Analysis

Public finances carried households and businesses through the COVID crisis

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A large number of firms fell into distress due to the COVID-19 pandemic and many households have been significantly affected by furloughs and lay-offs. However, the non-financial corporations sector improved its overall profitability in 2020, and the household sector as a whole accrued savings. At the same time, the general government deficit widened. Although these developments were influenced by the substantial rise in general government subsidies, social benefits and other support in 2020, this alone would not account for the other sectors' strengthening their financial position. The positive developments in the household and non-financial corporations sectors nevertheless hide large differences within the sectors themselves.



The COVID-19 crisis has been a major shock to the different sectors of the Finnish economy. The pandemic and the ensuing containment measures and uncertainty have driven a large number of firms into distress. This has led to in a rise in furloughs and unemployment, inflicting further distress on households on top of the immediate health consequences of the pandemic. Yet a powerful policy response, which has included subsidies, a reduction in employers' social security contributions and expanded social benefits, has mitigated the shock on the household and non-financial corporations sectors.

In spite of the distress experienced by many households and firms, the national accounts compiled by Statistics Finland reveal that both sectors have, in aggregate, improved their financial position during the pandemic. By contrast, the financial position of the general government sector has weakened. In this article, we look at the income and expenditure of these sectors in 2020 and examine whether general government carried the other sectors during the pandemic, or whether there are other reasons for why the non-financial corporations and household sectors improved their financial positions.

General government support to the household sector and non-financial corporations sector rose significantly in 2020, but this by itself does not account for the strengthening of their financial positions. Households accumulated savings in aggregate, as private final consumption expenditure fell during the COVID-19 crisis. In the non-financial corporations sector, profits rose despite a considerable contraction in value added, as employers' labour costs were reduced (due to outright layoffs, furloughs and reduced social security payments) and firms received public subsidies. At the same time, firms cut back on their distribution of profits and investment.

Although the financial positions of the household sector and non-financial corporations sector

have strengthened during the pandemic, we should stress that an analysis based on a sectoral approach hides large discrepancies within the sectors themselves. The pandemic shock was felt very differently by different firms and their employees in different industries, resulting in growing heterogeneity within the non-financial corporations and household sectors themselves.[1]

The national accounts record the balances and interactions of different sectors

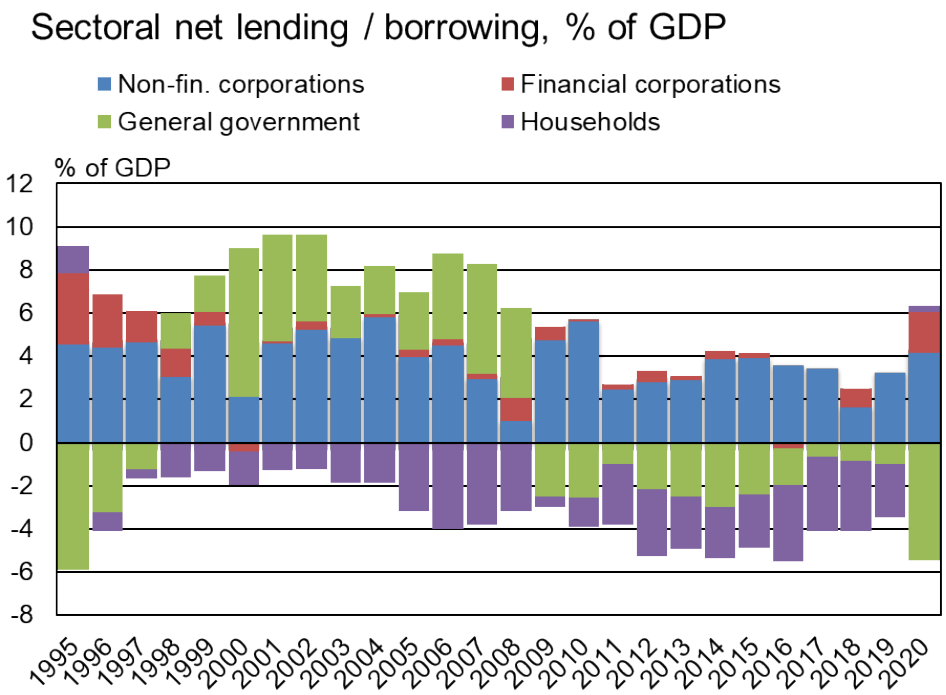
In the national accounts, the stocks and flows of the economy are recorded on the level of the national economy but also on the level of institutional sectors, groups made up of similar economic agents.[2] The main institutional sectors are the household sector, the non-financial corporations sector and the general government sector.

In the national accounts, the real (or non-financial) accounts record activity in the real economy, e.g. how labour input and other factors of production are combined to produce goods, how income is distributed in the economy, and how capital is formed. The financial accounts, in turn, record the financial assets and liabilities of the different sectors of the economy and the financial transactions which determine these stocks. Income and expenditure in the real accounts determine whether a sector is a net lender or net borrower (i.e. its budget balance or financial position), and a corresponding change is made in the financial accounts to the sector's net assets (financial assets minus liabilities).

By analysing the real and financial accounts of different institutional sectors, we can track the income, expenditure, assets and liabilities of each sector and keep track of the economic interactions between sectors. The economy is often measured and forecast on the basis of supply and demand items, such as through GDP. However, a sectoral approach allows for a deeper dive into the structures and developments underpinning the economy and can thus provide useful information for economic policymaking. Monitoring the economy like this makes it easier to identify nascent problems and imbalances, as well as causes, that would otherwise remain unnoticed at the level of supply and demand.

The private institutional sectors, which include the household sector and non-financial corporations sector, strongly increased their financial position in 2020 (Chart 1), whereas the general government deficit widened much further. The following sections explore the reasons for these different paths.

Chart 1.



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Source: Statistics Finland.
In the figure the household sector comprises also non-profit organizations that provide services to households.

Profitability of firms rose in the midst of the pandemic

A large number of firms fell into distress during the COVID-19 pandemic, especially in certain industries (for example accommodation and food service activities; transportation and storage; and arts, entertainment and recreation). Yet the national accounts by sector demonstrate that profits rose in the non-financial corporations sector during the second quarter of 2020, when the first wave of the pandemic began to spread in Finland and the government and other authorities hurried to prepare financial support packages. The rest of the year also went relatively well for the sector as a whole.

The national accounts and financial statements each use different concepts to describe the profitability of firms and factors which affect profitability (Table 1).[3] Net operating surplus in the national accounts roughly corresponds to operating profit in a financial statement. It is obtained by subtracting the compensation of employees, taxes on production and imports (less subsidies) and consumption of fixed capital from the gross value added (output minus intermediate consumption) of a sector. The profitability of the aggregate economy or different industries is often represented in terms of profit share, which is the ratio of operating surplus over value

added.[4]

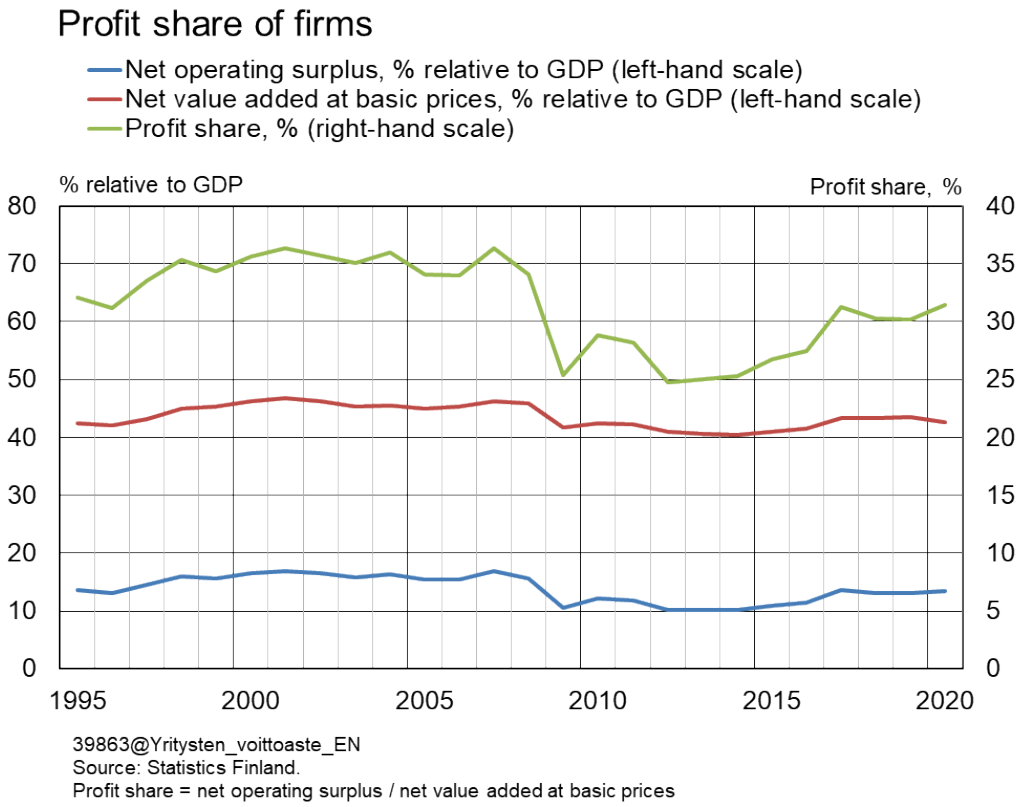
Rough correspondences between financial statements and national accounts	
Financial statement	**National accounts**
Turnover, other operating income	Output at basic prices
– Variable and fixed costs excl. labour costs	– Intermediate consumption at purchasers' prices
= Value added	= Value added, gross
– Labour costs – Taxes + subsidies on production	– Compensation of employees – Taxes + subsidies on production
= EBITDA	= Operating surplus, gross
– Depreciation and amortisation according to plan	– Consumption of fixed capital
= Operating income (EBIT)	= Operating surplus, net
Performance ratios	
EBITDA margin, EBIT margin	Operating surplus/output
EBIT/value added	Operating surplus/value added
EBIT / non-current assets, ROA	Operating surplus/net capital stock

Source: Ravaska (2011).

The profitability of the non-financial corporations sector, measured in terms of profit share, increased in 2020 in spite of the sharp recession (Chart 2). In the second quarter of 2020, during the first wave of the pandemic, the seasonally adjusted profit share of the non-financial corporations sector increased markedly on the previous quarter, even though value added contracted significantly. With large-scale furloughs and a temporary reduction in pension contributions paid by private sector employers, compensation of employees declined, and firms also received financial support from the public finances (subsidies on production), resulting in a higher operating surplus and higher profit share for the sector. During the third quarter of 2020 the sector's profit share declined on the previous quarter, but still remained higher than before the start of the pandemic. Value added and paid compensation of employees recovered, but the

subsidies received by the sector remained large. However, in the fourth quarter of 2020, as the second wave of the pandemic accelerated, the sector's profit share declined, as value added diminished on the previous quarter but compensation of employees remained roughly the same and firms received fewer subsidies on production than in the previous quarter.

Chart 2.



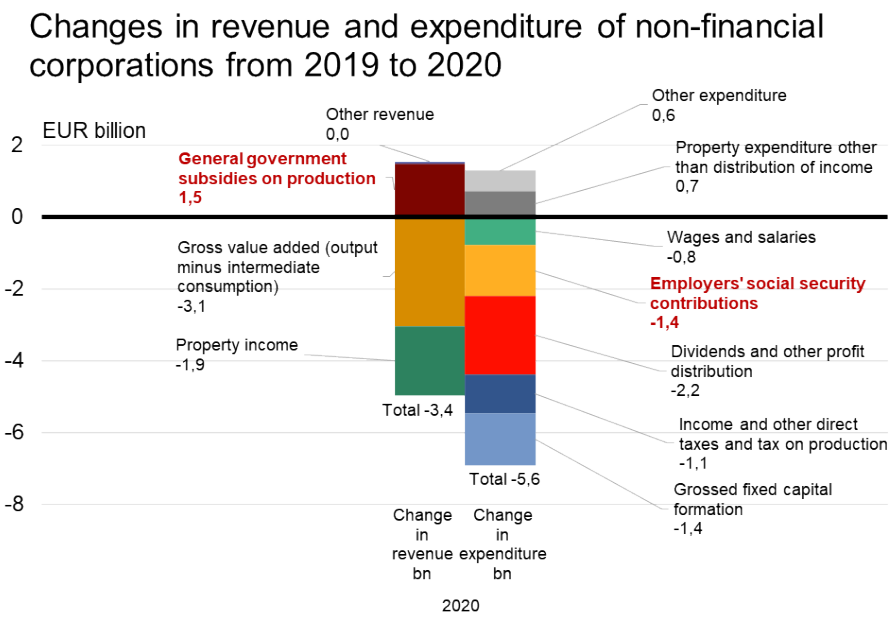
The operating surplus and profit share of the non-financial corporations sector were influenced by changes in employment and social security contributions and direct subsidies (including their timing) in addition to fluctuations in value added. Subsidies from the public purse mitigated the shock to the non-financial corporations sector. By funding the compensation of furloughed employees, general government also supported the ability of firms to retain their staff.[5]

The financial position of the non-financial corporations sector has strengthened during the pandemic. The sector's net lending, which represents its financial position, stood at 4.2% relative to GDP in 2020, its highest rate since 2010. As a result, the sector's almost 30-year streak as a net lender remained unbroken.

The strengthening of the sector's financial position was in part influenced by a decline in dividends paid and in investment (Chart 3). The path of investment is particularly interesting, as investment

is a key factor underpinning productivity and output growth. The sector's seasonally adjusted rate of investment, i.e. its ratio of investment over value added, still increased during the first half of 2020, but in the third quarter it declined quarter-on-quarter. In the fourth quarter, the investment rate grew moderately but still remained lower than before the pandemic. In spite of good profitability, the investment rate of the non-financial corporations sector is being affected by the uncertainty surrounding the pandemic, the restriction measures and economic developments. Indeed, investments are forecast to pick up as soon as the uncertainty has faded (see Finnish economy takes off as pandemic eases).

Chart 3.



It should be emphasised that the aggregate improvement in profitability and net lending observed in the non-financial corporations sector during the pandemic masks wide differences between and within industries. These differences have been discussed in the in the journals *Euro & talous* and Bank of Finland Bulletin in articles by Vanhala (2020), Mäki-Fränti and Vanhala (2020) and Mäki-Fränti (2021).

Household sector financial position in balance after long interlude

The pandemic has also hit the household sector hard, weakening private final consumption

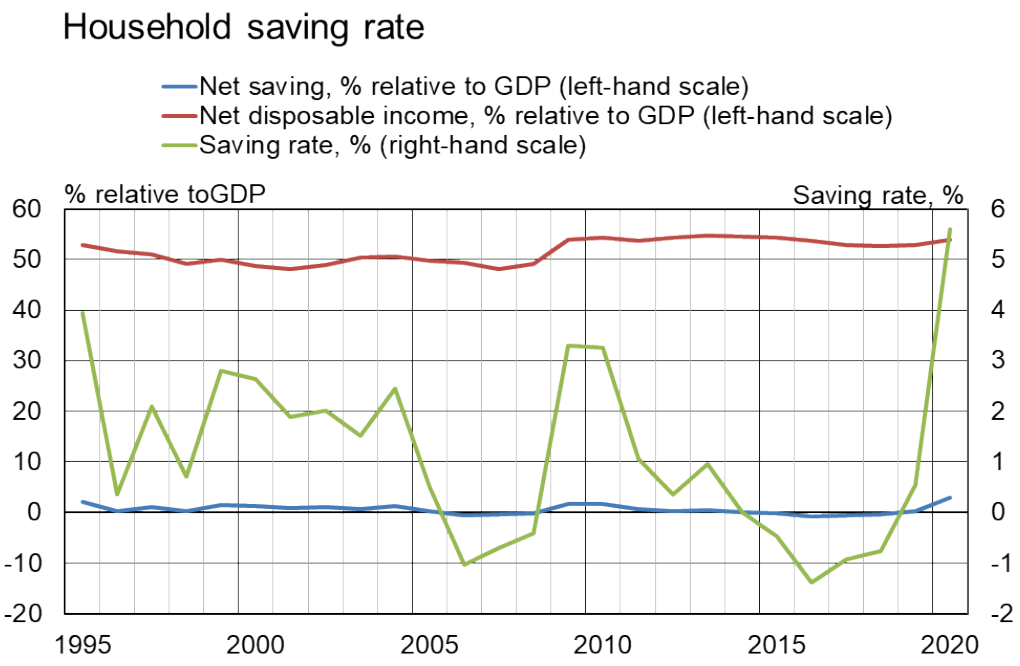
significantly. Private final consumption contracted substantially more than it did during the financial crisis, even though GDP fell much more then than it has during the COVID-19 pandemic. The sharp decline in private final consumption is explained on one hand by the heightened caution the health threat has instilled in consumers and, on the other hand, the restriction measures put in place to prevent the spread of the virus and the constraints these have put on spending opportunities.

Household disposable income increased in 2020 in spite of the pandemic. Because household final consumption expenditure declined at the same time, the household sector has accumulated savings. Household savings are defined as the difference between disposable income and final consumption expenditure. The savings rate, in turn, is the ratio of savings over disposable income. The net savings rate takes into account the depreciation of capital owned by households.

The savings rate is one of the key indicators for the household sector. The net savings of the household sector describes the amount of real and financial assets households can acquire without accumulating debt. Households can use their acquired assets to smooth out their final consumption, for example when disposable income is low because of a spell of unemployment. Final consumption smoothing is important for how sudden shocks, such as the COVID-19 pandemic, are transmitted to the economy. Finally, the savings of the household sector comprise a large share of the aggregate national savings. If there are not enough national savings to satisfy domestic investment demand, investment will be partly funded from abroad. This, in turn, has an impact on the economy's net international investment position.

The net savings rate of Finnish households has remained low and even negative during the years since the financial crisis (Chart 4). A negative savings rate means that the household sector's final consumption expenditure exceeds its disposable income. If a sector's combined capital expenditure (which includes gross fixed capital formation) and final consumption expenditure exceed its gross disposable income, the sector is said to be a net borrower. Here the sector will fund its deficit by liquidating its financial assets or taking on debt.

Chart 4.

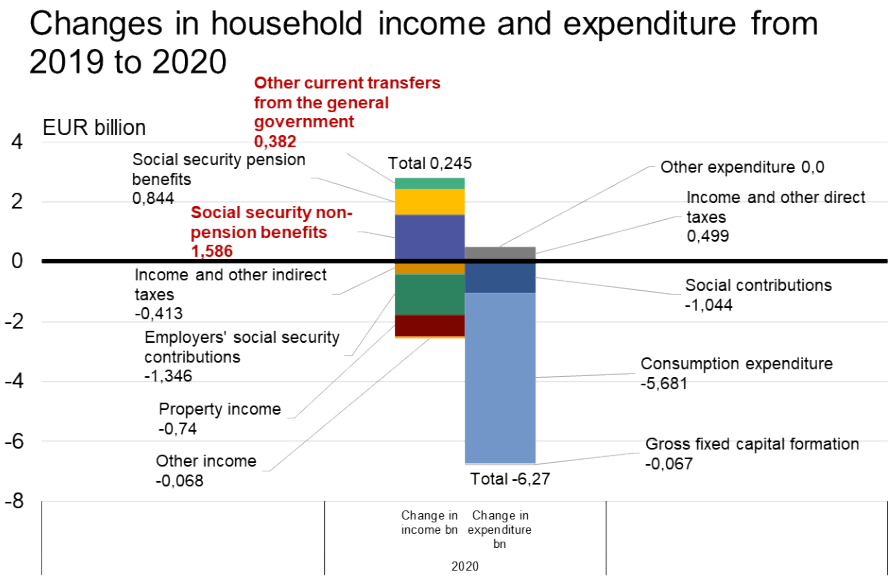


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Source: Statistics Finland.
Includes non-profit institutions serving households.
Saving rate = net saving / (net disposable income + adjustments for changes in employment-related pension entitlement).

The COVID-19 crisis has significantly reshaped the savings behaviour of the household sector. The sector's net savings rate rose to almost 6% in 2020, whereas during 2010–2019 it remained close to zero (0.3% on average). The main factor underpinning the strong rise in the savings rate has been the fall in final consumption expenditure. The other determinant of the net savings rate, i.e. the household sector's net disposable income, has evolved much more smoothly during the COVID-19 crisis than final consumption expenditure. The household sector's net disposable income relative to GDP even increased in 2020. This is because GDP has contracted, whereas disposable household income has increased slightly.

General government measures have contributed to the household sector's disposable income remaining on an even keel during the pandemic. The household sector has been supported by the discretionary measures of general government, but also by its automatic stabilisers. Automatic stabilisers are non-discretionary general government revenue and expenditure which vary according to the business cycle and smooth out fluctuations in the economy. Tax revenue – which varies according to the tax base – and unemployment insurance are examples of automatic stabilisers. In 2020, compensation of employees declined (Chart 5). However, this was offset by, for example, the rise in social benefits paid to the household sector during the crisis and the decrease in social security contributions paid by households.

Chart 5.

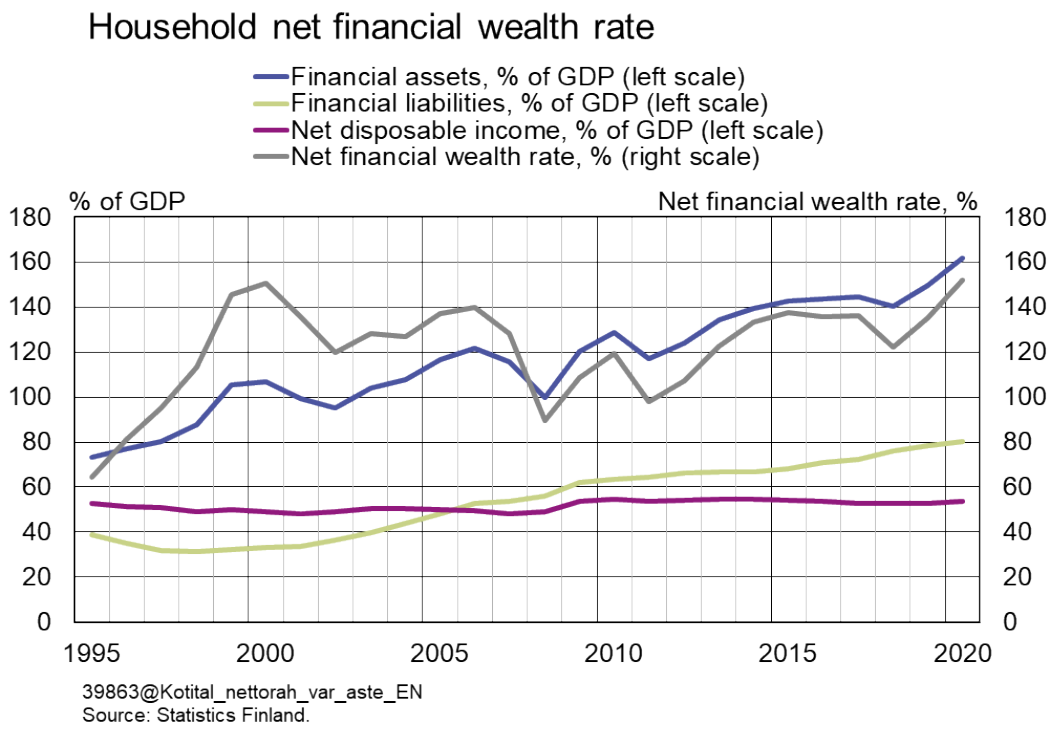


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Sources: Statistics Finland and calculations by the Bank of Finland.
Household income and expenditure at basic prices according to the national accounts. Includes non-profit institutions serving households. Other current transfers between these two sectors have been consolidated.

Where have the savings accrued by the household sector flowed? Savings can be used to acquire real assets (such as housing) or financial assets (such as bank deposits or listed shares).[6] In 2020, the household investment rate, i.e. the ratio of investment over disposable income, declined only slightly. What is significant is that the household sector was a net lender in 2020, albeit only just, for the first time since the end of the 1990s. The sector's financial position being close to balance suggests that, according to the real accounts, households' savings have flowed into real assets without a significant increase in debt.

However, at the same time households have increased their financial wealth[7], which has also been bolstered by brisk appreciations of listed share and mutual fund holdings. In addition to financial assets, the household sector's net financial position is naturally affected by its financial liabilities, i.e. its stock of debt. Household debt has consistently grown since the beginning of the 2000s. However, in recent years the growth of financial assets has been faster than the growth of liabilities, so households' net financial assets have increased. At the end of 2020, the household net financial assets-to-income ratio was at its highest ever recorded level since recording of this statistic began in 1995 (Chart 6). Although the debt ratio (debt relative to disposable income) of Finnish households is at a historical high, households also hold a significant amount of wealth, on average.

Chart 6.



The household sector's wealth can function as a buffer, which may, for example, cushion the economic impact of higher debt-servicing costs resulting from higher interest rates. However, this may be influenced by the overall distribution of wealth within the household sector. For example, if financial assets have largely been accumulated by elderly households whose minimum final consumption expenditure is low and who do not hold large amounts of housing debt, then the wealth of the household sector may not function particularly well as a buffer compared with a situation where a significant portion of wealth was also held by households susceptible to, say, fluctuations in the interest rates on housing loans. This sort of heterogeneity among households, which potentially has significant macroeconomic effects, is lost at the institutional sector level. The distribution of wealth among Finnish households in discussed in Bank of Finland Bulletin Mäki-Fränti (2019).

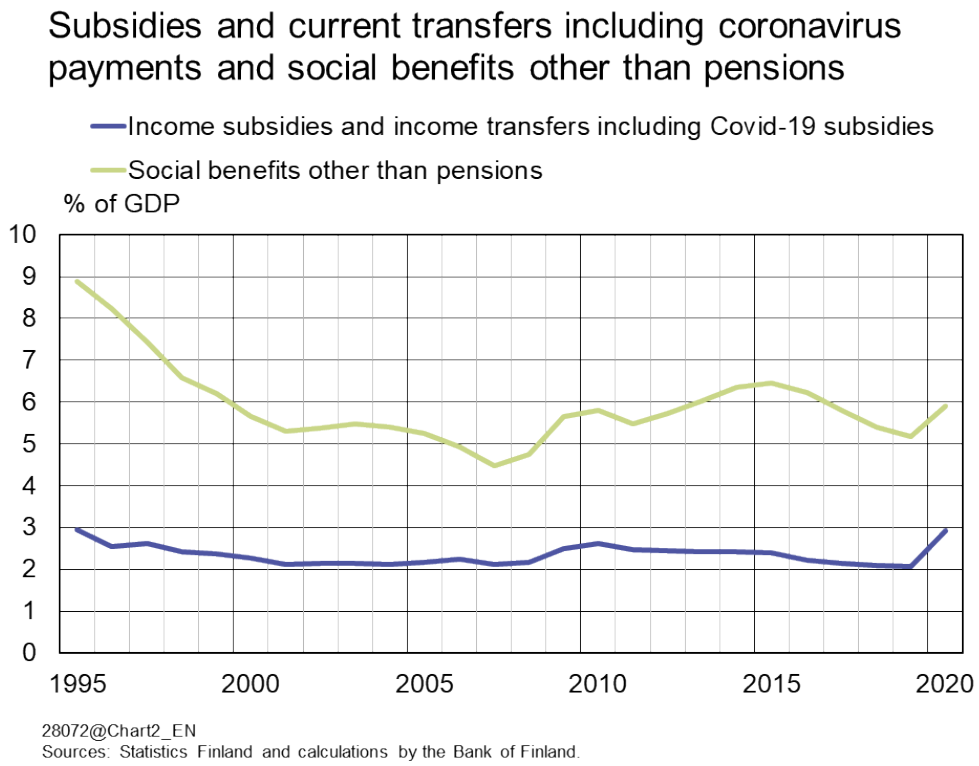
General government expenditure rose sharply

General government expenditure rose sharply in 2020 as the central government responded to the COVID-19 pandemic with health security and fiscal stimulus measures. Subsidies and transfers relative to GDP, which include discretionary virus-related and fiscal stimulus measures, increased by 0.8 percentage points in 2020 (Chart 7). At the same time, non-pension social

benefits increased by 0.7 percentage points relative to GDP. Social benefits (including furlough payments) were also raised as part of the fiscal response.

In addition, general government supported firms by temporarily lowering social security contributions paid by private sector employers. This weakened the budget balances of pension funds, which are classified as general government entities.

Chart 7.



We have already established that the actions taken by general government do not entirely account for the strengthening of the private sector's balances in 2020. In a similar vein, general government's discretionary support to households and firms does not entirely account for the widening of the general government deficit.

At the same time as decisions were being made that would raise public spending, general government tax and tax-related revenues declined and unemployment expenditure increased as cyclical conditions deteriorated in 2020. The general government sector's consolidated total revenue contracted on the previous year by one percentage point relative to GDP, while total expenditure increased by 3.4 percentage points relative to GDP. Of the widening of the general government deficit in 2020, about 60% can be traced to discretionary measures, while the

remainder is the result of automatic stabilisers.[8] The resulting deficit-to-GDP ratio reached its highest level since the depression of the 1990s. Central government in particular carried the burden; its budget was severely in deficit in 2020.

Prerequisites exist for growth in private final consumption and investment

The pandemic and associated restriction measures and uncertainty have disrupted the activities of a large number of firms and eroded the incomes of many households. The health security and fiscal stimulus measures implemented by general government have mitigated the impact of the pandemic on the non-financial corporations sector and the household sector.

In spite of the COVID-19 pandemic and the disruption caused to many firms, the non-financial corporations sector improved its profitability and financial position in 2020. While the value added created by the sector decreased, compensation of employees declined and firms received public financial support. And, although the sector's profit share ultimately increased, its dividend payments shrunk. At the same time, the investment rate declined less than had been feared. Better profitability and a stronger financial position are creating the conditions for investment growth in the coming years, as soon as the pandemic recedes and the fading of uncertainty improves the outlook for production. Recent survey data also suggest a recovery in investment.[9] The non-financial corporations sector has remained a net lender for almost three decades, which means that the sector has been able to fund its investment with its operating income. The Bank of Finland's forecast of strong gross value added growth suggests that reducing fiscal support as the pandemic recedes will not give rise to a surge in bankruptcies.

On the back of the COVID-19 pandemic, the Finnish household sector was a net lender in 2020, for the first time since the mid-1990s. The general government sector has in part contributed to the household sector's stronger financial position by supporting the disposable income of households. Yet the main reason for why the sector's financial position has become balanced is that households have significantly reduced their final consumption expenditure due to the pandemic. With final consumption having contracted but disposable income remaining broadly the same, households have accrued a significant amount of savings. It is forecast that the savings rate will return to its pre-pandemic levels, and this will support growth in final consumption. In addition, if households spend the savings they have accrued during the COVID-19 crisis on final consumption, this might further boost the Finnish economy's recovery from the recession caused by the pandemic.

The figures in the national accounts are designed to reflect sectors in aggregate terms and not

provide a full sweep of heterogeneity among households and firms. These figures still offer valuable insight into trends in the macroeconomy, the structure of the economy and the interactions between sectors. This information can be used e.g. as background information in economic policymaking and as a support for economic forecasting.

Notes

1. The authors wish to thank Arto Kokkinen for his feedback. ↑
2. The compilation of the national accounts is guided by the System of National Accounts (latest version SNA2008), an internationally agreed standard set of recommendations, and the European System of Accounts (latest version ESA2010), which is based on EU regulation. Both frameworks define an institutional unit as an economic entity characterised by decision-making autonomy in the exercise of its principal function and, if called upon, the ability to compile a complete set of accounts. Institutional units are combined into groups called institutional sectors. ↑
3. For a more detailed comparison of key figures in national accounts and financial statements, see Ravaska. T. (2011) ”Profitability of Finnish Firms 1975–2010”, BoF Online 8 • 2011 (in Finnish). ↑
4. The profit share of the non-financial corporations sector increased markedly during the mid-1990s but weakened again after 2008. It was not until 2015 that profitability began to pick up again appreciably, but it still remained below its past peak in the years leading up to the pandemic. ↑
5. In addition to these measures, the payment arrangements available to firms for paying tax and employers' social contributions have been eased and their eligibility criteria extended. An attempt has been made to eliminate the deferral of tax revenues into following years due to moratoria and VAT loans from the national accounts such that the majority of the deferrals have not affected the 2020 accounts. In addition, the loan and guarantee powers of the specialised financing company owned by the State, Finnvera, were significantly expanded in 2020. The contingent liabilities are backed by central government, and central government also partially compensates Finnvera for losses incurred due to this increased financing. ↑
6. Households' bank deposits have grown rapidly during the coronavirus pandemic (see Household deposits growing at a brisk pace, Bank of Finland). Bank deposits comprise slightly under one-third of the total stock of households' financial assets; however, of the financial assets acquired by households in 2020, almost two-thirds were deposits, similarly to in previous years. The accumulation of savings into highly liquid assets such as bank deposits could contribute to a rise in private final consumption once the pandemic subsides. ↑
7. Despite the balance between income and expenditure in the non-financial accounts, the financial accounts show household net lending as standing at EUR 10.4 billion. The bottom-lines of non-financial and financial accounts should mirror each other, but discrepancies are common. The discrepancy was unusually large in 2020, however. ↑
8. This estimate is based on the European System of Central Banks' methodology for ↑

calculating the cyclically adjusted general government balance and the Bank of Finland's June 2021 forecast.

9. Investment survey conducted by the Confederation of Finnish Industry and Employers, January 2021; Report on the impact of the COVID-19 crisis on Finnish SMEs, Finnish Industry Investment Ltd; April 2021. In Finnish only. ↑

Keywords

companies/firms, COVID-19, COVID-19 pandemic, general government finances, households, national accounts