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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 under company formats also being included in the data. 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 authorities' operations are being conducted in company form. For example, an increasing number of local government authorities have transferred their service and operational 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 the 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 2020 edition presents data for 2019. Details of investment levels and debt for all municipalities and regions for the years 2010-2019 are available on the Kommuninvest website, under the tab "Local Government Debt 2020".



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Long-term challenges remain

Considerable uncertainty has dominated 2020. In March, with a pandemic striking the world, crisis management gained momentum. Although this primarily entailed mitigating contagion and saving lives, the consequences for the Swedish economy have been substantial. The local government found itself at the centre of the crisis, in its handling of patients and protection of risk groups. Operations had to quickly adapt to new conditions with distance education and increased absence due to illness. We commence this report by glancing back at 2019. From where did we start? What did development look like until the outbreak of the pandemic? In a supplementary analysis, we then set out a general scenario for the debt trend in 2020 and the upcoming years.

Local government debt increased by SEK 67 billion in 2019, corresponding to a growth rate of 10.1 percent. This was a higher growth rate than in 2018. Investment continued to increase, although at a declining rate, and totalled SEK 193 billion. Higher net profit in 2019, compared with 2018, and lower growth in investments also entailed the degree of self-financing for the municipal groups remaining unchanged, while its increased sharply for the regions. Much of this can, however, be attributed to the change in accounting rules requiring financial assets to be reported at fair value. In pace with the implementation of this change in 2019, this

led to unrealised gains increasing the result. This had a positive effect on the net profit of the regions in particular, as they hold the largest financial assets.

The general subsidies from the central government, distributed in connection with the crisis, appear to conceal the negative economic effects of the pandemic. Combined with lower growth in the tax base, strengthening demographic pressure brings rising expenses, impeding the municipal sector from maintaining long-term results at the levels seen in recent years. To this must be added a rising investment trend building on factors including demographics, urbanisation and renovation needs in the existing property portfolio. On the whole, this is likely to bring a future with a lower degree of self-financing. This may not occur in 2020 or in 2021, as the central government continues to pursue vigorous initiatives, although much suggests that this will be the case in the longer term. Long-term demographic challenges are generating a financing gap for the local government sector. This can be dealt with partly by means of measures to enhance efficiency. Unless substantial tax increases are an alternative, more will be necessary to generate long-term economic sustainability, however, such as increased central government responsibility or a new financing format.

Örebro, October 2020

Tomas Werngren CEO Kommuninvest

Head of Research, Kommuninvest

Local government sector economy

With strong growth in exports, mainly in the fourth quarter, 2018 ended more strongly than expected. GDP rose by 1.2 percent in 2019. That was about half the growth rate of 2018. Although the economy was slowing down, capacity utilisation remained relatively high. The pandemic that reached Sweden in March 2020 rendered all GDP forecasts for 2020 invalid. Now it is more a matter of how great the decline will be and how quickly we can recover. With various forecasting institutes having given a more pessimistic view of GDP growth at the beginning of the summer, predicting decreases of as much as 6.3 percent, the latest forecasts have landed between 3.2 and 5 percent for 2020. Uncertainty remains substantial, however, and much depends on the near-term contagion trend, both in Sweden and the rest of the world.

Following declining net profit in the local government sector in 2018, results recovered in 2019. This was partly attributable to amended accounting regulations requiring financial assets to be recognised at fair value. At the same time, profitability also improved in the operations of municipalities and regions alike. The local government sector as a whole achieved net profit of SEK 37 billion at the group level in 2019. The regions strengthened their consolidated net profit to SEK 10 billion from a net profit of SEK 1 billion in 2018. The municipalities strengthened their net profit from SEK 26 billion to SEK 27 billion. The regional groups saw net profit from their operations improve from SEK 2.6 billion to SEK 6.2 billion, while the municipal groups saw theirs deteriorate from SEK 33 billion to

SEK 28 billion.

There was considerable variation across the country however. At the consolidated level, 54 municipalities and 8 regions reported negative outcomes for their operations in 2019. Disregarding the municipal and regional companies, 116 municipalities and 8 regions reported negative outcomes for their operations in 2019.

The future is marred by greater uncertainty than usual due to the pandemic. Over the upcoming years, growth in the tax base is expected to be low. The municipalities and regions have received beneficial support from the central government, however, with increased general grants that, given our current knowledge, broadly offset the impacts of the pandemic. Now, the challenges again concern building long-term economic sustainability. Here, demographic trends are the dominant factor. The number of seniors continues to increase, as does the number of children per person of working age. This brings increased demand and increased costs in SEK per inhabitant. At the same time, the pandemic may affect future cost trends, with changing requirements and shifts in demand for welfare services.

To date, the municipalities and regions have received considerable supplementary funding in connection with the pandemic. For this reason, strong outcomes are to be expected for 2020 and 2021. The pedagogical challenge will be to realign the operations, regardless of their strong outcomes, to meet the long-term objectives.

Local government sector investments

Sweden

The municipalities and regions are charged with a very wide-ranging welfare mission. The municipalities and regions account for slightly more than 70 percent of total public consumption expenditure, and the central government for the remainder. The municipalities account for 66 percent of the local government sector's consumption expenditure, and the regions for 34 percent. The municipalities are responsible for preschools, schools and care of the elderly, for example. The regions are responsible for health care, as well as public transport, culture and regional development, for example (see Table 1). The municipalities and regions also own more than 1,800 companies engaged in areas including housing, property and energy supply, public transport, culture, education and tourism.

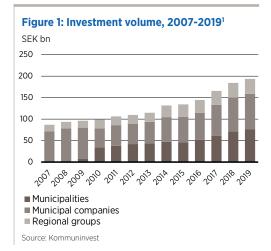
The local government sector is responsible not only for the actual operations but also for building-out and maintaining them. It is these investments that we will examine in this section

Strong population growth and urbanisation, alongside extensive renovation needs among the homes and properties built during the record years 1965–1975, are leading to continued increases in 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. This in turn leads to increased needs for investment, particularly in operational premises.

Investment growth in 2010–2019 avera-

ged 7 percent annually. In 2019, investment increased by SEK 9 billion, corresponding to 5 percent growth. This was the lowest increase since 2015. That means that the growth rate has slowed over two consecutive years. In 2019, investment totalled SEK 193 billion.

Of the sector's total investments, the municipal groups accounted for SEK 158.5 billion and the regional groups for SEK 34.6 billion, an increase of 6 and 1 percent, respectively since 2018. In 2018, the regions increased their investments by 12 percent and the municipal groups by 8 percent. In turn, SEK 75.6 billion of the investments by the municipal groups were made by the municipalities, and investments of SEK 82.8 billion were made by municipal companies, corresponding in both cases to an increase of 6 percent in 2019. Despite the declining growth rate, the level of investment remains high.



oluntary and culture al services supply s development	Compulsory Public transport	Compulsory Health and care Dental care ²⁾ Regional developments responsibility	Education
al services supply s development	Public transport	Dental care ²⁾ Regional development	Education ent
supply s development		Regional developme	ent
s development			
· ·			
construction			

 Due to changes in amortisation rules, the results for 2014-2019 are not entirely comparable with those for previous years.

Figure 2: **Distribution of investment in municipal groups**



- Properties 31%
- Housing 24%
- Infrastructure 18%
- Water/sewage 11%
- Energy 10%
- Other 6%

Source: Kommuninvest

Figure 3: **Distribution** of investment in regional groups



- Properties 49%
- Infrastructure 14%
- Medical equipment 12%
- Public transportation 16%
- Other 8%

Source: Kommuninvest

2) To gain an overview of the distribution of investment between municipalities and regions, we collect data from the summary financial statements and divide them by category. With regard to the municipal companies, we review the investments made by the 50 largest municipalities by studying their companies annual reports. With regard to the regions, we examine all of their companies. A total SEK 138 billion is distributed of a total SEK 158 billion, corresponding to 87 percent for the municipal groups and to all of the investments made in the regional groups. 3) Throughout the report, figures in parentheses refer

Distribution of investments²

Municipalities

Over time, the distribution of investments between various assets has been relatively constant. Of the municipal groups' investments in 2019, 55 percent involved investments in housing and properties, which was the same distribution as in 2018. Housing investments include new construction as well as renovation and long-term maintenance of existing stocks. Investments in properties mainly pertain to those made in homes for the elderly, preschools and schools, as well as sports facilities and swimming pools. Some municipalities are also involved in commercial properties, such as parking garages and industrial facilities. Infrastructure investments in streets, roads, parks, water treatment plants and water and sewage pipelines, ports and airports accounted for 29 (30)3 percent of total investment, while investments in district heating and electricity, as well as in power and telecommunications mains by municipal energy companies accounted for 10 (9) percent. The item Other mainly includes investments in machinery and equipment - among other things, vehicles.

Regions

In 2019, the combined investment levels among Sweden's regional groups increased by slightly more than 1 percent compared with 2018. For a long time, the investment trend has been driven by events in Region Stockholm, which accounted for about 34 (35) percent of the regional groups' total investments in 2019. In 2019, Region Stockholm lowered its investment level by SEK 132 million compared with the preceding year.

The highest rate of increase, both nominally and as a percentage, is in Region Västmanland, which increased its group investment level by SEK 347 million, equivalent to a 103-percent increase compared with 2018.

The lowest rate of increase is found in Region Kronoberg, which lowered its investment level by SEK 221 million, equivalent to a 39-percent decrease compared with 2018. In nominal terms, Region Uppsala's investment level decreased most, by approximately SEK 578 million, equivalent to a 31-percent decrease compared with 2018.

The distribution of the regional groups' investments changed slightly in 2019, with properties in particular receiving a lower proportion and infrastructure a higher proportion. About half, 49 (55) percent, of the investments involved properties, primarily the building and remodelling of hospital properties. In total, investments in infrastructure and public transport accounted for 30 (25) percent of the investment volume, and these remained concentrated largely in Region Stockholm. New medical equipment accounted for 12 (16) percent of the investment volume, while the remaining 8 (4) percent was shared among investments in other equipment.

Investments per municipal category, region and county

Municipal category

In comparing different types of municipalities, Kommuninvest uses the division into municipal categories developed by the Swedish Association of Local Authorities and Regions (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 farreaching 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 is often greater than between municipal categories.

The municipal groups' average investment level amounted to SEK 15,300 per inhabitant in 2019, which can be compared with SEK 14,600 per inhabitant in 2018. There were substantial differences between the municipal categories. Various factors played a greater or lesser role in the investments made by different groups. The municipal category "Large cities" is experiencing both population growth and demographic changes, with simultaneous maintenance needs in the existing property stocks. Among the municipal category "Rural municipalities", it is largely a

matter of maintenance, but also the consequences of shifting demographics. Furthermore, the larger municipalities in terms of population have relatively large corporate groups, giving higher investment levels, measured in SEK, than other municipalities in the country.

Figure 4 also shows that the municipal categories "Metropolitan municipalities" and "Large cities" had a higher average investment level than other municipal categories, at SEK 19,700 and SEK 17,100 per inhabitant respectively. The pattern was the same as in 2018. However, the municipal category "Smaller city/town" has experienced a higher growth rate and is approaching the same investment level in SEK per inhabitant as the category "Large cities". In 2018, the lowest investment level was in the municipal group "Commuter municipalities near smaller city/ town". However, with this category then having had the highest growth rate in 2019, at 13 percent, the municipal category "Commuter municipality near a large city" took over as the group with the lowest level of investment.

The investment level per inhabitant increased by 4.9 percent for Sweden as a whole. Due to population growth, this figure was slightly lower than investment growth. All municipal categories except "Commuter municipality near metropolitan municipality" showed positive growth in investment.

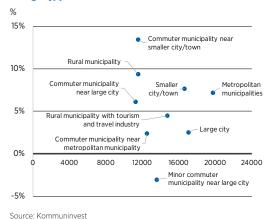
Regions

The regions' average investment level amounted to SEK 3,400 per inhabitant in 2019, entailing stagnation or, rather, a slight deterioration compared with 2018.⁴ This was the first year without growth in investments in SEK per inhabitant since 2015.

Region Örebro County and Region Västerbotten showed the highest investment levels in 2019 at SEK 5,590 and SEK 5,325 per inhabitant respectively.

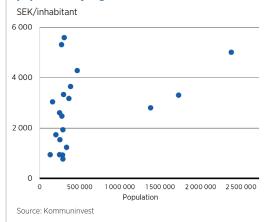
In 2019, Region Stockholm reduced its level of investment per inhabitant by about 2 percent compared with the preceding year. The year 2018 was the first in which it did not invest most among the regions, with this situation persisting in 2019. Region Gävleborg had the lowest average investment level at SEK 779 (800) per inhabitant.

Figure 4: Investment per inhabitant and municipal category, plus rate of investment increase



Source: Kommuninvest

Figure 5: Investment per inhabitant and population by region



4) Region Gotland is excluded from the data on the regions.

Counties

The county level corresponds to the municipalities within each county, plus the region. Investment in SEK per inhabitant increased by 31 percent in the County of Västerbotten, making this the county that invested most in SEK per inhabitant in 2019. The second-highest investment in SEK per inhabitant was in the County of Stockholm. At the same time, the total investment amounts differed markedly, at SEK 7 billion in the County of Västerbotten and SEK 50 billion in the County of Stockholm. The high level of investment in the County of Västerbotten was explained by substantial growth in the Municipality of Skellefteå, which has a large corporate group that accounted for a 38 percent of the total investments in the county. Umeå had the second-highest level of investment in SEK per inhabitant in the county. It accounted for 34 percent of the county's investments. Excluding the regions' investments, the County of

Västerbotten still had the highest level of investment in SEK per inhabitant – this time followed by the County of Halland. The lowest level of investment in SEK per inhabitant was noted in the Counties of Västernorrland and Gotland.

The largest increase in 2019 occurred in the County of Blekinge, both including and excluding the region. This was because all of the municipalities in the county experienced growth of more than 17 percent, with the largest increase occurring in the Municipality of Karlskrona at 64 percent. In seven counties, investment decreased in 2019. In 2018, that had applied to only two counties.

Municipalities investing most in 2019

Several of Sweden's largest municipalities in terms of population are included in *Table 3*. With a few exceptions, investment volumes, in absolute figures, follow the population size

Counties	Investment per inhabitant	Investment per inhabitant (excluding region)	Investment in SEK million	Investment in SEK million (excluding region)	Change since 2018	Change since 2018 (exclu- ding region)
Västerbotten	26,561	21,236	7,218	5,771	31%	33%
Stockholm	20,973	15,952	49,855	37,919	2%	3%
Västmanland	20,580	18,101	5,677	4,993	18%	12%
Halland	20,226	18,986	6,752	6,338	16%	16%
Östergötland	20,097	15,813	9,355	7,361	12%	11%
Norrbotten	19,734	18,195	4,935	4,550	-2%	-2%
Västra Götaland	19,652	16,336	33,918	28,194	6%	7%
Örebro	19,010	13,419	5,794	4,090	-5%	-9%
Uppsala	18,884	15,222	7,246	5,841	-12%	-7%
Sweden	18,695	15,344	193,070	158,465	5%	6%
Jönköping	18,160	14,975	6,603	5,445	18%	15%
Blekinge	17,503	14,453	2,794	2,307	33%	42%
Skåne	16,877	14,061	23,254	19,374	3%	5%
Södermanland	16,695	13,355	4,968	3,974	7%	8%
Kalmar	15,984	13,376	3,923	3,283	-3%	-2%
Dalarna	15,676	13,731	4,514	3,954	2%	0%
Kronoberg	14,838	13,101	2,989	2,639	8%	20%
Jämtland	14,204	13,261	1,858	1,735	-7%	-4%
Gävleborg	13,634	12,855	3,918	3,694	-1%	-1%
Värmland	13,468	12,539	3,804	3,541	10%	14%
Gotland	12,231	12,231	730	730	-25%	-25%
Västernorrland	12,085	11,135	2,965	2,732	7%	8%

of the municipalities. The three municipalities with the largest investment volumes were, as in 2018, Sweden's largest municipalities in terms of population. Stockholm had weak growth of 2 percent. In Gothenburg, growth was all the higher at 25 percent.

Skellefteå had the largest investment volume in SEK per inhabitant. Lund, Norrköping and Borås have fallen off the list since 2018. Jönköping, Umeå and Skellefteå have been added.

The list of municipalities with the largest investment volumes per inhabitant changes from year to year. This is often attributable to an individual major investment, sometimes carried out over one or two calendar years,

has a considerable impact in a small or medium-sized municipality. This is also evident in the variation in total investment volume in SEK millions.

As in previous years, both Kiruna and Gällivare were among the municipalities with the largest investment volumes in SEK per inhabitant in 2019. Both municipalities are undergoing a process of urban transformation in connection with the expansion of LKAB's mining operations.

Skellefteå is the only larger municipality to have been included in the top list since 2014, partly as a result of large investments in its energy company.

Table 3: Investment volume, in total and per inhabitant

Municipal corporation	Investment volume in SEK million, 2019	Investment volume per inhabitant, 2019	Investment volume in SEK million, 2018	Investment volume per inhabitant, 2018
Stockholm	19,910	20,440	19,608	20,379
Gothenburg	12,806	22,107	10,250	17,924
Malmö	4,753	13,810	4,655	13,719
Uppsala	3,702	16,042	3,851	17,103
Linköping	3,597	22,061	2,831	17,580
Västerås	3,318	21,539	3,167	20,825
Skellefteå	2,738	37,719	2,036	28,096
Örebro	2,541	16,318	2,590	16,889
Umeå	2,423	18,797	1,809	14,231
Jönköping	2,401	17,019	1,859	13,353

Table 4: Municipal groups with greatest investment volumes per inhabitant in 2019

Municipal corporation	Investment volume, SEK per inhabitant, 2019	SEK million	Comments
Gällivare	46,578	816	Urban transformation
Skellefteå	37,719	2738	Properties such as cultural centres, athletics halls and operational premises, as well as investments by the energy company
Kiruna	36,699	839	Urban transformation
Vaggeryd	36,434	520	Properties including a home for the elderly and a preschool
Ystad	29,230	893	Ferry quay and school
Vadstena	28,459	211	Water and sewerage investments
Sigtuna	26,021	1274	Schools, preschools, fire station and housing
Ovanåker	23,447	274	School, nursing home for the elderly and housing
Malung-Sälen	23,026	233	Operational premises, housing and expansion of electricity networks
Boden	22,970	645	Water and sewerage, energy, preschool, operational premises
Source: Kommuninvest			

Local government debt⁵

Sweden

At the close of 2019, the local government sector's total debt amounted to SEK 726 billion. This represented an increase of SEK 67 billion or 10 percent, compared with 2018. In 2019, average debt per inhabitant amounted to SEK 70,328. That was SEK 5,858 more than in 2018. Debt as a proportion of GDP increased by 0.9 percentage points and amounted to 14.5 percent in 2019.6

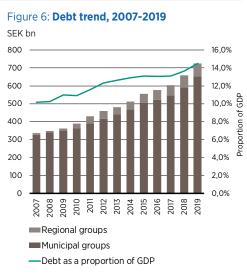
Table 5: Local government sector borrowing

	2019	2018	2017
Debt in SEK bn	726	659	604
Percentage increase	10.1%	9.1%	4.7%
Municipal groups	653	592	548
Regional groups	73	67	56
Debt per inhabitant in SEK	70,287	64,432	59,719
Proportion of GDP	14.5%	13.6%	13.1%

Source: Kommuninvest

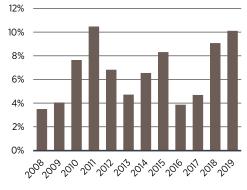
Of the country's 290 municipalities, 63 municipalities reduced their debt by a total of SEK 4.6 billion. Three municipalities' debt remained unchanged. Of the municipalities, 224 increased their debt by a total of SEK 65 billion. Among the regions, three reduced their debt by SEK 164 million. 12 regions increased their debt by a total of SEK 6.6 billion. For the remaining five regions, debt was unchanged.

The increase of SEK 67 billion and 0.9 percentage points in the share of GDP is the largest increase since measurements commenced. In the 2000s, the local government sector's debt 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. Since 2010, debt in absolute terms has increased by slightly more than SEK 336 billion, corresponding to an average annual rate of increase of 7.2 percent. Naturally, most of the debt is found in the country's metropolitan areas and larger cities. If we look at the distribution of the loan debt for the municipal groups, 64 percent is found in the 50 largest municipalities in terms of population. The 100 smallest municipalities have 7.7 percent of the population and 6.1 percent of the total loan debt.



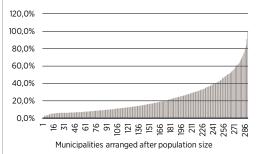
Source: Kommuninvest

Figure 7: Rate of increase in debt, 2008-2019



Source: Kommuninvest

Figure 8: **Distribution of debt between** municipal groups sorted by population size



Source: Kommuninvest

5) We collate debt data by registering figures from the annual reports of the municipalities and regions Debt includes all interest-bearing debt, including financial leasing. New recommendations on the definition of financial leasing have also come into effect since 2019.Put briefly, this entails all leasing in which the risk and benefits of ownership are largely transferred from the lessor to the lessee being viewed as financial leasing. When reviewing the debt figures in 2019, the 2018 figures have also been corrected where errors of allocation have been

observed.
6) Source: STATISTICS SWEDEN.

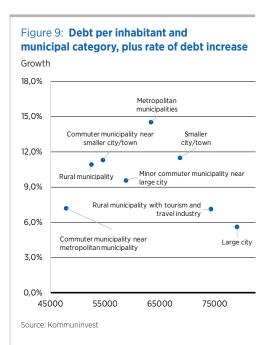
Debt by municipal category, region and county

Municipal categories

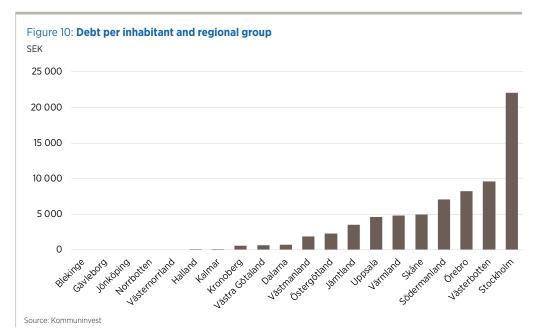
Figure 9 shows a relatively broad spread in terms of average debt per inhabitant between municipal categories. While the municipal category "Large cities" had significantly higher average debt than other municipal groups in 2019, at SEK 79,100 per inhabitant, it had the lowest growth rate of the municipal categories. As in 2018, the "Large cities" had the highest growth rate. In 2019, debt rose at a 15 percent rate of increase to SEK 63,350 per inhabitant.

Regions

The regions' debt of SEK 73 billion was distributed unevenly between the country's 20 regions⁷ Region Stockholm's debt amounted to 52.5 billion, corresponding to 72 percent of the regions' total debt. Stockholm's share of debt decreased for the second consecutive year. In 2017, the proportion was 82 percent and, in 2018, it was 77 percent. *Figure 10* shows that Region Stockholm also had the highest debt per inhabitant, at SEK 22,100, followed by Region Västerbotten at SEK 9,600 per inhabitant and Region Örebro



County at SEK 8,200 per inhabitant. Five regions had no debt in 2019, which can be compared with seven regions in 2018 and ten regions in 2017.



7) Region Gotland is excluded from the data on the regions.

Distribution of debt

At the county level, the County of Örebro continued to have the highest average debt per inhabitant, at SEK 96,000 (see Table 6). Region Örebro experienced the strongest increase in debt in the county at 104 percent, although this was from low levels. The Municipality of Örebro, with 51 percent of the total population, accounted for 55 percent of the county's total debt. Over the past five years, the population of the Municipality of Örebro has grown by an average 9.2 percent annually. This vigorous population growth has necessitated extensive investment in welfare and housing.

Having been noted for having the lowest debt per inhabitant in 2018, Halland County had the strongest growth of any county in 2019. In 2019, it was thus the County of Norrbotten that became the county with the lowest debt at SEK 54,900 per inhabitant. It was also one of the counties in which the region had no debt. Excluding the regions' debt, the County of Stockholm would have had the lowest debt, at SEK 51,100 per inhabitant. This was despite that county having

the second-highest growth rate in debt in 2019. 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. It is also the county with the highest population growth. With decreases having been noted in two counties in 2018, debt per inhabitant did not decrease in any county in 2019.

Debt by municipality

Municipal groups with the highest debt in 2019

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 net profit and/or assets. A high level of debt usually indicates significant asset values in, for example, property, housing and/or energy generation. In practice, this means that the municipality with the highest

Counties	Debt per inhabitant	Debt per inhabitant (excluding region)	Debt in SEK million	Debt in SEK million (excluding region)	Change since 2018	Change since 2018 (exclu- ding region)
Örebro	96,022	87,817	29,268	26,767	6.1%	1.5%
Västerbotten	90,522	80,954	24,598	21,998	17.0%	13.3%
Östergötland	86,662	84,389	40,341	39,283	11.4%	10.3%
Uppsala	79,886	75,275	30,653	28,884	9.7%	9.3%
Södermanland	79,413	72,369	23,629	21,533	10.3%	6.8%
Västernorrland	76,041	76,041	18,656	18,656	7.1%	7.1%
Stockholm	73,191	51,118	173,982	121,512	10.8%	14.3%
Kronoberg	71,183	70,602	14,341	14,224	14.7%	14.1%
Dalarna	70,602	69,894	20,331	20,127	13.3%	14.1%
Sweden	70,328	63,207	725,890	652,776	10.1%	10.2%
Blekinge	69,646	69,646	11,116	11,116	10.8%	10.8%
Västra Götaland	69,508	68,860	119,962	118,843	9.4%	9.4%
Jämtland	69,003	65,465	9,026	8,564	5.1%	3.0%
Kalmar	67,067	66,999	16,461	16,445	8.3%	8.2%
Västmanland	66,214	64,335	18,265	17,747	14.6%	13.9%
Jönköping	63,787	63,787	23,193	23,193	8.5%	8.5%
Skåne	61,575	56,632	84,840	78,029	8.8%	8.6%
Halland	58,156	58,133	19,415	19,408	18.1%	18.2%
Värmland	57,184	52,351	16,149	14,785	8.4%	9.6%
Gävleborg	55,896	55,896	16,063	16,063	5.9%	5.9%
Norrbotten	54,948	54,948	13,742	13,742	5.6%	5.6%

debt per inhabitant in 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, as a rule, 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 debt over a number of years are often in a period of increased investment levels, while a longer period of constant or decreasing debt indicates a period of lower investment levels and financial consolidation.

The City of Stockholm's debt increased by 20 percent in 2019, which was slightly lower than the increase of 25 percent in 2018. This meant that, at SEK 58 billion, Stockholm remained the municipality with the highest debt. This SEK 58 billion corresponds to 9 percent of total local government debt in Sweden. Among the municipalities in *Table 7*,

Linköping has the highest debt per inhabitant accounting for 2.9 percent of total debt with 1.6 percent of the population. Trollhättan had the highest debt per inhabitant of all municipalities. Trollhättan has also made major investments and been included in the list of municipalities with the highest level of investment in SEK per inhabitant, ending up in 11th place this year. Ystad has the highest growth in debt per inhabitant at 40 percent, with 40-percent growth in debt being noted in 2019. Investments in harbour facilities were a key reason for this. Ystad was also among the municipalities with the highest level of investment in SEK per inhabitant in 2019. The Municipality of Skellefteå owns a large energy company, necessitating a high level of investment and a high level of debt in SEK per inhabitant. The Municipality of Örebro is reducing its debt in SEK per inhabitant despite higher volumes due to population growth.

Table 7: Municipal groups with the highest debt in 2019

	Debt, 2019, SEK bn	Percentage change, 2019	Debt, 2018, SEK bn (investment)	Debt, 2017, SEK bn (investment)
Stockholm	58.1	20%	48.4 (1)	38.6 (2)
Gothenburg	46.8	10%	42.5 (2)	41 (1)
Linköping	19.0	11%	17.1 (3)	16.9 (3)
Uppsala	17.8	8%	16.4 (4)	15.5 (4)
Örebro	16.0	1%	15.7 (5)	14.5 (5)
Malmö	15.3	21%	12.6 (6)	12.5 (6)
Norrköping	12.6	9%	11.5 (7)	10.8 (7)
Västerås	10.8	12%	9.6 (10)	9.3 (10)
Lund	10.6	5%	10.1 (8)	8.8 (12)
Umeå	10.5	14%	9.1 (11)	8.8 (11)

Table 8: Municipal groups with highest debt per inhabitant in 2019

	Debt per inhabitant in SEK thousands, 2019	Percentage change, 2019	Debt per inhabitant, 2018, SEK, thousands (investment)	Debt per inhabitant, 2017, SEK, thousands (investment)
Trollhättan	129.2	17%	110.2 (2)	101.3 (3)
Skellefteå	120.9	14%	106 (4)	90.9 (6)
Ystad	119.8	40%	85.7 (20)	83 (17)
Strömstad	117.2	4%	112.4 (1)	95.3 (5)
Linköping	116.6	10%	106.2 (3)	106.8 (1)
Hammarö	108.3	19%	90.8 (10)	71.8 (41)
Tierp	102.7	14%	90 (12)	79.3 (24)
Örebro	102.5	0%	102.7 (5)	97 (4)
Gnesta	100.1	8%	92.3 (8)	77.1 (28)
Sundsvall	99.7	9%	91.5 (9)	84.3 (14)
Source: Kommuninvest				

Local government sector funding

The local government sector's combined debt rose by 10 percent in 2019 and amounted to SEK 726 billion at the end of the year. Of this, 56 (54) percent was financed through Kommuninvest. A further 30 (31) percent was borrowed directly through proprietary debt capital market programmes. The remaining 14 (15) percent of the financing was raised through banks. From 2015 to 2019, Kommuninvest's lending grew by an average 13 percent annually. The local government sector's average annual growth rate over the same period was 7 percent. Borrowing through proprietary debt capital market programmes grew, although at a slower rate than the sector's total debt. Consequently, the market share for proprietary debt capital market programmes fell by one percentage point. This was the same decrease as in 2018. The banks' lending to the local government sector

continued to decrease in 2020. The banks' share decreased by an average 8 percent annually between 2015 and 2019. Table 10 shows that there were considerable differences in how municipalities chose to distribute their funding between different funding options. In 2019, municipal and regional groups with membership in Kommuninvest and debt of up to SEK 6 billion secured 91.5 percent of their financing through Kommuninvest. In practice, this means that a large proportion of Sweden's municipalities arranged their entire financing through Kommuninvest. Larger municipal groups that are not members of Kommuninvest secured 70 percent of their financing directly via the capital market, representing an increase of 3 percentage points since 2018. They secure the remainder primarily through the European Investment Bank (EIB) and the Nordic Investment Bank (NIB).

• Debt: 160

• Banks: 30%

• Market programmes: 70%

	2015	2016	2017	2018	2019
Funding in SEK billion	251	274	308	354	407
Market share	45%	47%	51%	54%	56%
Funding in SEK billion	173	180	193	202	217
Market share	31%	31%	32%	31%	309
Funding in SEK billion	132	123	103	103	10:
Market share	24%	21%	17%	16%	149
	n in group debt			illion in gro	
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Number of municipalit		Number regions:	r of munici	palities and	
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Number of municipalit regions: 273Debt: SEK 335 billion	ies and	Number regions: Debt: Si Kommu	r of munici : 17 EK 214 billi	palities and on	<u> </u>
Number of municipalit regions: 273Debt: SEK 335 billionKommuninvest: 91.5%	ies and	Number regions: Debt: Si Kommu	r of munici : 17 EK 214 billi :ninvest: 47 programm	palities and on	<u> </u>
	Market share Funding in SEK billion Market share Funding in SEK billion Market share	Funding in SEK billion 251 Market share 45% Funding in SEK billion 173 Market share 31% Funding in SEK billion 132 Market share 24%	Funding in SEK billion 251 274 Market share 45% 47% Funding in SEK billion 173 180 Market share 31% 31% Funding in SEK billion 132 123 Market share 24% 21%	Funding in SEK billion 251 274 308 Market share 45% 47% 51% Funding in SEK billion 173 180 193 Market share 31% 31% 32% Funding in SEK billion 132 123 103 Market share 24% 21% 17%	Funding in SEK billion 251 274 308 354 Market share 45% 47% 51% 54% Funding in SEK billion 173 180 193 202 Market share 31% 31% 32% 31% Funding in SEK billion 132 123 103 103

• Debt: SEK 17 billion

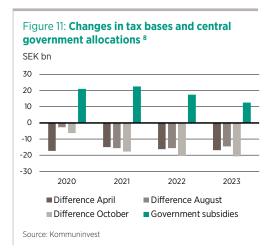
• Banks: 36%

• Market programmes: 64%

Debt trend

When the pandemic broke out in March 2020, lending from Kommuninvest increased. The financial market was shaken. Uncertainty was greater than usual for municipalities issuing bonds through proprietary debt capital market programmes. Despite the increase in lending, the forecast debt trend was revised down in June. The main reason was that, in accordance with current regulations, tax payments to municipalities and regions had already been set during the preceding year. In terms of liquidity, a discrepancy between the outcome and the forecast shall not be redressed until two years after the current year - in other words in 2022. During the spring, the central government also issued its initial crisis package of SEK 15 billion to the local government sector, strengthening the sector's liquidity. A number of factors also appeared able to increase costs and decrease revenues for the local government sector. Many municipalities prepared local support packages for business and industry. Revenues declined in areas including public transport, parking, culture, leisure, etc. Certain types of municipal companies, including event organisers and airports, saw their revenues disappear completely while major parts of their expenditure remained.

Things can change quickly during a crisis. In April, the scenario for growth in the tax base in 2020 was 0.9 percent, according to SALAR. This represented a sharp write-down from the February forecast of 2.4 percent. In August, however, a new scenario was issued, in which SALAR again estimated that growth would end up at 2.4 percent in 2020. In October, the scenario for 2020 was adjusted to 1.9 percent. Making trend forecasts or assessments is not easy in a crisis. Much can change quickly. Uncertainty remains high regarding the spread of infection. Various central government initiatives, including shortterm layoffs and increased basic allowances in the unemployment insurance funds, affect the tax base trend, the local government sector's net profit, as well as the debt trend. Municipalities and regions have also received



record contributions in the form of various central government allocations. For 2020, this is entails an additional SEK 21 billion. For 2021, it entails SEK 22.5 billion in increased general allocations, as well as an additional SEK 9 billion in targeted allocations requiring no quid pro quo. The combined impact of the changes in the tax base and increased allocations entail positive net revenue for 2020 and 2021 but, to date, negative net revenue for 2022 and 2023. See *Figure 11*.

The black bars show the deterioration in forecast tax bases between the February forecast and the April forecast. The dark grey bar shows the deterioration between the February forecast and the August forecast. The light grey bar shows the deterioration between the February forecast and the October forecast. The turquoise bars show how much central government allocations have increased since the outbreak of the pandemic in March. Accordingly, the net effect for each year is the sum of either the black, dark grey or light grey bar and the turquoise bar.

Although the central government's initiatives offset the effects of the pandemic, the long-term challenges remain. An increased demographic dependency ratio and strong population growth are causing a steep cost trend. The forecast for debt rests primarily

8) Figure 11 only includes the increase in the general allocations announced following the outbreak of the pandemic. Earmarked allocations are not included as they cover specific cost increases or are intended to strengthen a certain activity.

on two factors, the investment trend and the sector's combined net profit. In turn, the net profit trend is affected by factors including central government allocations, development in the tax base and the cost trend. In the investment section, we saw that the growth rate has abated in recent years. From a peak of 14 percent for 2017, it decreased to 11 percent for 2018 and to 5 percent for 2019.

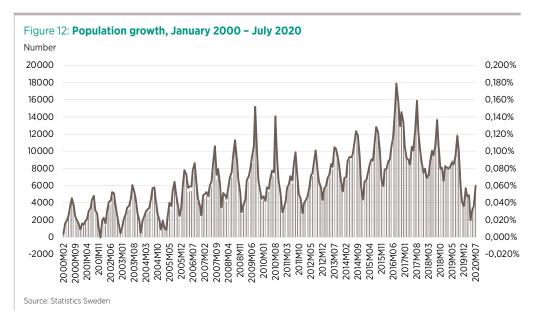
With an investment volume of SEK 35 billion, the regions, accounted for 18 percent of investment in 2019. Most investments were made in property. There is still a substantial need for upgrading and construction of hospitals and health care centres, associated primarily with strong population growth and many existing hospitals having been constructed in the 1960s. This suggests that investment levels will remain high over the upcoming years.

The municipal groups account for the remaining 82 percent of investment, distributed between 39 percent by the municipalities and 43 percent by the companies. The municipa-

lities' investments largely involve operational premises. The demographic trend, including population growth, means that considerable need for investment remains. This may, however, be affected by the pandemic, leading to decreased demand for care of the elderly or lower population growth. Although this growth has exceeded the average for quite some time, but has declined during the pandemic. While population growth may return to the higher level once the pandemic has passed, we could also see a permanently lower growth rate.

Uncertainty is substantial. Investment is generally planned on a longer-term basis, and is therefore less affected by short-term population growth. Depending on the duration of the impact, however, investment could be affected in the longer term.

Looking at the areas of local government operations financed through taxes, Swedish Water states in its latest investment report that the level of investment in water and sewerage needs to increase by 40 percent.⁹



Swedish Water (2020) Investment needs and future costs for municipal water and sewerage

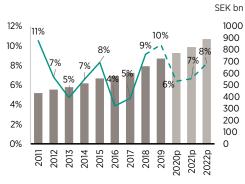
Housing is another area constituting a substantial proportion of total investment. In 2020, 212 municipalities report housing market deficits. Over the period 2016 to 2019, this figure exceeded 240. This can be compared with 2013, when 128 municipalities reported a deficit. According to SBAB's assessment, there is an aggregate housing shortage of 160,000 apartments in Sweden.¹⁰

It is likely that local government sector investment levels will remain high. It is unlikely, however, that the growth rate will reach the very high levels observed in 2017 and 2018. It will be difficult to maintain a really high growth rate in future years. Rather, we foresee a return to an average or slightly lower than average growth rate.

According to currently available data, the result will develop strongly in 2020 and 2021. The discrepancy from the tax base growth forecast in 2020 may be repaid in 2022. The net effect remains positive. However, with the demographic trend exerting upward pressure on costs, and with low growth in the tax base, the underlying dynamics will, on most counts lead to a weaker earnings trend and faster growth in debt 2022.

One factor affecting loan financing needs that we have not taken into account in this data, is sales of existing assets. Between 2011 and 2019, about 10 percent of investments were financed through the sale of tangible fixed assets. Kommuninvest published an analysis of such sales in 2017. This showed that these sales mainly involved residential properties, although some operational premises were also sold.¹² An increase or decrease in sales would also affect the debt trend. Forecasting this factor is difficult as political decisions are involved. Based on known information, we make the assessment that growth in debt will be lower for 2020 and 2021, to increase again for 2022.

Figure 13: **Debt trend from 2011 to 2019 and forecast until 2022**



¹⁰⁾ SBAB (2019), Bostadsbristen i perspektiv; Insiktsrapport nr 2 2019 (The housing shortage in perspective; insight report No. 2, 2019).

II) The central government determines a calculation factor that then determines the municipalities' tax revenues. If a change the occurs in the tax base growth compared with this forecast, the municipalities/central government repay this with a two-year lag.

¹²⁾ Kommuninvest (2017)
Sales of local government
fixed assets between 2013
and 2016

Green funding of local government investment

Interest in green funding continues to grow

Since 2013, when Gothenburg became the first municipality in the world to issue a green bond, interest in local government sector green financing has increased. In the ensuing year, 2014, Stockholm County Council (now Region Stockholm) was the first region to issue a green bond to finance major investments in green development projects. Kommuninvest issued its first green bond at the end of 2015 and, in May 2020, it issued its tenth. As a result, Kommuninvest's total outstanding volume increased to SEK 37.5 billion, of which SEK 22.5 billion was issued in SEK.

Figure 14 shows the development of the Swedish green bond market. At the end of the second quarter of 2020, the volume of green bonds was slightly more than SEK 67 billion, corresponding to about 8.9 percent of the local government sector's total outstanding debt.

Kommuninvest's Green Loans

At the start of 2020, more than 329 projects had been financed in 148 municipalities and regions. At the end of the second quarter of 2020, a total of SEK 70 billion had been approved for green investment projects, of which SEK 49 billion had been disbursed. At the end of the second quarter of 2020, green loans accounted for approximately 11.2 percent of Kommuninvest's total lending.

Green loans are divided into eight categories depending on the purpose of the investment. In terms of approved lending, green buildings are the largest category at 54 percent of the green lending portfolio. See *Figure 15*.

Today, many local government authorities have plans of action in place to achieve the environmental goals in Agenda 2030. As needs to upgrade older operational premises grow, alongside, for example, needs for extensions and increased demands on water supply networks and water treatment, opportunities for the green portion of loan financing to grow also increases. This enables the local government sector to continue setting an example in green transition and green financing.

For a green transition to be possible, both large and small investments are needed. Accordingly, these vary considerably in size

Figure 14: Outstanding volume of green bonds from the local government sector in SEK billion.

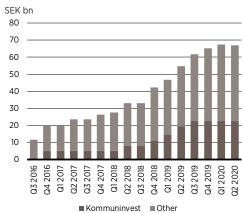
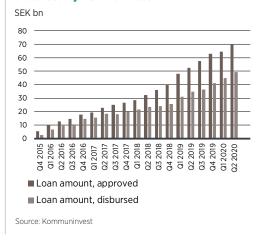


Figure 15: Volume of green loans approved and disbursed by Kommuninvest 13

Source: Kommuninvest



and thus loan volume: from the smallest at SEK 0.25 million to slightly more than SEK 3 billion. *Table 11* presents the lowest and highest approved amounts in each category, as well as the types of investment to which they pertain.

In 2019, sustainability projects in municipalities and regions financing their investments through Kommuninvest's Green loans helped reduce CO₂ emissions by approximately 610,596 tonnes. The number of projects is gradually increasing as general investment needs increases and sustainability efforts are strengthened.

¹³⁾ Note that Kommuninvest's green lending consistently exceeds the company's green funding. This means that Kommuninvest can guarantee that funding is allocated to assessed and approved green projects.

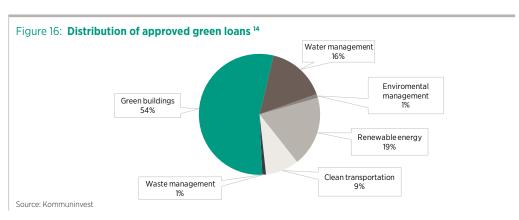


Table 11: Highest and Ic		unts approved by r	nunicipality a	nd category 15
Category (number of projects)	Lowest/highest loan amounts (approved)	Municipality/ region/company	Amount (SEK million)	Description
Renewable energy (54)	Lowest	Municipality of Kalmar	3	Installation of photovoltaic cells on roof of town hall
Renewable energy (54)	Highest	City of Borås	1,900	New combined power and heating plant fired by biofuel
Green buildings and energy efficiency	Lowest	Municipality of Kalmar	0.25	Replacement of oil-fired boiler – phasing out of fossil fuels
enhancement (237)	Highest	Region Sörmland	3,061	Hospital building
Sustainable transport (16)	Lowest	Åhus Hamn och Stuveri AB	20	Port crane
Sustainable transport (10)	Highest	AB Transitio	2,300	Acquisition of rolling stock for Krösatågen trains
Water to attract (40)	Lowest	Water and waste in Malung-Sälen	4	Upgrade of sewage treatment plant
Water treatment (49)	Highest	Municipality of Luleå	1,400	Doubling of water mains capacity
Energy efficiency enhancement primarily	Lowest	Region Uppsala	3	Technology replacements reducing energy consumption
in fossil-fuel-free energy systems (8)	Highest	Västra mälardalens energi och miljö AB	100	Connection of Köping and Arboga district heating plants
	Lowest	Region Uppsala	0.56	New waste sorting building
Waste management (7)	Highest	Halmstad town hall	125	Optical waste sorting – increased production of biogas, etc.
Climate adaptation measures in buildings, infrastructure and sensitive environments (1)	Lowest	Municipality of Kristianstad	16	Construction of flood protection dike
Environmental measures in areas other than climate	Lowest	Municipality of Kalmar	13.5	Measures to reduce acidification in dredging dump
change mitigation and adaptation (7)	Highest	Municipality of Kalmar	129	Covering of closed landfill to mitigate spread of pollutants
Source: Kommuninvest				

¹⁴⁾ The categories "Climate adaptation measures in buildings, infrastructure and sensitive environments" and "energy efficiency enhancement primarily in fossil-fuel-free energy systems" have a share of less than 0.5 percent each and are therefore not

share or less than 0.5 percent each and are therefore not shown in the figure.

15) The fact that some projects involve more than one loan has not been taken into account. Accordingly, the actual number of projects is slightly less than indicated in the table.

Local government sector 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 2020. The material comprises data on 6,353 loans, commercial papers and bonds for a total value of SEK 484 billion and 1,793 derivative contracts for which the underlying loan amount is equivalent to SEK 180 billion.

The average period for which capital is tied up has gradually increased since the first quarter of 2017. Although it remains relatively brief at 2.82 years at the end of the second quarter of 2020. As shown in *Figure 16*, 24 percent of the loan portfolio matures within a year and a further 22 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 local government sector debt, 48 percent was subject to a floating interest rate base, generally 3M Stibor, on 30 June 2020, Many local government actors finance their investments through loans with short terms for which capital is tied up and for which interest is fixed. Financial derivatives are then used by certain actors to extend the period of fixed interest, resulting in the fixed interest term for the local government 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 debt is renewed each year, the average level of interest has fallen continuously in recent years as an effect of market rates remaining at an historically low level. At the end of 2015, the average interest rate was 1.77 percent. At the close of the second quarter of 2020, it had fallen to 1.12 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 SEK 720 million for the local government sector.

Figure 17: Capital tied up and fixed interest, incl. and excl. derivatives, 30 June 2020

Of total debt

0,7

0,6

0,5

0,4

30

0,2

0,1

0

0-1

1-2

2-3

3-4

4-5

5-7

7-10

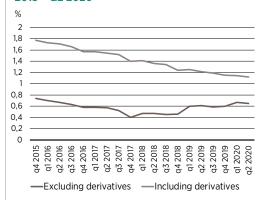
years years years years years years years

Capital tied up

Fixed interest excluding derivatives

Figure 18: Average interest rate per quarter, Q4 2015 - Q2 2020

■ Fixed interest including derivatives



SALAR's categorisation of municipalities

Presented here is a description of SALAR's categorisation of municipalities 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 metro- politan 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	43
B. Large cities and municipalities near large cities	B3. Large city	At least 40,000 but less than 200,000 inhabitants in the muni- cipality's largest urban area	21
	B4. Commuter municipality near large city	At least 40 percent outbound commuting to a large city	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 muni- cipality'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 municipality's largest urban area, less pronounced commu- ting 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, 278 municipalities and 14 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 537 billion in total assets, we are Sweden's sixth-largest credit institution.



The Swedish Local Government Debt Office