

Staff memo

Drivers and implications of the strong growth in consumption loans

Peter van Santen
Financial Stability Department

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A staff memo provides members of the Riksbank's staff with the opportunity to publish slightly longer qualified analyses of relevant issues. It is a publication for civil servants that is free of policy conclusions and individual standpoints on current policy issues. Staff memos are approved by the appropriate Head of Department.

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Summary

Peter van Santen¹

The author works in the Financial Stability Department of the Riksbank

Consumption loans are a small but growing share of household debt. Over the last year, the growth rate of consumption loans has increased sharply, from less than 3 per cent per year in mid-2016 to above 8 per cent in recent months. This development may increase the vulnerability of households to disturbances in their economic situation, as consumption loans have high interest rates.

This staff memo describes the market for consumption loans in more detail. It shows that consumption loans are mostly extended by the major banks and by specialised consumer credit banks, whose core business is to grant loans without collateral. Consumer credit banks contributed 73 per cent of the growth in consumption loans between June 2016 and June 2017. The article also describes some specific features of these companies, such as higher levels of capital but also higher shares of non-performing loans, relative to the major banks.

Many factors can help explain why the growth rate of consumption loans has increased. One driver could be technological changes in payments, shopping and banking, all of which are increasingly being conducted online. The ease of access to unsecured loans through online platforms, where consumer credit banks are active, and the possibility of paying with credit are likely to increase the growth rate of consumption loans. Another driver might be borrowers seeking to circumvent macroprudential policies concerning mortgage loans, such as the loan-to-value limit and the amortisation requirement. These policies have been implemented against the backdrop of high and rising household indebtedness. Importantly, the growth rate of total household credit (mortgages plus consumption loans) has declined since the amortisation requirement was implemented. Yet there are features of the amortisation requirement that might have contributed to an increased usage of consumption loans. However, it is difficult to rationalise a household's decision to substitute mortgage loans for consumption loans, given the higher interest rate and the need to amortise consumption loans as well. The effectiveness of the amortisation requirement to increase household resilience could be enhanced further by limiting the scope for substitution into consumption loans.

It is important to monitor how consumption loans develop going forward, as structural transformations in payment, shopping and banking are likely to continue, and macroprudential policy is likely to stay in place.

¹ The author wishes to thank many colleagues for discussions and helpful suggestions. The opinions expressed in this report are those of the author and are not necessarily shared by the Riksbank.

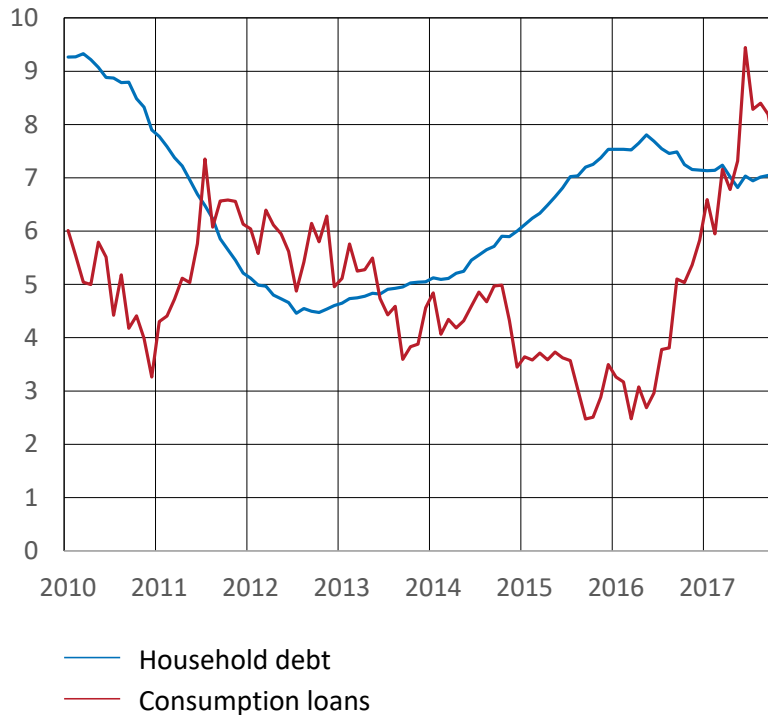
Introduction

Consumption loans have become more popular. After having fallen for five years, the annual growth rate of such loans increased sharply from 3 per cent in June 2016 to 9.5 per cent in June 2017, and around 8 per cent thereafter. Current growth rates are above the historical trend, and the market is now growing faster than total credit to households (see Figure 1).

Consumption loans are loans to households without collateral. Despite what the name might suggest, such loans can be used for any purpose, such as to start up a small business, to renovate a home, to finance the down payment for a new home purchase or to go on holiday. Some of these activities might be better described as investments, rather than pure consumption. Nevertheless, following common and international practice, I will stick to the term consumption loans throughout this article.

Figure 1. Growth rates of household debt and consumption loans

Annual percentage change



Note: Annual growth rates have been adjusted for reclassifications and bought and sold loans.

Source: Statistics Sweden.

Their uncollateralised nature makes consumption loans more risky for lenders, which is why consumption loans carry higher interest rates. Currently, the average interest rate is approximately 4.7 per cent for consumption loans, compared to 1.7 per cent for housing loans.² Back in 2011, average interest rates on consumption loans were 8 percent (see Figure 2). Often, unsecured loans are repaid according to an annuity repayment schedule, which implies that total debt service (at unchanged rates) would be constant over the maturity of the loan, by front-loading interest expenditures and back-loading amortisation payments. Such annuity loans are very profitable for lenders, as a large part of the interest payments are already made even if the household repays or refinances the loan before the termination date.³

In total, about SEK 200 billion in consumption loans is extended to households in Sweden. Nearly 80 per cent of this is in the form of unsecured credits, the remaining 20 per cent being

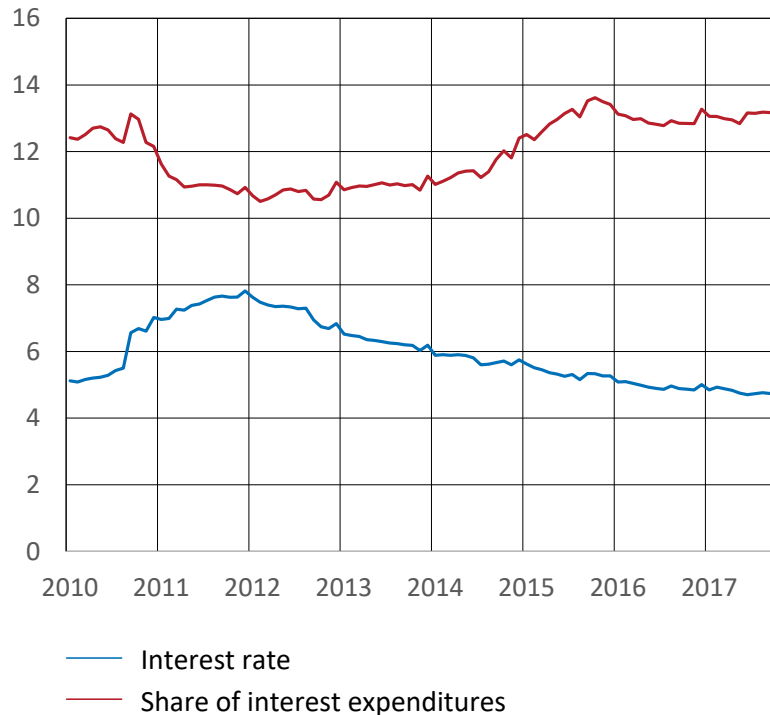
² The official statistics on average interest rates from Statistics Sweden are derived from bank reporting, where the largest entities are sampled every month. Listed interest rates on the websites of smaller banks offering consumption loans or credit card companies can be substantially higher. In addition, fees can be high, especially for credit cards but even for unsecured credits.

³ See Consumer protection on the financial market, Finansinspektionen, 11 May 2017, p. 13-16 for more details regarding annuity loans.

credit card debts. Relative to total household credit, the market for consumption loans is therefore small: consumption loans account for 5.4 per cent of total household credit. But such loans also account for 13 per cent of households' interest expenditure, reflecting the substantially higher interest rates for consumption loans (see Figure 2). This share has even increased somewhat since 2012, despite housing loans growing faster than consumption loans and interest rates falling, which primarily reflects the fact that mortgage rates have fallen even more over this period.

Figure 2. Consumption loan interest rate and share of interest expenditure

Per cent



Sources: Statistics Sweden and the Riksbank.

In this staff memo, the market for consumption loans is described in more detail. It shows that consumption loans are largely extended by relatively smaller financial firms, whose core business is to grant loans without collateral. The article also describes some specific features of these companies, such as a greater reliance on deposits to fund loans and higher levels of capital, as well as higher shares of non-performing loans, relative to the major banks.

The timing of the increase in the growth rate of consumption loans coincides with the implementation of the amortisation requirement for new mortgage loans. In general, it is difficult to rationalise a household's decision to substitute consumption loans for mortgage loans, due to the higher interest rate and the need to amortise consumption loans as well. In other words, for the same amount borrowed, debt service tends to be higher for consumption loans than for mortgage loans. Nonetheless, the timing of the increased growth rate of consumption loans suggests that some households may have used such loans to circumvent the amortisation requirement. Importantly, the growth rate of total credit to the household sector (mortgages plus consumption loans) has declined since its implementation.

It is important to monitor how consumption loans develop going forward, as macroprudential policy is likely to stay in place. Furthermore, technological developments in payments, shopping and banking are likely to continue, which is likely to increase the usage of consumer credit as well. Finally, consumer credit is increasingly granted by small but rapidly growing banks specialised in unsecured lending. These banks have much higher levels of non-performing loans and less diversified business models.

Which banks are expanding?

Statistics on household credit reported by Statistics Sweden, known as Financial Market Statistics, are released by aggregating across all reporting entities. These entities, typically referred to as Monetary Financial Institutions (MFIs), include all banks and credit market companies (hereafter referred to as “banks” in this article) active in Sweden.⁴ Reporting is conducted by individual entities, allowing us to show developments for different types of banks. The classification used in this article is shown in Table 1.

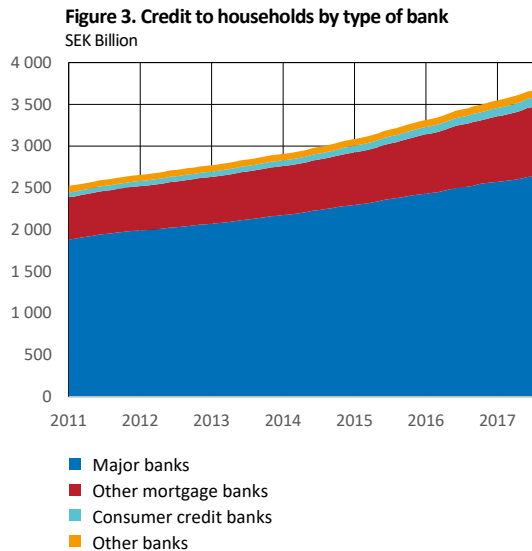
Table 1. Classification of reporting entities into types of banks

Type of bank	Definition	Banks included
Major banks	All entities belonging to one of the four major banks	Handelsbanken, Nordea, SEB, Swedbank
Other mortgage banks	Other banks that mostly extend mortgages	A.o. BlueStep, Danske Bank, Länsförsäkringar, SBAB, Skandiabanken
Consumer credit banks	Banks specialised in unsecured lending	A.o. Collector, Coop MedMera, FOREX, ICA, Klarna, Marginalen, Nordax, NordNet, Resurs, Santander, SevenDay, Svea
Other banks	Remaining reporting entities	A.o. Avanza, DNB, Volkswagen Finans, Volvo Finans

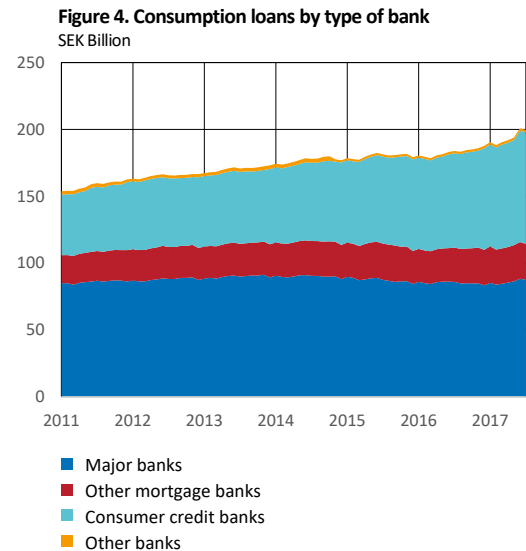
Note: There were 127 reporting entities in Financial Market Statistics data in June 2017. All entities are first consolidated into bank holding groups, and these are subsequently classified according to public information on the bank's Swedish household lending portfolio or core activities from websites or annual reports.

Sources: The Riksbank, company annual report and websites.

Figure 3 shows the breakdown of total credit to the household sector by type of bank as defined in Table 1. By June 2017, the major banks have extended SEK 2 600 billion in credit, corresponding to a market share of 72 per cent. Other banks whose business model primarily consists of mortgages have a market share of 23 per cent, across all types of loans. Consumer credit banks have a market share of only 3 per cent. Over time, the growth in household credit comes primarily from the major banks and other mortgage banks.



Source: The Riksbank.



Source: The Riksbank.

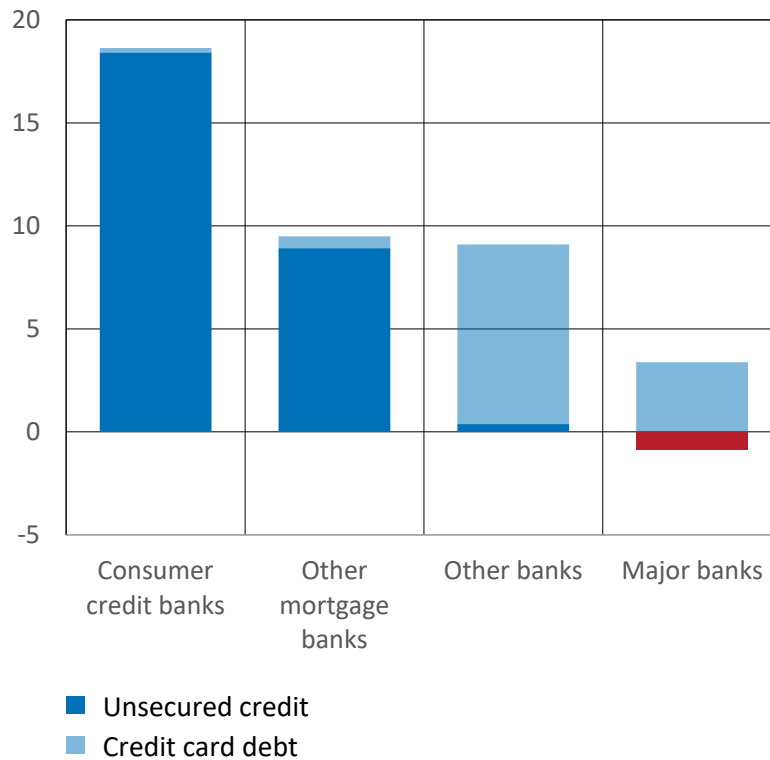
⁴ Consumer credit institutions are not included in the MFI definition. These companies account for about 3 % of all consumption loans. See Consumer protection on the financial market, Finansinspektionen, 11 May 2017.

A different view emerges once we zoom in on the market for consumption loans (see Figure 4). In this segment, the major banks have a market share of 44 per cent. Consumer credit banks have a market share of 41 per cent, and other mortgage banks make up 14 per cent of uncollateralised lending. Figure 4 clearly illustrates that consumer credit banks have been expanding over the last years, while volumes are relatively constant over time for the other banks.

On the consumer credit segment, consumer credit banks are currently growing much faster than the other banks.⁵ Figure 5 shows growth rates for the four types of banks in the market for consumption loans. Consumer credit banks grew by 18.6 per cent between June 2016 and June 2017, almost all of which comes from unsecured loans.⁶ The major banks' consumption loans grew by 3.4 per cent, though this is entirely due to growth in credit card debt. In fact, the major banks' portfolio of unsecured credits shrunk somewhat in this period.

Figure 5. Growth rate of consumption loans by type of bank

Per cent change, June 2016 – June 2017.



Note: Red bars denote a negative growth rate.

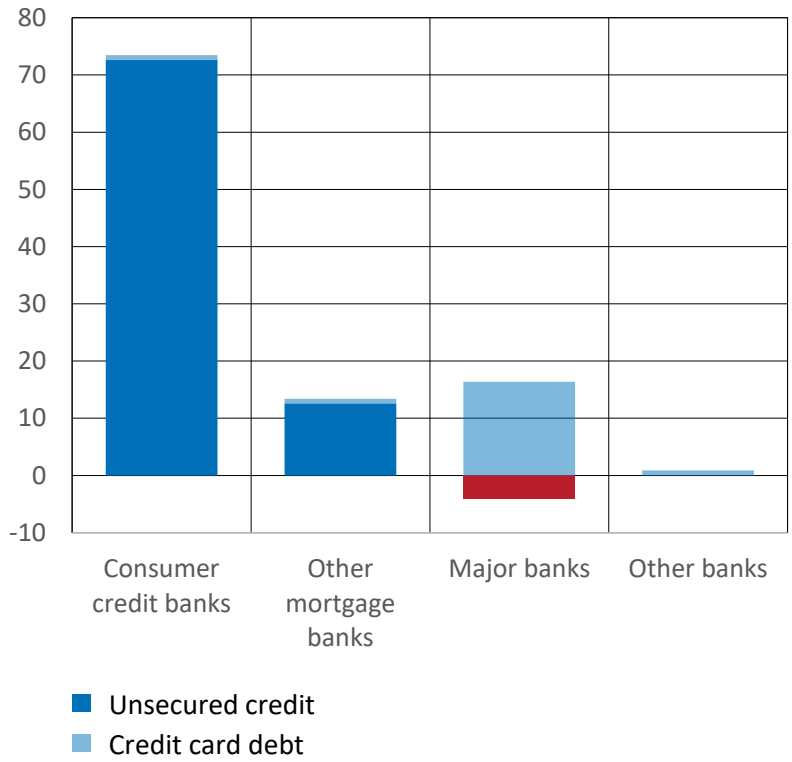
Source: The Riksbank.

Figure 6 shows that 73 per cent of the recent increase in popularity of consumption loans can be attributed to consumer credit banks. In other words, out of every 100 kronor in consumption loans lent out to households since June 2016, 73 kronor were granted by a bank specialised in consumer credits. This figure is even higher when looking at the period January 2011 – June 2017, in which 80 kronor out of every 100 came from consumer credit banks.

⁵ The consumer credit banks are also growing at higher rates when taking all types of loans, including mortgages, into account. The major banks grew by 5.3 per cent for all household credit during June 2016 and June 2017. Other mortgage banks grew by 10.7 per cent, and consumer credit banks by 19.2 per cent.

⁶ Since the growth rate of 18.6 per cent is an aggregate for a number of entities, it is clear that some entities are growing even faster, with growth rates observed of up to 65 per cent.

Figure 6. Contribution to growth of consumption loans by type of bank
 Per cent contribution, June 2016 – June 2017.



Note: Red bars denote a negative contribution.
 Source: The Riksbank.

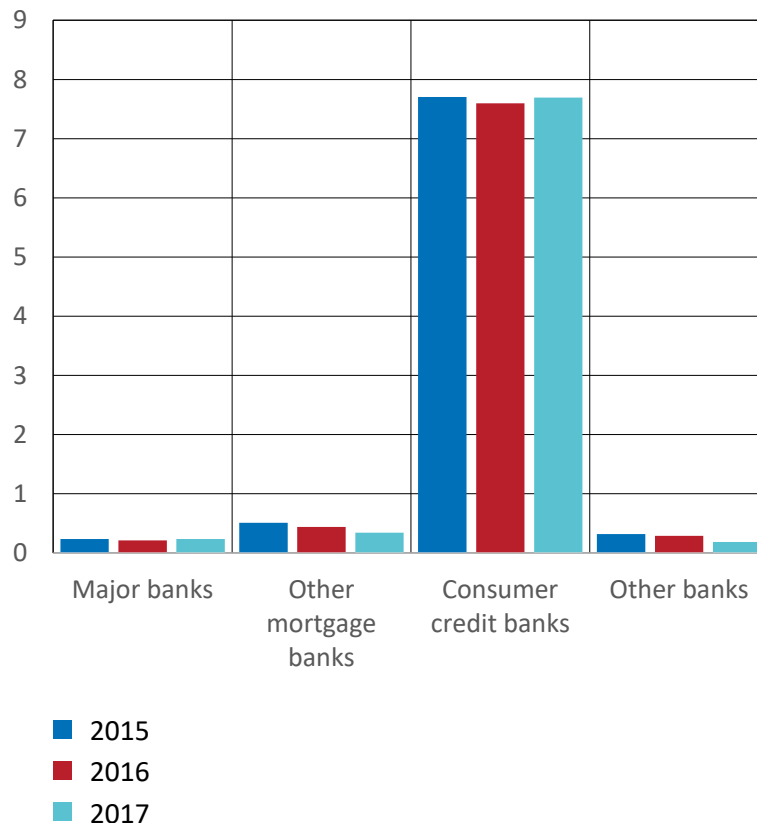
How stable are consumer credit banks?

As shown above, growth in the market for consumption loans is mostly coming from specialised banks. It then becomes natural to question how stable these lenders are, and to compare the business model of consumer credit banks with that of the major banks and other banks.

Consumer credit banks have much higher levels of non-performing loans compared to other banks (see Figure 7). A loan is called non-performing if required debt service payments (interest and/or amortisation) have not been made for at least 90 days, or if it is at risk of not being repaid without seizing collateral.⁷ For every 100 kronor lent to Swedish households by consumer credit banks, almost 8 kronor are not performing. In contrast, the major banks and other (mortgage) banks have had non-performing loan ratios well below 1 per cent in recent periods. That consumer credit banks have higher NPL ratios is mostly coming from a less diversified lending portfolio, and much less so from a higher share of non-performing consumer credits. Even though the risk profile of consumer credit loans is similar between major banks and consumer credit banks, the major banks have many mortgages loans outstanding, virtually all of which are performing.⁸

Figure 7. Non-performing loans to Swedish households by type of bank

Per cent of lending to Swedish households.



Note: Data for 2017 refers to June, other years to December. Shown is the ratio between non-performing loans to Swedish households and total lending to Swedish households.

Source: The Riksbank.

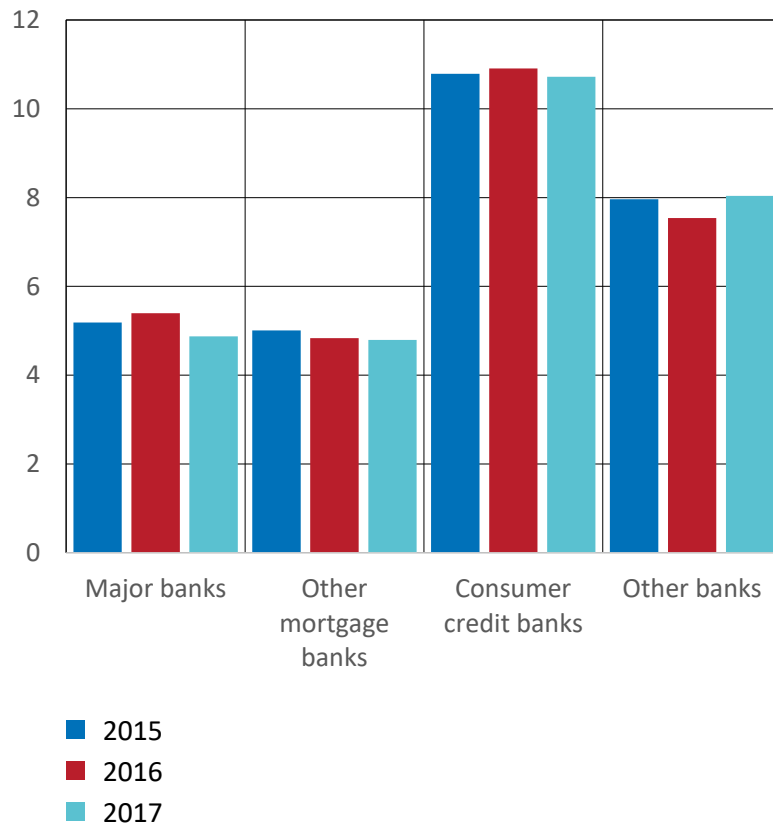
⁷ As consumption loans are uncollateralised by definition, only the 90 days late criterion applies to such loans. For all loans secured by collateral (such as mortgages) both criteria apply. Note that both collateralised and uncollateralised loans extended to Swedish households enter the non-performing loan ratio presented in Figure 7.

⁸ The interest rate on consumer credits is much higher to reflect the difference in the likelihood of getting repaid. In itself, a higher share of non-performing loans is therefore not necessarily a problem, as long as the profits on performing loans outweigh the credit losses on non-performing loans.

Consumer credit banks also have relatively high levels of capital. Figure 8 shows the ratio of book equity to total assets⁹ for the four types of banks. Consumer credit banks' equity ratios are just above 10 per cent, compared to less than 5 per cent for the major banks. While having more capital, this does not necessarily imply that consumer credit banks are sufficiently capitalised, as the Riksbank has suggested ratios of 5-12 percent for the major Swedish banks¹⁰, which have (on average) much safer loan portfolios. Internationally, it has also been typical for smaller banks to have higher levels of equity, as less systemically-important banks are less likely to receive capital injections or other forms of assistance from national governments should stress arise.¹¹ Hence, the higher levels of capital in consumer credit banks can reflect both their smaller sizes as well as their riskier loan portfolios, relative to the major banks, and might still be lower than the social optimum.

Figure 8. Equity to asset ratios by type of bank

Per cent of total assets.



Note: Data for 2017 refers to June, other years to December. Shown is the ratio between book equity and book assets. Sources: Company financial reports and the Riksbank.

Finally, consumer credit banks have relatively high levels of deposit funding (Figure 9) compared to other banks. Deposits are even slightly larger than total loans for consumer credit banks. As both deposits and equity are relatively high, consumer credit banks rely little on market funding, such as interbank borrowing or commercial paper. According to regulatory liquidity metrics such as the LCR and NSFR, deposits are considered a relatively stable source of funding. While deposits are, in principle, subject to bank runs, deposit insurance makes deposits a relatively stable source of funding, compared to market funding, which proved volatile during the recent financial crisis for many major banks around the world. Many

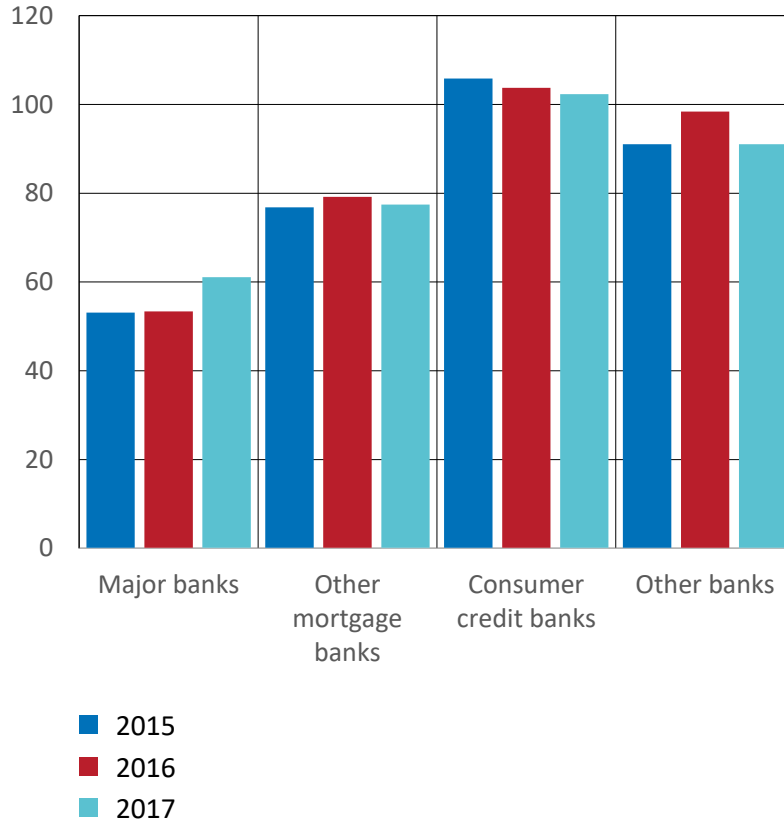
⁹ The data does not contain information on typical regulatory capital ratios, such as Common Equity Tier 1 capital relative to risk-weighted assets or the leverage ratio. The major Swedish banks have high risk-weighted capital ratios (by international standards) but low non-risk-weighted leverage ratios.

¹⁰ Appropriate capital ratios in major Swedish banks – new perspectives. Riksbank staff memo, May 2017.

¹¹ The resolution framework established in the Bank Recovery and Resolution Directive (Directive 2014/59/EU) might change this going forward, and reduce the too-big-to-fail problem for large banks. For more information see "The bail-in tool from a Swedish perspective", Sveriges Riksbank Economic Review 2014:2, p. 23-51.

consumer credit banks offer positive interest rates on insured deposits, even in the current negative interest rate environment. Whether deposits at smaller specialised banks are as stable as deposits at large banks remains an open question, as the stability of deposits at individual banks depends on many factors.

Figure 9. Deposit to loan ratios by type of bank
Per cent of lending to the public.



Note: Data for 2017 refers to June, other years to December. Shown is the ratio between deposits and lending.
Sources: Company financial reports and the Riksbank.

Overall, consumer credit banks have riskier assets on their balance sheet, but this is partly mitigated by higher levels of capital. Consumption loans also carry higher interest rates, to compensate for the risk of non-performing loans.

What is driving the increased growth rate of consumption loans?

Various factors could be playing a role in the increased growth rate of consumption loans. In Sweden, the interest rate on consumption loans has kept declining in recent months, while mortgage rates have remained constant, making consumption loans relatively more attractive (though still more expensive). In addition, credit card companies offer rewards (such as miles or points) whenever purchases are made with their cards. Such rewards might have become relatively more valuable as many banks are offering zero interest rates on deposits in the current expansionary monetary policy environment.

In addition, the expanding consumer credit banks have a strong online presence, making unsecured credits more accessible. For instance, many of these banks offer unsecured loans through platforms like FreedomFinance, Lendo, MyLoan, Sambla or Zmarta. Such technological progress, in addition to structural transformations in payments, shopping and banking, all of which are increasingly being carried out online, could also be contributing to the usage of unsecured credits and credit cards.

Moreover, economic growth is currently high in Sweden, yet, at the same time, wage growth has been less impressive. Taking a consumption loan can allow households to smooth consumption over time, in response to expected income increases in the future.

The implementation of macroprudential policies targeting mortgage borrowers might play a role as well. The loan-to-value limit introduced in 2010, and, more recently, the amortisation requirement, have been implemented against the backdrop of high and rising household debt, and are intended to increase the resilience in the household sector against house price declines, rising interest rates and other disturbances. The timing of the implementation of these policies and the increased growth rate of consumption loans suggests a possible link. Both the loan-to-value limit and the amortisation requirement concern (new) mortgage loans, and it cannot be ruled out that some households may have used consumption loans to circumvent the requirements. Importantly, the growth rate of total credit to the household sector (mortgages plus consumption loans) has declined since the implementation of the amortisation requirement.

That the loan-to-value limit might have resulted in more consumption loans should not be surprising, as households need to provide 15% of the value of the home in cash. Some households might have used consumption loans to be able to afford their preferred dwelling. Even if the growth rate of consumption loans increased by around 4 percentage points in the months following its implementation, the aggregate volumes remained fairly low. One might have expected an even bigger increase in the aggregate volume of consumption loans.

Some features of the amortisation requirement might also have resulted in an increased uptake of consumption loans.¹² The regulation specifies two cut-offs for the loan to value (LTV) ratio that determines the rate of repayment: no required amortisation for loans below 50 % of the market value of the property, one per cent per year for an LTV ratio between 50 and 70 per cent, and 2 per cent per year for loans at 70 per cent LTV or above. Such sharp cut-offs might result in households trying to stay just below the cut-off. The appendix presents a hypothetical numerical example, which shows that it is possible for households to have lower initial debt service payments when taking a small consumption loan in combination with a mortgage loan just below the LTV threshold when buying a home. However, the same example also makes clear that such a substitution of mortgages into consumption loans will increase the households' interest expenditures, and even its amortisation payments in the longer run.

¹² See also Isaiah Hull, Amortization requirements and household indebtedness: An application to Swedish-style mortgages, *European Economic Review* 91 (2017), p. 72-88, for a general equilibrium model that computes the effects of the amortisation requirement on household indebtedness in Sweden. The model predicts a small effect on aggregate indebtedness, stemming from the option to refinance mortgage loans and an increase in consumption loans.

Hence, it is difficult to rationalise taking consumption loans instead of mortgage loans with the sole purpose of avoiding the requirement.

Recently, Finansinspektionen proposed regulations to sharpen the existing amortisation requirements¹³, in order to increase resilience in the household sector. From March 2018 onwards, households with LTV ratios above the same cut-offs as above, as well as households with mortgage debt exceeding 450 per cent of their gross income, will amortise more on new mortgage loans. The Riksbank welcomes this sharpened amortisation requirement, as it will incentivise households to amortise their loans, and might slow down the growth in household credit.

As the Riksbank noted in its consultation response,¹⁴ it would be better to specify limits in terms of total debt to income, rather than mortgage debt to income. One advantage of this is that it would avoid possible substitution between mortgages and unsecured loans. It is necessary to establish a nationwide credit registry documenting all loans taken by all individuals to enforce a regulation based on total debt to income. If a credit registry is in place, it could further enhance the effectiveness of the amortisation requirement. In the meantime, implementing the regulation based on mortgage debt to income will still increase the resilience of the household sector.

Another channel through which the amortisation requirement might have increased the growth rate of consumption loans is that the requirement might have made it more difficult or expensive to withdraw equity from the home, to finance, for instance, a car purchase or a renovation.¹⁵ Households might be afraid that a (small) additional mortgage loan would trigger the amortisation requirement on the entire mortgage amount, and take a consumption loan instead. Again, this strategy is hard to rationalise, since interest expenditure (which constitutes the real cost of borrowing money) would be higher when taking such a consumption loan. Moreover, the regulation specifies that only the additional mortgage loan would need to be amortised (by 10 per cent per year), and therefore an equity withdrawal would not trigger the amortisation requirement on the entire mortgage loan.

While it seems difficult to rationally explain the increased consumption loan growth rate with the amortisation requirement, the above examples make clear there might be circumstances where households are tempted to substitute consumption loans for mortgage loans. An increase in consumption loans is not particular to Sweden but is also being observed in other countries such as Finland¹⁶, Norway and the UK¹⁷. In Norway, several macroprudential measures have been implemented since 2009, such as a maximum loan-to-value ratio, an amortisation requirement and, more recently, a debt-to-income limit. Economists at Norges Bank also note that these tighter mortgage regulations might have influenced the demand for consumer credit.¹⁸

¹³ Finansinspektionen Remisspromemoria, FI Dnr 17-9236, 22 June 2017.

¹⁴ Consultation response regarding the proposal to introduce a stricter amortisation requirement for new mortgage holders with high loan-to-income ratios, Riksbanken Reg no. 2017-00564, 8 September 2017.

¹⁵ See Jieying Li and Xin Zhang, House Prices, Home Equity, and Personal Debt Composition, Sveriges Riksbank Working Paper 343, October 2017, for an analysis of home equity withdrawals in response to house price growth in Sweden.

¹⁶ Bank of Finland Bulletin 2/2017.

¹⁷ Bank of England Financial Stability Report, June 2017.

¹⁸ Norges Bank Economic Commentaries, No 1 2017.

Concluding remarks

The growth rate of consumption loans has increased in recent months. This staff memo has shown that most of the increase in consumption loans comes from relatively small, specialised banks, and not from the major or other larger banks. Consumer credit banks provide 73 out of every 100 kronor extended to households in recent periods.

These banks have relatively high capital ratios, which is typically seen as a positive attribute for financial stability. However, the assets of these banks are much riskier: non-performing loans are a much higher fraction of total loans for consumer credit banks. It is unclear whether the high capital ratios would be sufficient, should the economic environment deteriorate.

Several factors help explain the increased growth rate of consumption loans, such as the ease of access to such loans through online platforms, and technological progress changing the way we make payments, conduct (online) shopping and interact with banks. The amortisation requirement implemented a year ago may also have contributed to the increased growth rate of consumption loans. Households might be tempted to take consumption loans, either to finance the required down payment when purchasing a new home or to finance renovations or durable goods such as cars. Substituting a mortgage loan for a consumption credit can result in lower debt service payments in the short run. However, such strategies are almost always more expensive over longer periods. Should the increased growth rate of consumption loans be a result of the amortisation requirement, the higher interest rate and the need to amortise consumption loans as well makes this strategy difficult to rationalise.

It is important to monitor whether consumption loans keep growing strongly in coming periods. Technological progress in payments, shopping and banking are likely to continue, and macroprudential policies are likely to stay in place. Consumption loans are still a small but growing share of household debt. An increase in consumption loans risks increasing the vulnerability of households to disturbances in their financial position, given the high interest rates. It is therefore important to monitor developments on this market for macroeconomic and financial stability.

Appendix

This appendix provides a numerical example to illustrate how a household might be tempted to take a consumption loan to circumvent the amortisation requirement. The example shows how debt service can be lower when taking a small consumption loan in combination with a mortgage loan just below the LTV thresholds, in the short run. But the example also makes clear that substituting a mortgage loan with a consumption loan leads to higher interest expenditures and even higher amortisation payments in the longer run.

Take a household purchasing an apartment for SEK 1 million, with financial wealth and/or housing equity worth SEK 250 000, and a loan of SEK 750 000 (see Table 2). The household chooses between a mortgage loan for the entire amount (option 1), or using a mortgage just below the 70% LTV threshold and taking a consumption loan with a maturity of 10 years¹⁹ for the remainder (option 2). During the first year, the household pays around SEK 108 per month less in debt service when taking option 2, as the extra interest expenditures for the consumption loan are more than offset by the lower amortisation amounts. Hence, it is possible for households to have lower monthly debt service by taking a small consumption loan and thereby end up in a lower amortisation rate for mortgage loans.

Table 2. Interest and amortisation payments when choosing between mortgages and consumption loans
SEK and SEK/month

Option 1	At purchase	After 1 year	After 5 years	After 10 years	Cumulative
Mortgage	750 000	735 000	682 500	645 000	
Consumption loan	0	0	0	0	
Interest expenditures	744	729	677	640	90 232
Amortisation	1 250	1 250	625	625	112 500
Debt service	1 994	1 979	1 302	1 265	202 372
Option 2	At purchase	After 1 year	After 5 years	After 10 years	Cumulative
Mortgage	699 000	691 500	661 500	624 000	
Consumption loan	51 000	45 900	25 500	0	
Interest expenditures	836	814	727	619	96 015
Amortisation	1 050	1 050	1 050	1 050	138 600
Debt service	1 886	1 864	1 777	1 669	234 615
Difference	At purchase	After 1 year	After 5 years	After 10 years	Cumulative
Interest expenditures	92	85	51	-21	5 783
Amortisation	-200	-200	425	425	26 100
Debt service	-108	-115	476	404	31 883

Note: The household chooses between two financing options for a SEK 1 million house purchase: a mortgage loan at 75% LTV (option 1), or a mortgage loan at 69.9% LTV plus a small consumption loan (option 2). The table shows monthly interest expenditures, amortisation and debt service amounts at different stages of the loan maturity, keeping interest rates constant at 1.7% and 4.8% for the mortgage and consumption loan. Amortisation of the mortgage loan is according to the requirement, while the consumption loan is repaid in 10 years. The cumulative amounts are in SEK, summed over the entire 10 year period studied. The last three rows show the differences in debt service between option 2 and option 1.

Source: The Riksbank.

However, the above calculation is very short-sighted: after a few years of amortisation according to the 2 per cent rule (and assuming the apartment is still valued at SEK 1 million), the household's LTV ratio would decrease below the 70% threshold. After that, the household needs only to amortise SEK 625 per month if it abstains from an unsecured credit. Table 2 shows that after year 5, option 1 has, in fact, lower monthly payments than option 2. Cumulatively over a 10 year period, the household pays almost SEK 32 000 more in amortisation plus interest in option 2 compared to option 1. If the household is choosing the

¹⁹ In the example presented in Table 2, I assume that the household amortises its consumption loan over 10 years with equal amortisation amounts of 10 per cent per year. In practice, many consumption loans have so-called annuity repayment schedules, which implies that the amortisation amounts increase over time, while interest payments decrease over time, to keep total monthly payments constant over the loan maturity. Having such a repayment schedule in the example would only strengthen the argument that consumption loans might be beneficial in the short run but more expensive in the longer run.

consumption loan only to minimise debt service expenditure, it makes a costly mistake by not looking forward enough in time.

In addition, the household's interest expenditure when using only a mortgage would be substantially lower than the total interest payments for the mortgage plus unsecured loan. In the example above, the difference is 6 000 kronor over 10 years. As amortisation payments are really just personal savings (or deleveraging), while interest payments are true expenses, the household should try to minimise its interest expenditure bill, rather than its total debt service.

Finally, choosing the consumption loan to reduce amortisation payments is not a successful strategy in the longer run. As the last column of Table 2 shows, total amortisation payments amount to SEK 138 600 when taking the consumption loan, and to SEK 112 500 with only mortgage loans. Over a 10 year period, the household amortises SEK 26 100 more with option 2, and hence trying to avoid the higher amortisation payments achieves the exact opposite.

A similar example can be constructed showing that a household might believe it has lower debt service payments by taking a consumption loan instead of withdrawing home equity using a mortgage loan. Suppose a household has had a mortgage loan of SEK 1 million since 2015, and is planning to renovate its bathroom for SEK 50 000. It could either borrow this SEK 50 000 by taking an unsecured credit, or by withdrawing equity from its home valued at SEK 1.25 million. If the household was not amortising its mortgage loan and if the additional mortgage loan would trigger the requirement, it suddenly faces SEK 1 750 in monthly amortisation payments.²⁰ Using an unsecured credit with 10 years until repayment instead would lead to amortisation payments of SEK 417 per month. Hence, it is possible to save on amortisation payments by choosing a consumption loan instead of a home equity loan.

However, the regulation posits that additional mortgage loans, such as those taken when withdrawing home equity, can be amortised according to an alternative rule. Specifically, home equity loans need to be amortised by at least 10 per cent per year.²¹ Therefore, it is not true that taking a small additional mortgage loan would trigger forced amortisation payments on the entire mortgage. In the example above, the household can finance the renovation of its bathroom using a home equity loan with the same amortisation amount (SEK 417 per month) as when taking the unsecured credit. Obviously, the interest payments are likely much lower when using the home equity loan. Taking a home equity loan rather than a consumption loan is therefore the cheaper option.

²⁰ As the LTV would equal 84 percent (1.05 million in mortgage debt relative to 1.25 million in apartment value), amortisation amounts would equal 2 per cent of 1.05 million, or SEK 1 750 per month.

²¹ In practice, banks will need to approve the home equity mortgage loan application, and allow the household to amortise according to this alternative rule. If banks have tightened their lending standards between originating the mortgage and the households' application for the home equity loan, this might create incentives to take the unsecured credit. There are currently no strong signals that banks are reluctant to apply the alternative rule.



SVERIGES RIKSBANK
103 37 Stockholm
(Brunkebergstorg 11)

Tel 08 - 787 00 00

Fax 08 - 21 05 31

<mailto:registratorn@riksbank.se>

www.riksbank.se