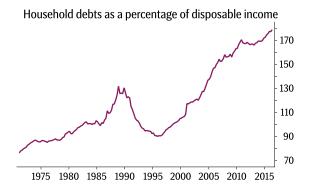
## 10 questions & answers about Swedish household debt

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Rapidly rising Swedish home prices and high household debt are constant topics of interest. The following 10 questions and answers examine the debts and financial situation of Swedish households.

1. How indebted are households? Swedish household debts exceeded SEK 3.8 trillion, of which almost SEK 3 trillion or 77% consisted of mortgage loans. Today mortgage loans total about 40% of residential property value. Among new borrowers, the mortgage loan-to-value ratio was much higher: 64%. Since debts have risen faster than our incomes for years, the ratio of household debt to total disposable income has climbed to 180%, doubling in 20 years. This level is higher than in most comparable countries



2. How large are household assets? Households not only have debts, but also large assets. These can be divided into real property (mainly homes) and various types of financial assets (shares, mutual funds, bank savings etc.). The aggregate balance sheet of Swedish households looks very strong. Even when excluding their sizeable assets in different forms of pension savings and looking only at assets that can be liquidated, their assets are more than three times larger than their debts. Subtracting the value of real property, which is less liquid for a number of reasons, overall household assets still exceed debts.

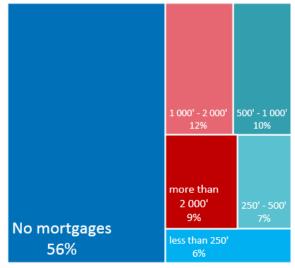
Households balance sheet (SEK bn)			
	Assets*	Debts	
Mortgages		2 977	
Other loans		454	
Student loans		216	
Consumption loans		194	
Houses **	4 732		
Tenant-owner units	2 562		
Shares	1 916		
Bank savings	1 662		
Mutual funds	1 126		
Bonds	152		
Cash	56		
	12 205	3 840	

\* exkl. pension savings, \*\* approximate estimate Source: SCB. own calculations

**3. How are household debts allocated?** Looking at aggregate household debts may be misleading. How these debts are distributed is at least equally important. Several studies have shown that household debts in Sweden are very unevenly allocated, ranging from a large group of entirely debt-free households to a small group with heavy debts. If we look only at mortgage loans, a full 56% of households are debt-free while only 21% have loans exceeding SEK 1 million.

## Size of mortages across all households

(SEK ths) source: Riksbank, SCB, own calculations



4. What groups have borrowed the most? A

government research study in 2013 reviewed all debts (mortgage loans, study loans, consumer credits etc.) of all adult inhabitants in Sweden. The study revealed that more than a third of Swedes had no loans at all, while really large loans (over SEK 1.8 million/person) were concentrated among a very small group totalling 2.5% of inhabitants. This small group also had substantially higher incomes and better education than the average. The authorities stopped gathering statistics on which individuals own assets when Sweden abolished its wealth tax a decade ago, but we strongly suspect that assets are also concentrated among the small group with large loans. The study concluded that "It's the right people who have large loans".

## 5. How big are the geographic differences?

Household debts are very unevenly distributed in Sweden. Most debts are concentrated in the largest cities, while debt levels in rural areas and smaller cities are substantially lower.

Debt ratios 2016		
% of disposable income		
Stockholm	432%	
Gothenburg	357%	
Malmö	305%	
Uppsala	325%	
Västerås	259%	
Örebro	273%	
Source: Rikshank		

**6. How large a percentage of mortgage debt consists of floating rate loans?** One risk that many observers have pointed to is that Swedish households are highly sensitive to interest rates, since nearly 70% of all new home mortgages are floating rate loans, and less than 10% of loans carry fixed rates that run for

more than 5 years. The table shows the fixed-interest periods for all mortgage loans.

Refixing period mortgages			
Single family		Tenant-owner	
Floating rate	59%	71%	
3 mth - 2 years	4%	7%	
2 years - 5 years	31%	21%	
Longer than 5 years	6%	2%	
Source: Statistics Sweden			

7. How much debt may households take on? In recent years, the Swedish Financial Supervisory Authority (FSA) has introduced a number of rules aimed at limiting household debt and has signalled that more rules may be enacted in the future.

**Mortgage loan ceiling:** Since 2010 the rule has been that a new mortgage may not exceed 85% of a home's value.

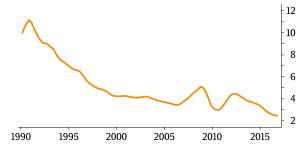
**Repayment requirement:** Borrowers granted mortgage loans after June 1, 2016 must repay 1% of total loan principal yearly if the loan-to-value ratio is 50-70%. If LTV exceeds 70%, the repayment must be 2% of principal.

**Proposal:** The FSA has proposed that starting January 1, 2018, all borrowers with mortgage debts exceeding 4.5 times their gross income must repay at least another 1% beyond the existing repayment requirement (i.e. a maximum of 3% of total loan principal each year).

**Buffer:** Today most banks require a buffer enabling a household to cope with mortgage interest rising to 7%.

- **8. How fast are debts increasing?** Today household debts in Sweden are growing at nearly 7% y/y, but this increase is not entirely due to rising home prices. Another factor has been the conversion of rental housing to tenant-owned cooperatives, making it necessary for households to borrow when transitioning from renting to owning their homes. This could explain 1-2 percentage points of the yearly credit growth over the past decade. We estimate the long-term sustainable debt increase to be between 4-5% yearly.
- **9. How long can debts continue to increase?** Over time our debts are determined by home prices, which in turn are determined by supply and demand. In the long run, today's record-high construction could increase supply, leading to falling home prices and a slower increase in debt. Yet Sweden still has a large housing shortage, which suggests that it will take time for the increase in supply to impact prices. The most important factor behind home prices is the interest rate, which together with repayment rules and borrowing limits determines how much a household can borrow. Viewed over time, Swedish households have been willing to allocate 30% of their spending to housing. Since interest rates are so low today, housing expenditures are still well below that level and the cost of borrowing has never been lower than now, despite record-high debts. As long as interest rates remain low and housing costs do not rise for other reasons (for example, tighter lending rules, smaller interest deductions or the reintroduction of real estate tax), there is thus room for households to continue paying even more for their homes, with increased indebtedness as a consequence.

Household interest as a percentage of disposable income incl. interest deductions. Source: Riksbank



10. When will floating rate mortgage interest start to climb? We believe that the Riksbank's repo rate, which is at -0.5% today, must rise to above zero before its rate hikes begin to have a significant impact on floating rate mortgage loans. The central bank's own forecast is that the repo rate will not exceed zero until the spring of 2019. There are thus many indications that floating mortgage loan rates will remain low for a long time and that household debts will thus continue to climb faster during the next couple of years than is desirable in the long term.

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