Developments in Income and Consumption Across Household Groups

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Abstract

Data on spending by income and mortgagor status suggest that growth in consumption has slowed significantly over the past year or so across most household groups as cost-of-living pressures have weighed on household finances. High inflation has decreased the purchasing power of all households and has had a relatively similar effect on real disposable incomes across different groups. While higher interest rates have also weighed heavily on the incomes of mortgagor households, many of these households have larger financial buffers, which have helped to offset the aggregate impact of interest rates on their spending so far. Resilient growth in nominal incomes has helped to support the spending of many lower income households and renters. Nonetheless, many of these households have lower financial buffers and so increases in their cost of living are more likely to have caused financial stress with all its adverse impacts on their wellbeing. Indeed, many households are experiencing acute challenges in the face of high inflation and higher interest rates. This article explores these recent developments in consumption across household groups.

Introduction

Household consumption represents around half of all economic activity in Australia and is a key part of activity affected by monetary policy. Aggregate consumption outcomes are most relevant for the setting of monetary policy, but these outcomes are driven by individual households whose experiences can differ substantially from the average. This article reviews recent developments in consumption and one of its main determinants – income – across

household groups, to better understand the drivers of aggregate consumption.

Aggregate developments

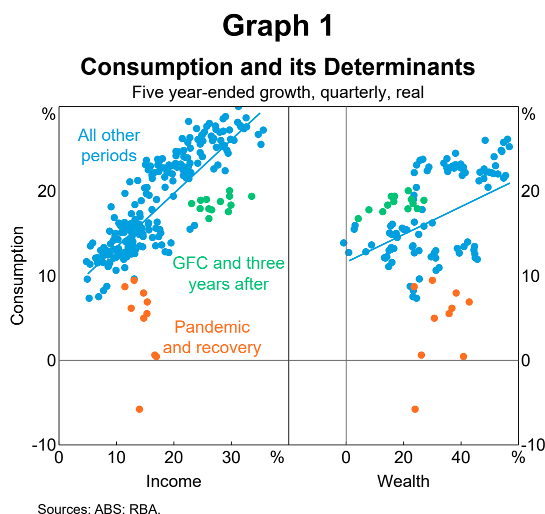
In the long run, households' income and wealth determine consumption (Graph 1). This is consistent with households' budget constraints; generally, households can only spend the income they receive, draw down on their wealth or borrow funds.[1]

Consumption outcomes can differ from what might be expected from these long-run relationships for many reasons. Households may decide to save more during periods of uncertainty about their future income; this occurred, for example, during the global financial crisis (GFC). Social restrictions introduced during the pandemic also limited consumption opportunities, leading to consumption outcomes much weaker than implied by developments in incomes and wealth (Bishop, Boulter and Rosewall 2022). However, consumption patterns tend to return to levels consistent with long-run relationships over time; the direct effects of the pandemic on consumption outcomes had largely reversed at the aggregate level by around mid-2022.

Consumption growth has slowed significantly over the past year. This is primarily because real disposable income –which is the income left over for consumption or saving after tax and interest payments, adjusted for inflation – has declined by 5.5 per cent since early 2022, the largest decrease observed in around three decades (Graph 2). The decline in real disposable income has occurred despite very strong growth in labour income, which is the income received by households from their jobs, and reflects the following factors:

- *Inflation*, which reduces the purchasing power of nominal income, has been very high in recent times. High inflation has affected all households and has been the main factor weighing on real disposable incomes in aggregate.
- *Tax payable*, which is the taxes households pay to the federal government, has been growing at a higher rate than its pre-pandemic average. This is because of strong growth in nominal gross incomes and also because the tax share of income increased as gross nominal incomes have risen relative to income tax thresholds (which are not automatically indexed to inflation), so-called 'bracket creep'.
- *Net interest payments*, which are the value of interest paid on household debt (mainly mortgage debt) minus the interest received on households' interest-bearing assets (such as deposits), have increased alongside higher interest rates. The effect of higher interest rates has varied materially across different households depending on whether the household is a net saver or borrower (discussed further below).

In contrast to declining real disposable incomes, real household wealth has grown strongly over recent years, driven primarily by strong growth in housing prices (Graph 3). Higher-than-usual savings during the pandemic also supported this increase; while these additional savings account for a modest proportion of total wealth, they have provided a meaningful boost to liquid wealth such as holdings of bank deposits.



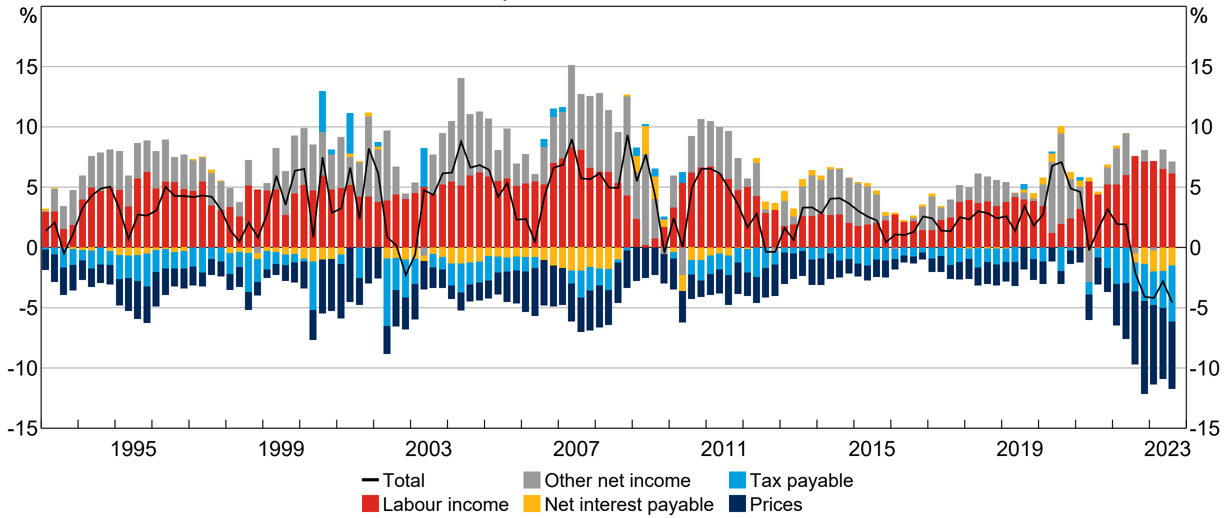
Developments across household groups

This section focuses on developments across household income levels and by housing tenure (i.e. whether households rent, own their home with a mortgage or own their home outright). There are of course large differences in the experiences of households within the same income quintile or in the same housing tenure group. Nonetheless, the

Graph 2

Household Disposable Income Growth

Real, year-ended with contributions



Sources: ABS; RBA.

pressures that households within a group face can be similar. While changes to households' incomes and wealth are examined separately across income and housing tenure groups, there is a clear relationship between the two groups. Households in the lowest two income quintiles, with annual disposable household incomes up to around $70,000, are most often either renters or outright owners. By contrast, mortgagors comprise the largest group of households in the upper two income quintiles (with incomes starting from $84,000) (Graph 4).

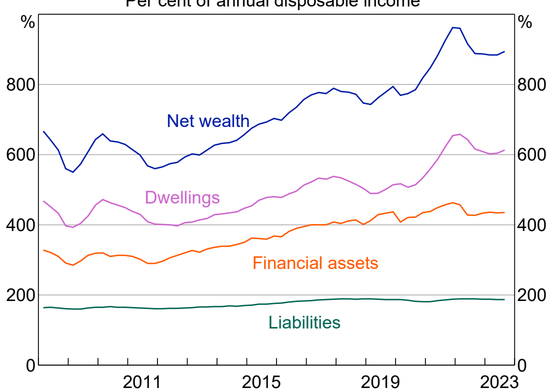
Real disposable income growth

Real disposable income growth is estimated to have been weak or negative over recent years for almost all household groups across the income distribution (Graph 5).[2] The largest common driver of these declines has been *inflation*, which has reduced real incomes at a similar rate across all income quintiles; evidence suggests that inflation *rates* have been similar across different households despite some differences in consumption baskets (Wood, Chan and Coates 2023).

Graph 3

Household Assets and Liabilities

Per cent of annual disposable income*



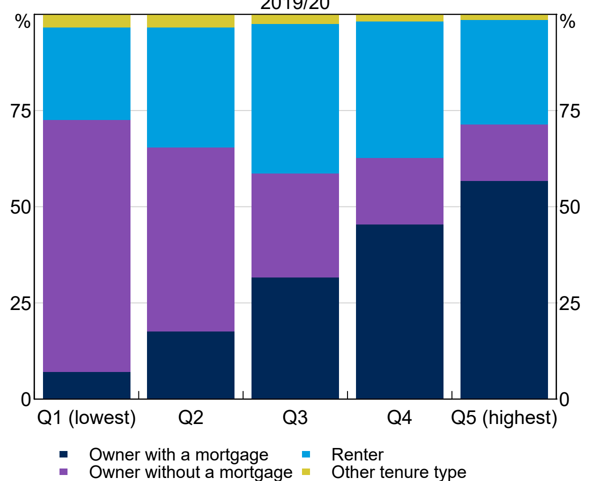
* Disposable income before the deduction of interest payments.

Sources: ABS; RBA.

Graph 4

Housing Tenure by Income Quintile*

2019/20



*Modelled annual household disposable income. Income quintile upper bounds for modelled 2019/2020 income are: $44,000 for Q1; $70,000 for Q2; $84,000 for Q3; $122,000 for Q4; and $207,000 for Q5.

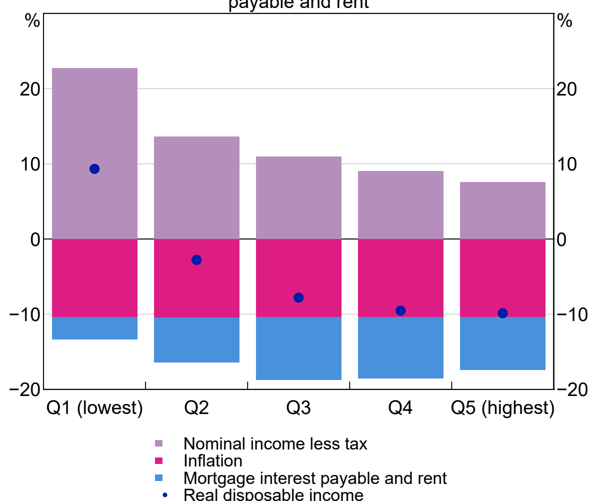
Sources: ABS; RBA.

Partly offsetting the increase in inflation has been strong growth in *nominal incomes after tax* across all income quintiles. Variation in nominal income growth across groups, which has been stronger for households in the lowest income quintiles, accounts for most of the differences in real income growth across these groups. Growth in the incomes of the two lowest income quintiles has been driven by retirees, who make up a large share of households in these quintiles. Their incomes have been supported by the indexation of pensions to inflation. Retirees as a group were also more likely to have benefited from higher interest rates as interest income tends to account for a greater share of their income than other households. For most other households, the increase in interest income has been small. Working lower income households have also seen stronger growth in their wages, in part reflecting decisions in recent years by the Fair Work Commission on minimum and award wages, and in part reflecting that these households have been more likely to have increased their work hours in the strong labour market over this period. These developments have to some extent protected the real incomes of low-income households, who typically are the most vulnerable to a financial shock as they have lower financial buffers (see below).

Graph 5

Approximate Household Disposable Income Growth by Income Quintile*

Change between December 2021 and June 2023, as a share of 2021 disposable income after mortgage interest payable and rent



* Includes employed and retired households without investment properties. Nominal income less tax is the total change in household net income after tax. Inflation is the percentage change in the ABS Consumer Price Index ex Rents series. Mortgage interest payable and rent is the total change in expenditure on mortgage interest and rent. Changes are between December 2021 and June 2023.

Sources: ABS; ATO; RBA; SIH 2019/20.

By income quintile, the change in *housing costs* – which measures the increase in rents as well as higher interest rates on mortgages – has increased more evenly, because there is a mix of housing tenures across the income distribution. Housing costs have tended to weigh a little more on households in the higher income quintiles because these households are more likely to be mortgagors. The smaller increase in housing costs for lower income households reflects the high share of retirees in these groups; retirees tend to be more likely to own their home outright. That said, mortgagors in these lower income quintiles have seen large increases in their housing costs.

The effect of housing costs on household disposable incomes has varied significantly across housing tenures. Most households that had a mortgage in early 2022 (before the cash rate began to increase) have seen their scheduled mortgage payments increase by between 30 per cent and 50 per cent. For the median mortgagor, real disposable income is estimated to have fallen by 15 per cent, as high inflation and higher housing costs have more than offset solid labour income growth. Renters have experienced a sharp increase in their rent payments because of the tight rental market. For the median renter, real disposable income is estimated to have fallen by 4 per cent despite strong nominal income growth, driven by high inflation and higher rents. By contrast, outright owners do not pay rents or have mortgage payments (but do have other costs, such as council rates).

It is important to note that these are estimates based on modelled changes in incomes and expenses for broad groups of households using a range of assumptions.[3] Within each group, there is a very wide range of outcomes for real disposable incomes around this average. Further, larger decreases in real income for households on higher incomes or with mortgages do not necessarily translate into more severe budget pressures or higher levels of financial stress for these households. For higher income households, real incomes have declined from higher levels and these households

typically have more scope to adjust saving and consumption patterns before experiencing financial stress (RBA 2023). By contrast, lower income households (including many renters) often devote a larger share of their income to spending on essential items and their housing costs, and many have a low level of liquid savings. In turn, these households are more likely to experience financial stress with all its adverse impacts on their wellbeing as a result of budgetary pressures (Bullock 2023).

Community services organisations in the Reserve Bank's liaison program have reported an increase in calls on their services. While these calls continue to be dominated by renters, mortgagors are also more often turning to these services for help. Consistent with this, estimates from the Bank's Securitisation dataset suggest that there is a small but growing share of mortgagors facing significant pressures on their budgets.

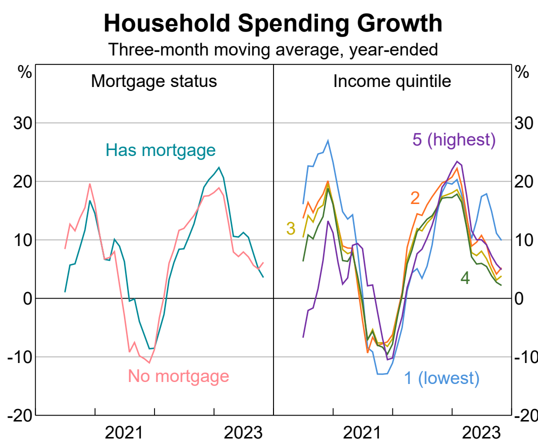
Spending growth

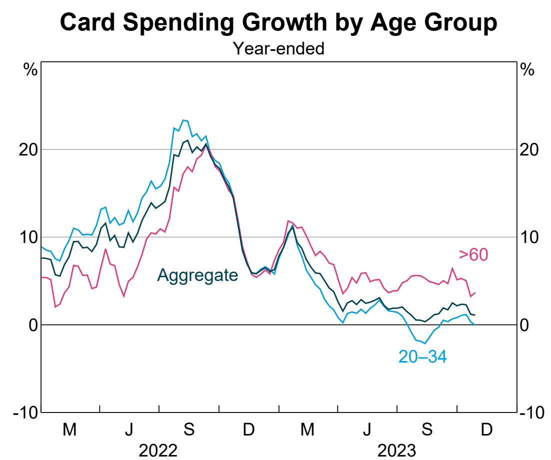
Despite pressures on incomes varying across households, timely transaction-based spending data suggest that nominal spending growth has slowed across all household groups split by income quintiles and mortgagors and non-mortgagor status (Graph 6).[4]

Spending growth for the lowest income quintile has also slowed over the past year but has tended to be more resilient than for other household groups in recent quarters. This is consistent with employed households in this group experiencing relatively stronger growth in their real incomes because of the strong labour market over the past year. This group also includes a high proportion of retirees whose income growth has been relatively solid, in part owing to the indexation of government transfers such as the age pension. The slower decline in nominal spending growth among retirees is also clear in other data sources, which show that spending growth for individuals older than 60 years has slowed, but has been a little stronger than spending growth by younger individuals over the past year (Graph 7). An additional explanation for the relatively slower fall in spending growth by retirees recently is that they have been slower than younger households to resume consumption of discretionary services (e.g. dining out or attending large events) following the removal of social restrictions.

Wealth and savings

Timely data on household wealth and savings across the distribution was not available at the time of publication of this article.[5] For this reason, this section focuses mainly on the relative size of financial buffers across households, rather than recent changes. Households in the highest three income groups and mortgagors have seen larger falls in their real disposable incomes than other groups. However, these groups tend to have the largest financial buffers and have been able to save less or draw down on their savings to lessen the impact on their spending (RBA 2023).

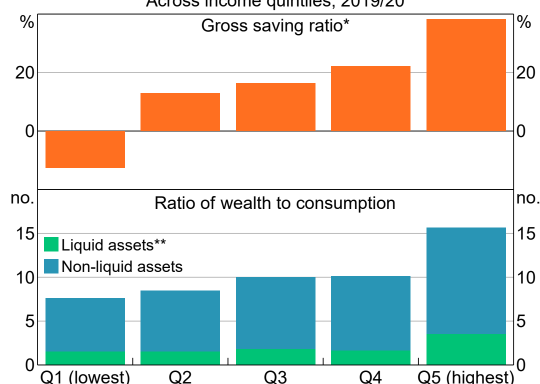




The two types of financial buffers these households have primarily been able to draw down on are:[6]

- *Their flow of savings* – that is, the unspent income they can redirect from saving to spending before drawing down on their savings or reducing their spending when faced with a decline in their real disposable income. Higher income households tend to have higher savings rates than lower income households. This means that higher income households have more scope to reduce the amount they save to support consumption in response to a fall in income (Graph 8, top panel).
- *Their wealth* – which tends to be strongly related to the value of housing assets they hold. Higher income households tend to have a higher level of wealth (Graph 8, bottom panel). While liquid wealth tends to be more similar across income groups, many lower income households hold very low levels of liquid assets (with many having liquid wealth less than their fortnightly income) (Wang 2022).

A comparison across housing tenures provides two additional insights. Besides having substantial housing assets, outright homeowners tend to have significantly more liquid savings than other housing tenures, primarily because many outright owners are older and have had time to accumulate savings. Mortgagors are wealthier and have a higher flow of savings than renters, consistent with them being in the higher income groups. Most of the liquid assets held by mortgagors are in the form of offset and redraw account balances, which are sizeable for most borrowers. Around 45 per cent of all borrowers had prepayment buffers equivalent to more than one year's worth of their minimum payments at the current interest rate. There is evidence that some mortgagors have been drawing on their offset accounts to finance regular spending (RBA 2023).



Conclusion

Understanding developments among household groups can provide insights on the drivers of consumption. While inflation has weighed to a similar extent on the purchasing power of incomes for all households, differences in nominal income growth and changes in housing costs have led to larger differences in real disposable income growth across different household types. Growth in spending across all household groups has slowed. While mortgagors have faced a large increase in their housing costs, they have in aggregate been able to attenuate the impact of higher mortgage payments on their spending, including by reducing their rate of savings or drawing down on their liquid wealth. The strong labour market has also helped to support the spending of lower income households and renters. That said, many of these households have lower financial buffers and the increased cost of living is more likely to have caused financial stress with all its adverse impacts on their wellbeing. Indeed, many individual households have been acutely affected by the current challenging conditions and are experiencing significant financial pressure. ✠

Appendix A: Methodology used to model changes in real disposable income

Data from the Australian Bureau of Statistics (ABS) Survey of Income and Housing (SIH) is used to approximate changes in household real disposable incomes across household groups separated by income quintiles and housing tenure. The survey provides us with data on the incomes of each household and their deductions across a broad range of sources as well as information on households' assets and liabilities.

The latest SIH survey was conducted in the 2019/20 financial year. To calculate recent changes in household incomes, we project the income stream of each household, as well as their assets and liabilities, forward to the December quarter of 2021 and the June quarter of 2023, based on a range of sources such as the National Accounts and interest rate data published by the Reserve Bank. To estimate the growth in *real disposable* income experienced by each household, we deflate each household's estimated nominal income less tax by inflation and subtract growth in housing costs (rent or interest paid on mortgages). These projections are then aggregated across each household group by income quintile and housing tenure.

Income less tax is calculated as the sum of (projected) labour income, business income, transfer income, superannuation income and investment income. The methodology underlying each component of nominal income less tax is as follows:

- Between the survey period and December 2021, *employee income* is grown forward by observed growth in the Wage Price Index (WPI). From December 2021 to June 2023, we grow employee income forward by Single-Touch Payroll (STP) data from the Australia Taxation Office. The STP data allow us to capture observed differences in income growth depending on the modelled net income quintile of the household; this is not possible using data published with the WPI.
- Business income is grown forward by growth in Unincorporated Gross Operating Profits (GOP) less Finance and Insurance Unincorporated GOP from the ABS.
- Transfer income is grown forward by observed growth in the Consumer Price Index (CPI).
- Superannuation income is grown forward by the value of observed pension benefit payments from the Australian Prudential Regulation Authority.
- For investment income:
    - Interest income from deposits is estimated using the average outstanding paid deposit rate for households series published by the Reserve Bank, multiplied by the estimated deposit balance of the household. The deposit balance of the household is grown forward from the date of the survey by around 35 per cent.
    - Interest income from bonds is estimated as the 10-year Australian Government Security bond yield, multiplied by the estimated bond holdings of the household. The value of bond holdings is grown forward from the date of the survey by around 110 per cent. The survey does not provide further detail about household bond holdings by maturity.
    - Dividend income from shareholdings is estimated as the one-year rolling ASX 200 index dividend yield multiplied by the estimated value of shareholdings of the household. The value of shareholdings is grown forward from the date of the survey by around 24 per cent in line with the growth in household shareholdings observed in the National Accounts.

Housing costs faced by the household are either mortgage interest payments or rents depending on whether the household has a mortgage or rents their own home. We assume the housing costs of outright owners is constant. We exclude the principal component on mortgage payments; in the National Accounts, these payments are considered savings as they increase the equity value held by the mortgagors in their homes. We derive our estimates as follows:

- To estimate mortgage interest payments, we first derive mortgage debt by taking recorded loan balances for mortgagors in the survey and growing them forward in line with observed growth in owner-occupier housing credit from the date of the survey. To derive interest payments, we subtract offset balances from outstanding mortgage debt for each household. We then apply the average outstanding variable-rate owner-occupied mortgage rate. For the purposes of this exercise, we assume there are no fixed-rate mortgages.

- To estimate rents, we grow forward recorded rent payments from the survey by rent inflation in the CPI.
- Other housing costs such as council, water or strata rates are not modelled explicitly but are captured by total CPI inflation.

Inflation is the growth in the CPI between December 2021 and June 2023. This inflation rate is applied to all households evenly. More detailed modelling suggests differences in experienced inflation rates across income quintiles are very small (Wood, Chan and Coates 2023).

Endnotes

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[1] 'Traditional' wealth effects in economic literature occur when wealth unexpectedly increases so households have more resources to support and therefore smooth consumption over their lifetime (Friedman 1957; Ando and Modigliani 1963). See May, Nodari and Rees (2019) for an overview of wealth effects.

[2] For each income group, estimates of the total change in real disposable incomes across all households in that group are shown. Only employed or retired households are included. These estimates are obtained by growing forward incomes from various income sources, as well as asset and debt holdings of households observed in the 2019/20 Survey of Income and Housing, based on mostly aggregate trends observed in incomes, inflation, interest rates and yields on assets between 2019 and June 2023. Only labour incomes are grown forward at different rates based on the modelled net income quintile of the household as of December 2021. See Appendix A for details on the modelling.

[3] These measures also do not line up perfectly with the aggregate measures in the Australian National Accounts due to differences in the sample of households modelled, data limitations and assumptions made in the modelling of real disposable income growth across the distribution. See Appendix A for details on how these estimates are derived.

[4] The availability of distributional data on consumption has been very limited historically. New data sources, such as card spending from banks, are yielding insights on household spending across household characteristics and geographic areas. These data are typically timely and detailed but have a range of limitations. Most notably, these sources offer an incomplete read on consumption and suffer from significant compositional shifts among customers and payment types, which can be difficult to control for. Notwithstanding these limitations, these datasets are still useful in understanding the dispersion of spending growth across household groups.

[5] This article was finalised before the release of more timely data on wealth from the survey on Household, Income and Labour Dynamics in Australia.

[6] Households can also borrow money, though little data is available on the distribution of growth in funds borrowed by households. In general, growth in total household borrowings (household credit growth) has been modest in recent quarters.

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