

Saving and investments in the private sector

Business statistics can provide new insights when combined with social statistics¹

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Abstract

Corporate dividend payouts are sensitive to changes in tax rates and tax legislation and this will also affect corporate saving (defined as profit minus dividend distributions). The effect on total private saving will depend on how households respond to changes in corporate saving. If they are rational and see through the “corporate veil” by realizing that an increase (decrease) in corporate saving makes them richer (poorer), consumption will remain unaffected, leaving total private saving unaffected of changes in corporate saving. This paper examines the effect of changing tax incentives on the level and composition of private saving and on the composition of corporate saving on investments and net lending.

By combining data from social statistics (wealth) and business statistics (accounting data) using ownership data, I find that the observed large fluctuations in household and corporate saving in Norway is driven by a rather small group of personal owners at the very top of the distribution of wealth. For this group, corporate saving is indeed a substitute for personal saving and they control such a large fraction of aggregate financial wealth that they have a huge impact on the National Accounts through their disproportional share of GDP. Rich business owners’ shifting of saving between personal accounts and corporations they control may explain the extensive corporate net lending.

Our results first and foremost have implications for the interpretation of savings trends observed in the national accounts. They also lead to doubts about the quality of official statistics, mainly concerning the information value and usefulness of statistics on aggregate household saving provided by the national accounts.

Keywords: *National accounts, corporate saving, corporate net lending, household saving, household wealth, inequality*

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1. Introduction

During the last three decades, the non-financial corporate sector has moved from being net borrower to net lender in many advanced economies. Corporate net lending implies high corporate saving relative to investment in fixed assets, which worries analysts and policy makers; is this trend associated with constant profit and dividend shares combined with a decreasing investment share (Saibene, 2018)? Or do we face a declining labor share (Karabarounis and Nelman, 2014) and thus an increasing profit share, but low investment share? Is it a (temporarily?) decline in investments or is saving shifting away from the household sector to the corporate sector? If so, why?

Loeys et al (2005) point at the “corporate savings glut” as one of the drivers behind the global savings glut (Bernanke, 2005 and others) and some analysts have speculated that this phenomenon may have been even more important than the “China effect” in driving down the international interest rate. To my knowledge, this phenomenon was first addressed in a *systematic* way by André (2007) and it was also addressed by the International Monetary Fund’s *World Economic Outlook (IMF, 2006)* and in the OECD Economic Outlook for 2007 (OECD, 2007). Since then, several papers have addressed the phenomenon of excess corporate savings and different explanations have been proposed, see for example Bates et al (2009), Gruber and Kamin (2016) and Saibene (2018). The latter focus on three potential explanations: A deleveraging motive, a precautionary motive and a strategic motive related to market power (for example to carry out acquisitions) but find no empirical support for these.

Norway is no exception from the observed international trend, with non-financial corporations holding a large share of their balance as financial assets. Also, national accounts data show high aggregate corporate saving and increasing (but still barely negative) net corporate lending.

One proposed explanation for the global increase in corporate net lending is that capital in multinational companies is locked in abroad, due to domestic taxation of repatriated capital income (Gravelle and Marples, 2018). I propose another, related explanation: Taxation of households’ dividend income may affect the decision to distribute profit or, in the case of anticipated (pre-announced) tax reforms, affect the timing of dividends. Shifts in after-tax income between the corporate sector and the household sector (via changes in dividend distributions) is potentially interesting since it may affect total private saving and alter real activity. However, Norwegian national accounts data

indicate that (non-financial) household saving appears to be negatively correlated with corporate saving. This is particularly true around periods with tax reforms that affect either the differential between personal and corporate tax rates or the tax rate on dividend distributions. For example, when a tax on dividends received by households were introduced in Norway in 2006, corporate saving increased by around 95 billion NOK, or 130 percent. At the same time, household saving fell by about the same amount (92 billion NOK) or 104 percent.

By linking microdata from business statistics with social statistics data using ownership information, I find that the large fluctuations in household and corporate saving is driven by a rather small group of personal owners at the very top of the distribution of income and wealth. For this group, corporate saving is indeed a substitute for personal saving and they control such a large fraction of aggregate financial wealth that they totally dominate aggregate statistics. The fact that this rather small group of people controls most of the accumulation of financial wealth in Norway – from which the lion's share stems from incorporated businesses, raises the question whether the distinction of corporate and household saving makes sense.

If corporate and household saving is intertwined, then it may shed light on the phenomenon corporate net lending and may also have implications for how we should look at the role of corporations in the economy. Widespread holding of financial assets among private corporations may also raise some issues related to the quality of official statistics (cross ownership and double counting). Furthermore, if the way household saving is defined and measured in the national accounts imply strong weight on savings by the rich, it may overshadow savings behavior among the vast majority of the household sector.

The rest of the paper is organized as follows: Chapter 2 examines households' response to fluctuations in corporate saving and the implications of this for total private saving. In Chapter 3 I look at possible effects of increased corporate saving on (1) the composition of saving on net lending vs investments and (2) the mix of retained earnings and new share issues (reinvestment of dividend distributions). Chapter 4 concludes.

2. Corporate vs household saving: Do households see through "the corporate veil"?

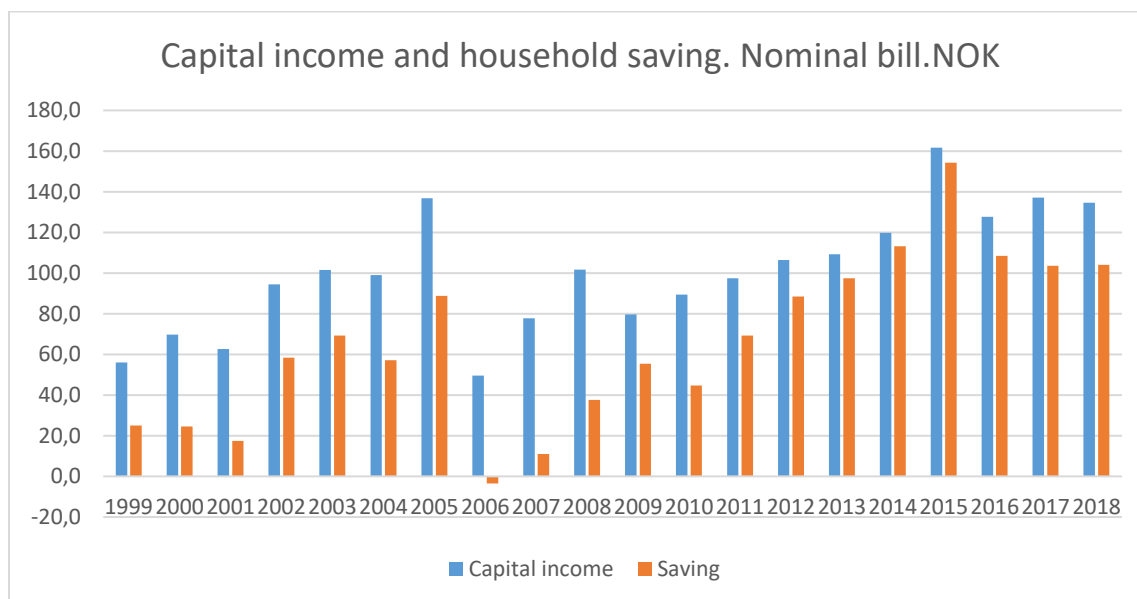
2.1 Evidence from the national accounts

In the national accounts *household saving* is defined as aggregate household after-tax income minus aggregate consumption. Figure 1 show that national private saving is closely related to private capital income (mostly dividends, plus some interest income and other property incomes). *Corporate saving* is defined as after-tax income minus dividends paid and the savings patterns in figure 2 tell us that dividend payments from corporations to individual shareowners drives most of the fluctuations in private saving. From figure 2 we also see that household saving acts as a cushion on fluctuations in corporate saving, i.e., total private saving is less volatile than corporate and household saving observed separately.

Household capital income (largely dividends) in Norway was strongly affected by tax-motivated income shifting around the introduction of tax on dividend income in 2006. The tax reform was announced several years in advance, leading the private owners of the Norwegian corporate sector to advance dividend distributions and reinvest the funds, either by issuing new shares or by lending back the funds. The large and opposite movements of household and corporate saving around the 2005 tax reform suggest that these are related, like two sides of the same coin. This may in turn raise questions about the meaningfulness of the terms "corporate" and "household" saving in the SNA. When private owners of incorporated firms choose to save via their business or personally, depending on the tax regime (and we are talking about people controlling a substantial share of value added in Norwegian business) it means that they can treat their firms like their own wallet and the basic principle behind incorporation, namely separation of ownership and control, no longer holds².

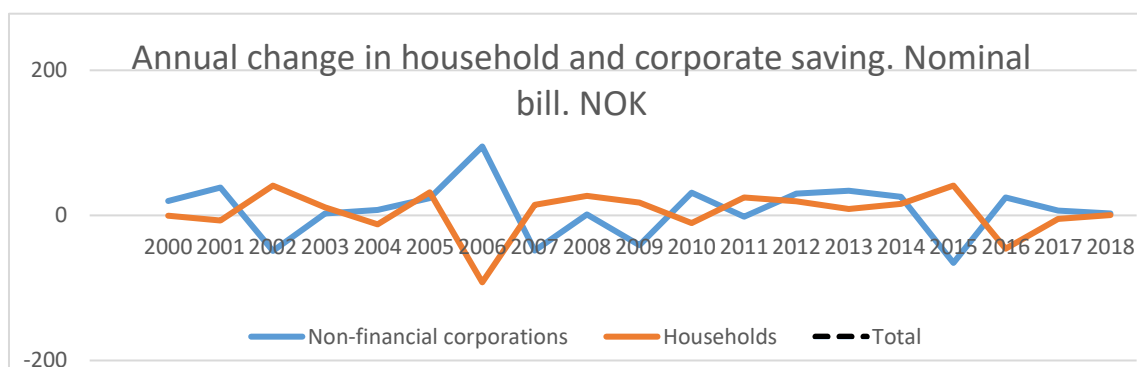
² Of course, this is not only a Norwegian phenomenon. Most of the world's assets is concentrated on few hands, cf. Piketty and Goldhammer, 2014.

Figure 1



Source: Statistics Norway

Figure 2



Source: Statistics Norway

2.2 Evidence from microdata: Which corporations and which households drive the results?

Saibene (2018) uses data from U.S. listed firms and find that the pattern of increased corporate net lending is driven by large firms. Because of the observed correlation between aggregate household capital income (which is highly concentrated among business owners) and aggregate household saving, I focus on the role of closely held firms (which of course may be large firms, but also include small firms).

As shown in 2.1, aggregate statistics from the national accounts suggest that corporations and households coordinate their financial decisions: An increase in corporate saving is met by decrease in household saving and vice versa. To examine the interrelations between the corporate and household sectors I use ownership data from the national shareholder register. I define *active owners* as individuals holding a significant share of the firm's equity, at least 10 percent³. To measure each owner's share of the firm's assets, savings etc. I simply multiply each person's individual ownership shares with book values collected from the individual enterprises' accounts and balance sheet.

The data: I use data from statistics of accounts for non-financial corporations and corporate tax depreciation allowance forms, data from personal income and wealth statistics (based on individual tax returns) and ownership data from a national shareholder register. Corporate accounts and depreciation allowance data are the basis for calculation of corporate saving and net lending. Individual tax return data is used to rank shareholders and other persons by taxable wealth. Shareholder data is used to establish direct and indirect ownership relations and calculate ownership shares.

Table 1 show the number of firms and ownership relations (firm x owner) from 2001 to 2014. Indirect ownership is calculated including maximum 10 ownership levels.⁴

³ The median ownership share in the selected group of active owners is around 35 percent, while the mean is about 45 percent, with some variation from one year to another.

⁴ The large increase in the number of firms and the number of indirect ownership relations from 2005 to 2006 is partly driven by tax motives.

Table 1.

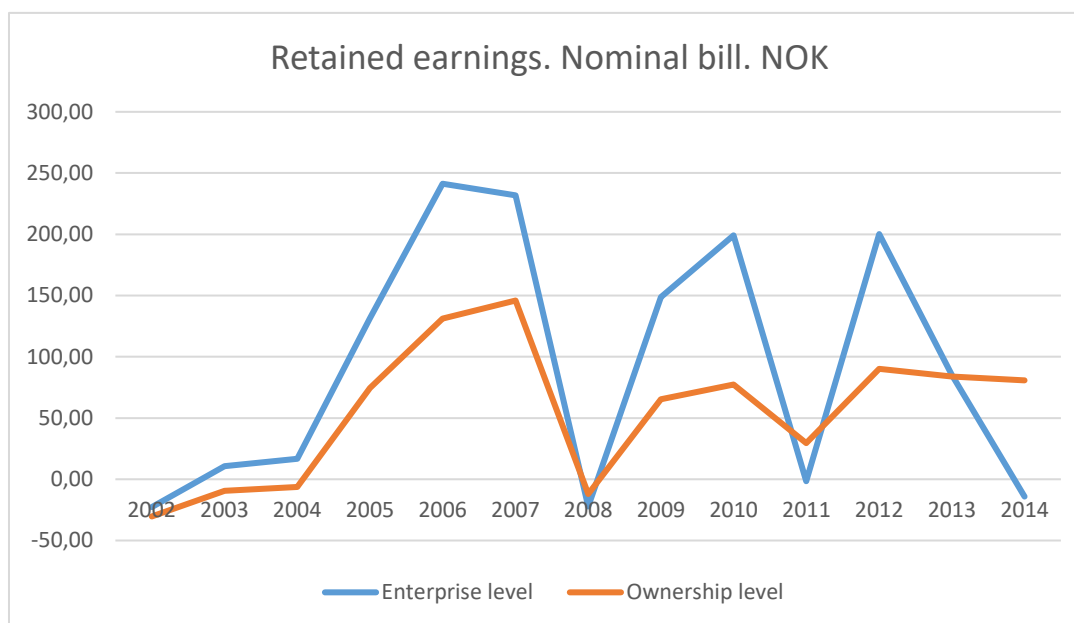
Year	Number of firms	Number of direct ownership shares	Number of indirect ownership shares	Total number of owner x firm relations
2001	136612	176136	71450	247586
2002	138501	175612	72914	248526
2003	138311	180213	72849	253062
2004	142419	198328	81016	279344
2005	151055	176781	119154	295935
2006	182750	204539	137457	341996
2007	192995	211259	150414	361673
2008	199896	214680	161205	375885
2009	199694	208736	160979	369715
2010	204170	214847	168380	383227
2011	206893	211983	170160	382143
2012	225602	227720	182963	410683
2013	222851	224009	184975	408984
2014	235541	233615	193207	426822

1. The observed pattern in private saving is driven by closely held firms.

The proximity between incorporated businesses and their owners is documented in figure 3, showing personal owners' share of corporate saving (retained earnings). The difference between the curves for the enterprise level (measured for the entire enterprise) and the ownership level (measured by multiplying enterprise data with ownership shares, both direct plus indirect ownership) represents the contribution to corporate saving from firms owned by institutional owners, the public sector, small individual investors and foreigners. These enterprises are "true" corporations, in the classic meaning of separation of ownership and control and they have a substantial share of the nation's corporate saving, but not as big as enterprises under direct, personal control. Note that the sharp rise in corporate saving from 2004 is driven not

only by a reduction in dividend distributions; the economic recovery after the 2002-2004 recession also contributed strongly to the increase in corporate saving. Similarly, we can see a drop in 2008, 2011 and 2014, driven by business cycle effects and shocks in the oil & gas industry.

Figure 3

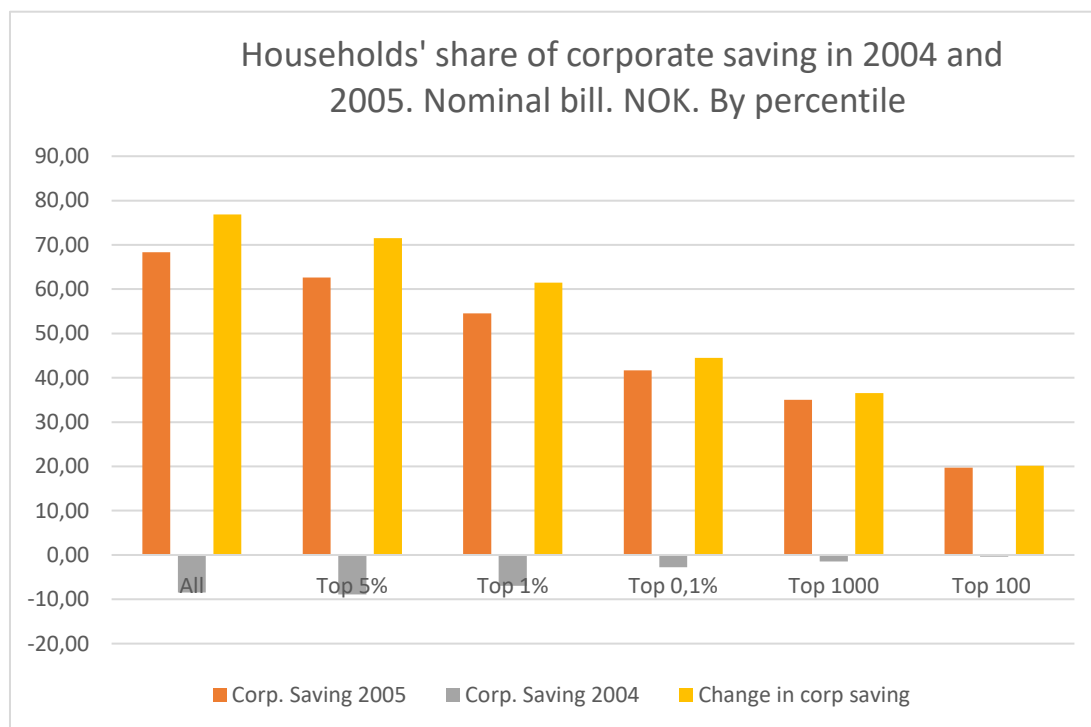


Source: Statistics Norway

2. The observed pattern in private saving is driven by the rich. Most of the private saving, as defined in the national accounts, is driven by the few on the top of the wealth distribution. As shown by figure 4, the top 5 percent control almost all corporate saving in firms controlled by individuals. Because capital income through dividend payments is the main income component affecting household saving, these people also stand for the lion's share of household saving. Around 50 percent of the corporate saving in closely held firms belongs to the 1000 richest individuals in Norway and around 30 percent belongs to the top 100 persons. Bear in mind that the corporate saving in closely held firms appears to be of the same magnitude as household saving⁵ (in the national accounts' meaning of the term "saving"), this demonstrates that economic power is extremely concentrated. even in the (seemingly) egalitarian Norwegian society.

⁵ See figure 3. Low corporate saving in 2002-2004 corresponds to high household saving in 2003-2005, see figure 1 (dividends received appears in individual tax data the year after the accounting year).

Figure 4



Source: Statistics Norway

3. The composition of corporate saving:

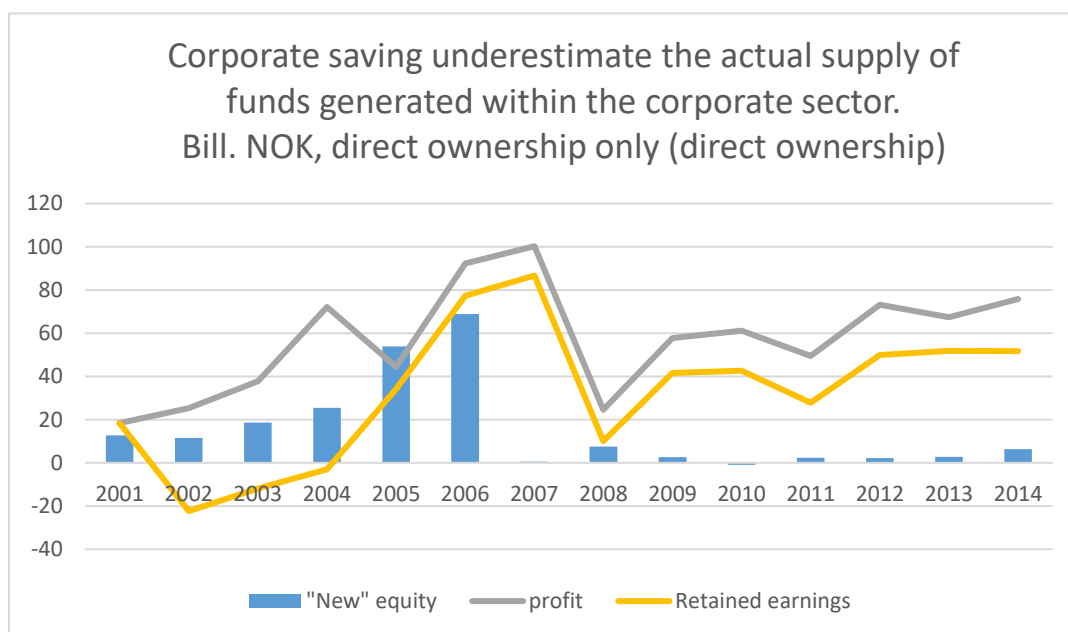
3.1 Retained earnings vs. new share issues: Two sides of the same coin?

Figure 5 summarize how profits and the supply of equity have evolved between 2001 and 2014⁶. From 2001 until 2004 retained earnings in the corporate sector were low, even negative. The reason was partly the 2003-2004 recession, but the main cause was dividend payments that exceeded after-tax profits: From the late 1990ies there was much public debate around capital income and its effect on inequality and in 2002 the government announced that they were planning to introduce a tax on dividends. Business owners responded promptly by increasing dividends (se figure 1) and reducing their corporate saving, in order to avoid future taxes. However, as seen from figure 3, most of the excess dividends were plowed back into the firms as “new” equity (or loans). Formally, the injection of capital was labelled new share issues. In reality

⁶ Due to data issues, the time-horizon in this first version of the paper ends in 2014.

however, the supply of corporate equity capital in this period mostly originated from corporations themselves, i.e., distributed and reinvested after-tax profits. Whether or not this is labelled “retained profits” or “new share capital” makes a big difference for the owner’s future tax burden, but the economic reality is nevertheless the same: Looking beyond the accountant’s perspective and legal definitions, “new” equity essentially came from the same firms’ internally generated returns.

Figure 5



Source: Statistics Norway

3.2 Investments vs. net lending

Businesses invest for future profit while households consume or save for future consumption. A shift in after-tax income between the sectors may thus have implications for total private saving, for the allocation of saving between investments and consumption and thus for real activity. However, our results in chapter 2 indicate that households “see through the corporate veil”, leaving total private saving unaffected of income shifts.

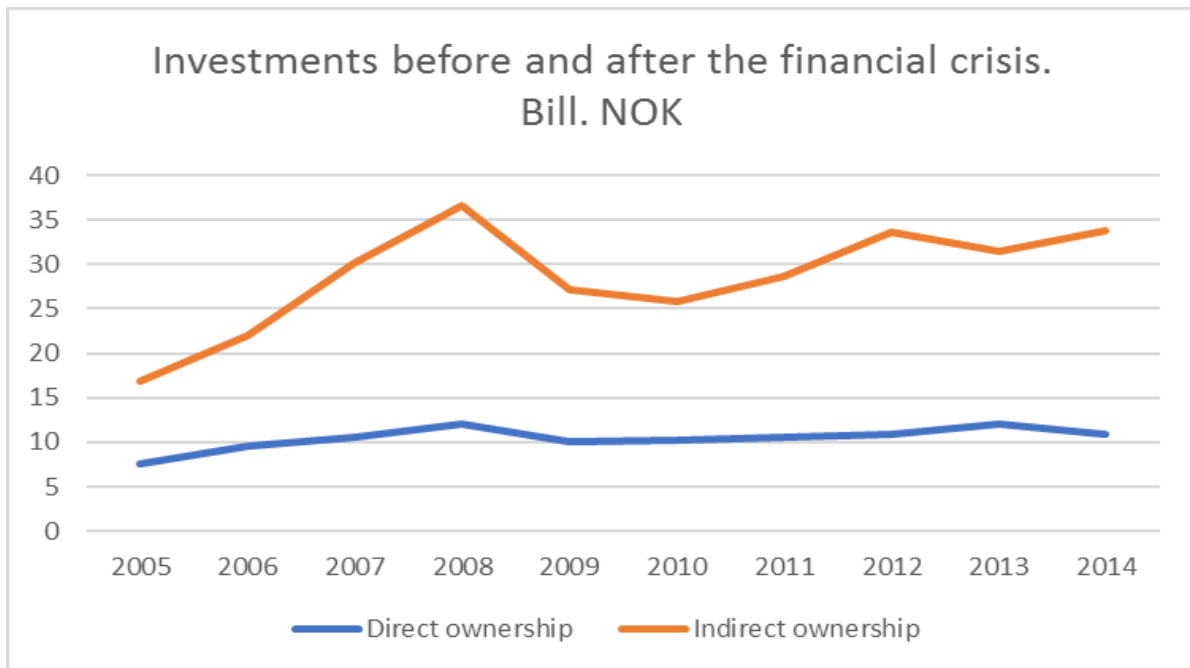
Below I look more closely at the composition of corporate saving on investments and net lending. In doing so, I will distinguish between companies owned directly by persons and indirectly held companies organized in business groups. The reason is that many business owners organize their business as a group, where real activity

takes place in subsidiaries and the group head has an intermediate function between the business and its owner, a “bank”. This became increasingly popular after the tax reform. The figures below are based on calculations of the sum of owners’ share of the book values from the firms’ balance sheets and tax-reported investment expenditures. For a directly owned company the owners share is equal to the direct ownership share. For indirectly owned firms, the ultimate individual owner’s share is equal to the direct ownership share times the indirect ownership shares in lower levels. Only ownership shares from 10 percent and up is included, at maximum 10 ownership levels.

Figure 6 show the time profile of investments in closely held corporations before and after the financial crisis that hit the global economy late in 2008. Due to the economic upswing (and possibly tax-induced increase in corporate saving?) investments increase in 2005-2008. Most of the investments takes place within indirectly owned firms. Investments peaked in 2008, with a sharp decline in 2009-2010. Again, it is mainly within the *indirectly* owned corporations’ investments we observe decline. Investments are slowly recovering from 2011 and onwards. Since corporate saving show large fluctuations while investments are relatively more stable, corporate net lending also becomes very volatile. From figure 7 we see that over the entire period, net lending in this group of corporations (closely held firms) is positive, indicating that this part of the corporate sector is self-contained with capital in the sense that retained profit exceeds investment expenditures. Most of the corporate lending takes place in *directly* held companies.

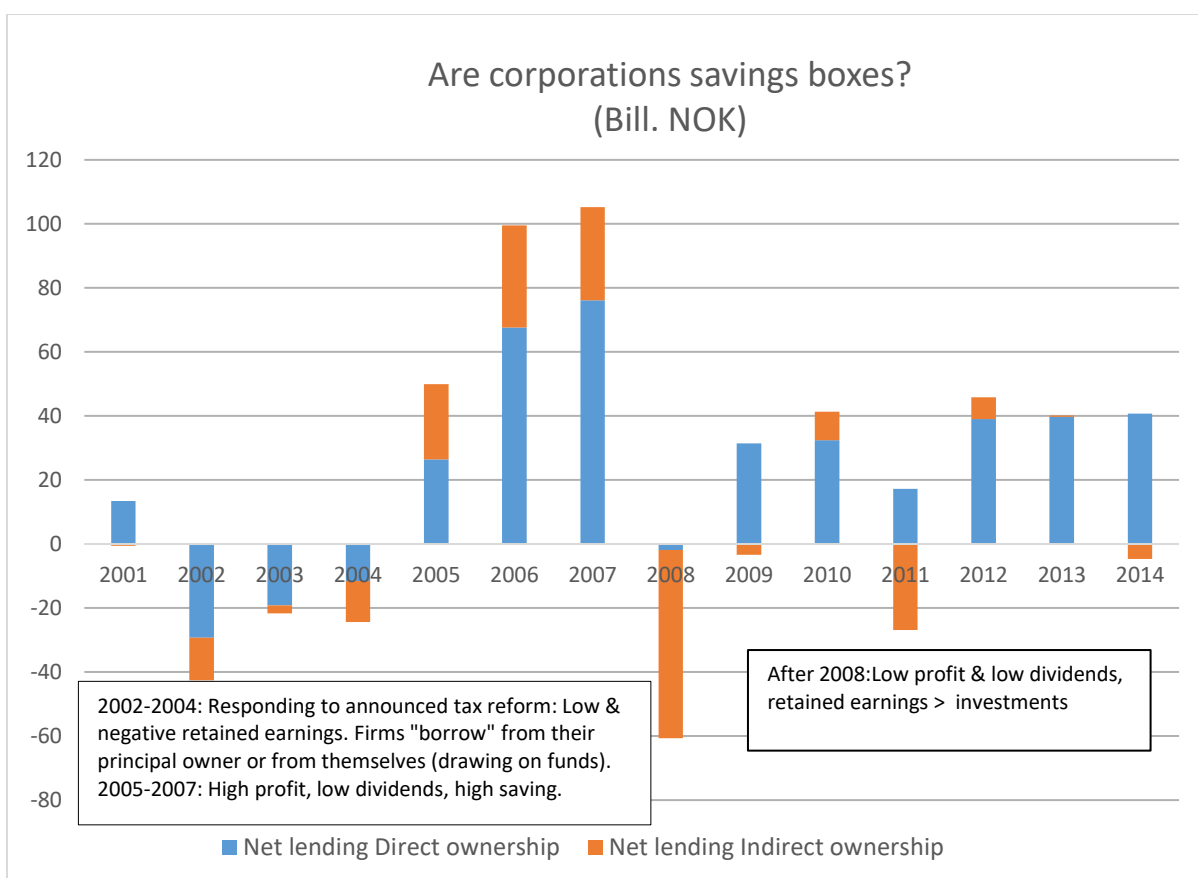
As shown by figures 8-10, corporate net lending during the period was strongly affected by two events, the announcement (2002) and introduction (2005/6) of a dividend tax and the financial crisis in 2008.

Figure 6



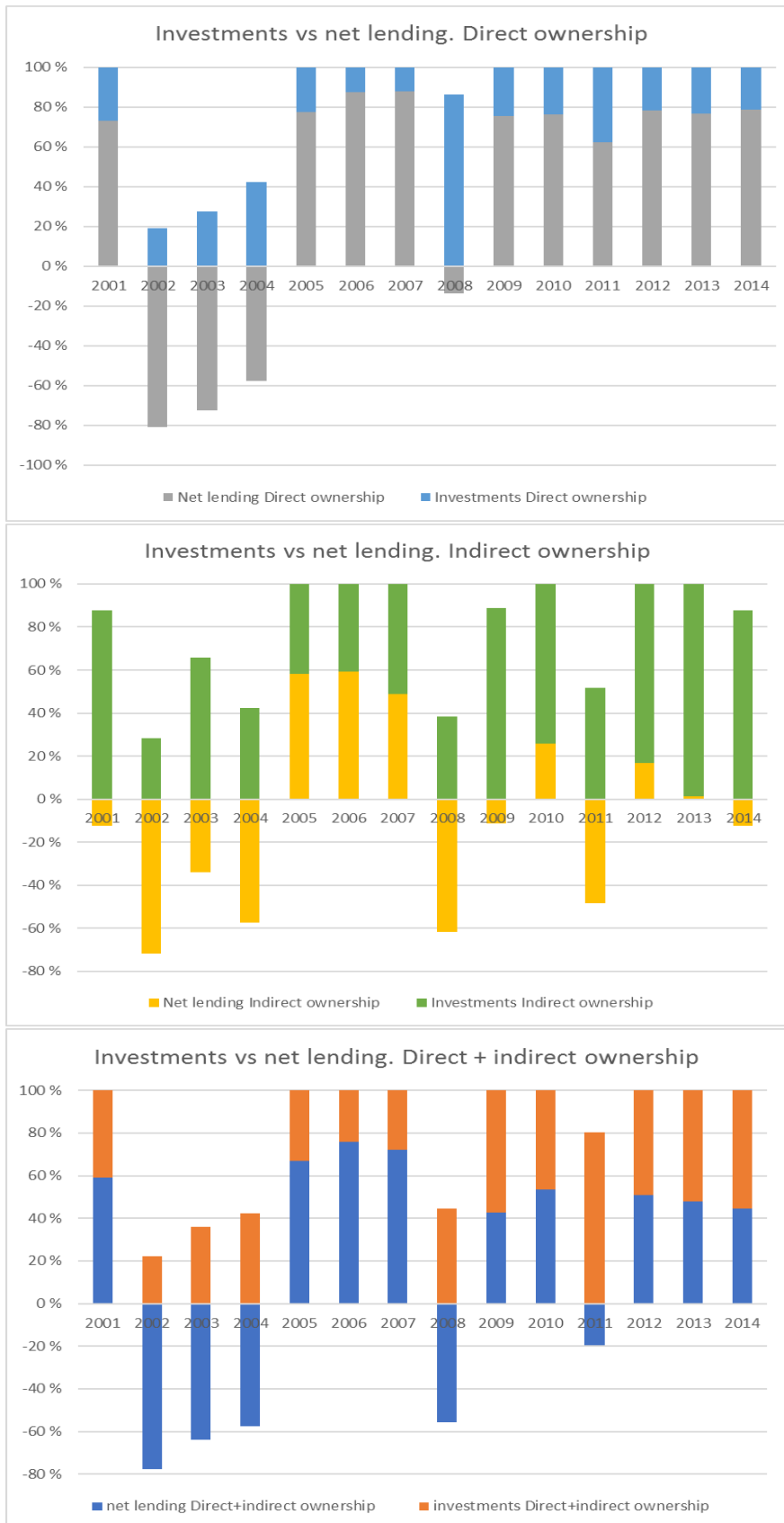
Source: Statistics Norway

Figure 7



Source: Statistics Norway

Figures 8 - 10



Source: Statistics Norway

4. Conclusion

Our findings can be summarized as follows:

- Household saving, defined as income minus consumption, is strongly related to capital income that originates from the corporate sector. When profit is retained, private saving takes place in the corporate sector. When profit is distributed, more of private saving takes place in the household sector. This gives a tendency for negative correlation between corporate and household saving; total private saving is less volatile than corporate saving and household saving separately.
- Tax-planning and income shocks may lead to income shifts between the corporate and household sectors and corresponding shifts in saving. Every producer and user of national accounts should be aware of this, to avoid confusion about seemingly (but not necessarily factual) changes in private saving.
- Wealth, capital income and corporate ownership is concentrated among a small minority of the population. Consequently, private saving is also very concentrated. Most of the turbulence in official statistics and in the national accounts' income and savings data is related to the top 1 percent of individuals ranked by taxable wealth. Even including only the top 1000 and top 100 individuals covers a large part of private saving.
- Looking at the corporate sector in one lot, it seems self-contained with financial funding. However, the enterprise population is heterogenous - many firms are net lenders while others are dependent of external funds to finance investments.

So, what are the implications of our findings? Several questions arise from the rich material of micro data used in this study. Here I accentuate five important issues.

First, one may ask how meaningful the distinction of “household” vs. “corporate” saving is, when the two sectors are so intertwined. For example, should private corporations (in Norway labelled “AS”) with such short lines between the firm and its owner be considered to belong to the household sector rather than the corporate sector (similar to non-corporate firms), while public corporations (labelled “ASA”) remained corporate? Anyway, observed changes in household (corporate) saving should be considered in conjunction with changes in corporate (household) saving before drawing any conclusions or making any policy recommendations.

Second: Net lending constitutes a large part of corporate saving in “non-financial” corporations. Furthermore, when looking at the entire sector in one lot, financial assets are in total more important than fixed assets in the balance sheets. This raises doubt about the meaningfulness of the term *non-financial enterprise*.

Widespread net lending and acquisition of other firms rather than carrying out real investment within the firm also raise the same concern as in the rest of Europe about “what is going on”. Our findings indicate that there is some degree of heterogeneity within the non-financial corporate sector where some firms, typically directly owned by persons, invest financially while other firms, typically controlled indirectly by persons via other firms, invest in fixed assets.

Third: Net lending and large holdings of financial assets in the non-financial corporate sector most likely imply a high degree of cross ownership and ownership chains. This may in turn imply a risk of double-counting, leading to over-estimation of corporate income and of the value of the sector's total assets in official statistics. This might not be a problem, but the issue should be examined carefully.

Fourth: Wealth inequality is a well-known feature of most economies and has been addressed by several papers for many years and is frequently revisited in academic papers from time, lately put into focus by Thomas Piketty and others (Piketty and Goldhammer, 2014). Is inequality increasing, decreasing or constant? Our results, showing that the richest one to five percent control over most of the nation's private saving, suggest that wealth inequality will increase. Provided that real wages vs return on capital remains fairly constant, income inequality will thus continue to increase as well.

Finally: At least in the Norwegian case, the national accounts provide no or very little information about household saving for the vast majority of the population. For most people saving largely consists of contributions to pension funds and down-payments on mortgages, which is likely to become overshadowed by the large and noisy contribution to aggregate saving rates from capital income. For example, any impact of demographic trends (more elderly people) on saving in the household sector may easily be overlooked in the time-series. This calls for supplementary data collection on private saving – in particular regarding the valuation of pension rights.

On the other hand, our results using linked corporate-person microdata reveals substantial shifting of saving between the household sector and the corporate sector and demonstrate the importance of the few, wealthiest households for capital accumulation. This suggest that the existence of family dynasties can explain the phenomenon of widespread corporate net lending.

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