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Unravelling the savings surplus of Dutch corporations

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Authors
Bas Butler, Krit Carlier, Guido Schotten and Maikel Volkerink

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De Nederlandsche Bank N.V.
P.O. Box 98
1000 AB Amsterdam
www.dnb.nl
info@dnb.nl

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Authors: Bas Butler, Krit Carlier, Guido Schotten and Maikel Volkerink[1]

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Introduction and summary

Introduction

The Dutch current account surplus, the key indicator of the savings surplus, is among the highest in the world, averaging 7% of gross domestic product (GDP) since the turn of the century. In 2018 the surplus was the highest of all OECD countries, at 11% of GDP. The trend in the savings surplus is a core issue in international debates on macroeconomic imbalances in the Netherlands.

In 2011 the European Commission introduced a macroeconomic imbalance procedure (MIP) to detect and reduce euro area imbalances in a timely manner. This was in response to the 2008 financial crisis, in which persistent savings deficits were found to have contributed to financial vulnerabilities. To detect imbalances, the MIP uses a scoreboard with various macroeconomic indicators, including the current account balance. The three-year average of the current account balance is subject to a lower limit of -4% of GDP and an upper limit of +6% of GDP. The reason for this is that a savings deficit can indicate overspending and a savings surplus can indicate underspending.

Since the introduction of the MIP the Dutch current account surplus has been above the limit of +6% of GDP every year. The high savings surplus may indicate an underlying imbalance. More needs to be understood about the causes of the high surplus to determine whether this is the case.

The savings surplus in the Netherlands is mainly driven by non-financial corporations (NFCs), which accounted for over 80% of it in the period 2000-2018. However, much uncertainty remains about which firms are saving, why they are doing so and what they are doing with the savings surplus. This Occasional Study investigates these questions, focusing on the difference between small and medium-sized enterprises (SMEs) and large corporates (LCs). By combining various statistics supplied by

8 Statistics Netherlands (CBS) and DNB, the savings surplus among NFCs has now for the first time been broken down by type of firm in accordance with the national accounts. This casts light on the causes of the surplus and thus helps to identify the right policy tools to reduce the surplus.

Summary

A breakdown of the savings surplus among Dutch firms shows that over the last two decades the savings surplus has been located both in SMEs and LCs. In both types of companies higher profits have translated into a rising savings surplus, because the rise in profits was not matched by proportionate rises in distributed profits and investment. Dutch firms distribute relatively little profits compared to firms in other countries.

The savings surplus among SMEs shows a rising trend due to higher profits on domestic production, reflected in the decrease of the labour income share. Distributed profits by SMEs are also remarkably low. This is due in part to tax incentives that encourage directors/majority shareholders (DMSs) to retain profits. Since a DMS is simultaneously an employee, owner and director of the firm, there is ample scope for tax planning. Furthermore, SMEs have been saving more since the financial crisis in order to finance a larger share of their investment with their own resources. This may be because they wish to reduce their dependence on bank lending, which turned out to be in shorter supply during the crisis. There are also indications of bottlenecks in the market for SME lending. For instance, the interest rate differential between small SME loans and large LC loans widened at the time of financial crisis and has remained wide ever since. The interest rate differential between large and small loans in the Netherlands is also relatively wide compared to the euro area. Credit terms for SMEs have also been progressively tightened, whereas those for LCs have been eased back to pre-crisis levels.

The savings surplus among LCs is largely located in Dutch multinational enterprises (MNEs). Dutch MNEs' profits have increased in particular as a result of higher income from foreign investment. Their savings surplus has come under pressure in recent years, however, partly due to lower profits from abroad. The savings surplus among Dutch MNEs largely comprises resources they have themselves invested, albeit abroad. According to statistical conventions foreign investment is not included in investment deducted from savings when calculating the savings surplus. This increases the savings surplus of countries with a strong presence of MNE headquarters. The Netherlands is home to a relatively large number of multinationals' headquarters. This is partly due to the attractive tax climate, but other factors also play a role. Foreign MNEs as a whole contribute little if at all to the savings surplus on balance, but they have a major impact on the financial flows passing through the Netherlands. Many of these financial flows between subsidiaries and parent companies of foreign MNEs are likely to be tax-related.

The above findings suggest that the savings surplus among Dutch firms is due to a number of imbalances. From these it is possible to distil a number of policy implications aimed at reducing these economic distortions. This study does not examine these policy implications in detail, so they must be explored more closely.

- Tax incentives that encourage DMSs to save should be examined more closely and adjusted where necessary. A number of adjustments have recently been made and announced by the government, such as the abolition of self-administered pensions in 2017 and the limiting of fiscally advantageous loans that DMSs can grant themselves from 2022 onwards. The limiting of the loans that DMSs can draw will not necessarily lead to a lower *national* savings surplus, because at the same time households' savings surplus will probably be increased as a result of higher dividend payments.

- The decrease in the labour income share among SMEs may indicate scope for wage increases at certain firms, although the labour income share is expected to increase somewhat in the short term due to cyclical tightness in the labour market. The labour income share in the SME sector should be interpreted with a degree of caution, because a small proportion of those working in SMEs are DMSs, who set their own salary and are subject to statutory minimum salary requirements.
- Any bottlenecks in lending to SMEs should be reduced. Setting up a credit register could potentially help reduce transaction fees in lending and hence broaden the effective supply of credit.
- In the case of LCs the savings surplus is mainly associated with higher foreign investment, which does not directly point to an imbalance.
- Many financial flows between subsidiaries and parent companies of foreign MNEs appear to be tax-related. To the extent that they prevent double taxation, there is no economic distortion. However, MNEs also use tax planning for tax avoidance. This undermines the tax base, fuels tax competition between countries and distorts the level playing field between SMEs and LCs as a result of differences in the tax burden. It would be desirable to limit tax avoidance on an international level.

Finally, this study shows the need for more detailed data to make appropriate policy recommendations for countries' balance of payment imbalances. Statistical authorities should therefore publish more detailed statistics, for example with breakdowns between SMEs and LCs, different types of LCs and different business sectors. Such detailed statistics are required for a proper international comparison.

Reader's guide

This study is structured as follows. Chapter 1 discusses the three different perspectives on the national savings surplus: the current account, net lending/borrowing and the financial account. Chapter 2 uses in-house calculations to break down the savings surplus among NFCs by type of firm and considers the root causes of the NFCs' savings surplus. Chapter 3 concludes with suggested policy avenues for further exploration.

1 The savings surplus in the Netherlands

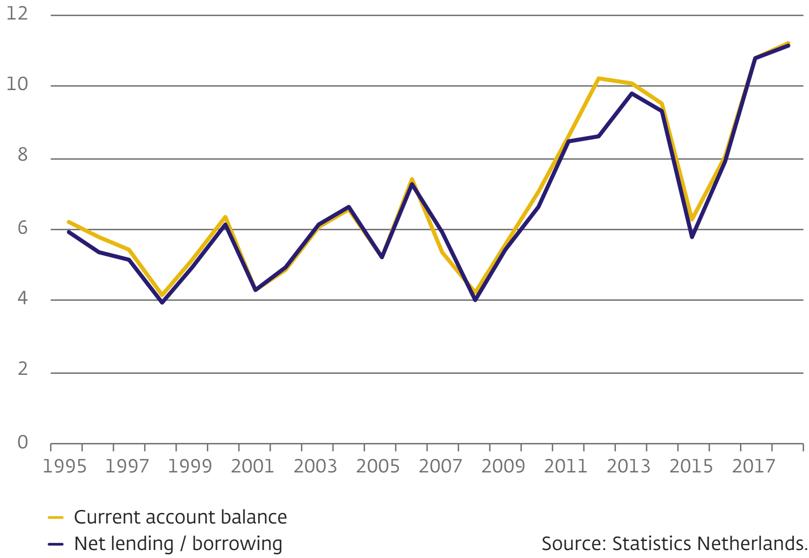
1.1 Historically high current account balance

A country's current account shows current account transactions with foreign countries, i.e. goods and services transactions plus property income and income transfers.[2] The current account balance is the key indicator of a country's savings balance.

This is not the only perspective on the savings surplus, however; it is also possible to look at net lending/borrowing, which is almost equal to the current account balance (see Figure 1).[3] Net lending/borrowing is what

Figure 1 The savings surplus from two perspectives

Percentage of GDP



Source: Statistics Netherlands.

2 Property income is income that the owner of a receivable or of tangible non-produced assets receives for providing financial resources. Income transfers are all payments which have no direct quid pro quo, do not burden the wealth of the payer and are not used to fund the recipient's long-term expenditures.

3 The 'capital account' item gives rise to a small difference between net lending/borrowing and the current account balance.

remains after domestic investment is deducted from national savings. If a country produces more than it spends, more is sold abroad than is purchased abroad, leading to a surplus on the current account. By definition, this also means that income is higher than expenditure[4], leading to net saving. This difference, known as net lending/borrowing, is invested abroad and leads to the accumulation of external assets.

The Netherlands has had a current account surplus for decades. The last year with a deficit was 1978. The current account surplus shows cyclical fluctuations but has trended higher since the 1980s. In 2018 the surplus amounted to 11% of GDP, the highest level ever (DNB, 2019a).

Figure 2 shows the various sub-accounts of the current account. By far the largest contribution comes from transactions in goods and services: the Netherlands exports considerably more goods and services than it imports.

The goods and services balance is also responsible for the structural rise in the current account surplus in past decades. A significant part of the goods surplus concerns re-exports[5]; in 2016 this contribution amounted to 2.8% of GDP (CBS, 2017). Although the Netherlands earns relatively little from re-exports per euro, they do now contribute significantly to the surplus due to the sharp rise in volume.[6] For a long time gas exports also made an important contribution to the goods surplus, but this has been significantly reduced by the restrictions on gas extraction in Groningen. In 2018 the

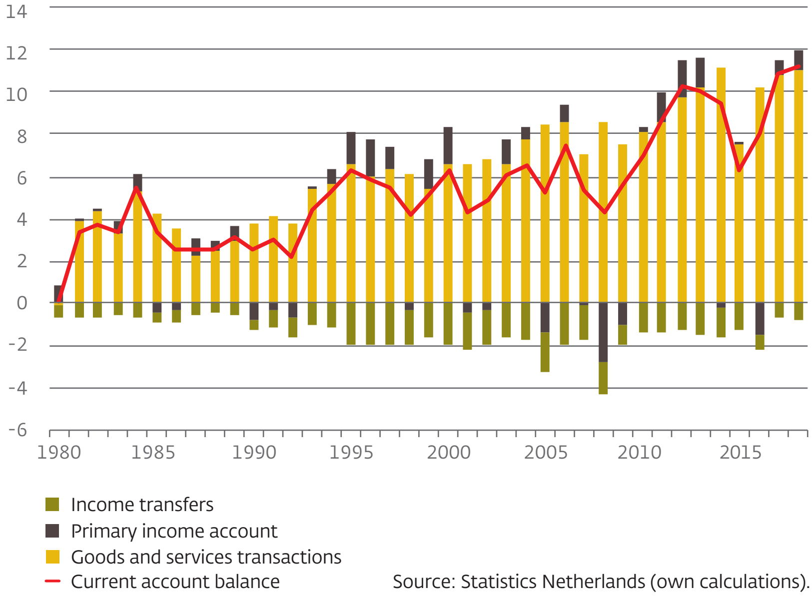
4 The total income comprises both the added value of production and net income from property and employment abroad (this is allocated to the income account).
5 Re-exports concern goods which are transported through the Netherlands and thus (temporarily) become the property of a resident without any significant industrial processing taking place. Examples include goods that are cleared through Dutch distribution centres and supplied to other countries in Europe and elsewhere.
6 The Netherlands earned 14 cents per euro on re-exports in 2017, whereas it earned 52 cents per euro on exports of domestically produced goods (see CBS, 2019a).

Netherlands became for the first time a net importer of natural gas, with a balance of -0.3% of GDP, compared to an average of +0.9% of GDP in the period 2000-2018 (CBS, 2019b).

Given the decades-long current account surplus, it is striking at first sight that the resulting accumulation of external assets did not lead to a rising, structural surplus on the income account. While there has been a substantial increase in income from external assets, due to an increase in foreign direct investment and higher pension investments abroad, this has largely been offset by other factors. For example, a large proportion of the listed

Figure 2 Breakdown of current account

Percentage of GDP

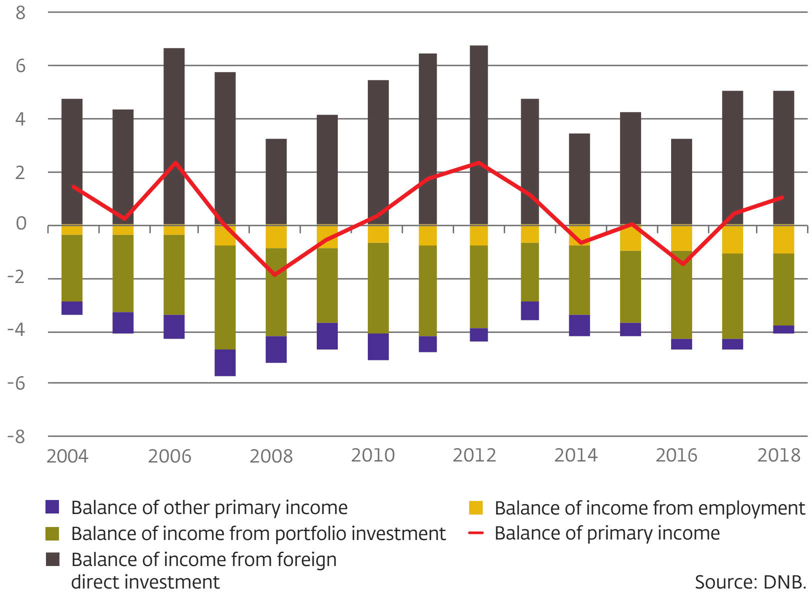


Source: Statistics Netherlands (own calculations).

shares issued by Dutch firms are held by foreign investors. This proportion amounted to 86% in the second quarter of 2019. Higher dividend payments from these firms consequently put downward pressure on the income account through lower net income from investments. The income account is also impacted by foreign firms that produce in the Netherlands but pay the profit to parent companies located abroad. Finally, the increasing payments to foreign employees have a negative impact on the income account (see Figure 3).

Figure 3 Breakdown of primary income account

Percentage of GDP



Source: DNB.

The balance on the income *transfer account* is structurally negative, amounting to an average of -1.4% GDP in the period 2000-2018. This mainly concerns net EU payments, development aid and other transfers abroad.

1.2 Net lending/borrowing: mainly with firms

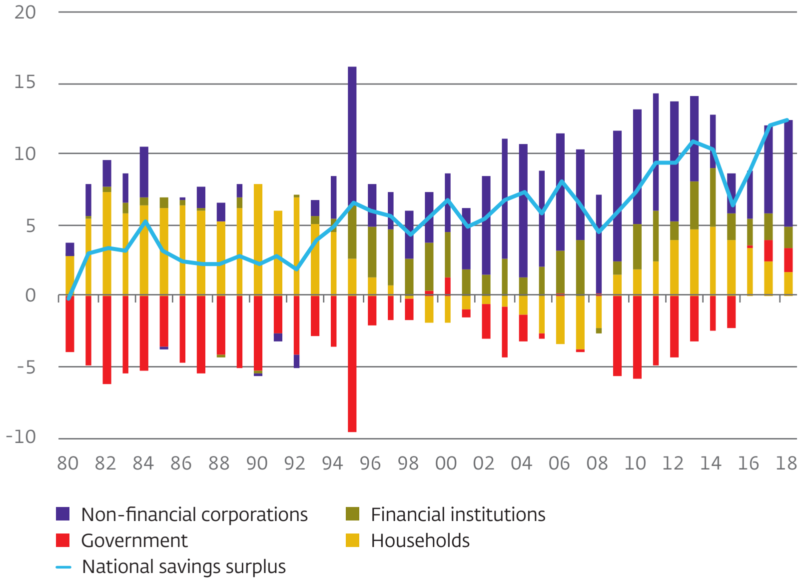
Figure 4 shows the contributions to net lending/borrowing from various sectors. In the 1980s the savings surplus was still largely generated by households, but since the mid-1990s it has mainly resulted from firms saving more than they invest, particularly non-financial corporations (NFCs).[7] The savings surplus among NFCs did decrease somewhat after the crisis, but this decrease was offset at national level by improved government finances and an increase in the savings surplus among households. In the most recent years NFCs, the government, households and the financial sector have all contributed to the surplus. Since the mid-1990s the financial sector has had a structurally positive savings surplus, which fluctuates slightly around 2.0% of GDP.

The rise in the savings surplus among NFCs is mainly driven by higher profits. Distributed profits and investment rose less rapidly than profits, so the savings surplus increased over time. An average of 49% of profits were paid out as dividend in the period 2000-2017, substantially less than the euro area average of 83%.[8] Profits rose particularly sharply thanks to higher income from FDI. Total profit also increased due to higher earnings from domestic production and in recent years also due to low interest rates. The rise in earnings from domestic production reflects the decrease in the labour income share. The labour income share of NFCs decreased particularly sharply in the period leading up to the 2008 financial crisis, after which it recovered somewhat.

7 Firms' savings are defined as non-retained earnings after tax.
8 This is defined as the percentage of distributed dividend relative to net profit after tax. These figures were taken from Eurostat.

Figure 4 Net lending/borrowing by sector[9]

Percentage of GDP



Source: Statistics Netherlands (own calculations).

After peaking at 8.9% of GDP in 2011, the savings surplus of NFCs decreased to 2.6% of GDP in 2015. This was due among other things to a temporary dip in the foreign earnings of Dutch multinationals (see Chapter 2) and a substantial R&D investment in the Netherlands by a foreign multinational in 2015. The latter shows that the strategy or administrative changes of a single large corporation can have a significant impact on the Dutch savings surplus. Incidental fluctuations in the savings surplus of firms and large corporations

9 The outlier in 1995 was due to the privatisation of housing corporations, when the government provided compensation for the loss of future subsidies. This 'grossing-up' operation was recorded in the national accounts as a capital transfer from the government to the corporate sector.

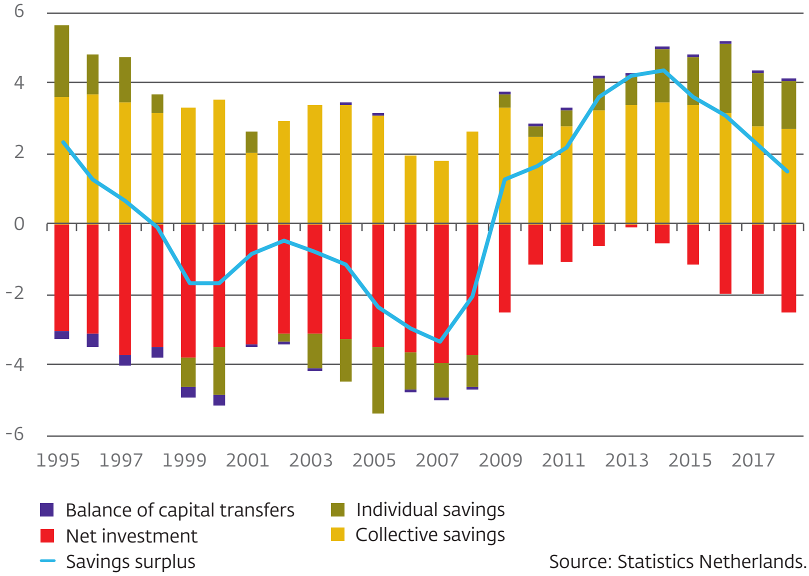
are therefore difficult to interpret. In recent years the savings surplus of NFCs has gradually risen again, reaching 6.7% of GDP in 2018.

Savings surplus of households driven by pension system and housing market

Fluctuations in the savings surplus of households are mainly caused by individual savings and by investment (see Figure 5). In both cases these can be traced back to developments in the housing market. Investment by households largely consists of housing investment, and house prices are the factor determining the financial position of many households. When house prices rise, households generally invest more in their home and vice versa.

Figure 5 Net lending/borrowing by households

Percentage of GDP



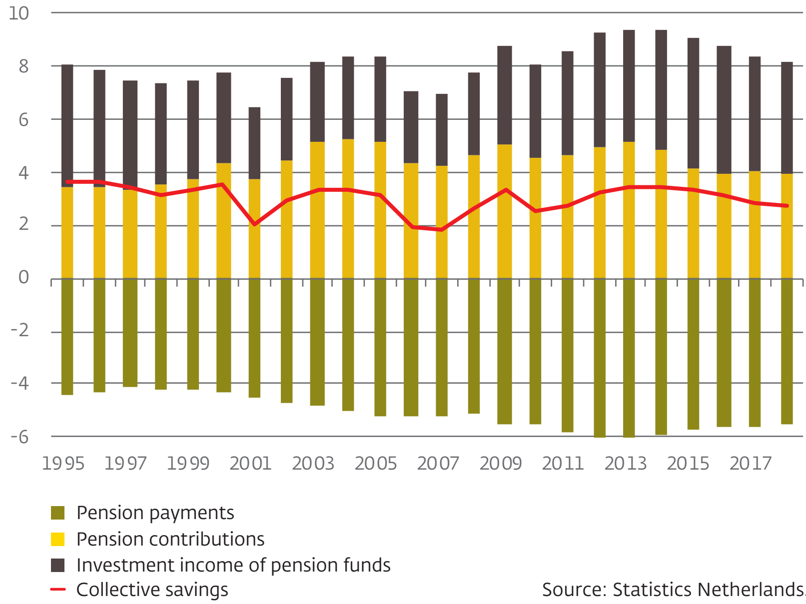
Source: Statistics Netherlands.

This is partly because certain costs incurred in the purchase of a home, such as transfer tax and legal fees, are recorded as housing investment. Investment by households consequently moves in line with developments in the housing market. In response to the fall in house prices after the 2008 financial crisis and relatively high mortgage debt, households' individual savings turned positive again.[10] Individual savings are the part of household savings that are not used for consumer spending and collective pension savings. Households have used these savings in particular to repay their mortgage debt (CBS, 2019c). The savings surplus among households has decreased again somewhat in the last few years, as consumption and housing investment has risen in line with the economic recovery.

Households' collective pension savings also make a structural contribution to the savings surplus. The collective savings are the annual pension contributions and income from pension investments minus pension payments. This collective savings balance has remained fairly constant as a percentage of GDP for decades. After the turn of the century the ageing of the population caused pension payments to rise gradually from 4.4% of GDP in 2000 to 5.5% of GDP in 2018 (see Figure 6). Since pension contributions rose at the same time, the balance remained almost constant.

10 New housing market legislation has also led to higher individual savings by households, for example as a result of the requirement to repay a mortgage within 360 months by means of an annuity in order to be eligible for mortgage interest deductions.

Figure 6 Households' collective savings
Percentage of GDP



Source: Statistics Netherlands.

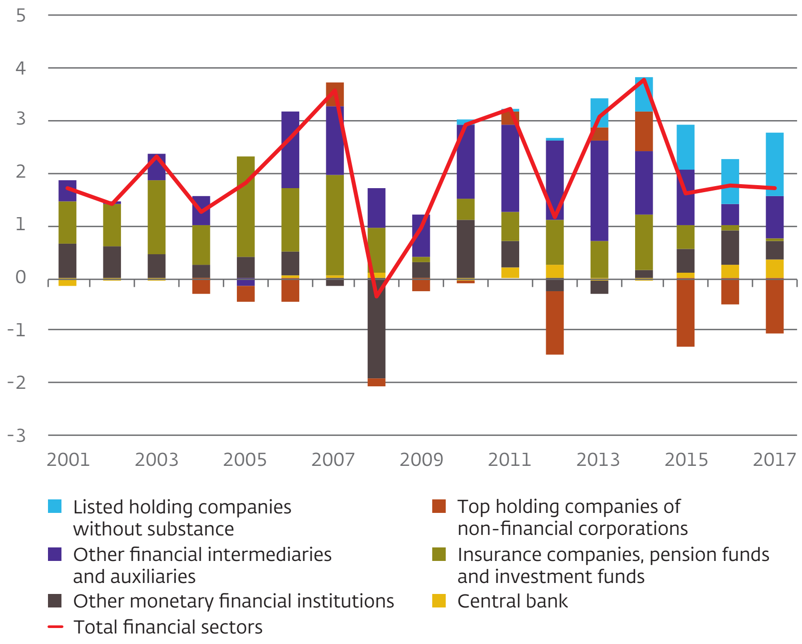
Savings surplus of the financial sector

The financial sector has a structurally positive savings surplus that fluctuates around 2.0% of GDP. The savings surplus in the financial sector is not located in a single type of financial institution; banks, pension funds, insurers and the central bank all contribute to the financial sector's savings surplus (Figure 7).[11] Almost half of the savings surplus is attributable

11 The savings surplus of De Nederlandsche Bank (the Dutch central bank; DNB) has increased somewhat in recent years. This is partly due to the EUR 500 million provision which DNB recognised in 2015, 2016 and 2017 to take account of the increased risks of the unconventional monetary policy.

Figure 7 Savings surplus of financial institutions by type of institution

Percentage of GDP



Source: Statistics Netherlands.

to ‘other financial institutions’. These include the top holding companies[12] of financial institutions, but also financial service providers of various sizes, such as investment and mortgage advisers. The reasons for the savings surplus in the financial sector therefore vary.

12 A top holding company is the highest company in a group of companies.

In the national accounts the top holding companies of NFCs are considered part of the financial sector under certain conditions.[13] In most years since 2001 these top holding companies have contributed negatively to the savings surplus of the financial sector. This is because the dividends distributed by the top holding companies to shareholders over these years exceeded the dividends they received from non-financial subsidiaries.[14] The effect on the national savings surplus was neutral. In the case of NFCs the negative contribution from top holding companies in the financial sector is offset by a higher savings surplus, because overall dividend payments from NFCs were consequently lower.

A relatively small but growing contribution to the savings surplus (1.2% of GDP in 2017) comes from listed top holding companies having no real economic activities (substance). This reflects decisions by foreign listed multinationals to locate their registered office in the Netherlands without also conducting real economic activities in the country. This is likely to do with laws and tax regulations in the Netherlands. The worldwide profits generated by these top holding companies are reported in the Netherlands and to the extent that they are not distributed to shareholders they contribute to the Dutch savings surplus. As these firms have no real economic activities in the Netherlands, this part of the savings surplus gives little insight into the existence of imbalances in the Dutch economy.

International comparison of savings surpluses

The Dutch savings surplus differs greatly from that of most other countries: for example, there is no euro area country that saves as much as the Netherlands and the difference is now greater than ever. This difference is

13 This concerns a selection of large listed firms and subsidiaries of foreign MNEs, most of which have many foreign subsidiaries.
14 In addition to the dividends paid, the outflow also comprises retained earnings attributable to the foreign parent company.

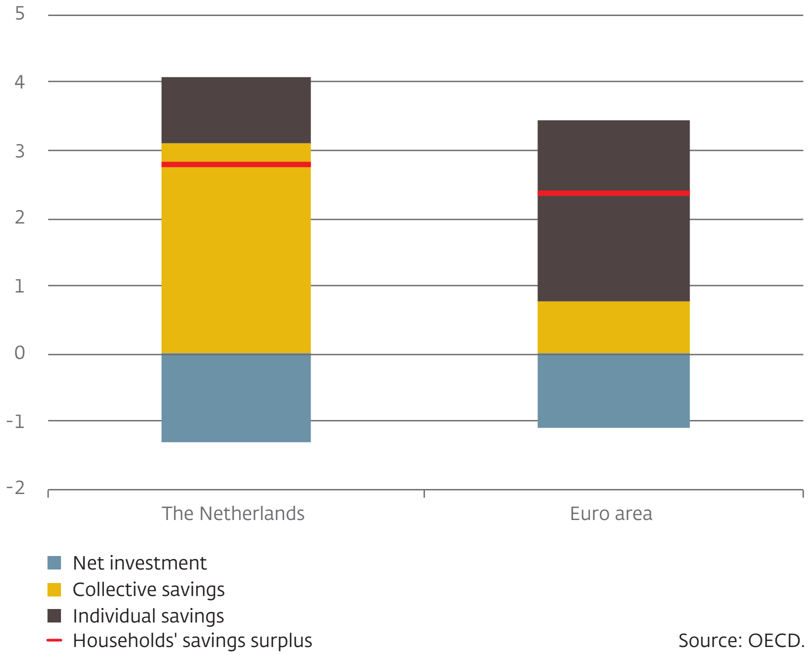
mainly due to NFCs. Although the savings surplus of NFCs in most developed countries has increased since the 1990s, it has risen particularly strongly in the Netherlands. The savings surplus of NFCs has also increased since the 1990s in Japan, Germany, South Korea and Austria (IMF, 2019). According to the IMF the large savings surplus among NFCs in these countries is mainly caused by three factors: a decrease in the labour income share, a decrease in the capital formation ratio and limited profit distributions to shareholders. While these factors are not unique to the above countries, they do play a relatively major role in them. As indicated above, these factors also apply to the Netherlands, although the capital formation ratio has held reasonably steady. This is considered in greater depth in Chapter 2. A further factor applying specifically to the Netherlands is that income from foreign investments is relatively high. This is because a relatively large number of multinationals have their head office in the Netherlands.

Moreover, Dutch households' savings surplus of 2.8% of GDP over the period 2009-2018 is somewhat higher than the euro area average of 2.4% of GDP. The substantially higher collective savings in the Netherlands are partly offset by lower individual savings (see Figure 8). Foreign households have greater need of individual savings because they have much lower collective pension savings than Dutch households. At 4.1% of GDP, Dutch households' total savings are higher than the euro area figure of 3.5% of GDP. Although Dutch households also invest somewhat more, the net savings surplus (savings less investment) is higher in the Netherlands than in the euro area.

At 2.0% of GDP the Dutch government has had a lower budget deficit than the euro area average (2.7% of GDP) over the past decade. During and shortly after the financial crisis, the Dutch government deficit deteriorated less than those of other euro area countries, mainly due to additional spending cuts. In recent years the Dutch government has had a budget *surplus*, whereas the other euro area countries as a whole still have deficits.

Figure 8 International comparison of households' savings surpluses

Percentage of GDP; average 2009-2018



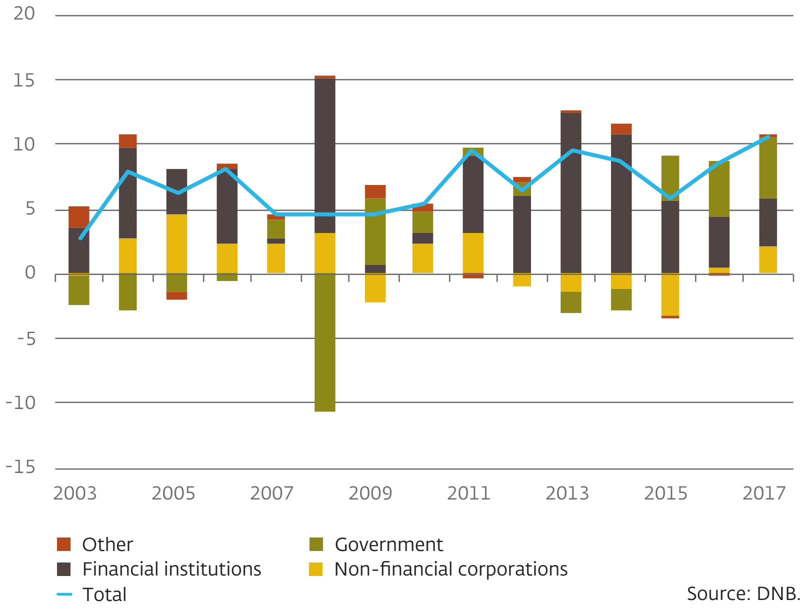
Source: OECD.

1.3 Financial account

A third perspective on the Dutch savings surplus is provided by the financial account of the balance of payments. As described above, if a country exports more than it imports, it has a current account surplus, which is roughly equal to net lending/borrowing. This balance is the amount lent to foreign entities. It therefore gives rise to claims on foreign entities. These may result from foreign direct investment or purchases of foreign bonds. The financial account shows the sectors which accrue these claims. A sector with positive net lending/borrowing will not necessarily be a sector that accrues financial claims. It is also possible to accrue claims on another domestic sector which in turn has claims on a foreign entity.

Figure 9 shows the balance of the financial account of the balance of payments broken down by sector. While net lending/borrowing is dominated by NFCs, it is mainly financial institutions (particularly pension funds) that invest abroad. The average contribution from financial institutions to the financial account in the period 2003-2018 was 59%,

Figure 9 Financial account
Percentage of GDP



Source: DNB.

compared to 15% in the case of NFCs. It is also striking that households (which are included in 'Other' in Figure 9) barely invest abroad, despite their net savings surplus.

The relative importance of pension funds in the financial account reflects the pension assets of Dutch households, a large proportion of which is invested abroad by pension funds. In the national accounts, however, the investment income generated by pension investments is allocated to households. The part of net lending/borrowing relating to our pension system is therefore recorded under households and not pension funds. In addition, the limited share of the financial account attributable to NFCs is due to the fact that around half of their savings surplus is located in SMEs, which have hardly any investments abroad (see Chapter 2). Part of this may nonetheless find its way to foreign entities through banks and investment funds which invest SMEs' savings abroad. The NFCs' contribution to the surplus on the financial account is mainly due to foreign direct investment by Dutch multinationals. Investment in the Netherlands by foreign multinationals has the effect of reducing the savings surplus.

2 Breakdown of NFCs' savings surplus by type of firm

2.1 Breakdown of NFCs' savings surplus

Using the figures in the national accounts it is difficult to identify the causes of the high savings surplus among NFCs, because the aggregate figures mask widely differing trends among the various types of firms. For this reason, the savings surplus of NFCs is broken down here into different types of firms. This shows at which types of companies the savings surplus is located and the make-up of the savings of the different types of firms. Financial balance sheet data are used to analyse the ways in which firms' have used the savings.

The surplus is broken down by combining various sources supplied by Statistics Netherlands and DNB: the national accounts, a customised table on the role of multinationals in the Dutch economy, the SFO/SFGO micro statistics and DNB's detailed balance of payments statistics. In addition to a breakdown into small and medium-sized enterprises (SMEs) versus large corporates (LCs), the LCs can be further broken down into Dutch and foreign multinational enterprises (MNEs) and LCs that are not part of MNEs.[15] This also allows a subdivision into business sectors. Statistics Netherlands does not publish these breakdowns in a single consistent system. The present exercise involves various assumptions and the data sets shown should therefore be seen as indicative. The findings presented here nevertheless remain broadly valid under alternative assumptions. See the appendix for a detailed description of the methodology.

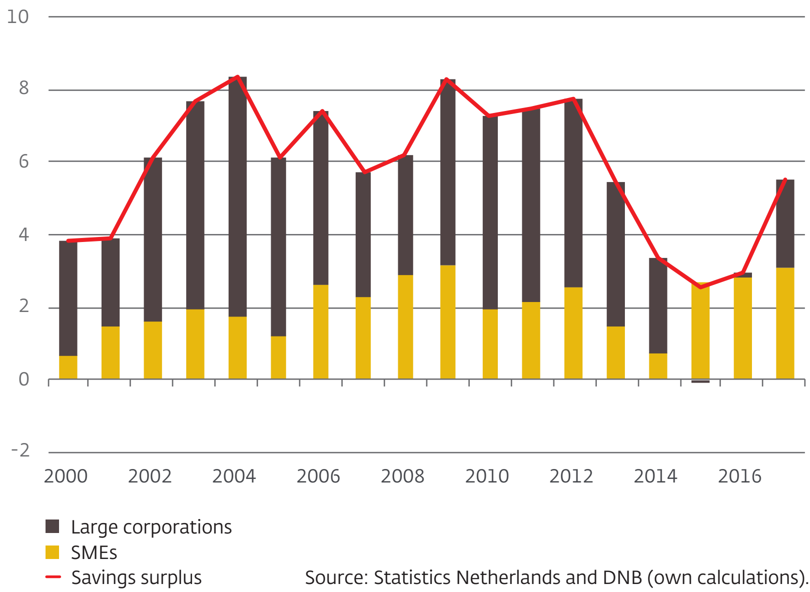
15 An SME is defined here as a Dutch-owned firm not forming part of a group with more than 250 employees. An LC is defined as a firm forming part of a group with more than 250 employees. An LC Dutch MNE is defined as a Dutch-owned LC with subsidiaries abroad. An LC foreign MNE is defined as a foreign-owned Dutch LC with subsidiaries abroad. An LC non-MNE is defined as a Dutch-owned LC with no subsidiaries abroad.

2.2 Savings surplus in both LCs and SMEs

The savings surplus is found to be located both in LCs and in SMEs. Figure 10 shows the estimated savings balance as a percentage of GDP, subdivided by size of firm. Over the period 2000-2017 as a whole, 36% of the surplus was located in SMEs and 64% in LCs.[16] SMEs have been responsible for most

Figure 10 Savings surplus: contributions of SMEs and LCs

Percentage of GDP



Source: Statistics Netherlands and DNB (own calculations).

16 On 24 April 2019 DNB (2019b) published the DNBulletin entitled 'Smaller companies contribute increasingly to savings surplus', which reported a lower SME share than this study. This DNBulletin was based on SFO/SFGO data, which do not entirely match the data used in the national accounts. The estimates used in this Occasional Study, however, do fully match those of the national accounts. Furthermore, in 2014 CPB published a study on the savings surplus of non-financial corporations, which used SFO/SSG micro data to assess where the savings (retained earnings) were located (Jansen and Ligthart, 2014). This CPB study emphasised the large contribution from LCs, which made the biggest contribution to the surplus during the 1995-2011 period.

of the surplus in recent years. The SMEs' savings surplus averages around 2% of GDP and fluctuates slightly in line with the business cycle. The LCs' savings surplus is considerably more volatile, partly because it's driven by only a few large firms. The fluctuations in the total savings surplus among NFCs are therefore largely caused by LCs. LCs, which also include Dutch MNEs, were responsible for the sharp rise in the savings surplus after the turn of the century and for a long time made the largest contribution to the surplus. Since the financial crisis, however, the LCs' savings surplus has been smaller and in 2015 and 2016 it was even around zero. This is mainly because profits were depressed by lower incomes from foreign participations. The LCs' savings surplus nevertheless masks very disparate trends among the different types of firms. This is explained further in Section 2.4.

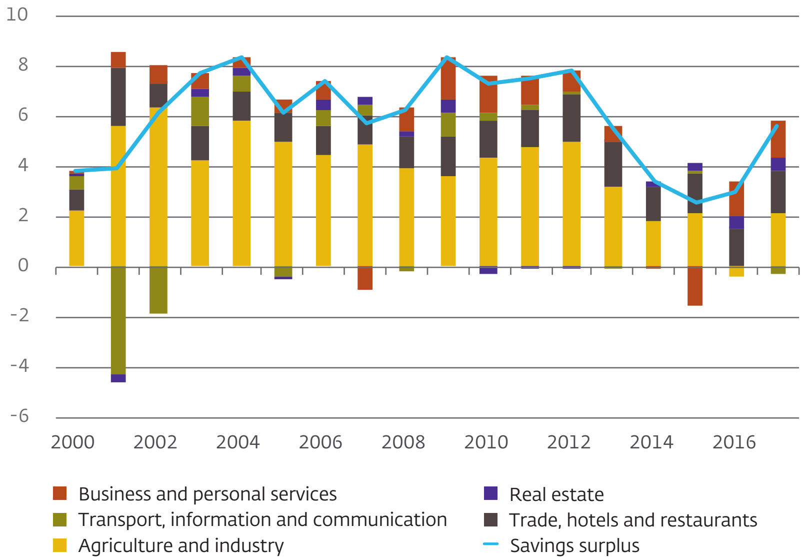
Breakdown of NFCs' savings surplus by business sector

The savings surplus is heavily concentrated in the 'agriculture and industry' sector (see Figure 11).[17] Over the 2000-2017 period, this sector accounted for roughly two-thirds of the total savings surplus of NFCs. This particularly comprised LCs, although SMEs also made a limited contribution. In recent years the savings surplus of 'agriculture and industry' has been substantially lower, sharply reducing the LCs' overall savings surplus. The remainder of the savings surplus is located largely in 'trade, hotels and restaurants' and 'business and personal services'. The savings surplus of 'trade, hotels and restaurants' is generated by both LCs and SMEs and shows a rising trend. The savings surplus of 'business and personal services' is largely attributable to SMEs and has been substantially higher in the past decade than in the initial period.

17 This is the lowest possible aggregation level of business sectors, because there is no lower aggregation level available for all sources. The SFO micro statistics suggest that most of the savings surplus of the 'agriculture and industry' branch is located in 'industry'. A necessary qualification regarding these statistics, however, is that the totals do not tally with the figures in the national accounts.

Figure 11 NFCs' savings surplus by business sectors

Percentage of GDP



Source: Statistics Netherlands and DNB (own calculations).

2.3 Causes of the savings surplus among SMEs

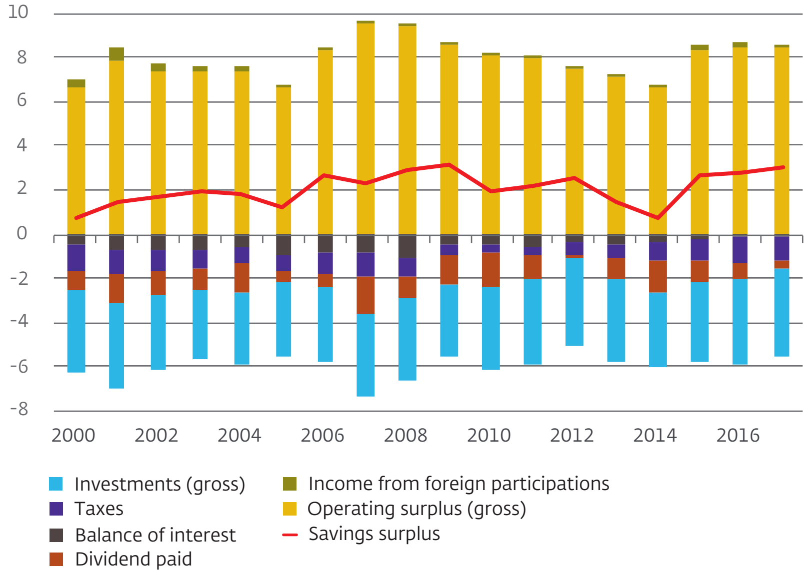
Figure 12 shows the composition of the savings surplus among SMEs. The SMEs' savings surplus rose from 0.7% of GDP in 2000 to 3.1% of GDP in 2017. This rise was due in particular to an increase in profits on domestic production, reflected in a decrease in the labour income share.[18] The labour income share in the SME sector should be interpreted with a degree of caution, because a small proportion of those working in SMEs, roughly 5%,

18 The annual report on the SMEs sector also notes that the growth in pay since 2010 has lagged behind the growth of added value (Dutch Committee for Entrepreneurship, 2019).

are DMSs, who set their own salaries and are subject to statutory minimum salary requirements. The higher profits are largely held within the firm. Dividend distributions and investment (as a percentage of added value) remained fairly constant over the period, despite the higher profits of SMEs. As a result the savings surplus among SMEs has gradually risen.

Figure 12 Breakdown in savings surplus of SMEs

Percentage of GDP



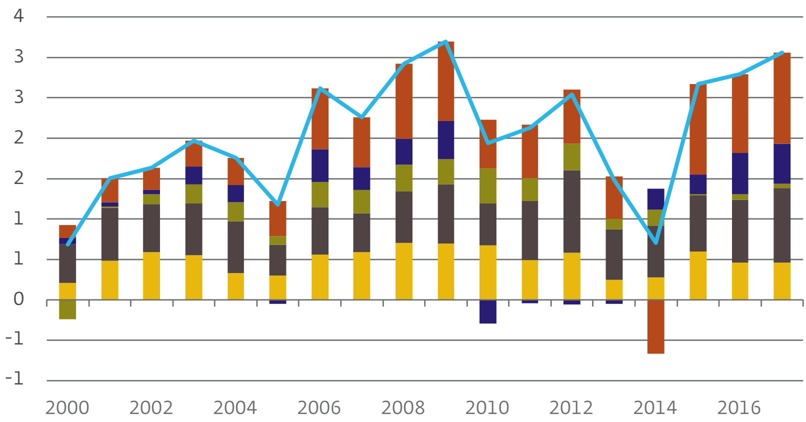
Source: Statistics Netherlands and DNB (own calculations).

SMEs' savings surplus mainly located in services, trade, hotels and restaurants

The bulk of the SMEs' savings surplus is located in 'business and personal services' and in 'trade, hotels and restaurants' (see Figure 13).[19] These are also largely responsible for the rise in the savings surplus among SMEs. The real estate sector has also contributed. Finally, 'agriculture and industry' has also made a modest and relatively constant contribution to the SME surplus.

Figure 13 SME savings surplus broken down by business sector

Percentage of GDP



Source: Statistics Netherlands and DNB (own calculations).

19 The savings deficit of 'business and personal services' in the SME sector in 2014 is probably caused by an anomaly in the customised table entitled 'The role of multinationals in the Dutch economy'. This table shows a one-off peak in 'compensation of employees' among SMEs, while the category 'foreign NME' shows an almost equal negative amount in the same sector. This relatively high compensation reduces the savings surplus.

SMEs distribute relatively little profit

Compared to LCs, SMEs distribute remarkably little profit. In the period 2000-2017 the average dividend payout by SMEs amounted to 30% of profit, compared to 53% in the case of LCs (see Figure 14). The fact that SMEs largely retain earnings in the firm and do not distribute it to shareholders appears to be linked to the following two factors: tax incentives for directors/majority shareholders (DMSs) to retain profit in the firm and the fact that since the crisis SMEs have saved more to fund a larger share of their investment with their own resources.[20] These factors are explained further below.

Figure 14 Profit distribution by LCs and SMEs

Percentage of net profit after tax

Source: Statistics Netherlands and DNB (own calculations).

20 CPB also cites both factors as possible causes of the relatively low profit distribution by SMEs (Suyker and Wagteveld, 2019).

Tax incentives encourage DMSs to save

The bulk of SMEs are managed by DMSs, whose dividend distributions are generally very sensitive to tax incentives (Van Geest, 2019).[21] Since a DMS is simultaneously an employee, owner and director of the firm, there is ample scope for tax planning or tax arbitrage. Due to the different tax rates in Box 1 and Box 2 of the Dutch income tax return, a DMS can pay less tax, for example, by drawing profit as dividend rather than salary. The Ministry of Finance (2019) also states that it is fiscally attractive for DMSs to draw cash from the business as a loan rather than have it paid out as dividend. According to the Ministry this enables DMSs to defer the taxation for a long period and in some cases tax payments can be avoided altogether. For a long time it has also been fiscally attractive for DMSs to build up a pension in the firm. DMSs can also defer dividend payments pending a 'tax holiday' (one-year reduction of the tax rate on income from a substantial interest, in Box 2 of the income tax return). [22] This also partly explains the relatively high dividend payments in the years 2007 and 2014 (Figure 14), which also reduced the savings surplus among SMEs in those years.

Savings surplus of SMEs used partly for pension savings and loans to DMSs

To understand how the SME savings have been used, it is possible to look at the growth of the assets on the balance sheet of the firms concerned, as positive savings mean a firm builds up net assets.[23] All of the balance sheet data broken down into SMEs and LCs in the figures below come from the SFO/SFGO, so they do not match the totals in the national accounts.[24]

21 A DMS is a person working for a firm with legal personality of which they hold at least 5% of the shares. A comparison of figures for the number of corporate groups in the SME sector in the SFO micro database with figures for the number of DMSs in the income statistics shows that at least two-thirds to three-quarters of the SMEs in the micro data are DMS firms. It is therefore likely that developments in the SMEs' savings surplus are largely driven by the behaviour of DMSs.

22 See also Bettendorf, Lejour and Van 't Riet (2016).

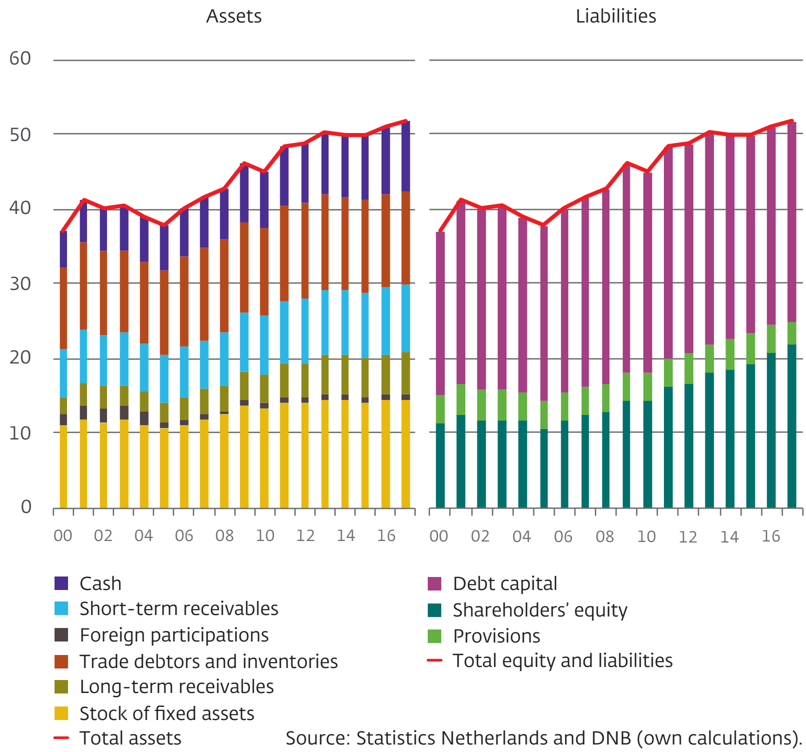
23 The relationship between savings and assets is not one to one, however: assets can also fluctuate due to changes in value. Assets can also be accumulated by raising external finance, either by borrowing money or by issuing shares. Savings can also be used to repurchase the firm's own shares. Alongside dividend distribution, this is one of the ways of enabling assets to flow back out of the firm to shareholders.

24 The appendix examines the differences between the national accounts and the SFO/SFGO in more detail.

The overall NFC balance sheet in the SFO is reasonably comparable to that in the national accounts, however, so it can provide an indication.

Figure 15 shows the make-up of SMEs' assets and liabilities. The capital stock was maintained with a fairly constant share of the added value of SMEs, in line with the relatively constant capital formation ratio of SMEs. The SMEs are found in particular to have accumulated cash and receivables

Figure 15 SME balance sheet
Percentage of GDP



Source: Statistics Netherlands and DNB (own calculations).

during the period. The receivables on the balance sheets of SMEs in 2017 (EUR 109 billion) largely comprise pension provisions and loans granted by the firms to the DMSs themselves. The amount of self-administered pension savings, based on Ministry of Finance data, in 2009 amounted to EUR 31 billion (Ministry of Finance, 2014) and in 2016 DMSs owed EUR 55 billion to their own firms (Ministry of Finance, 2019).

The loans which DMSs grant themselves have a substantial effect on the savings surplus among SMEs. Drawing these profits as a loan rather than dividend has the effect of increasing the savings surplus of SMEs, while reducing the savings surplus in the household sector. DMSs granted themselves a total of EUR 17 billion of additional loans over the period 2011-2016.[25] If DMSs had not borrowed this amount but had distributed it to themselves as dividend, the savings surplus of SMEs would have been roughly 21% lower over this period. The savings surplus of the household sector would have been 12% higher over this period. Households will spend more as a result of the loan, while their income remains unchanged. The *national* savings surplus will not necessarily increase as a result. Although the postponement of profit distributions can lead to underspending by DMSs, this effect is partly negated by the loans they draw. Last year the government announced plans to limit the fiscally advantageous loans that DMSs were permitted to draw; any debt in excess of EUR 500,000 would be taxed as income in Box 2 (from 2022).[26]

SMEs saving more since the crisis to meet their financing needs

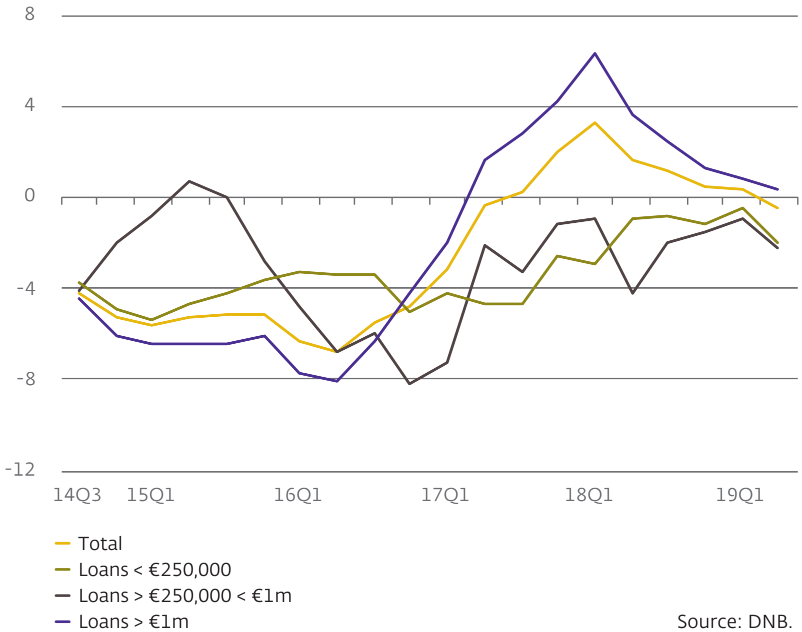
In addition, SMEs have been saving more since the crisis in order to fund a larger share of their investment with their own resources. Figure 15

25 This has been calculated on the basis of internal Ministry of Finance data that are only available for the period 2011-2016.
26 Owner-occupied home debts to the firm are disregarded.

shows, for example, that SMEs' investment has remained relatively stable, which means their financing requirement has also remained more or less unchanged. Since the crisis SMEs have made greater use of internal resources and less use of external finance, of which bank credit is the main source. Despite the cyclical upturn in the last few years, outstanding bank loans to SMEs have decreased since 2014, the first year for which figures are available (Figure 16). As a result, the solvency (shareholders equity as a percentage of total assets) of SMEs after the crisis increased from 30% in 2008 to 42% in 2017. In the preceding years it remained fairly stable.

Figure 16 Business lending to SMEs

Percentage annual changes



Source: DNB.

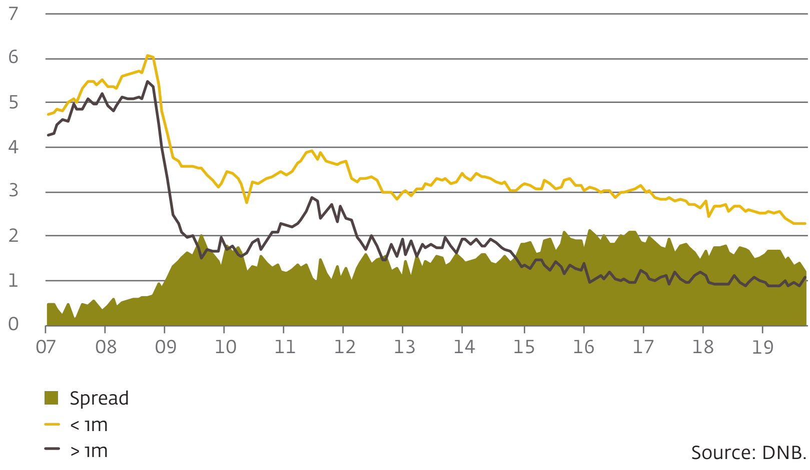
This increase in savings can be explained by several factors. For example, compared to those elsewhere in Europe Dutch SMEs applied for loans less frequently in the period 2009-2018 (Dubovik, et al., 2019). This may be because the SMEs have wanted to be less dependent on bank lending since the financial crisis, as such finance turned out to be in shorter supply during the crisis. This experience may still be depressing firms' demand for external finance.[27] There are also still signs of bottlenecks in SME lending market. This is explained in greater detail below.

Signs of bottlenecks in the SME lending market

The interest rate differential between large and small loans widened sharply at the time of financial crisis and has remained wide ever since (see Figure 17).

Figure 17 Interest rates on large and small business loans

Percentages



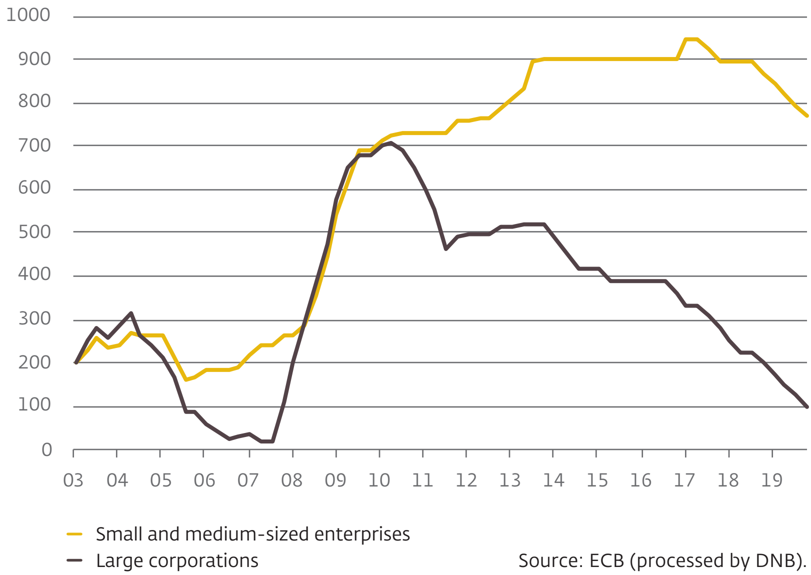
Source: DNB.

27 See the article in Financieel Dagblad of 1 November 2019 'De economie groeit, maar ondernemers durven niet te investeren'.

Since SMEs depends to a relatively large extent on small loans, they have consequently seen a relative decline in access to credit compared to LCs. The interest rate differential between large and small loans in the Netherlands is also relatively wide compared to the euro area, since interest rates for Dutch SMEs are relatively high compared to other countries. Figure 18 also shows that credit terms were tightened for both SMEs and LCs after the crisis. Terms for LCs have since eased back to the pre-crisis level, but terms for SMEs have not. Loan applications from Dutch SMEs are also rejected more often than those in the rest of the euro area (Dubovik, et al., 2019).

Figure 18 Credit terms for SMEs and LCs

2003 index = 200



Source: ECB (processed by DNB).

These observations presumably cannot be explained by poor financial health among SMEs. Dubovik, et al. (2019) show that the financial health of Dutch SMEs is similar to that of SMEs in the rest of the euro area, which is consistent with the improvement in solvency mentioned above.

The above developments may reflect the fact that the Dutch banking sector is one of the most concentrated in Europe. This can limit access to credit particularly for smaller firms without direct access to financial markets. For example, the average number of banks which Dutch SMEs use, at 1.5, is the lowest in Europe and is only half of the EU average figure of 3.[28] Information problems also play a greater role in the market for lending particularly to small firms. It can therefore be difficult for banks and new entrants to gain a clear picture of SMEs' creditworthiness and business models. On the other hand, tighter financial regulation since the crisis appears to have had no impact on lending to SMEs (FSB, 2019).

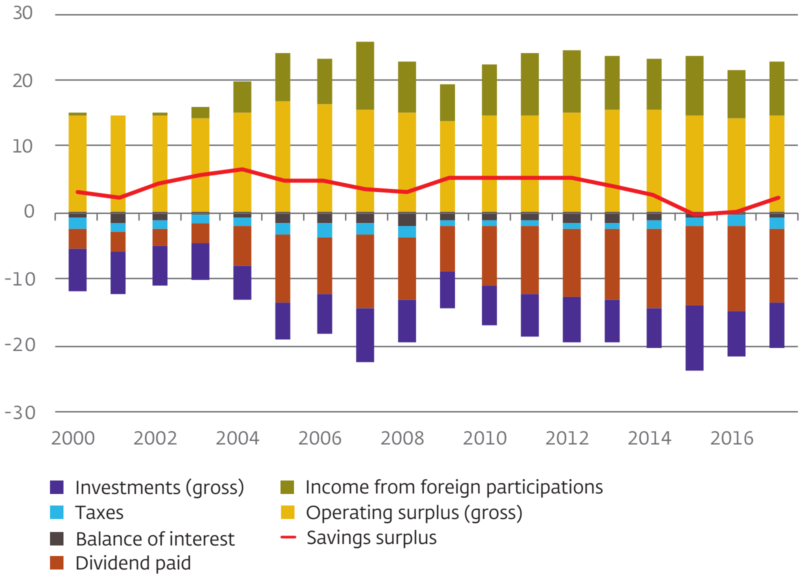
2.4 Causes of the savings surplus among LCs

Figure 19 shows the make-up of the savings surplus of the LC sector as a whole. In addition to the operating result (profit from domestic production), income from foreign direct investments also makes an important contribution to the high profits of LCs. After the turn of the century income from foreign direct investments rose sharply and it has remained high since then. By contrast, profit distributions by LCs are substantially higher than those of SMEs (53% compared to 30%), but somewhat lower than the overall EU average (83%). Domestic investment by LCs has also remained fairly stable.

28 See ECB 'Survey on the access to finance of enterprises' (SAFE database).

Figure 19 Savings surplus of LCs

Percentage of GDP



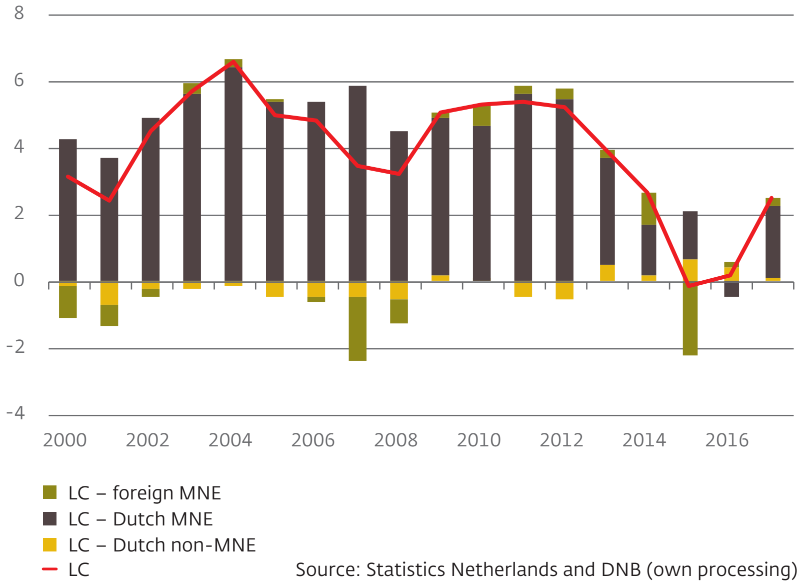
Source: Statistics Netherlands and DNB (own calculations).

Dutch MNEs play key role in LC savings surplus

To gain a clearer view of the root causes of the savings surplus among LCs, a distinction is drawn between different types of LCs. LCs can be subdivided into Dutch MNEs, foreign MNEs and LCs that are not part of an MNE. Like SMEs, non-multinationals generate their profit mainly from domestic production. By contrast, the profit of Dutch MNEs comprises income from both foreign subsidiaries and from domestic production. The biggest contribution to the savings surplus among LCs comes from Dutch MNEs (see Figure 20). Foreign MNEs make little contribution if any to the savings surplus, because their profits ultimately are attributed almost entirely to the parent company abroad.

Figure 20 Savings surplus of LCs

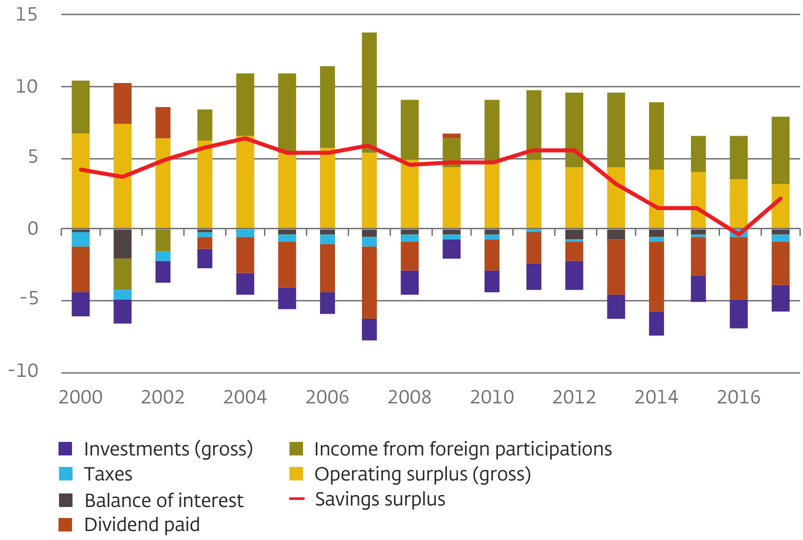
Percentage of GDP



Source: Statistics Netherlands and DNB (own processing).

Dutch MNEs had a substantial savings surplus up to 2011, since when it has been lower. This is mainly due to lower income from foreign subsidiaries and to a lesser extent lower domestic operating results (see Figure 21). Despite the lower profits of Dutch MNEs, dividend payments have remained relatively high in recent years, leading to a decrease in the savings surplus among Dutch MNEs. This picture of Dutch MNEs is probably determined to a large extent by a few very large industrial firms. At the sectoral level the savings surplus of Dutch MNEs is mostly located in the 'agriculture and industry' sector. This is also largely responsible for the steep decline in the savings surplus of Dutch MNEs. 'Trade, hotels and restaurants' has also made a fairly constant contribution to the surplus over time.

Figure 21 Savings surplus of Dutch MNEs
Percentage of GDP



Source: Statistics Netherlands and DNB (own calculations).

Savings surplus of Dutch MNEs is linked to foreign investment

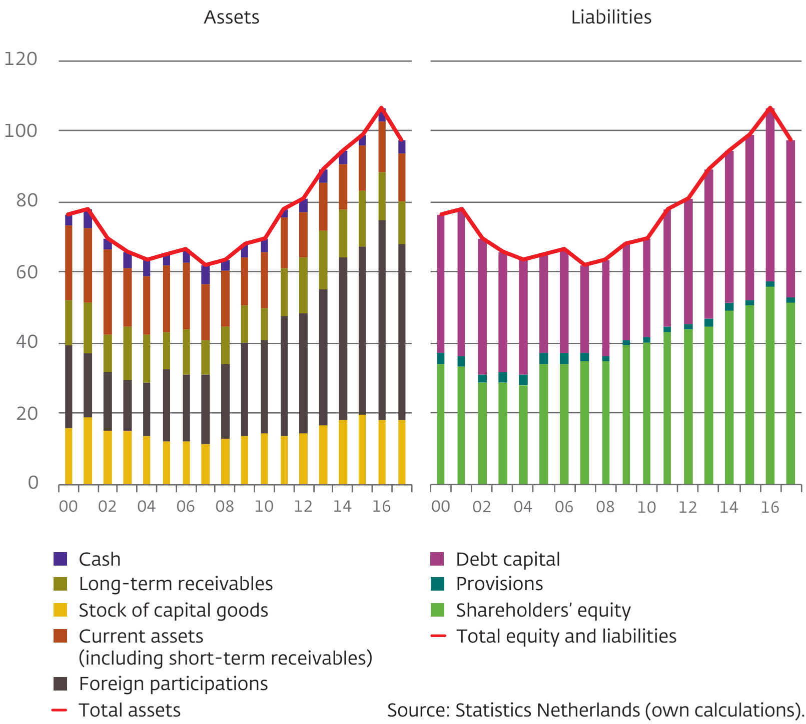
The savings surplus of Dutch MNEs can be explained by the fact that their savings have largely been used to fund foreign direct investment (FDI). Figure 22 shows that over half of the rise in the balance sheet of Dutch multinationals is driven by FDI.[29] According to statistical conventions foreign investment is not included in investment deducted from the savings when calculating the savings surplus. This increases the savings surplus of countries with a strong presence of MNE headquarters. Conversely, it leads to a lower savings surplus among NFCs in countries with a strong

29 This is probably even greater because FDI may also form part of the receivables in the balance sheet.

presence of *foreign* multinationals. The fact that the Netherlands is home to a relatively large number of multinationals' headquarters is partly due to the attractive tax climate (Van 't Riet and Lejour, 2014). Other factors also play a role, such as the quality of institutions, sociopolitical stability and the composition of the labour force (Rojas-Romagosa and Van der Horst, 2014).

Figure 22 Balance sheet of Dutch MNEs

Percentage of GDP



Source: Statistics Netherlands (own calculations).

The savings surplus of Dutch MNEs is of a different character than that of SMEs. Whereas the savings surplus among SMEs appears to be linked to tax incentives for retaining earnings and bottlenecks in lending, the savings surplus among Dutch MNEs is due to statistical conventions that determine how foreign investment and the income it generates are treated in the national accounts. A large part of the savings surplus among Dutch MNEs consequently comprises resources they have themselves invested, albeit abroad. A second important difference between Dutch MNEs and SMEs is that SMEs are mainly owned by Dutch residents, whereas Dutch MNEs are mostly owned by foreign shareholders. This means a significant part of the retained earnings assigned to Dutch firms will ultimately be paid out as dividend to foreign shareholders, so they do not actually accrue to the Netherlands (see box).

Distortion of savings surplus by foreign shareholders

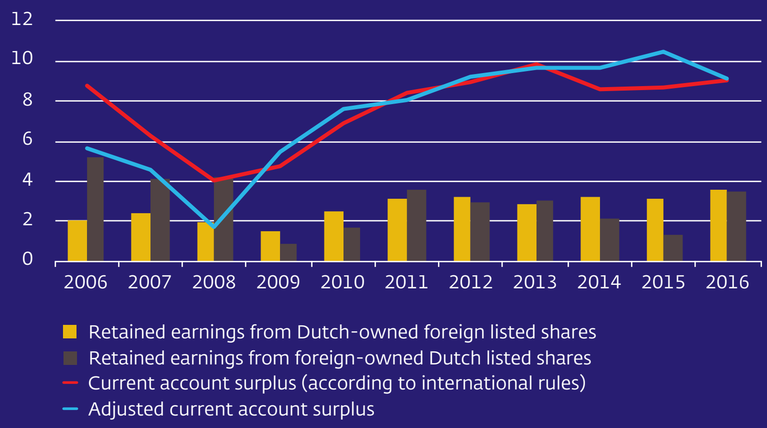
The large contribution from Dutch MNEs to the savings surplus is partly due to the different ways in which the statistics treat income from investment in participations (more than 10% owned) and income from portfolio investment (less than 10% owned). In the case of participations the foreign parent company is seen as the entity with authority and control over the use of the subsidiary's profits. The profits therefore accrue entirely to this parent company. A shareholder with a small interest (<10%) is assumed not to have this degree of authority. Profits are therefore only assigned to them if they have actually been paid out in the form of dividend.

Because Dutch MNEs are in many cases at the top of the corporate structure, the retained earnings of the entire group are assigned to the Netherlands. This is reflected in the savings balance of the NFC sector.

Because the shares of Dutch MNEs are largely held by foreign investors, however, most of these profits will ultimately be largely paid out abroad. The fact that these retained earnings are assigned to the Netherlands means that firms' savings surplus at national level is overstated. At the same time, the savings surplus in the household sector is understated, because the retained earnings of foreign firms (part of whose shares are held by Dutch investors and pension funds) are assigned to foreign entities according to the same rules.

Figure 23 Correction to current account surplus

Percentage of GDP



Source: Statistics Netherlands and DNB (own calculations).

These two distortions partly cancel each other out. Figure 23 shows an alternative calculation of the savings surplus in which the retained earnings of listed firms are also assigned to the shareholder (Korndewal, 2018). Although the effects of retained earnings in the Netherlands and the rest of the world offset each other fully in 2016, the Dutch current account surplus in the preceding years is found to have been distorted by the overall effect. In 2014 and 2015, for example, the inclusion of retained earnings from listed shares results in a higher current account surplus. This is because the corrected flow of income to foreign entities in this period is relatively low, partly due to the low oil price and the associated low retained earnings of Dutch NMEs. The savings surplus in 2006-2008 is lower if this correction is applied.

Foreign MNEs distort the picture but do not contribute to the savings balance

Foreign MNEs are firms which are located in the Netherlands but which are subsidiaries of a foreign parent company. At 29% in 2017, these firms account for a major share of the added value of NFCs. Although these MNEs have a parent company abroad, it is notable that the firms themselves often also have subsidiaries abroad whose profits are paid to the Netherlands.

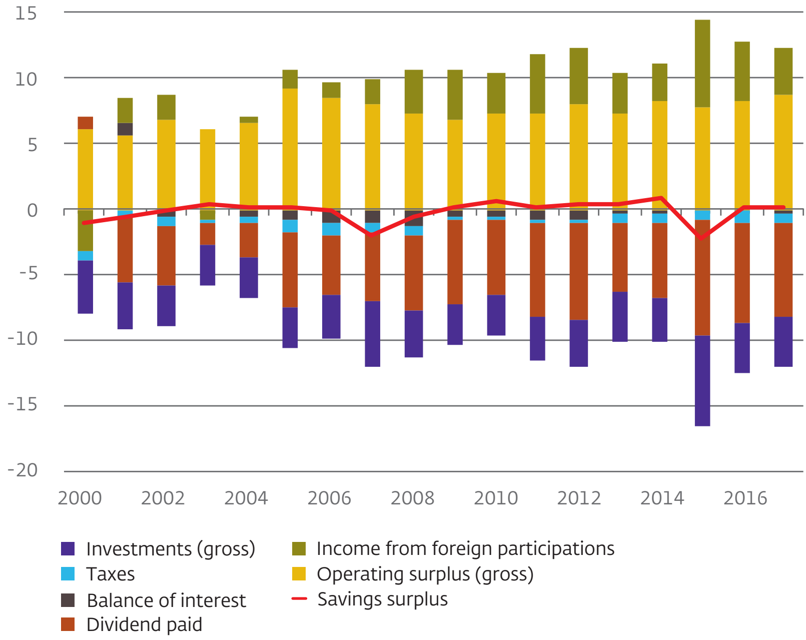
The financial flows of foreign MNEs are precisely the opposite of those of Dutch MNEs. Whereas the profits of foreign subsidiaries accrue entirely to Dutch MNEs, the profits of foreign MNEs in the Netherlands accrue fully to foreign entities. This means the savings of Dutch MNEs in the Netherlands are almost zero, so these firms make little or no contribution to the Dutch savings surplus. A savings deficit is possible, however, if the investment is higher than the gross savings.[30] This was the case in 2007 and in 2015, when large one-off investments were made in intangible assets.

30 Conversely, a savings surplus is also possible if the foreign firms divest from the Netherlands. See 2010 and 2014 in Figure 24.

Figure 24 shows the make-up of the savings surplus of foreign MNEs. The bulk of the profit of foreign MNEs comes from domestic production. This contribution has risen steadily over time. The income from FDI has also risen sharply in the last 20 years, particularly in the most recent years. As a result, the dividends paid abroad have also risen sharply. This has distorted the overall picture for the LCs: the lower foreign income of Dutch MNEs is offset by the higher income of foreign MNEs, but the latter is accompanied by a higher outflow of dividends and retained earnings. This explains why income from FDI

Figure 24 Savings surplus of foreign MNEs

Percentage of GDP



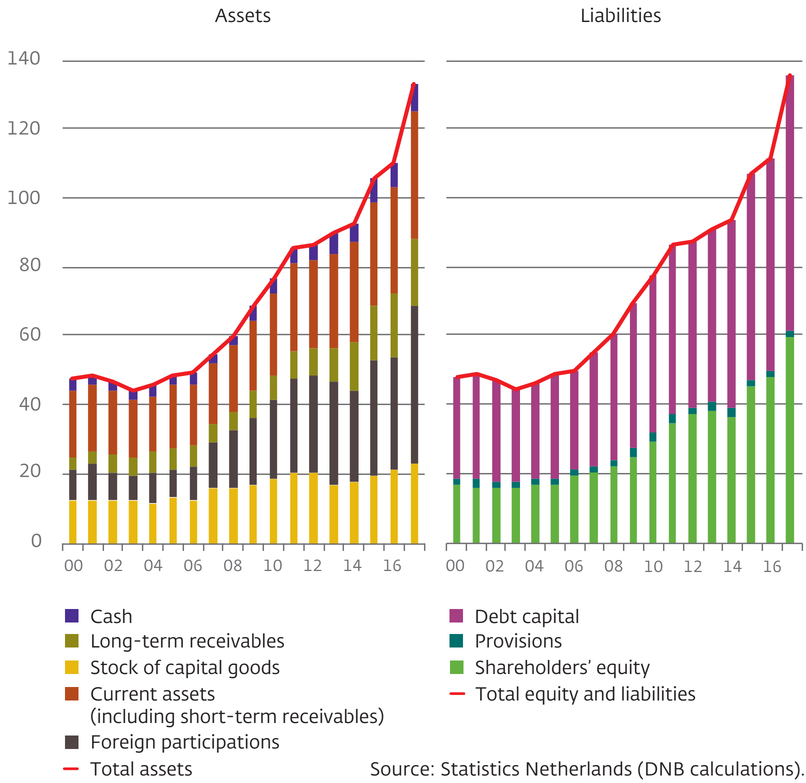
Source: Statistics Netherlands and DNB (own calculations).

remains fairly constant among LCs as a whole even though dividend payments have increased (see Figure 19). This illustrates the need to distinguish between the different types of LCs in order to interpret developments correctly.

Despite the relatively low savings surplus of foreign MNEs, the balance sheet of these firms has increased substantially. As in the case of Dutch MNEs, the balance sheet increase is mainly due to an increase in FDI (see Figure 25).

Figure 25 Balance sheet of foreign MNEs

Percentage of GDP



Source: Statistics Netherlands (DNB calculations).

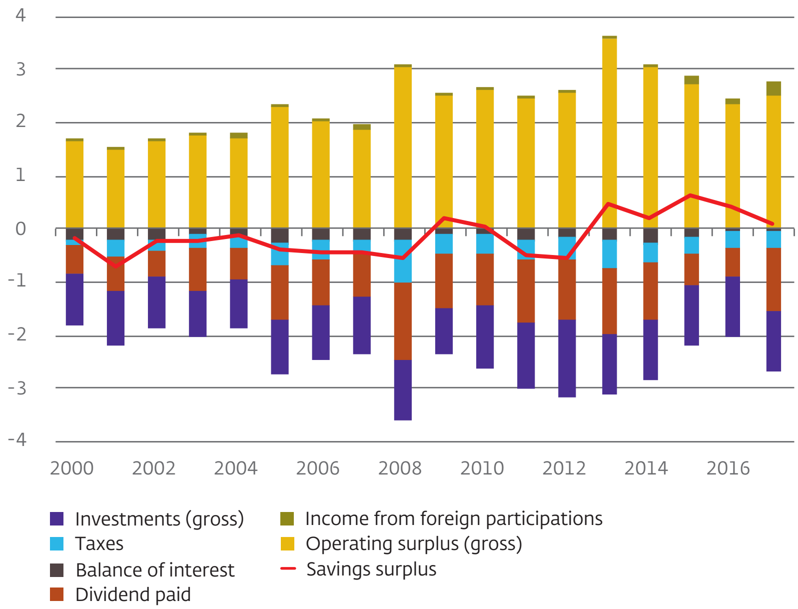
Foreign parent companies with subsidiaries in the Netherlands channel part of their investment in the rest of the world through the Netherlands. As well as having production activities in the Netherlands, these firms therefore also act as a kind of 'parent company'. Firms probably choose this type of group structure because of the attractive tax climate in the Netherlands. The large number of double taxation treaties the Netherlands has signed with other countries, coupled with the participation exemption, exemptions for royalties and interest and advance tax rulings, makes it attractive for many MNEs to channel their profits through the Netherlands.

Dutch non-MNEs make hardly any contribution to the surplus

The final category of LCs consists of large Dutch firms that are not multinationals (non-MNEs). The savings surplus of Dutch non-MNEs is very limited (see Figure 26). For much of the period under review the savings surplus of non-MNEs was slightly below zero and in recent years it has been slightly positive. This is mainly due to higher profits on domestic production. Profit distributions average 56%, approximately the same level as for LCs as a whole. There has been no structural increase in distributed profits from Dutch non-MNEs, so the overall rise in profit has led to a slightly positive savings surplus.

Figure 26 Savings surplus of Dutch non-MNEs

Percentage of GDP



Source: Statistics Netherlands and DNB (own calculations).

3 Policy implications to be explored further

In recent years there has been much debate about the best policy measures the Netherlands could take to reduce the savings surplus. Internationally, too, questions are being asked about the role of surplus countries in reducing international imbalances. The best way to determine whether a country should conduct a policy to reduce the surplus is to examine each country for possible imbalances. To do so, the structural causes of the surplus must first be determined, as policy recommendations should address any distortions underlying the surplus. This study focuses on the savings surplus of *firms*, so the policy recommendations focus on firms. The government's fiscal policy and reforms of the pension system therefore fall outside the scope of this study.

By drawing a distinction between different types of firm, this study casts more light on the root causes of the savings surplus among NFCs. Different assumptions do nevertheless have to be made to distinguish between different types of firms, so the results shown should be seen as indicative.

This study shows that over the last two decades the savings surplus has been located in both SMEs and LCs. A key question is the extent to which there are economic imbalances that can lead to underspending. Profits have increased greatly in both types of firms since the turn of the century. In the case of SMEs, profits on domestic production in particular have increased, as reflected in a decrease in the labour income share. In the case of LCs, Dutch multinationals are largely responsible for the savings surplus. Their profits have increased in particular due to higher income from foreign investment. The higher profits of SMEs and LCs have translated into a rising savings surplus, because distributed profits and investment have not kept pace with the increased profitability. Dutch firms distribute relatively little profit as dividend compared to firms in other countries. This is particularly relevant to SMEs, whose owners (mostly DMSs) choose, partly for tax reasons, to retain a substantial part of the earnings in the firm and to grant themselves loans as private individuals. SMEs have also developed a greater preference for internal funding of investment, possibly due to experienced or expected bottlenecks in the supply of bank credit. LCs retain earnings in particular to fund investment abroad.

The above findings suggest that there are a number of imbalances underlying the savings surplus among Dutch firms. From these it is possible to distil a number of policy implications aimed at reducing these economic distortions. This study does not examine these policy implications in detail, so they must be explored more closely.

In the case of SMEs the tax incentives that encourage DMSs to save and grant themselves loans should be examined more closely and amended where necessary. A number of adjustments have recently been made, such as the abolition of self-administered pensions in 2017 and the limiting of fiscally advantageous loans that DMSs can grant themselves from 2022 onwards. The limiting of the loans that DMSs can draw will not necessarily lead to a lower *national* savings surplus, because at the same time the savings surplus in the household sector will probably be increased as a result of higher dividend payments.

Furthermore, the decrease in the labour income share among SMEs suggests that certain firms have scope for higher wage rises, although the labour income share is expected to increase somewhat in the short term due to cyclical tightness in the labour market. The labour income share in the SME sector should be interpreted with a degree of caution, because a small proportion of those working in SMEs are DMSs, who set their own salary and are subject to statutory minimum salary requirements under the customary-salary scheme. The labour income share has been under sustained pressure for some time due to shifting power relationships between employers and employees. This is mainly due to the increase in international competition, the concentration of market power among large corporations, technological developments and flexibilisation of the labour market (IMF, 2017; Colciago and Mechelli, 2019; DNB, 2018).

In addition, SMEs have been saving more since the crisis in order to fund a larger share of their investment with their own resources. This may be because they have wanted to be less dependent on bank lending since the crisis, when the availability of such finance decreased. There are also indications of bottlenecks in the market for SME lending, such as the relatively high interest rates charged on SME loans. A possible factor here is that this market suffers from significant information problems, making it difficult for banks and new entrants to gain a clear picture of SMEs' creditworthiness and business models. Setting up a credit register could potentially help reduce transaction fees in lending and hence broaden the effective credit supply (Ministry of Economic Affairs and Climate Policy, 2019; IMF, 2018; Dubovik et al., 2019; Dell'Ariccia, 2001; Sengupta, 2007; Gianetti, et al., 2010).

In the case of LCs the savings surplus is mainly associated with higher foreign investment, which does not directly point to an imbalance. The savings surplus among LCs is mostly located in Dutch MNEs and largely comprises resources which they have themselves invested, albeit abroad. According to statistical conventions foreign investment is not included in investment deducted from the savings when calculating the savings surplus, so this leads to a higher savings surplus in countries with a strong presence of MNE headquarters. The fact that the Netherlands is home to a relatively large number of multinationals' headquarters is partly due to the attractive tax climate, such as the participation exemption and the large number of tax treaties. As a result double taxation can be avoided, thereby eliminating an economic distortion.

At the same time, tax planning can be used for tax *avoidance* (see SEO, 2013 and Lejour et al., 2019). Most financial flows between subsidiaries and parent companies of foreign MNEs are likely to be tax-related. This can undermine the tax base, fuel tax competition between countries (‘*race to the bottom*’) and distort the level playing field between SMEs and LCs due to differences in the tax burden. It would therefore be desirable to limit tax avoidance on an international level. Various international and national rules have been implemented to combat tax avoidance in recent years. Further research is required to gauge any impact these may have on the savings surplus.

Finally, this study shows the need for more detailed data to make appropriate policy recommendations for countries’ balance of payment imbalances. The root causes of the savings surplus and developments over time are often not easy to interpret on the basis of macro figures. Statistical authorities (such as Statistics Netherlands and DNB) could therefore publish more detailed statistics, for example with breakdowns between SMEs and LCs, different types of LCs and different business sectors. Such detailed statistics are also necessary in other countries to allow reliable international comparison.

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Appendix: methodology and sensitivity analysis

This Occasional Study breaks down the savings surplus of non-financial corporations (NFCs) into SMEs and LCs. This is done by combining various sources supplied by Statistics Netherlands and DNB: the national accounts (NA), a customised table on the role of multinationals in the Dutch economy[31], the capital stock table, the Enterprise Finance Statistics (micro figures and published macro figures, SFO) and finally the micro statistics of the balance of payments (compiled by DNB). This appendix describes the methodology used in this study and discusses the effect of various assumptions on the breakdown of the NFCs' savings surplus between SMEs and LCs.

This appendix is organised as follows. The first part concerns the methodology used, starting with the role of the SFO and the differences as compared to the NA. It describes how the customised table has been used to break down the gross operating surplus between SMEs and LCs. The same is done for the depreciation and investment on the basis of the capital stock table. We then consider the primary and secondary income (balance of interest and other financial income, result from participations, taxes and dividend paid) from the SFO. The second part deals with the sensitivity of various assumptions on the breakdown of the savings surplus of NFCs between SMEs and LCs.

A1 Working method

Differences between NA and SFO

The SFO in principle includes all the variables required in order to determine the savings surplus[32], but the savings surplus derived from the SFO is much lower than the savings surplus in the NA. Table 1 shows a breakdown of the

31 More specifically this concerns the set of tables entitled "Direct economisch belang multinationals" (Direct economic interest of multinationals). https://www.cbs.nl/nl-nl/maatwerk/2018/41/multinationals-en-niet-multinationals-2010-2016

32 With the exception of the investment. This can be approximated using the change in the capital stock.

savings surplus of NFCs according to the NA and the SFO. The higher savings surplus in the NA is caused largely by a higher gross operating surplus, although this is mitigated by higher depreciation. Major differences can also be seen in the result from participations and the dividend paid.

The differences are partly conceptual in nature and arise in part because Statistics Netherlands uses multiple sources to compile the NA. For instance, sources on the real estate sector or for the care sector, which are not included in the SFO. For all other business sectors the SFO's coverage of firms is almost complete in terms of volume. Finally the SFO contains no investment series. In the above figures this has been estimated on the basis of changes in firms' capital stock. The drawback is that this change may result not only from investment but also from revaluations. In order to arrive at a breakdown of the savings surplus that matches the NA, we have used the same sources for the various components of the savings surplus as the NA.

Breakdown of gross operating surplus based on customised table

The starting point in this exercise is the gross operating surplus. In the NA this balance is based on the Production Statistics, which differ substantially from the SFO (see Table 1). In the customised table "Direct economic interest of multinationals" Statistics Netherlands publishes a breakdown of NA figures for added value, payroll and the gross operating surplus for the period 2010-2016, broken down by business sector as well as by the following six categories of firms: non-multinationals independent SME, non-multinationals LC, Dutch multinationals independent SME, Dutch multinationals LC, foreign multinationals and others.

Table 1 Breakdown of savings surplus according to NA and SFO

Averages for the period 2001-2017

	NA	SFO
Gross operating surplus	141,060	93,323
Depreciation and amortisation	-54,129	-35,325
Balance of interest and other financial income	-10,383	-10,038
Income from participations	43,134	30,559
Allocated retained earnings (incoming)	523	0
Taxes, subsidies and transfers	-13,529	-11,886
Dividend paid	-52,563	-39,559
Allocated retained earnings (outgoing)	-9,156	0
Net investment and capital transfers	-8,347	-10,970
Savings surplus	36,611	16,606

However, this customised table cannot be used directly to break the gross operating surplus down between SMEs and LCs, for two reasons. First, the figures in the customised table relate to all firms in the Netherlands, i.e. including those which the NA do not treat as part of the NFC sector but, for example, as part of the household sector. This is the case if the legal form of a business is a 'natural person'. The figures in the customised table must therefore be reduced by the contribution from firms that do not form part of the NFC sector. Second, there are firms in the "others" category that do belong to the NFC sector. These must be allocated to the other five categories. Using the 'dual classification' from the NA, the customised table can be corrected to take account of both effects, in order to approximate the part belonging to the NFC sector. This 'dual classification' contains a breakdown of the gross added value and payroll by business sector and by macroeconomic sector. Although Statistics Netherlands does not publish such a table for the gross operating surplus, a reasonable estimate of the gross operating surplus by can be made by deducting the corrected payroll figures from the corrected gross added value figures.[33] We use the most recent dual classification (2018), so we are aligned with the post-revision breakdown.[34] The following assumptions have been made in correcting the figures from the customised table:

- We assume that all firms that (in the NA) belong to the household sector are in the “non-multinationals independent SME” category, since a firm with the legal form “natural person” cannot plausibly be an LC.[35] A business having the legal form “natural person” is also unlikely to have interests abroad. The part of the customised table that belongs to the household sector is therefore deducted from the “non-multinationals independent SME” category.
- A similar assumption has been made for firms belonging to the government sector. It has been assumed that this part comprises firms having no interests abroad and consists entirely of LCs. The government part is therefore deducted from the “non-multinationals LC” category.[36]
- After the NFC part has been corrected in the “others” category of the customised table, we assume that these are non-multinationals. The business sectors that Statistics Netherlands has placed in the “others” category are by their nature firms without large foreign interests. It is unlikely, for example, that firms in agriculture, education or healthcare

33 This is approximately equal to the gross operating surplus. Only the NA item “taxes and subsidies on production and imports” is still included here. This is a relatively small item.
34 In the revision (base year 2015), for example, EUR 9 billion gross of added value has been transferred from NFCs to households.
35 A firm is classified as LC in the customised table if it employs more than 250 people in the Netherlands.
36 This assumption is less defensible than the assumption concerning households, but the government part is relatively small. The lion’s share of the gross added value of the government sector is in the government and education branch. Statistics Netherlands has placed these business sectors in the “others” category. As a result we have few problems with the government part in the customised table.

will have foreign interests. The part of "others" that is assigned to the NFC sector on the basis of the dual classification can therefore be divided between "non-multinationals independent SME" and "non-multinationals LC". For the breakdown between SME and LC we use the SFO's branch-level breakdown. This cannot be used for the real estate rental and trade branch, however, because the SFO contains no information on this branch. For the real estate sector we therefore use the existing breakdown between SMEs and LCs from the customised table.[37, 38]

After the above correction, the gross operating surplus can be broken down between SMEs and LCs in accordance with the NA. As the total of the corrected gross operating surplus does not precisely match the NA for NFCs, we use the ratio of SMEs to LCs in the corrected customised table to calculate the full contribution of SMEs and LCs to the NA total.[39]

Finally we need an additional step for the years for which no customised tables are available. As the allocation key for these years we use the average ratio of the gross operating surplus of SMEs and LCs according to the corrected customised table to the SFO for the years 2010-2016. We use this to translate the SFO figures for the other time series into an estimate in accordance with the definition of the customised tables, thereby constructing a time series for the period 2000-2017. For the SME share in the year 2000, for example, the average share in the customised table for

37 The real estate sector is the only branch in the customised table that Statistics Netherlands has divided among all six categories. In the others the branch has either been divided among the first five categories or placed entirely in the "others" category.
38 This shows that 95% of the gross operating surplus of the real estate sector belongs to SMEs. The consequences for the SME and LC breakdown of the savings surplus are tested in the third part of this report.
39 The SME and LC shares from the corrected customised table are multiplied by the NA figures for the gross operating surplus.

SMEs is multiplied by the ratio of the SME share in 2000 and the average SME share over the period 2010-2016 (from the SFO).[40]

Breakdown of investment and depreciation

To break down the depreciation between SMEs and LCs we use the 'capital stock' table. This states the amounts of the fixed assets, depreciation and investment, broken down by asset type and branch. The table also contains the breakdown by goods group and economic sector (including NFCs). It does not, however, contain the breakdown we need by economic sector and branch. We have approximated the NFC contribution per branch by estimating the NFC contribution for each goods group and branch using the share of NFCs in the operating result per branch and then comparing the total of each goods group with the published breakdown of the NFC sector by goods group. In most goods groups this difference turns out to be small. Large differences occur particularly for homes and business premises, where the breakdown of the capital stock is not comparable to that of the operating result. Corrections have been made for this. To achieve precise alignment with the NA, the figures thus obtained were increased proportionately to the NA total.

Breakdown of primary and secondary incomes based on SFO

For the breakdown of the remaining components of the savings surplus we use the SFO, because the customised table contains no information on these components. These are the balance of interest and other financial income, the result from participations, taxes, dividend paid and net investment.
In particular the result from participations and the outgoing income to shareholders in the NA differs from the SFO. This is due in part to conceptual differences, in particular the booking of retained earnings from direct

40 We have done the same for the gross added value, so the figures for both SMEs and LCs can also be expressed as a percentage of their own gross added value.

investment relationships in the NA, in addition to the income distributed as dividend. A second cause concerns population differences. In addition to the absence of the real estate sector in the SFO, this group of entities was moved from the financial sector to the NFC sector in the revision (2015). These are subsidiaries of foreign MNEs which combine very limited non-financial activities with a holding company function in the Netherlands. In the NA this change meant that the result from participating interests, received allocated retained earnings, dividend paid and outgoing allocated retained earnings components for the NFC sector increased sharply. We do not see this in the SFO because Statistics Netherlands does not amend past SFO data for revisions. The figures for these entities are nevertheless available to DNB, which observed these entities for the macroeconomic statistics of the financial sector. A reason for this is that the last revision of the NA included a shift from the financial institutions sector to the NFC sector. These are firms that combine non-financial activities with a holding company function and which do have a number of employees in the Netherlands and have therefore been transferred to the NFC sector.

SME versus LC breakdown

As stated, the SFO contains no figures for the real estate sector, while the bulk of the gross operating surplus of the real estate sector is generated by SMEs. This means the real estate sector is included in the gross operating surplus of SMEs through the customised table, but that this sector is absent from the primary and secondary income of SMEs, as are the taxes and the dividend paid. We therefore increased these items on the basis of the real estate sector's share of the operating balance. The income figures for SMEs and LCs were then increased proportionately to the NA total.
Table 2 shows the breakdown of the savings surplus for the base scenario. The SME share over the period 2000-2017 was 36% and the LC share was 64%.

Table 2 Breakdown of savings surplus between SMEs and LCs

Averages for the period 2000-2017

	SME	LC
Gross operating surplus	47,984	90,559
Depreciation and amortisation	-19,749	-33,436
Balance of interest and other financial income	-3,315	-6,723
Distributed income from participations	1,109	40,229
Reinvested earnings on FDI (incoming)	0	104
Taxes, subsidies and transfers	-5,098	-8,847
Dividend paid	-5,838	-45,053
Reinvested earnings on FDI (outgoing)	0	-8,296
Net fixed capital formation and net capital transfers	-2,278	-6,177
Savings surplus	12,815	22,721
Share (%)	36%	64%

LC allocation

For most items the alignment with the NA was achieved by means of a proportionate increase based on the SFO figures.
The received and outgoing income from participations of Dutch large corporates and foreign large corporates are first determined by adding the 'mixed forms' to the SFO figures. The residual difference as compared to the NA is then determined on the basis of the following NA principles:

- The outgoing retained earnings of Dutch MNEs are in principle zero, as there is no foreign parent. This implies that the outgoing retained earnings in the NA accrue in full to the foreign MNEs.

- The savings of foreign MNEs in principle equal zero. Any savings accrue in the form of outgoing retained earnings to the foreign parent.[41] The retained earnings can therefore be determined as the balancing item that takes the savings to zero.

A2 Sensitivity analysis: effect of assumptions on breakdown of savings surplus between SMEs and LCs

As described above, we had to make various assumptions in combining the sources. To assess the robustness of the results, we have tested the effect of various alternative assumptions on the breakdown of the savings surplus between SMEs and LCs. These alternative assumptions concern in particular the profit distribution by the real estate sector and the allocation of the primary incomes.[42]

Raising of SME incomes for real estate sector

In the base variant we raise the primary incomes of the SMEs for the real estate sector that is absent from the SFO on the basis of the operating balance. In the sensitivity analysis we calculate the impact of two extremes: (i) full earnings retention by the real estate sector, or (ii) full earnings distribution by the real estate sector.

Allocation of primary incomes between SME and LC

The result from participations and the retained earnings in the NA differ greatly from those in the SFO. In the base scenario we allocate the difference to the LCs and the SMEs on the basis of the breakdown in the SFO. As a result this difference as compared to the NA is mostly allocated

41 An exception concerns units below a Dutch holding company in the corporate structure. The combined savings for these equal zero. The savings of the NFCs are offset by negative savings of the holding company. DNB publishes the amount of these savings.

42 A more detailed account and description of the results can be obtained from the authors.

to the LCs. In the sensitivity analysis we calculate the effects of alternative allocations: the difference between NA and SFO is allocated in full to SMEs (SFGO basis); only the received income is allocated to SMEs; or only the paid income is allocated to SMEs.

Table 3 shows the results of different variants. It follows that the SME share on the above alternative bases is at least 28% and at most 53% . Even under extreme assumptions the conclusion that the savings surplus over the last two years has been located in both SMEs and LCs is therefore robust.

Table 3 Impact of alternative assumptions on break-down of savings surplus between SMEs and LCs

Averages for the period 2000-2017

		SME	LC
	Base model	36%	64%
i.	Full earnings retention in real estate sector	48%	52%
ii.	Full earnings distribution in real estate sector	28%	87%
iii.	SFGO based (NA-SFO difference assigned to SMEs)	53%	47%
iv.	Full earnings retention extra profit LCs	35%	65%
v.	Full earnings distribution extra profit LCs	53%	47%

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De Nederlandsche Bank N.V.
PO Box 98, 1000 AB Amsterdam
+31 20 524 91 11
dnb.nl