



Local government financial resilience: Swedish municipalities and regions

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Executive Summary

This report investigates the financial resilience of Swedish local governments, focusing on both municipalities and regions. Financial resilience is defined as the ability to anticipate, absorb, and react to financial shocks and crises. Recent challenges, such as inflation, increased operational costs, and socio-economic changes, have placed considerable strain on local government finances in Sweden, highlighting the importance to understand which capacities strengthen local financial resilience.

The study utilises a survey of Chief Financial Officers and other financial officers from Swedish municipalities and regions, assessing their experiences with various shocks, perceived vulnerabilities, and resilience capacities. Key findings include:

- **Impact of Shocks:** Increased inflation is identified as the most severe shock affecting local government finances, followed by rising interest costs and the continuing effects of the COVID-19 pandemic.
- **Perceived Vulnerability:** Smaller municipalities and regions feel more vulnerable compared to their larger counterparts, particularly to socio-demographic and infrastructure-related shocks.
- **Anticipatory Capacities:** Both municipalities and regions have developed strong anticipatory capacities, such as critical thinking and external monitoring. However, there is room for improvement in external information sharing.
- **Coping Capacities:** Coping capacities are generally weaker than anticipatory capacities. Internal collaboration is more developed than external collaboration, indicating potential areas for growth.
- **Trust-Based Management:** Trust-based management practices significantly affect financial resilience being associated with critical thinking, situation awareness, and internal collaboration.
- **Performance:** Financial resilience dimensions (i.e., anticipatory and coping capacities) have a moderate/strong impact on both financial and non-financial performance.
- **Comparison to other jurisdictions:** Acknowledging limitations to the comparative analysis, Swedish local governments perform well in core financial resilience dimensions when compared to Italy, Germany and the UK.

Abstract

Local governments frequently face unexpected shocks and crises that threaten their financial stability. In Sweden, municipalities and regions have encountered significant financial challenges due to inflation, increased operational costs, and socio-economic changes. This study evaluates the financial resilience of Swedish local governments, focusing on their anticipatory and coping capacities to manage these disruptions. Using a survey conducted among Chief Financial Officers and other financial officers across Swedish municipalities and regions, the research examines the impact of various shocks, perceived vulnerabilities, and the effectiveness of different resilience capacities. Results indicate that both municipalities and regions have developed substantial anticipatory capacities, such as critical thinking and monitoring external activities, but exhibit weaker coping capacities, particularly in external collaboration. Smaller local governments perceive themselves as more vulnerable compared to larger ones. The study also explores the role of trust-based management (TBM) in enhancing financial resilience, finding that TBM significantly supports anticipatory capacities and internal collaboration. Moreover, both anticipatory and coping capacities presents some degree of association with both financial and non-financial performance of Swedish municipalities and regions. Finally, in a comparative analysis to other European countries, Swedish local governments perform well – on average - in core financial resilience dimensions.

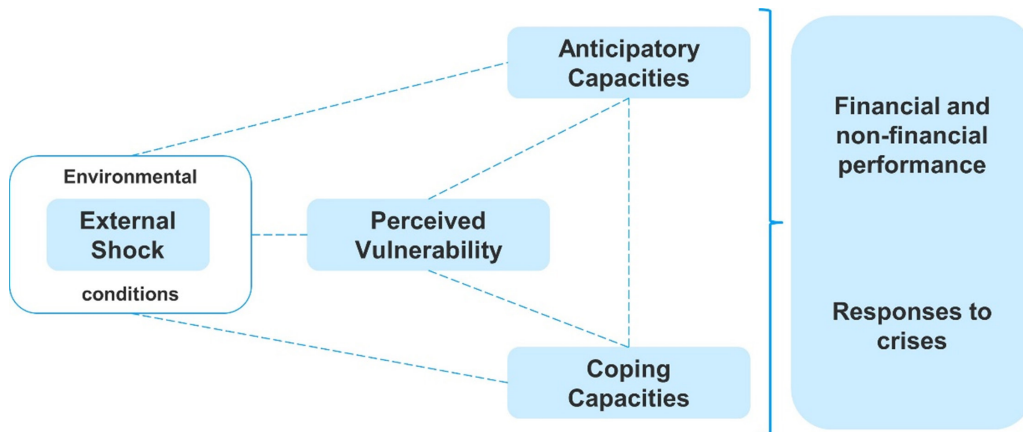
Introduction

Local governments have been frequently subjected to (un) expected shocks and crises which worsen their financial exposure. Recent reports from the Swedish Association of Regions and Municipalities (SKR, 2024) and Kommuninvest (2022) point out some of the challenges for local governments in the country. Since the pandemic municipalities and regions have been affected by inflation, eroding real tax revenues. The effect of inflation on operational costs, including pension costs and rising interest expenses, has contributed to high deficits (SKR, 2023; Kommuninvest, 2022). For instance, a report from Statistics Sweden revealed that, due to rising operational costs, the local government sector posted a net income of SEK 14.3 billion in 2023, marking a decline of SEK 29 billion, or 67%, from the previous year (SCB, 2024). Socio-economic factors are also potentially impacting local governments' finances. SKR (2023) highlights risks related to a possible rise in unemployment, expanding costs due to the ageing of the population, and potentially shrinking revenues due to a population decrease, after a long period of expansion, which was mainly due to immigration.

These disruptions challenge the local government's ability to balance financial stability with delivering essential services to citizens. Against this background, the concept of financial resilience has emerged as a framework for understanding how local governments anticipate, absorb, and react to the crises that impact their finances. The Barbera et al. (2017) financial resilience framework, refined over the past decade (Barbera et al., 2020, 2021, 2024), offers a more comprehensive approach to analysing factors impacting local government finances than traditional financial measures alone. It covers four dimensions: environmental conditions, perceived vulnerability, anticipatory capacities, and coping capacities (as illustrated in Figure 1 and explained in Table 1) – allowing a deeper understanding of internal capacities and external factors shaping local governments' ability to navigate financial challenges.

DIMENSIONS OF FINANCIAL RESILIENCE

FIGURE 1



Based on Barbera et al. (2017)

While extensive research has been conducted on financial resilience in local governments across various countries, it is well known that shocks affect them (as well as organisations) differently. National policies and the regulatory environment in each country may foster or hamper the building of capacities needed for financial resilience. Sweden's local

government characteristics, for instance, their high degree of decentralisation and autonomy, may present distinct challenges and opportunities for building financial resilience at the local level. This study aims to assess capacities leading to financial resilience in Swedish local governments.

DIMENSIONS OF FINANCIAL RESILIENCE: THE ANALYTICAL FRAMEWORK

TABLE 1

Dimension	Definition
Crisis	Shocks and crises are events that have a significant impact on (local) governments' finances and service delivery, varying in their nature, likelihood, timing, scale and potential impacts. The impact of a shock or crisis can be direct, e.g. eroding tax bases, or indirect, e.g. due to changes in central government policies as consequences of a crisis. Crisis acts as a 'magnifying glass', allowing to identify and explore the dimensions of financial resilience and their interplay.
Environmental conditions	Environmental conditions comprise the institutional, economic, and social context in which local governments operate. The context may be characterised by varying levels of complexity, and/or predictability. These conditions not only influence the level and sources of vulnerabilities but may also amplify or buffer shocks and crisis.
Institutional context	The institutional context encompasses the system of (fiscal and financial) rules, regulations, and policies set by upper governmental levels, and under which local governments operate.
Vulnerability	Vulnerability represents the exposure to (potential) shocks that may affect local government finances and service delivery, as the result of external (e.g. low financial autonomy, undiversified or unstable revenues) and internal (e.g. high debt level, low level of reserves) sources. Being at the interface between the environment and the organisation, it can be influenced by both. The sense of being able to control the vulnerability and/or influence its sources affects the way shocks are interpreted and subsequently tackled (Barbera et al., 2017)
Anticipatory capacities	Anticipatory capacities refer to the availability of tools and capabilities that enable local governments (a) to better identify and manage their vulnerabilities and to recognise potential financial shocks before they arise, and (b) to understand their nature, likelihood, timing, scale and potential impacts. Anticipatory capacities are not limited to the presence of tools that allow to plan and monitor the environment, and systems that assist in identifying and managing vulnerabilities as well as in controlling and managing risks. They encompass also cognitive capacities such as critical thinking, situation awareness and sense-making, as well as organizational (or organisational leaders') behaviours such as information exchange, information sharing, and monitoring. The cognitive and behavioural capacities are enhanced by the existence and quality of technical anticipatory capacities (tools and systems), which, in turn, can be built up internally driven (as an effort of the local government itself) or externally driven (e.g. instruments required by upper governmental levels) (Barbera et al. 2021, Steccolini et al. 2017).
Coping capacities	Coping capacities refer to resources and abilities that enable local governments to face shocks and manage their vulnerabilities. Coping capacities lie dormant in times of order and become visible in times of disruption in the form of actions that are taken and coping strategies that are pursued. The underlying capacities which enable local governments to cope (i.e. buffer, adapt, transform; see Barbera et. al. 2017) encompass the ability to learn and apply new knowledge (adaptability), adopt timely (rapidity of action) and innovative responses, also by putting together collective expertise, and the possibility to rely on internal and external collaboration (Barbera et. al. 2021, Steccolini et al. 2017).

Source: Based on Saliterer et al. (2021)

Objectives and Research Methodology

This report enhances the understanding of financial resilience in Swedish local governments. To do so it:

- Analyses the types and levels of core financial resilience dimensions present in Swedish municipalities and regions.
- Examine organisational consequences of the main dimensions of financial resilience to Swedish municipalities and regions.

The research builds on a survey of Swedish municipalities and regions. The survey focuses on the main dimensions of local government's financial resilience, i.e., environmental conditions, the perception of vulnerability, anticipatory and

coping capacities, and organisational performance – as well as control variables specific to the country. The variables were operationalised following Steccolini et al. (2018), and some elements of the survey were adapted to the Swedish institutional context. From January to June 2024, the survey was distributed to all Chief Financial Officers (CFOs) from municipalities and regions. Among the respondents, 75% are CFOs, 12% are Finance Directors, and the remaining 13% include controllers, strategists and heads of departments related to finance (e.g., Budget, Procurement). Table 2 provides a summary of survey respondents compared to overall Sweden.

SAMPLE DESCRIPTION

	Regions		Municipalities	
	Sweden	Respondents ¹	Sweden	Respondents ¹
Number of administrative unities (2023, total)	21	8	290	94
Average Population (2023)	502,747	650,903	36,406	37,272
Highest Population (2023)	2,455,914	1,767,641	990,261	361,974
Lowest Population (2023)	61,093	132,466	2,349	3,659
Employed women (%; 2023) ²	78.50%	60%	78.80%	50%

TABLE 2

(1) Research data; (2) Kolada.se; represents the total number of employed women in Sweden, but our respondents are mainly CFOs.

As shown in Table 2, in terms of representation, our sample covers 38% of Swedish regions and 32% of municipalities. This response rate suggests a potential for a non-response bias. Also, the sample has an overrepresentation of larger regions and municipalities – as the population averages of administrative unities in which our respondents are based are higher than the Swedish average. While not explicitly stated in the data, the discrepancies in population and other metrics suggest there might be a geographic bias, possibly favouring urban or more populous areas over rural ones. These limitations should be considered when interpreting results from this study.

Responses from Swedish regions and municipalities were analysed separately, due to municipalities being responsible for a wide range of services, while regions have more limited responsibilities focused on transversal services (see details in the next section). For each type of local government this report analyses the impact of shocks, perceptions of vulnerability, and anticipatory and coping capacities in place. Moreover, demographic trends in rural and smaller local governments are different when compared to their larger counterparts, impacting their challenges, particularly in terms of maintaining and upgrading existing infrastructure as opposed to expanding it for a growing population. To this end, for each type of local government (e.g., regions and municipalities), the report compares smaller versus larger local governments

(represented in our sample) based on their population. Based on the responses to the survey, the median population for regions was 300,000 inhabitants while for municipalities it was 17,500 inhabitants. Thus, we categorised small regions (municipalities) as those below the median, and we considered larger regions (municipalities) when the population is above the median.

To compare differences between two independent groups of regions (smaller/larger) we run a non-parametric test (Wilcoxon rank-sum test), which does not assume a normal distribution of the data and it is useful when the sample size is small. Municipalities were compared using two distinct methods. First, we compared the two independent groups of municipalities (smaller/larger) based on the median of our sample - as described above - using Wilcoxon rank-sum test. Second, further analyses were made based on groupings by population size taking into consideration the context of Sweden. For that, we have considered small municipalities (under 10,000 inhabitants), medium-sized municipalities (between 10,000 and 30,000 inhabitants) and large municipalities (over 30,000 inhabitants). A third method of comparison relies on the SKR's municipal group division in 2023 (SKR, 2023) – and it is described on the Appendix A. In the analysis, to compare these three groups (small, medium-sized and large) we used a one-way ANOVA (Analysis of Variance) followed by Tukey's

Honest Significant Difference (HSD) – a post-hoc test to determine which specific groups are different from each other. In the median-based grouping the difference between small (under 17,500 inhabitants) and large (over 17,500 inhabitants) tends to be more pronounced due to the internal variation among groups (some cities are very large, some just above the median). More subtle patterns emerge when introducing more categories and more specific groupings. As this more refined grouping (small, medium-sized and large) can expose differences in capacity that are not apparent when using a median-based classification, we decided to run both tests.

SWEDISH CONTEXT

Sweden's local governments system is characterised by a high degree of decentralisation and autonomy. The country is divided into 290 municipalities and 21 regions, each with distinct responsibilities and governance structures. Sweden is one of the European Union member states with the highest level of local government expenditures, representing approximately 25% of the country's GDP. The higher expenditure level happens as Sweden municipalities and regions carry out several services directed towards citizens, such as education, social services, elderly care, housing provision, waste management, and healthcare. (Kommuninvest, 2023b).

Swedish municipalities have a long-standing tradition of autonomy from the central government, especially

concerning organisational structure and taxation. According to Kommuninvest (2023a), Swedish municipalities and regions have the right to levy taxes on income, and tax revenues account for about 70 percent of their income. While there are different types of taxes in Sweden, most people pay only local tax on their annual income. This tax rate averages around 33 percent (Swedish Institute, 2024). Wallstedt and Almqvist (2017) point out that local governments are highly dependent on income taxation, and, ultimately on their inhabitants' incomes (and within working age). Approximately 10 percent comes from fees - while the remaining 20 percent are grants from the central government. Thus, Swedish local governments present a relatively low economic dependence on grants from the national level.

Municipalities in Sweden are responsible for providing essential services such as education, social services, elderly care, and infrastructure maintenance. As mentioned, each municipality has the authority to levy taxes on its residents, which constitutes the majority of their revenue. Regions, on the other hand, primarily manage healthcare services and regional development. They are also responsible for coordinating with municipalities on broader policy issues such as transportation, environmental protection, and economic development. Table 3 detail services provided by regions and municipalities in Sweden.

SERVICES PROVIDED BY MUNICIPALITIES AND REGIONS IN SWEDEN

TABLE 3

Municipalities		Regions	
Mandatory	Voluntary	Mandatory	Voluntary
Social care	Leisure and culture	Health and medical care	Culture
Pre-school, primary, secondary and adult education	Energy	Dental care for children and young people	Education
Planning and building matters	Employment	Regional development responsibility	Tourism
Environmental and health protection	Business development		
Sanitation and waste management			
Water and sewage			
Rescue services			
Emergency preparedness and civil defense			
Library services			
Planning of housing provision			
Regional and local public transport ¹		Regional and local public transport ¹	

Source: Adapted from SKR Website (<https://skr.se/skr/tjanster/kommunerochregioner.431.html>)

¹ Services that are a common, mandatory task, for both municipalities and regions

Municipalities in Sweden face several challenges, including urbanisation, demographic changes, and the integration of immigrants. As mentioned, since the post-Covid period, municipalities and regions have been impacted by inflation, which has diminished real tax revenues. The inflationary pressures on operational costs, including pension expenses and rising interest costs, have led to high deficits (SKR, 2023; Kommuninvest, 2022). The levels of debt have increased significantly in local governments since 2010, and this is considered to depend on demographic changes. Sweden's population grew on average nearly one percent per year, from 2010 to the peak in the years following the refugee crisis of 2015. As more residents demand more welfare services and infrastructure, the investment needs driven the increase on debt (Kommuninvest, 2023a). Additionally, socio-economic factors are influencing local government finances. There is a risk of increased unemployment and a growing number of people over 80 years old (leading to higher costs) along with a confirmed population decline (affecting revenues), following

a long period of growth primarily driven by immigration (SKR, 2023). Urbanisation has led to disparities between urban and rural areas, with rural municipalities often struggling to attract investment and maintain population levels.

Since the mid-2010s, the Swedish government started to explore changes in public sector governance, also as a possible reaction to critical issues raised by the implementation of New Public Management-type reforms (Siverbo, 2022). In 2014, plans were announced to reduce formal oversight of professionals in favour of relying on their expertise and ethics, aiming to enhance service customisation and reduce administrative burdens. The Trust Commission, formed in 2016, suggested a comprehensive review of governance, organisation, culture, and leadership, leading to the concept of trust-based management. Siverbo (2022) shows that a majority of Swedish municipalities (approximately 59%) were working with trust-based management by 2021, focusing mostly on intraorganisational relationships.

Financial Resilience of Swedish Regions

THE IMPACT OF SHOCKS ACROSS SWEDISH REGIONS

As mentioned, shocks and crises are events that have significant impact on (local) governments finances and service delivery, varying in their nature, likelihood, timing, scale and potential impacts to the institutional, economic, and social environment in which local governments operate (i.e., their environmental conditions) (Steccolini et al., 2018). This section focuses on external shocks deemed relevant to the recent context of regions in Sweden, such as:

- Increased Inflation,
- Covid-19 pandemic,
- Increased Interest costs,
- Refugee reception, and
- Extreme weather

The above-mentioned shocks might disrupt the environmental conditions of Swedish regions, thereby impacting their financial

condition. When reflecting to what extent each of the external shocks may have harmed the financial situation in Swedish regions, respondents consider the increased inflation as being the shock that most severely affects regions' finances (see Table 4). This is aligned with the last report by Kommuninvest (2023a) on local governments' debt which shows the impacts of inflation on increased pension costs and real tax revenues. Interestingly, high inflation rates led to significant increases in prices and interest costs – but this was not perceived as relevant by regions. Similarly, refugees' reception was not seen as a relevant burden to finances. Finally, the Covid-19 pandemic continues to impose challenges to the regions, probably related to some of them having to redirect funds to immediate healthcare needs. Investments in healthcare infrastructure remain a priority to ensure resilience against future health crises, affecting long-term investment plans and projects (Kommuninvest, 2023a).

THE IMPACT OF SHOCKS ACROSS SWEDISH REGIONS – AVERAGE OF RESPONSES BY SIZE

TABLE 4

Regions	Increased Inflation	Corona pandemic	Other events	Increased Interest	Refugee reception	Extreme Weather
Smaller	5.00 **	4.75	2.75	3.00	2.00	1.50
Larger	3.50 **	3.25	3.00	2.00	2.25	2.50
Total	4.25	4.00	2.88	2.50	2.13	2.00

Note: Smaller/larger regions are those below/above the median of our sample (300,000 inhabitants).

*** <0.01;

** <0.05; * <0.1

When considering for differences across regions (Table 4), it appears that smaller regions are suffering the most from inflation (statistically significant results), increased interest rates and the continuous impact of Covid-19.

Figures 2 and 3 displays a graphical representation of the impact of shocks across Swedish regions – not separated

by size. As it is possible to note on the bar chart (Figure 2), it emphasises that increased inflation has the highest average impact, while extreme weather has the lowest among the factors shown. Indeed, the perceived impacts of inflation are virtually double than refugee reception and extreme weather.

THE IMPACT OF SHOCKS ACROSS SWEDISH REGIONS

FIGURE 2

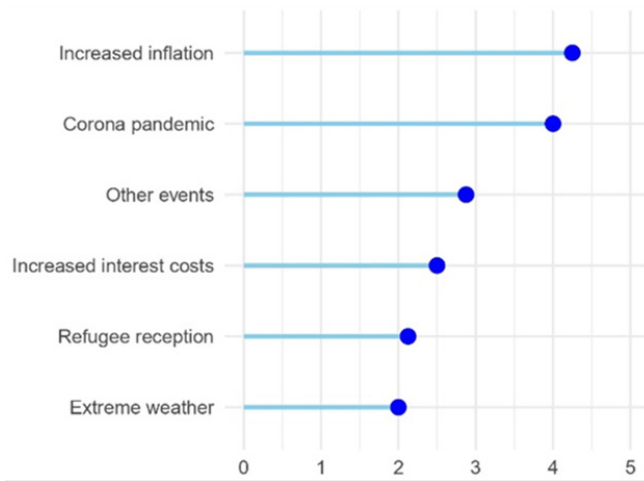
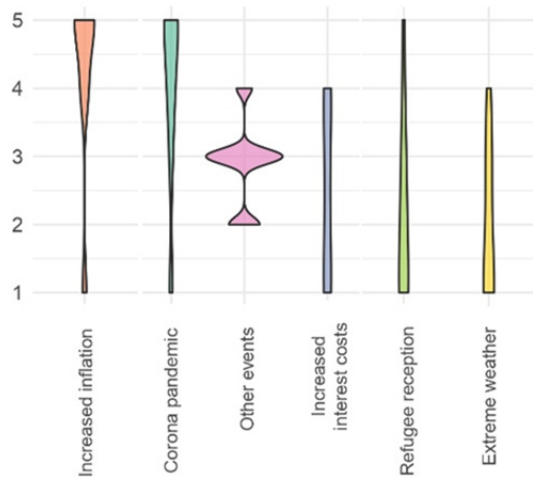


Figure 3 provides more detailed information about the distribution of scores for each shock. For instance, among all regions that answered to the survey, there is a high consensus on the severe impact of Covid-19 and rising inflation (i.e., narrow distributions at high scores). On the other hand,

refugees' reception and extreme weather vulnerability shows a concentrated impact, but to the lower end of the spectrum. More varied experiences are highlighted when analysing interest costs and other events affecting regions (i.e., wider distributions).

DISTRIBUTION OF SHOCK IMPACTS ACROSS SWEDISH REGIONS

FIGURE 3



VULNERABILITY

Unlike the direct impact of various events on local governments' financial positions, the perception of vulnerability relates to the perceived degree of exposure to potential shocks that could influence local government finances. These perceptions are significant because they reflect a sense of control over financial vulnerability and its sources – which influences how shocks are interpreted and addressed (see Barbera et al. 2017) - rather than focusing on a specific level of vulnerability.

The assessment of how Swedish regions perceive their exposure to potential shocks from different sources (see Table 5; 1: no vulnerability at all, 5: A major vulnerability), concerned the following dimensions:

- Socio-demographic (e.g. ageing of the population, low education, decreasing population),
- Socio-economic (e.g. population poverty, income deprivation),
- Economic (e.g. local jobs, attractiveness to businesses and tourists),
- Infrastructure (e.g. old infrastructure, insufficient coverage of public transport or internet),

- Extreme weather (e.g. storms, wildfires, flooding) and
- Regulation (e.g. constraining regulations, frequently changing regulations)

Swedish regions seem particularly affected by socio-demographic, socio-economic and infrastructure-related vulnerabilities. Overall, smaller regions perceive more drastically their exposure to such potential shocks. This is aligned with Kommuninvest's (2023a) report with a strong emphasis on the need for substantial investments in infrastructure across Swedish regions. This includes the renovation and development of essential services such as healthcare facilities, educational institutions, and public transportation systems – which smaller regions might struggle to afford. While regions have been able to leverage their tax revenues and state grants to fund part these investments, which has reduced their reliance on external debt (Kommuninvest, 2023a), the ageing and decreasing population concerns (specially in smaller regions) reflected on the high score for socio-demographic vulnerability might represent a direct impact on medium- and long-term revenues (decreasing) and costs (increasing).

PERCEIVED VULNERABILITY ACROSS SWEDISH REGIONS – AVERAGE OF RESPONSES BY SIZE

TABLE 5

Regions	Socio-demographic	Socio-Economic	Economic	Infrastructure	Extreme weather	Regulation
Smaller	4,75 **	4,25 **	3,25	4,25 **	4,00 **	3,00
Larger	3,50 **	2,75 **	2,75	2,75 **	2,75 **	3,25
Total	4,13	3,50	3,00	3,50	3,38	3,13

Note: Smaller/larger regions are those below/above the median of our sample (300,000 inhabitants).

*** <0.01; ** <0.05; * <0.1

When comparing their financial capacity to other regions in Sweden, respondents were inclined to see themselves as slightly worse than their peers in all dimensions (See Table 6; 1: much worse, 5: much better). For instance, when it comes to short and long-term service financing, this indicates a perceived challenge in sustaining financial health and concerns about the ability to maintain service levels due to financial constraints. Indeed, the lowest self-assessment grade (2.13 on average) relates to the regions capacity to pay for the required level and

quality of services over the short/medium term (1 to 3 years). According to respondents, smaller regions show a statistically significant lower capacity to generate sufficient revenues to pay expenditures and lower level of financial reserves to absorb a small amount of shock. This is further corroborated by the answers about the current financial situation of the regions (Table 7), where concerns about financing the operation of services and balancing the budget were raised.

FINANCIAL CAPACITY ACROSS SWEDISH REGIONS – AVERAGE OF RESPONSES BY SIZE

TABLE 6

Regions	Capacity to pay for services (short-term)	Capacity to pay for services (long-term)	Robustness (council tax)	Robustness (other revenues)	Stability (council tax)	Stability (other revenues)
Smaller	1.75	2.00	1.75	2.50	2.25	2.00
Larger	2.50	3.00	2.75	2.75	2.75	2.75
Total	2.13	2.50	2.25	2.63	2.50	2.38

Regions	Public Infrastructure	Sufficient revenues to pay expenditures	Financial reserves	Financial Autonomy	Level of debt
Smaller	2.00	1.50 **	1.50 **	2.00	2.75
Larger	2.75	3.00 **	3.25 **	3.00	3.25
Total	2.38	2.25	2.38	2.50	3.00

Note: Smaller/larger regions are those below/above the median of our sample (300,000 inhabitants).

***<0.01; **<0.05; *<0.1

Moreover, the robustness and stability of revenue sources are viewed as lower when compared to peers, which suggests a perceived higher susceptibility to fluctuations in revenues, making financial planning and sustainability more challenging. Again, concerns were raised regarding a perceived lack of adequate public infrastructure, heightening vulnerability to unexpected shocks. While this may seem contradictory to the

other concerns, the ability to access loans indicates that the regions still have mechanisms to buffer against immediate financial shortfalls. However, reliance on external financing can also indicate a vulnerability in terms of increasing long-term debt burden and dependence on credit markets, which are concerns raised in recent reports by Kommuninvest (2023a).

CURRENT FINANCIAL SITUATION ACROSS SWEDISH REGIONS – AVERAGE OF RESPONSES BY SIZE

TABLE 7

Regions	Financing services is not a concern	Balancing the budget is not a concern	Funding investments is not a concern	Access to loans when needed	Level of debt
Smaller	1.50	1.50	2.00	4.25	2.75
Larger	1.75	1.50	3.00	3.50	3.25
Total	1.63	1.50	2.50	3.88	3.00

Note: Smaller/larger regions are those below/above the median of our sample (300,000 inhabitants).

***<0.01; **<0.05; *<0.1

ANTICIPATORY CAPACITIES

Anticipatory capacities refer to the availability of tools and capabilities that enable local governments to better identify and manage their vulnerabilities and recognise potential financial shocks before they arise. This concept extends beyond the mere presence of systems for planning, control, and risk management; it also encompasses a mindset orientation towards anticipation, including situational awareness and sense-making (Barbera et al., 2017). In particular, this finds expression in information sharing (with external and internal actors), monitoring of external activities, performing vulnerability assessments, leveraging critical thinking and promoting situation awareness and positive attitudes by politicians (see table 8; 1: strongly disagree, 5: strongly agree).

Swedish regions consider themselves to have a strong set of anticipatory capacities – and there is no statistically significant difference between regions compared by their size. Critical thinking is the main anticipatory capacity considered

to be in place by respondents, especially due to people encouragement to identify/highlight potential problems (average 4.25) and to express different points of view (4.00). Encouragement to challenge the way things are usually done, to report information that may be considered 'bad news' and to discuss and challenge existing assumptions and action plans are not far behind (averages 3.90).

Monitoring the external environment (average 3.56), is the second-best anticipatory capacity found in place in Swedish regions. Respondents highlight that they are constantly monitoring regulatory changes (3.90) and changes to the national and local socio-economic environment (3.65). However, respondents think that less effort is made to monitor changes in citizens' needs and demands (3.25). Similarly, in terms of vulnerability assessment, Swedish regions are found to regularly engage in contingency planning to prepare for potential shocks and disruptions (3.75), but improvements can

be made on the regular analyses and assessment of (a) the risks associated with vulnerabilities and (b) the probability and impact of potential shocks and disruptions to their operations. Internal information sharing with internal actors is also perceived as playing a relevant role as coping capacity for Swedish regions – specially with regards to its timeliness and rapidity of communication. External information sharing, however, is seen to occur to a lesser extent than all other behaviours that uncover anticipatory capacities. While Swedish regions appear to share information with other local authorities consistently (average 4.00), the same does not apply to

information sharing with the central government (3.00), external service providers (3.00) or professional bodies (3.25).

Finally, regarding situation awareness and attitudes by politicians, a low score points out that respondents feel that information is not shared freely between political decision-makers and administrative staff (average 3.00) and political decision-makers do not encourage administrative staff to disclose to information that may be considered 'challenging' or 'bad news' (3.25). According to responses, politicians, however, seem aware of the Region's vulnerabilities (3.5) and appear to rely on the expertise of administrative staff (3.65)

ANTICIPATORY CAPACITIES ACROSS SWEDISH REGIONS – AVERAGE OF RESPONSES BY SIZE

TABLE 8

Regions	External Info. Sharing	Monitoring External Activities	Vulnerability assessment	Political Awareness	Critical Thinking	Internal Info. Sharing
Smaller	3.31	3.63	3.38	3.19	3.95	3.56
Larger	3.31	3.50	3.63	3.50	4.00	3.44
Total	3.31	3.56	3.50	3.34	3.98	3.50

Note: Smaller/larger regions are those below/above the median of our sample (300,000 inhabitants).

*** <0.01; ** <0.05; * <0.1

Figures 5 and 6 summarises in a graphical representation the anticipatory capacities across Swedish regions. As it is possible to note on Figure 5, those capabilities are generally scored high,

but, according to the respondents, critical thinking is the most developed one.

ANTICIPATORY CAPACITIES ACROSS SWEDISH REGIONS

FIGURE 4

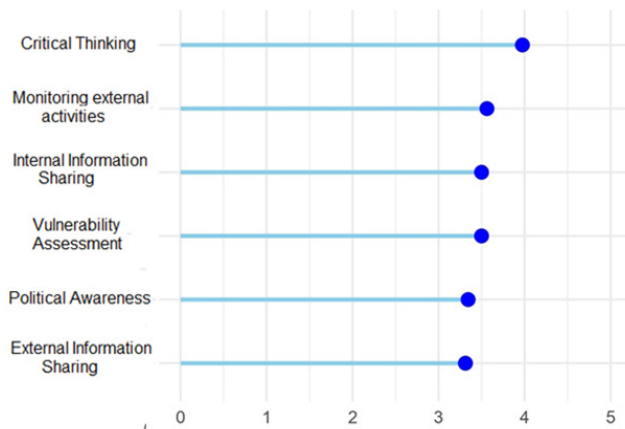


Figure 6 shows the frequency of responses, highlighting that all capacities are rated highly, with critical thinking slightly edging out the others (also presenting the highest consensus, with most respondents rating it very highly). On the other hand, political awareness and attitudes by politicians shows the widest range of opinions, suggesting varied experiences or

perceptions of its development. External Information Sharing, despite having the lowest average score, shows a wide distribution, indicating some municipalities rate it very highly while others rate it lower – similar to the monitoring of external activities.

DISTRIBUTION OF ANTICIPATORY CAPACITIES ACROSS SWEDISH REGIONS

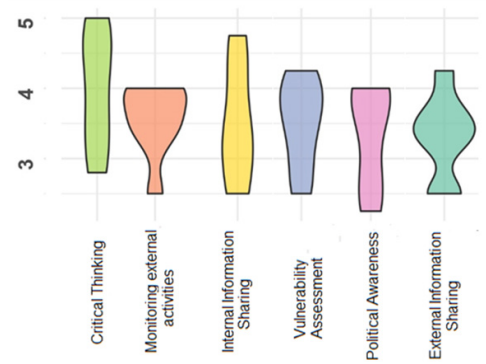


FIGURE 5

COPING CAPACITIES

Coping capacities refer to resources and abilities that allow shocks to be faced and vulnerabilities to be managed (Barbera et al., 2017). To cope with shocks, local governments need to stay up to date, apply new knowledge, and adapt; be able

to respond in a rapid way, and build on internal and external collaboration (see table 9; 1: strongly disagree, 5: strongly agree).

COPING CAPACITIES ACROSS SWEDISH REGIONS – AVERAGE OF RESPONSES BY SIZE

Regions	Rapidity & Bricolage	Adapt, Skills & Knowledge	Internal Collaboration (employees)	Internal Collaboration (Senior Mgt)	External Collaboration (CG)
Smaller	3.31	3.21	3.75	2.81	3.56 *
Larger	3.59	3.11	3.17	3.13	3.00 *
Total	3.45	3.16	3.46	2.97	3.28

TABLE 9

Note: Smaller/larger regions are those below/above the median of our sample (300,000 inhabitants).
 ***<0.01; **<0.05; *<0.1

In general, Swedish regions appear to highlight weaker coping capacities when compared to their anticipatory capabilities. In line with anticipatory capacities, according to respondents, Swedish regions display higher internal collaboration (among staff) in comparison to external collaboration (with Central Government; which is the only dimension where statistical differences appear among smaller and larger regions). This may be linked to the autonomy of regions in Sweden, but also to the perception of respondents to feel constrained by central government (average 3.5) and that there is limited consultation by central government to propose/mandate solutions (3.75). When looking closely to internal collaboration, respondents point to a considerable difference between collaboration among staff members and collaboration with senior management teams. For instance, according to them, while employees are able to assimilate and apply new knowledge in their practical work (average 3.65) and keep updated with new ways of doing things (3.40) adapting quickly to changing circumstances (3.4), they suggest managers' skills may need improvement to respond to current challenges (2.9). Moreover, information systems and processes used appears outdated to face current challenges (2.75).

The limited extent of external collaboration perceived by respondents is reflected on the lower levels of knowledge acquisition coming from external stakeholders. For instance, Swedish regions appear to be confined within organisational boundaries, engaging in limited collaboration with external partners (2.75), and showing a lack of strong relations with organisations that could supplement or substitute services in case of emergency/adversity (2.75) or with other local authorities to peer-support (2.9). This is aligned with results from previous surveys on the organising of trust-based management in Sweden (Siverbo, 2022). In line with the internal collaboration responses, the skills and knowledge applied in moments of crisis comes mostly from collaboration among employees (3.75) across departments (3.4).

In contrast with the above, coping capacities related to adopting quick solutions and improvisation, resourcefulness, and the ability to see new possibilities in dealing with shocks stand out in Swedish Regions. The responses point to a significant autonomy for employees (at the lower levels of the organisation) to adopt alternatives to sustain operations (3.75) and to use their knowledge in innovative ways (4.00) – both also related to trust-based management reforms that took

place in Sweden recently. Moreover, Swedish regions appear to be quick in pooling collective expertise to resolve unforeseen problems (3.65) and reconfiguring resources to deal with unforeseen problems (3.5). However, respondents highlight that improvements are needed in relation to making timely decisions to deal with unforeseen problems (3.1) and combining existing and untapped resources to cope with challenges (3.0).

Figures 7 and 8 shows a graphical representation of the coping capacities in place in Swedish regions – not separated by size. As it is possible to note on the bar chart (Figure 7), it emphasises the modest scores for coping capacities, ranging from around 3 to 3.5. While internal collaboration (with staff/ employees) and rapidity and bricolage are the most developed coping capacities, according to the respondents, internal collaboration with senior management falls on the lowest score in this dimension.

COPING CAPACITIES ACROSS SWEDISH REGIONS

FIGURE 6

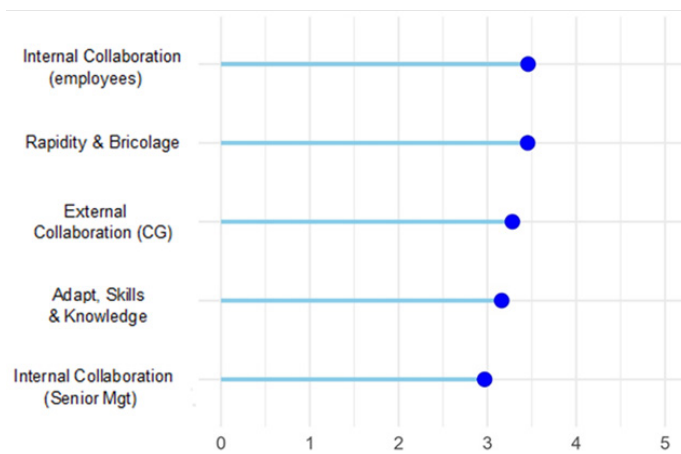
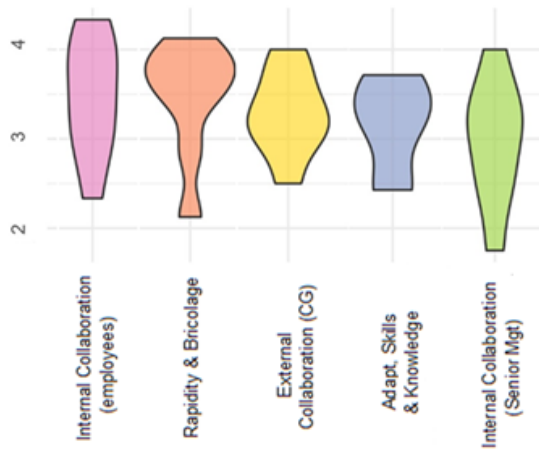


Figure 8 reveals other important nuances to the evidence presented above. For instance, internal collaboration (staff/ employees) has the highest consensus, with most respondents rating it very highly. Rapidity & Bricolage, despite having the second-highest average score, show a wider distribution, indicating some municipalities rate it very highly while others rate it lower. Both external collaboration (with CG) and adaptability, skills & knowledge shows a relatively consistent distribution, concentrated in the middle range, indicating less extreme perceptions about the level of its presence in

Swedish regions, when compared to other capacities. Finally, internal collaboration (with senior management) shows the widest range of opinions, suggesting varied experiences or perceptions of its presence in the regions that are part of the sample. Importantly, the narrow distribution for internal collaboration with employees/staff contrasts with the wide distribution for internal collaboration with senior management, suggesting that collaboration at different levels of the organisation is perceived quite differently.

DISTRIBUTION OF COPING CAPACITIES ACROSS SWEDISH REGIONS

FIGURE 7



Financial resilience of Swedish Municipalities

THE IMPACT OF SHOCKS ACROSS SWEDISH MUNICIPALITIES

As mentioned, shocks and crises are events that have significant impact on local governments finances and service delivery. Shocks vary in different dimensions and on their potential impacts to the environmental conditions of local governments (Steccolini et al., 2018). This section focuses on external shocks that might disrupt the environmental conditions of Swedish municipalities, thereby impacting their financial condition, such as:

- Increased Inflation,
- Covid-19 pandemic,
- Increased Interest costs,
- Refugee reception, and
- Extreme weather

Respondents from Swedish municipalities, when considering to what extent each of the external shocks may have harmed the financial situation in their governments, highlight increased inflation as the event that most severely affects their finances. For municipalities, the parallel rise in interest costs is also acknowledged as a disrupting event. While Covid-19 is still posing challenges, these are perceived as being less prominent in municipalities when compared to regions. Again, based on respondents' perceptions, extreme weather shocks are seen as being the less likely to disrupt the environmental conditions of Swedish municipalities. This might be related to the policy that requires Sweden's municipalities to carry out risk and vulnerability assessments as a basis for coping with extraordinary events and crises (Ministry of Environment, 2022). Moreover, since 2009, the Government has allocated funding for prioritised preventive and knowledge-building initiatives for adaptation focusing especially on landslides, flooding and erosion (Ministry of Environment, 2022).

THE IMPACT OF SHOCKS ACROSS SWEDISH MUNICIPALITIES – AVERAGE OF RESPONSES BY SIZE

TABLE 10

Municipalities	Increased inflation	Increased Interest	Corona pandemic	Refugee reception	Other events	Extreme Weather
Smaller	4,49	3,47	2,70	2,30	2,45	1,98
Larger	4,49	3,36	2,53	2,36	2,32	2,23
Total	4,49	3,41	2,62	2,33	2,38	2,11

Note: Smaller/larger municipalities are those below/above the sample's median (17,500 inhabitants).
 *** <0.01; **<0.05; *<0.1

When considering differences across municipalities of different size (Table 10), it appears that the impacts of shocks are uniformly experienced. This conclusion is supported by statistical analysis, which indicated no significant differences between the groups. Further statistical analysis grouping municipalities by size—small (under 10,000 inhabitants), medium-sized (10,001 to 29,999 inhabitants), and large (over 30,000 inhabitants)—corroborates that there are no significant differences in how municipalities of varying sizes experience the impacts of shocks.

Figure 9 and 10 displays a graphical representation of the impact of shocks across Swedish regions – not separated by size. Figure 9 clearly displays the average impact of each shock, allowing for easy comparison between different factors. It emphasises that increased inflation has the highest average impact, followed by increased interest costs. All other events are less significant to municipalities, and extreme weather has the lowest among the factors shown.

THE IMPACT OF SHOCKS ACROSS SWEDISH MUNICIPALITIES

FIGURE 8

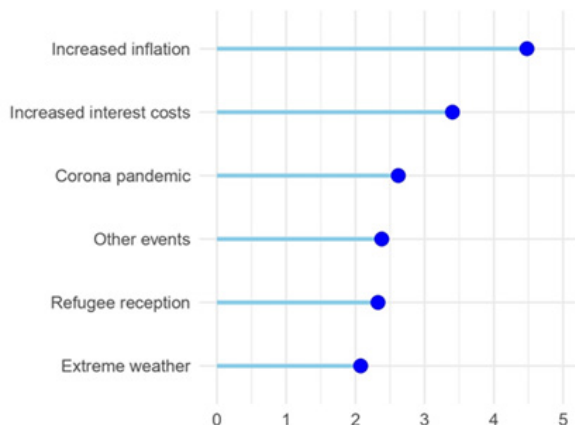
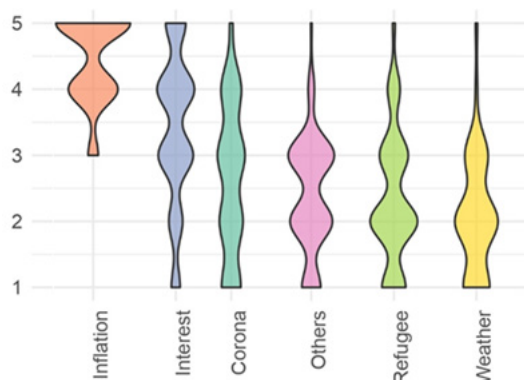


Figure 10 provides a more nuanced view of how municipalities vary in their perceptions of vulnerability related to each shock being analysed. For instance, a clear consensus emerges towards the impacts of increased inflation (i.e., narrow

distribution at the high end, most responses between 4-5), while other shocks present variability in their impacts (e.g., extreme weather or refugee reception).

THE DISTRIBUTION OF SHOCKS IMPACTS ACROSS SWEDISH MUNICIPALITIES

FIGURE 9



VULNERABILITY

This section explores perceptions on the extent of exposure to potential shocks that may affect Swedish municipalities' finances. As mentioned, perceptions of vulnerability are critical to financial resilience, since they affect the way shocks are interpreted and subsequently tackled (see Barbera et al. 2017). Respondents from municipalities assessed their organisation's vulnerability to different shocks (ranging from 1-no vulnerability at all-, to 5 - A major vulnerability; see Table 11), including:

- Socio-demographic (e.g. ageing of the population, low education, decreasing population),
- Socio-economic (e.g. population poverty, income deprivation),
- Economic (e.g. local jobs, attractiveness to businesses and tourists),

- Infrastructure (e.g. old infrastructure, insufficient coverage of public transport or internet),
- Extreme weather (e.g. storms, wildfires, flooding) and
- Regulation (e.g. constraining regulations, frequently changing regulations)

According to respondents, Swedish municipalities seem particularly affected by socio-demographic and infrastructure related vulnerabilities. Municipalities appear potentially less exposed to other events, such as regulatory, socio-economic and extreme weather. Overall, smaller municipalities perceive more drastically their exposure to such potential shocks (see Table 11). Specifically, there is a substantial difference in perceptions of vulnerability related to socio-demographic events – which is aligned to the recent reports on increasing

elderly population in smaller areas. The only event that presents a similar perception of vulnerability, irrespective of size of the municipality, is their exposure to extreme weather - that might be linked to the risk and vulnerability assessments that are carried out frequently by municipalities. Grouping municipalities by size—small (under 10,000 inhabitants), medium-sized (10,001 to 29,999 inhabitants), and large (over 30,000 inhabitants)—statistical analysis corroborates that respondents from smaller municipalities experience higher

levels of socio-demographic (average 4.2), socio-economic (3.2), and economic (3.3) vulnerabilities when compared to large (2.7; 2.3; 2.1) counterparts, while there is no conclusive difference in comparison to medium-sized municipalities. Also, there is no significant difference in other vulnerability dimensions (i.e., infrastructure, extreme weather and regulation) probably due to more nuanced variations in capacity across small, medium, and large municipalities following this grouping (see methodology).

PERCEIVED VULNERABILITY ACROSS SWEDISH MUNICIPALITIES – AVERAGE OF RESPONSES BY SIZE

TABLE 11

Municipalities	Socio-demographic	Socio-Economic	Economic	Infrastructure	Extreme weather	Regulation
Smaller	4.06 ***	3.09 ***	3.11 ***	3.36 ***	3.02	2.94 ***
Larger	3.06 ***	2.43 ***	2.30 ***	2.83 ***	2.96	2.49 ***
Total	3.56	2.76	2.70	3.10	2.99	2.71

Note: Smaller/larger municipalities are those below/above the sample's median (17,500 inhabitants).

*** <0.01; **<0.05; *<0.1

When comparing their financial capacity to other municipalities in Sweden, respondents were inclined to see themselves as slightly worse than their peers in all dimensions (see Table 12; 1: much worse, 5: much better). While scores are generally low, concerns about public infrastructure (average 2.68), the capacity to generate sufficient revenues to pay expenditures (2.73) and the level of financial autonomy (2.74) were highlighted. On the other hand, Swedish municipalities consider the robustness of local revenue sources from council tax (2.97) and level of debt (2.97) less of a concern. Except for the level of debt, where respondents from both large and small municipalities scored about the same as their peers, smaller municipalities generally perceive their

financial capacity as significantly worse than that of their peers in all other dimensions when compared to the perceptions of larger municipalities. Statistically analysing the grouping municipalities by size—small (under 10,000 inhabitants), medium-sized (10,001 to 29,999 inhabitants), and large (over 30,000 inhabitants)—highlights that respondents from small municipalities see themselves in a worst position than the larger municipalities in all dimensions of financial capacity – except for public infrastructure. Moreover, regarding the stability of local revenue sources from other income, there is statistically significant difference between small and medium-sized municipalities – showing a clear path of vulnerability related to the lower size of these entities.

FINANCIAL CAPACITY ACROSS SWEDISH MUNICIPALITIES – AVERAGE OF RESPONSES BY SIZE

TABLE 12

Municipalities	Capacity to pay for services (short-term)	Capacity to pay for services (long-term)	Robustness (council tax)	Robustness (other revenues)	Stability (council tax)	Stability (other revenues)
Smaller	2.66 ***	2.60 ***	2.77 ***	2.53 ***	2.72 ***	2.55 ***
Larger	3.19 ***	3.17 ***	3.17 ***	3.11 ***	3.11 ***	3.04 ***
Total	2.93	2.88	2.97	2.82	2.91	2.80

Municipalities	Public Infrastructure	Sufficient revenues to pay expenditures	Financial reserves	Financial Autonomy	Level of debt
Smaller	2.47 ***	2.49 ***	2.47 ***	2.47 ***	2.81
Larger	2.89 ***	2.98 ***	3.28 ***	3.02 ***	3.13
Total	2.68	2.73	2.87	2.74	2.97

Note: Smaller/larger municipalities are those below/above the sample's median (17,500 inhabitants).

*** <0.01; **<0.05; *<0.1

Regarding the current financial situation of municipalities (Table 13), respondents disagree that financing services, balancing the budget or funding investments is not a concern. On the other hand, municipalities appear to be able to access loan finance when needed. When compared to respondents from larger municipalities, smaller municipalities show more concerns about balancing their budget and funding their

investments, alongside a lower perception of access to loans. Grouping municipalities by size—small (under 10,000 inhabitants), medium-sized (10,001 to 29,999 inhabitants), and large (over 30,000 inhabitants)—statistical analysis shows that respondents from smaller municipalities are more concerned with financing the operation of their services (2.2) and balancing their budget (2.2) than larger municipalities (2.9; 3.0).

CURRENT FINANCIAL SITUATION ACROSS SWEDISH MUNICIPALITIES – AVERAGE OF RESPONSES BY SIZE

TABLE 13

Municipalities	Financing services is not a concern	Balancing the budget is not a concern	Funding investments is not a concern	Access to loans when needed
Smaller	2.40	2.34 **	2.19 **	3.53 ***
Larger	2.70	2.87 **	2.66 **	4.17 ***
Total	2.55	2.61	2.43	3.85

Note: Smaller/larger municipalities are those below/above the sample's median (17,500 inhabitants).

*** <0.01; ** <0.05; * <0.1

ANTICIPATORY CAPACITIES

Anticipatory capacities (AC) become visible through different behaviours that assist local governments in gaining understanding of their environment in order to recognise potential disruptive events. In particular, this finds expression in information sharing (with external and internal actors), monitoring external activities, vulnerability assessments, critical thinking and situation awareness and attitudes by politicians (see table 14; 1: strongly disagree, 5: strongly agree).

Municipalities in Sweden rely on a strong set of anticipatory capacities, according to the respondents' perceptions. Critical thinking is the main anticipatory capacity in place (3.86), followed by monitoring the external environment (3.83), vulnerability assessment (3.74) and internal information sharing (3.70). Political awareness and attitudes by politicians score lower than the previous capacities (3.58) and, again, external information sharing seems to occur to a lesser extent

(3.40) than all other behaviours that uncover anticipatory capacities. When comparing municipalities by size, at first sight results appear to be mixed; however, considering statistical significance, the smaller municipalities on the sample tend to score lower in anticipatory capacities related to external information sharing, monitoring external activities and vulnerability assessments. Further analyses based on grouping municipalities by size—small (under 10,000 inhabitants), medium-sized (10,001 to 29,999 inhabitants), and large (over 30,000 inhabitants)—shows that large municipalities have a significantly higher mean than small ones when analysing monitoring external activities. Methodologically, this is due to the difference in groupings of municipalities. Potentially, small municipalities tend to have fewer internal activities to monitor and large ones tends to be more self-sufficient

ANTICIPATORY CAPACITIES ACROSS SWEDISH MUNICIPALITIES – AVERAGE OF RESPONSES BY SIZE

TABLE 14

Municipalities	External Info. Sharing	Monitoring External Activities	Vulnerability assessment	Political Awareness	Critical Thinking	Internal Info. Sharing
Smaller	3.29 **	3.65 ***	3.63 **	3.59	3.91	3.73
Larger	3.52 **	4.01 ***	3.85 **	3.57	3.82	3.68
Total	3.40	3.83	3.74	3.58	3.86	3.70

Note: Smaller/larger municipalities are those below/above the sample's median (17,500 inhabitants).

*** <0.01; ** <0.05; * <0.1

Overall, critical thinking in municipalities is related to people encouragement to identify/highlight potential problems (average 4.00) and to challenge the way things are usually done (3.90) while expressing different points of view (3.90). While staff are encouraged to report information that may be considered 'bad news' (3.83), discussing and challenging existing assumptions and action plans appears to occur to a lesser extent (3.68).

Monitoring the external environment is the second-best anticipatory capacity in place in Swedish municipalities, in accordance to respondents perceptions. Similar to regions, municipalities are constantly monitoring regulatory changes (4.10). Differently, however, more emphasis is placed to monitor changes in citizens needs and demands (3.80) – which comes to a similar level in comparison to monitoring changes in the national and local socio-economic environment (3.80).

Regarding vulnerability assessment, according to respondents, Swedish municipalities do analyse and assess the risks associated with their vulnerabilities (3.8), attempt to raise awareness of potential disruptions with employees (3.8) and engage in contingency planning to prepare for potential shocks and disruptions (3.75). In comparison to the previous points, municipalities put slightly less emphasis on analysing and assessing both the probability and impact of potential shocks and disruptions (3.6).

Regarding situation awareness and attitudes by politicians, the responses show a potential lack of encouragement for administrative staff to disclose to elected members information that may be considered 'challenging' or 'bad news' (3.15). Despite that, politicians appear to be aware of the municipalities' vulnerabilities (3.80) and rely on the expertise of administrative staff (3.8). Moreover, respondents acknowledge that to some extent, information is shared freely between political decision-makers and administrative staff (3.5).

Finally, external information sharing seems to be seen as the major fragility in terms of anticipatory capacities for Swedish municipalities, especially when this exchange of information should occur with the central government (2.90). On the other hand, there seems to be a constant and reciprocal exchange information among municipalities (4.00). Internally, relevant information appears to be passed on quickly across functions and hierarchical levels (3.90), while information is readily shared to enable employees to focus on common issues (4.00).

Figures 12 and 13 displays a graphical representation of the anticipatory capacities found in Swedish municipalities – not separated by size. Figure 12 shows the mean scores for six different anticipatory capacities for Swedish municipalities. All mean scores fall roughly between 3.5 and 4 – high levels on a scale of 0 to 5. Critical thinking has the highest mean, slightly above 4, being the most developed anticipatory capacity in municipalities according to the respondents. On the other hand, external information sharing has the lowest mean, just below 3.5.

ANTICIPATORY CAPACITIES ACROSS SWEDISH MUNICIPALITIES

FIGURE 10

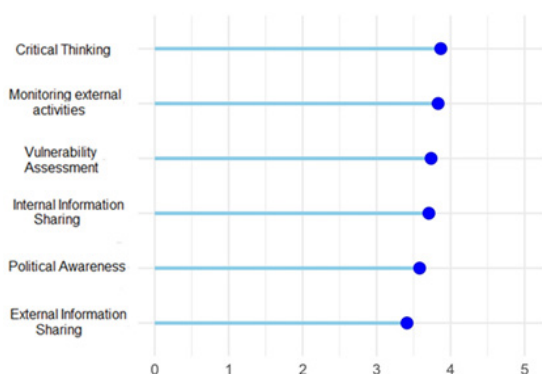
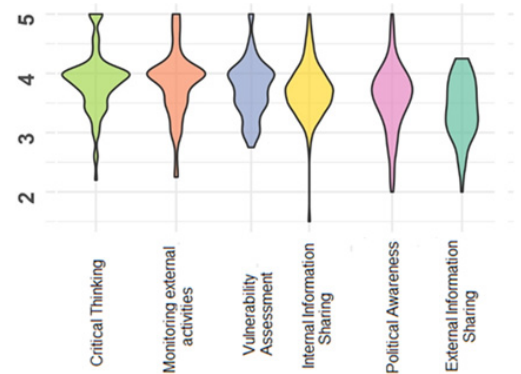


Figure 13 shows the distribution of scores for each anticipatory capacity. Most capabilities show a consensus (despite a prolonged silhouette). Internal information sharing

shows the widest spread, ranging from below 2 to 5, and external information sharing has the narrowest distribution, concentrated mostly between 3 and 4.

THE DISTRIBUTION OF ANTICIPATORY CAPACITIES ACROSS SWEDISH MUNICIPALITIES

FIGURE 11



COPING CAPACITIES

Coping capacities remain hidden during stable periods and typically emerge as coping actions during disruptions. To effectively manage shocks, local governments must stay informed, incorporate new knowledge, and adapt. They

should also be capable of responding quickly and fostering collaboration both internally and externally (see Table 15; 1: strongly disagree, 5: strongly agree).

COPING CAPACITIES ACROSS SWEDISH MUNICIPALITIES – AVERAGE OF RESPONSES BY SIZE

TABLE 15

Municipalities	Rapidity & Bricolage	Adapt, Skills & Knowledge	Internal Collaboration (employees)	Internal Collaboration (Senior Mgt)	External Collaboration (CG)
Smaller	3,70	3,44	3,52 ***	3,23 **	3,14
Larger	3,72	3,57	3,79 ***	3,44 **	3,19
Total	3,71	3,51	3,66	3,34	3,16

Note: Smaller/larger municipalities are those below/above the sample's median (17,500 inhabitants).

*** <0.01; ** <0.05; * <0.1

According to the respondents, coping capacities related to rapidity and bricolage are central to municipalities in Sweden. For instance, responses point out the quick pooling of collective expertise to resolve unforeseen problems (average 3.93), and the resourcefulness of employees to adopt alternatives to sustain operations (4.00) and use their knowledge in innovative ways (4.00) – which represents significant autonomy level for employees (at the lower levels of the organisation). However, they highlight that improvements are needed in relation to making timely decisions to deal with unforeseen problems (3.00).

When comparing municipalities by their size, the presence of coping capacities related to internal collaborations (with staff/employees and senior management) differs between smaller and larger municipalities. In both cases, smaller municipalities perceive themselves as having lower levels of such capacities to cope with shocks. Further statistical analysis based on grouping municipalities by size—small (under 10,000 inhabitants), medium-sized (10,001 to 29,999 inhabitants), and large (over 30,000 inhabitants)—corroborates to the previous findings by highlighting significant difference between (higher) large and (lower) small municipalities averages regarding perceptions of internal collaboration among employees and senior management.

In line with their anticipatory capacities, Swedish municipalities overall display higher internal collaboration in comparison to external collaboration (with Central Government). Again,

this may find explanation in the autonomy of municipalities in Sweden, but also in the attitude of Central government that, according to the responses, often do not directly engage with municipalities to tackle problems together (3.55) and often mandate solutions without proper consultation (3.47). Respondents see no substantial difference between collaboration among staff members (3.66) and collaboration with senior management teams (3.34). However, managers are described as not being fully trained in new ways of working (3.25) and information systems and processes used are seemingly outdated to face current challenges (3.15).

The lack of external collaboration is reflected on the lower levels of knowledge acquisition coming from external stakeholders. For instance, Swedish municipalities show higher levels of collaboration among employees to diagnose and solve problems (4.00), in comparison to their perceived lack of strong relations with organisations that could supplement or substitute services in case of emergency/adversity (3.00) or with other local authorities to peer-support (3.10).

Figures 14 and 15 displays a graphical representation of the coping capacities found in Swedish municipalities – not separated by size. Figure 14 highlights that rapidity and bricolage dimension has the highest mean, slightly above 3.5. On the other hand, external collaboration with central government has the lowest mean, just above 3. All other coping capacities are clustered closely together around 3.5

COPING CAPACITIES ACROSS SWEDISH MUNICIPALITIES

FIGURE 12

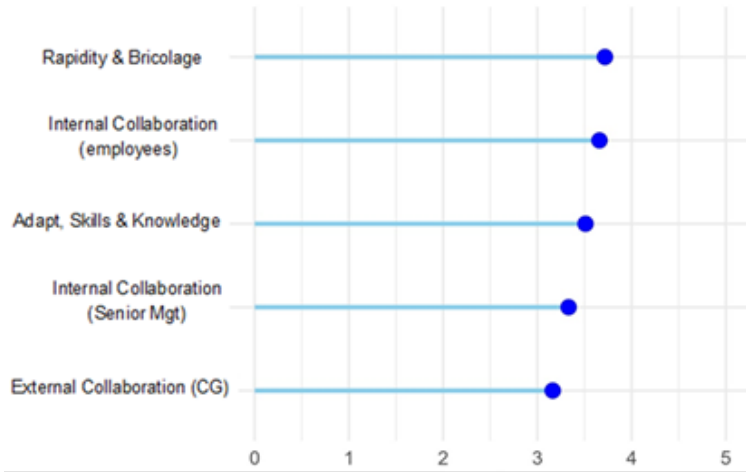
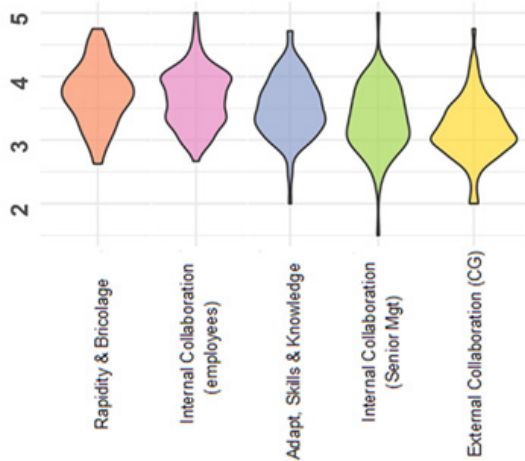


Figure 15 shows that rapidity and bricolage has the highest concentration of scores, with a peak around 4. External collaboration with central government has the lowest overall distribution, with most scores concentrated between 2.5 and

3.5. Finally, internal collaboration (with senior management) has the widest spread, ranging from below 2 to 5 – pointing out to a lack of uniformity in this dimension for Swedish municipalities.

DISTRIBUTION OF COPING CAPACITIES ACROSS SWEDISH MUNICIPALITIES

FIGURE 13



Linking Trust-Based Management to Financial Resilience

The concept of Trust-Based Management (TBM) encompasses a range of organisational practices that focus on decentralisation, employee empowerment, and open communication. Existing literature indicates that empowering employees to participate in decision-making and decentralising decision-making processes enhances organisational resilience, enabling quicker responses to crises (van der Vegt, Essens, Wahlstrom, & George, 2015; Samba & Vera, 2013; Sheffi & Rice, 2005; van der Vegt et al., 2015). In the context of Swedish local

government, where reforms aimed at adopting TBM practices, it is thus worth exploring their relationship with financial resilience dimensions. This section conducts a statistical analysis, controlling for factors such as type of local government, population size, type of shock, and organisational complexity (i.e., number of employees), to determine whether TBM practices are significantly related to key anticipatory and coping capacities in Swedish local governments. Table 16 summarises the results presented in the following sections

TRUST-BASED MANAGEMENT (TBM) AND ANTICIPATORY AND COPING CAPACITIES

TABLE 16

	Financial Resilience Capacities	TM practices	LG size	LG type	Type of shock	Explanatory Power
AC	External Information Sharing					4%
AC	Monitoring External Activities	Positive (**)				10%
AC	Vulnerability assessment				*	7%
AC	Political Awareness	Positive (***)				27%
AC	Critical Thinking	Positive (***)	Negative (*)	Positive Region (*)	*	14%
AC	Internal Information Sharing	Positive (***)	Negative (*)			14%
CC	Rapidity & Bricolage	Positive (***)				15%
CC	Adapt. Skills & Knowledge	Positive (***)				22%
CC	Internal Collaboration (employees)	Positive (***)	Negative (**)			16%
CC	Internal Collaboration (Senior Mgt)	Positive (***)		Negative Region (*)		14%
CC	External Collaboration (CG)	Region (*)	Negative (*)	Positive		7%

Note: Number of employees was also controlled on the model, but since it was not significant in any of the regressions, it was not tabulated.

*** <0.01; ** <0.05; * <0.1

ANTICIPATORY CAPACITIES

Table 16 summarises statistical evidence that suggested TBM practices are positively related to a range of anticipatory capacities in Swedish local governments, namely, monitoring of external activities, political attitudes and awareness, critical thinking and internal information sharing. This suggests that TBM principles may contribute to foster a culture where employees are encouraged make decisions autonomously, municipalities can enhance their anticipatory capacities. This proactive stance enables them to foresee financial risks and prepare accordingly, thus bolstering financial resilience. It is likely, however, that TBM practices and anticipatory capacities in Swedish local governments are mutually reinforcing, with each enhancing the other in a cycle that fosters both proactive decision-making and increased financial resilience.

TBM emphasises the decentralisation of authority, giving employees greater autonomy and responsibility in their roles. Accordingly, it leads to fostering an environment where critical thinking is not only encouraged but expected – promoting a central anticipatory capacity for financial resilience. Moreover, employees/staff who are empowered to make decisions are more likely to stay engaged with their external environment,

identify relevant changes, and communicate these to their peers and superiors (i.e., monitoring, proactively, external activities). TBM's impact extends to improving the situation awareness and attitudes of politicians. When administrative staff are encouraged to share information, even challenging or bad news, it enhances the politicians' understanding of vulnerabilities and reliance on the expertise of the administrative staff. Effective information sharing within municipalities is also significantly influenced by TBM – as one would expect. Ensuring that relevant information is quickly disseminated across functions and hierarchical levels enhances the municipality's ability to respond to external shocks.

The data indicates that the larger the population in a local government, the lower the capacities for critical thinking and information sharing with internal stakeholders. In larger municipalities, the complexity and volume of operations may hinder the effectiveness of communication and the ability to engage in deep critical thinking. Moreover, the analysis shows that critical thinking is higher in regions compared to municipalities.

COPING CAPACITIES

TBM is statistically significant in explaining (i) rapidity and bricolage, (ii) adaptability, skills, and knowledge, and (iii) internal collaboration both with employees and senior management – relevant coping capacities of the financial resilience framework (see Table 16). This indicates that TBM may contribute to foster an environment where employees can rapidly pool collective expertise and utilise their knowledge creatively to maintain operations under adverse conditions, ensure that employees are well-equipped to adapt to changing circumstances and possess the necessary skills to handle financial shocks effectively.

The data also points out that internal collaboration (both with employees and senior management) decreases with an increase in population size, likely due to the complexities and communication barriers in larger municipalities. Additionally, internal collaboration with senior management is lower in regions compared to municipalities, possibly due to the broader scope and strategic focus of regional governance, which might reduce direct interactions between senior management and employees.

Linking anticipatory and coping capacities to performance

This section analyses the relationship of the resilience dimensions (both anticipatory and coping capacities) with perceived financial and non-financial performance of Swedish local governments (municipalities and regions). Due to availability of updated financial data, and in line with previous studies on financial resilience, this report uses perceived performance – as answered by CFOs via the survey.

Table 17 compares financial and non-financial performance across smaller and larger municipalities, as well as smaller and larger regions, on several indicators. The results point out that

larger municipalities consistently perceive their performance as being better than smaller municipalities in both financial and non-financial metrics (3.11 vs. 2.58 in financial performance, and 3.39 vs. 3.05 in non-financial performance, both statistically significant). While smaller municipalities face challenges in financial performance, they still perform relatively well in non-financial metrics. For example, small municipalities can still score high in "responsiveness" as they may have a better understanding of the specific needs of their population and can be more responsive in service delivery.

SWEDISH MUNICIPALITIES AND REGIONS PERFORMANCE (AVERAGE)

TABLE 17

	Municipalities		Regions	
	Smaller	Larger	Smaller	Larger
Capacity to pay for the existing level and quality of services in the long-term (more than 5 years)	2.60 ..	3.17 ..	2.00	3.00
Ability to pay for the existing level and quality of services in the short-term (1 to 3 years)	2.66 ..	3.19 ..	1.75	2.50
Ability to generate sufficient revenues to pay expenditures	2.49 ..	2.98 ..	1.50 ..	3.00 ..
Financial performance	2.58 ***	3.11 ***	1.75 ..	2.83 ..
Quality of service delivery	3.11 ..	3.51 ..	3.25	3.00
Efficiency in service delivery	2.85 ..	3.30 ..	2.25	3.00
Achievements of objectives	2.96 ..	3.43 ..	2.50	3.00
Responsiveness of services	3.15	3.36	3.25	3.25
Success in developing new/innovative ways of service delivery	3.06	3.23	3.25	3.50
Reputation of authority to key external stakeholders	3.09 ..	3.51 ..	3.25	3.25
Competence of staff	3.13 .	3.36 .	3.00	2.75
Non-Financial Performance	3.05 ***	3.39 ***	2.96	3.11

Note: Smaller/larger municipalities [regions] are those below/above the sample's median (17,500 inhabitants) [(300,000 inhabitants)].
*** <0.01; ** <0.05; * <0.1

Regarding regions, the smaller ones appear to struggle with financial performance compared to larger regions (1.75 vs 2.83, statistically significant), especially in revenue generation. While, on average, larger regions appears to display higher non-financial performance, the results are not significant statistically; accordingly, smaller regions show competitive or even slightly better scores than larger regions in areas like innovation in service delivery (3.25 vs. 3.50) and responsiveness of services (both at 3.25).

Focusing on financial performance, both larger regions and municipalities present higher results – and the difference is statistically significant. As Sweden has a highly decentralised

system, where municipalities and regions have significant autonomy, larger entities - with more resources - are typically better positioned to manage this autonomy.

With regards to non-financial performance, overall, both types of municipalities think they perform better than their counterpart regions in non-financial performance, suggesting that municipalities may have more agility or better engagement in service-related areas. Larger municipalities outperform other Swedish local governments in most non-financial performance indicators, showing strength in service quality, efficiency, and innovation, as well as maintaining strong stakeholder relations and a competent workforce. Larger regions show mixed results

in non-financial areas, such as staff competence and quality of delivery, indicating that their large size may create complexities in service delivery and workforce management.

Table 18 shows the relationships of the core financial resilience dimensions on the two different types of performance when controlling for the average impact of shocks.

SWEDISH LGS FINANCIAL RESILIENCE DIMENSIONS AND THEIR RELEVANCE FOR PERFORMANCE

TABLE 18

Local Government Performance		Non-Financial	Financial	Non-Financial	Financial	Non-Financial	Financial
AC	External Information Sharing						
AC	Monitoring External Activities	Positive (*)	Positive (**)				
AC	Vulnerability assessment						
AC	Political Awareness		Positive (*)				
AC	Critical Thinking						
AC	Internal Information Sharing						
CC	Rapidity & Bricolage			Positive (**)			
CC	Adapt, Skills & Knowledge						
CC	Internal Collaboration (employees)						
CC	Internal Collaboration (senior mgt)			Positive (**)	Positive (*)		
CC	External Collaboration (CG)						
	Low Indebtedness						
	High Financial Autonomy					Positive (*)	Positive (**)
	Low volatility of own-revenues						Positive (**)
	Sufficient financial slack					Positive (*)	Positive (**)
	Average impact shock (Control)		***		***		*
	Explanatory Power	23%	29%	42%	22%	29%	70%

*** <0.01; ** <0.05; * <0.1

The results shows that coping capacities present a strong and positive association with non-financial performance (explaining 42% of the variance). Specifically, rapidity and bricolage and senior management collaboration appear to be critical towards a positive result on non-financial performance according to our respondents in Sweden. However, anticipatory capacities play only a moderate role in explaining financial or non-financial performance (29% and 23% respectively), while coping capacities are also moderately associated with financial performance (22%). While monitoring external activities, political awareness, and internal collaboration by the senior management show a positive relationship with financial performance, the main enablers or inhibitors of financial performance are however the various vulnerability sources (i.e., high financial autonomy, low volatility of revenues and sufficient financial slack – explaining 70% of the variance).

While exploratory in nature, the results highlight the critical role of specific adaptive and coping capacities in shaping both financial and non-financial performance of Swedish local governments. For instance, financial performance is most strongly and positively associated with anticipatory capacities like monitoring external activities but also vulnerability

sources such as low volatility of own revenues and financial autonomy, which show highly significant relationships ($p < 0.01$). Moreover, the presence of sufficient financial slack further strengthens financial performance ($p < 0.05$). This indicates that municipalities and regions with a solid foundation of financial resources and external monitoring mechanisms should be better equipped to maintain financial stability in times of crisis. In contrast, non-financial performance—which encompasses factors like service quality, innovation, and responsiveness—is strongly and positively associated to coping capacities such as rapidity and bricolage ($p < 0.01$) and senior management collaboration ($p < 0.01$). These capacities allow local governments to quickly adapt and make the best use of available resources, which is crucial for maintaining high service levels during turbulent periods.

These findings emphasise the need for local governments to build a comprehensive resilience strategy, focusing not only on financial indicators but also on enhancing coping and anticipatory capacities. This holistic approach is vital for navigating challenging conditions and fostering a culture of financial resilience that ensures both financial sustainability and strong public service delivery.

Comparison among Sweden and other jurisdictions

This section presents a comparative analysis between local governments in Sweden and those in other jurisdictions, focusing on the role of financial resilience across different contexts. Specifically, we compare the results of this survey with previous surveys applied to Germany, Italy and the UK between 2017 and 2018 (Steccolini et al., 2018).

An important limitation of this comparative analysis is the timing of the surveys, as they were conducted in different periods, which likely influenced the perceived severity of external crises. The Swedish data, collected in 2024, reflects local governments' experiences following recent global and regional disruptions, such as the COVID-19 pandemic and economic uncertainties. In contrast, the surveys from Germany, Italy, and the UK were conducted prior to the pandemic, when perceptions of crisis and resilience may have been less acute. This temporal difference could affect how local governments in each country viewed the importance of financial resilience and the capacities they prioritised for maintaining stability.

Regarding perceived financial vulnerability, Table 19 shows that Sweden reports a level of perceived indebtedness of

2.03, the lowest among the countries analysed, indicating that Swedish local governments consider their debt levels to be quite low. Sweden reports a financial autonomy score of 2.73, lower than Italy and the UK, but higher than Germany. This suggests Swedish local governments have moderate control over their revenue sources, although not to the extent seen in the UK. Sweden scores 2.88 in low volatility of own revenue sources, showing a stable revenue compared to all other countries. Sufficient financial reserves (2.83) in Sweden are seen at an intermediate level by respondents, comparatively lower than in the UK or Italy but higher than in Germany. This means Swedish local governments have a reasonable buffer to absorb small shocks, although not as robust as the UK's fiscal slack in 2017/18. In sum, Sweden stands out for its low indebtedness and revenue stability but has slightly lower fiscal reserves and financial autonomy compared to Italy and the UK. Sweden's mix of strengths and moderate autonomy places it in a strong financial position overall, though there is room for improvement, particularly in enhancing financial autonomy and fiscal reserves.

LOCAL GOVERNMENTS' CONTROL OVER FINANCIAL VULNERABILITIES (COUNTRY AVERAGE)

TABLE 19

	Germany 2017/18	Italy 2017/18	UK 2017/18	Sweden 2024	Total
Low level of indebtedness	2.33	2.86	2.58	2.03	2.45
High financial autonomy (considering our own revenue sources) in general	2.68	3.05	3.25	2.73	2.93
Low volatility of own revenues sources (e.g. taxes)	1.89	2.03	2.23	2.88	2.26
Sufficient financial reserves (fiscal slack) to absorb a small amount of shock	2.72	3.06	4.00	2.83	3.15

Concerning local governments anticipatory capacities, Table 20 points out that Sweden emerges as a strong performer across countries compared, particularly in critical thinking and monitoring. Swedish local governments display a proactive approach to external developments and demonstrate a high level of internal critical reflection, surpassing all other countries in these dimensions. In terms of information exchange and information sharing, Sweden is close to the UK, which leads in these areas. This suggests that while Sweden is highly collaborative and emphasises transparency, the UK has a slight edge due to its well-established benchmarking systems

and peer challenge programs. Germany and Italy consistently perform at lower levels across all dimensions. Both countries appear less focused on collaborative practices like information exchange and sharing, and their monitoring efforts are more limited. Additionally, fostering critical thinking is less emphasised, with these countries relying more on traditional approaches. In summary, Sweden shows a good position in terms of anticipatory capacity, performing very well in critical thinking and monitoring. While the UK is still the strongest in information exchange and sharing, Sweden's high scores in these areas suggest it is not far behind.

LOCAL GOVERNMENTS' ANTICIPATORY CAPACITIES (COUNTRY AVERAGE)

TABLE 20

	Germany 2017/18	Italy 2017/18	UK 2017/18	Sweden 2024	Total
AC Information Exchange	3.15	3.09	3.70	3.40	3.33
AC Monitoring	3.56	3.33	4.02	3.81	3.68
AC Information Sharing	3.35	3.39	3.85	3.69	3.57
AC Critical Thinking	3.07	2.93	3.69	3.87	3.39

Table 21 highlights Sweden strong coping capacities, as perceived by respondents, particularly in adaptation of people (3.48) and rapidity of action (3.69), closely following the UK. Similarly, while moderately strong on external collaboration (3.17), Sweden presents lower scores only compared to the UK. Thus, Swedish local governments appear well-positioned to respond quickly to shocks and adapt to changing conditions. However, while Sweden shows solid internal collaboration (3.47), it still ranks below the UK and Germany in this area, indicating room for improvement in building stronger relationships with internal stakeholders. The UK emerges

as the clear leader in all categories, while Germany shows solid internal collaboration but weaker adaptation and slower responses to crises, along with lower levels of external collaboration. Italy consistently lags in all categories, showing relatively weak capacities for collaboration, adaptation, and rapid action compared to Sweden and the UK. In summary, based on respondents' perception, Sweden shows a good capacity to cope with challenges, particularly in rapid response and adaptation, when compared to other jurisdictions. While it performs well in internal and external collaboration, there is room to strengthen and further enhance it.

LOCAL GOVERNMENTS' COPING CAPACITIES (COUNTRY AVERAGE)

TABLE 21

	Germany 2017/18	Italy 2017/18	UK 2017/18	Sweden 2024	Total
CC Adaptation People	3.19	3.22	3.89	3.48	3.45
CC Rapidity of Action	3.35	3.32	3.89	3.69	3.56
CC Internal Collaboration	3.61	3.28	3.84	3.47	3.55
CC External Collaboration	3.09	2.91	3.77	3.17	3.24

While the above comparison offers valuable insights into the approaches of different jurisdictions, as mentioned before, it is important to consider that the external environment during

the collection periods may have shaped responses, potentially leading to variations in perceived risks and priorities across the countries studied.

Conclusion

This report analysed the types and levels of core financial resilience dimensions present in Swedish municipalities and regions, while examining organisational consequences of these dimensions of financial resilience. Overall, it enhances the understanding of financial resilience in Swedish local governments and highlights the critical importance of such focus for Swedish local governments as they face a range of external shocks that underscore the need for both anticipatory and coping capacities within local governments to maintain financial resilience while ensuring the delivery of essential services.

This report underscores the varying perceptions among Swedish local governments regarding perceptions of vulnerability and exposure to shocks which differ significantly based on the size of the local government. For instance, smaller municipalities and regions generally perceive themselves as more vulnerable to shocks (such as socio-demographic and infrastructure challenges) when compared to their larger counterparts. Also, the financial capacity of smaller regions and municipalities (especially concerning financial reserves and the capacity to raise revenues to cover their immediate expenditures) is perceived as more constrained when compared to the larger ones. Moreover, smaller regions appear more exposed to the effects of increased inflation in Sweden. These findings suggest that external support, such as resilience-building efforts from the central government, should be tailored to meet the specific needs of different local governments. Furthermore, while certain shocks, such as refugee reception and extreme weather, seem to be internalised within local governments, other events might be carefully followed in order to reduce their potential impact on financial resilience.

Additionally, the report highlights a key contrast between anticipatory and coping capacities. Both municipalities and

regions demonstrate stronger anticipatory capacities, such as critical thinking and external monitoring, than coping capabilities. However, both groups have limited anticipatory capacities related to external information sharing and collaboration (the lowest score for municipalities and for regions), which are less developed than internal mechanisms. Regarding coping capacities, for regions, the gap between internal collaboration among staff and the collaboration with senior managers is notable, indicating room for improvement in leadership engagement during crises. Strengthening coping capacities, especially external collaboration in municipalities and senior management collaboration in regions, remains a critical area for enhancing overall resilience – especially due to their association with financial and non-financial performance.

Despite these challenges, trust-based management practices have been identified as a potential key enabler of financial resilience, being associated with many coping and anticipatory capacities such as internal collaboration, critical thinking, and situation awareness by politicians within local governments. This approach has shown potential in enhancing both anticipatory and coping capacities that depend on internal actions, which are essential for navigating financial crises and maintaining public service delivery.

Overall, the report calls for continued efforts to strengthen financial resilience across all levels of Swedish local government. Enhancing coping capacities, particularly through external collaboration and rapid response mechanisms, is essential to mitigate the impact of future shocks and maintain non-financial performance. Furthermore, addressing the financial vulnerabilities of smaller municipalities, such as their dependence on volatile revenue sources and limited fiscal reserves, will be critical for ensuring long-term financial sustainability and resilience.

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APPENDIX A – SKR’s municipal group division analysis

The tables below are based on SKR’s municipal group division in 2023 (SKR, 2023), which consists of groupings of municipalities based on certain criteria (e.g., size, proximity to larger agglomerations and commuting patterns). The three main groups are, namely, (a) smaller towns/urban areas and rural municipalities, (b) larger towns and municipalities near a larger city, and (c) metropolitan cities and municipalities near a metropolitan city¹.

In the analysis, to compare these three groups we used a one-way ANOVA (Analysis of Variance) followed by Tukey’s

Honest Significant Difference (HSD) – a post-hoc test to determine which specific groups are different from each other. In the median-based grouping the difference between small (under 17,500 inhabitants) and large (over 17,500 inhabitants) tends to be more pronounced due to the internal variation among groups (some cities are very large, some just above the median). This test was made to allow for subtle patterns emergence when introducing more categories and smaller, more specific groupings, like SKR’s municipal grouping division.

THE IMPACT OF SHOCKS ACROSS SWEDISH MUNICIPALITIES – AVERAGE OF RESPONSES BY SIZE

The impact of shocks across Swedish municipalities	Smaller towns and rural areas (n= 38)	Larger towns (n=40)	Metropolitan Areas (n= 16)
Increased inflation	4.6	4.45	4.25
Increased Interest	3.34	3.4	3.44
Corona pandemic	2.45*	3.00	2.5
Refugee reception	2.34	2.45	2
Other events	2.47	2.45	2.12
Extreme Weather	2.16	2.10	2.06

TABLE A.1

PERCEIVED VULNERABILITY ACROSS SWEDISH MUNICIPALITIES – AVERAGE OF RESPONSES BY SIZE

Perceived vulnerability across Swedish municipalities	Smaller towns and rural areas (n= 38)	Larger towns (n=40)	Metropolitan Areas (n= 16)
Socio-demographic	3.74	3.43	3.69
Socio-Economic	2.97	2.65	2.69
Economic	2.76	2.60	2.88
Infrastructure	3.18	2.90	3.31
Extreme weather	3.11	2.93	3.19
Regulation	2.79	2.63	2.69

TABLE A.2

¹ More details can be found here <https://skr.se/en/skr/tjanster/kommunerochregioner/faktakommunerochregioner/kommungruppsindelning.2051.html>. In summary, Swedish municipalities are classified as (a) smaller towns if there are less than 40,000 inhabitants in that area (less than 15,000 are considered rural areas); (b) larger towns (also called medium-sized) are the ones with a population of at least 50,000 inhabitants with at least 40,000 inhabitants in the largest urban area; (c) metropolitan cities have a population of at least 200,000 inhabitants with at least 200,000 inhabitants in the largest urban area

FINANCIAL CAPACITY ACROSS SWEDISH MUNICIPALITIES – AVERAGE OF RESPONSES BY SIZE

TABLE A.3

Perceived vulnerability across Swedish municipalities	Smaller towns and rural areas (n= 38)	Larger towns (n=40)	Metropolitan Areas (n= 16)
Capacity to pay for services (short-term)	2.79	3.05	3.00
Capacity to pay for services (long-term)	2.84	2.85	3.00
Robustness (council tax)	2.84	3.03	3.00
Robustness (other revenues)	2.68	3.03	2.63
Stability (council tax)	2.76	3.05	2.94
Stability (other revenues)	2.66	2.93	2.88
Public Infrastructure	2.63	2.85	2.50
Sufficient revenues to pay expenditures	2.58	2.83	2.88
Financial reserves	2.76	2.83	3.25
Financial Autonomy	2.61	2.80	2.88
Level of debt	3.03	2.90	3.31

CURRENT FINANCIAL SITUATION ACROSS SWEDISH REGIONS – AVERAGE OF RESPONSES BY SIZE

TABLE A.4

Current financial situation across Swedish municipalities	Smaller towns and rural areas (n= 38)	Larger towns (n=40)	Metropolitan Areas (n= 16)
Financing services is not a concern	2.50	2.53	2.63
Balancing the budget is not a concern	2.39	2.60	2.88
Funding investments is not a concern	2.26	2.53	2.75
Access to loans when needed	3.79	3.80	4.13

ANTICIPATORY CAPACITIES ACROSS SWEDISH MUNICIPALITIES – AVERAGE OF RESPONSES BY SIZE

TABLE A.5

Anticipatory Capacities	Smaller towns and rural areas (n= 38)	Larger towns (n=40)	Metropolitan Areas (n= 16)
External Info. Sharing	3.39	3.43	3.36
Monitoring External Activities	3.89**	3.88**	3.54**
Vulnerability assessment	3.83*	3.72	3.50*
Political Awareness	3.54	3.65	3.38
Critical Thinking	4.01*	3.82	3.63*
Internal Info. Sharing	3.78	3.71	3.55

COPING CAPACITIES ACROSS SWEDISH MUNICIPALITIES – AVERAGE OF RESPONSES BY SIZE

TABLE A.6

Coping Capacities	Smaller towns and rural areas (n= 38)	Larger towns (n=40)	Metropolitan Areas (n= 16)
Rapidity & Bricolage	3.76	3.68	3.63
Adapt, Skills & Knowledge	3.56	3.50	3.45
Internal Collaboration (employees)	3.67	3.66	3.52
Internal Collaboration (Senior Mgt)	3.31	3.41	3.22
External Collaboration (CG)	3.08	3.16	3.28

APPENDIX B – Correlation Matrices

The appendix presents a series of correlation matrices that examine the relationships between dimensions of financial resilience and a range of control variables within the Swedish

context to further understand the interplay between financial resilience and various contextual factors that may influence municipal financial health in Sweden

CORRELATION OF IMPACT OF SHOCKS ACROSS SWEDISH MUNICIPALITIES AND CONTROLS

TABLE B.1

	Asylum seeker pressure	Population Growth	Sparsity	Debt per capita (2023)	Tax Base (2023)	Tax Rate (2023)
Increased inflation	0.0554	0.0086	-0.0405	0.0099	0.0302	-0.0358
Increased Interest	0.1256	-0.0212	-0.2344	0.2898	-0.1113	0.1381
Refugee reception	0.2008	0.0784	0.1133	0.0936	-0.0091	-0.1097
Extreme Weather	0.0246	0.0348	-0.1078	0.0527	0.0485	-0.0792
Corona pandemic	-0.0293	0.0573	-0.0702	0.1688	0.0009	-0.0018
Other events	-0.0629	0.0685	0.066	0.2296	0.0413	0.0029

CORRELATION OF PERCEIVED VULNERABILITY ACROSS SWEDISH MUNICIPALITIES AND CONTROLS

TABLE B.2

	Asylum seeker pressure	Population Growth	Sparsity	Debt per capita (2023)	Tax Base (2023)	Tax Rate (2023)
Socio-demographic	0.326	-0.5555	-0.3475	0.1407	-0.3928	0.4255
Socio-economic	0.3861	-0.3376	-0.204	0.1708	-0.4606	0.4178
Economic	0.3872	-0.4007	-0.1764	0.0876	-0.3654	0.4242
Infrastructure	0.0486	-0.1906	-0.0103	-0.0043	-0.1228	0.2871
Extreme Weather	0.0372	-0.0245	-0.1084	-0.018	0.028	0.0499
Other	0.0071	-0.1587	-0.171	0.2261	-0.0751	0.2042

CORRELATION OF FINANCIAL CAPACITY ACROSS SWEDISH MUNICIPALITIES AND CONTROLS

TABLE B.3

	Asylum seeker pressure	Population Growth	Sparsity	Debt per capita (2023)	Tax Base (2023)	Tax Rate (2023)
Capacity to pay for services (short-term)	-0.1684	0.2636	0.2239	-0.2472	0.3425	-0.3449
Capacity to pay for services (long-term)	-0.2361	0.1858	0.1483	-0.189	0.2904	-0.2476
Robustness (council tax)	-0.186	0.3251	0.2572	-0.1847	0.375	-0.3435
Robustness (other revenues)	-0.1616	0.2037	0.2597	0.0852	0.2818	-0.2532
Stability (council tax)	-0.1119	0.2607	0.1849	-0.1563	0.3459	-0.4016
Stability (other revenues)	-0.1615	0.2407	0.2077	-0.0677	0.2661	-0.3774
Public Infrastructure	-0.1609	0.2621	0.1384	0.0959	0.21	-0.3037
Sufficient revenues to pay expenditures	-0.0944	0.2968	0.261	-0.1111	0.235	-0.2957
Financial reserves	-0.2203	0.2705	0.2783	-0.2828	0.3274	-0.3761
Financial Autonomy	-0.1496	0.3205	0.3716	-0.1509	0.3838	-0.4762
Level of debt	-0.0223	0.116	0.2652	-0.5081	0.2532	-0.2338

CORRELATION OF FINANCIAL SITUATION ACROSS SWEDISH MUNICIPALITIES AND CONTROLS

TABLE B.4

	Asylum seeker pressure	Population Growth	Sparsity	Debt per capita (2023)	Tax Base (2023)	Tax Rate (2023)
Financing services is not a concern	-0.1756	0.1695	0.0628	-0.1813	0.1211	-0.1788
Balancing the budget is not a concern	-0.3015	0.281	0.1409	-0.2260	0.2735	-0.3543
Funding investments is not a concern	-0.0682	0.1963	0.0744	-0.2587	0.1592	-0.2305
Access to loans when needed	-0.2684	0.1605	0.0878	-0.1861	0.1567	-0.0674

CORRELATION OF ANTICIPATORY CAPACITIES ACROSS SWEDISH MUNICIPALITIES AND CONTROLS

TABLE B.5

	Asylum seeker pressure	Population Growth	Sparsity	Debt per capita (2023)	Tax Base (2023)	Tax Rate (2023)
External Info. Sharing	-0.1101	0.1123	0.116	-0.0166	0.191	-0.2796
Monitoring External Activities	-0.1327	0.3926	0.2749	-0.1511	0.3339	-0.4009
Vulnerability assessment	-0.2212	0.1858	0.0173	0.06	0.2647	-0.2361
Political Awareness	-0.0351	-0.0362	-0.0426	-0.1082	0.0346	-0.0694
Critical Thinking	-0.0605	-0.0287	-0.0565	-0.1053	0.1056	-0.0925
Internal Info. Sharing	0.0564	0.0064	-0.0154	-0.0009	0.0305	-0.1301

CORRELATION OF COPING CAPACITIES ACROSS SWEDISH MUNICIPALITIES AND CONTROLS

TABLE B.6

	Asylum seeker pressure	Population Growth	Sparsity	Debt per capita (2023)	Tax Base (2023)	Tax Rate (2023)
Rapidity & Bricolage	-0.1055	0.117	-0.0304	-0.2327	0.2343	-0.3042
Adapt, Skills & Knowledge	-0.1596	0.127	0.0507	-0.2771	0.3097	-0.3019
Internal Collaboration (employees)	-0.3144	0.1638	0.0469	-0.1554	0.2635	-0.3164
Internal Collaboration (Senior Mgt)	-0.1523	0.0588	0.0648	-0.1304	0.2101	-0.2726
External Collaboration (CG)	-0.0438	0.0977	-0.0369	-0.0191	0.1488	-0.2053