Note on household sector debt and debt-service cost statistics[1,2,3]

by K P Muneri and K Kuhn[4]

Introduction

The household sector's debt-service cost statistics are derived from the outstanding stock of debt, as measured in its balance sheet, in relation to weighted average lending rates. Both debt and debt-service cost to household disposable income render useful ratios for the analysis of household indebtedness and households' ability to service interest payments on debt. In addition, these ratios provide a view on the role of the stock of debt and interest rates in debt-service cost.

This note unpacks the compilation of household debt[5] statistics based on the guidelines of the *System of National Accounts 2008 (2008 SNA)*[6] as well as the derived household debt-service cost[7] statistics and the interpretation of the related ratios of debt and debt-service cost[8] to disposable income.[9]

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1 This note relates to the household sector statistics published in this edition of the *Quarterly Bulletin (QB).* See table KB136 on page S–31 for the weighted average lending rates; table KB631 on page S–141 for disposable income; table KB644 on page S–140 for debt in the household balance sheet; table KB811 and KB812 on page S–161 for ratios; and table KB903 on page E–7 for debt in the integrated economic accounts. The household sector stock and flow statistics are seasonally adjusted, and the ratios are derived from annualised flow statistics.

2 The household sector comprises households, unincorporated business enterprises and non-profit institutions serving households. Households consist of individuals or a small group of individuals who share accommodation, pool income and wealth, and collectively consume goods and services.

3 This note follows related boxes in earlier editions of the *QB*. See 'Undercurrents in household indebtedness' on page 17 in the March 2018 edition of the *QB*, available at https://www.resbank.co.za/content/dam/sarb/publications/quarterly-bulletins/boxes/2018/8355/Undercurrents%20in%20household%20indebtedness.pdf; 'Methodology underlying the compilation of the household sector balance sheet' on page 18 in the September 2020 edition of the *QB*, available at https://www.resbank.co.za/content/dam/sarb/publications/quarterly-bulletins/boxes/2020/10328/Box-1-Methodology-underlying-the-compilation-of-the-household-sector-balance-sheet.pdf; 'A trend analysis of South Africa's credit extension pre- and post-COVID-19'; on page 56 in the June 2023 edition of the *QB*, available at https://www.resbank.co.za/en/home/publications/publication-detail-pages/quarterly-bulletins/boxes/2023/box-1-a-trend-analysis-of-south-africa-s-credit-extension-pre--and-post-COVID-19 and 'Note on the changes in and margins between bank lending and deposit rates for households and corporates since the onset of COVID-19' on page 99 in the December 2022 edition of the *QB*, available at https://www.resbank.co.za/en/home/publications/publication-detail-pages/quarterly-bulletins/articles-and-notes/2022/Noteonthechangesinandmarginsbetween-banklendinganddepositratesforhouseholdsandcorporatessincetheonsetofCOVID19

4 The views expressed in this note are those of the authors and do not necessarily reflect the views of the South African Reserve Bank (SARB). The authors would like to thank Mr M A Kock for his valuable assistance in preparing this note.

5 Household debt liabilities comprise both mortgage advances and other debt as indicated in their balance sheet which require the repayment of the principal debt amount and interest to lenders as well as outstanding accounts payable to creditors.

6 The *2008 SNA* is available at https://unstats.un.org/unsd/nationalaccount/docs/SNA2008.pdf

7 Debt-service cost is the interest payments on outstanding household debt. This excludes the cost of financial intermediation services indirectly measured. See 'Note on the output of the finance, insurance, real estate and business services sector' on page 82 in the September 2017 edition of the *QB*, available at https://www.resbank.co.za/en/home/publications/publication-detail-pages/quarterly-bulletins/articles-and-notes/2017/7983

8 The debt-to-disposable income ratio is calculated as the seasonally adjusted level of household debt *multiplied* by 100 and *divided* by households' seasonally adjusted and annualised net disposable income, and the debt-service cost ratio is calculated as the seasonally adjusted debt-service cost *multiplied* by 100 and *divided* by households' seasonally adjusted and annualised net disposable income. Net disposable income is gross disposable income adjusted for the change in pension entitlements, a residual and the consumption of fixed capital.

9 Households' gross disposable income is income available to households, such as wages and salaries, income from self-employment and unincorporated enterprises, income from pensions and other social benefits, and income from financial investments (after deducting tax payments, social insurance contributions and interest on financial liabilities). For the methodology underlying the compilation of disposable income, see 'Methodology underlying the compilation of household saving and net lending/borrowing' on page 21 in the December 2019 edition of the *QB*, available at https://www.resbank.co.za/content/dam/sarb/publications/quarterly-bulletins/boxes/2019/10332/Methodology-underlying-the-compilation-of-household-saving.pdf; and 'Household wage and income statistics' on page 18 in the March 2020 edition of the *QB*, available at https://www.resbank.co.za/content/dam/sarb/publications/quarterly-bulletins/boxes/2020/10320/Box-1-Household-wage-and-income-statistics.pdf

Household debt

Household debt is compiled from counterpart institutional sector statistics (i.e. measured from surveyed lender and creditor statistics). The household sector's financial liabilities comprise debt which, in turn, consists of amounts borrowed through loans[10] and other outstanding accounts payable.[11] Loans comprise different types of loans with specific characteristics and could be either short term[12] or long term[13] in nature.

Short-term loans include credit cards, overdrafts as well as personal and other loans, while long-term loans include mortgage advances,[14] instalment sale credit, leasing finance as well as other loans and advances. For both short- and long-term loans, counterparty data are sourced from monthly banking sector regulatory returns;[15] quarterly non-bank institution returns; financial reports of public sector institutions; annual agricultural debt from the Department of Agriculture, Land Reform and Rural Development; and the census of commercial agriculture by Statistics South Africa (Stats SA). Counterparty data for other accounts payable are also sourced from banks and non-financial institutions as well as public sector institutions. In addition, data on household debt at local authorities are sourced from National Treasury.

The outstanding balance of household debt in South Africa grew at an average annual rate of 5.2% from 2015 to 2022 and amounted to R2 783 billion in the second quarter of 2023, of which credit extended by the banking sector[16] accounted for 75.0%, while non-bank institutions accounted for 25.0%. The amounts payable to municipalities constitutes 8.3% of non-bank debt. Mortgage advances, the single-largest credit category, accounted for 45.7% in the second quarter of 2023, with its contribution decreasing from 48.7% in the first quarter of 2015 as the relative exposure to short-term loans and other accounts payable increased.

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10 Loans are financial assets in the balance sheet of creditors and financial liabilities in the balance sheet of debtors, and are created when a creditor lends money to a debtor. Loans include all loans and advances extended by banks, finance companies and other credit providers but exclude trade credit, receivables and payables. The outstanding stock of loans is the amount of outstanding principal and accrued interest.

11 Other accounts payable are financial liabilities of the household sector which are created due to a timing difference between the receipt of goods or services from either financial or non-financial transactions and the corresponding payments.

12 Short-term loans have an original maturity of one year or less.

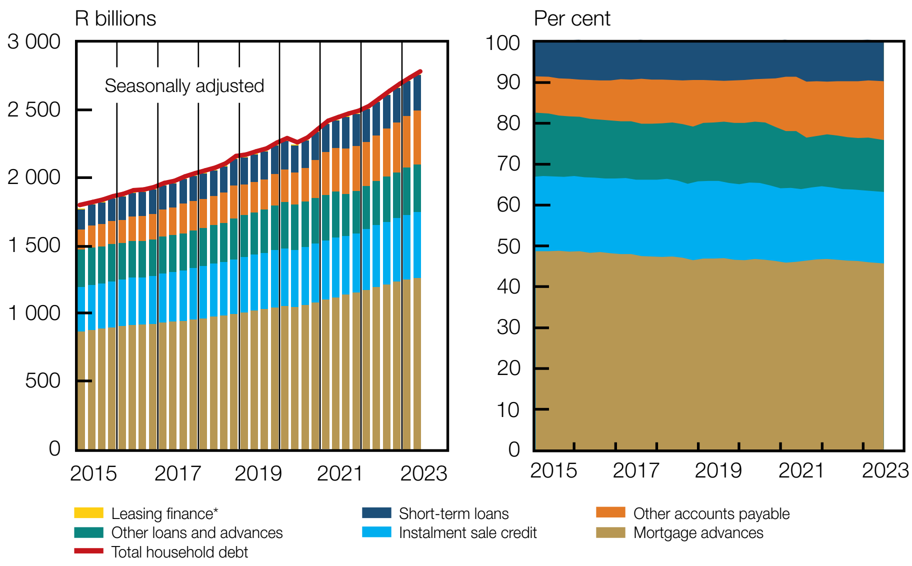
13 Long-term loans have an original maturity of more than one year.

14 Mortgage loans include advances on residential and agricultural property to households by banks and non-bank financial institutions as well as securitised mortgages.

15 The monthly BA900 return, with a breakdown of financial instruments, counterparty institutional sectors, and the outstanding maturity of banking sector assets.

16 Banking sector loans include overdrafts, credit cards, cash advances credit, mortgage advances, leasing finance, instalment sale credit as well as other loans and advances.

Figure 1 Level and composition of household debt



* Not visible due to relative size

Source: SARB

Household debt-service cost

Household debt-service cost reflects only interest payments and not the repayment of capital, otherwise known as the principal amount borrowed. Debt-service cost is estimated from the debt statistics already discussed and the applicable weighted average lending rates.[17] In the compilation process, the seasonally adjusted stock of a specific type of debt is multiplied by the appropriate weighted average interest rate to derive the debt-service cost of the specific credit category, which is then summed across all credit categories to obtain the total debt-service cost, also known as the financing cost.

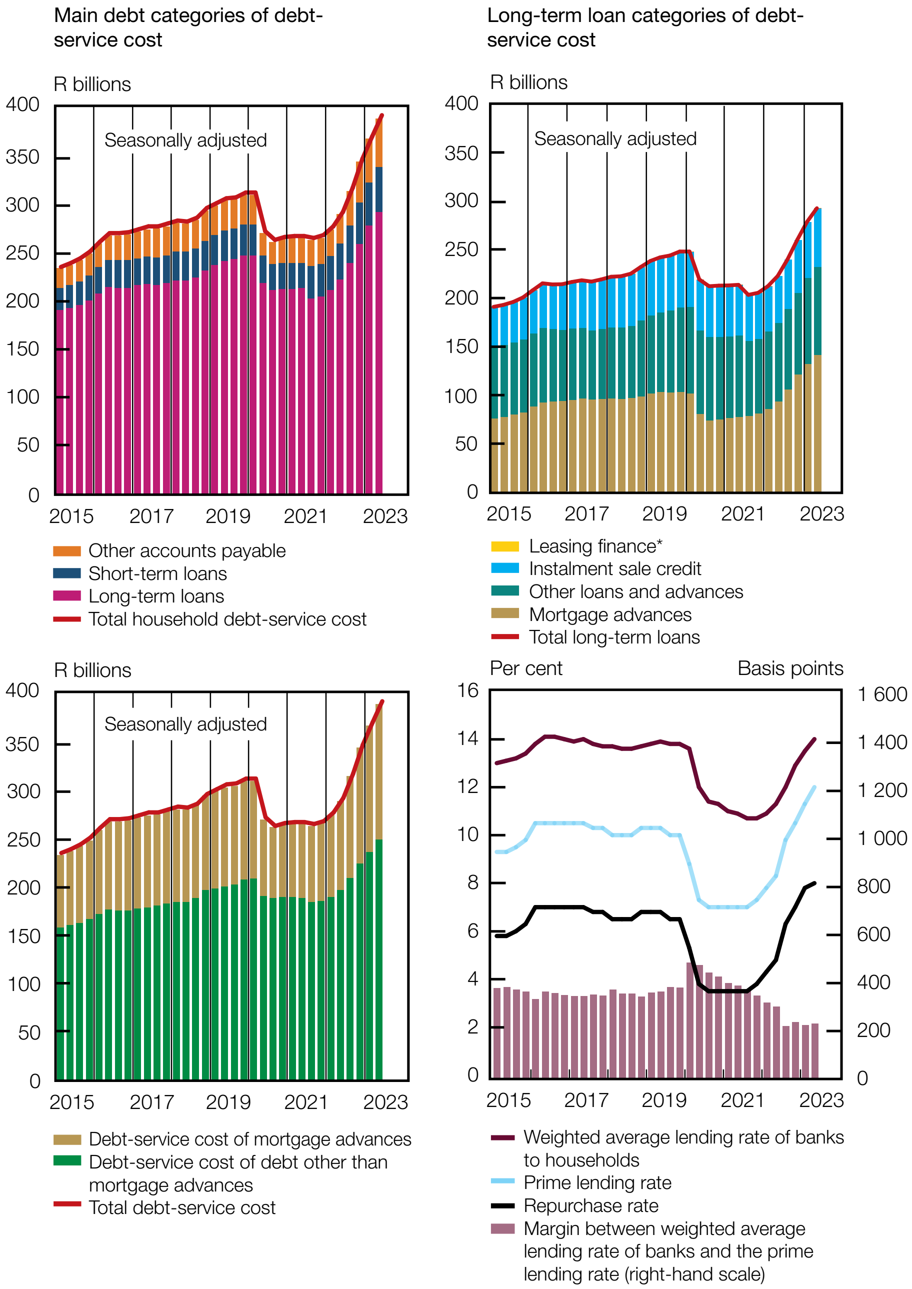
The interest rates on other long-term loans and advances, such as unsecured general loans, are higher than that on other types of debt, such as mortgage advances, which benefit from collateral and a longer repayment period. In addition, on average, from the first quarter of 2015 to the second quarter of 2023, 67.2% of households' debt-service cost related to debt other than mortgage advances. The prime lending rate[18] is at a constant margin of 350 basis points to the repurchase (repo) rate,[19] while the weighted average interest rate paid by households on debt is at a margin to the prime lending rate. This margin narrowed during the current upward phase in interest rates, thus alleviating the impact on households' debt-service costs to some extent. However, it is evident that a positive relationship exists between increases and decreases in interest rates and total household debt-service cost.

17 These are monthly weighted average bank deposit and lending rates per type of deposit and loan for corporates and households as well as for the economy as a whole, sourced from the BA930 return. See page S–31 in this edition of the *QB*. In addition, supplementary interest rate data are sourced from non-bank financial institutions and the public sector.

18 The prime lending rate is the rate from which banks price loans to households.

19 The repo rate is determined by the SARB's Monetary Policy Committee and is the interest rate at which private sector banks borrow from the SARB.

Figure 2 Composition of household debt-service cost and interest rates



* Not visible due to relative size

Source: SARB

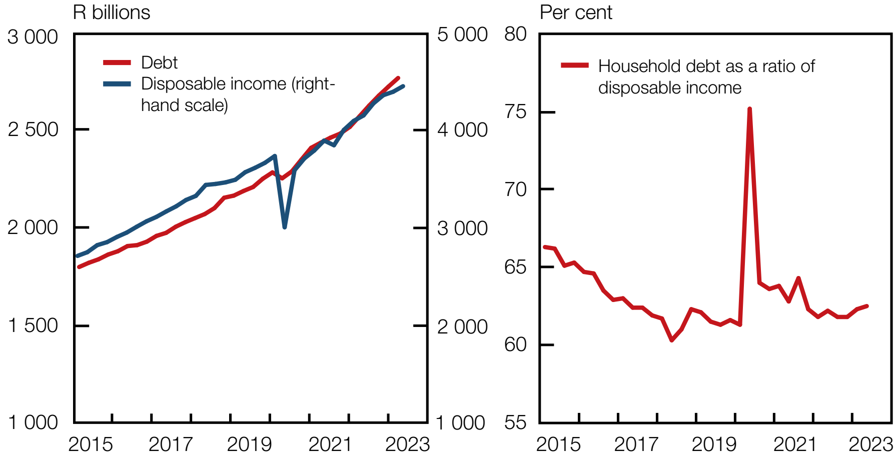
Ratios of household debt and debt-service cost to disposable income

Household debt to disposable income[20] is an indicator of the level of household indebtedness, with the ratio showing the percentage of households' annual disposable income required to repay the principal amount borrowed and any accrued interest. An indebtedness ratio above (below) 100% indicates that the household sector's outstanding stock of debt is larger (less) than the annual flow of disposable income. The ratio also gives an indication whether households could incur further debt to support final consumption expenditure.

20 The debt-to-disposable income ratio is calculated as the seasonally adjusted household debt *multiplied* by 100 and *divided* by the seasonally adjusted annualised household disposable income. The household debt-to-disposable income ratio is an indicator of the level of indebtedness and whether there is scope for the further incurrence of debt to support consumption expenditure without disposing of financial and non-financial assets.

The level of household indebtedness (i.e. household debt to disposable income) averaged 63.2% from the first quarter of 2015 to the second quarter of 2023, with a spike to 75.2% during the coronavirus disease 2019 (COVID-19) lockdown when disposable income decreased significantly more than debt.

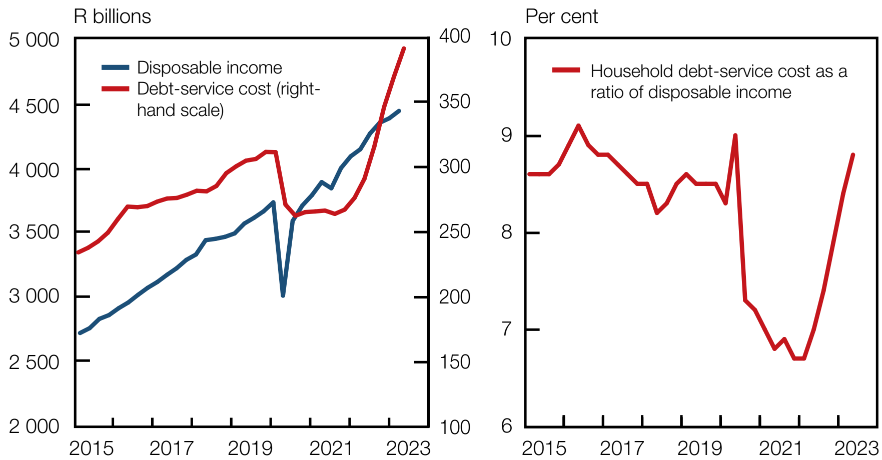
Figure 3 Household debt and disposable income



Seasonally adjusted
Source: SARB

Household debt-service cost to disposable income[21] is an indicator of households' ability to service interest payments on debt, with the ratio showing the percentage of households' annual disposable income required to service interest payments on outstanding debt. The ratio shows how much disposable income is diverted away from consumption expenditure to pay interest on current debt and gives an indication if households could, from a cash flow perspective, afford to incur further debt to support final consumption expenditure.

Figure 4 Household debt-service cost and disposable income



Seasonally adjusted
Source: SARB

Household debt-service cost as a percentage of disposal income increased sharply from 6.7% in the first quarter of 2022 to 8.8% in the second quarter of 2023, along with both an increase in interest rates and the further increase in the outstanding stock of debt as well as a slower pace of increase in disposable income. This compares with the pre-pandemic average ratio of 8.5% in 2019.

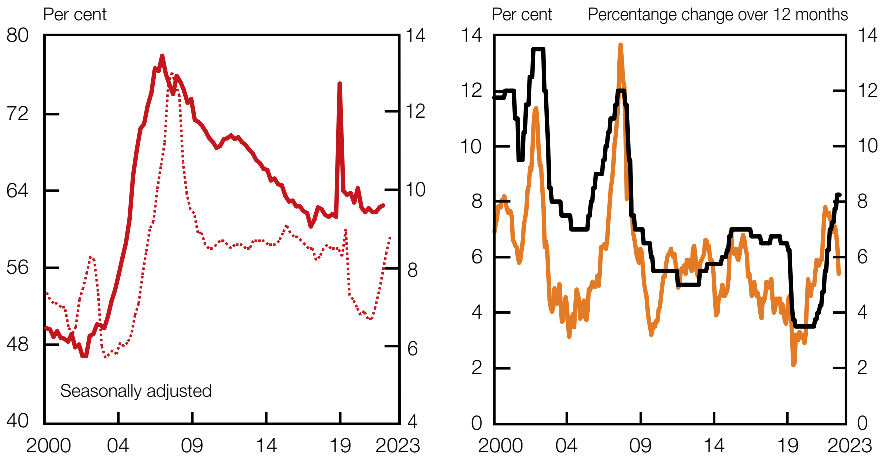
21 This indicator is calculated as aggregate seasonally adjusted debt-service cost, which reflects interest payments, *multiplied* by 100 and *divided* by seasonally adjusted annualised household disposable income.

Debt, interest rates and debt-service cost over the long term

In general, higher debt-service cost goes hand in hand with the accumulation and higher level of debt as reflected by the ratios of both measures to disposable income. Household indebtedness and the ability to service interest payments could be mitigated by a slower accumulation of debt, the repayment of debt and/or an increase in disposable income. In addition, debt-service cost is affected by higher interest rates during periods of high inflation, which reduces disposable income available for consumption.

Figure 5 Household indebtedness and ability to make interest payments

Interest rates and inflation



Household debt to disposable income
Household debt-service cost to disposal income (right-hand scale)

Repurchase rate
Consumer price inflation: official target (right-hand scale)

Sources: Stats SA and SARB

Conclusion

The household sector's debt and debt-service cost statistics, together with related ratios to disposable income, facilitate the analysis of household indebtedness and the ability to service interest payments on debt. They also indicate the role of the accumulated level of outstanding debt and interest rates respectively on debt-service cost.