## DANMARKS NATIONALBANK

16 NOVEMBER 2017 — No. 20

## Extraordinarily high current account surplus is temporary



## The very large surplus is temporary

The current account surplus has been extraordinarily high since 2010 – also relative to the cyclical position.

Read more



## Households are currently driving the surplus

Their investments are low and savings are high – inter alia in order to reduce debt. As consumption and investment increase, the current account will tend to decrease.

Read more



## Firms were the main driver of the surplus after the crisis

In 2010-15 consolidation among firms boosted the surplus. Today, their investment and savings are close to the pre-crisis levels.

Read more

The current account of Denmark's balance of payments has shown a surplus since 1990, following a long period of deficits. The surplus fluctuated around 2 per cent of GDP between 1990 and 2009. It has increased significantly since then, to 7-9 per cent of GDP in recent years, cf. Chart 1.

The temporary high current account surplus since 2010 reflects, in particular, consolidation among households and firms in the wake of the financial crisis. This means that the surplus is not a symptom of underlying problems.

Moreover, the more permanent part of the surplus can be attributed to, among other things, a wish among households to smooth out consumption over time by saving for old age. Free capital flows and a mature financial system enable households and firms to plan their consumption and investment as they wish.

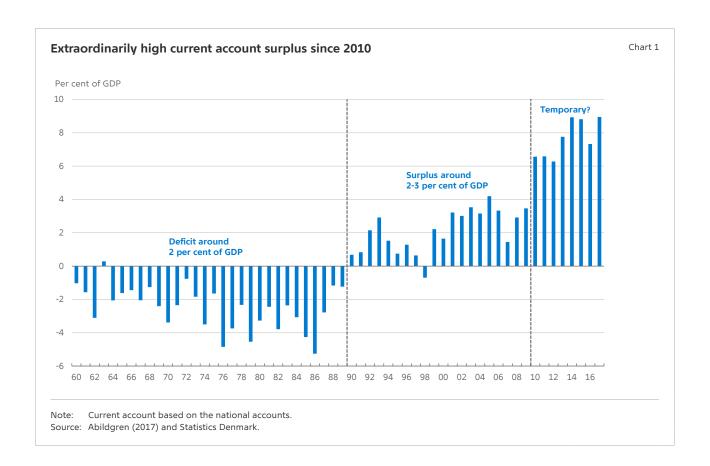
This analysis examines whether the large current account surplus since 2010 is temporary or a new trend.

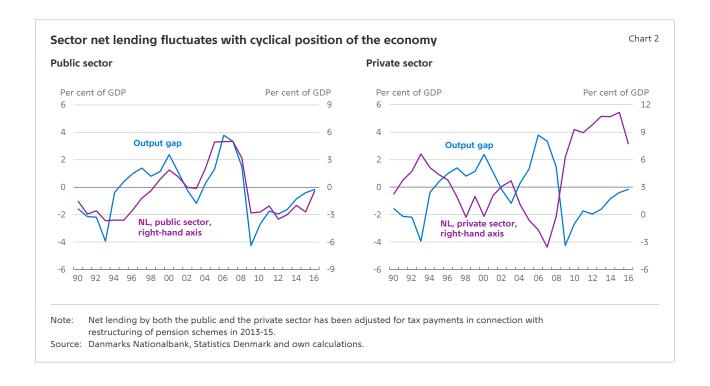
### The current account is influenced by the domestic cyclical position

The current account can be seen as Denmark's financial savings abroad, i.e. the difference between gross domestic savings and investment in real capital. The difference between gross savings and investment is called net lending, NL. Both savings and investment fluctuate extensively in line with cyclical developments

For the public sector, especially gross savings reflect cyclical developments. During an economic downturn, savings decline, as tax revenue, among other things, decreases, while expenditure for e.g. unemployment benefits rises. The opposite applies during an economic boom. This means that the public sector's financial savings fluctuate with cyclical developments, cf. Chart 2 (left).

In contrast, fluctuations in the private sector's financial savings are countercyclical, cf. Chart 2 (right).





Households and firms typically increase savings and reduce investment during a downturn. Consequently, their financial savings increase, which was also the case during the recession in 2008-09.

Since 2010, however, financial savings have been considerably higher than the historical relationship with the cyclical position suggests. Given the current cyclical position, financial savings in the private sector could in fact be expected to be around 3 per cent of GDP in 2016, which is just under 5 per cent lower than the actual level.<sup>1</sup>

This illustrates firstly that the currently very large current account surplus is driven by the private sector, and secondly that this cannot be attributed to normal cyclical conditions. Instead, the surplus is likely to reflect other factors, such as the legacy from the financial crisis.

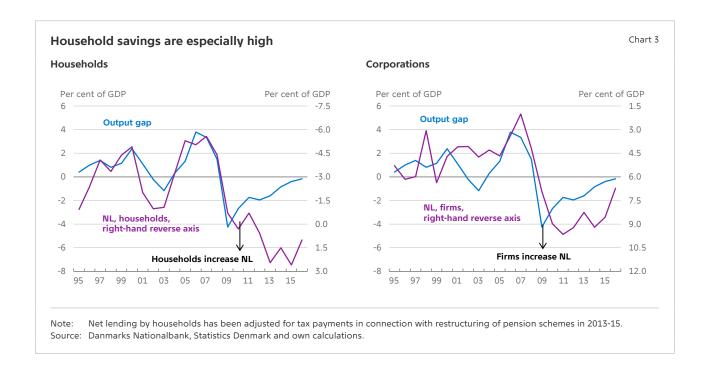
Private sector financial savings can be broken down into savings by households and firms, respectively. This breakdown indicates that household financial savings in 2016 were around 4 per cent of GDP high-

er than suggested by the cyclical position, cf. Chart 3 (left), while firms' financial savings were almost 1 per cent of GDP higher, cf. Chart 3 (right).

The breakdown of financial savings into households and firms is complicated, as households own a considerable share of Danish firms, which enables them to save in these firms.<sup>2</sup> Consequently, it is difficult to interpret the cyclically neutral levels of financial savings for households and firms on the basis of Chart 3. Thus, households' cyclically neutral financial savings are in reality higher than the -3 per cent of GDP indicated in Chart 3, while the figure for firms is lower than 6 per cent of GDP.

<sup>1</sup> Preliminary statistics for 2017 indicate that private sector financial savings have increased relative to 2016, even though the improved cyclical position suggests a fall.

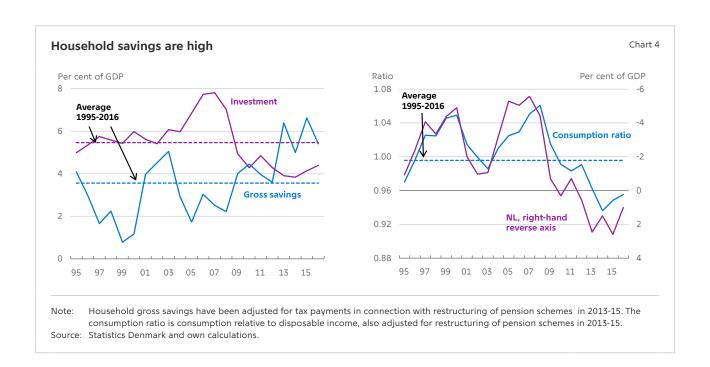
<sup>2</sup> See Autrup et al. (2015) for a description of the difficulties of breaking down the private sector into households and firms.



## Unusually high household financial savings

Household financial savings have been positive since 2012, in contrast to the situation for many years previously. This reflects notably high gross savings and to a lesser extent a low level of investment, cf. Chart

4 (left). Savings have risen gradually since the onset of the financial crisis, and since 2013 the level has been higher than what can be expected given the cyclical position. Household investment, consisting mainly of residential investment, has been low since 2009. In 2016, the level was still low in a historical context, and slightly lower than the cyclical position suggested. The increase in household savings since



the onset of the financial crisis is offset by a strong drop in the consumption ratio, cf. Chart 4 (right).

The current high level of household savings reflects several factors. Firstly, it may reflect a wish among households to reduce debt in the wake of the financial crisis. This applies to heavily indebted households in particular. Secondly, households are likely to regard the current low interest expenses as a temporary phenomenon, so they tend not to spend the entire gain. The level of household savings is also influenced by net pension contributions, which have been positive historically. This will still be the case for the years to come, but to a declining extent.

#### Borrowers reduce debt after the financial crisis

A large majority of all households reduced consumption just after the onset of the financial crisis, cf. Hviid and Kuchler (2017). Since 2010, household behaviour has differed between financial net savers (approximately 40 per cent of households) and net borrowers, cf. Chart 5 (left). Borrowers are mostly home owners who are affected by a decline in house prices.

In recent years, net savers have increased their consumption ratio to a level slightly higher than the pre-crisis level, while borrowers, on the other hand,

have continued their consolidation. This applies in particular to the group of households with high gross debt. They have strongly reduced their consumption and have extensively utilised the last few years with low interest rates to reduce net debt, cf. Chart 5 (right).

It is difficult to assess how long households will continue their consolidation efforts. The household debt ratio (gross debt relative to disposable income) fell in the period 2009-14 from around 315 per cent of disposable income to 275 per cent. However, since 2014, the pace of households' debt reduction has been slower, cf. Chart 6, indicating that the consolidation is coming to an end. This is supported by Grinderslev et al. (2017). They find – on the basis of an econometric analysis of household LTV ratios (debt relative to the value of assets) and the cost of debt servicing relative to income - that the level of household debt was close to equilibrium in 2016. However, the equilibrium level depends on both the level of interest rates and house prices, and higher interest rates or lower house prices may thus trigger further consolidation among households. When households cease to consolidate, their consumption ratios rise.

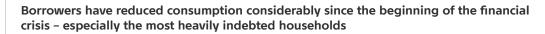
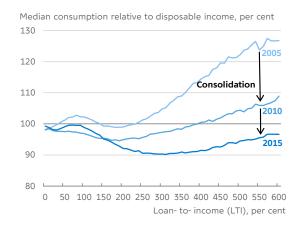


Chart 5

#### Consumption ratios for savers and borrowers

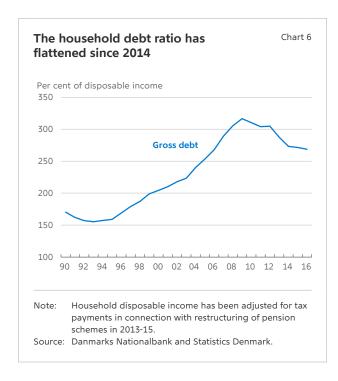
# Median consumption relative to disposable income, per cent 105 103 100 Savers 95 03 05 07 09 11 13 15

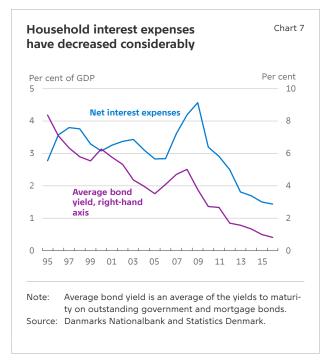
#### Consumption ratios over loan-to-income (LTI) groups



Note: Net savers are defined as households whose liquid financial assets (bank deposits, equities, bonds, etc., excluding pension wealth) exceed their financial liabilities, and vice versa for net borrowers. Approximately 40 per cent of households are net savers. Consumption is imputed consumption calculated as disposable income less changes in liquid net assets from one year to the next. Residential investment (investment in home improvements) is not separately identifiable, and is therefore included as consumption. Households buying or selling a home are excluded from the dataset in the reference year as well as the preceding and the following year.

Source: Hviid and Kuchler (2017).





This could lead to higher imports, which will reduce the current account surplus.

#### Households do not spend all gains from low interest rates

Interest rates have been extraordinarily low in the wake of the financial crisis, cf. Chart 7, considerably reducing household net interest expenses and increasing disposable income. If the low interest expenses are perceived as a temporary phenomenon, some households will choose not to spend the entire gain immediately, but spread it over a longer period by increasing their savings. Households' low interest expenses may thus contribute to the high savings ratio in recent years, cf. Hviid and Kuchler (2017).

This effect can be expected to fade out gradually as interest rates rise from the current extraordinarily low level. Household net debt (debt less interest-bearing assets excluding pension wealth) is approximately 90 per cent of GDP, meaning that a 1 percentage point rise in interest rates would increase household net interest expenditure by just under 1 per cent of GDP. This adjustment will be gradual, as many households have fixed rate mortgage loans. The effect should be compared with the fact that household financial savings in 2016 were around 4-5 per cent of GDP higher than suggested by the cyclical position, cf. Chart 3 (left).

This indicates that rising interest rates alone are not sufficient to normalise household financial savings. This would require that households reduce their consolidation.

Viewed in isolation, a reduction of household financial savings as a result of an increase in interest rates from the extraordinarily low level would tend to reduce the current account surplus. However, higher interest rates may, of course, boost the financial savings of firms, including banks. But in a historical context, firms have tended to reduce their financial savings during cyclical upturns, cf. Chart 3 (right). Firms should thus not be expected to increase their financial savings in a situation with rising interest rates due to an improved cyclical position.<sup>3</sup>

<sup>3</sup> Alternatively, the potential effect of higher interest rates on net investment income from abroad may be considered. Danish assets have longer duration than Danish liabilities, cf. Hove et al. (2014). Higher interest rates may thus be expected to reduce net investment income in the first instance, since interest payments to abroad will rise more than interest income from abroad.

#### Net pension contributions increase household savings, although the effect will decrease in the coming years

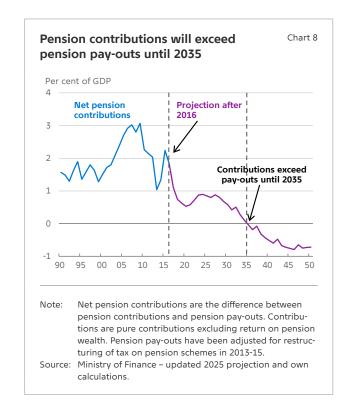
For many years, households have saved for retirement – both in individual schemes and in labour market pension schemes. Historically, net pension contributions have been positive, given the maturing of the pension system and because large cohorts have saved while in employment. This has boosted household financial savings.<sup>4</sup>

Large cohorts are retiring these years. This reduces net pension contributions, which are expected to be positive, but declining until 2035. After this time, pension pay-outs will exceed pension contributions, cf. Chart 8. The development in pension savings indicates lower household savings in future, and in the long term this will exert downward pressure on the current account surplus.

#### Firms' investment and savings are now close to the pre-crisis levels

Firms' financial savings rose strongly after the onset of the financial crisis. In 2010-15, their financial savings were larger than what was suggested by the cyclical position, which contributed to boosting the current account surplus. Today, firms' savings are at a level which can be expected given the current cyclical position.

Firms can be divided into financial and non-financial corporations.<sup>5</sup> Net lending by financial corporations has fluctuated considerably since the early 2000s. The principal reason is substantial changes in gross savings in the sector, while investment has been



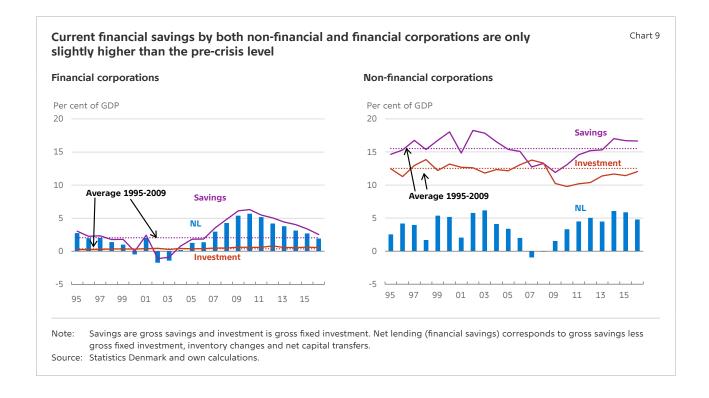
relatively stable, cf. Chart 9 (left). In the wake of the financial crisis, the sector's financial savings rose to a high level, peaking at almost 6 per cent of GDP in 2010. Presumably, this reflects a wish to consolidate among financial corporations, but also increased regulatory buffer requirements.<sup>6</sup> Among other things, the banks built up capital buffers as protection against economic turbulence. Since 2010, financial savings by financial corporations have declined towards the pre-crisis level.

For non-financial corporations, investment plummeted in 2009 after the financial crisis, but has since

<sup>4</sup> Contributions to collective pension schemes are treated differently from other savings in the national accounts. Contributions to collective schemes reduce household disposable income, i.e. these schemes are treated as a tax. Pay-outs from collective schemes are treated as income, on the other hand. Net contributions to collective schemes are subsequently included in household gross savings via a correction item in the national accounts (D8), thereby including all savings in net lending. Individual pension schemes are treated like all other savings.

<sup>5</sup> This division is not without its challenges. For instance, savings from non-financial corporations can end up in the financial sector if e.g. consolidated profit is placed in a non-financial holding company, as holding companies are included in the financial sector.

<sup>6</sup> Bank Rescue Package I limited, among other things, dividend payments of banks in the period 2008-10. Capital requirements for banks have also been increased.



increased slowly. The current investment ratio is slightly lower than the level in 2004 when the economy was cyclically neutral, cf. the output gap in Chart 3 (right). Savings were low when the financial crisis hit, but they rose relatively fast in the subsequent period due to, among other things, the gain

from the substantial decrease in interest expenses. Savings are currently close to the pre-crisis level, cf. Chart 9 (right).

Overall, the current contribution from firms to the large current account surplus is found to be modest.

#### Literature

Abildgren, Kim (2017), A chart & data book on the monetary and financial history of Denmark, SSRN Working Paper, No. 2977516.

Autrup, Søren Lejsgaard, Paul Lassenius Kramp, Erik Haller Pedersen and Morten Spange (2015), Balance of payments, net foreign assets and foreign exchange reserve, Danmarks Nationalbank, *Monetary Review*, 4th Quarter.

Grinderslev, Oliver Juhler, Paul Lassenius Kramp, Anders Kronborg and Jesper Pedersen (2017), Financial cycles: What are they and what do they look like in Denmark?, Danmarks Nationalbank, Working Paper, No. 117. Hove, Maria Pedersen, Paul Lassenius Kramp and Lasse Nørgård Vogelius (2014), Development in and return on net foreign assets, Danmarks Nationalbank, *Monetary Review*, 1st Quarter.

Hviid, Simon Juul and Andreas Kuchler (2017), Consumption and savings in a low interest-rate environment, Danmarks Nationalbank, *Working Paper*, No. 116.

ABOUT ANALYSIS



As a consequence of Danmarks National-bank's role in society we conduct analyses of economic and financial conditions.

Analyses are published continuously and include e.g. assessments of the current cyclical position and the financial stability.

DANMARKS NATIONALBANK HAVNEGADE 5 1093 KØBENHAVN K WWW.NATIONALBANKEN.DK

This edition closed for contributions on 15 November 2017

Anne Ulstrup Mortensen Economist

Casper Winther Nguyen Jørgensen Economist ECONOMICS AND MONETARY POLICY Paul Lassenius Kramp Principal Economist ECONOMICS AND MONETARY POLICY

