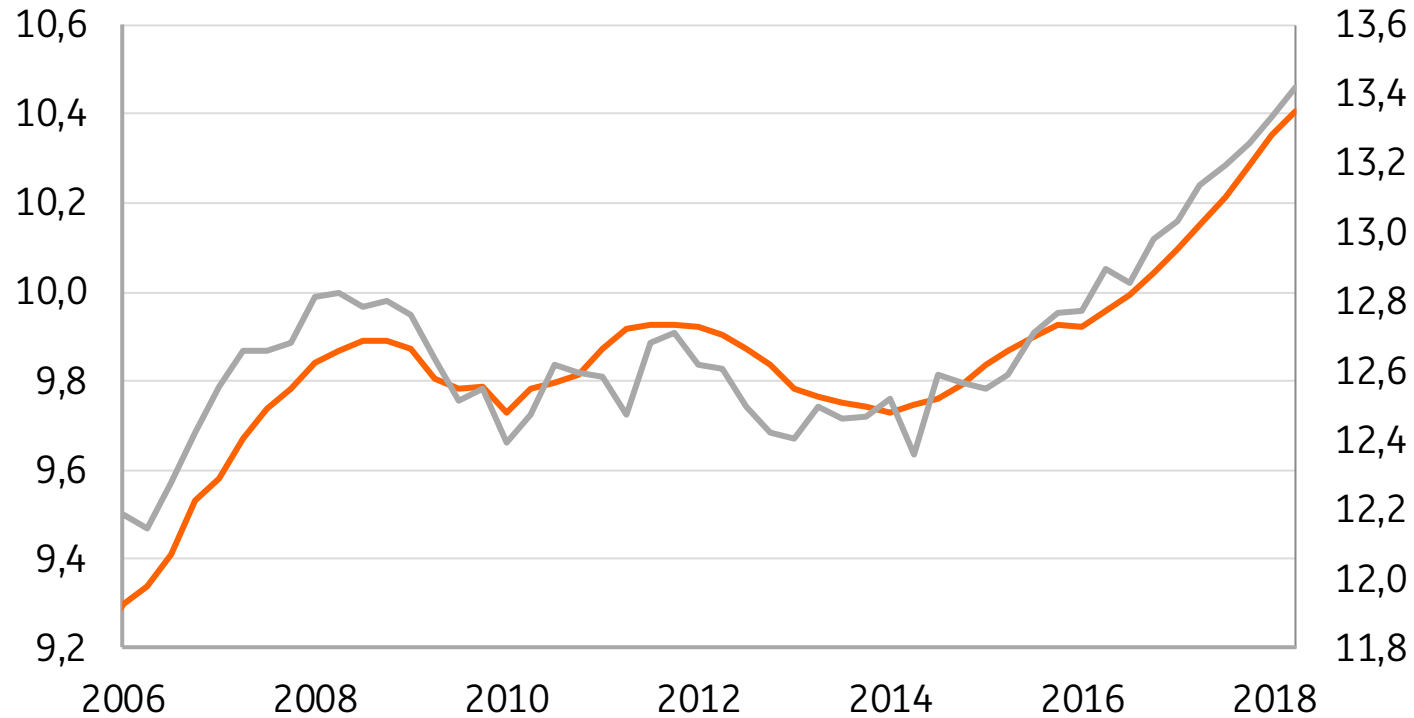
Labour market

- Employment growth has maintained its high pace in recent quarters. The number of people employed is now much higher than at the start of the crisis. In terms of total hours worked, the labour market has bounced up even stronger.
- The unemployment rate has fallen rapidly and has dropped below its long-term average. All age groups show a decline, although youth unemployment picked up a bit recently. Over the last six months the unemployment rate has been more stable around 3.9% (3.7% in September) , because a lot of job seekers, who were perhaps discouraged during the crisis, are re-entering the job market.
- Sector-wise, temporary job agencies have been the largest contributor to the increase in jobs. Nevertheless, over the last 12 months the number of fixed contracts increased significantly and is currently the biggest contributors to new jobs. After many years of low or negative employment growth in the (semi)public sector (incl. health), this sector is hiring again. The same holds for construction sector, which appears to be booming.
- Despite the strong improvement in the labour market, there is no sign of serious overheating yet while accelerating, wage growth has been moderate so far. Also, there is more unused potential in the labour market than only unemployment data suggests. In addition to the near 350K unemployed, there appears to be potential labour supply of at least about 234K people if participation rates for men were to return to pre-crisis levels and women would show a similar increase. The gross labour market participation rate has almost recovered from the crisis, mainly because females continued their upward trend. Participation amongst males still has a lot of ground to recover, especially among 25 to 45 years old.
- The number of unemployed persons per unfilled vacancy went from 7 in 2013 to 1.4 mid-2018. This signals that the labour market is getting tighter. Leading indicators point to further but somewhat lower employment growth. The number of unfilled vacancies reached 251.000 in the second quarter of 2018. This was the highest number ever registered. The share of businesses reporting a shortage of workers as factor limiting activity has started to increase. Already 24% of the Dutch companies indicate that it is difficult to find sufficient suitable employees. The shortages are particularly high in transportation, construction and in IT.

Employment continues to rise

Number of jobs and hours worked are strongly increasing

Millions, seasonally adjusted

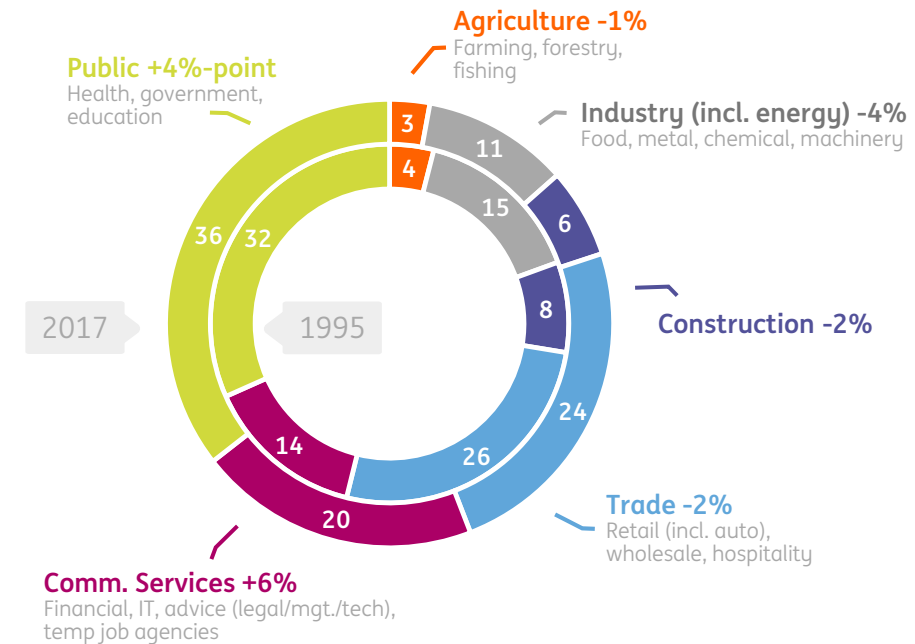


Source: CBS

- Total employment in number of employees and self-employed (lhs)
- Employment in total hours worked (rhs)

1995 vs 2017: more jobs in services

Share in total employment, in %

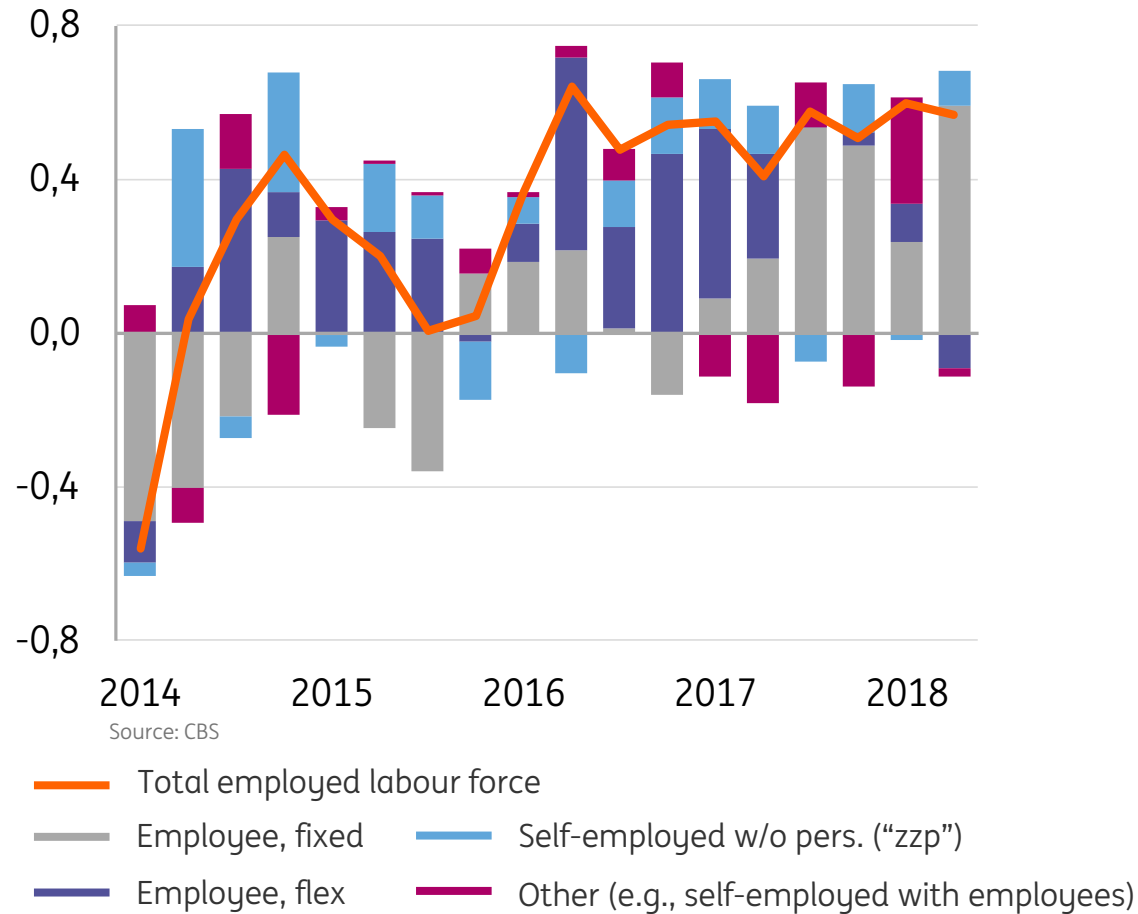


Source: CBS

More work in fixed contracts

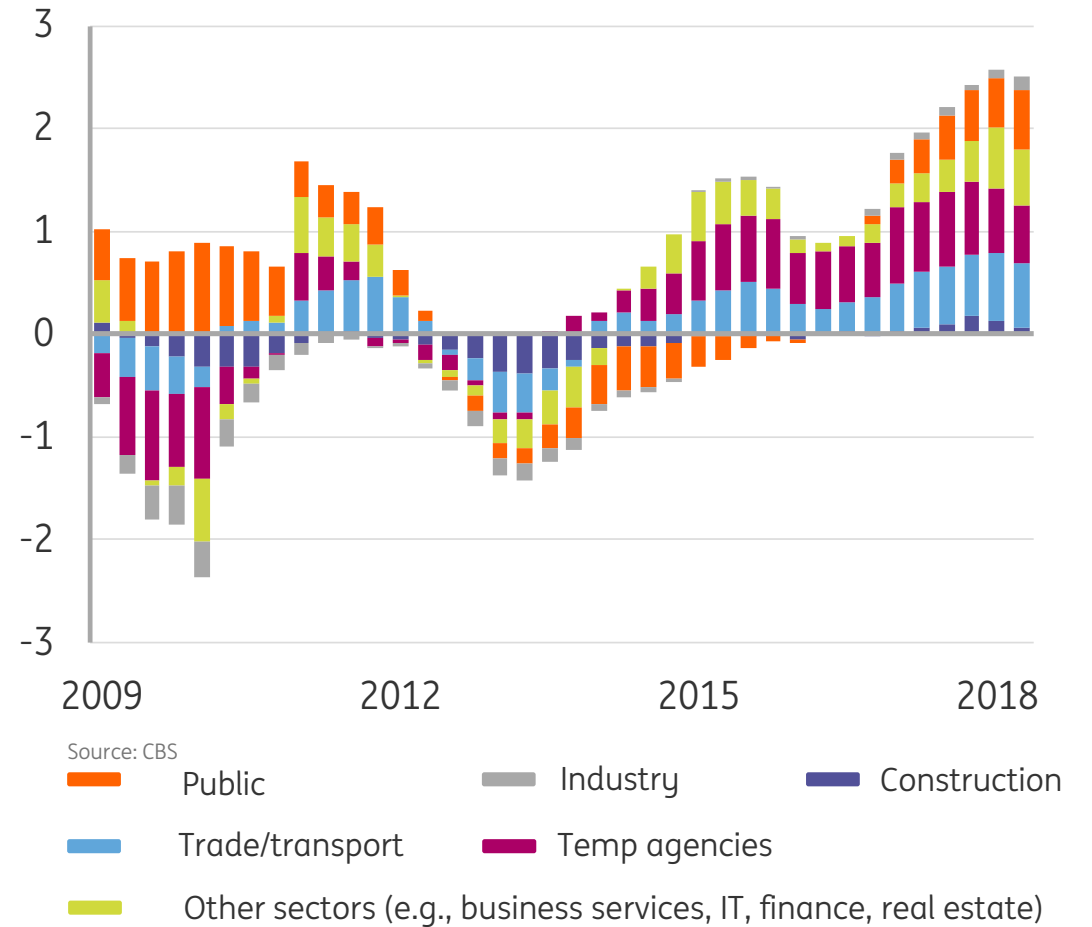
Fixed contracts largest contributor again to growth in employed labour force

Contribution to quarterly change in employed labour force, in percentage (points), seasonally adjusted



Job growth driven by commercial but also public services again

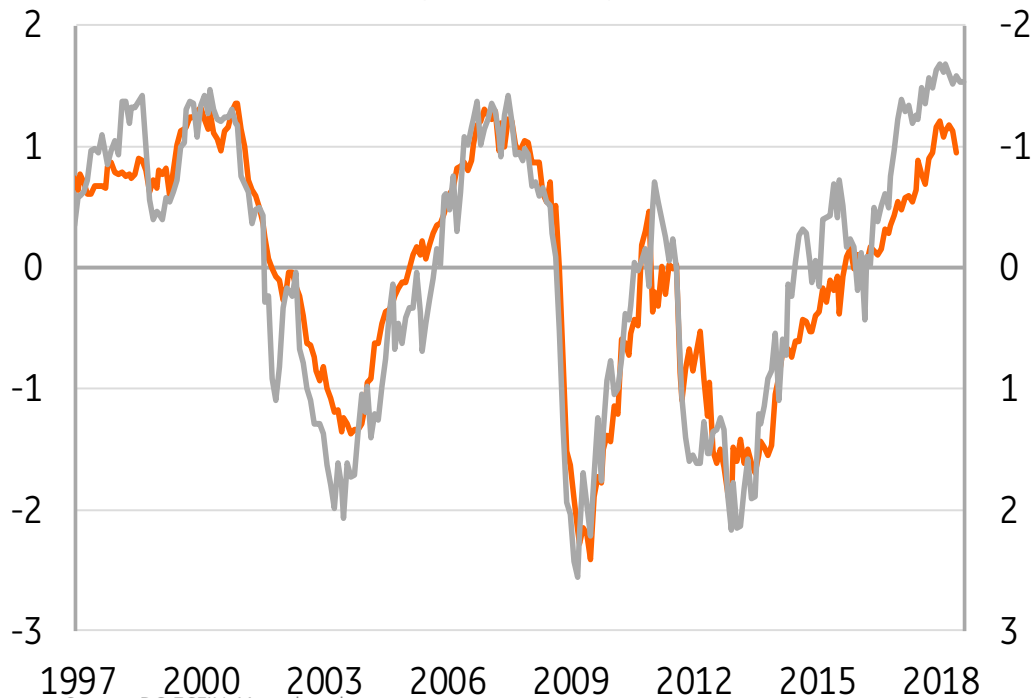
Contribution to yearly change in employment, in percentage points, seasonally adjusted



Leading indicators point to slightly weaker job growth

Consumers and firms have positive employment expectations, but peak might just have been passed

Index, standardized with long term average=0

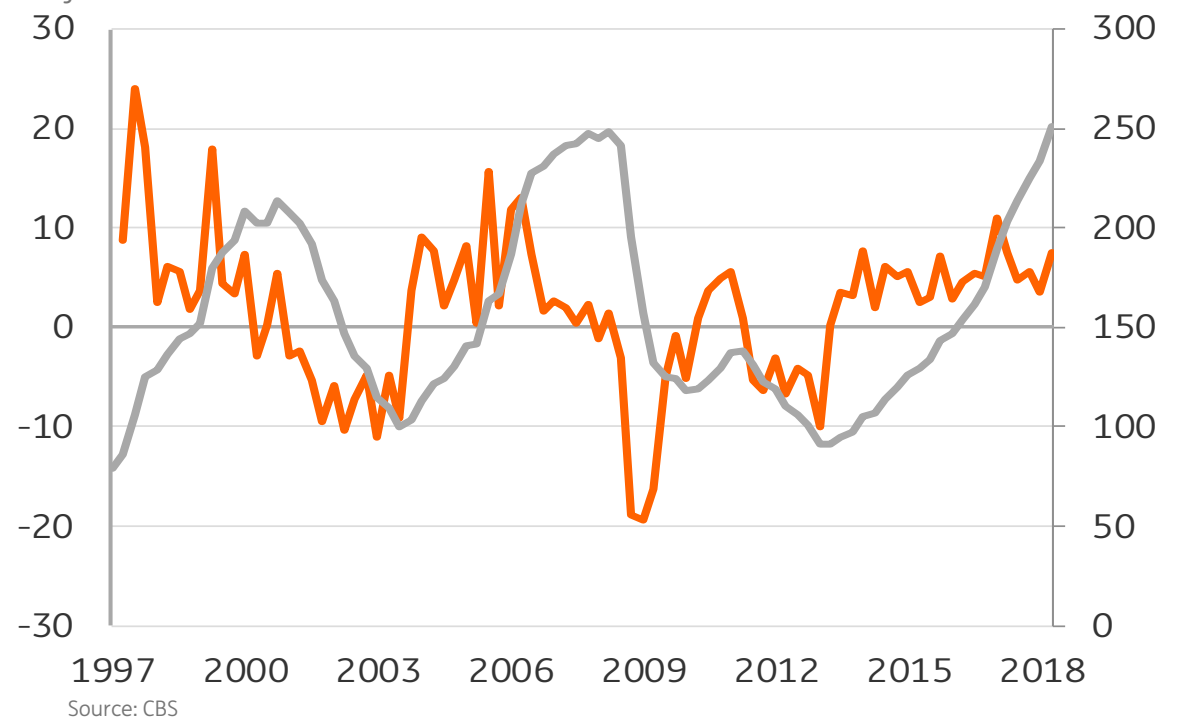


- Businesses' **employment** expectations* (lhs)
- Consumers' **unemployment** expectations (rhs, inverted)

* Weighted average of manufacturing, construction, retail and services

Unfilled vacancies at new record

Growth rate quarter on quarter in % and level in thousands, both seasonally adjusted

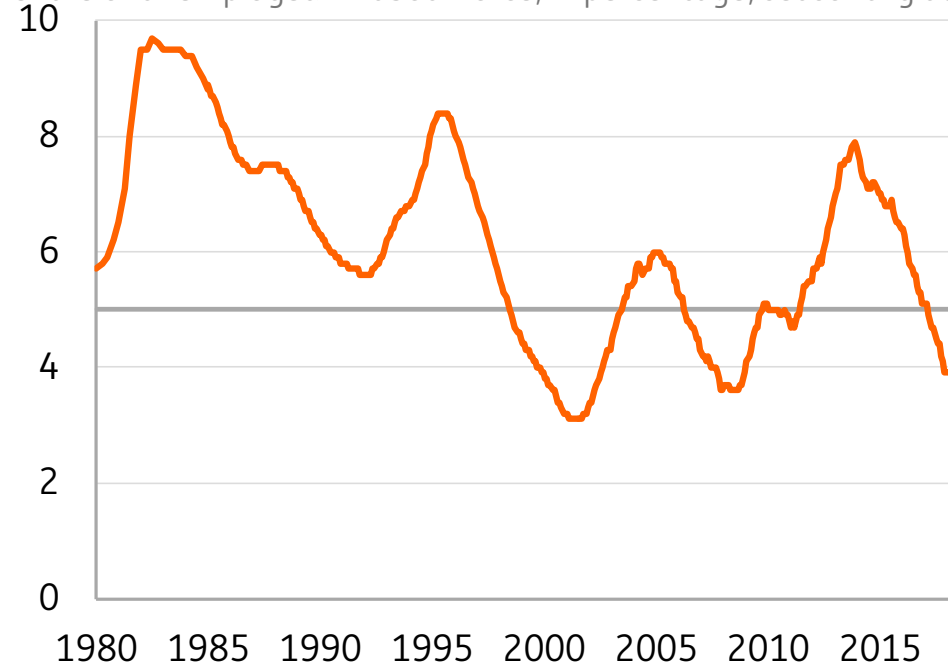


- Unfilled vacancies, growth rate quarter on quarter (lhs)
- Unfilled vacancies in thousands (rhs)

Unemployment drop slows down; level below long term average

Unemployment is nearing previous lows, but drop is stalling due to high number of new entrants to the labour market

Share of unemployed in labour force, in percentage, seasonally adjusted

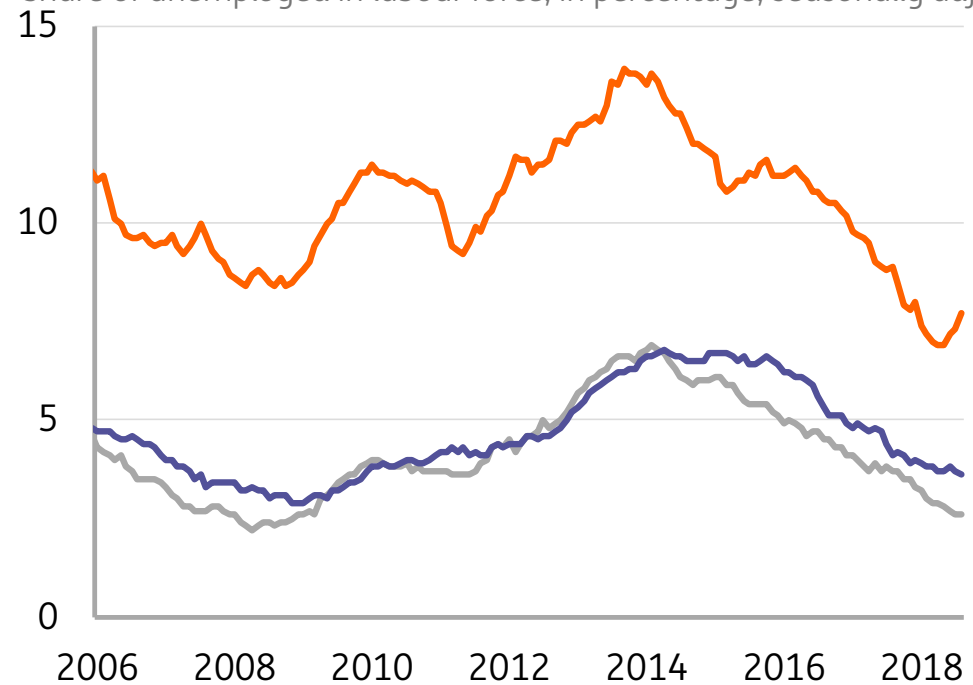


Source: CBS, Macrobond

- Unemployment rate (harmonised, 15-74 years old)
- Long-term average (since 1970)

Lower unemployment in most age groups, youth unemployment slightly rising but still on very low levels

Share of unemployed in labour force, in percentage, seasonally adjusted



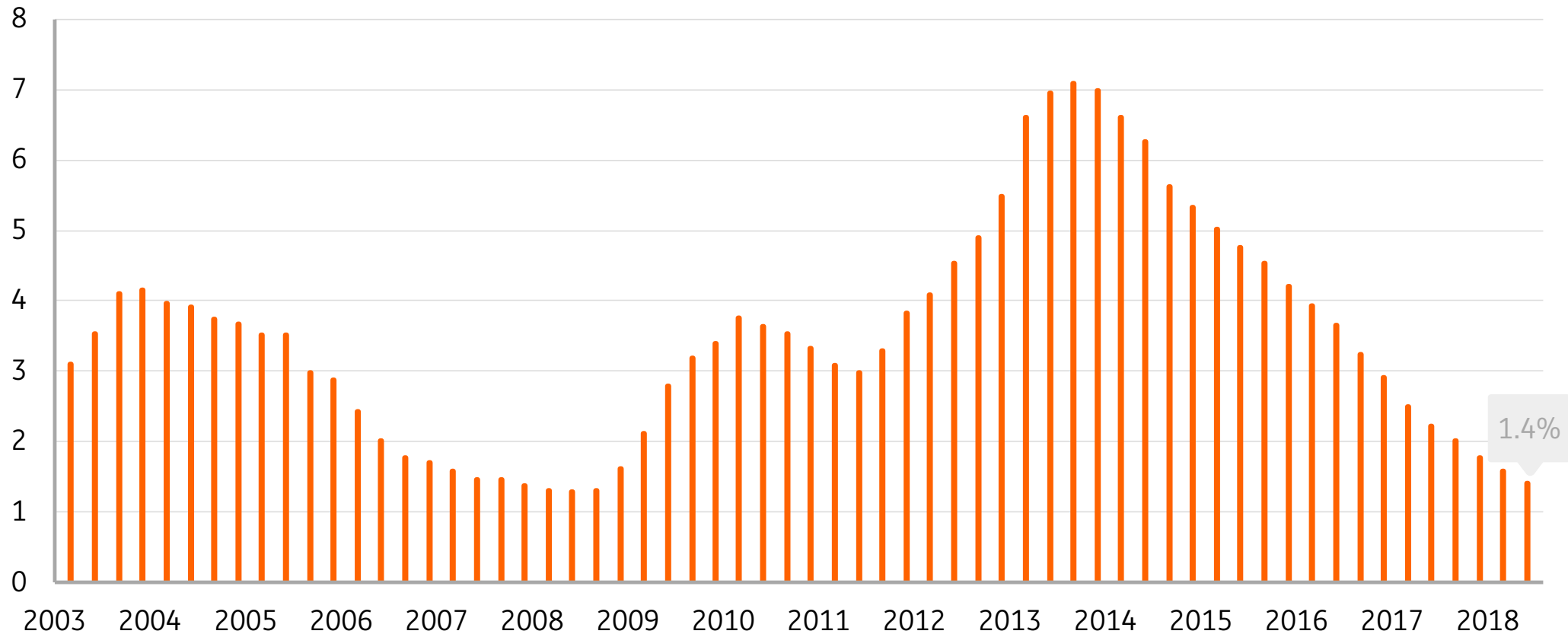
Source: CBS, Macrobond

- Aged 15-25 years
- Aged 25-45 years
- Aged 45+ years

Labour market continues to get 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

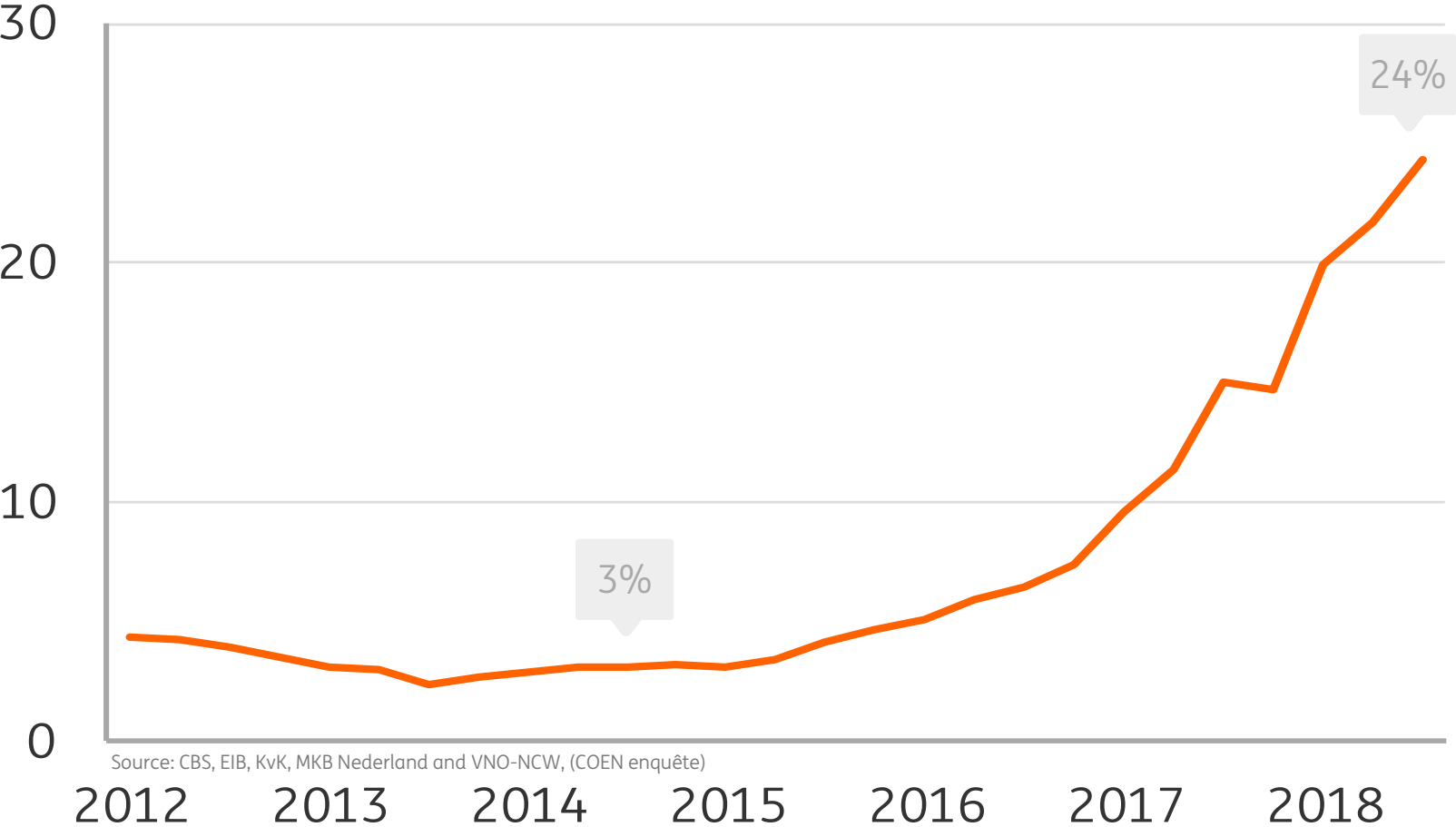


Source: CBS, Macrobond

A quarter of companies struggle to find suitable employees

An quickly increasing share of Dutch companies struggles to find sufficient suitable employees

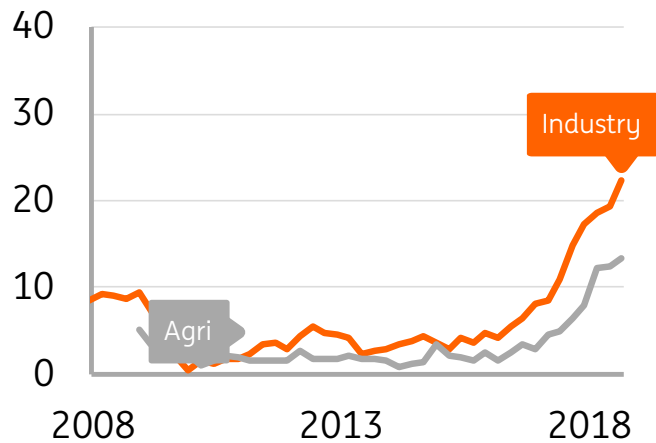
% of non-financial companies in the market sector indicating labour shortages as a factor limiting production, seasonally adjusted



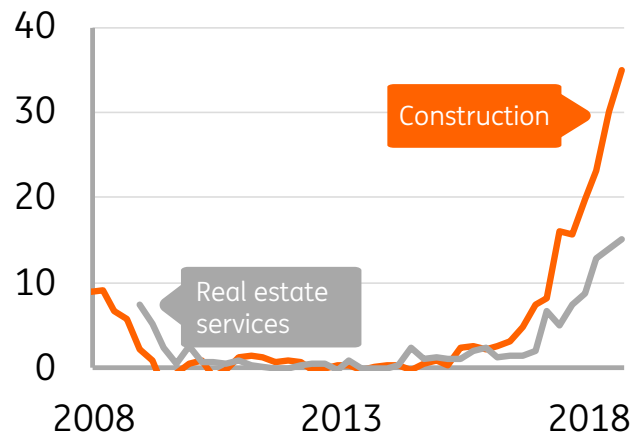
Source: CBS, EIB, KvK, MKB Nederland and VNO-NCW, (COEN enquête)

Labour shortages more and more prevalent

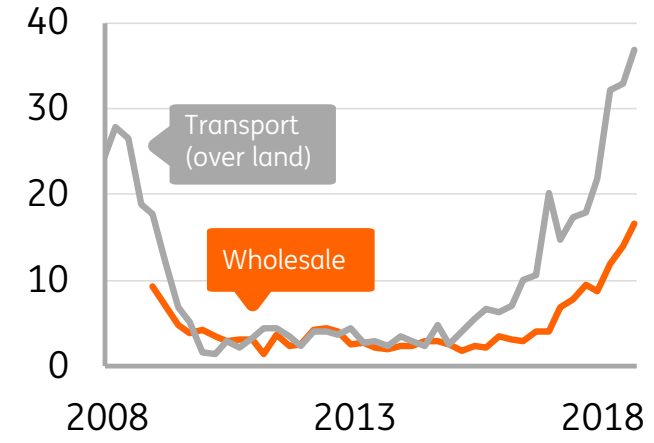
Percentage of firms reporting shortage of workers, seasonally adjusted (note: charts do not have same axes)



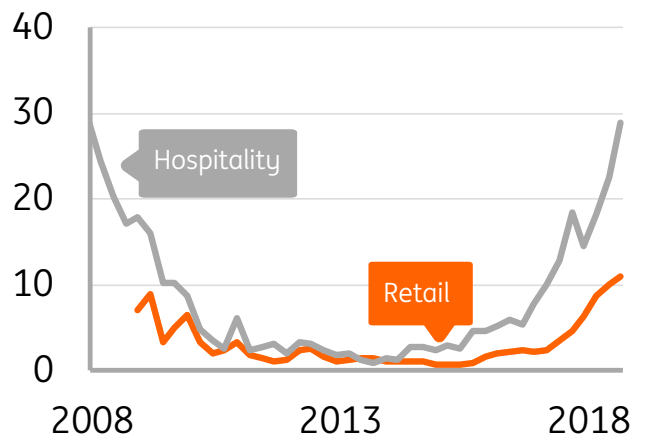
Source: CBS and European Commission DG ECFIN, Macrobond



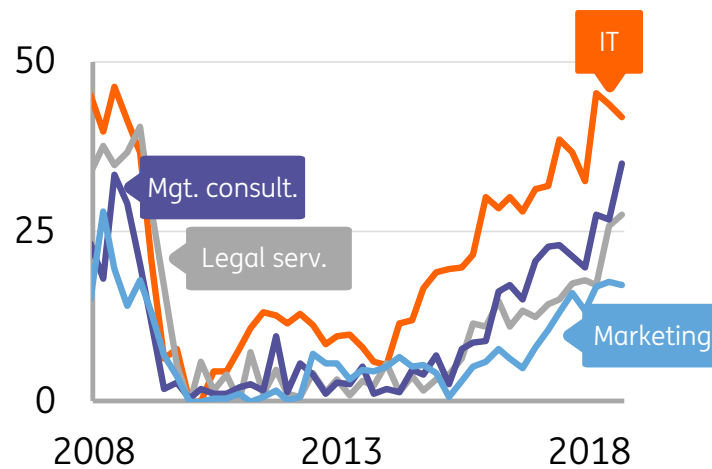
Source: CBS and European Commission DG ECFIN, Macrobond



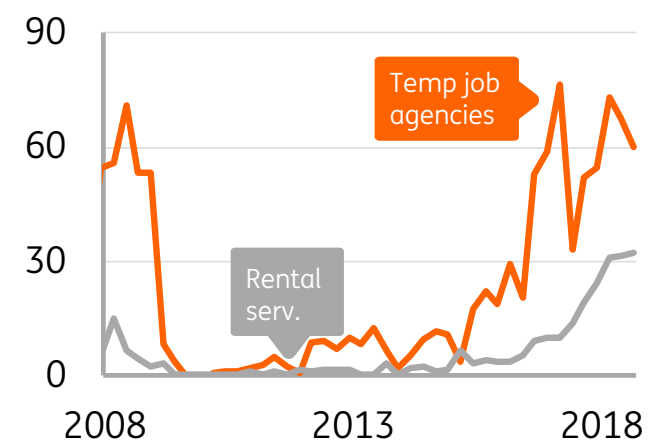
Source: CBS and European Commission DG ECFIN, Macrobond



Source: CBS and European Commission DG ECFIN, Macrobond



Source: CBS and European Commission DG ECFIN, Macrobond

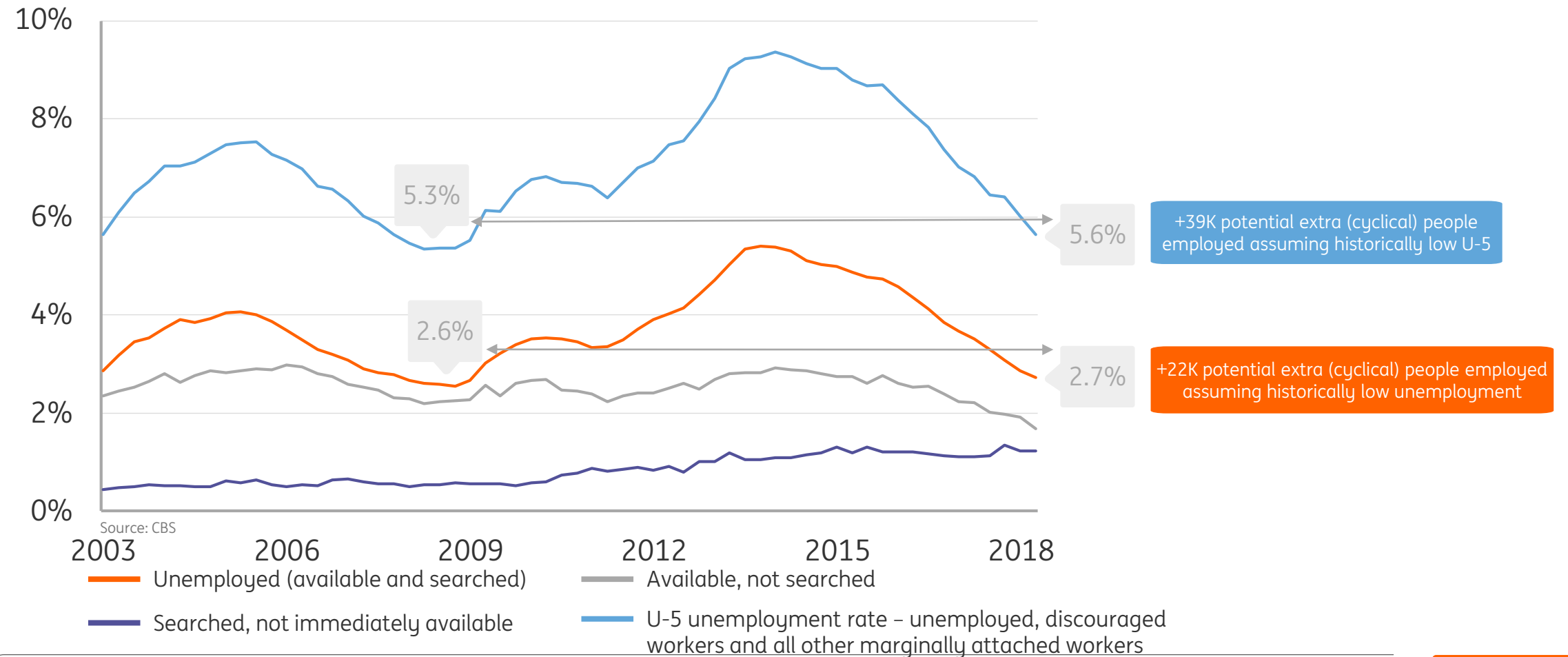


Source: CBS and European Commission DG ECFIN, Macrobond

More labour market potential than official unemployment rates suggest

Potentially 39K extra people at work if broad unemployment (U-5) drops to precrisis levels

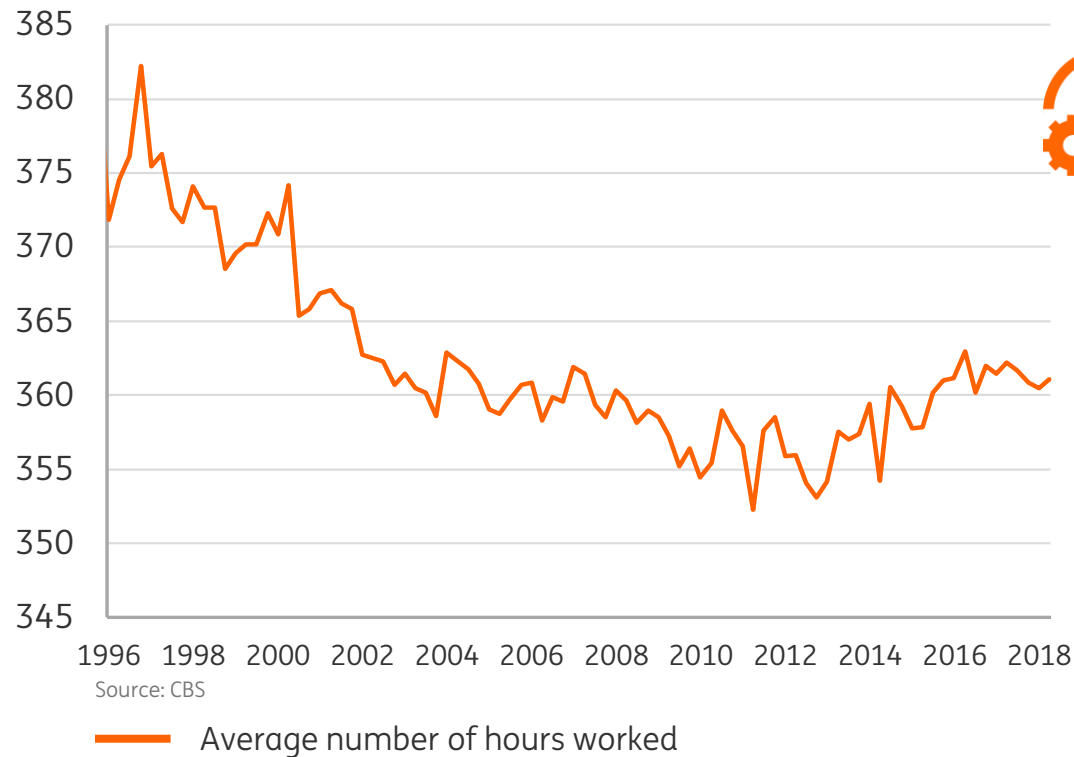
Percentage of the total population between 15-74 years old, seasonally adjusted



Potential to work more hours not fully-utilised

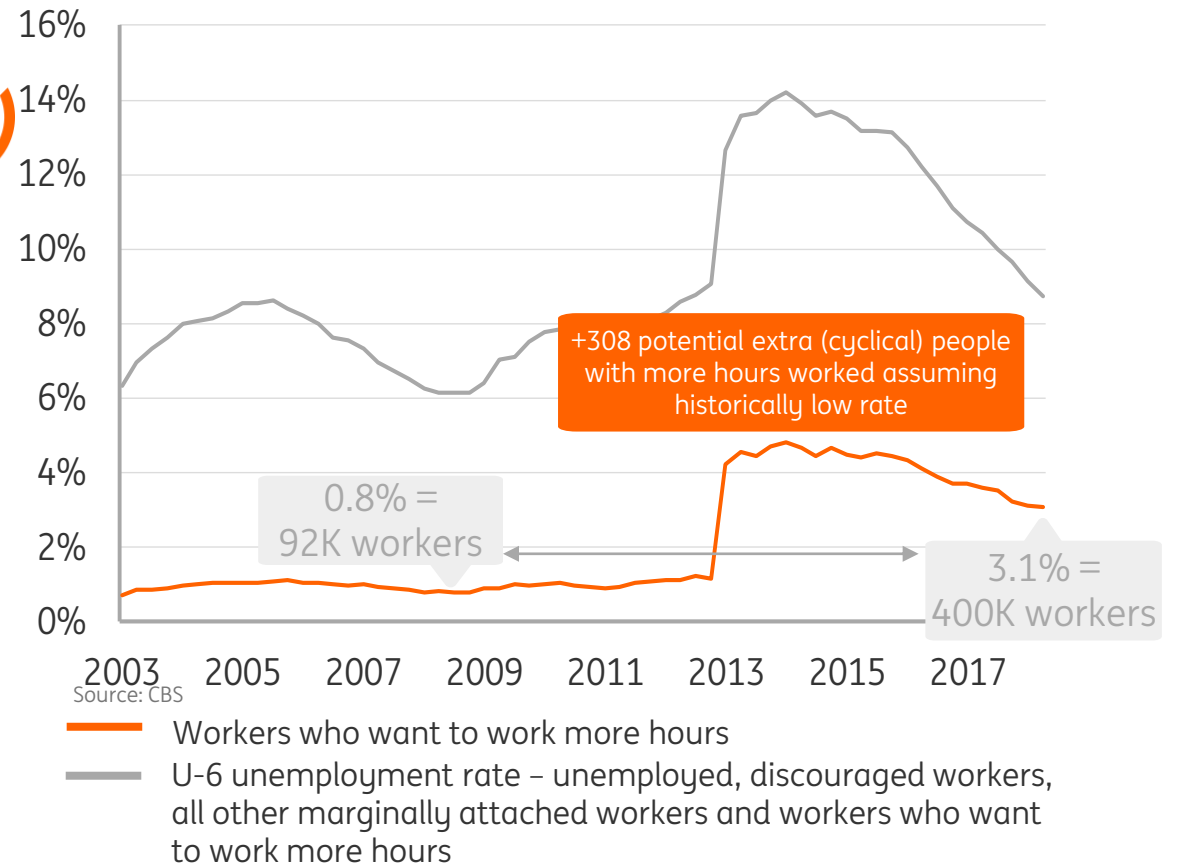
While the number of hours worked per employed person recovered and stabilised...

Average number of hours worked per worker per quarter, seasonally-adjusted



...there is still potential for more hours to be worked among almost 300K workers

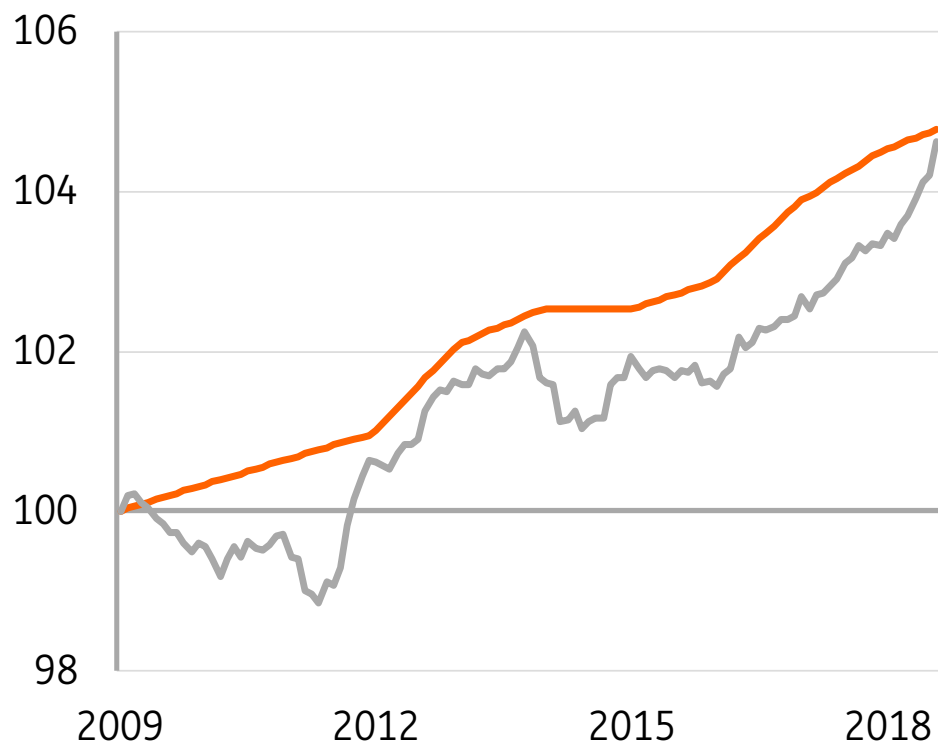
Number of workers who want to work more hours and U-6 unemployed as a share of the total population of 15-74 years old, seasonally-adjusted



Participation incorrectly suggests limited cyclical potential in labour supply

Actual labour force is catching up potential labour force

Index, 2009 Q1 = 100

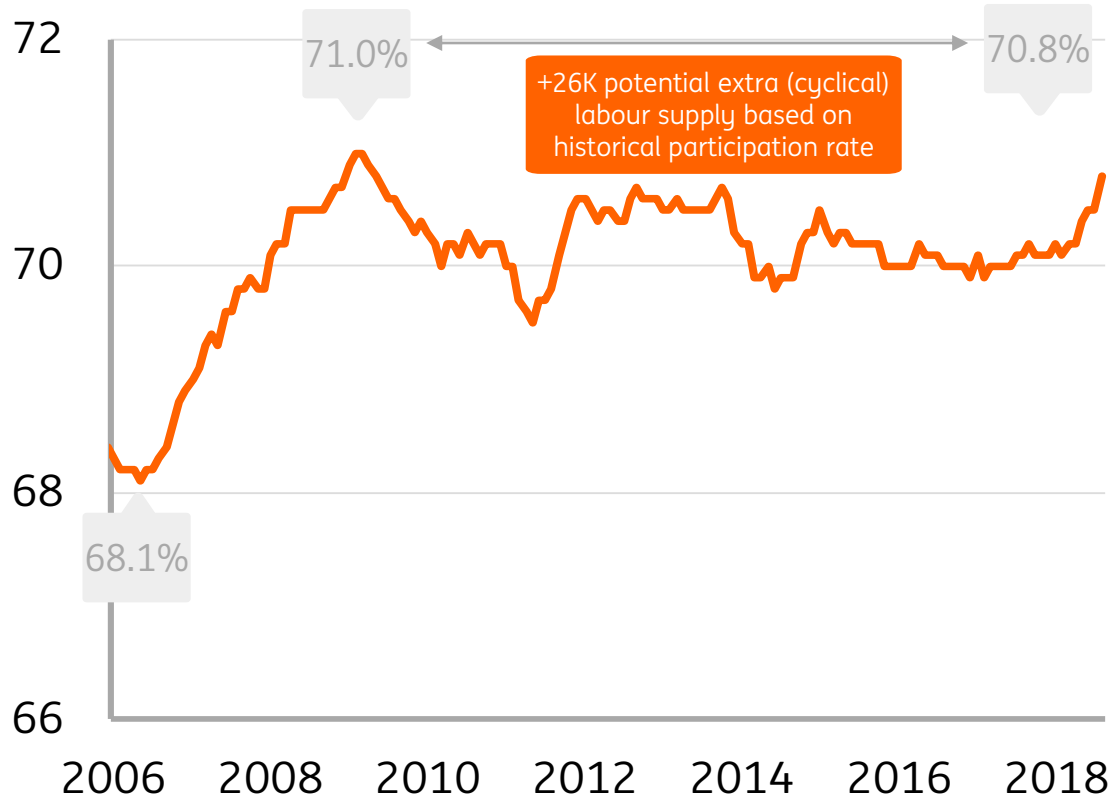


Source: CBS, Macrobond

- Potential labour force (i.e. total population aged 15-74)
- Actual labour force (aged 15-74)

Participation rate is getting close to precrisis record

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



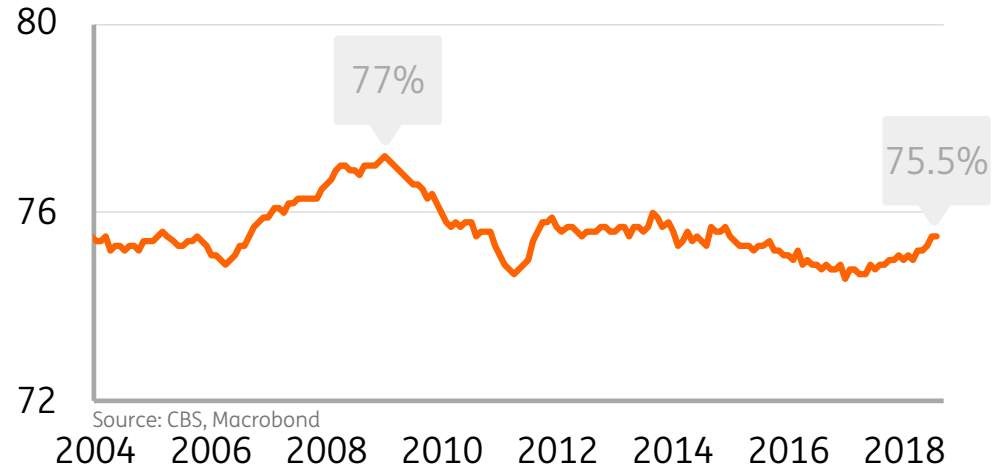
Source: CBS, Macrobond

- Gross labour participation rate, aged 15-74

Getting back to upward trend in participation unlocks 219k people

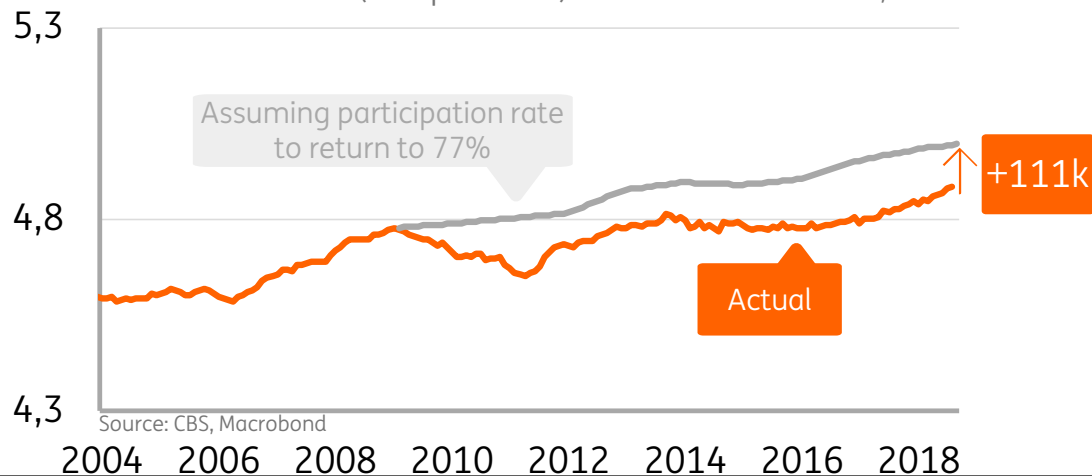
Male participation rate rising but still far from peak

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



111K extra men if participation returned to high level of 77%

Number of males active (and potential) on the labour market, in millions



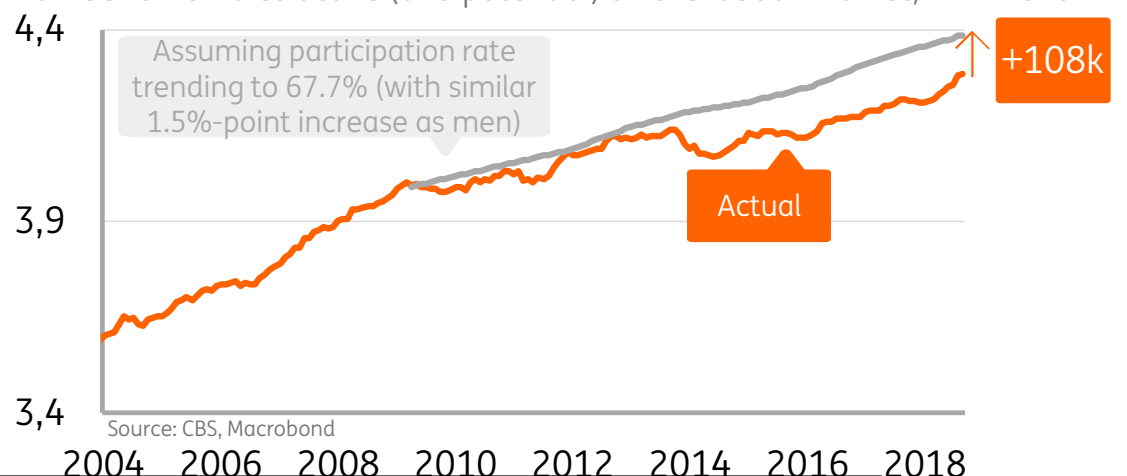
Upward trend in female participation rate resumed

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



101K extra females if participation also rises 1.5%-points

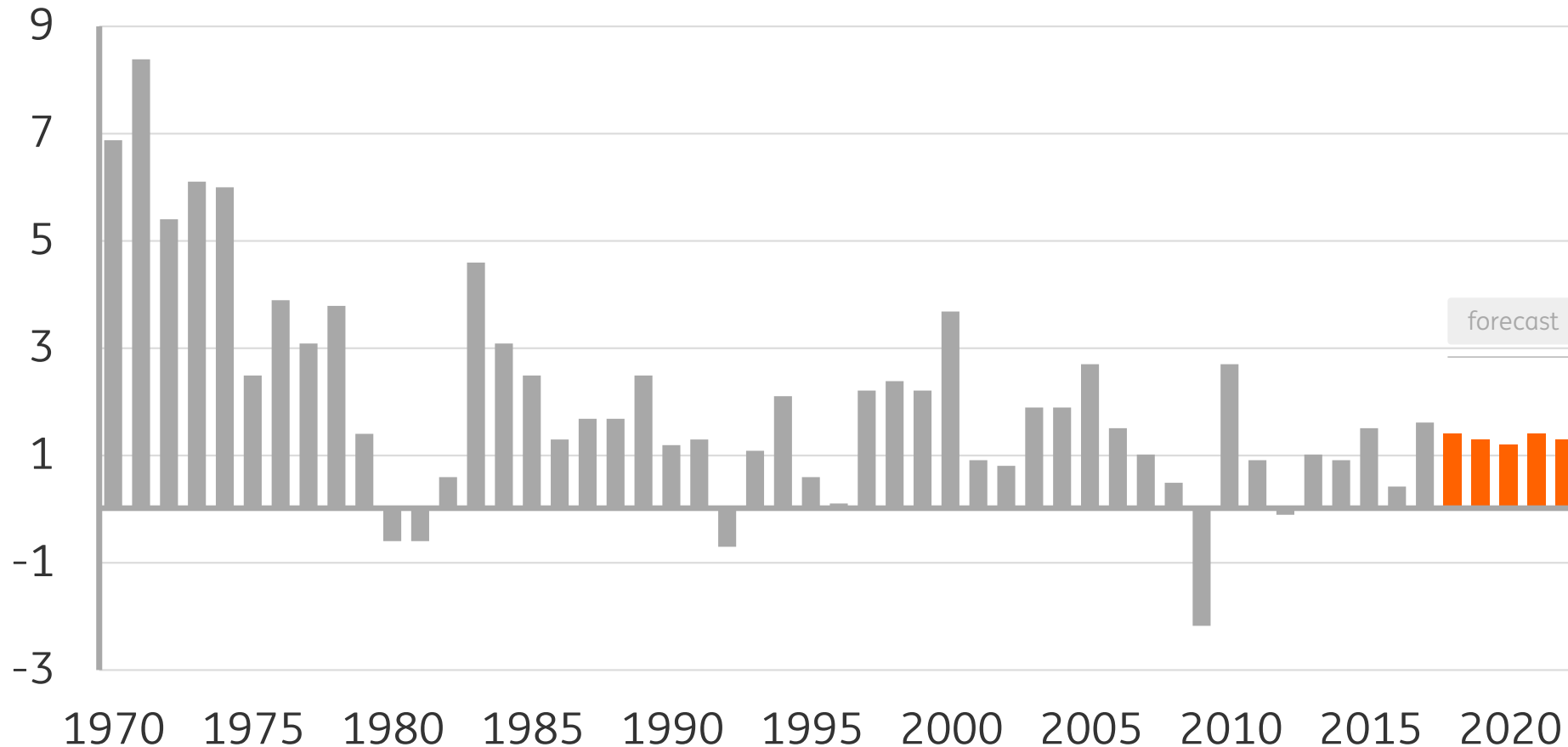
Number of females active (and potential) on the labour market, in millions



Downward trend in labour productivity growth, but important growth driver going forward

Growth in labour productivity per hour on declining trend in recent decades in line with development in other advanced economies, but slightly better years ahead

Change in GDP-volume per hour year-on-year, in %



Source: CPB

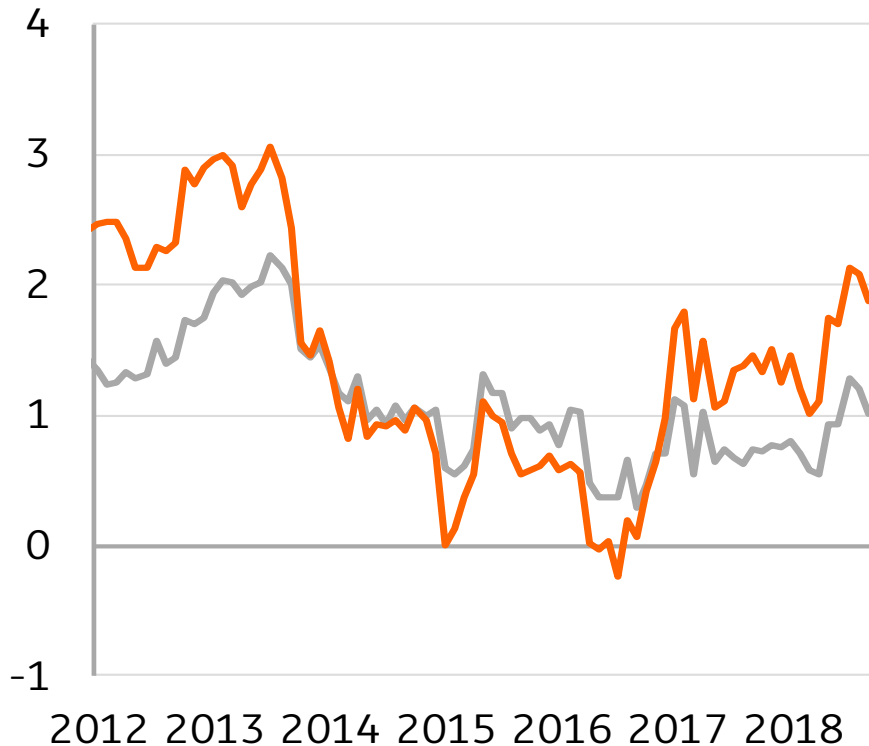
Inflation

- In July 2018, consumer price inflation (CPI) exceeded 2% for the first time in 5 years. Higher rents and increased energy prices are particularly causing prices to rise. The higher rents are also reflected in the core inflation (inflation excluding volatile energy and food prices). Core inflation nevertheless fell back to 1.0% in September of 2018, while headline inflation stood at 1.9%.
- The European harmonised inflation measure (HICP), which excludes the cost of owning a home, moved in line with CPI but remained somewhat lower than CPI in recent months. The September figure came in at 1.6%.
- Last year wages grew at a modest pace. Under-utilisation 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 hourly wage rate is expected to accelerate from 1.2% in 2017 to 2.8% and 4.0% in 2018 and 2019 respectively. Higher wage growth is likely to lead to higher inflation expectations in 2019, which is already shown by consumers.
- Among businesses inflation expectations for the next three months are only slightly increasing. In contrast, consumers expect hefty increases in the twelve months ahead, most likely anticipating the intended increase in the low-VAT rate from 6% to 9% in January 2019.
- Headline consumer price inflation (CPI) is set to rise from 1.4% in 2017 to 1.7% on average in 2018. For 2019 ING forecasts inflation to rise to 2.4%.

Inflation expectations increasing among consumers

Headline inflation above 2% for the first time in 5 year, also due to higher core inflation...

% year-on-year

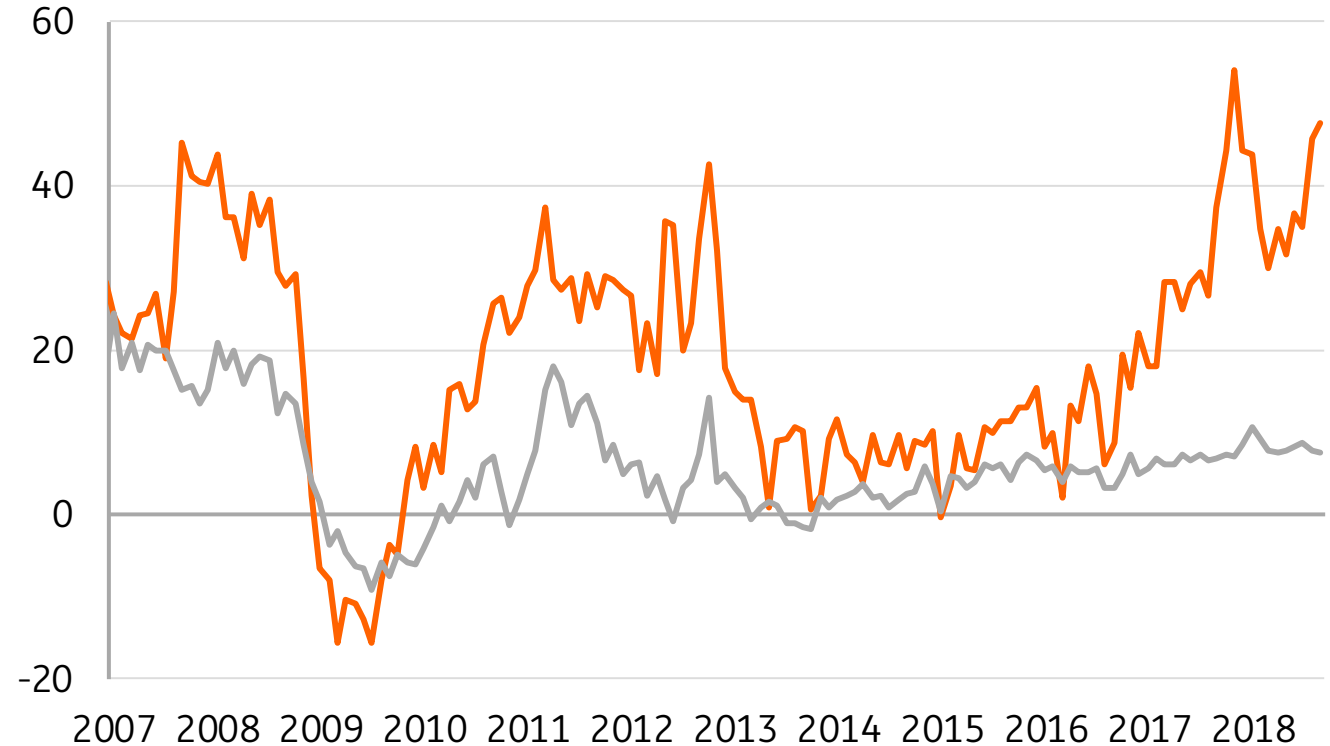


Source: CBS

- Headline consumer price inflation
- Core inflation

...while consumers expect a further increase anticipating a VAT-hike

Net % of respondents



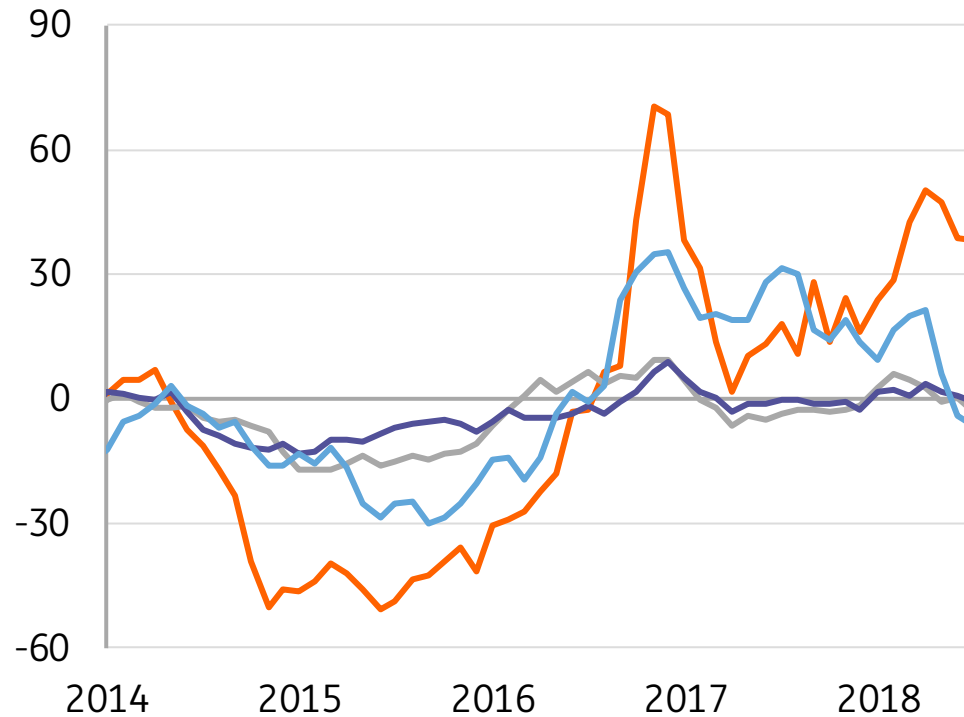
Source: DG ECFIN, Macrobond

- Consumer price expectations for next 12 months
- Companies' selling price expectations for next 3 months (weighed average of industry, retail and services sector)

Inflationary pressures are increasing

Commodity price increases could feed through to a lesser extent...

Change year-on-year, in %

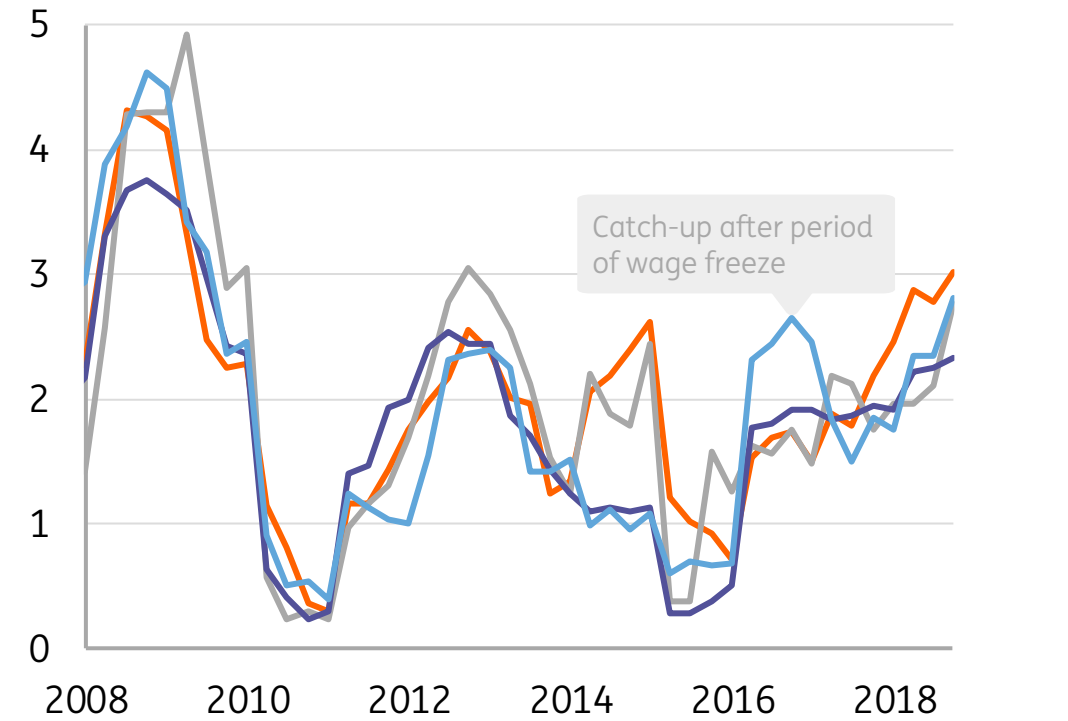


Source: World Bank, Macrobond

- Energy
- Raw materials
- Agricultural
- Metals & minerals

...and hourly wage costs rising at increasing pace

Change year-on-year, in %



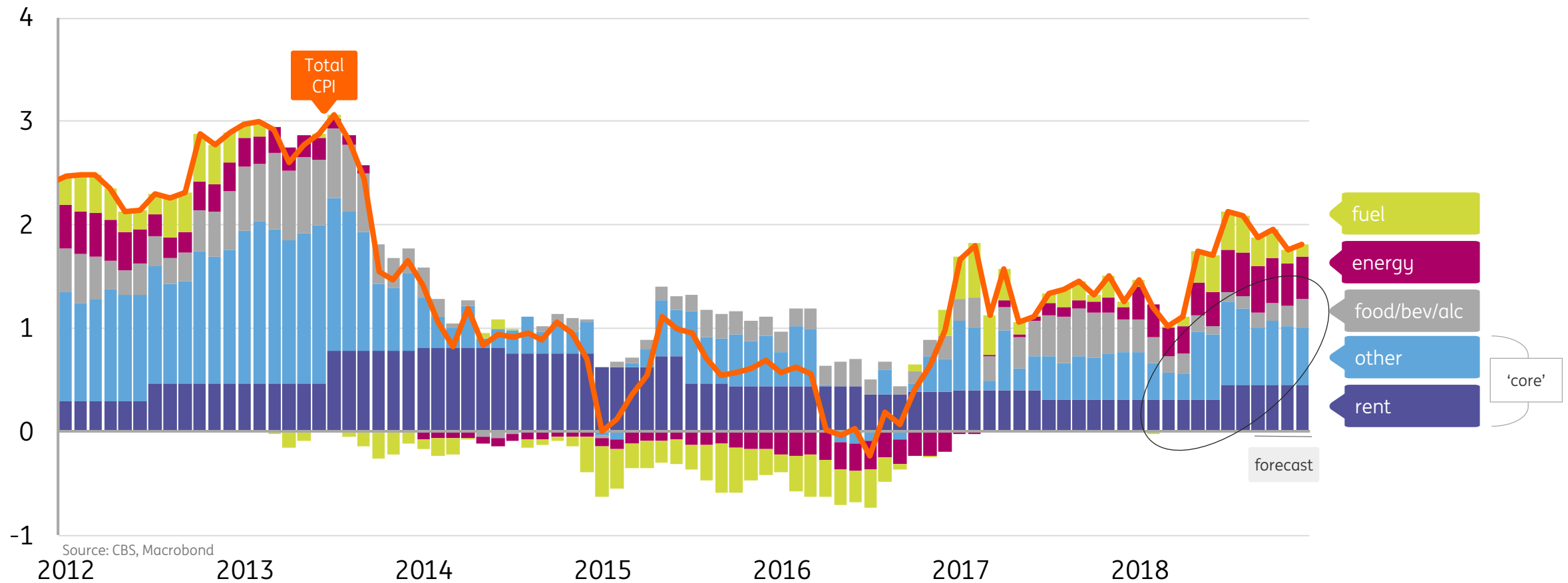
Source: CBS, Macrobond

- Manufacturing
- Commercial services
- Construction
- Non-commercial services

For the first time in 5 years inflation has risen above 2%

Rising core inflation pushes headline inflation above 2%, while energy and fuel also contributes positively

Contribution to consumer price inflation, in percentage points



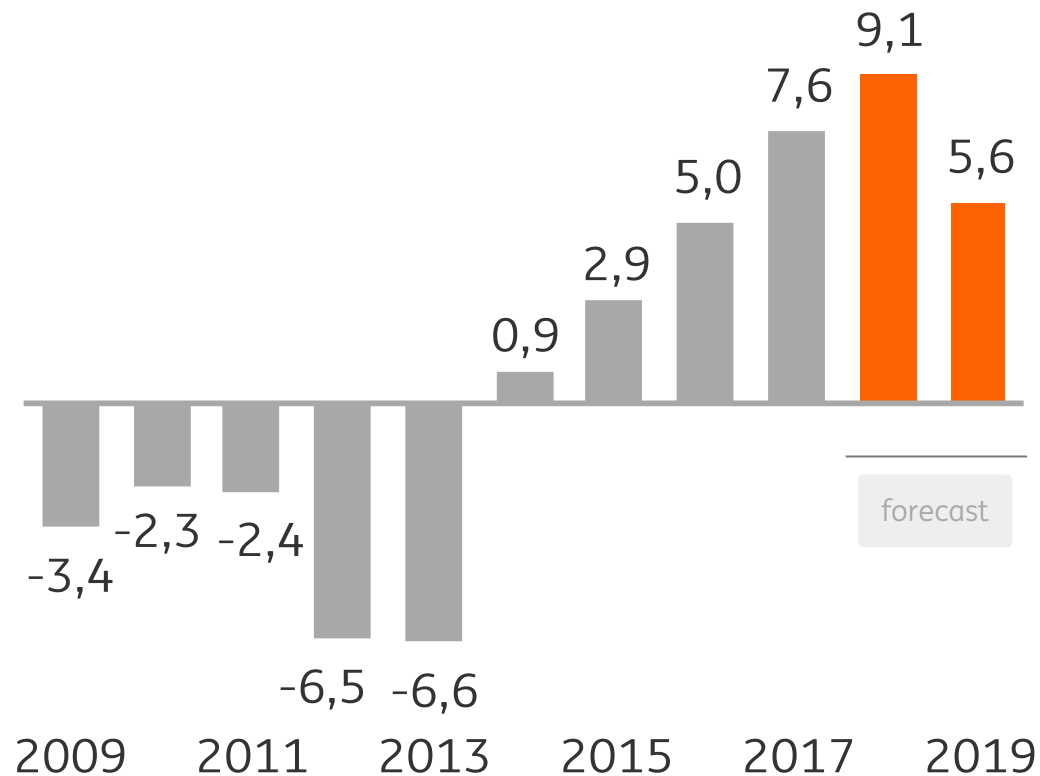
Housing market

- The housing market has been an important driver of economic growth. Since the trough of 2013, the economy has expanded by 10%, with the housing market catch-up explaining over a [quarter of the GDP growth](#) (up to 2017 Q3). Investment in dwellings has surged 74%, benefitting builders, industry and DIY stores. Increasing home sales have favoured e.g. estate agents, surveyors and lenders.
- Home buying volumes are decreasing, after record high sales of 242k in 2017. ING expects sales to fall down to 225k (-7%) in 2018. Since 2013 households with postponed moving plans have pushed up home sales. Five years later, we expect this catching-up effect to be marginal. With supply of homes for sale being very tight, we expect sales will continue to decline in 2019, to 205k.
- Overall, we expect house prices to increase with on average 9% in 2018 (7.6% in 2017). House prices rises are persisting in response to tight supply of homes. Growth of the housing stock is expected to fall short of household growth, so that price increases will continue to exist in the next period. With omitting catching-up demand, we expect price increases to flatten somewhat.
- Price pressure will continue for the next few years, until the easing of housing market supply. During the crisis the production of homes stagnated and the supply of new homes is expected to lag behind household growth until 2020.
- Despite the commonality of steep price increases, today's housing market differs from that of 2008. Housing affordability is still relatively good, partly explained by low interest rates. Although prices in the last 5 years have increased significantly (>20%), mortgage debt has grown at a much lower pace (3%). The house price to income ratio is still below 2008 level.
- Regional differences are large. Nationwide, house prices have passed pre-crisis level (5% currently). In the four major cities prices have increased much faster. In Amsterdam, the average price is already 45% above the previous peak, but here [the foundation for further significant price increases is eroding](#). Eight of the twelve provinces are still below the 2008 price peak.
- Individual investors are increasing the difference between major cities and the rest of the Netherlands. In the top three cities, the share of individual investors is above 20% of transactions (11% nationwide). Tighter credit measures introduced in 2013 are putting home movers and investors ahead of first-time buyers.

House prices are increasing, pushing down home sales in 2018

Price increase expected to flatten in 2019

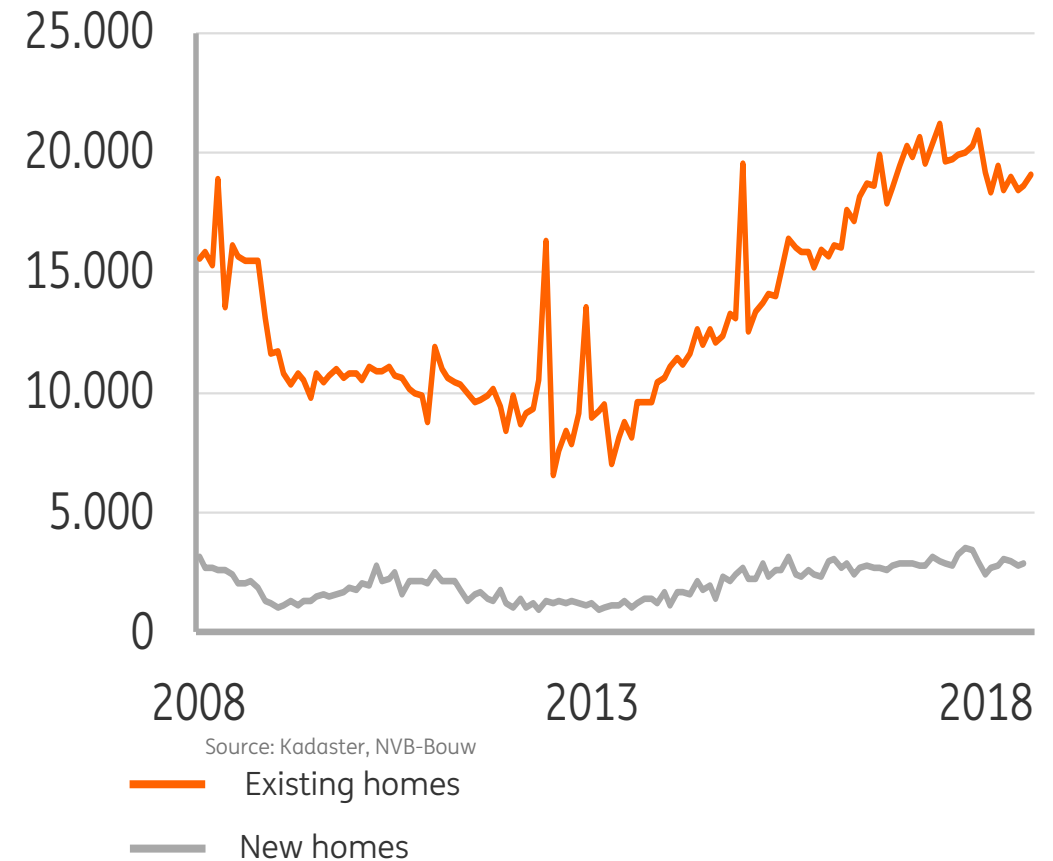
Average house price, change year-on-year (%)



Source: CBS, ING

Sales are declining, after record high home sales in 2017

Monthly sales, seasonally-adjusted



Supply is becoming tighter

Unsold existing supply at pre-crisis lows...

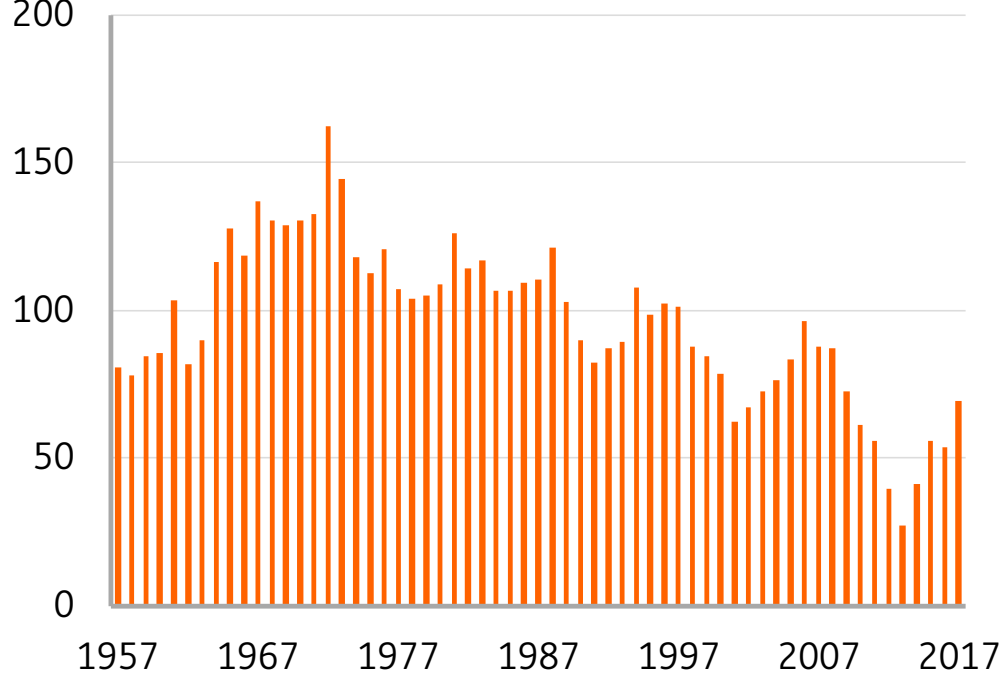
Available housing supply divided by monthly number of sales



Source: Kadaster

...while new supply picked up slowly from record lows

In 000s



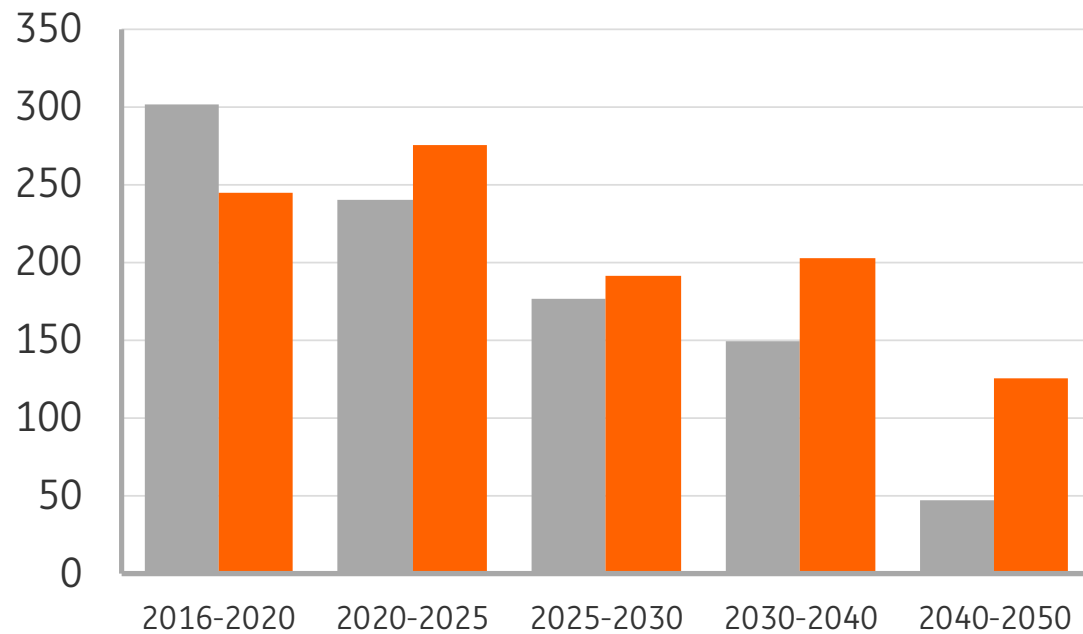
Source: CBS

— Total building permits

Housing market is progressively tightening

Growth in number of households will exceed housing stock growth until 2020...

Estimated growth of the number of households wanting an own home* and housing stock growth, both in thousands

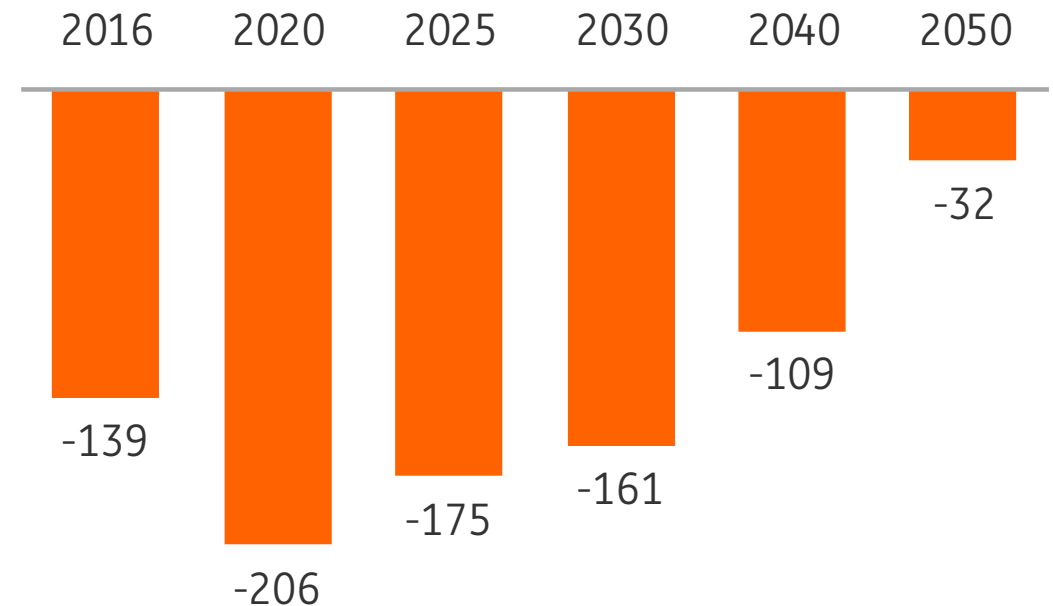


Source: ABF Research, Primos prognosis 2017

- Estimated growth of number of households wanting and own home
- Forecasted housing stock growth

...causing the housing strain to rise in the short term

Housing market strain** defined as the difference between the estimated number of households* and forecasted housing stock, in thousands



Source: ABF Research, Primos prognosis 2017

- Housing market strain

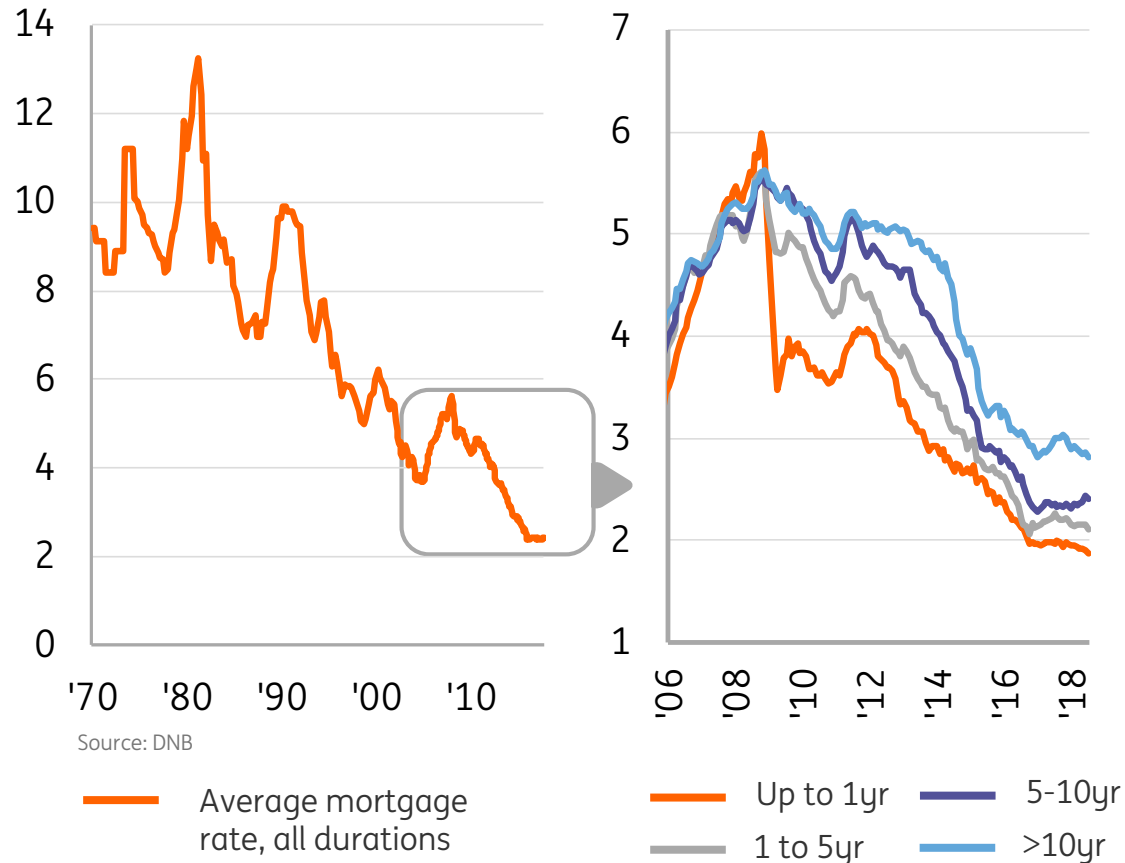
* Estimated growth of the number of households wishing to have an independent home. Estimates based on, among other things, trend analysis over the years 2009 – 2016 and population projections by CBS.

**This takes into account that a share of the stock is not suitable for living and that a particular vacancy rate is needed for a well-functioning housing market.

Historically low interest rates cause home buyers to choose long-term fixed rate mortgages

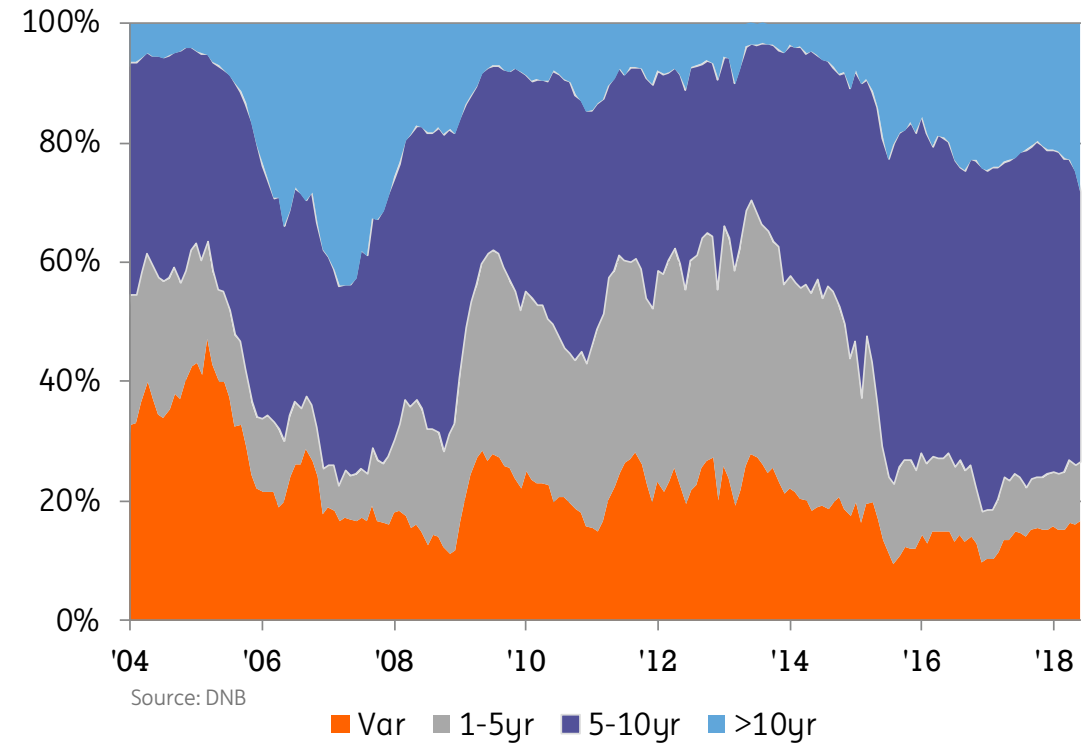
Mortgage rates still at historic low levels

In %, by fixed interest duration



Home buyers choose long-term fixed interest rate periods

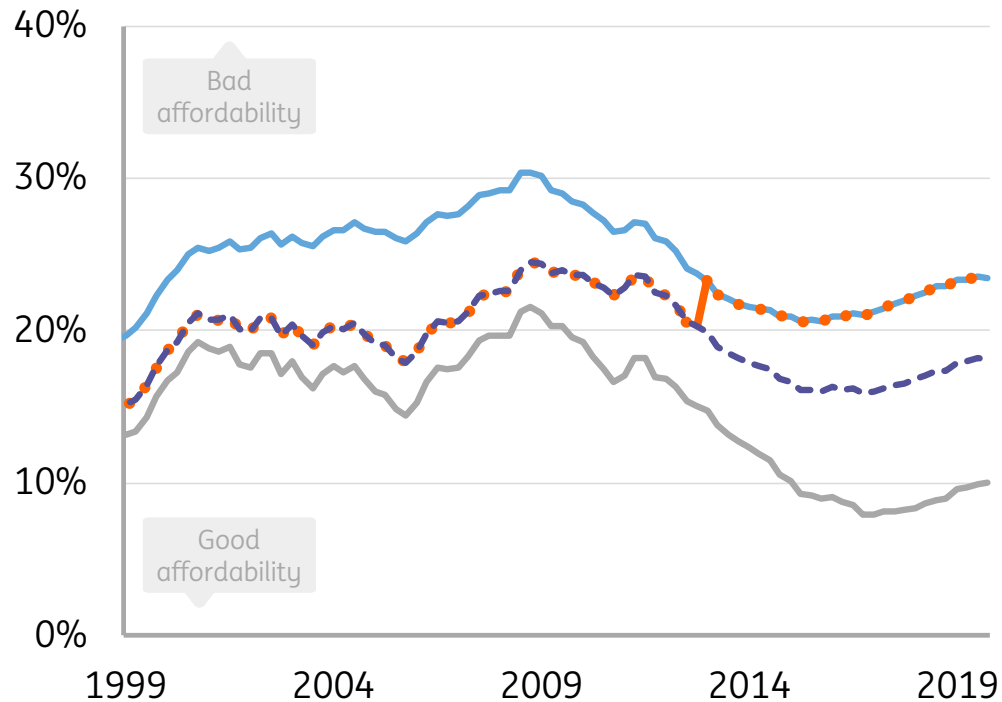
Share of production, per fixed interest rate period (banks only)



Affordability has started to weaken, but is still better than in 2008

Housing affordability has deteriorated slightly

After-tax mortgage cost as % of income, directly after purchase*



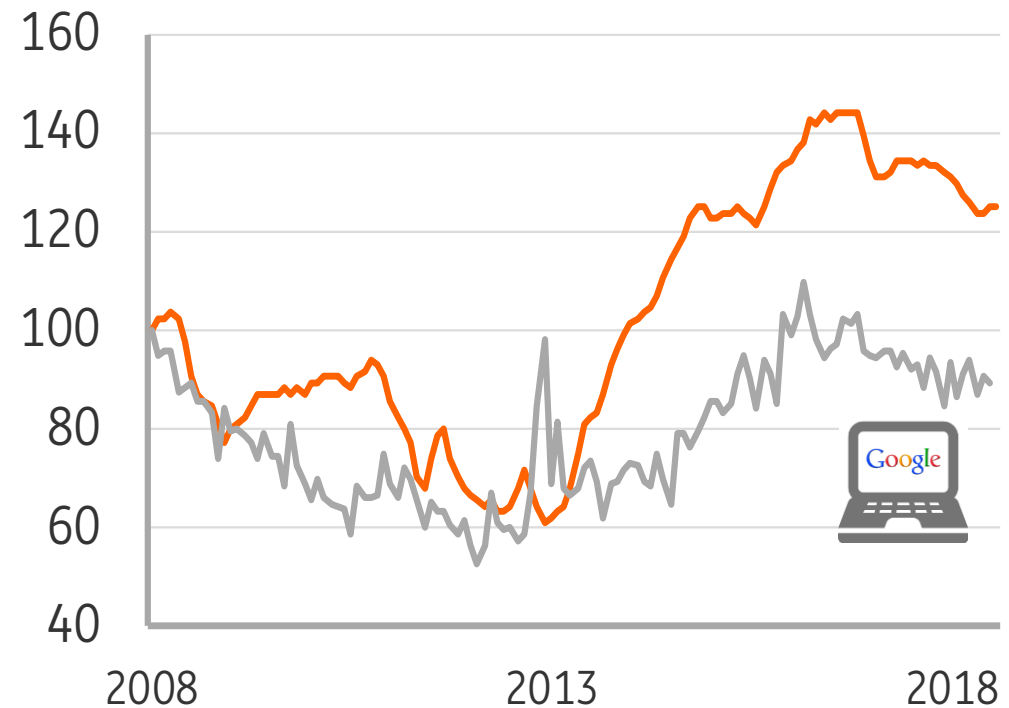
Source: CBS, Macrobond, DNB, ING

- Annuity mortgage
- 100% interest-only
- - - Repeat home buyers
- - - First-time home buyers

* Using average house price and average household income. Since 2013, interest on new mortgages is only tax deductible for amortising mortgages.

Housing market sentiment is over its peak...

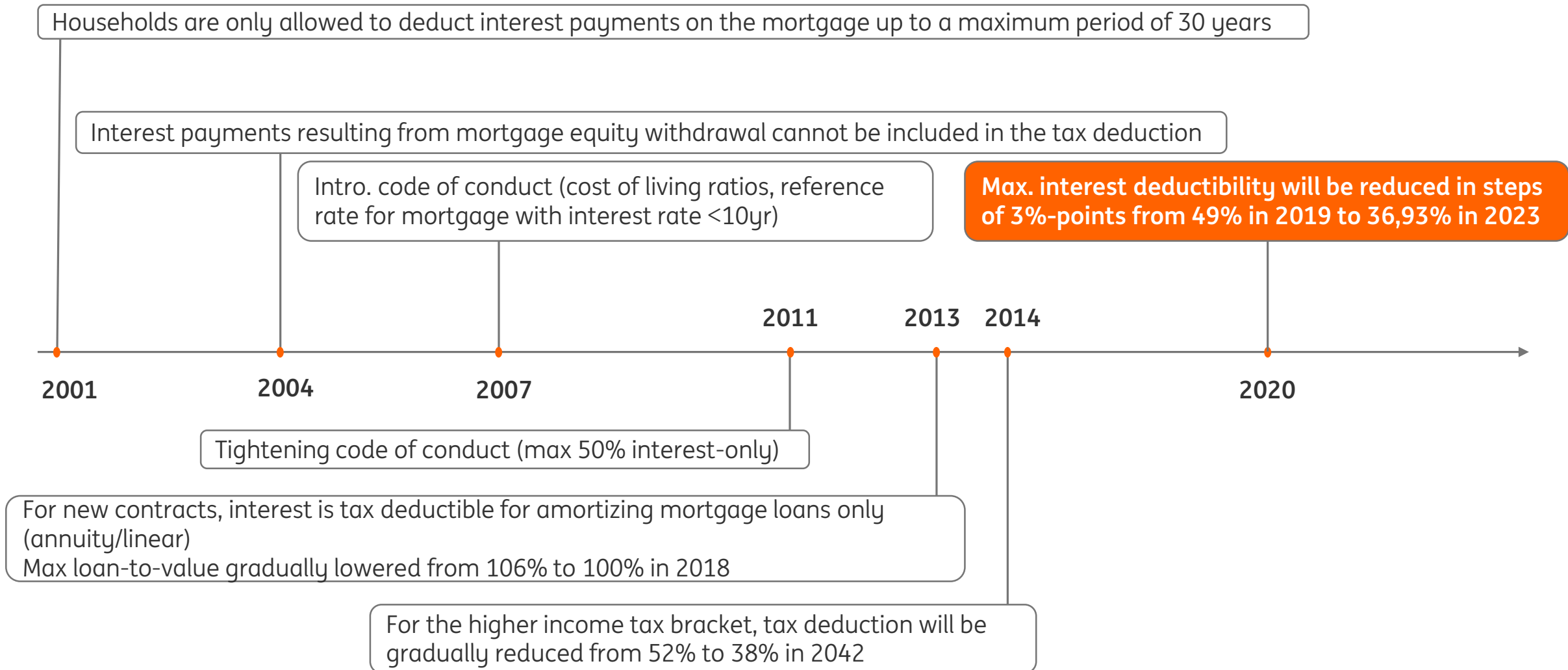
Index, 2008 = 100



Source: VEH, Google

- Housing Market Indicator VEH (homeowners' association)
- Google searches for 'hypotheek' (= mortgage)

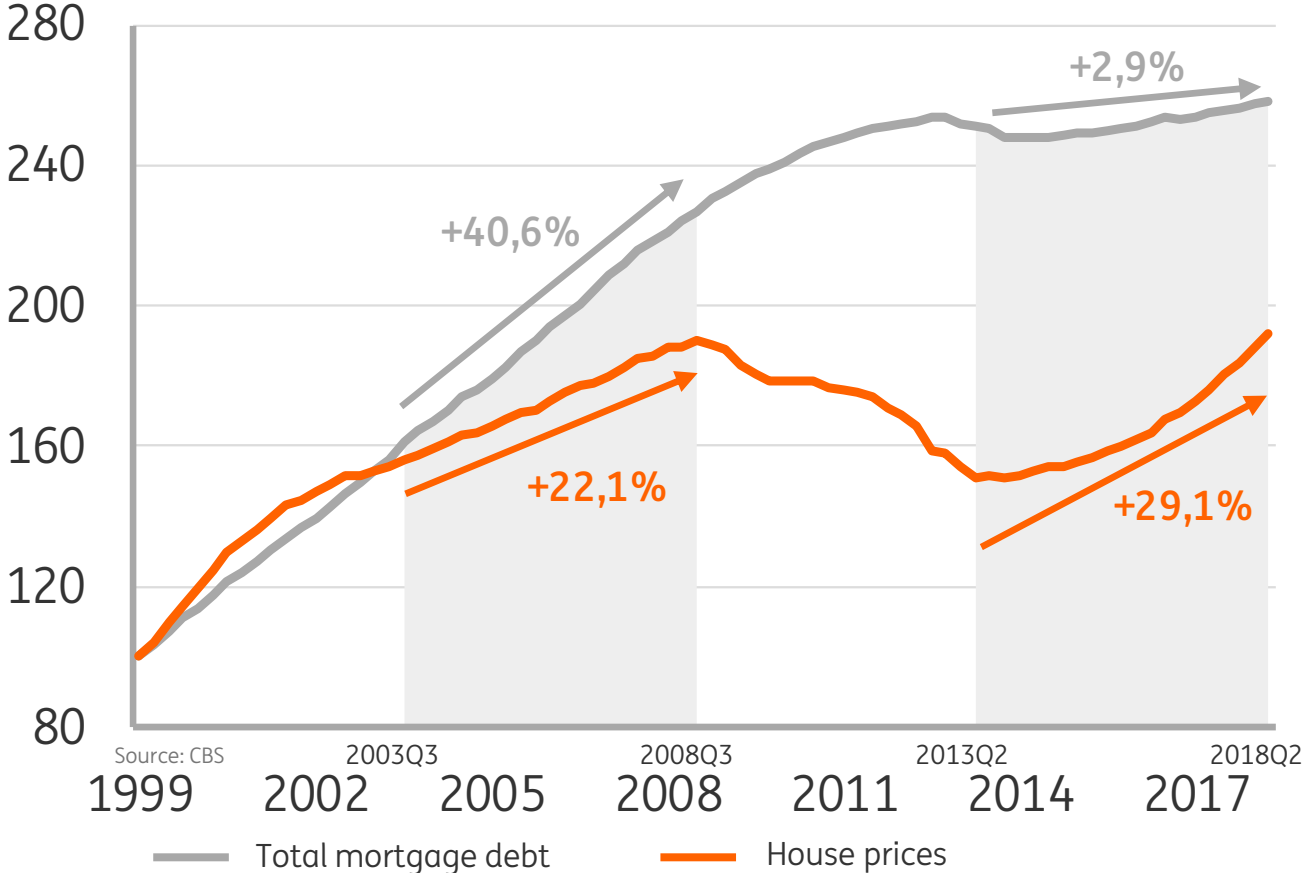
Measures have been taken to curtail mortgage debt growth



Current price increase not credit driven, unlike 2003 - 2008

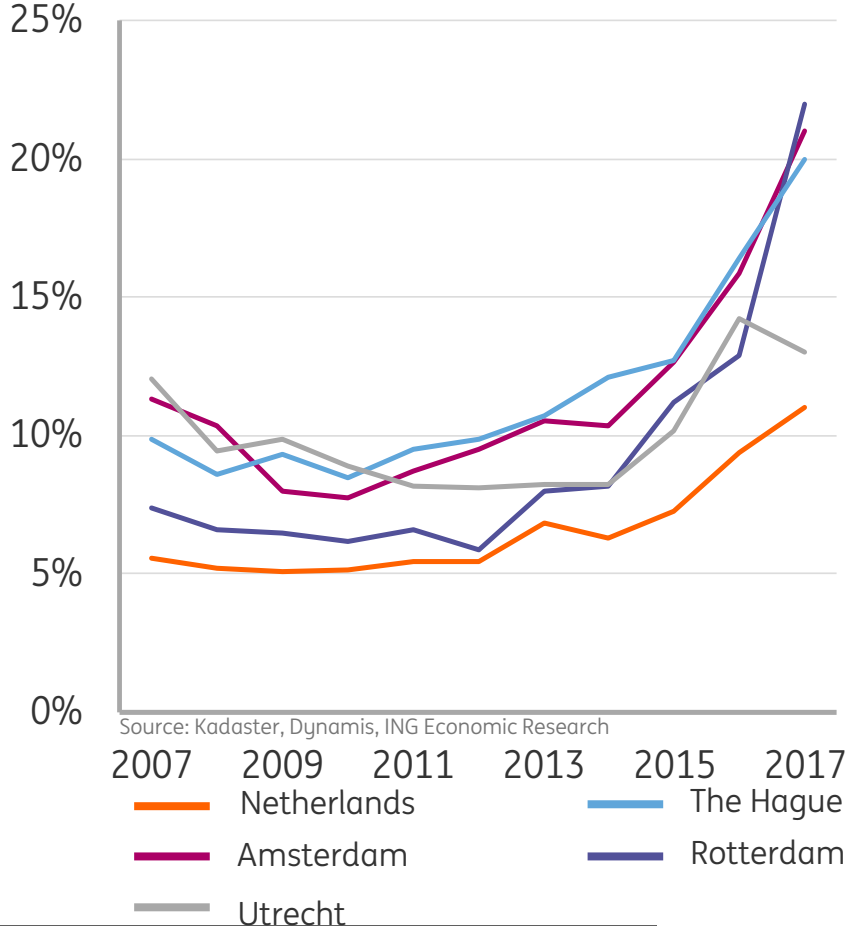
Previous sharp increase in house prices strongly credit-driven, but in the last five years mortgage debt barely increased

Mortgage debt stock and house prices, index, 1999 = 100



...while in major cities private investors are pushing up house prices

Estimated buy to let transactions, share in total house sales

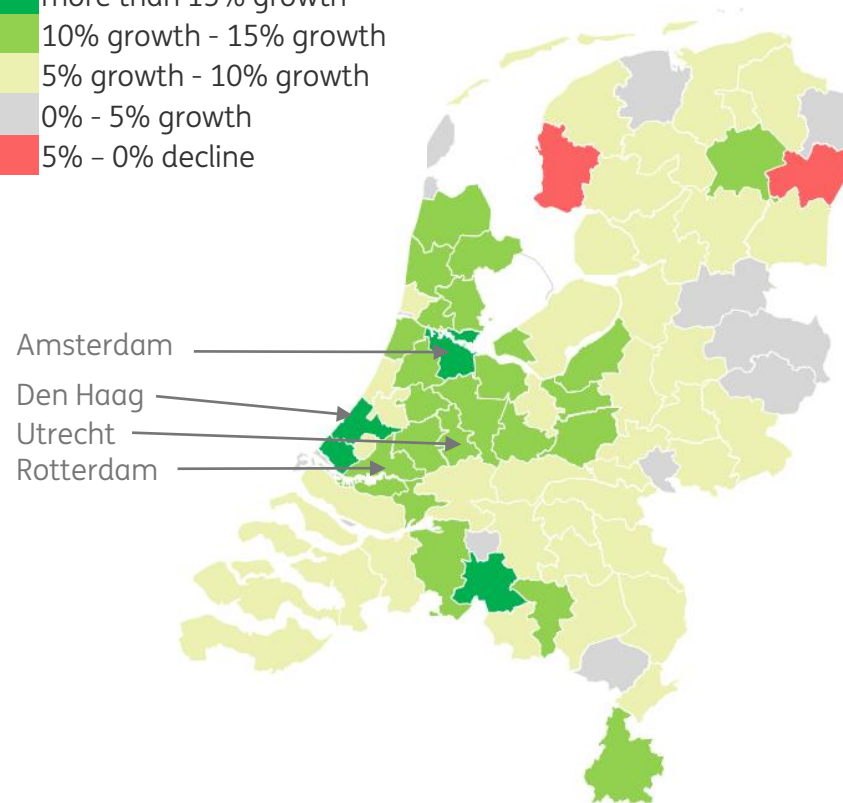


Housing market characterised by major regional differences

House prices rise fast in 'Randstad' area, where four biggest cities are located

Median transaction price, difference between 2017Q2 - 2018Q2

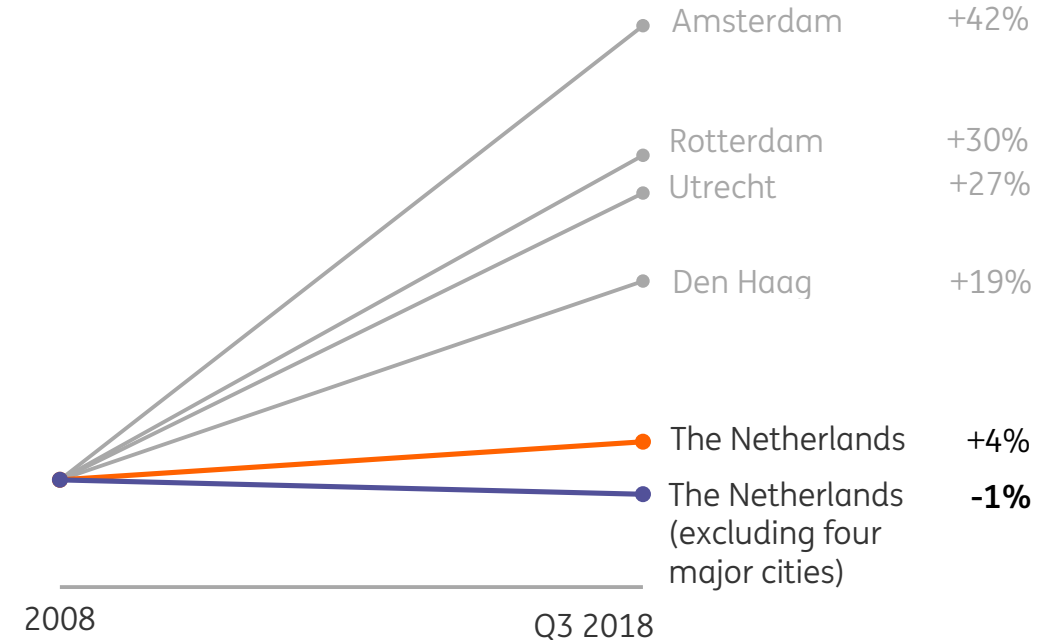
- more than 15% growth
- 10% growth - 15% growth
- 5% growth - 10% growth
- 0% - 5% growth
- 5% - 0% decline



Source: NVM, ING calculations

Average house price when excluding four major cities, still below previous peak in 2008

House price difference w.r.t. quarter peak quarter in 2008, %

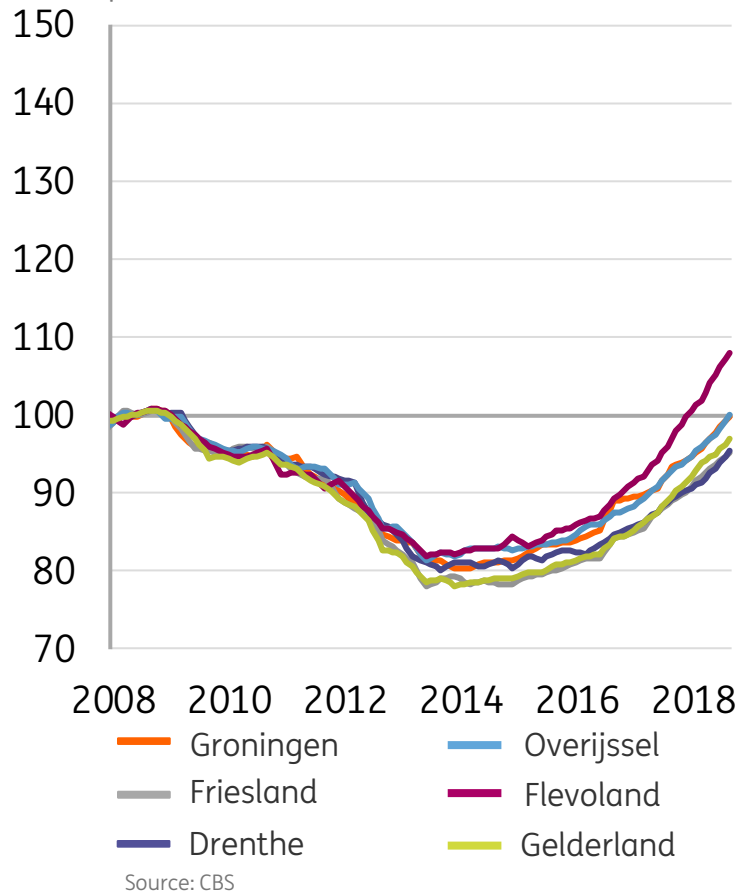


Source: CBS

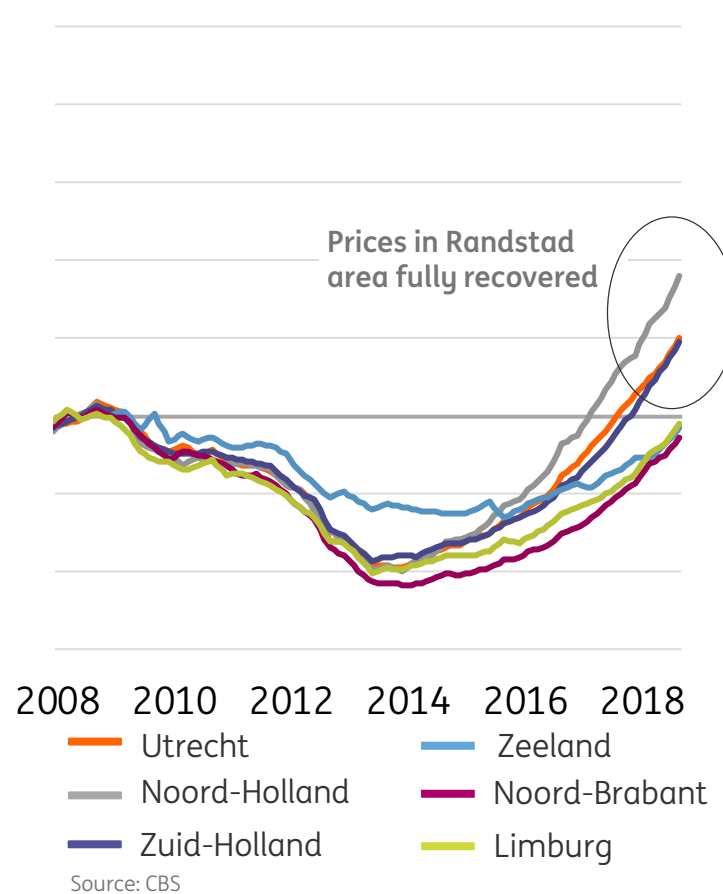
Large cities lead house price recovery

North & East: except for Flevoland, prices still below 2008 levels

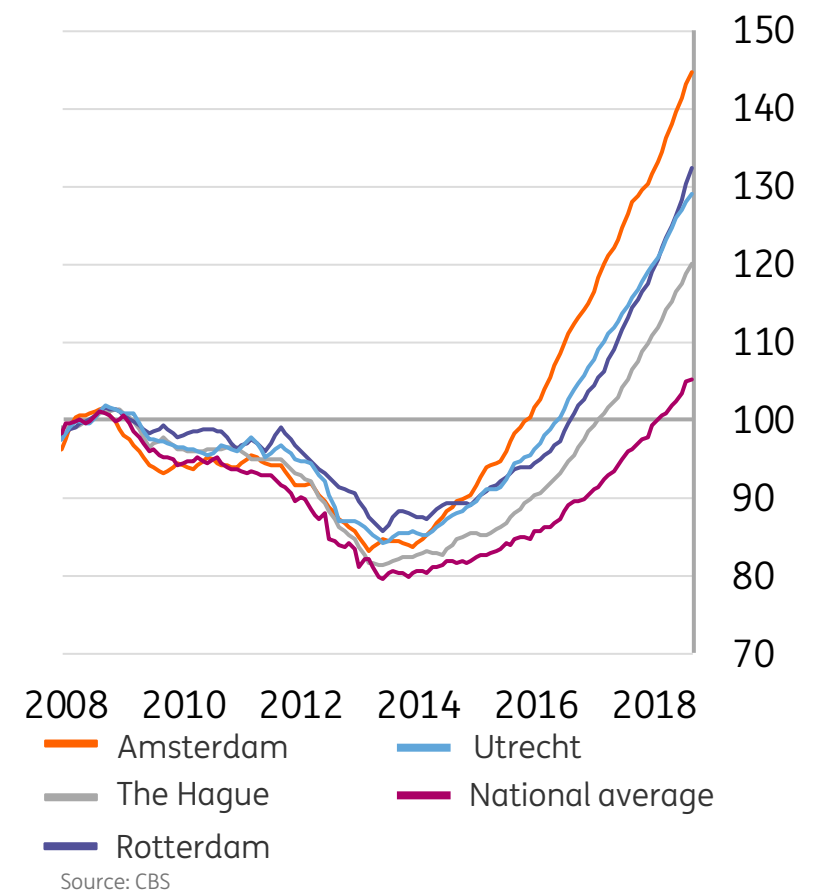
House price index for existing properties, 2008 = 100, Dutch provinces



West & South: vast price increases in highly urbanized Randstad area...



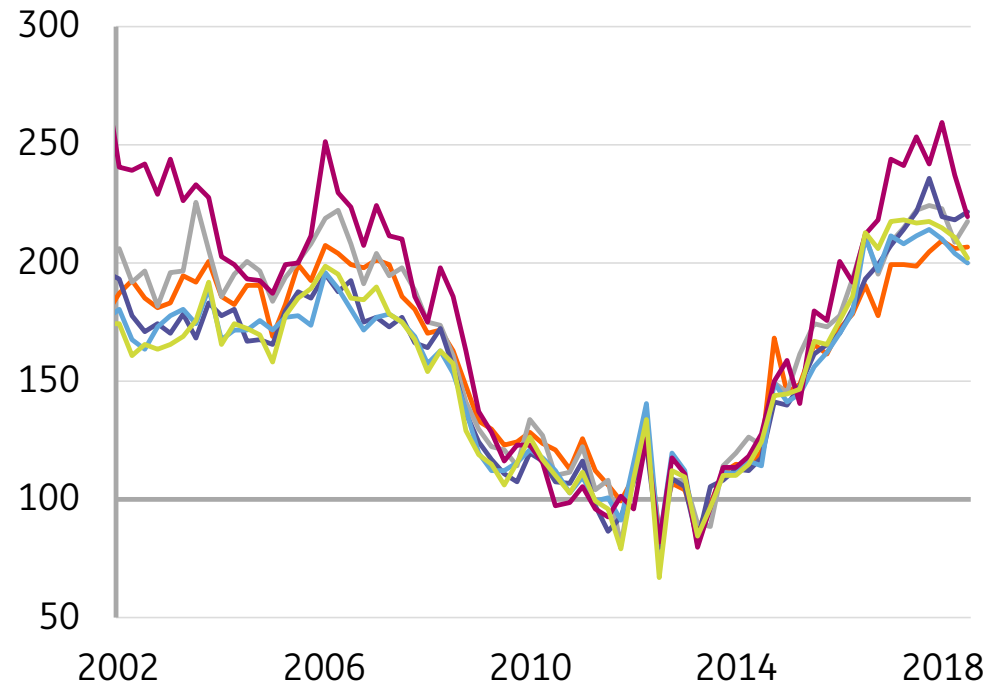
... mainly driven by substantial price increases in major cities



Drying up of supply is pushing down home sales

North & East: Upward trend is has turned

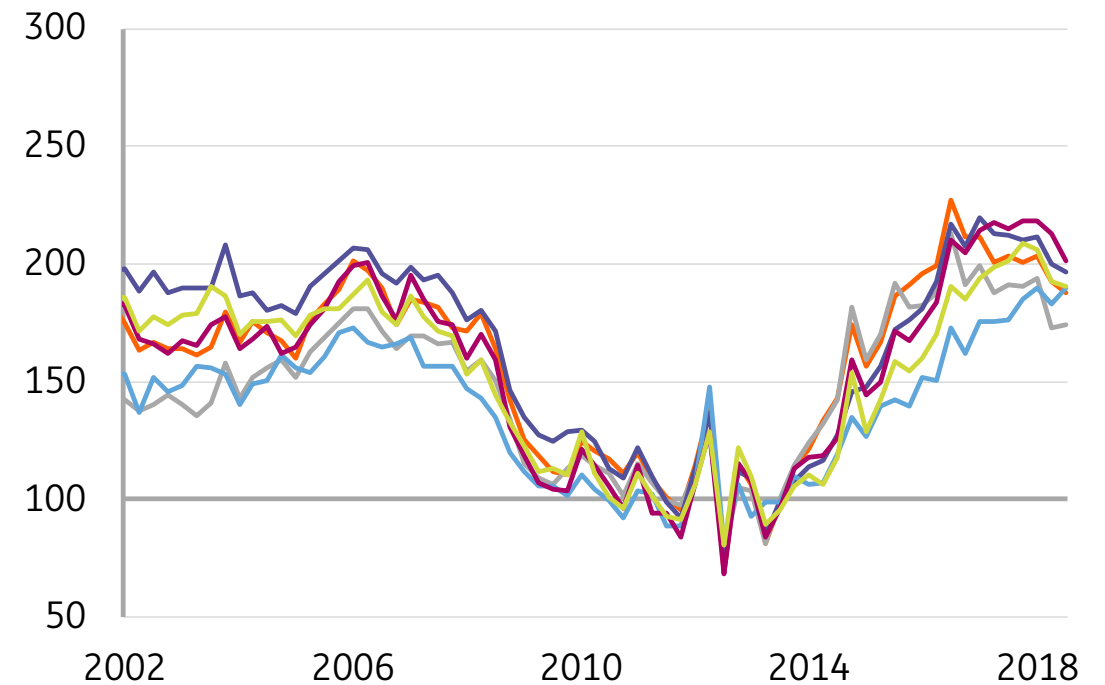
Number of home sales per province, index, 2013 = 100



- Groningen
- Friesland
- Drenthe
- Overijssel
- Flevoland
- Gelderland

South & West: Utrecht and Noord-Holland (Amsterdam) far below peak, others are likely to follow

Number of home sales per province, index, 2013 = 100

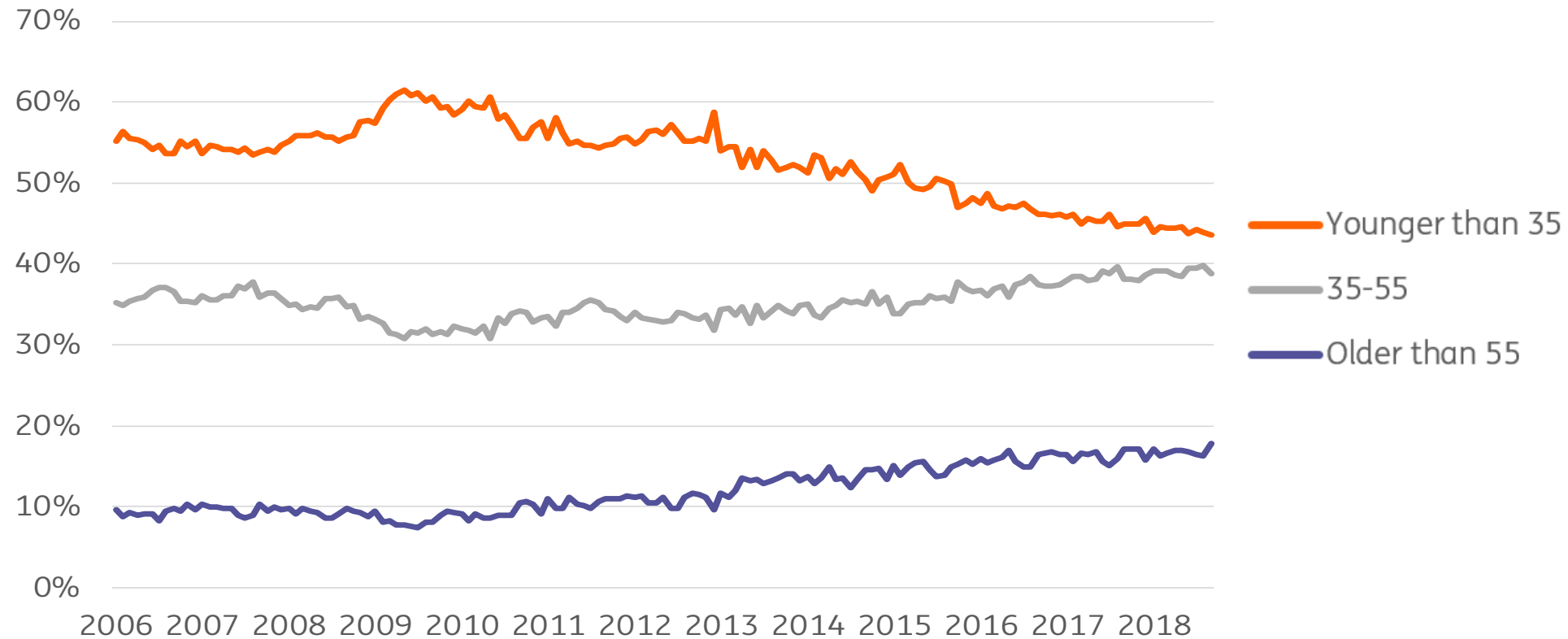


- Utrecht
- Noord-Holland
- Zuid-Holland
- Zeeland
- Noord-Brabant
- Limburg

Average age of homebuyer is increasing

Share of homes bought by young people is declining, since first-time buyers (who are often young) find it harder to buy due to stricter LTV-policies

% of total home sales, per age category

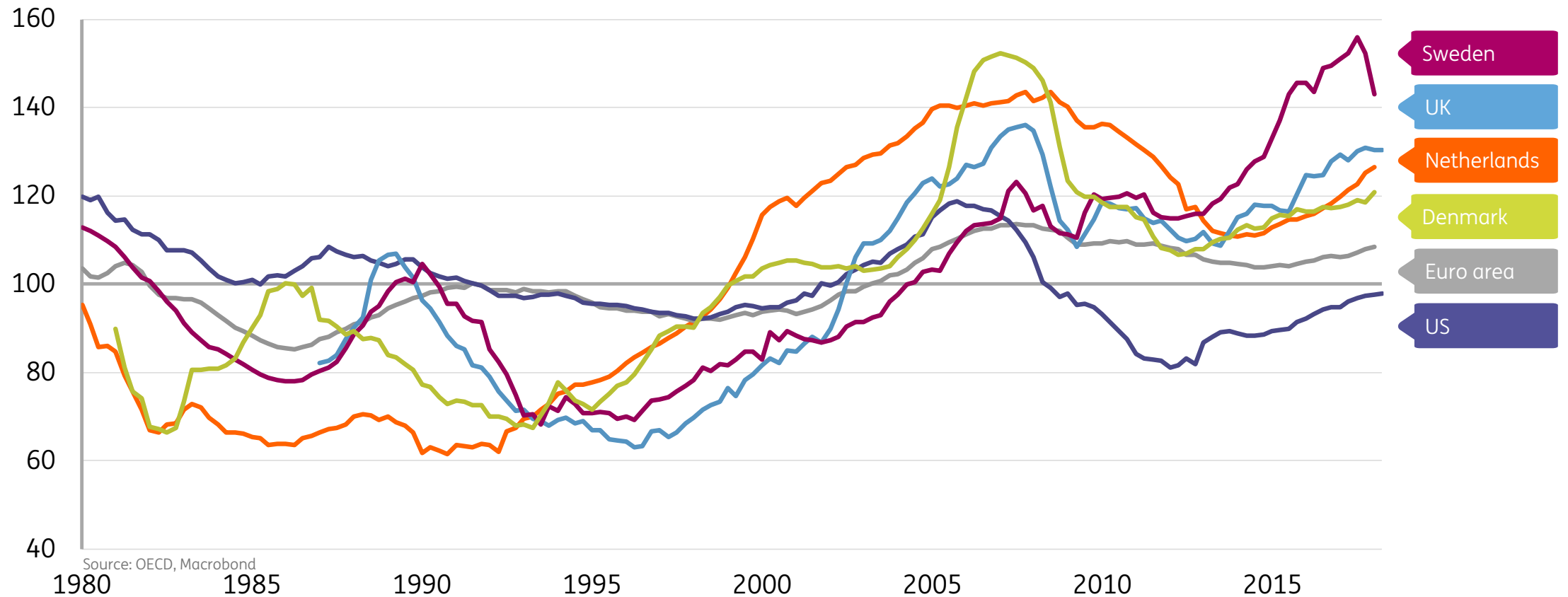


Source: Kadaster

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



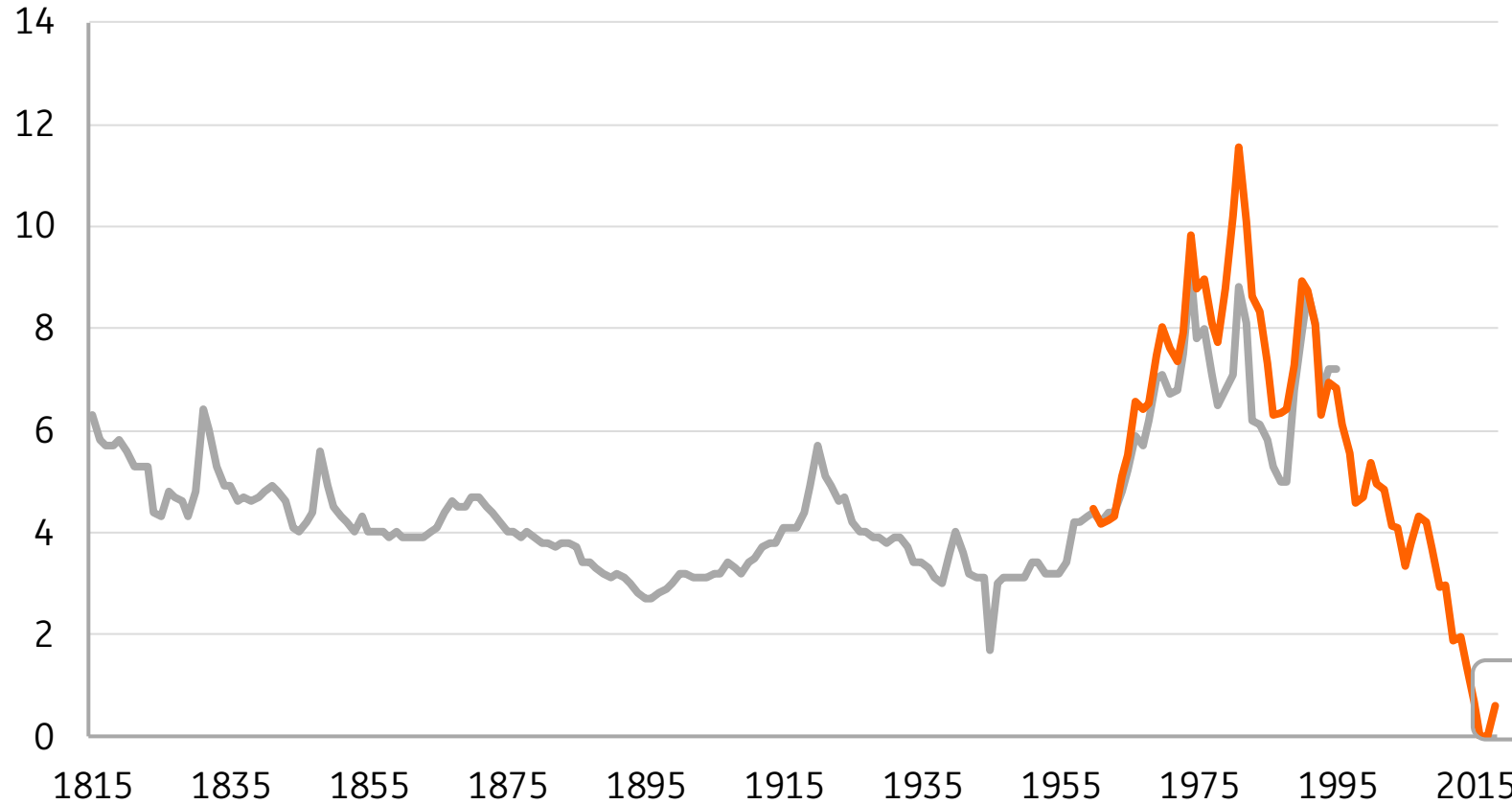
Government

- Government finances are improving. Increased economic activity is boosting tax income. The government budget balance remains in surplus. Government debt was 54% of GDP in Q2 2018, below the European norm of 60% GDP. ING forecasts the drop of the debt ratio to continue. It is likely to fall below 50% by 2020, as a result of cumulating surpluses and the continuation of the sale of the ABN AMRO bank.
- In the past few years, revenues increased while expenditures were merely stable. This hides a pattern of an increasing ageing cost (health and pension). On the other hand, the share of expenditures on interest payment is low. Both interest rates and the interest differential with Germany faced by the Dutch government are low.
- Now, the Rutte-III government uses cyclical tax revenues to offset falling gas revenues as well as to spend more and cut taxes. The output gap appears to be closed, meaning that the expansionary fiscal policy is slightly pro-cyclical. There is pro-cyclical spending on defence, education, R&D, civil service and infrastructure in 2018, which will continue in 2019. In 2019, labour taxes will be lowered, while at the same time energy taxes and VAT-rate will rise.
- 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.
- The structural EMU balance will decrease to -0.4% in 2019. Due to the looser fiscal stance of the government, public finances are no longer sustainable, according to strict definitions of the sustainability gap as calculated by CPB (Netherlands Bureau of Economic Policy Analysis). Nevertheless, they still appear favourable in international comparisons.

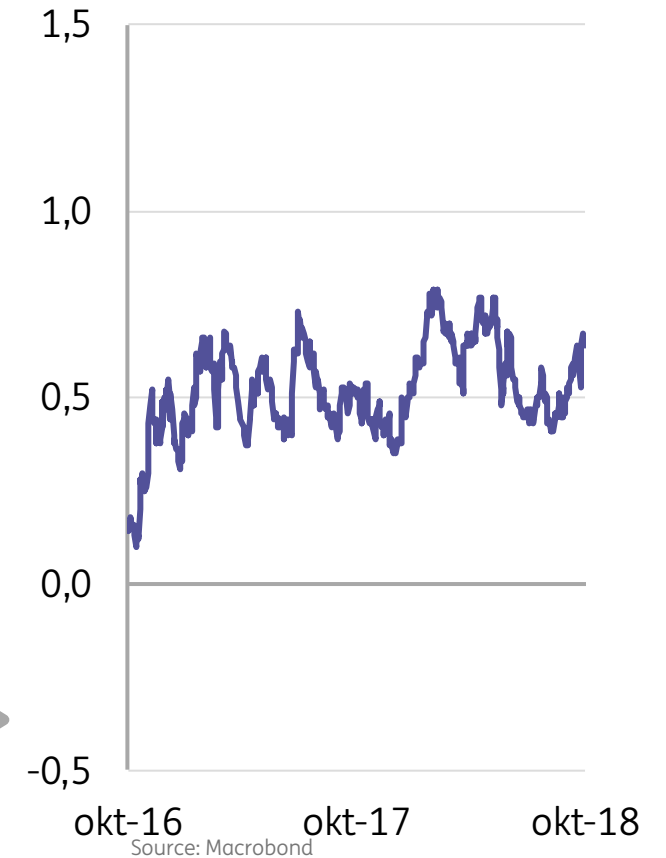
Dutch government bond yield still at historically low levels

Yield on Dutch ten year government bonds is still very low...

Yearly average, %



...with a stagnating pick-up



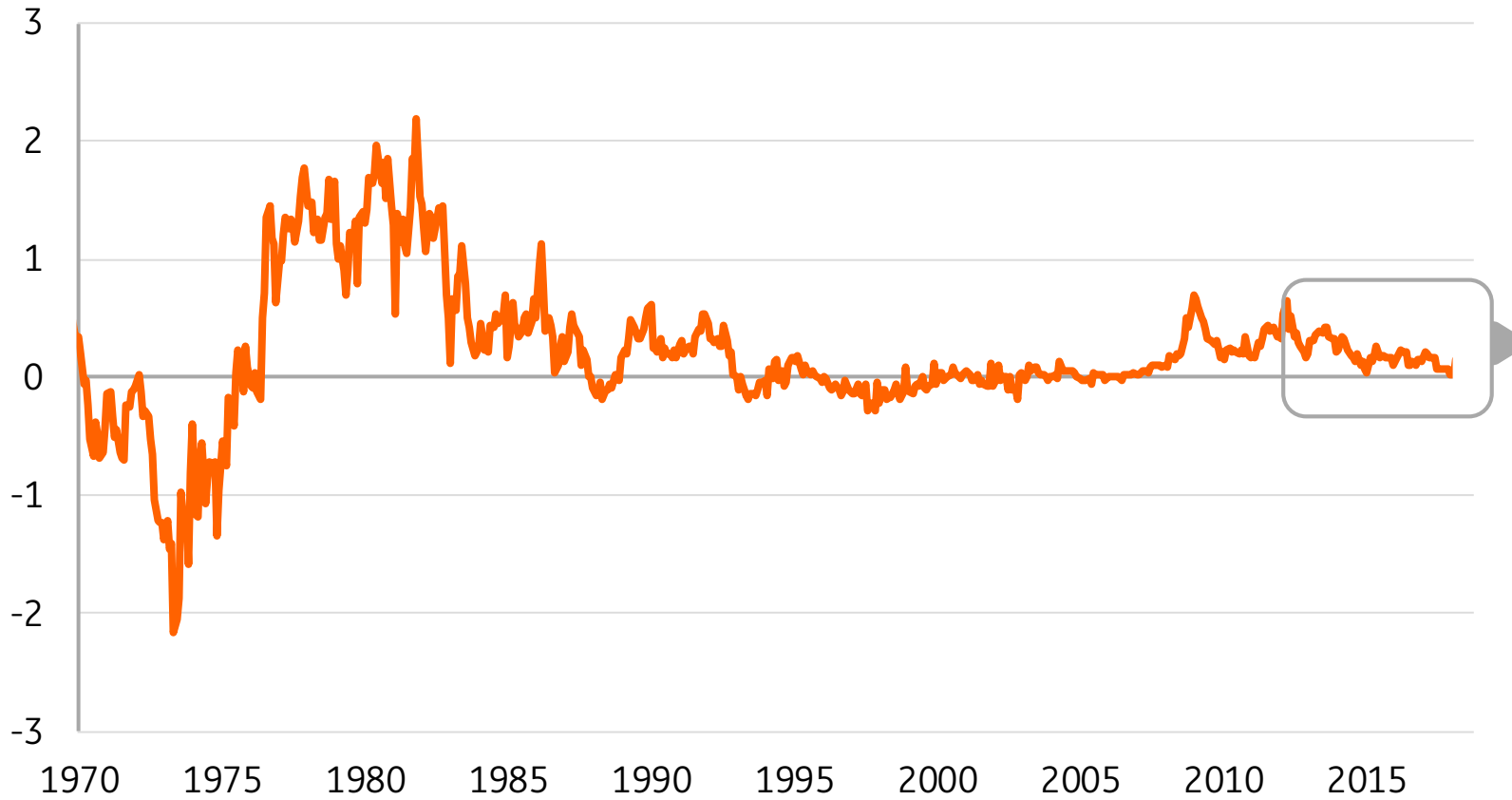
Yield on Dutch 10yr government bond

'Long-term' rate

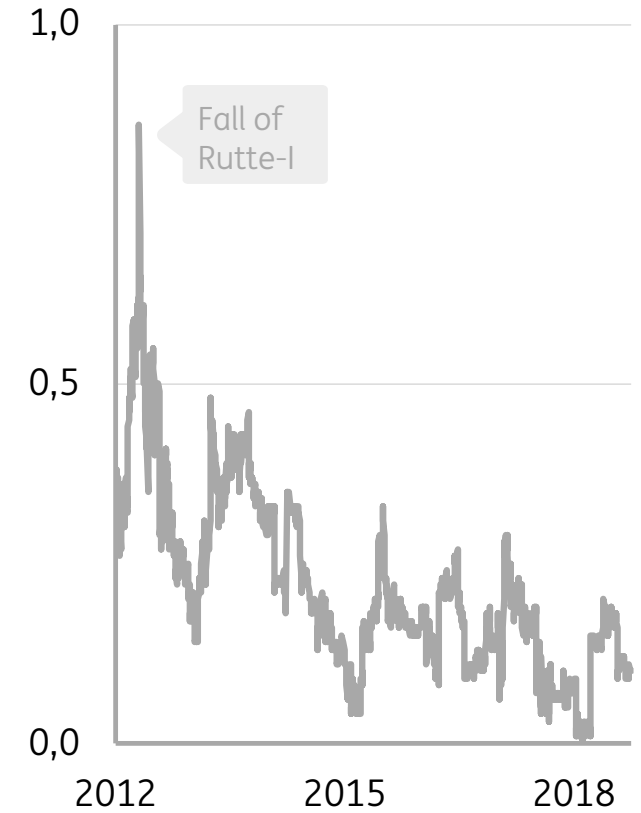
Low spread versus Germany

Yield spread with Germany on ten year government bonds back at low levels

%-points



Source: Macrobond

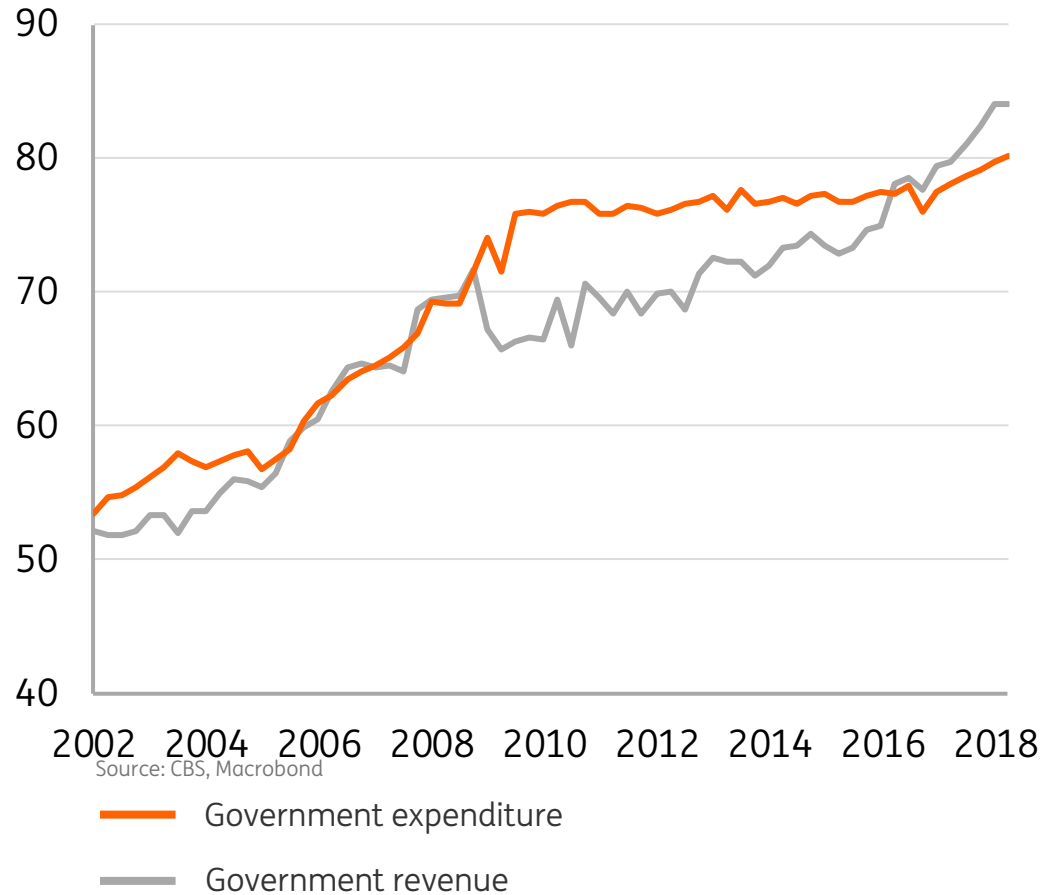


Source: Macrobond

Small budget surplus

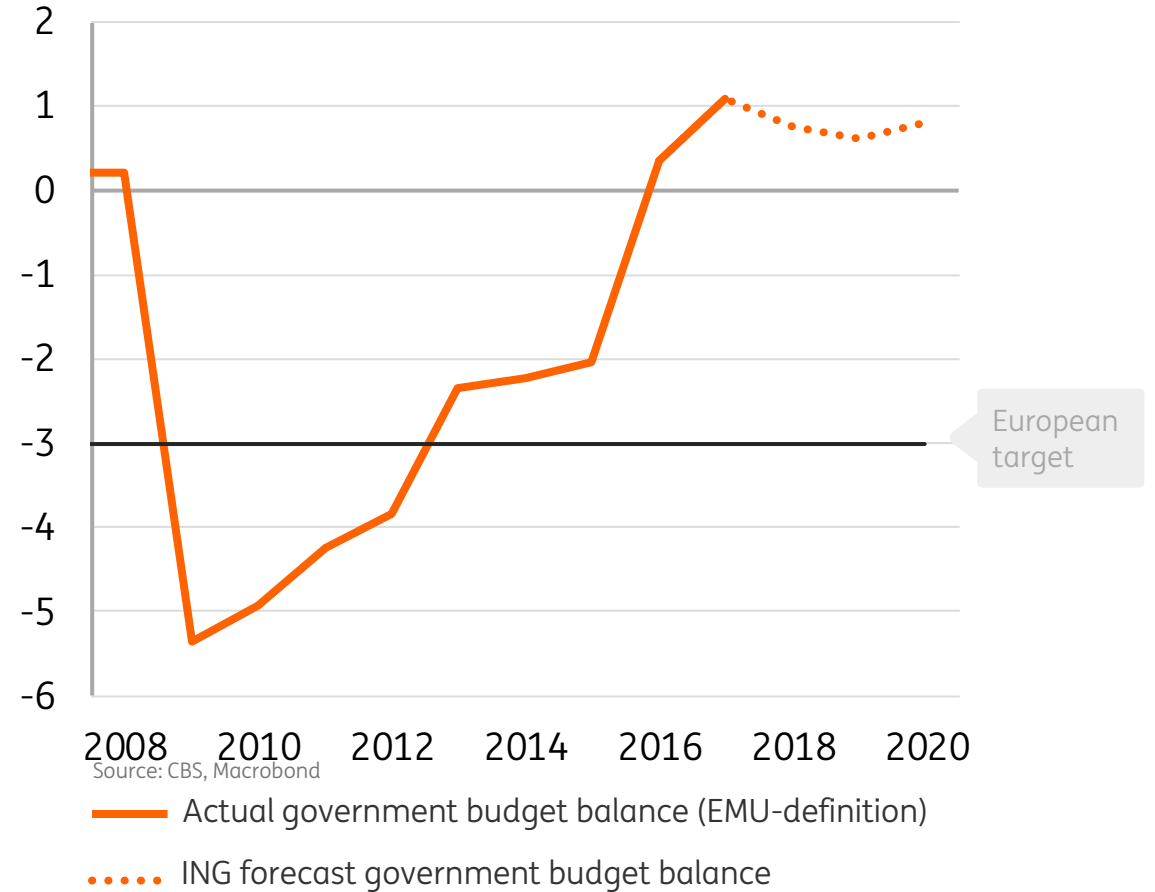
Income has exceeded expenditures again...

In euro billions, per quarter, seasonally-adjusted



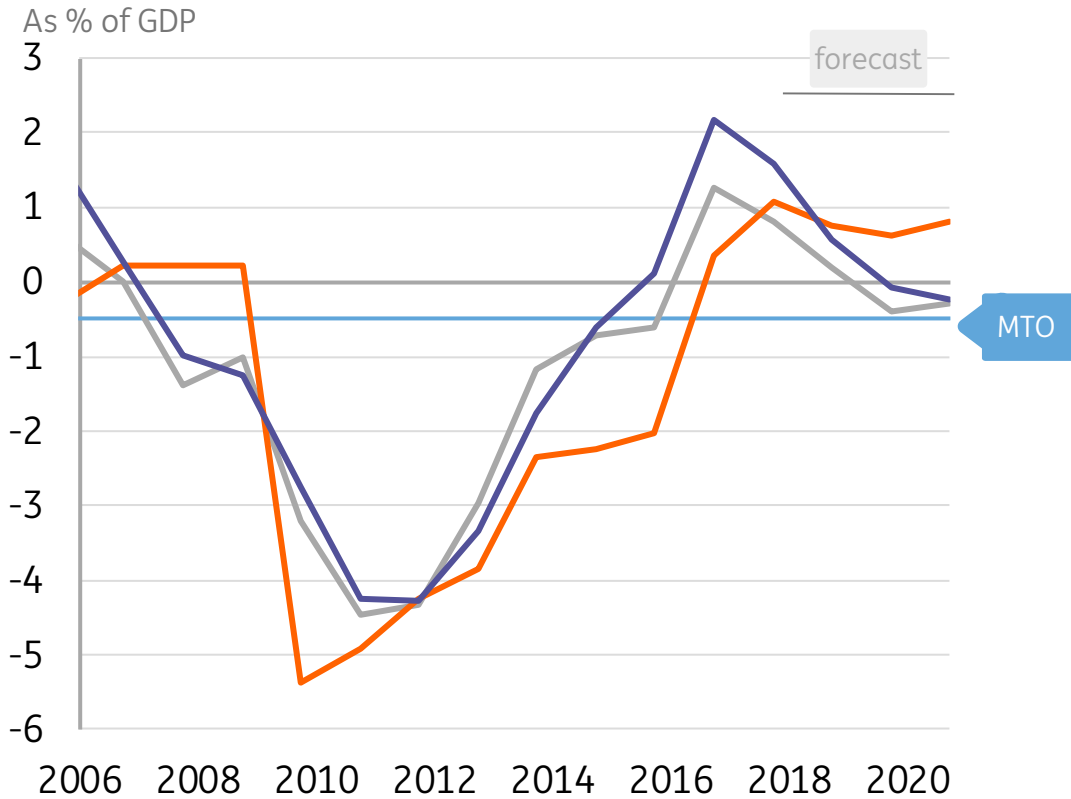
...pushing the fiscal balance back into positive territory

As % of GDP, seasonally-adjusted



Compliant with the rules of the Stability and Growth Pact

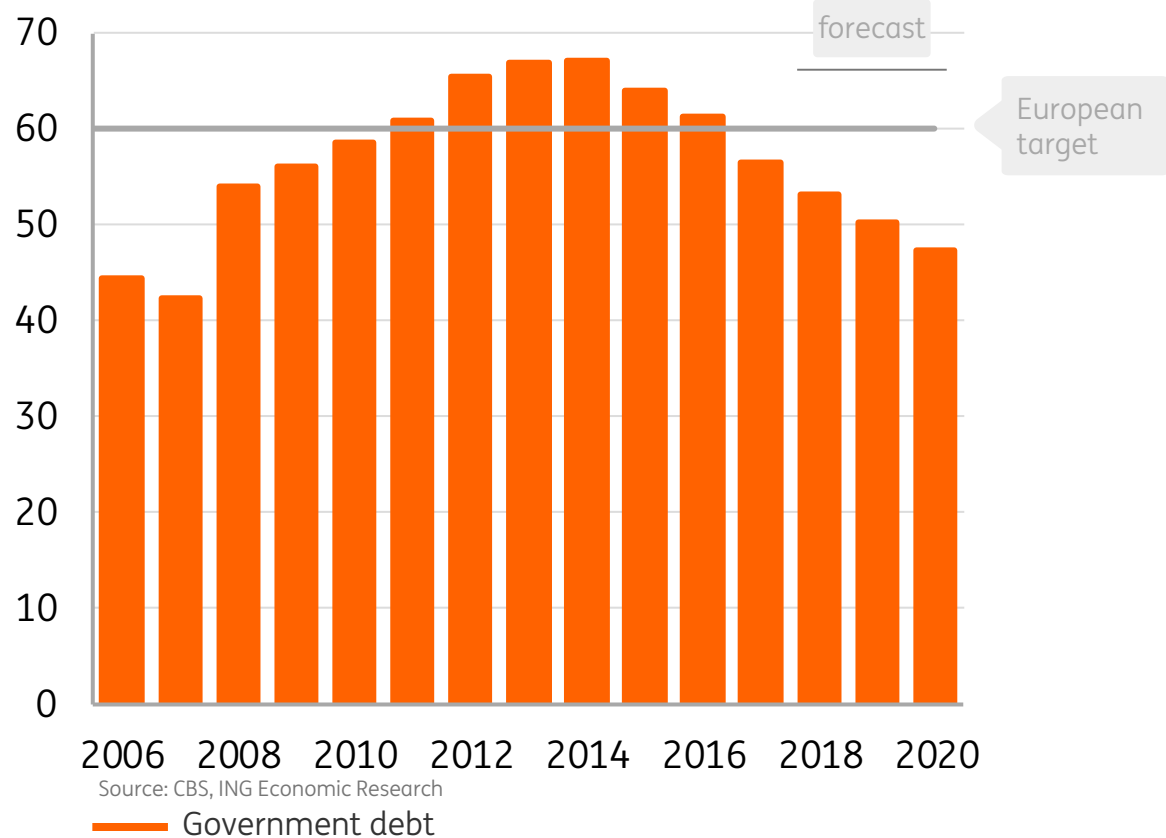
Structural balance above but close to Medium Term Objective...



- Headline balance
- Structural balance (headline adjusted for cycle and one-offs)
- Underlying primary balance (structural less interest and excl. gas)

...and government debt back clearly below 60%

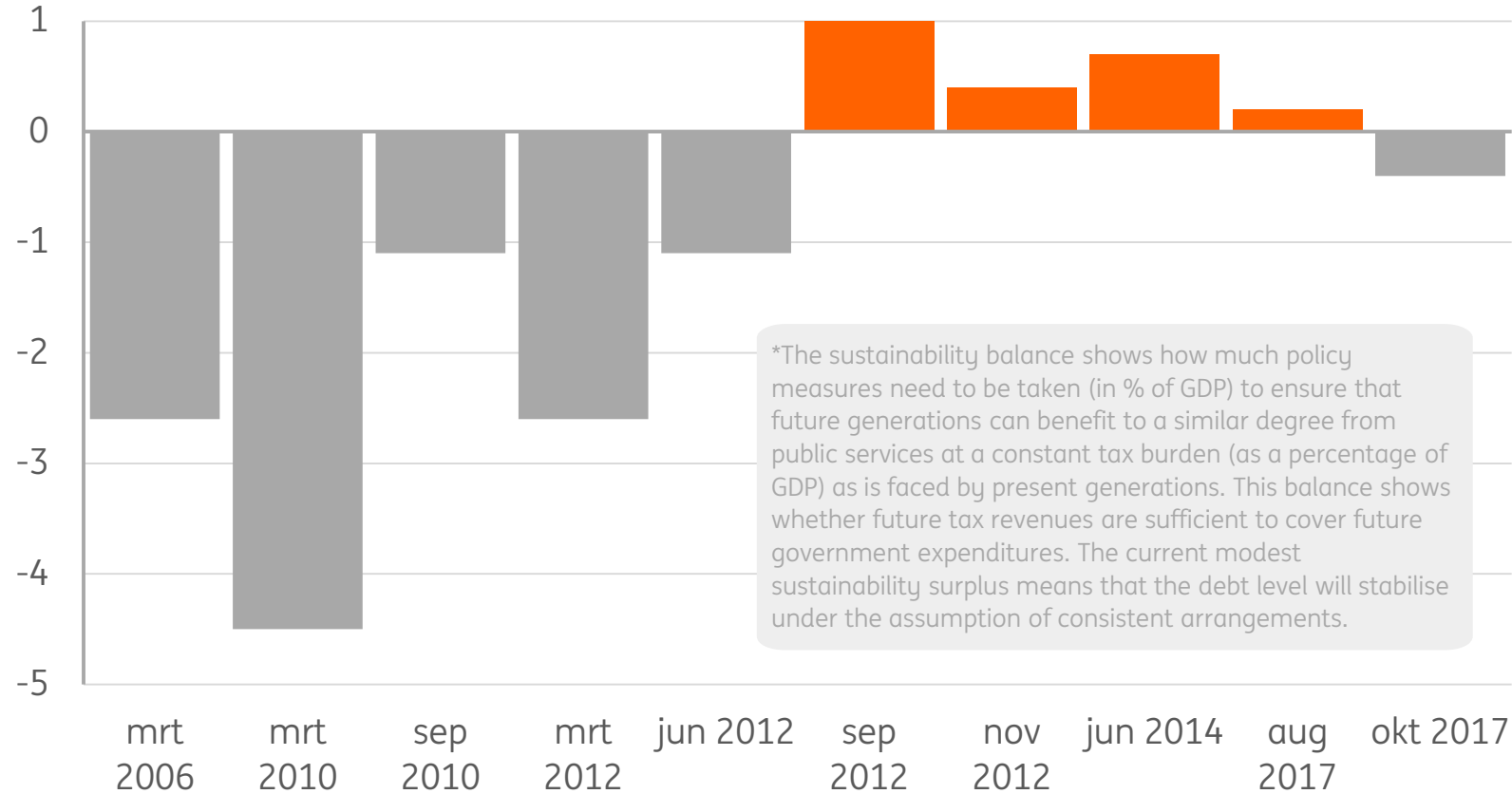
As % of GDP



Long-term government finances nearly sustainable

Long-term fiscal surplus turned into a mildly negative

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.

Source: CPB

— Sustainability balance*

Data sources

Slide Sources

4	ING Forecasts
5	[1] CBS, Macrobond [2] CBS, Macrobond
6	CBS, Macrobond, ING forecasts
7	[1] CBS, Macrobond, ING forecasts [2] CBS, Macrobond [3] CPB, Dutch Coalition Agreement
8	Eurostat, Macrobond
10	World Economic Forum, Global Innovation Index, World Bank, Transparency International, Human Development Index, The Legatum Prosperity Index
11	[1] CBS [2] WIOD, ING calculations
12	CBS, ING calculations
13	[1] CBS [2] CBS
14	[1] CBS [2] CBS, Macrobond
15	[1] CPB, CBS, Macrobond [2] CBS, Macrobond
16	CBS
17	[1] CBS [2] CBS
18	WIOD
19	[1] NEVI/PMI [2] CBS, Macrobond, ING Monthly Update/ING forecasts
20	[1] CBS [2] CBS
21	Macrobond, ECB
23	[1] CBS, Macrobond [2] CBS, Macrobond [3] CBS, Macrobond

Slide Sources

24	[1] CBS [2] CBS
25	[1] CBS, Macrobond [2] CBS
26	[1] CBS, Macrobond [2] CBS, Macrobond
27	[1] CBS, Macrobond [2] CBS, Macrobond
28	[1] CBS, DG ECFIN, Macrobond [2] DG ECFIN, Macrobond [3] CBS, DG ECFIN, Macrobond
29	[1] DNB, Macrobond [2] DNB, Macrobond
31	[1] CBS, Eurostat, Macrobond [2] CBS, Macrobond
32	[1] CBS, Macrobond [2] CBS, Macrobond
33	[1] CPB, CEP2018 [2] CBS
34	CBS, ING calculations
35	DNB, Eurostat, Macrobond
36	[1] CBS, Macrobond [2] CBS
37	[1] CBS, Macrobond [2] CBS, Macrobond [3] CBS, Macrobond
38	[1] Eurostat, Macrobond [2] CBS
39	[1] CBS, Macrobond [2] CBS, Macrobond
40	CBS
41	[1] CBS [2] CBS
43	[1] CBS [2] CBS

Slide Sources

44	[1] CBS [2] CBS
45	[1] DG ECFIN, Macrobond [2] CBS
46	[1] CBS, Macrobond [2] CBS, Macrobond
47	CBS, Macrobond
48	CBS, EIB, KvK, MKB Nederland and VNO-NCW (COEN enquête)
49	CBS, Macrobond (for all six graphs)
50	[1] CBS [2] CBS
51	[1] CBS [2] CBS
52	[1] CBS, Macrobond [2] CBS, Macrobond
53	CBS, Macrobond (for all four graphs)
54	CPB
56	[1] CBS [2] DG ECFIN, Macrobond
57	[1] World Bank, Macrobond [2] CBS, Macrobond
58	CBS, Macrobond
60	[1] CBS, ING forecast [2] Kadaster, NVB-Bouw
61	[1] Kadaster [2] CBS
62	[1] ABF Research, Primos [2] ABF Research, Primos
63	[1] DNB [2] DNB

Data sources

Sources

[1] CBS, DNB, Macrobond, ING calculations [2] VEH, Google

[1] CBS [2] Kadaster, Dynamis

[1] NVM, [2] CBS

[1] CBS [2] CBS [3] CBS

[1] CBS [2] CBS

Kadaster

OECD, Macrobond

[1] Macrobond [2] Macrobond

[1] Macrobond [2] Macrobond

[1] CBS, Macrobond [2] CBS, Macrobond

[1] CBS, Macrobond [2] CBS

CPB

Contact details

Marcel Klok

Senior Economist
ING Netherlands
Economics Department



ACT A.11.054
Bijlmerdreef 24
Amsterdam



P.O. Box 1800
1000 BV
Amsterdam



marcel.klok@ing.com



+31 (0) 20 57 60 465



www.ing.nl/economie
think.ing.com

Tim Hendriks

Economist
ING Netherlands
Economics Department



[@INGNL_economie](https://twitter.com/INGNL_economie)

[@klok_marcel](https://twitter.com/klok_marcel)

[@tjhendrikss](https://twitter.com/tjhendrikss)

Follow us:

Disclaimer

This publication has been prepared by the Economic and Financial Analysis Division of ING Bank N.V. (“**ING**”) solely for information purposes without regard to any particular user's investment objectives, financial situation, or means. ING forms part of ING Group (being for this purpose ING Group NV and its subsidiary and affiliated companies). The information in the publication is not an investment recommendation and it is not investment, legal or tax advice or an offer or solicitation to purchase or sell any financial instrument. Reasonable care has been taken to ensure that this publication is not untrue or misleading when published, but ING does not represent that it is accurate or complete. ING does not accept any liability for any direct, indirect or consequential loss arising from any use of this publication. Unless otherwise stated, any views, forecasts, or estimates are solely those of the author(s), as of the date of the publication and are subject to change without notice.

The distribution of this publication may be restricted by law or regulation in different jurisdictions and persons into whose possession this publication comes should inform themselves about, and observe, such restrictions.

Copyright and database rights protection exists in this report and it may not be reproduced, distributed or published by any person for any purpose without the prior express consent of ING. All rights are reserved. The producing legal entity ING Bank N.V. is authorised by the Dutch Central Bank and supervised by the European Central Bank (ECB), the Dutch Central Bank (DNB) and the Dutch Authority for the Financial Markets (AFM). ING Bank N.V. is incorporated in the Netherlands (Trade Register no. 33031431 Amsterdam). In the United Kingdom this information is approved and/or communicated by ING Bank N.V., London Branch. ING Bank N.V., London Branch is subject to limited regulation by the Financial Conduct Authority (FCA). ING Bank N.V., London branch is registered in England (Registration number BR000341) at 8-10 Moorgate, London EC2 6DA. For US Investors: Any person wishing to discuss this report or effect transactions in any security discussed herein should contact ING Financial Markets LLC, which is a member of the NYSE, FINRA and SIPC and part of ING, and which has accepted responsibility for the distribution of this report in the United States under applicable requirements.