

CONTENTS

Continued increases in investment and borrowing	3	In-depth section 1:	
Local government sector economy	4	Balanced development	15
Local government sector investments Sweden	5 5	In-depth section 2: Green funding of local government investment	18
Distribution of investments	5	In-depth section 3:	
Investments by municipal category, region and county	6	The local government sector's debt management	20
Investments by municipality	8	Appendix 1:	
Local government debt	10	SALAR's categorisation of municipalities	21
Sweden	10		
Debt by municipal category, region and county	11		
Debt by municipality	12		
Local government sector funding	14		

About Kommuninvest's report series

In its report series Local Government Debt, Kommuninvest reviews development in the local government sector's investments and debt. The report is unique, since both investment and debt are analysed from a group perspective. This entails operations conducted by municipal companies and alliances of local government authorities also being included in the data. In this report, the term "municipal company" continues to be used as an umbrella term for the limited companies and other organisations in which a municipality or region exercises a controlling or significant influence. The group perspective is important in obtaining an accurate overall picture of a municipality or region's economic and financial position, as:

an increasing share of local government operations are transferred to municipal compa-

nies. For example, an increasing number of local government authorities have transferred their service and operations premises to subsidiaries in recent years.

• Local government sector companies account for slightly more than half of the sector's investments but the bulk of external debt.

The supporting data in this report are based on details gathered from the municipalities' and regions' own annual reports. The report lags by a year in the sense that the 2019 edition, for example, presents data for 2018. Details of investment levels and debt for all municipalities and regions for the years 2010–2018 are available on the Kommuninvest website, under the tab "Local Government Debt 2019".



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Continued increases in investment and borrowing

The local government sector's borrowing rose by SEK 52 billion in 2018. This was attributable to investment having increased while earnings have deteriorated, which should be considered taking recent years' strong performance in the sector into account. In 2018, however, earnings fell back to a level corresponding to the average for the period 2010–2018. Some 70 municipalities reported negative outcomes and the forecasts for 2019 indicate that the deterioration in earnings will continue.

Demographic pressure has continued to increase, resulting in increased operating expenses and, combined with lower growth in the tax base, this has made it difficult for local government authorities to maintain earnings in line with the levels of recent years. Combined with increased investment due to factors including demographics, urbanisation and the need to renovate the existing property portfolio, this will likely entail a period with a lower level of self-financing.

An increased investment level often means increased operating expenses, which must be covered by municipalities and regions through increased revenue. The capacity to finance increased investment depends partly on the percentage of the population that is of working age. A decline in the proportion of the population that is of working age causes labour short-

ages, increased expenses and reduced growth in the tax base. All of the forecasts indicate that expenses cannot be permitted to increase in line with demographics. When earnings decline, increased loan financing is required to cope with the increasing investment.

The forecast for the coming years shows a continued increase in borrowing as a consequence of weaker earnings combined with a high investment level. A large share of this investment is necessary for municipalities and regions to be able to offer their residents the welfare services that they demand and to which they are entitled. However, the priorities between different investments will become increasingly important in maintaining a balanced economy.

Although the level of self-financing in the sector is declining, it is nonetheless above 50 percent at the group level. At the same time, about half of the investments are made in municipal companies, which account for most of the sector's external debt, meaning instead that the level of self-financing for operations financed through taxation is higher. In our assessment, the sector is able to withstand a period with a lower level of self-financing and increased borrowing, as long as revenues are sufficient to cover operating expenses.

Örebro, September 2019

Tomas Werngren
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Local government sector economy

Growth in the Swedish economy was stronger than expected in 2018. GDP rose by 2.3 percent, mainly as a result of strong growth in exports during the fourth quarter. Despite this strong growth, Sweden's municipalities achieved significantly lower earnings in 2018 compared with 2017. Earnings at the group level decreased by 25 percent and amounted to SEK 27.5 billion, compared with SEK 36.5 billion in 2017. For the regions, earnings at the group level decreased by 73 percent, from SEK 3.9 billion in 2017 to SEK 1.1 billion in 2018. Among the municipal groups, 45 reported a negative outcome in 2018, compared with 22 municipal groups in 2017. Among the regional groups, seven showed a negative outcome, compared with three in 2017. The deterioration in earnings shows that municipalities and regions are finding it increasingly difficult to cope with demographic pressure.

In the past, increased growth in the tax base, combined with capital gains and additional central government allocations have provided the municipalities with the resources to cope with the demographic changes. Certain larger municipalities have also generated extensive development revenues. The local government sector now faces a more difficult economic period. An important cause

is that growth in the tax base is expected to decline, mainly because the number of hours worked is expected to decrease in 2020 and in 2021. At the same time, demographic pressure continues to increase, with the proportion of older and younger people growing faster than the working-age population. This causes increased demand for welfare services, leading in turn to increased expenses. In the financial report issued by the Swedish Association of Local Authorities and Regions (SALAR), the expenditure calculations assume that expenditure will track the demographic changes these calculations show that there will be a shortfall of SEK 35 billion in 2022 despite SKL choosing to anticipate average tax increases of SEK 0.13 and an earnings target corresponding to 1 percent of taxes and general central government allocations.

Forecasts or calculations assuming unchanged levels of expenditure seldom agree with reality. This is because, under trying economic circumstances, municipalities and regions appear to be able to find new and creative solutions. These projections nonetheless play a role, lifting the focus to a long-term perspective and, with resources being scarce, a consensus can be reached.

Local government sector investments

Sweden

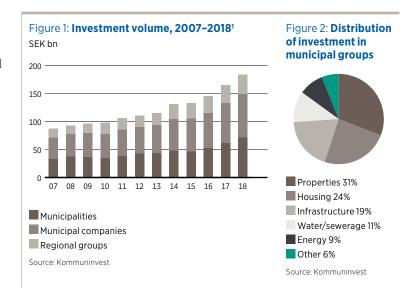
Municipalities and regions bear a comprehensive welfare assignment, with responsibilities including preschools, schools, health care, social services and public transport (see Table 1). In addition, the municipalities and regions own slightly more than 1,800 companies conducting operations in housing, property and energy supply, public transport, culture, education and tourism.

Strong population growth and urbanisation, alongside extensive needs of renovation for the homes and properties built between 1965 and 1975, continue to force up investment volumes in the local government sector. The demographic trend, with increasing numbers of older and younger people, is also causing increased demand for public services, such as health care, schooling and social services, leading, in turn, to increased needs for investment, particularly in operational premises.

In 2018, total gross investment in tangible fixed assets increased by 11 percent to SEK 183.7 billion. Although it exceeded the average rate of increase of 8 percent during the period 2010–2018, the growth rate decreased compared with 2017, during which investment rose by 14 percent.

Of the sector's total investments, the municipal groups accounted for SEK 149.4 billion and the regional groups for SEK 34.3 billion,

Table 1: The tasks of the municipalities and regions



an increase of 12 and 8 percent, respectively. In turn, SEK 71.3 billion of the investments by the municipal groups were made by the municipalities, and investments of SEK 78.2 billion were made by municipal companies, corresponding to an increase of 17 percent and 8 percent respectively.

Distribution of investments

Municipalities

Over time, the distribution of investments between various assets has been relatively con-

Munic	ipalities	Shared	Res	gions
ompulsory	Voluntary	Compulsory	Compulsory	Voluntary
ocial operations	Leisure and culture	Public transport	Health and care	Culture
chooling	Technical services		Dental care ³	Education
anning and uilding issues	Energy supply		Regional responsibility for development	Tourism
nvironmental health rotection	Business development			
anitation and waste	Housing construction			
ater/sewerage				
nergency services				
orary operations ²				
risis contingency anning				
ousing provision				

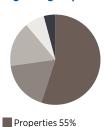
Due to changes in amortisation rules, the results for 2014–2018 are not entirely comparable with those for previous years

A public library in each municipality.

³⁾ Dental care for children and adolescents up to 22 years of age.

Figure 3:

Distribution of investment in regional groups



Infrastructure 18%
Medical equipment 16%

Public transport 7%

Other 4%

Source: Kommuninvest

stant. Of the local government groups' investments in 2018, 55 (56) percent were attributable to housing and operational premises¹. Housing investment includes both renovation and long-term maintenance of existing stocks, as well as new construction, while property investments comprise service and operational premises, such as homes for the elderly, preschools and schools, and sports and bathing facilities. Some municipalities are also involved in commercial properties, such as parking garages and industrial facilities. Infrastructure investments in streets, roads, parks, water and sewage treatment plants, ports and airports accounted for 30 (30) percent of total investments, while investments in district heating, electricity production and broadband in the municipally-owned energy companies accounted for 9 (9) percent. The item Other mainly includes investments in machinery and equipment – among other things, vehicles.

Regions

For a long time, the investment trend among Sweden's regions has been driven by developments in Region Stockholm. In 2018, however, Region Stockholm's investments decreased by more than a fifth and now account for 35 percent of the regional groups' total investments, compared with 48 percent in 2017. In absolute numbers, the highest rate of increase is, instead, to be found in the two other metropolitan regions, Region Västra Götaland and Region Skåne.

Although some changes have occurred in the investment levels in the different regions, the distribution of investments is relatively constant. More than half, 55 (52) percent of the investments involve properties, primarily building and remodelling of hospital properties. In total, investments in infrastructure and public transport account for 25 (28) percent of the investment volume, and these remain concentrated largely in Region Stockholm. New medical equipment accounted for 16 (16) percent of the investment volume, while the remaining 4 (3) percent was shared among investments in other equipment and IT systems.

Investments by municipal category, region and county

Municipal categories

In comparing different types of municipalities, Kommuninvest uses the municipal categories developed by SALAR. The categorisation is primarily based on urban characteristics and was most recently updated in 2017 (for more information on the categorisation, see Appendix 1). Each local government authority has its own unique set of geographic, demographic, political and economic conditions, and it can therefore be difficult to draw overly far-reaching and general conclusions about trends among individual local government authorities based on the trend at the level of the municipal category. The spread between municipalities within a single municipal category often greater than between municipal categories.

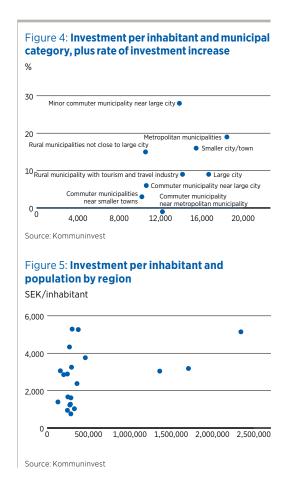
The municipal groups' average investment level amounted to SEK 14,600 per inhabitant in 2018, which can be compared with SEK 13,200 per inhabitant in 2017. There are substantial differences between the municipal categories. Large municipalities, in terms of population, with relatively large corporate groups and

high population growth, generally have higher investment levels than other municipalities in Sweden. Figure 4 also shows that the municipal categories "Metropolitan municipalities" and "Large cities" had a higher average investment level per inhabitant than other municipal categories, at SEK 18,400 and SEK 16,700 per inhabitant respectively. The lowest investment level of SEK 10,200 per inhabitant was the municipal category "Commuter municipality near smaller town". The highest rate of increase was in the municipal category "Low commuting municipality near larger city", where investment increased by 28 percent from SEK 10,800 to SEK 13,800 per inhabitant.

The investment level per inhabitant increased by 11 percent for the country as a whole. All municipal categories except "Commuter municipality near metropolitan municipality" showed positive growth in investment.

Regions

The regions' average investment level amounted to SEK 3,400 per inhabitant in 2018, which can be compared with SEK 3,200 per inhabitant in 2017. Region Örebro County and Region Uppsala showed the highest investment level in 2018 at SEK 5,300 per inhabitant. The high investment levels in these two regions are attributable primarily to the remodelling and extension of health care properties at the university hospitals there. In Region Stockholm, which has shown the highest investment levels over the past ten years, the investment level in 2018 was SEK 5,100 per inhabitant, a decrease of 22 percent. Region Gävleborg had the lowest average investment level at SEK 800 per inhabitant.



Counties

The County of Uppsala had the highest average investment level in 2018, at almost SEK 22,000 per inhabitant (see Table 2). This trend is mainly explained by the growth in investment in Uppsala and Enköping, combined with Region Stockholm and several municipalities in the County of Stockholm reducing their investments. Excluding the regions' investments, the municipalities in the County of Norrbotten show the highest investment levels, which is largely explained by the programmes of urban transformation taking place in Gällivare and Kiruna. The lowest investment levels were in the counties of Västernorrland and Värmland, with an aver-

age investment level of SEK 11,200 and SEK 12,300 per inhabitant respectively.

In 2018, the largest increase in investment occurred in the County of Kalmar and on the island of Gotland. In the County of Kalmar, it was mainly Kalmar that contributed to the high rate of increase. In two counties, Kronoberg and Västernorrland, investment has decreased.

Investments by municipality

Municipal groups with the highest investment levels in 2018

The country's largest municipalities in terms of population are to be found in *Table 3*. With a few exceptions, investment volumes, in abso-

County	Investment per inhabitant	nvestment per inhabitant (excluding region)	Investment in SEK million	Investment in SEK million (excluding region)	Change since 2017	Chang since 201 (excludin regior
Uppsala	21,948	16,679	8,260	6,277	19%	209
Stockholm	20,806	15,658	48,773	36,705	4%	169
Västerbotten	20,432	16,094	5,520	4,348	4%	39
Örebro	20,242	14,949	6,118	4,518	20%	8'
Norrbotten	20,118	18,453	5,039	4,622	24%	22'
Västra Götaland	18,620	15,433	31,836	26,387	10%	5
Sweden	17,978	14,606	183,714	149,426	11%	12
Östergötland	17,805	14,042	8,219	6,482	11%	11
Halland	17,663	16,630	5,817	5,477	23%	25
Västmanland	17,521	16,291	4,799	4,463	21%	24
Skåne	16,629	13,584	22,651	18,504	16%	11
Kalmar	16,501	13,610	4,037	3,330	33%	25
Gotland	16,388	16,388	971	971	45%	45
Södermanland	15,703	12,449	4,627	3,669	9%	5
Jönköping	15,485	13,106	5,587	4,729	14%	15
Dalarna	15,419	13,804	4,428	3,964	20%	20
Jämtland	15,287	13,891	1,992	1,810	27%	23
Kronoberg	13,815	10,959	2,762	2,191	-1%	-12
Gävleborg	13,783	13,025	3,949	3,732	1%	0
Blekinge	13,199	10,137	2,108	1,619	17%	3
Värmland	12,294	11,019	3,460	3,102	17%	21
Västernorrland	11,240	10,295	2,759	2,527	-2%	0

lute figures, follow the population size of the municipalities. The four municipalities with the highest investment volumes remain unchanged from the preceding year, with only one municipality dropping out of the table and another joining – Helsingborg and Lund respectively. Of the municipalities in the table, Borås had the highest investment level per inhabitant at SEK 26,700 per inhabitant, while Malmö had the lowest investment level per inhabitant at SEK 13,700.

Table 4, which shows the municipalities with the highest investment levels per inhabitant changes considerably from year to year. This is often because an individual major investment, sometimes carried out over one or

two calendar years, has a considerable impact in a small or medium-sized municipality, as is also apparent from the millions of kronor by which investment levels vary.

Gällivare and Kiruna top the table of municipalities with the highest investment levels per inhabitant in 2018. Both municipalities are currently undergoing programmes of urban transformation due to the expansion of the mining operations in those locations. Skellefteå is the only larger municipality to have been included in the table since 2014, partly as a result of large investments in its energy company.

Municipality	Investment volume in SEK million, 2018	Investment level per inhabitant, 2018	Investment volume in SEK million, 2017	Investment level per inhabitant, 2017
Stockholm	19,608	20,379	16,080	16,930
Gothenburg	10,250	17,924	8,541	15,143
Malmö	4,655	13,719	4,075	12,214
Uppsala	3,851	17,103	3,370	15,324
Västerås	3,167	20,825	2,407	16,032
Borås	2,999	26,734	2,419	21,788
Linköping	2,831	17,580	2,406	15,178
Örebro	2,590	16,889	2,768	18,420
Lund	2,403	19,545	1,907	15,725
Norrköping	2,090	14,752	2,225	15,788

Source: Kommuninvest

Table 4: Municipalities with the highest investment levels per inhabitant in 2018

Municipality	Investment level per inhabitant, 2018	Comments
Gällivare	43,864	Urban transformation
Kiruna	33,142	Urban transformation
Boden	32,368	Housing and operational premises, combined power and heating plants, and infrastructure
Skellefteå	28,096	Energy production, water and sewerage, and operational premises
Lindesberg	26,753	Housing and operational premises
Borås	26,734	Housing and operational premises, combined power and heating plants, and water and sewerage
Trollhättan	25,490	Housing and operational premises, and water and sewerage
Hallsberg	23,756	Housing and operational premises, and water and sewerage
Enköping	23,482	Housing and operational premises, and water and sewerage
Härjedalen	22,792	Housing, water and sewerage, and energy production
Source: Kommuni	nvest	

Local government sector debt

Sweden

At the end of 2018, the sector's total debt amounted to SEK 656 billion, an increase of SEK 52 billion or 8.6 percent compared with the preceding year. In 2018, average debt per inhabitant amounted to SEK 64,166, which was SEK 4,443 more than in 2017. Debt as a proportion of GDP increased by 0.5 percentage points and amounted to 13.7 percent in 2018.

Table 5: Local government sector debt

	2018	2017	2016
Debt, SEK bn	656	604	577
Percentage increase	8.6%	4.7%	3.9%
Municipal groups	590	548	523
Regional groups	66	56	55
Debt per inhabitant in SEK	64,166	59,723	57,782
Proportion of GDP	13.7%	13.2%	13.2%

Source: Kommuninvest

Of Sweden's 290 municipalities, there were 94 that reduced their borrowing by a total of SEK 6 billion, two municipalities had unchanged borrowing and 194 municipalities increased their borrowing by a total of SEK 48 billion. Correspondingly, among the regions, two regions reduced their borrowing by a total of SEK 134 million and ten regions increased their borrowing by a total of SEK 10 billion. For the remaining eight regions, borrowing was unchanged. In 2017, the correlations were the inverse, with three regions having increased their borrowing and nine having reduced their borrowing.

In the 2000s, the local government sector's borrowing rose slower than nominal GDP or at about the same rate, leading to debt as a proportion of GDP falling during certain years in the middle of that decade. In the current decade, the rate of increase has risen. Since 2010, borrowing in absolute terms has increased by slightly more than SEK 250 billion, corresponding to an average annual rate of increase of 6.9 percent. It is primarily the country's metropolitan municipalities and university towns that have driven debt development in the local government sector.

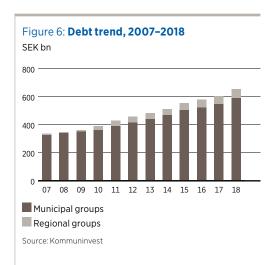


Figure 7: Rate of increase in borrowing, 2008–2018

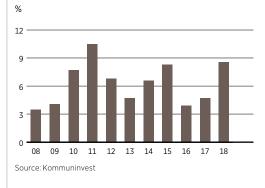
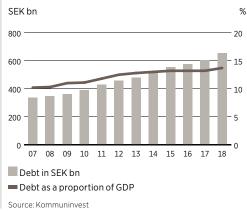


Figure 8: **Debt as a proportion of GDP, 2007–2018**



As a proportion of GDP, debt has varied within a relatively limited range. In 2008, debt amounted to 10.5 percent of GDP but has increased to 13.7 percent of GDP in 2018, the highest level during the period studied. In 2018¹, by comparison, household debt and central government debt amounted to 84 and 26 percent of GDP respectively.

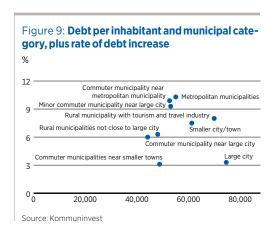
Debt by municipal category, region and county

Municipal categories

Figure 9 shows a relatively broad spread in average debt per inhabitant between municipal categories. The municipal category "Large cities" has significantly higher average debt than other municipal categories, at SEK 74,600 per inhabitant, although its rate of increase was below the average in 2018. In 2018, the rate of increase among the category "Metropolitan municipalities" exceeded 10 percent and borrowing increased to SEK 55,100 per inhabitant over the year.

Regions

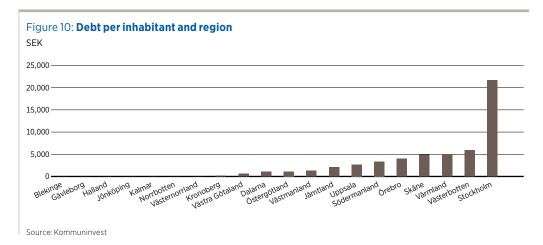
The regions' debt of SEK 66.3 billion is distributed unevenly between the country's 20 regions². Region Stockholm's debt amounted to SEK 50.8 billion, corresponding to 77 percent of the regions' debt, a decrease



compared with 2017 when the corresponding proportion was 82 percent. *Figure 10* shows that Region Stockholm also had the highest debt per inhabitant, at SEK 21,700, followed by Region Västerbotten at SEK 5,900 per inhabitant and Region Värmland at SEK 5,000 per inhabitant. Seven regions had no debt, which can be compared with ten regions in 2017.

Counties

At the county level, the County of Örebro continued to have the highest average debt per inhabitant, at SEK 91,100 (see Table 6). In recent years, high investment volumes, primarily in the Municipality of Örebro



1) Source: Statistics Sweden

Region Gotland is not included in the compilation of regions.

and neighbouring municipalities have contributed to increasing borrowing in the county. At SEK 49,500 per inhabitant, the County of Halland had the lowest debt, despite high growth in investment during the year. Excluding the regions, the County of Stockholm had the lowest debt, at SEK 45,100 per inhabitant. Several of the commuter municipalities in the County of Stockholm have only a few municipal companies with limited assignments, which generally entails a lower level of debt.

With an increase of 16 percent, the County of Södermanland had the country's highest increase in debt in 2018. Excluding the regions, the County of Halland, alongside the County of Stockholm, reported the highest increase in borrowing at 14 percent, followed by the County of Norrbotten with an increase of 12 percent.

Average borrowing decreased in two counties, Blekinge and Kronoberg. In the County of Kronoberg, borrowing decreased for the second consecutive year.

Debt by municipality

Municipal groups with the highest debt in 2018 *Tables 7 and 8* show the municipal groups that had the highest nominal debt and the highest debt per inhabitant, respectively. It should be noted that the comparisons give an incomplete picture of the financial conditions in the individual municipalities because the debt levels are not set in relation to the individual municipality's earnings or assets. A high level of debt usually indicates significant asset values in, for example, property, housing and/or energy production. In practice, this means that the municipality with the highest debt per inhabitant in

	Debt per inhabitant	Debt per inhabitant (excluding region)	Debt in SEK million	Debt in SEK million (excluding region)	Change since 2017	
Örebro	91,134	87,083	27,545	26,321	7%	69
Västerbotten	77,767	71,833	21,009	19,406	15%	99
Östergötland	77,342	76,196	35,700	35,171	4%	4
Uppsala	72,604	69,888	27,325	26,303	9%	8
Södermanland	71,107	67,714	20,955	19,955	16%	11
Västernorrland	70,449	70,449	17,292	17,292	7%	7
Stockholm	66,725	45,055	156,411	105,615	13%	14
Jämtland	65,499	63,403	8,533	8,260	1%	-1
Dalarna	64,438	63,393	18,506	18,206	10%	10
Sweden	64,166	57,647	656,043	589,739	9%	8
Västra Götaland	63,366	62,781	108,344	107,344	8%	7
Blekinge	62,617	62,617	9,999	9,999	-5%	-5
Kronoberg	62,331	62,111	12,459	12,415	-1%	-1
Kalmar	61,980	61,980	15,165	15,165	2%	2
Jönköping	58,522	58,522	21,116	21,116	6%	6
Västmanland	58,098	56,804	15,915	15,560	4%	5
Skåne	57,822	52,875	78,762	72,024	9%	7
Värmland	52,823	47,778	14,869	13,449	3%	3
Gävleborg	52,751	52,751	15,116	15,116	9%	9
Norrbotten	51,861	51,861	12,991	12,991	12%	12
Halland	49,487	49,487	16,299	16,299	14%	14

a county may also be the municipality with the greatest net assets per inhabitant and the strongest cash flow.

Although the overall debt level is interesting in itself, the change in the debt level is a more interesting indicator of the economic trend in a municipality. Municipalities that are rapidly increasing their borrowing over a number of years are often in a period of increased investment levels, while a longer period of constant or decreasing borrowing indicates a period of lower investment levels and financial consolidation.

Stockholm's borrowing increased by 25 percent in 2018, meaning that Stockholm now has higher debt than Gothenburg, which had the highest debt in nominal terms in the preceding years. Lund, which was also included in the table of municipalities with

the highest levels of investment, increased its borrowing by 15 percent in 2018. Umeå is again among the ten municipal groups with the highest debt, while both Helsingborg and Västerås are no longer included in the table.

Although Linköping and Kumla amortised their borrowings in 2018, they are still included in the table of municipalities with the highest debt per inhabitant. Berg is also amortising its borrowing and is no longer included in the table. Mullsjö is no longer included in the table, although its borrowing has increased by 3 percent. During 2018, Hammarö increased its borrowing by 26 percent and is now included in the table. Strömstad shows the highest debt per inhabitant, after increasing its borrowing by 18 percent in 2018.

Debt, 2018, SEK bn	Percentage change, 2018	Debt, 2017, SEK bn (investment)	Debt, 2016, SEK bn (investment)
48.2	25%	38.7 (2)	36.6 (2)
42.3	3%	41 (1)	38.7 (1)
17.1	1%	16.9(3)	16.5(3)
16.4	6%	15.5 (4)	14.1 (4)
15.8	8%	14.6 (5)	13.3 (5)
12.7	1%	12.5 (6)	12 (6)
11.1	3%	10.9 (7)	9.4 (9)
10.1	15%	8.8 (12)	8.3 (13)
9.8	3%	9.5 (9)	9.5 (8)
9.6	3%	9.4 (10)	8.7 (11)
	48.2 42.3 17.1 16.4 15.8 12.7 11.1 10.1 9.8	SEK bn change, 2018 48.2 25% 42.3 3% 17.1 1% 16.4 6% 15.8 8% 12.7 1% 11.1 3% 10.1 15% 9.8 3%	SEK bn change, 2018 (investment) 48.2 25% 38.7 (2) 42.3 3% 41 (1) 17.1 1% 16.9 (3) 16.4 6% 15.5 (4) 15.8 8% 14.6 (5) 12.7 1% 12.5 (6) 11.1 3% 10.9 (7) 10.1 15% 8.8 (12) 9.8 3% 9.5 (9)

Source: Kommuninvest

Table 8: Municipalities with the highest debt per inhabitant in 2018

	Debt per inhabitant in SEK thousands, 2018	Percentage change, 2018	Debt per inhabitant in SEK thousands, 2017 (investment)	Debt per inhabitant in SEK thousands, 2016 (investment)
1 Strömstad	112.4	18%	95.3 (5)	93.3 (5)
2 Trollhättan	110.2	9%	101.3(3)	97.8 (3)
3 Linköping	106.3	-1%	106.8 (1)	106.2(1)
4 Skellefteå	106.1	17%	90.9 (6)	82.5 (12)
5 Örebro	102.7	6%	97.1 (4)	90.8 (7)
6 Kumla	100.1	-3%	102.9 (2)	100.2 (2)
7 Nybro	92.7	7%	86.6 (10)	80.4 (18)
8 Gnesta	92.4	20%	77.1 (28)	76.6 (24)
9 Sundsvall	91.6	9%	84.3 (14)	82.1 (16)
10 Hammarö	90.9	26%	71.9 (41)	64.7 (53)
Source: Kommuninvest				

Local government sector funding

The local government sector's combined debt rose by 8.6 percent in 2018 and amounted to SEK 656 billion at the end of the year. Of this, 54 (51) percent was financed via Kommuninvest, 31 (32) percent was funded directly via the capital market and the remaining 15 (17) percent of the financing was arranged through banks.

In 2015–2018, Kommuninvest's lending grew by an average 13 percent annually, which was more than twice the rate at which the sector's debt grew over the same period. Funding through proprietary market programmes is increasing, although at a lower rate than the sector's total funding, entailing a reduction in market share of one percentage point. The banks' lending to the local government sector

continued to decrease in 2018, although at a slower pace than in previous years.

Table 10 shows that there are considerable differences in how municipalities choose to distribute their funding between different funding options. Municipal and regional groups with debt of up to SEK 6 billion and that are members of Kommuninvest, are funded 91 percent via Kommuninvest, meaning, in practice, that a large proportion of Sweden's local government authorities arrange all of their funding via Kommuninvest. Larger municipal groups that are not members of Kommuninvest secure 67 percent of their funding directly through the capital market, with their remaining funding being arranged primarily via the European and Nordic Investment Banks.

Funding options			2014	2015	2016	2017	2018
Kommuninvest	Funding in S	EK billion	218	251	274	308	354
	Market share	ę	42%	45%	48%	51%	54%
Market programmes Funding in S		EK billion	139	173	180	193	202
	Market share	ę	27%	31%	31%	32%	31%
Banks Funding in 2		EK billion	156	132	123	103	100
	Market share	e	30%	24%	21%	17%	15%
Source: Kommuninvest							
Table 10: Funding b	ased on sca	le of debt an	d membersi	nip in Kor	nmuninvest		
		SEK <6 billion	in group debt		SEK >6 billion in	group debt	
Member of Kommuninvest		Number of municipalities and regions: 271			 Number of municipalities and regions: 17 		
		 Debt: SEK 	299 billion		• Debt: SEK 19	5 billion	
		Debt: SEKKommunin			Debt: SEK 19Kommuninve		
		Kommunin				est: 43%	
		Kommunin	vest: 91%		• Kommuninve	est: 43%	
Not a member of Kom	nmuninvest	KommuninMarket proBanks: 8%	vest: 91% grammes: 1% municipalitie		Kommuninve Market progr	est: 43% rammes: 46%	and
Not a member of Kom	nmuninvest	KommuninMarket proBanks: 8%Number of	vest: 91% grammes: 1% municipalitie		KommuninveMarket progrBanks: 11%Number of m	est: 43% rammes: 46% nunicipalities	and
Not a member of Kom	nmuninvest	KommuninMarket proBanks: 8%Number of regions: 15Debt: SEK	vest: 91% grammes: 1% municipalitie	s and	KommuninveMarket progrBanks: 11%Number of m regions: 7	est: 43% rammes: 46% nunicipalities	and

Balanced development

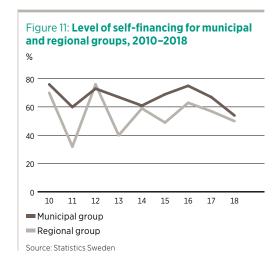
Borrowing is increasing and forecasts for the upcoming years indicate a continued high rate of growth. This is a consequence of declining earnings due to both increased expenses, a diminishing growth rate in the tax base and a sustained high level of investment needs. As borrowing increases, a substantial body of assets is building up among municipalities, regions and their companies. To analyse how increased borrowing relates to the investments implemented, different key figures can be used and one of these is the level of self-financing.

The level of self-financing can be described as that portion of the net investments that can be financed by means of the cash flow generated internally from the operating activities. Roughly speaking, the level of self-financing can be calculated as the proportion of investments financed through depreciation and earnings for the year.

Figure 11 shows the trend in the level of self-financing among regional and municipal groups. The variation is greater among the regional groups, which is mainly explained by the number of regions being smaller and individual variations having a clearer impact. In 2018, the municipal groups financed 54 percent of their investments with internally injected funds, calculated as the sum of earnings and depreciation. For the regional groups, the level of self-financing is 50 percent, which represents a decrease from 2017 when the level was 57 percent.

All municipal groups report a negative trend in the level of self-financing over the past two years. The level varies between 43 and 62 percent, with the lowest level of self-financing found among "Rural municipalities with tourism and travel industry" and the highest among "Commuter municipalities near smaller towns".

The negative trend in the level of self-financing in 2017 was mainly due to increased investment levels. The negative trend in 2018 was due to a combination of increased invest-



ment levels and diminishing earnings. For the level of self-financing to remain unchanged, it is necessary for the sum of the earnings for the year and depreciation to increase at the same rate as the investments for the year.

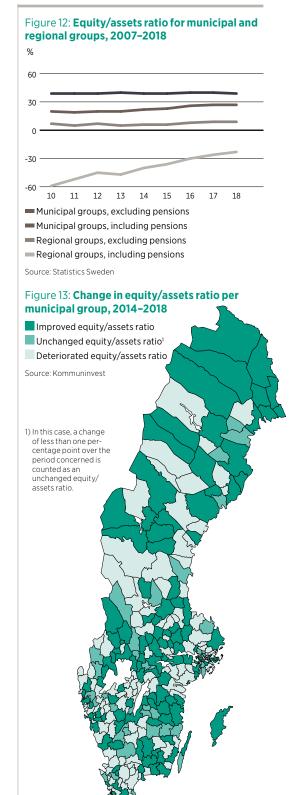
The level of self-financing measures the financing of investments during a given year, while the distribution of the municipality's body of assets base between liabilities and equity is measured using the equity/assets ratio. The equity/assets ratio is a measure of long-term financial strength. In calculating the equity/assets ratio, carrying amounts are used that, for tangible assets, comprise the sum of historical acquisition values less accumulated depreciation. As a rule, the sum of the market value of the tangible assets is significantly higher than the sum of the assets' carrying amounts and may even be higher than the acquisition value, meaning that the equity/assets ratio measure does not provide a correct description of a municipality's financial strength.

In light of what has been reported above, it is difficult to make comparisons of the equity/

assets ratios of different municipalities, since significant surplus values may exist in one municipality but not in another – nonetheless, the equity/assets ratio measure can still indicate how the long-term financial strength of a particular municipality is changing.

Figure 12 shows the trend in the equity/ assets ratio for the municipal and regional groups respectively, both including and excluding pension commitments. For the municipal groups, the equity/assets ratio excluding pension commitments was at the same level in 2018 as in 2010, 39 percent. Including pension commitments, the equity/assets ratio improved from 20 percent to 27 percent over the same period. For the regions, the equity/assets ratio including pension commitments improved sharply, although the regions still have a negative equity/assets ratio at the aggregate level.

A further observation is that the spread in the equity/assets ratio between different municipalities has gradually decreased, mainly due to the improvement in the equity/ assets ratio in the municipalities that had a low equity/assets ratio early in the period. Among the various municipal categories, it is primarily the "Metropolitan municipalities" that have a high equity/assets ratio in relation to other categories. The lowest equity/assets ratio is found among the category "Rural municipalities with tourism and travel industry". Over the past five-year period, 265 municipalities have improved their equity/assets ratio, including all pension commitments, and, of the remaining 25 municipalities, 10 have an unchanged equity/assets ratio and 15 have a deteriorated equity/assets ratio. If we study the equity/assets ratio excluding pensions, the map is a little different (see Figure 13), with 127 municipalities having a deteriorated equity/assets ratio, 122 having an improved equity/assets ratio and the remainder having an unchanged equity/assets ratio.

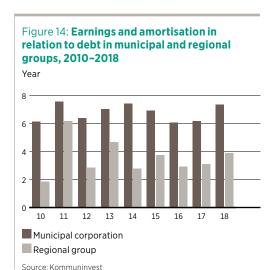


To maintain an unchanged equity/assets ratio while borrowing increases, equity must increase, in percentage terms, as much as the asset side, which has indeed been the case during the period.

A key ratio commonly used in the corporate world is EBITDA, which is earnings before net interest, taxes, depreciation and amortisation. The ratio between EBITDA and interest-bearing liabilities less cash and cash equivalents can be expressed as "the number of years it would take to repay the debt, given that net debt and EBITDA remain constant". A similar key ratio, somewhat simplified, can be obtained by taking the ratio of earnings for the year plus depreciation to the municipal group's interest-bearing liabilities - this represents a mix of the two key ratios, the equity/ assets ratio (which refers to the balance sheet) and the level of self-financing (which is primarily associated with the income statement).

The repayment period (measured as the scale of debt in relation to earnings and depreciation) increased for both regions and municipalities in 2017 and 2018, entailing a longer repayment period.

In 2018, the level of self-financing decreased, the equity/assets ratio including all pension commitments increased, while excluding pension commitments we see a decrease. The repayment period, calculated as above, has increased. The key ratios indicate a weakened financial situation in 2018, compared with both 2017 and 2016. However, both the equity/assets ratio and our repayment period measure are within previous ranges. The declining level of self-financing suggests that municipalities and regions are finding it increasingly difficult to maintain the level of earnings required to meet the increasing rate of investment. In our assessment, the sector is able to withstand a period with a lower level of selffinancing and increased borrowing, as long as revenues are sufficient to cover operating expenses.



Green funding of local government investment

Interest in green financing remains substantial in the local government sector

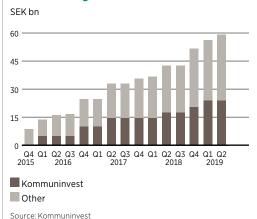
In recent years, interest in green funding has risen sharply and the Swedish local government sector is at the forefront. In October 2013, Gothenburg became the first municipality in the world to issue a green bond and interest among investors was considerable. In the following year, Stockholm County Council (now Region Stockholm) was the first region to issue a green bond to finance major investments in green development projects. At the end of 2015, Kommuninvest introduced the Green Loans product and, in March 2016, the company issued the largest green bond to date from a Nordic actor, equivalent to SEK 5 billion.

Figure 15 shows that the outstanding volume of green bonds from local government actors has continued to grow, reaching more than SEK 59 billion by the close of the second quarter of 2019, which corresponds to about 9 percent of the local government sector's total debt. In total, 16 municipalities and municipal companies have been identified in the compilation, see Table 11.

Region Västra Götaland and Region Värmland had the highest proportion of green financing in relation to debt at 100 and 99 percent respectively. Among the municipalities, Nacka and Älvkarleby had the highest proportion of green financing at 50 and 49 percent, respectively, *see Table 12*.

The local government sector invested SEK 183.7 billion in 2018, with the predominant areas of investment being housing and operational premises, infrastructure and energy. Combined with financing needs, the scale and focus of these investments suggest that green financing will increase its share of total funding. This enables the local government sector to continue setting an example in green transition and financing.

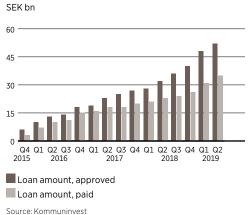
Figure 15: Outstanding volume of green bonds from the local government sector



Kommuninvest's Green Loans

Through Kommuninvest's Green Loans, even municipalities that are not active in the capital market have access to green funding. At the end of the second quarter of 2019, Kommuninvest had approved 284 green investment projects in 124 municipalities and regions with a total volume of SEK 52.3 billion, of which SEK 34.7 billion had been disbursed. This means that Green Loans account for 9 percent of Kommuninvest's loan portfolio.

Figure 16: Approved and paid volume of green loans from Kommuninvest¹



 Note that Kommuninvest's green lending consistently exceeds the company's borrowing. This means that Kommuninvest can guarantee that funding is allocated to assessed and approved green projects.

	anding volume 19, SEK million	Purpose (selection)
Förvaltaren (Sundbyberg)	557	Environmentally certified new production of housing and energy efficiency improvement
Gothenburg	7,060	Biogas production, water treatment, nitrogen filtration, energy efficiency improvement and sustainable construction
Kommuninvest	23,893	284 green investment projects in seven different project categories
Lund	1,350	Tramway, photovoltaic facility and environmentally certified new production of housing
Malmö	2,800	Sustainable transport, energy efficiency improvements, climate adaptation and green buildings
Nacka	500	Metro, cycle paths, renewable energy and green buildings
Norrköping	600	Sustainable transport, energy efficiency improvement and environmentally certified new production of housing
Region Skåne	3,200	Wind power, local trains and green buildings
Region Stockholm	11,900	Sustainable public transport, sustainable buildings, waste management and water management
Stångåstaden (Linköping)	1,075	Environmentally certified new production of housing and energy efficiency improvement
Uppsalahem (Uppsala)	500	Environmentally certified new production of housing and energy efficiency improvement
Vellinge	450	Sustainable transport, energy efficiency improvements, climate adaptation and green buildings
Västerås	750	Sustainable transport, energy efficiency improvement and environmentally certified new production of housing
Region Västra Götaland	1,000	Regional administration buildings in Gothenburg
Örebro	2,750	Wind power production, energy efficiency improvement and nitroge filtration
Östersund	800	Wind power production, energy-efficient homes and infrastructure for electric buses $% \left(1\right) =\left(1\right) \left(1$
Source: Kommuninyest		

Table 12: Municipalities and regions with the largest proportion of green funding¹

Municipality/region	Green financing, % of debt, 2018	Purpose (selection)
Region Västra Götaland	100%	Regional administration building in Gothenburg
Region Värmland	99%	Green operations centre
Nacka	50%	Metro, cycle paths, renewable energy and green buildings
Älvkarleby	49%	Sustainable and energy-efficient residential care social services
Robertsfors	47%	Green housing
Skövde	47%	Green buildings, sewage treatment plant and bio fuel-powered combined power and heating plant
Skara	47%	Green buildings
Sollefteå	35%	Hydropower plant
Lidköping	34%	Green buildings and sewage treatment plant
Region Skåne	33%	Wind power, local trains and green buildings
1) Includes green bonds and green	loans from Kommuninve	est
Source: Kommuninvest		

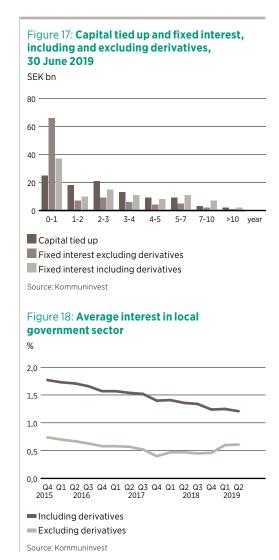
The local government sector's debt management

The data in this in-depth section are based on Kommuninvest's lending and the data that municipalities, municipal companies and regions had entered in the KI Finans debt management application as of 30 June 2019. The material builds on data from 5,973 loans, commercial papers and bonds totalling SEK 446 billion and 1,831 derivative contracts for which the underlying loan amount corresponds to SEK 179 billion.

Although it remains short, the average period for which capital is tied up has gradually increased since the first quarter of 2017 and amounted to 2.85 years at the close of the second quarter of 2019. As shown in *Figure 17*, 25 percent of the loan portfolio matures within a year and a further 18 percent within two years. This means that investments are financed through funding needing to be renewed several times over the financial lifespan of the investment.

Of the local government sector's funding, 55 percent was tied to a floating interest rate base, generally 3M Stibor. Many local government actors finance their investments through loans with short terms for which capital is tied up and interest is fixed. Financial derivatives are then used by certain actors to extend the period of fixed interest, resulting in the average fixed interest term for the sector as a whole exceeding the period for which capital is tied up in the underlying financing.

As a large part of the local government sector's borrowing is renewed each year, the average level of interest has fallen continuously in recent years, in line with market rates remaining at historically low levels. At the end of 2015, the average interest rate was 1.77 percent and, at the close of the second quarter of 2019, the interest rate had dropped to 1.21 percent, the lowest level in the period studied. Each tenth of a percentage point that the average interest rate falls entails a reduction in interest expenses of about SEK 650 million for the local government sector.



SALAR's categorisation of municipalities

Presented here is a description of SALAR's division of municipal categories for 2017, applicable from 1 January 2017. This has been reworked from the previous division of municipal categories from 2011.

Principal category	Municipal category	Brief definition	Number
A. Metropolitan municipalities and municipalities near metropolitan municipalities	A1. Metropolitan municipalities	At least 200,000 inhabitants in the municipality's largest urban area	3
	A2. Commuter municipality near metropolitan municipality	At least 40 percent outbound commuting to a metropolitan municipality or a municipality near a metropolitan municipality	a 43
B. Large cities and municipalities near large cities	B3. Large city	At least 40,000 but less than 200,000 inhabitants in the municipality's largest urban area	21
	B4. Commuter municipality near large city	At least 40 percent outbound commuting to a large city	a 52
	B5. Minor commuter municipality near large city	Less than 40 percent outbound commuting to a large city	35
C. Smaller cities/towns and rural municipalities	C6. Smaller city/town	At least 15,000 but less than 40,000 inhabitants in the municipality's largest urban area	29
	C7. Commuter municipality near smaller city/town	At least 30 percent outbound commuting to, or inbound commuting from, a smaller city/town.	52
	C8. Rural municipality	Less than 15,000 inhabitants in the municipal ity's largest urban area, less pronounced commuting pattern	- 40
	C9. Rural municipality with tourism and travel industry	Rural municipality meeting at least two tourism and travel industry criteria, that is, number of hotel nights, turnover in the retail/hotel/restaurant areas in relation to the population.	15

Kommuninvest finances welfare

We are a local government finance partnership, working for efficient and sustainable financing of housing, infrastructure, schools and hospitals, etc. We secure better loan terms together than individually. Since its inception in 1986, the partnership has saved billions of kronor for its members in the form of lower interest rates.

The Swedish local government sector is strong, including through its constitutionally protected right to levy taxes. This fact, along with the joint and several guarantee issued by its members, helps ensure that Kommuninvest secures the highest credit ratings from both Moody's and Standard & Poor's.

Today, 277 municipalities and 12 regions are members of this voluntary partnership. The operations are owned and democratically governed by the members, who also share any financial surpluses. The office is located in Örebro. With some SEK 470 billion in total assets, we are Sweden's sixth-largest credit institution.



The Swedish Local Government Debt Office