

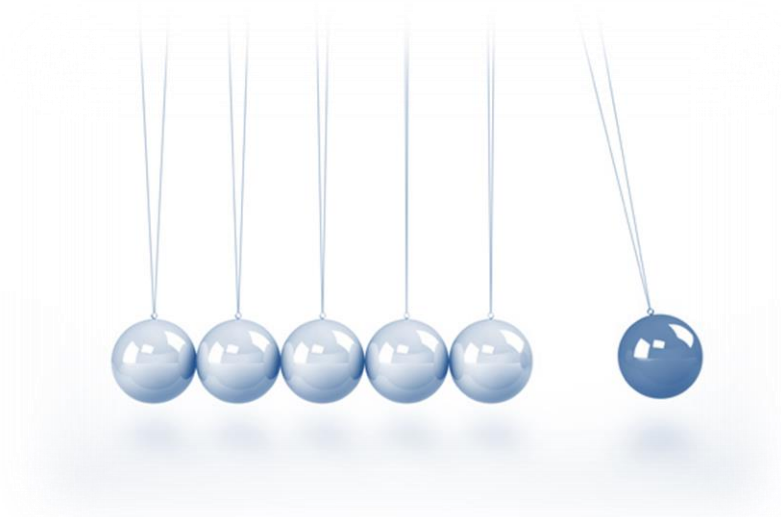
Municipal Infrastructure Investment & Financial Sustainability

**AMO-York Region Joint Research Report
Spring 2018**

Outline

1. Principles of Financial Sustainability
2. Conceptual Framework
3. The Municipal Context
4. Infrastructure: A Big Fiscal Challenge
5. Municipal Fiscal Capacity
6. Debt Management
7. Reserve Management
8. Are We There Yet?
9. Achieving Financial Sustainability
10. Conclusions

1. Principles of Financial Sustainability



In this section

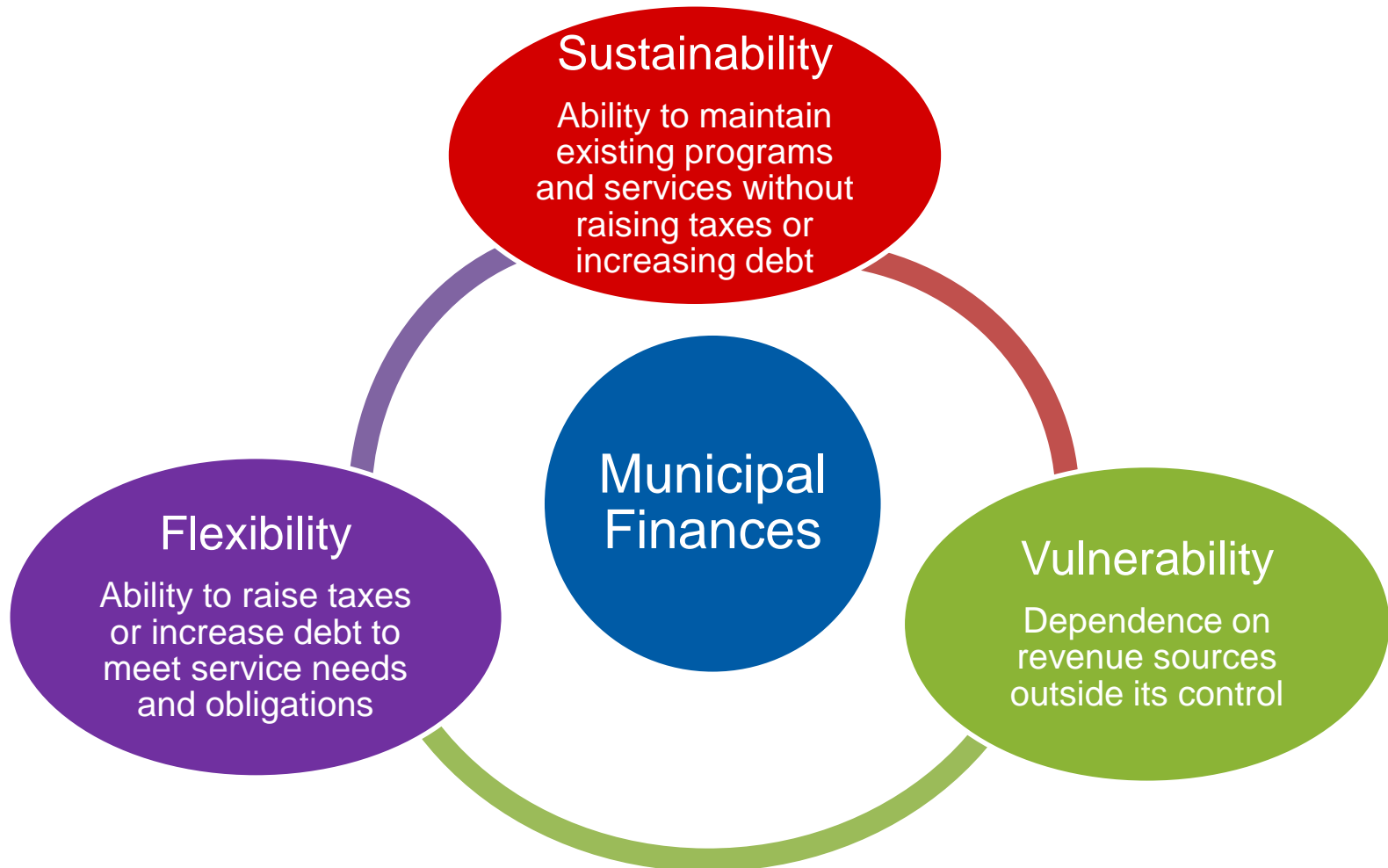
1. What is financial sustainability?
2. Beyond the PSAB framework
3. How to determine if a municipality is financially sustainable
4. Challenges to financial sustainability

There are numerous conceptual or principles-based definitions of financial sustainability

“...a government’s ability to manage its finances so it can meet its spending commitments, both now and in the future. It ensures future generations of taxpayers do not face an unmanageable bill for government services provided to the current generation”.

Source: Local Government Association of Australia

The Public Sector Accounting Board defines financial sustainability more narrowly



A more pragmatic approach to financial sustainability focuses on capabilities

A municipality is in a financially sustainable position if:

1. It offers a level of service commensurate with willingness to tax and ability to pay
2. It can adjust service levels in response to changes in economic conditions or transfer payments
3. It can keep its infrastructure in a state of good repair
4. It has sufficient reserves and/or debt capacity to replace infrastructure when it needs to be replaced
5. It can adjust its capital stock in response to changes in the rate of growth

What are some key challenges to financial sustainability?

1. The future cost of infrastructure investments
2. A mismatch between level of service decisions and fiscal capacity
3. Unforeseen shocks to revenue or spending
4. Growth that does not materialize as expected
5. Water rates that are set at less than full cost recovery

Financial sustainability is about the stewardship of the long term

- Financial sustainability requires long-term planning; it does not just happen
- This is mostly about managing two things: service levels and infrastructure
- Service level and infrastructure decisions both typically have operating and capital dimensions
- The key to financial sustainability is taking necessary steps to manage **both** short and long-term risks

Infrastructure needs pose significant risks to financial sustainability

Risks related to asset management:

- Inadequate spending on infrastructure renewal and replacement, deferring costs to future generations
- Inadequate savings for future, lumpy asset management investments, again deferring costs to future generations
- Uneven geographical distribution of infrastructure needs
- Geographical variation in infrastructure costs
- Externalities arising from municipal boundaries, leading to under-investment
- Water and wastewater rates below full cost recovery

Infrastructure needs pose significant risks to financial sustainability

Risks related to growth:

- Growth does not materialize when expected, even though infrastructure has been built in advance
- Inadequacy of the development charge legislative regime to generate the funds needed for growth-related infrastructure
- Failure to allocate sufficient tax levy funding to growth-related infrastructure, resulting in over-reliance on development charges, a large future tax levy obligation, and degradation of existing infrastructure as funding needed for asset management is used for growth projects

Financial sustainability is inextricably linked to asset management



Key factors that link asset management to financial sustainability

1. Infrastructure intensity

How much infrastructure do you have on a per household basis?

2. Investment needs

How much do you need to invest and when?

3. Fiscal capacity

What is your ability to generate revenue to meet your infrastructure needs, including reserve contributions and debt servicing?

4. Intergenerational equity

What are our obligations to future generations?

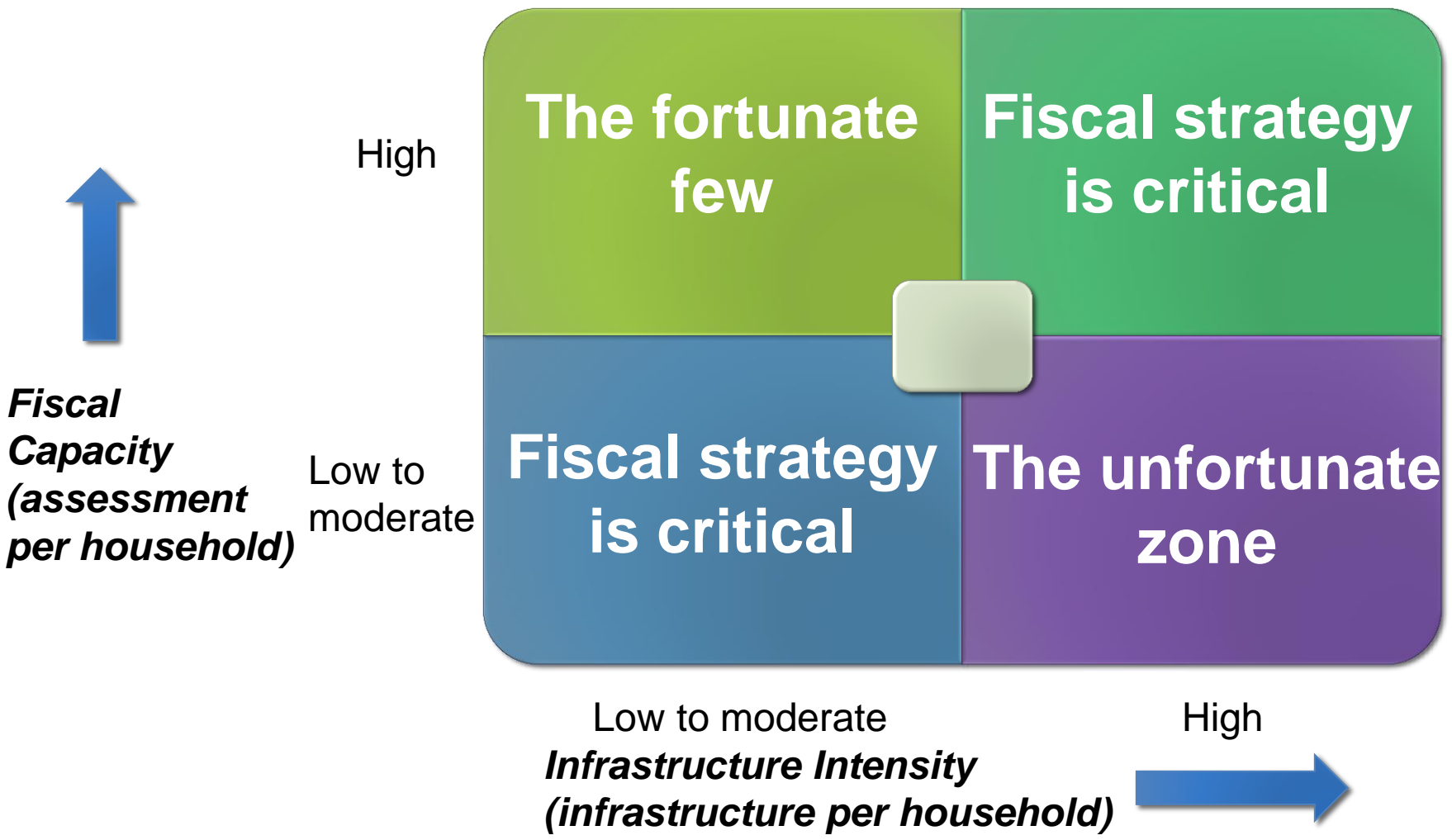
2. A Conceptual Framework



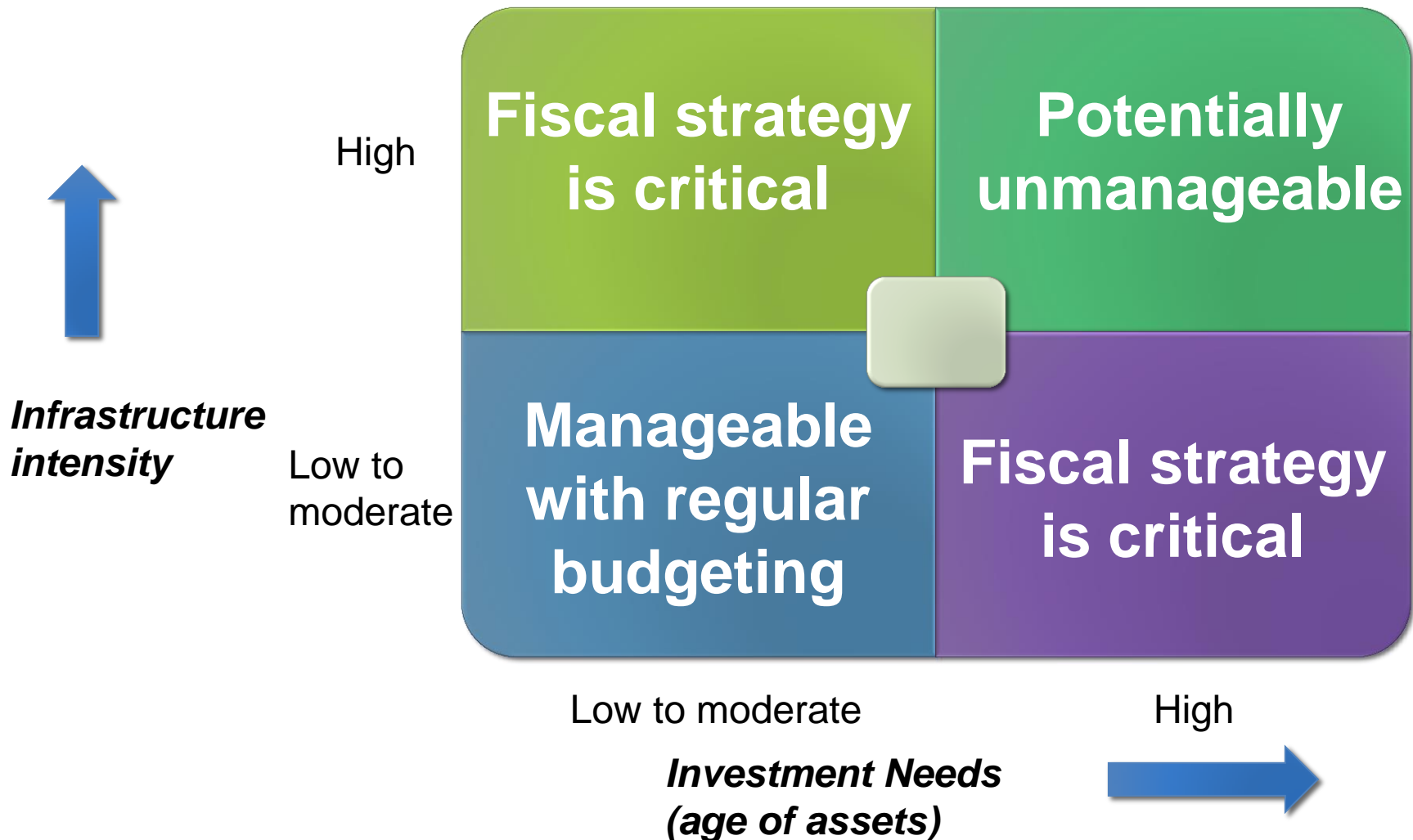
The report is built around a couple of key ideas

- Municipalities can be grouped based on a framework involving fiscal capacity, infrastructure intensity, and infrastructure needs
- It is analytically useful to group municipalities according to their rate of population growth

Starting point: assess fiscal capacity and infrastructure intensity

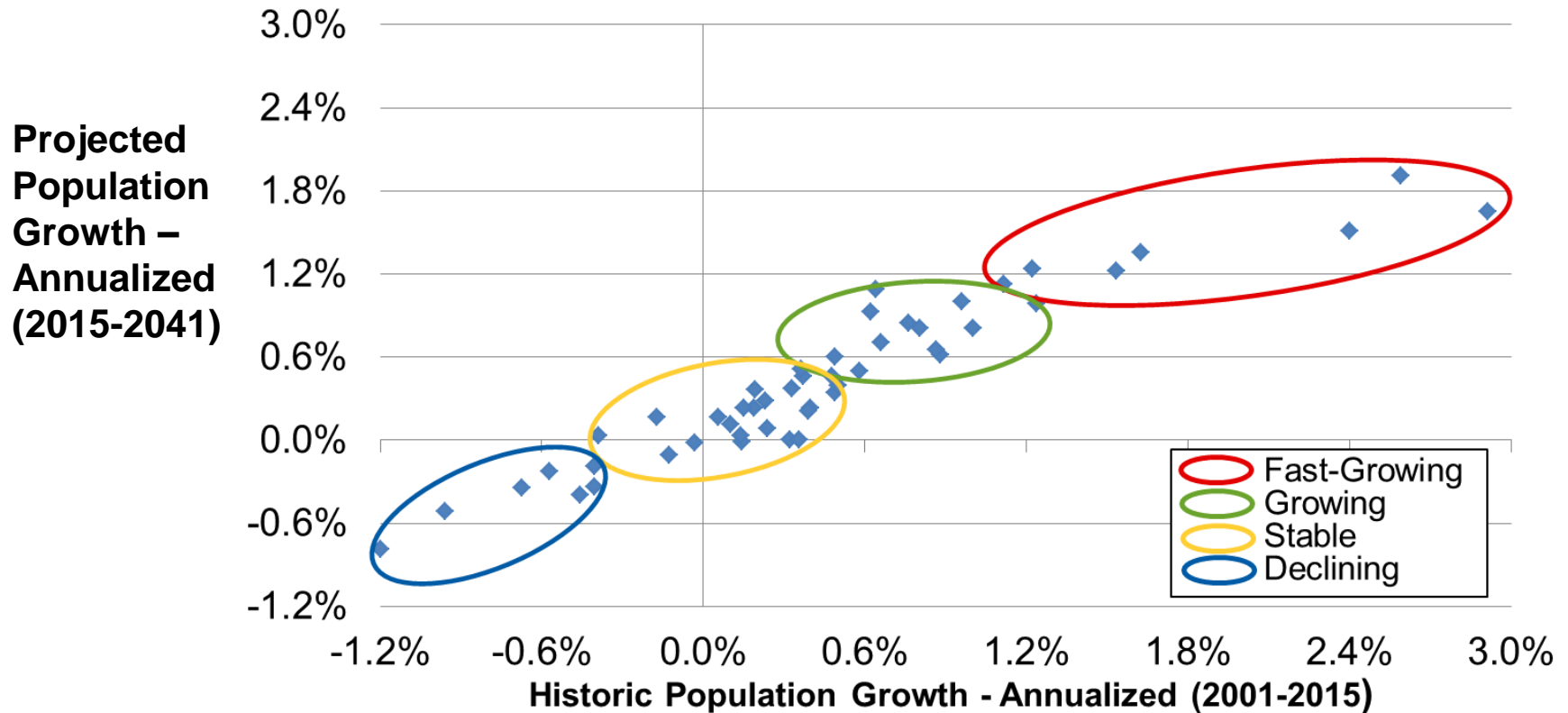


Next: look at investment needs and how urgent they are



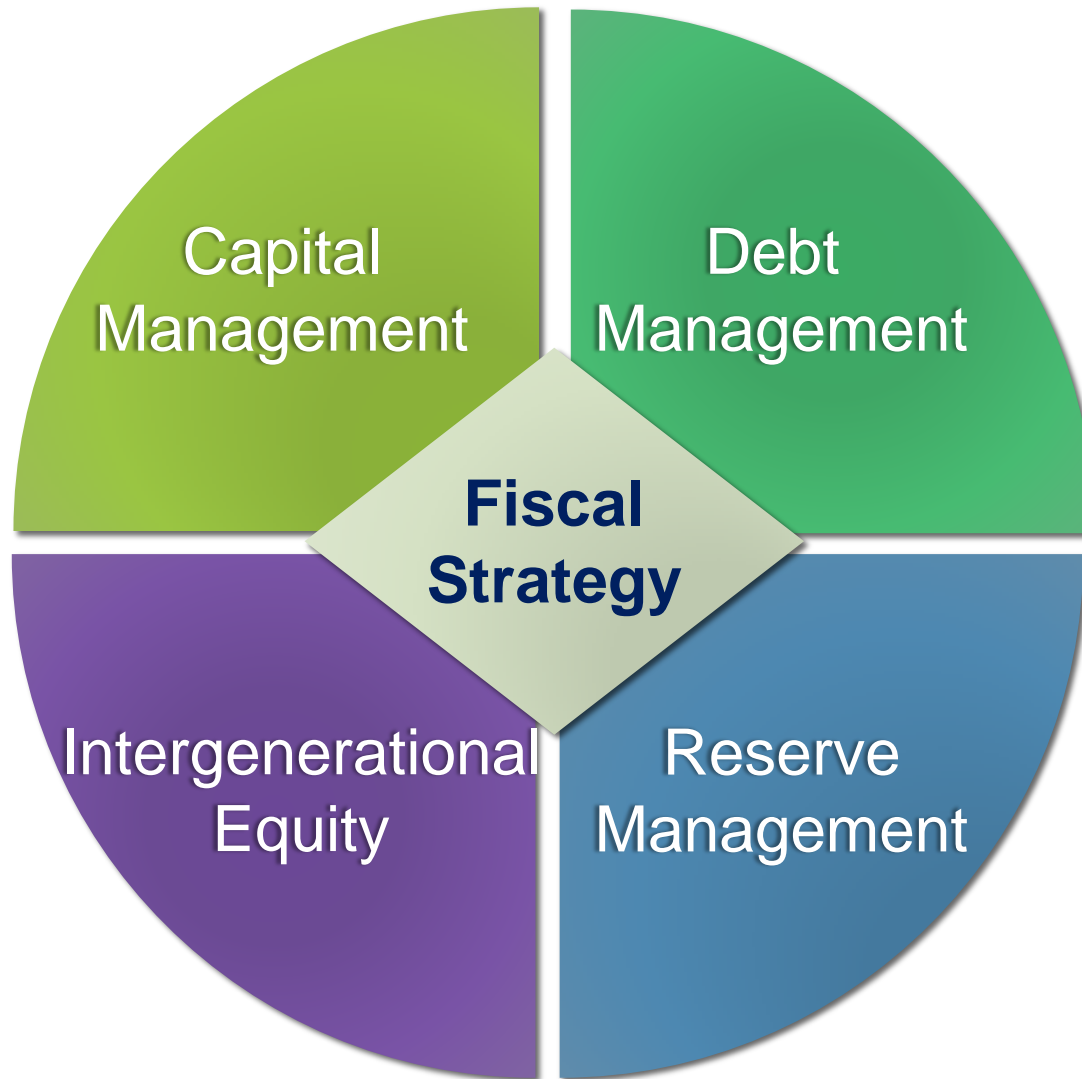
Past is future - growing municipalities tend to keep growing

Historic and Projected Population Growth Ontario Census Divisions (2001-2041)



Sources: Projected population growth from Ontario Ministry of Finance; Historic population growth from Statistics Canada

The elements of a fiscal strategy



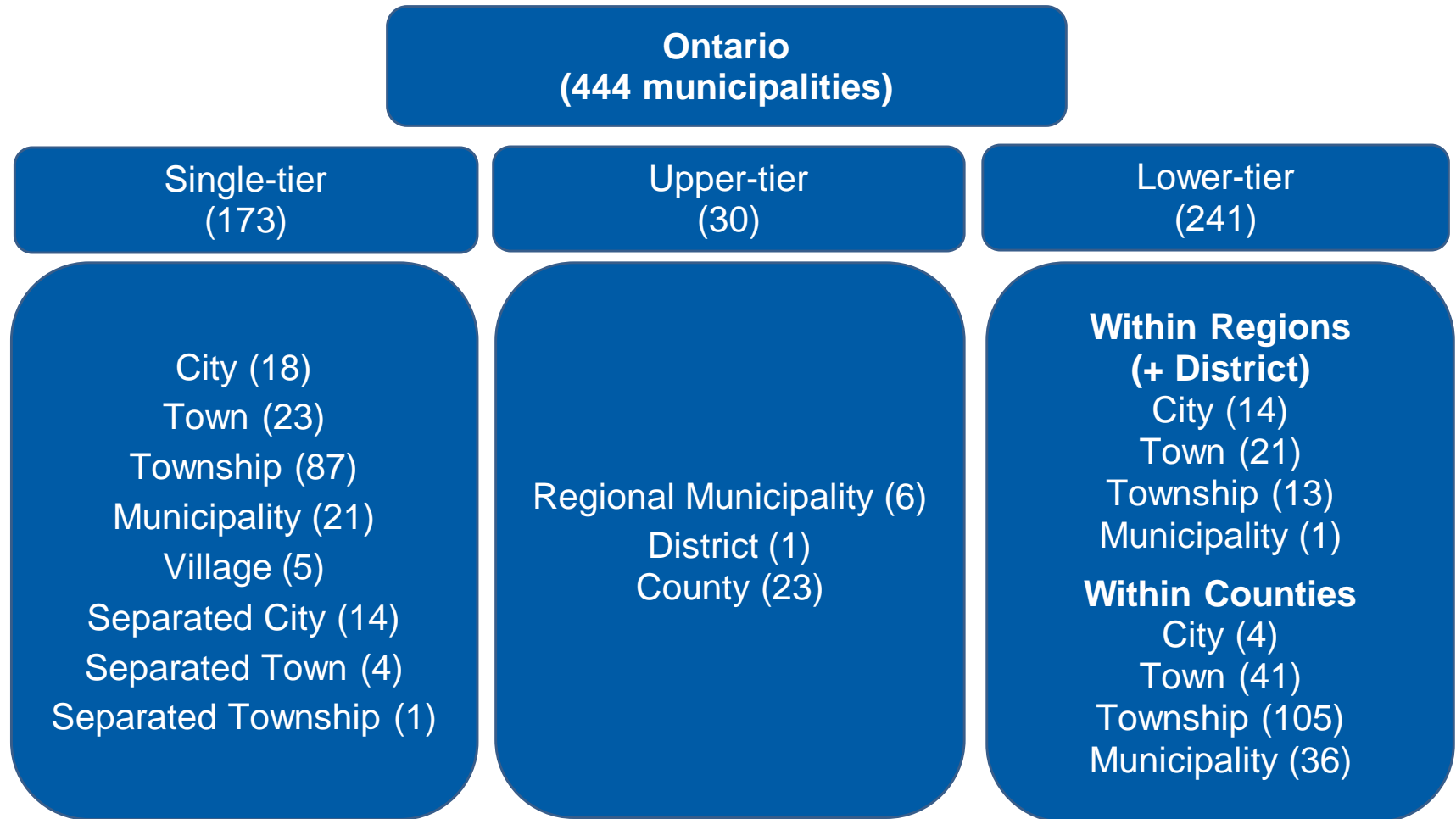
3. The Municipal Context



Ontario municipalities can be categorized in a variety of ways, depending on the analytical question at hand

1. Structure
2. Geography
3. Population size
4. Degree of urbanization

Municipal structure in Ontario is complex



Source: AMO and Ontario Ministry of Finance

Responsibilities differ by structure

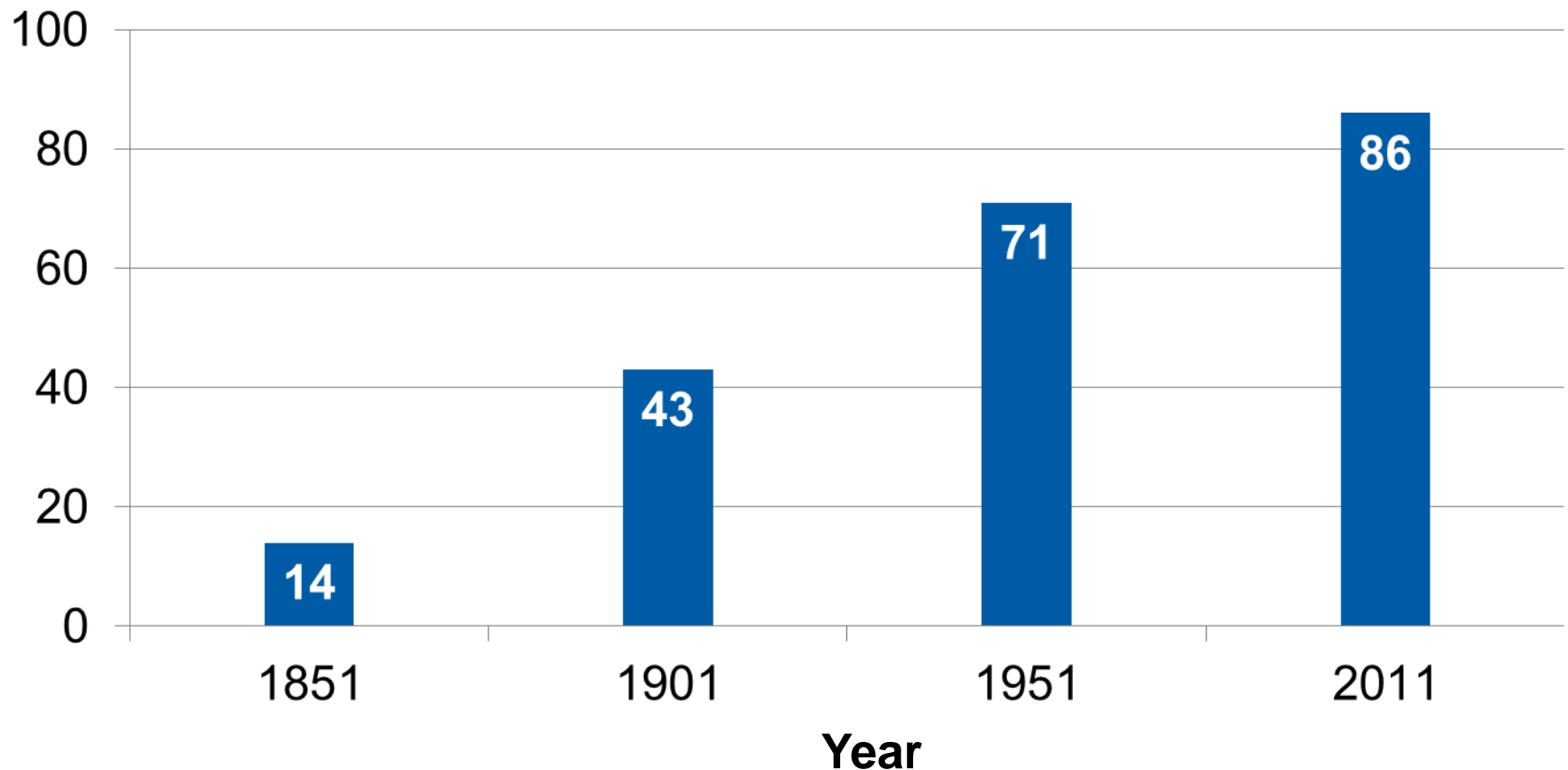
	Single-tier	Upper-tier		Lower-tier	
		County	Regional	Within Counties	Within Regions
Arterial roads	√	√	√		
Local roads	√			√	√
Transit	√		√	√	
Water & Wastewater	√		√	√	√
Waste collection	√			√	√
Waste disposal	√	√	√		
Parks and recreation	√			√	√
Fire protection	√			√	√
Policing	√		√	√	
Health and social services	√	√	√		
Social housing	√	√	√		

- Notes:
1. There are currently ten District Social Services Administration Boards (DSSABs) in northern Ontario that provide consolidated municipal services
 2. In two-tier municipalities, certain responsibilities may be at the upper tier, the lower tier, or shared (e.g., water and transit)

Source: MMAH

The degree of urbanization has increased rapidly over the last century

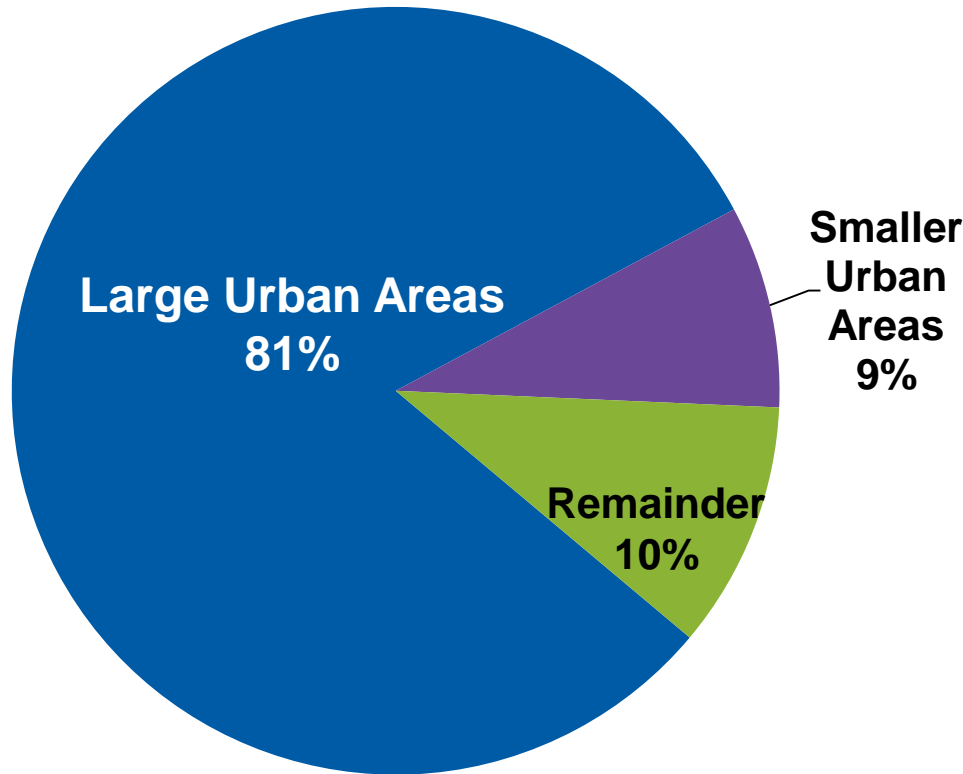
Share of Ontario's Population in Urban Centres (%)



Source: Statistics Canada

Most of the population lives in 15 large urban areas

Population Distribution in CMAs and CAs



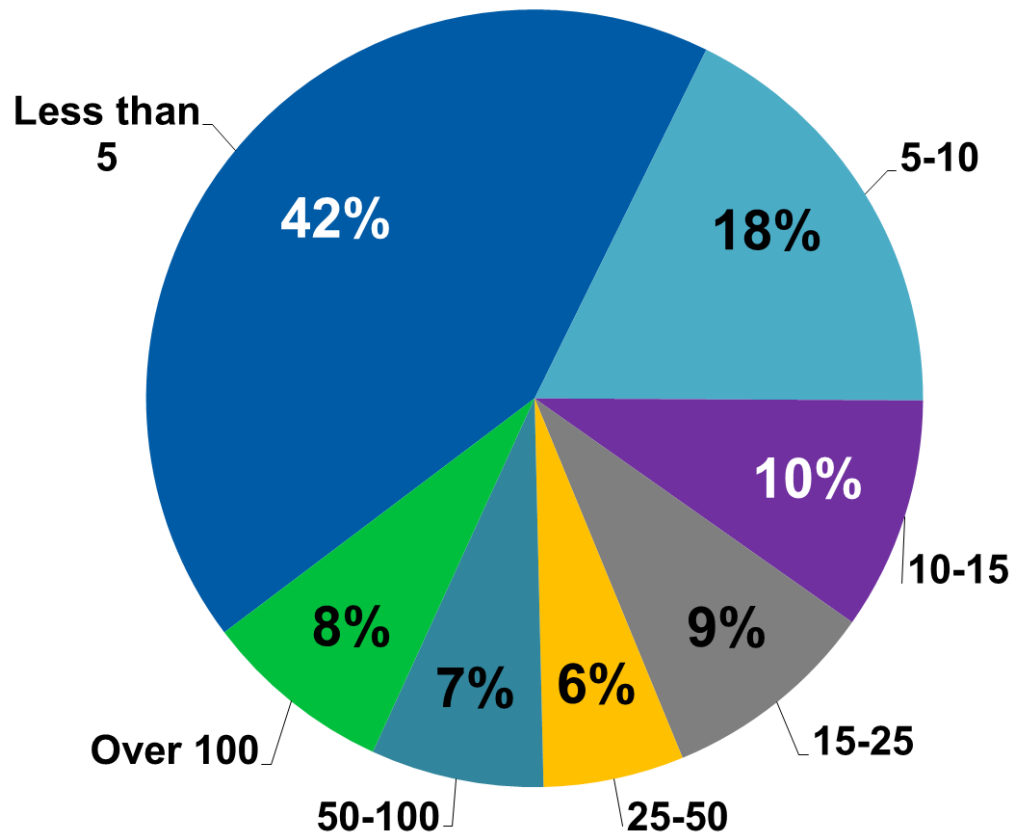
- CMAs**
- Toronto
 - Ottawa
 - Hamilton
 - Kitchener- Cambridge
 - London
 - St. Catharines - Niagara
 - Oshawa
 - Windsor
 - Barrie
 - Greater Sudbury
 - Kingston
 - Guelph
 - Brantford
 - Thunder Bay
 - Peterborough

Large urban area = CMA (Census Metropolitan Area);
Smaller urban area = CA (Census Agglomeration)

Source: Population, 2015, Ontario Ministry of Finance

But sixty percent of municipalities have a population of less than ten thousand

Municipalities by Population (000's)



Source: Population, 2015, Ontario Ministry of Finance

4. Infrastructure: A Big Fiscal Challenge



In this section

1. Municipal capital assets
2. Municipal capital investment
3. Funding sources for capital expenditure
4. Amortization

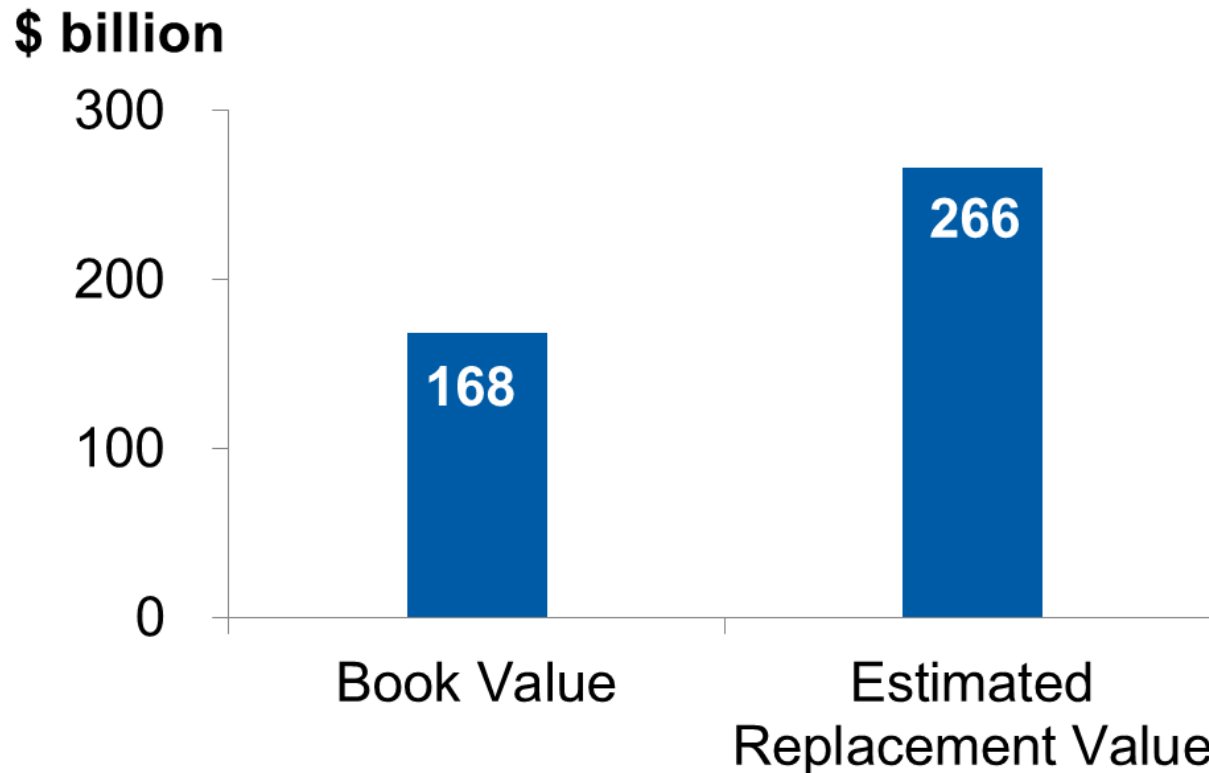
In the last half century, there has been a dramatic shift in responsibility for infrastructure

Share	1961	2014
Federal	28%	15%
Provincial	36%	26%
Local	36%	59%

Sources: StatsCan, CANSIM Table 031-0005: *Flows and stocks of fixed non-residential capital, by industry and asset, Canada, provinces and territories, annual.*

Municipalities have a lot of infrastructure – and it is more valuable than you might think

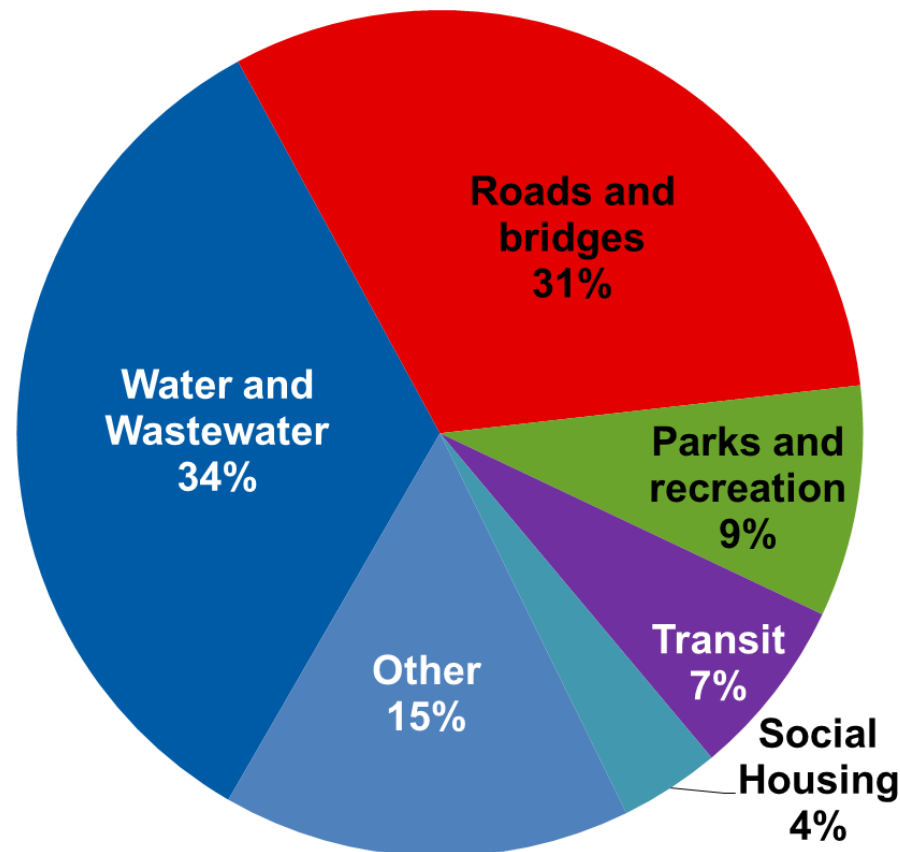
Municipal Tangible Capital Assets (excl. Land), 2013



Sources: TCA total cost, 2013, FIR; NRBCPI and CPI, Statistics Canada

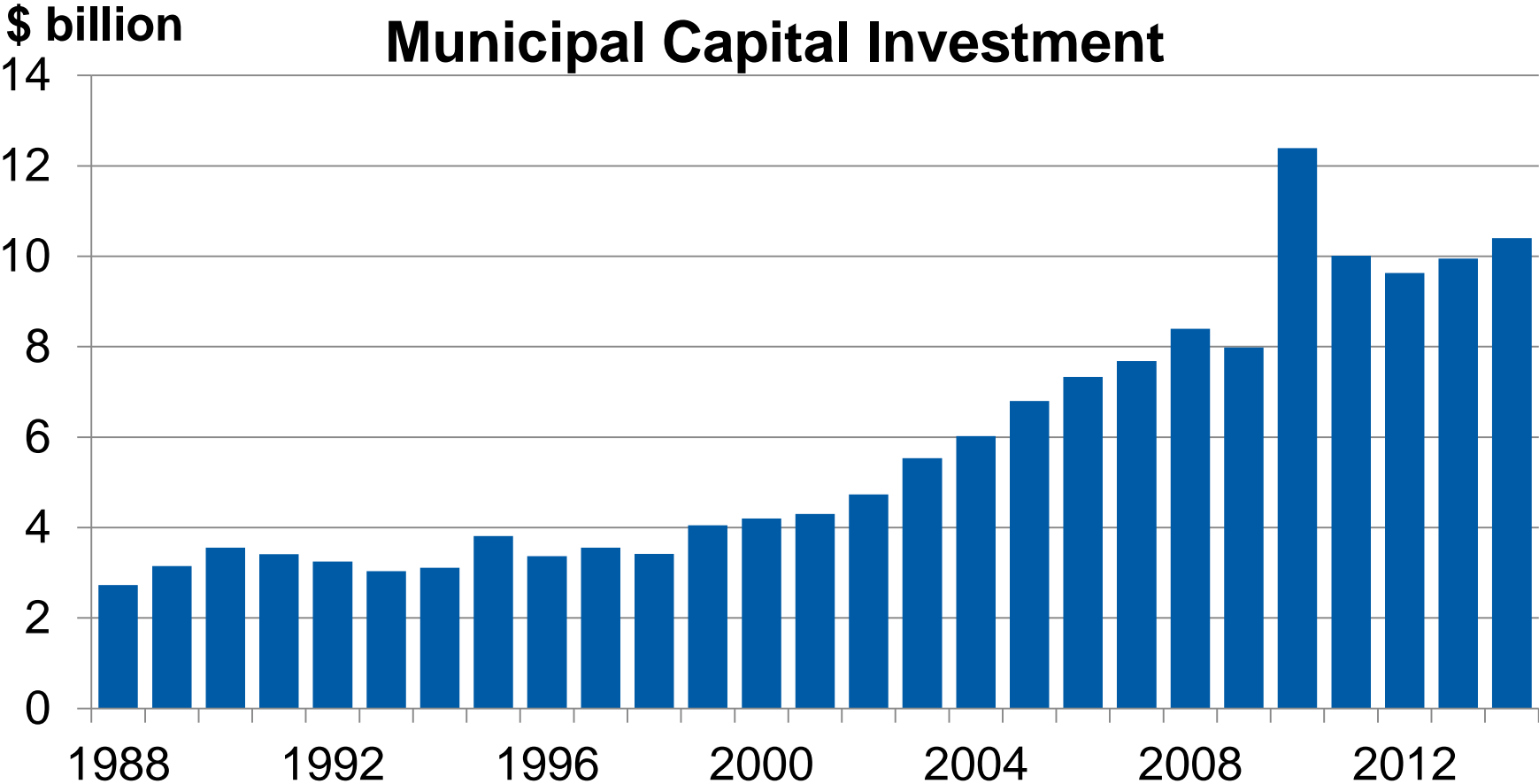
Two-thirds of Ontario municipal capital assets consist of roads, water, and wastewater

Gross Book Value Of Ontario Municipal Capital Assets



Source: Capital assets, 2013, FIR

Municipal infrastructure investment is picking up



Source: Financial Information Return (FIR)

A key question:

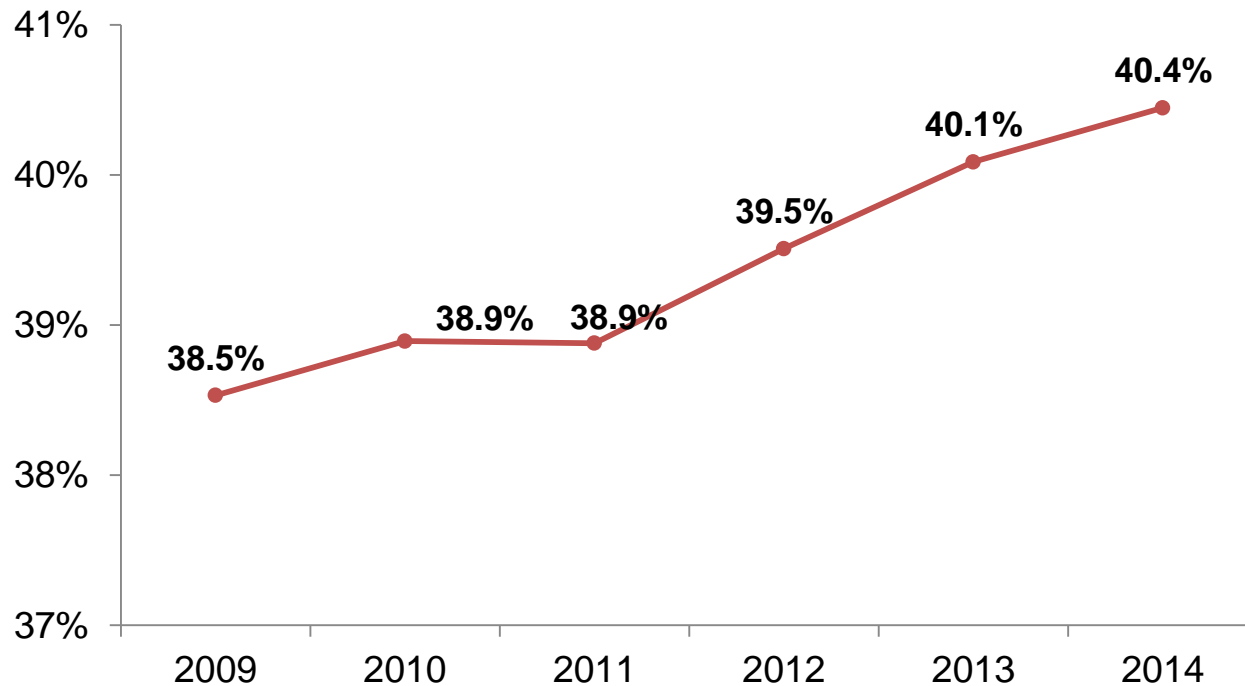
**Are municipalities investing enough in
asset management?**

Answer:

Almost certainly not.

Municipal capital investment is not even keeping up with amortization

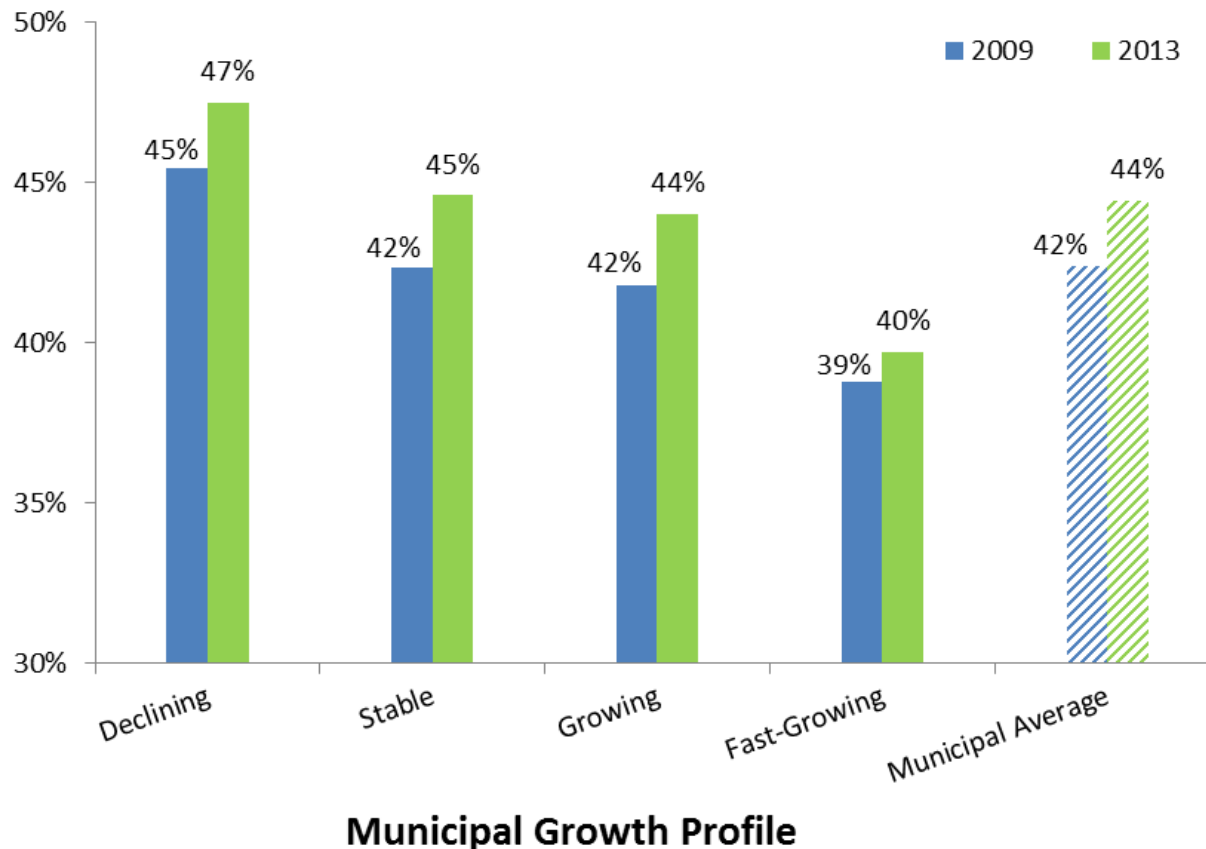
Percentage of TCA Amortized



Data sources: FIR and MPAC

The trend towards aging assets is consistent

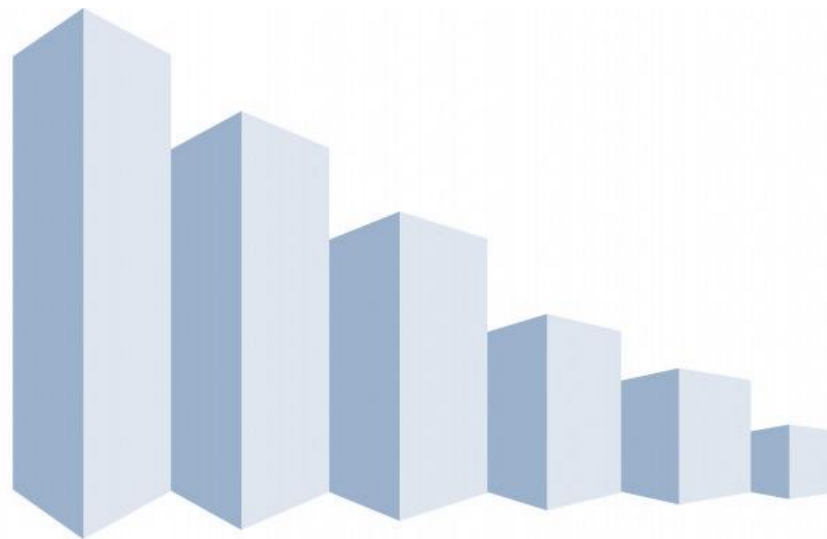
% of TCA Amortized



Key findings – capital planning

- Municipalities are responsible for a much larger share of infrastructure than they were in the past
- Most municipalities are not investing enough in asset management
- Municipal investment has increased since the Walkerton crisis, but it is still not keeping up with amortization

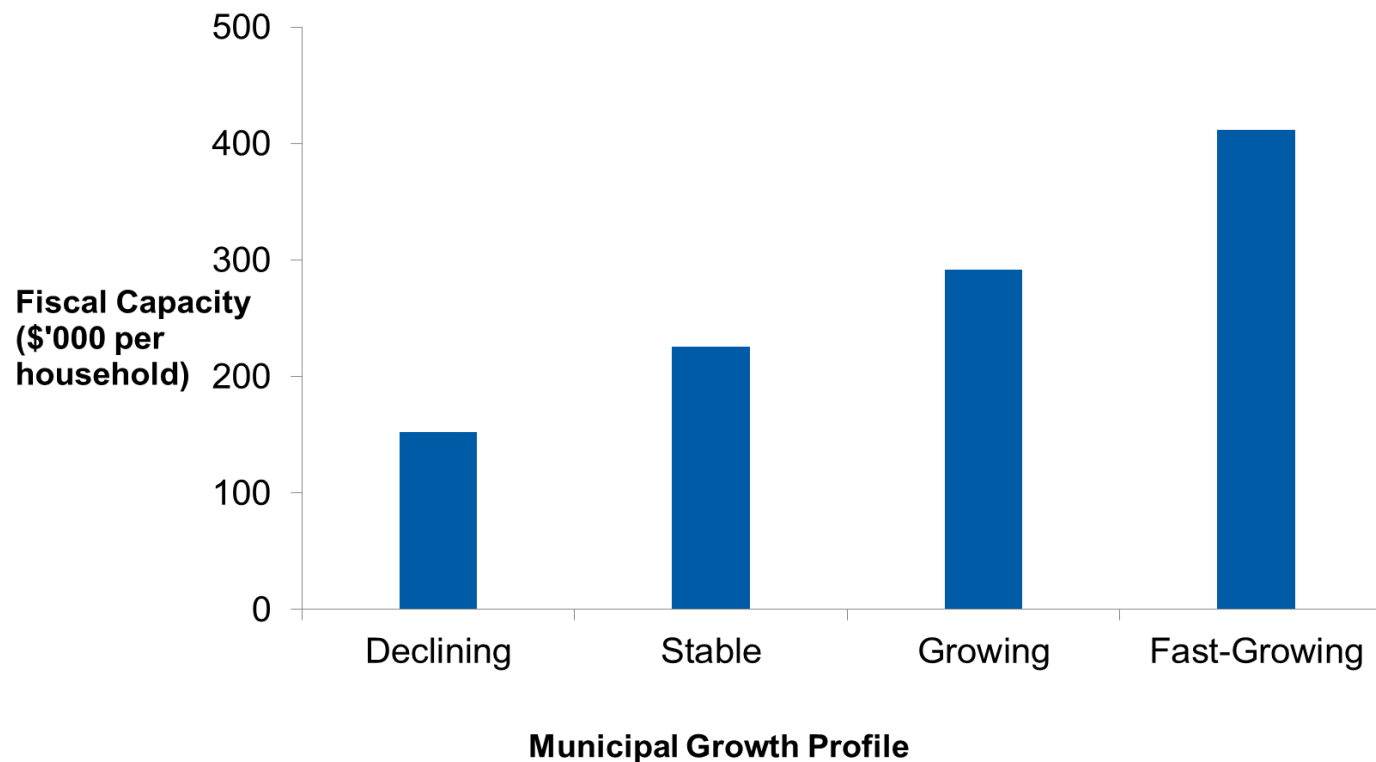
5. Applying the framework: Fiscal Capacity and Infrastructure



In this
section

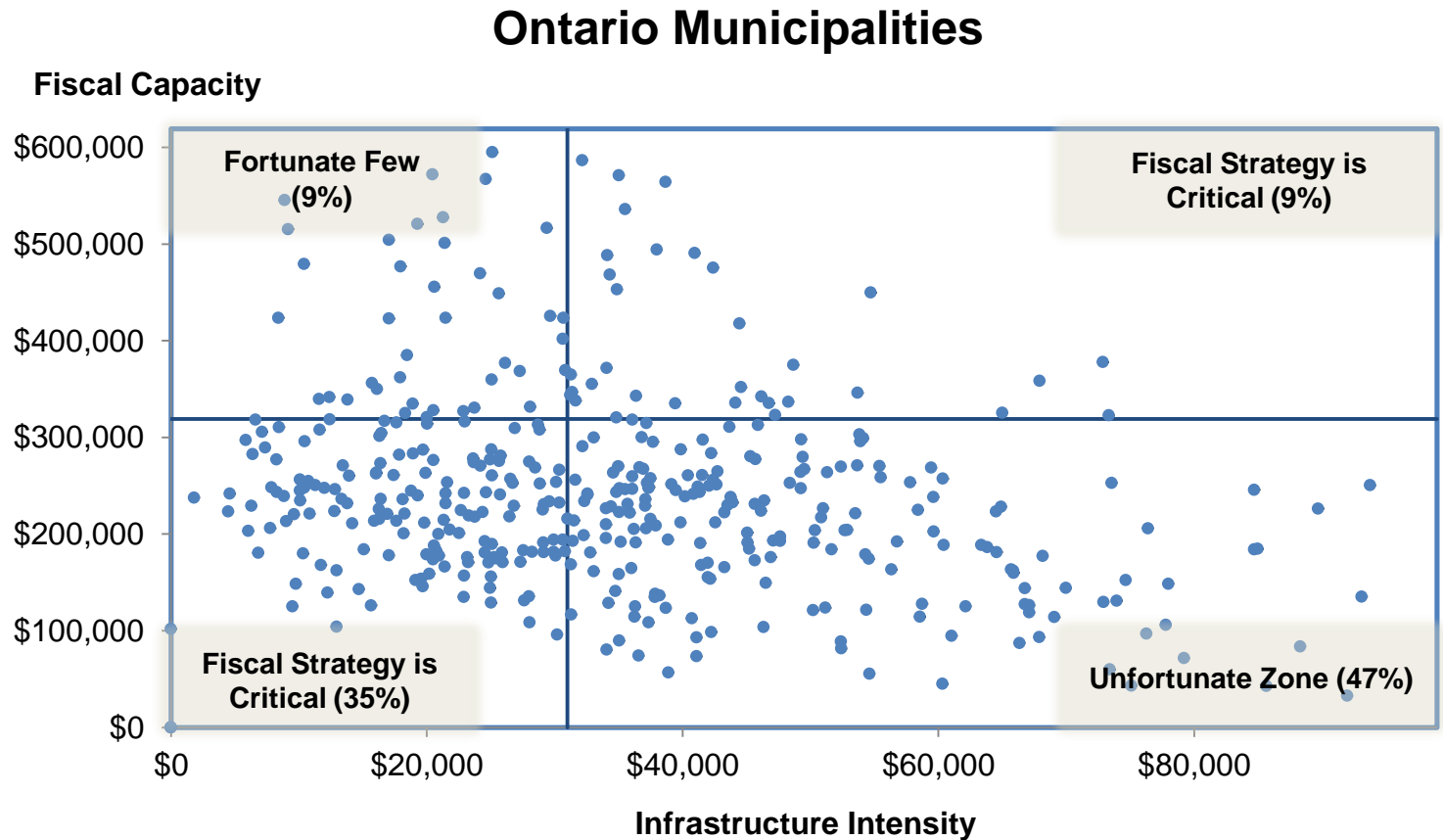
1. Fiscal capacity
2. Infrastructure intensity

Growing municipalities tend to have more fiscal capacity



Sources: Fiscal capacity = Weighted average assessment per household, 2013, FIR; Household, 2013, MPAC; population, 2009-2013, Ontario Ministry of Finance

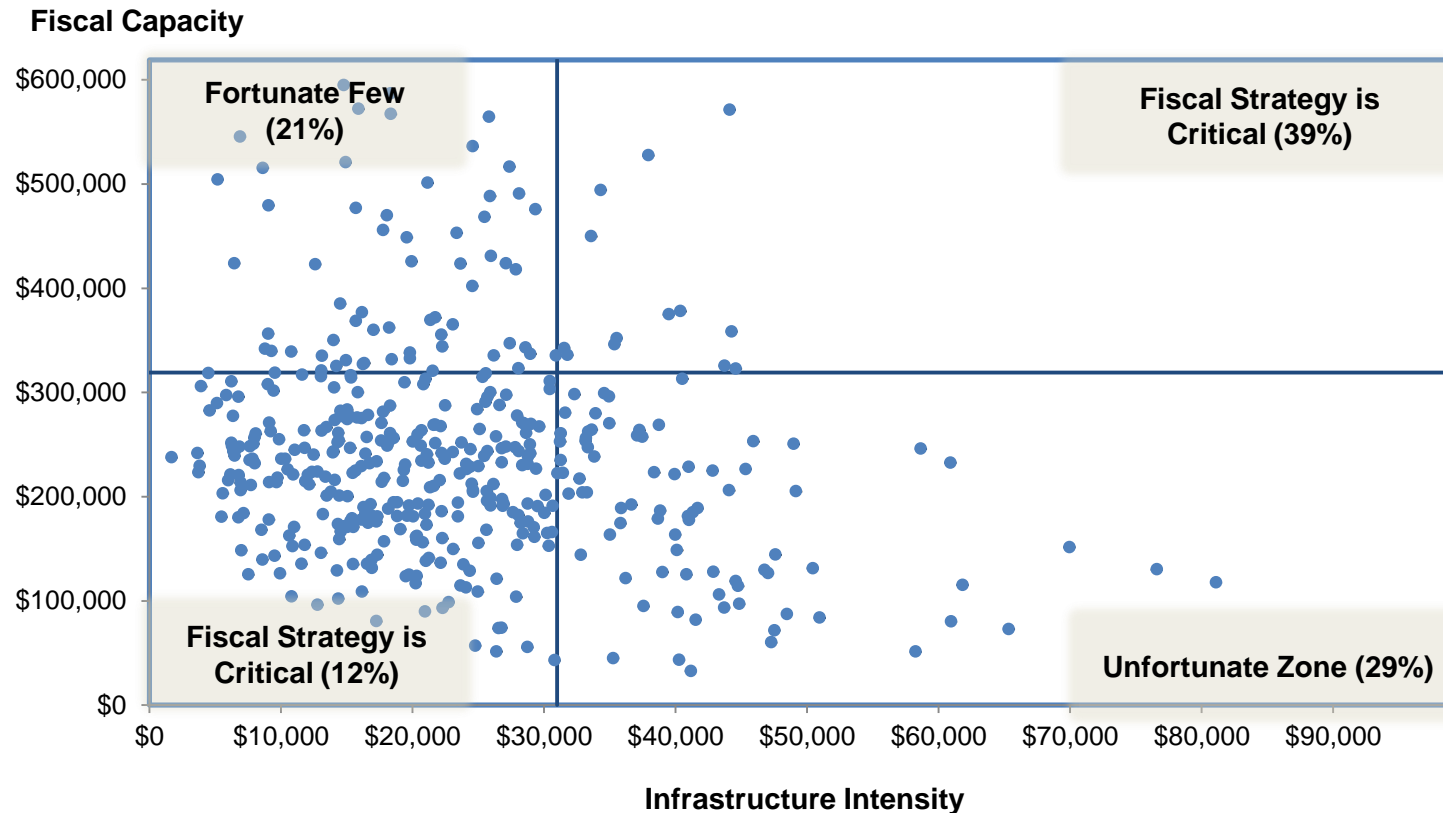
Forty-seven percent of Ontario municipalities are in the low fiscal capacity and high infrastructure intensity zone



Note: Percentages in quadrant labels indicate **proportion of municipalities in each quadrant**. Quadrant dividers are Ontario averages

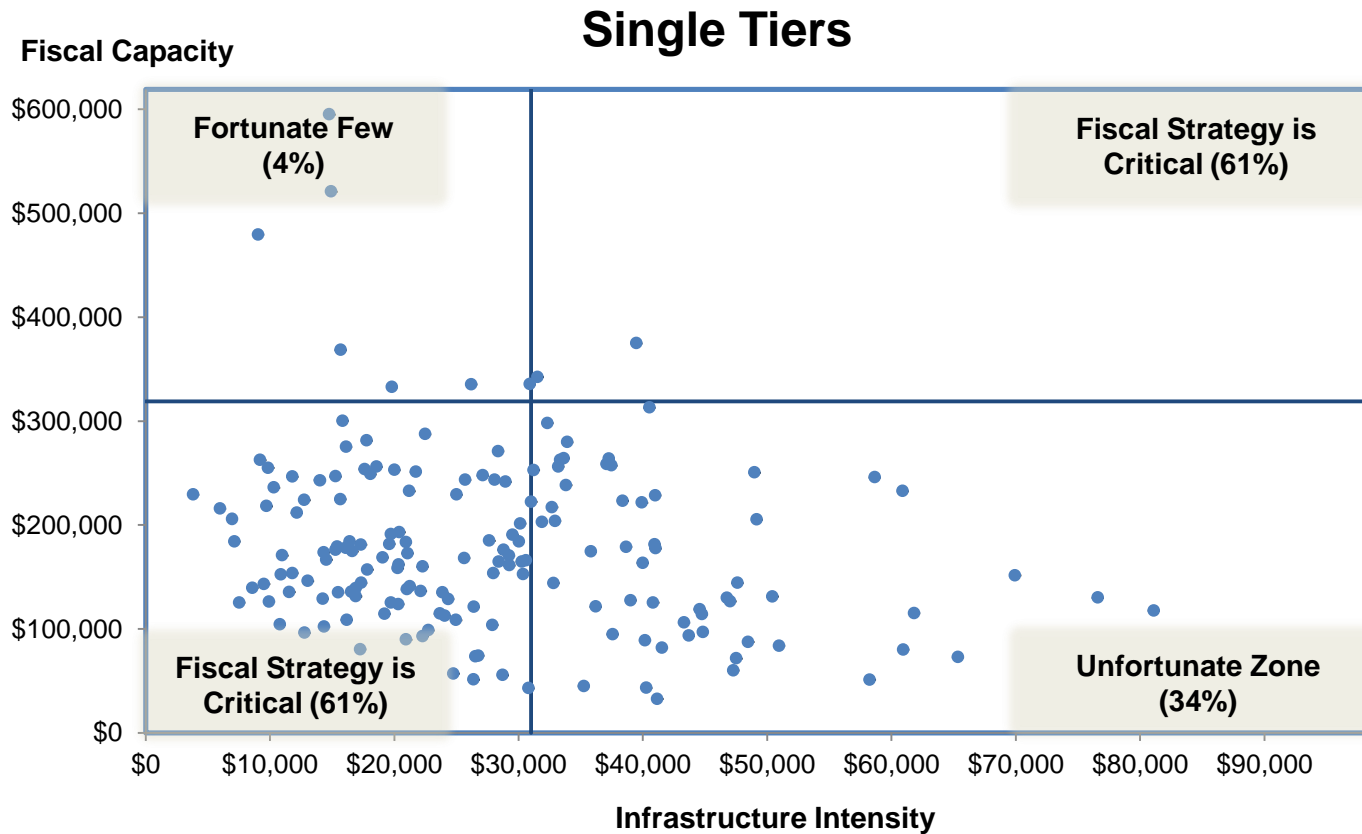
But twenty-nine per cent of the Ontario population live in municipalities that fall in the unfortunate zone

Ontario Municipalities



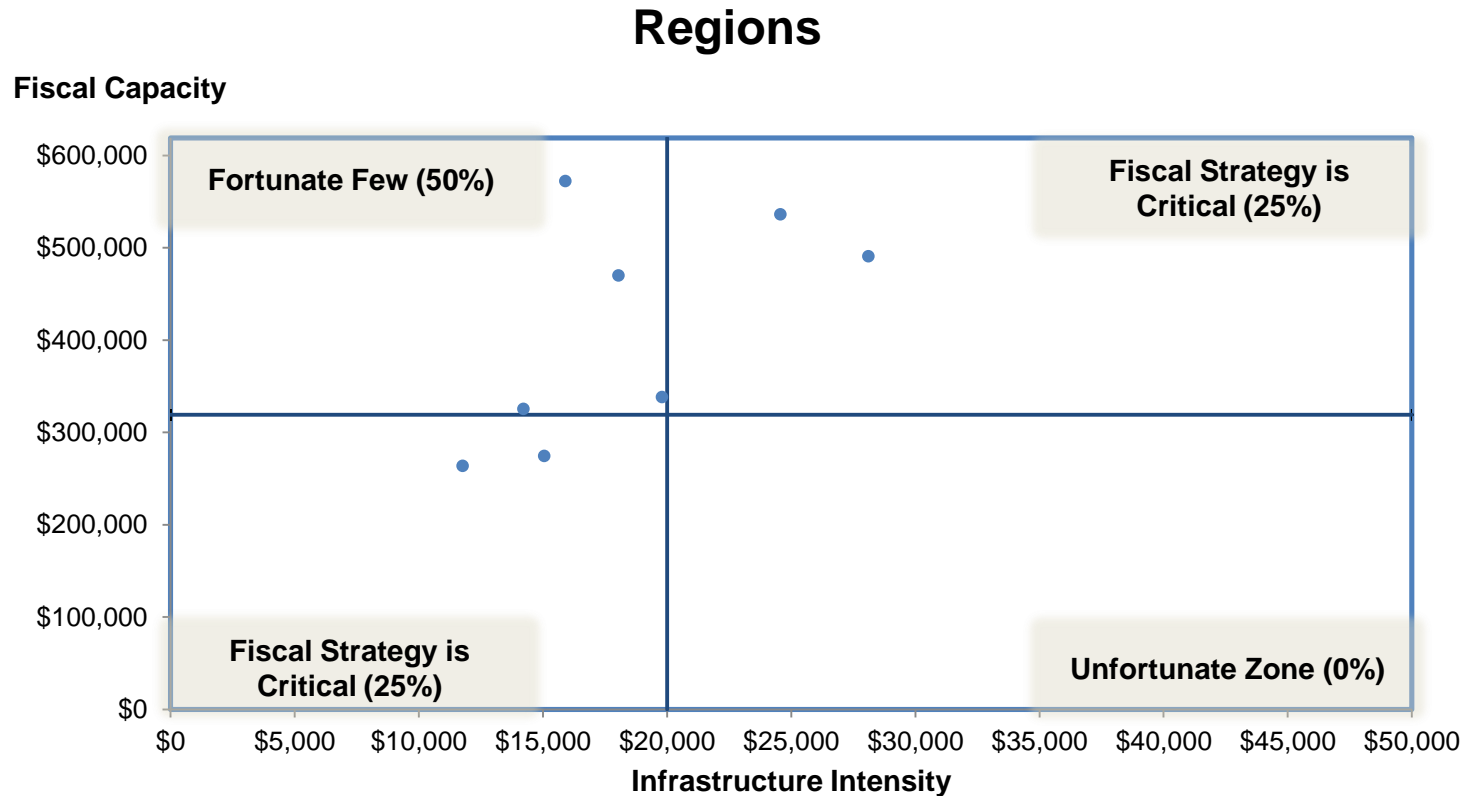
Note: Percentages in quadrant labels indicate **proportion of total Ontario population** in each quadrant. Quadrant dividers are Ontario averages

Single-tier municipalities tend to have lower-than-average fiscal capacity



Note: Percentages in quadrant labels indicate proportion of municipalities in each quadrant

None of the eight regional municipalities are in the unfortunate zone



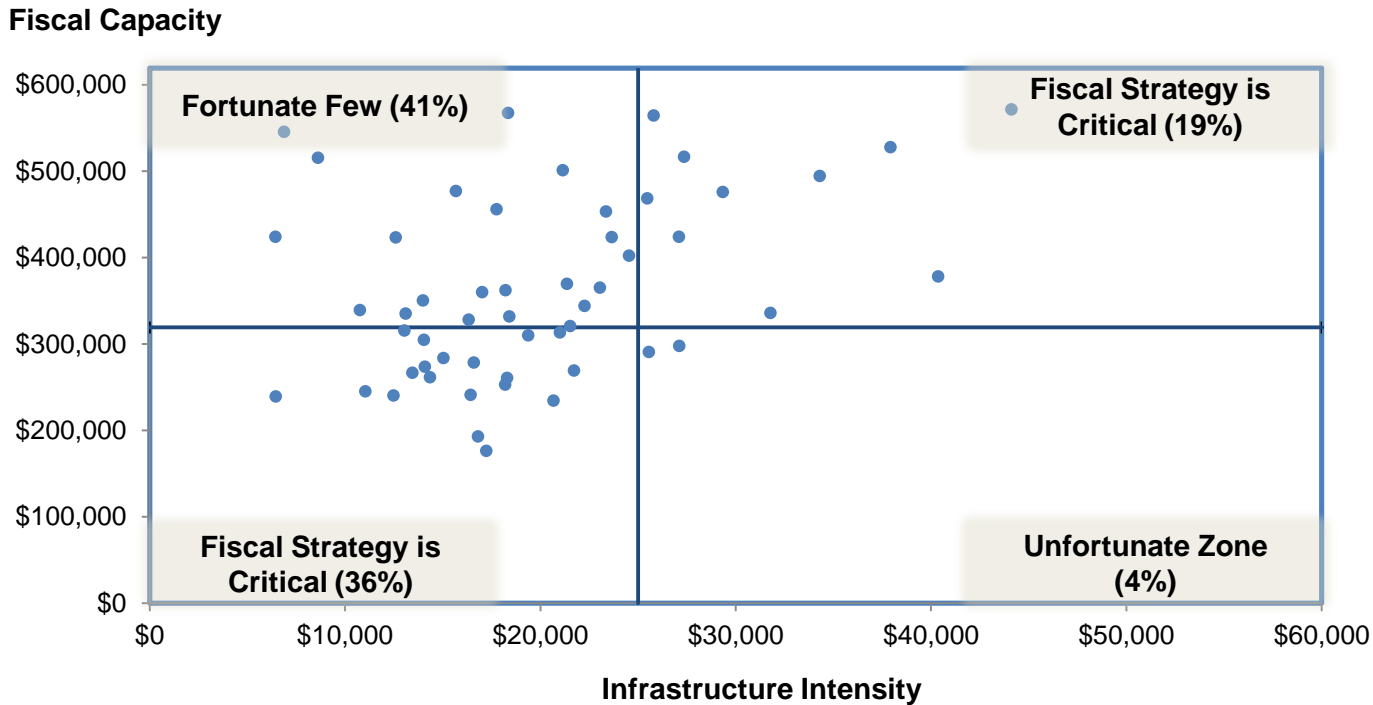
Notes:

Percentages in quadrant labels indicate proportion of municipalities in each quadrant

Upper tier regions include the District of Muskoka

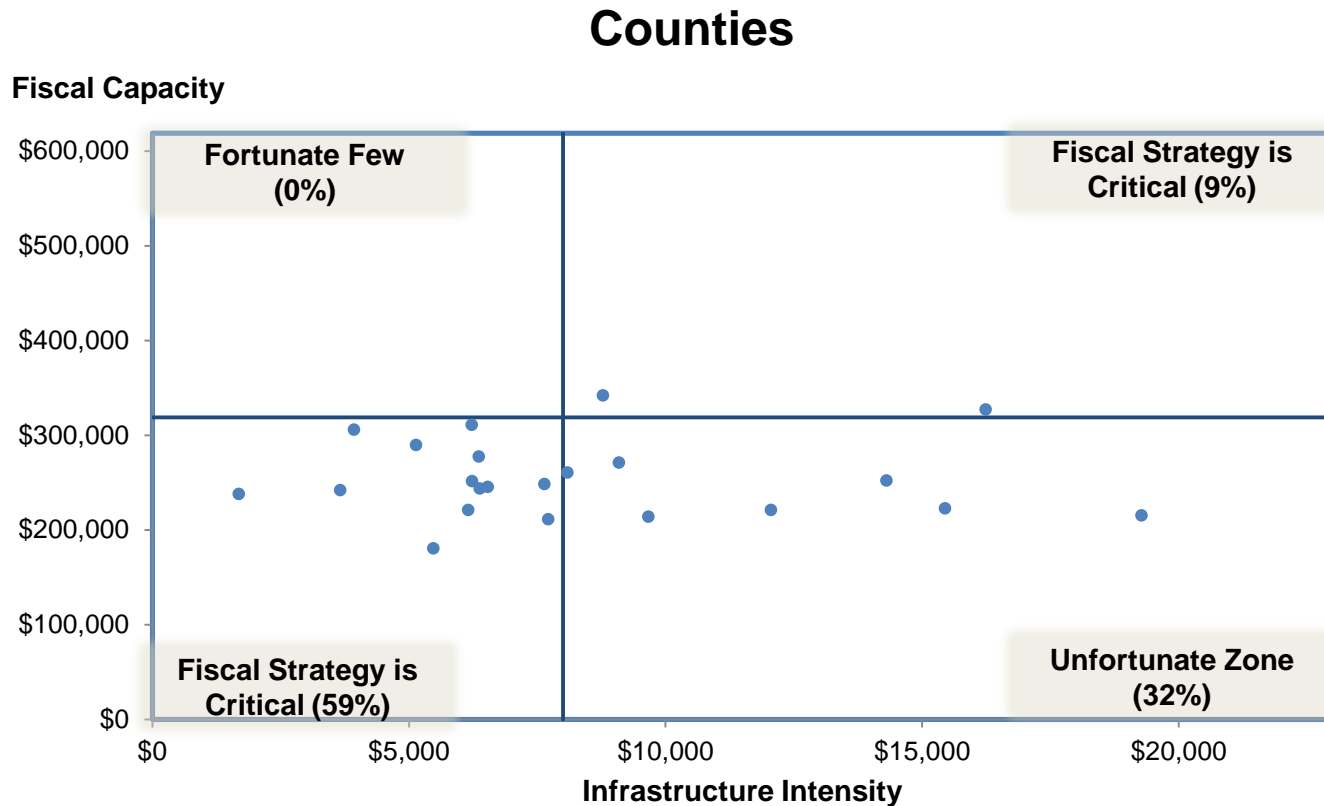
A fiscal strategy is critical for 55 percent of the lower-tier municipalities within regions

Lower Tiers within Regions



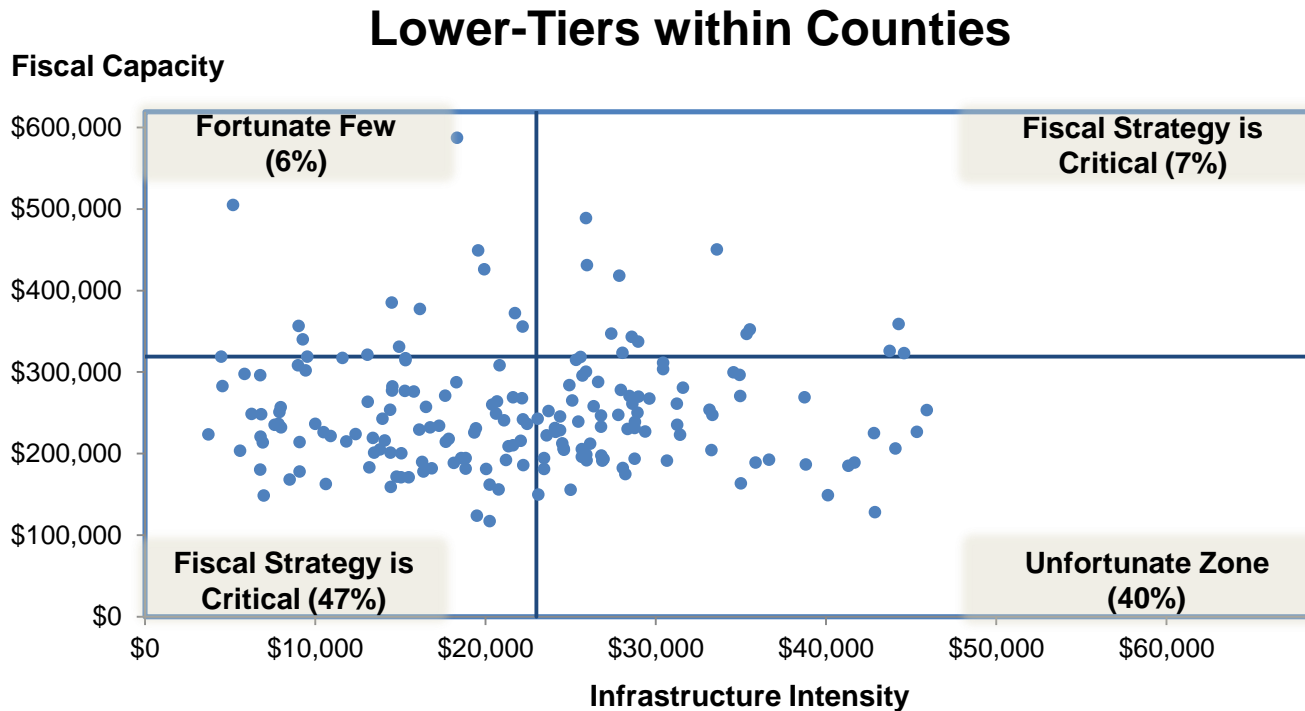
Note: Percentages in quadrant labels indicate proportion of municipalities in each quadrant

Counties have lower-than-average fiscal capacity



Note: Percentages in quadrant labels indicate proportion of municipalities in each quadrant

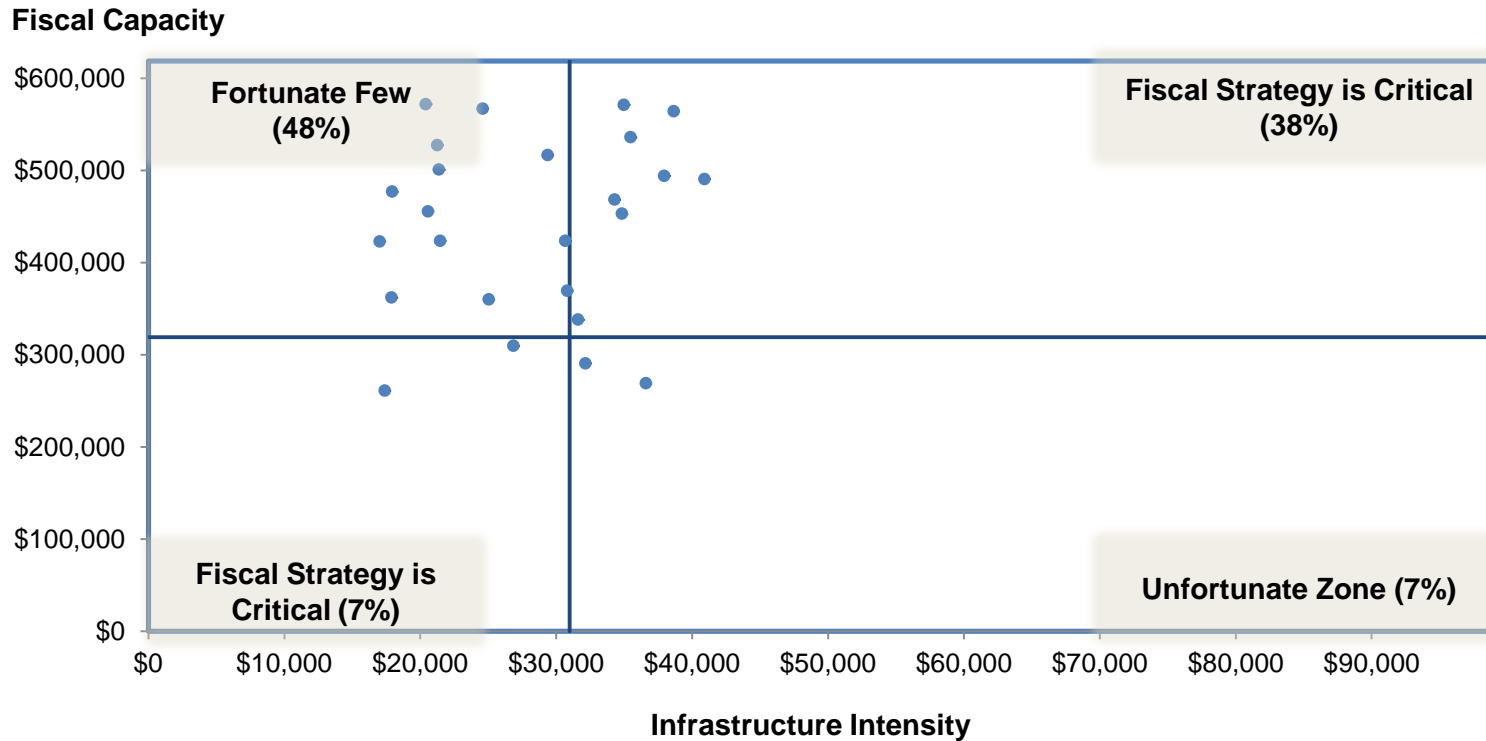
Most lower tiers within counties have lower-than-average fiscal capacity and half have lower-than-average infrastructure intensity



Note: Percentages in quadrant labels indicate proportion of municipalities in each quadrant

Most of the municipalities in the GTA have above average fiscal capacity and many also have high infrastructure intensity

GTA Municipalities

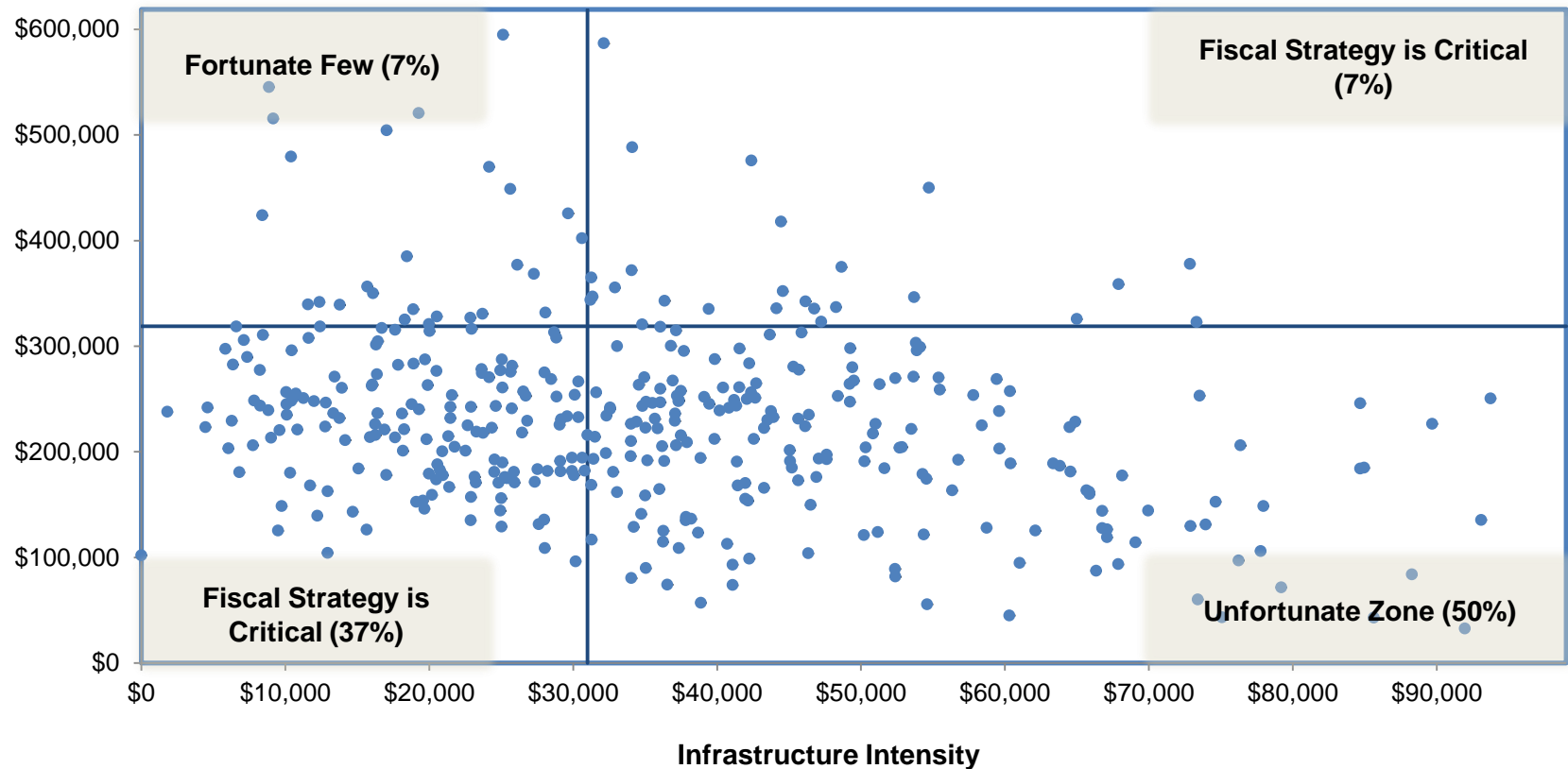


Note: Percentages in quadrant labels indicate proportion of municipalities in each quadrant

Non-GTA municipalities generally have below average fiscal capacity and widely dispersed infrastructure intensity

Non-GTA Municipalities

Fiscal Capacity



Note: Percentages in quadrant labels indicate proportion of municipalities in each quadrant

Key findings – municipal fiscal capacity

- The fiscal capacity/infrastructure intensity framework identifies differences based on municipal structure – regions, counties, single tiers, lower tiers within regions and counties, etc.
- Growing municipalities have more fiscal capacity than stable or declining municipalities
- Almost half of Ontario municipalities are in the unfortunate zone – lower-than-average fiscal capacity and higher-than-average infrastructure intensity

6. Debt Management



In this
section

1. When is debt needed?
2. Who issues debt?

Debt management

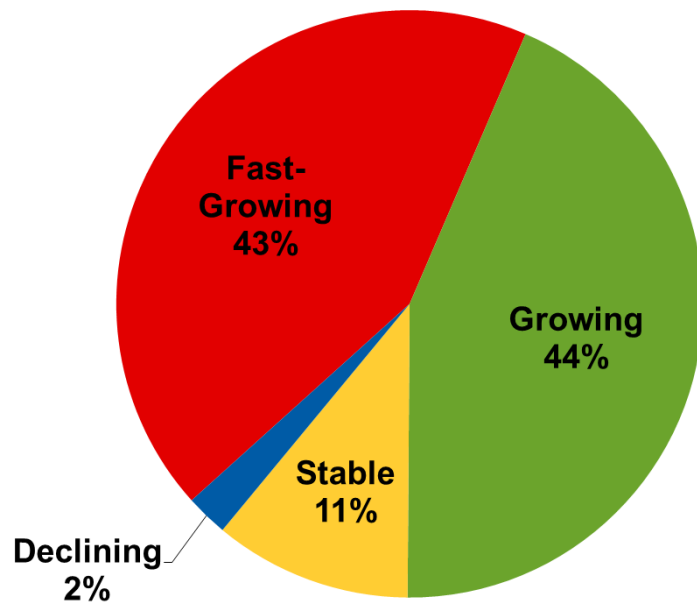
- Hotly debated issue:
 - Proponents argue that debt spreads the cost of assets over a longer portion of their useful lives
 - Opponents argue that debt servicing payments reduce fiscal room, crowd out other spending, and shift costs to future generations
- Easy access and low cost may be encouraging over-reliance on debt
- On the other hand, debt financing may be necessary for infrastructure that has to be built in advance of growth

New municipal debt is constrained by legislation

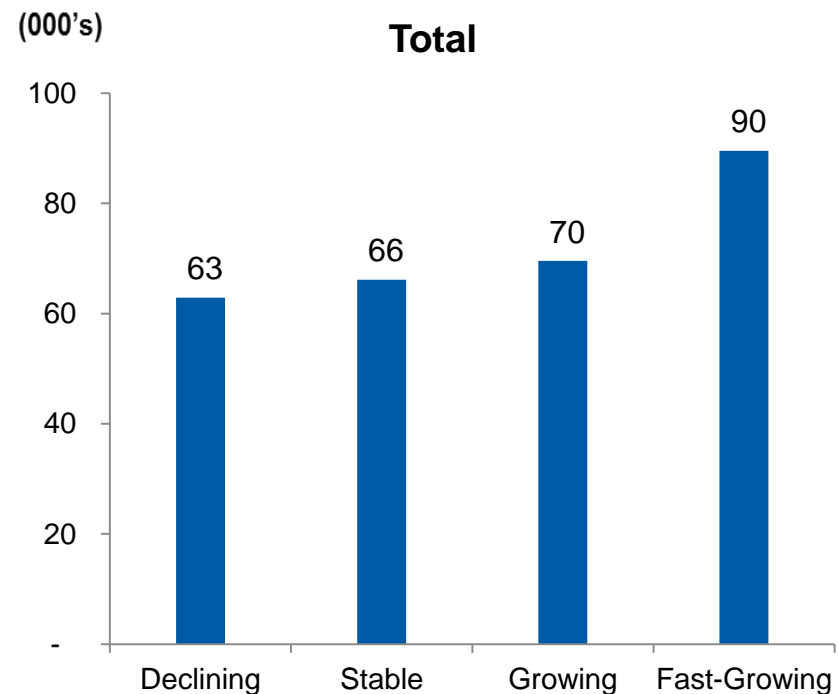
- In Ontario, the amount of debt that can be authorized by a municipality is restricted by the provincial Annual Repayment Limit (ARL) regulation
 - Councils may not approve financial obligations that will, in total, exceed 25% of a municipality's own-source revenues
- Long-term financial obligations include
 - Mortgage
 - Debenture financing payments
 - Lease payments
 - Other future commitments/liabilities to third parties (i.e., hospital funding)

Ontario municipalities have \$17.3 billion in debt, mostly issued by growing and fast growing municipalities

Net Long-term Debt by Growth Profile (2013)



Household Income by Growth Profile (2016 Census)



Sources: FIR; Ontario Ministry of Finance; Statistics Canada

Ten municipalities have more than two thirds of the Ontario municipal debt

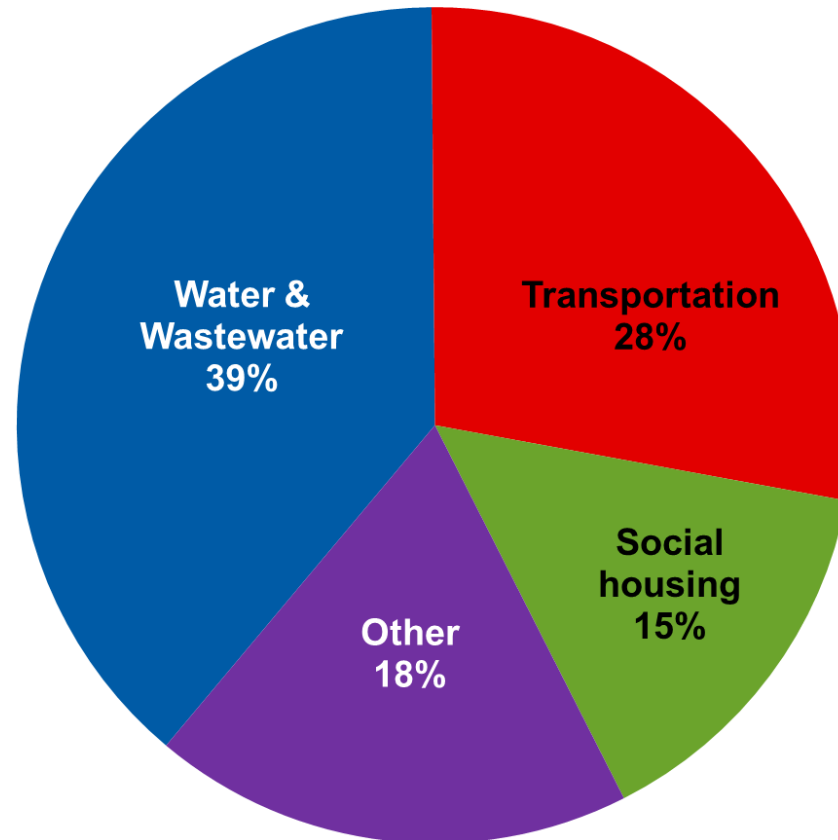
Net Long-term Debt (2013, \$ million)

Top 10 Borrowers	Debt	Growth Profile
City of Toronto	4,475	Growing
York Region	2,326	Fast-Growing
City of Ottawa	1,988	Fast-Growing
Peel Region	1,559	Fast-Growing
Waterloo Region	428	Growing
City of London	382	Growing
City of Hamilton	380	Growing
Halton Region	313	Fast-Growing
City of Barrie	288	Fast-Growing
City of Kingston	275	Growing
Total	12,413	

Source: Debt, 2013, FIR

More than three quarters of debt is for water, wastewater, transportation and housing

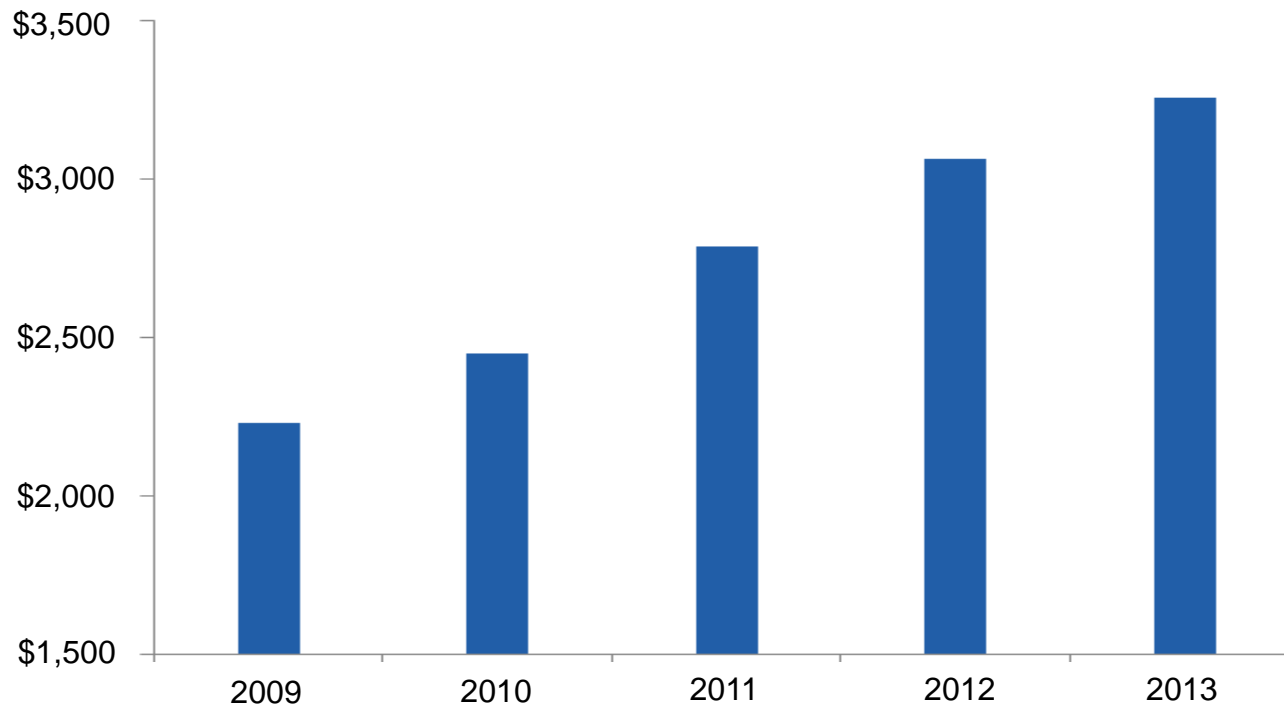
Net Long-term Debt by Infrastructure Type



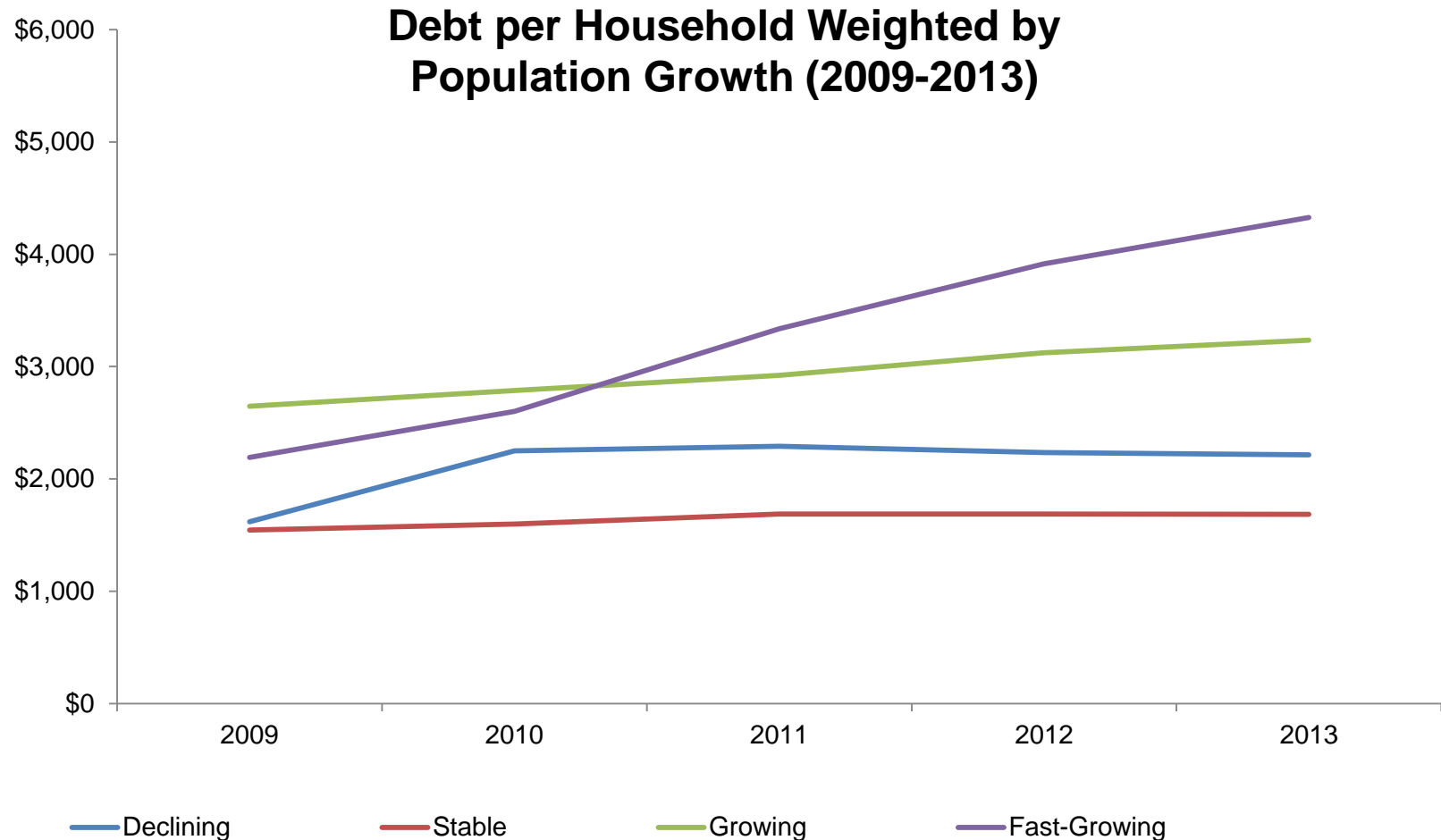
Source: Debt, 2013, FIR

Municipal debt per capital is rising

Debt per Household (Weighted Municipal Average)

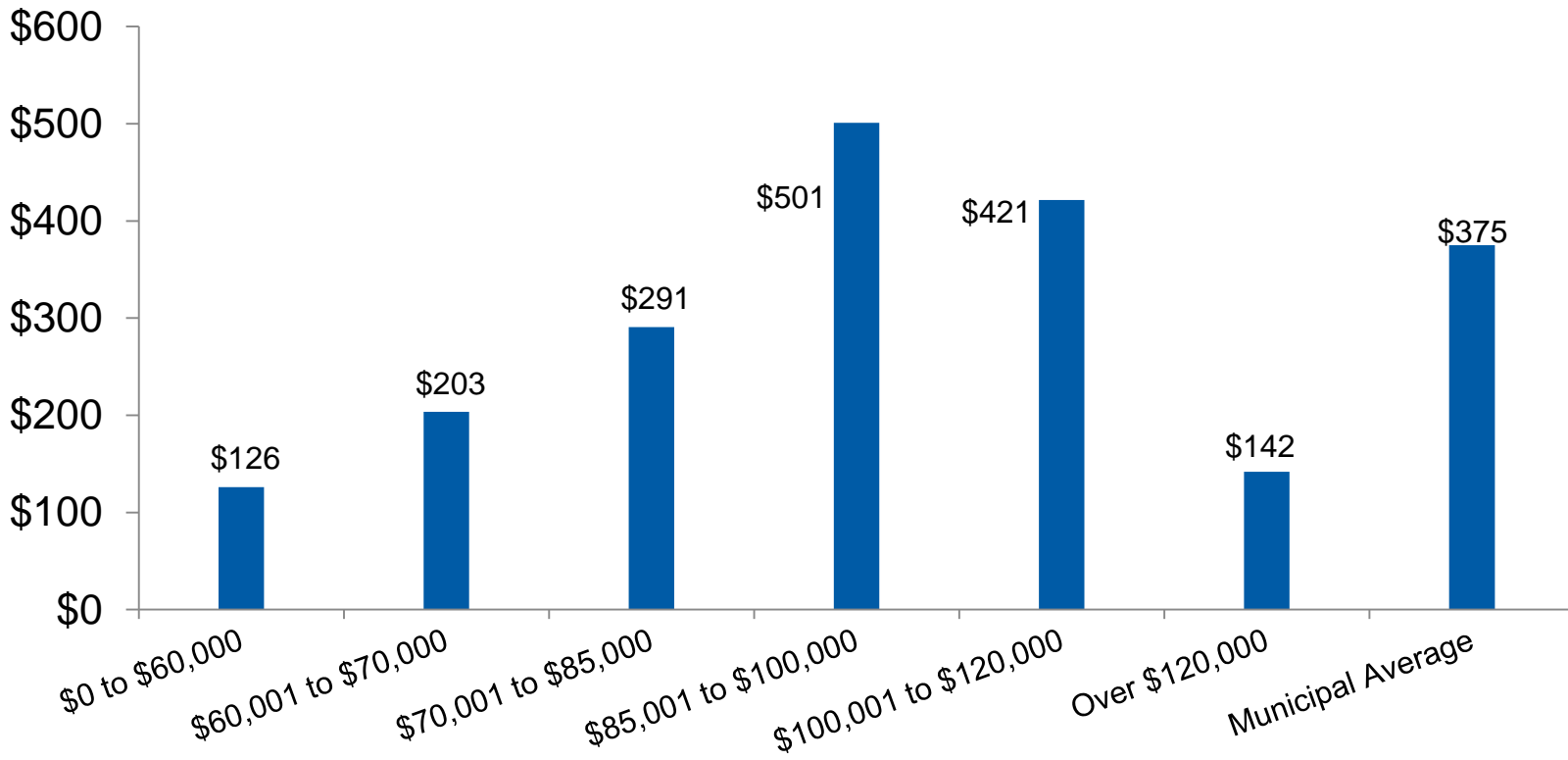


Fast-growing municipalities have high and rising debt per household



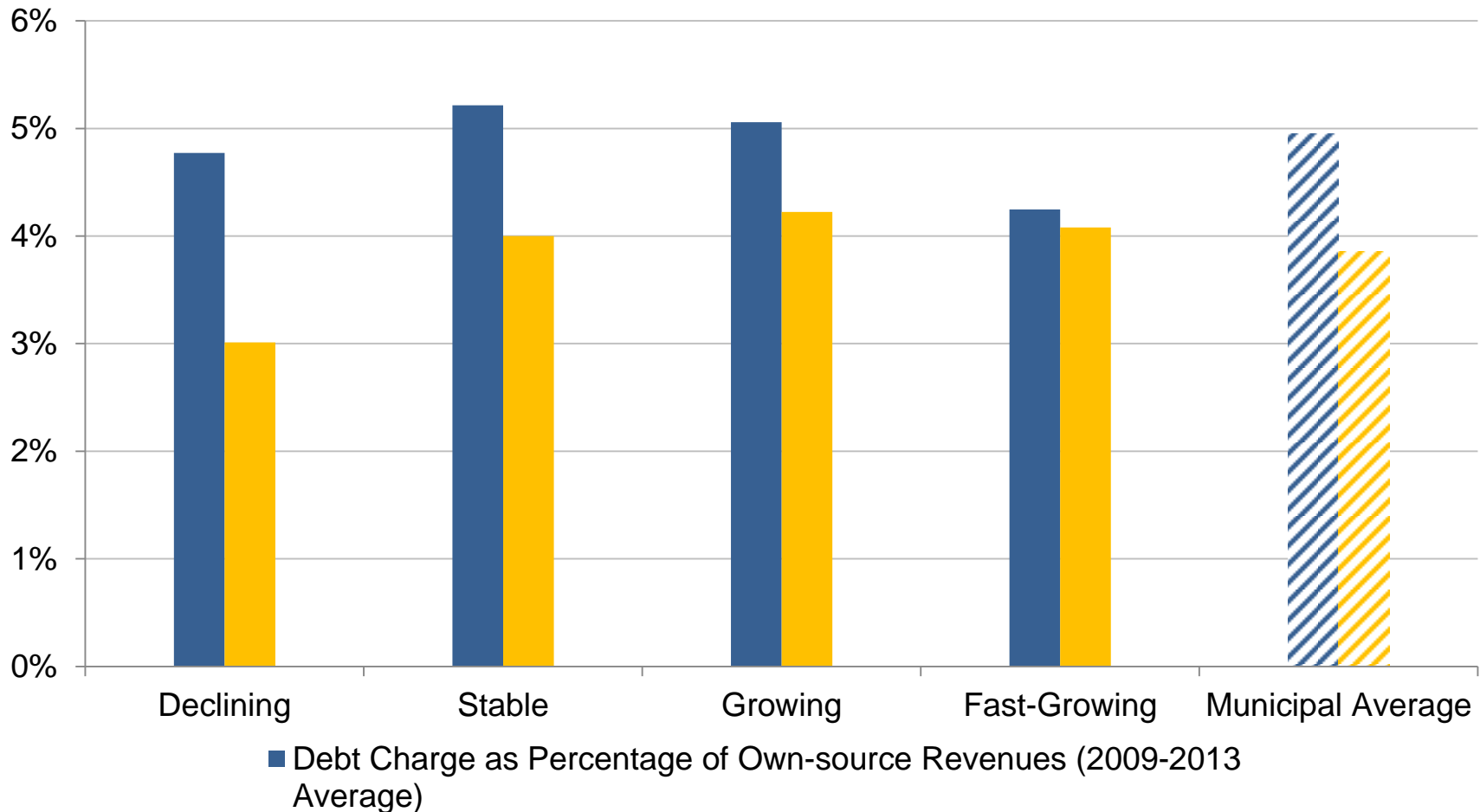
Per capita debt servicing costs rise with household income and then fall in high-income municipalities

Debt Charge* Per Household
(2009-2013 Average)



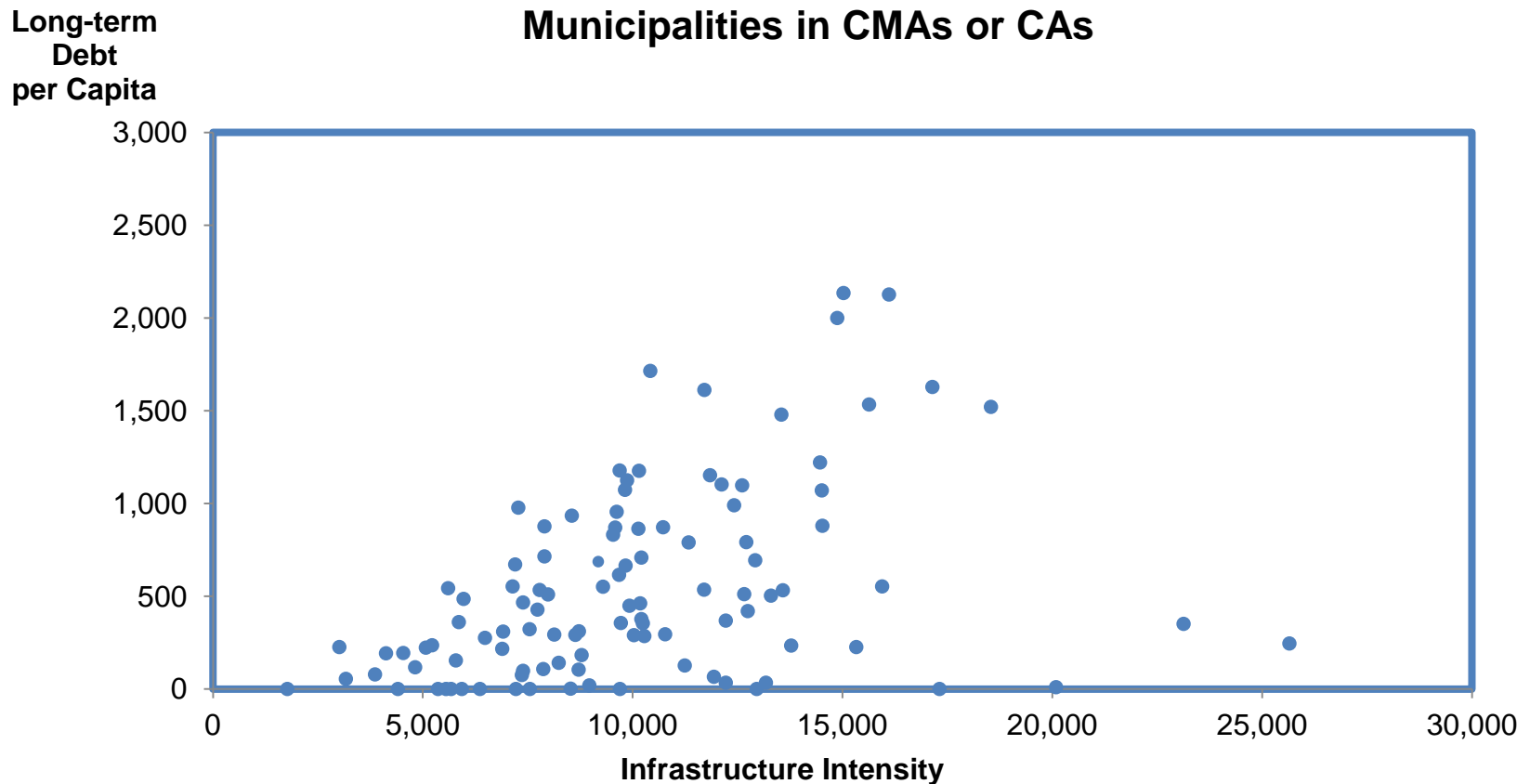
* Note: Debt charge is defined as interest and principal payments

Declining municipalities tend to keep their debt costs low as a share of operating expenses



Municipal Growth Profile

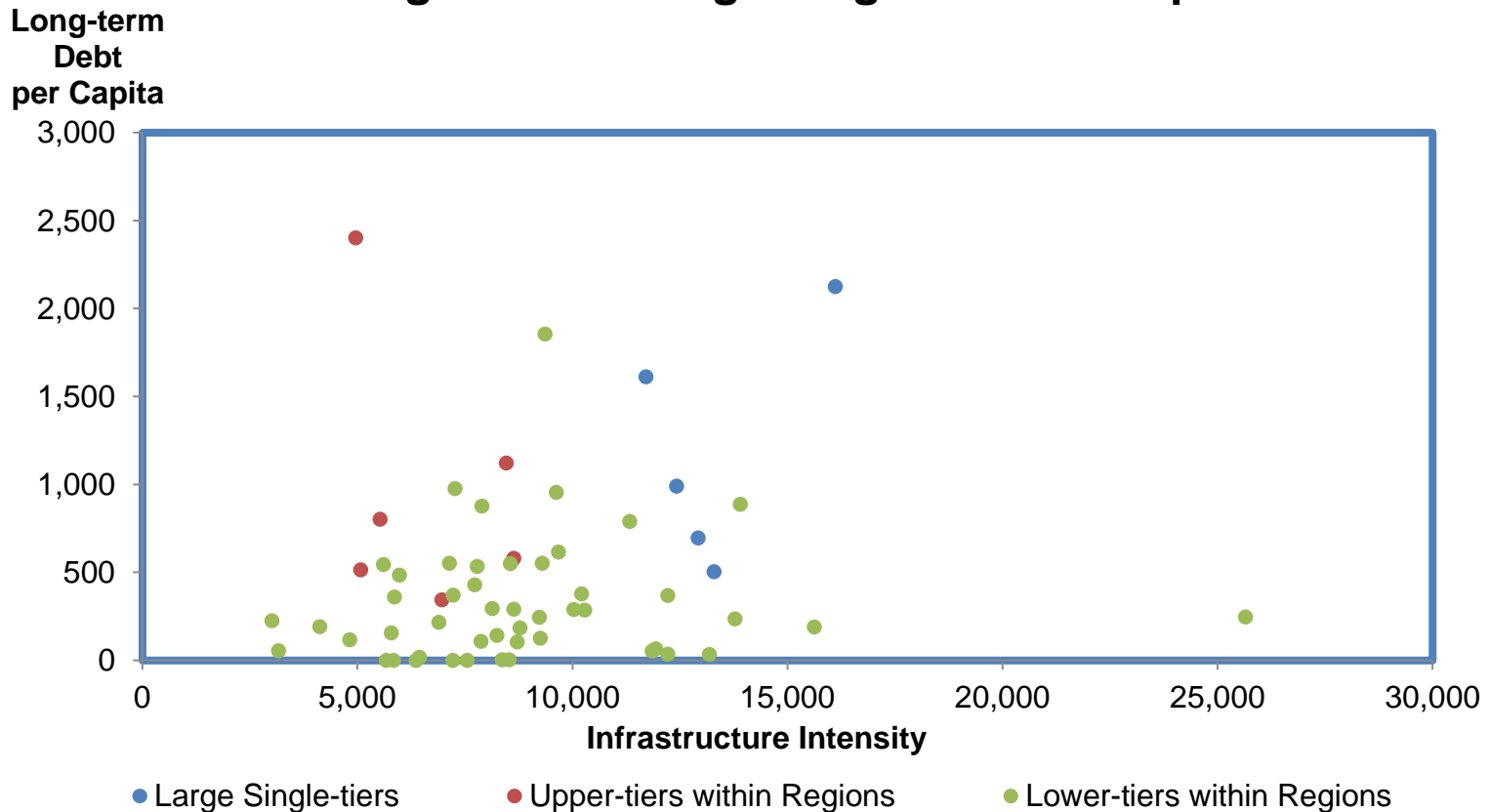
Debt per capita tends to rise with infrastructure intensity in urban areas



Sources: Debt and Tangible Capital Assets, 2013, FIR
Population, 2013, Ontario Ministry of Finance

Debt per capita tends to rise with infrastructure intensity in large upper and single-tier municipalities

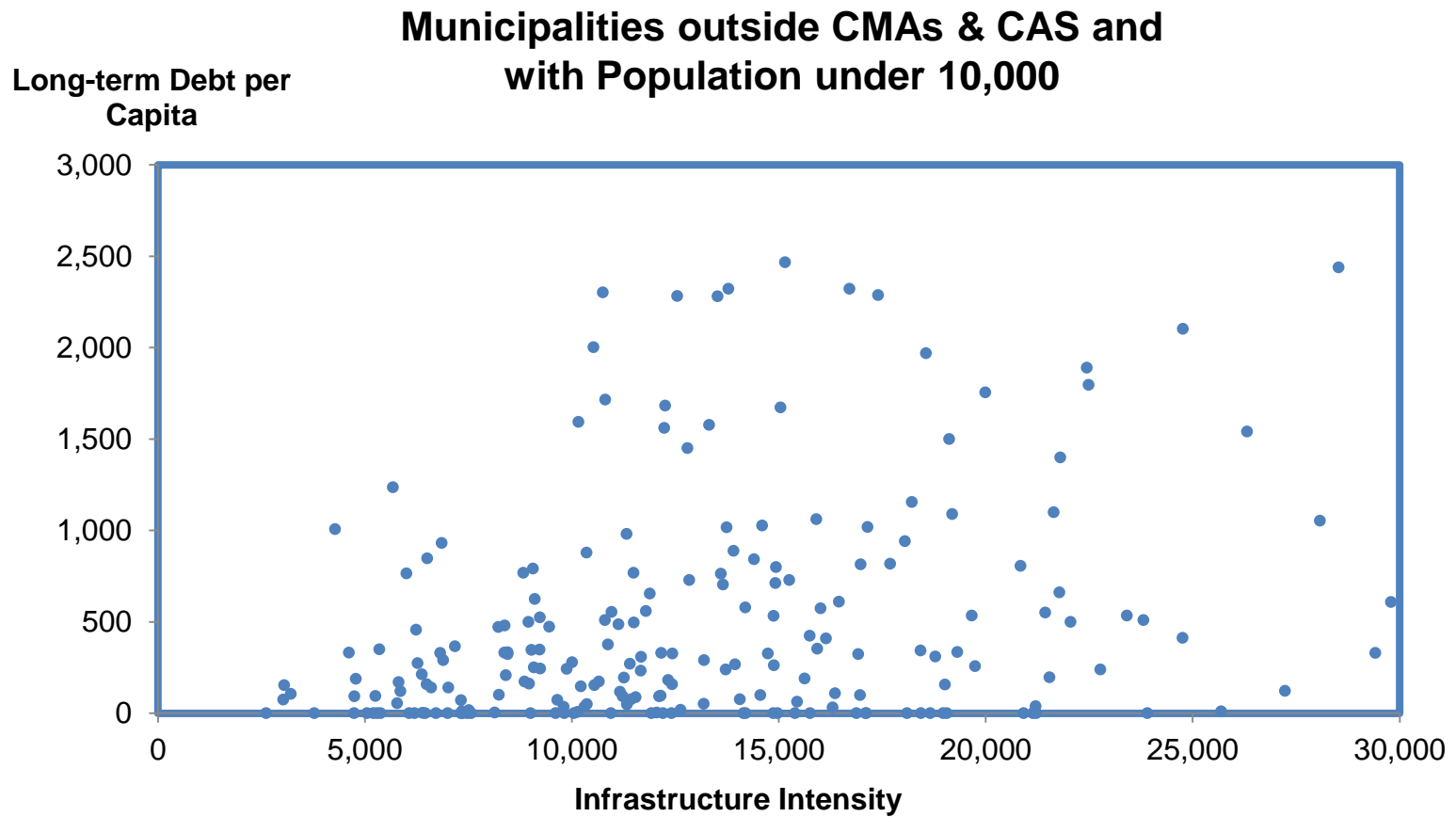
Regions and Large Single-tier Municipalities*



*This graph includes both upper-tier and lower tier municipalities in the 8 regions as well as the top 5 single-tier municipalities with population over 200,000.

Sources: Debt and Tangible Capital Assets, 2013, FIR
Population, 2013, Ontario Ministry of Finance

Smaller municipalities are less willing or able to take on debt regardless of infrastructure intensity



Sources: Debt and Tangible Capital Assets, 2013, FIR
Population, 2013, Ontario Ministry of Finance

Key findings – debt management

- Municipalities use debt:
 - To finance infrastructure in advance of growth
 - To finance asset management spending when they have large amounts of old, high needs infrastructure
 - When they need infrastructure to comply with regulations
 - When they need to match federal or provincial grants
- Growing and fast growing municipalities tend to have more debt
- Debt per household rises with the rate of population growth

7. Reserve Management

The Virtue of Saving



In this section

1. Benefits of good reserve management
2. Who saves the most?
3. How much should municipalities be saving?

Good reserve management is key to achieving financial sustainability

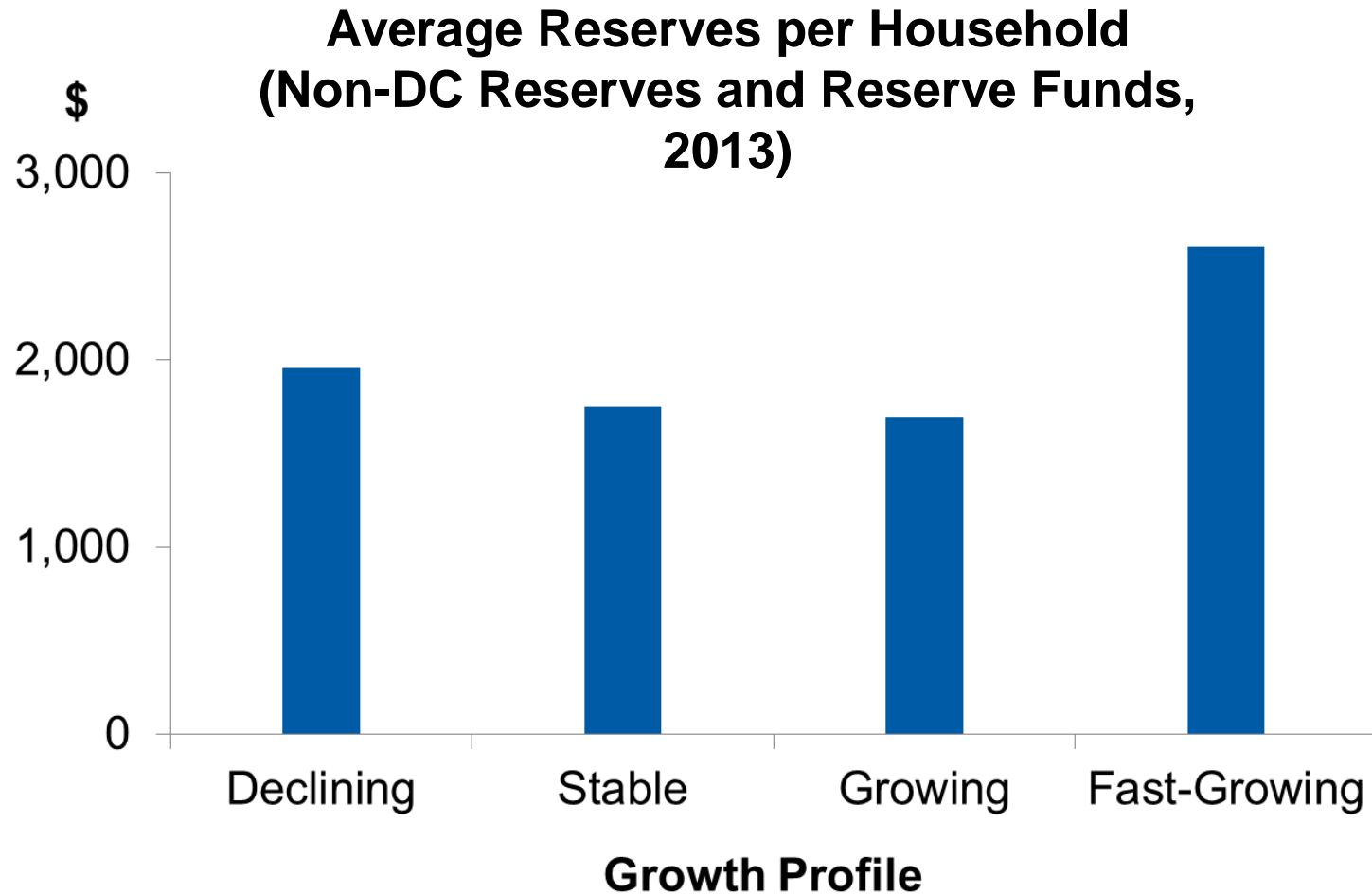
Long-term financial sustainability requires:

- Saving for future capital asset replacement and life cycle costs
- Using reserves to manage debt levels

Benefits of reserves include:

- Reduced need for debt
- Increased liquidity, a positive factor for credit rating agencies
- Smoothing the impact of uneven capital expenditures on the tax levy and rates
- Protection against long-term liabilities and unexpected expenditures

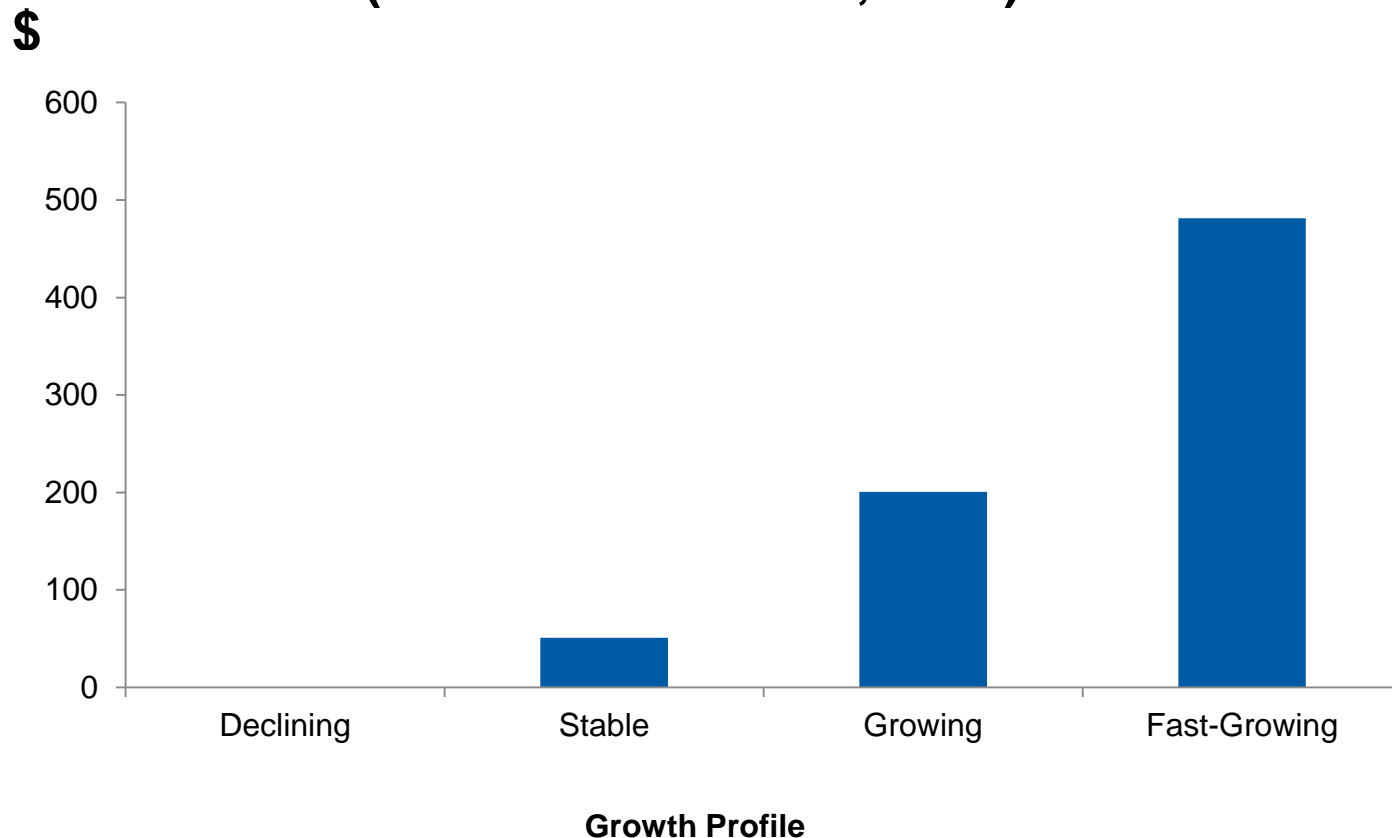
Those who can save, do – a total of \$19 billion



Sources: Reserves, 2013, FIR; Population estimates, 2001-2041, Ontario Ministry of Finance

Declining and stable municipalities have minimal development charge reserves because they are not growing

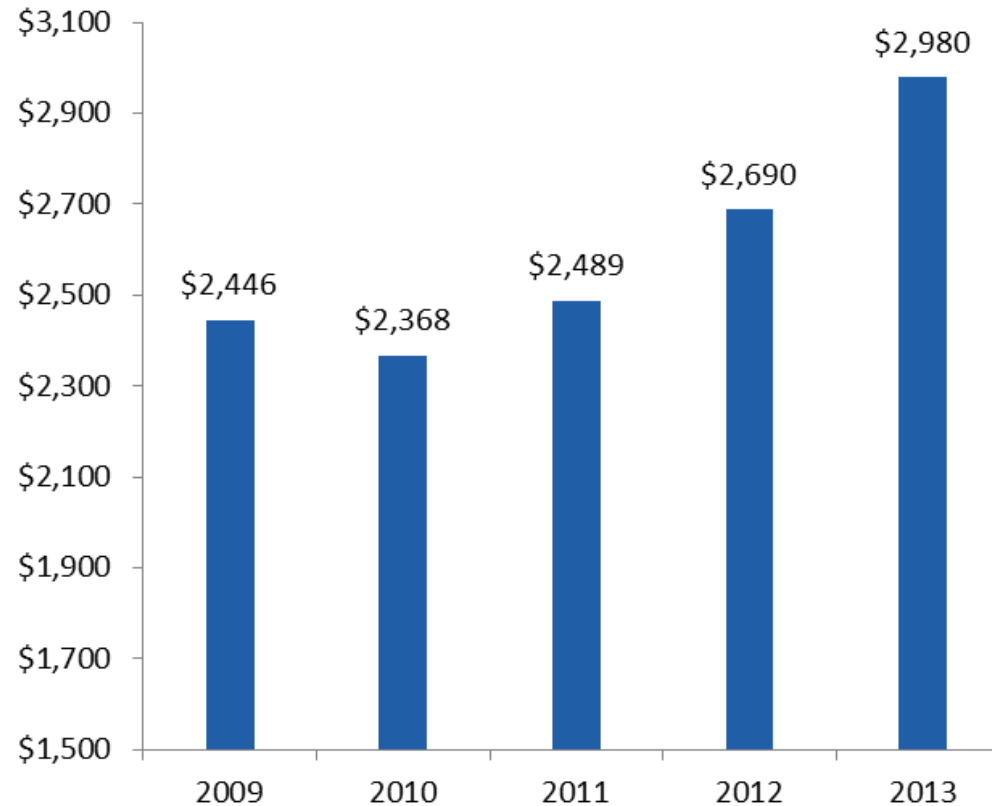
Average DC Reserves per Household (DC Reserve Funds, 2013)



Sources: Reserves, 2013, FIR; Population estimates, 2001-2041, Ontario Ministry of Finance

Per capita reserves are increasing

Non-DC Reserves per Household (Weighted*, 2013)



*Weighted by proportion of total Ontario reserve balance and total Ontario households

Ten municipalities account for more than half of the reserves held by Ontario municipalities

Reserves (2013, \$ million)

	Reserves	Growth Profile
York Region	1,661	Fast-Growing
City of Toronto	1,531	Growing
Peel Region	1,475	Fast-Growing
Durham Region	1,233	Fast-Growing
City of Hamilton	864	Growing
Halton Region	965	Fast-Growing
City of Mississauga	726	Fast-Growing
City of Ottawa	863	Fast-Growing
City of London	589	Growing
City of Brampton	156	Fast-Growing
Total	10,063	

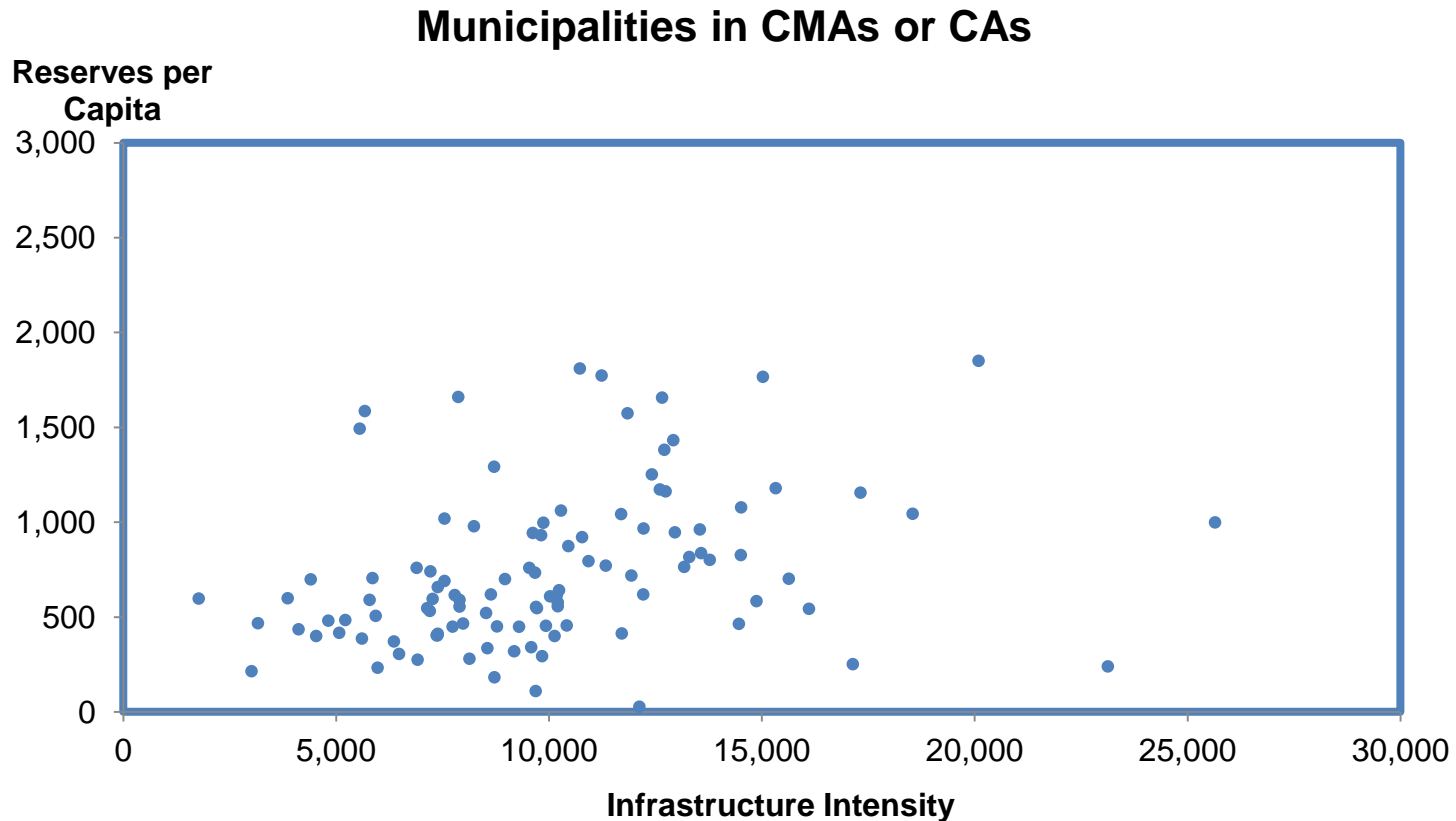
Sources: Reserves, 2013, FIR; Population estimates, 2001-2041, Ontario Ministry of Finance

How much should a municipality be saving?

Depends on:

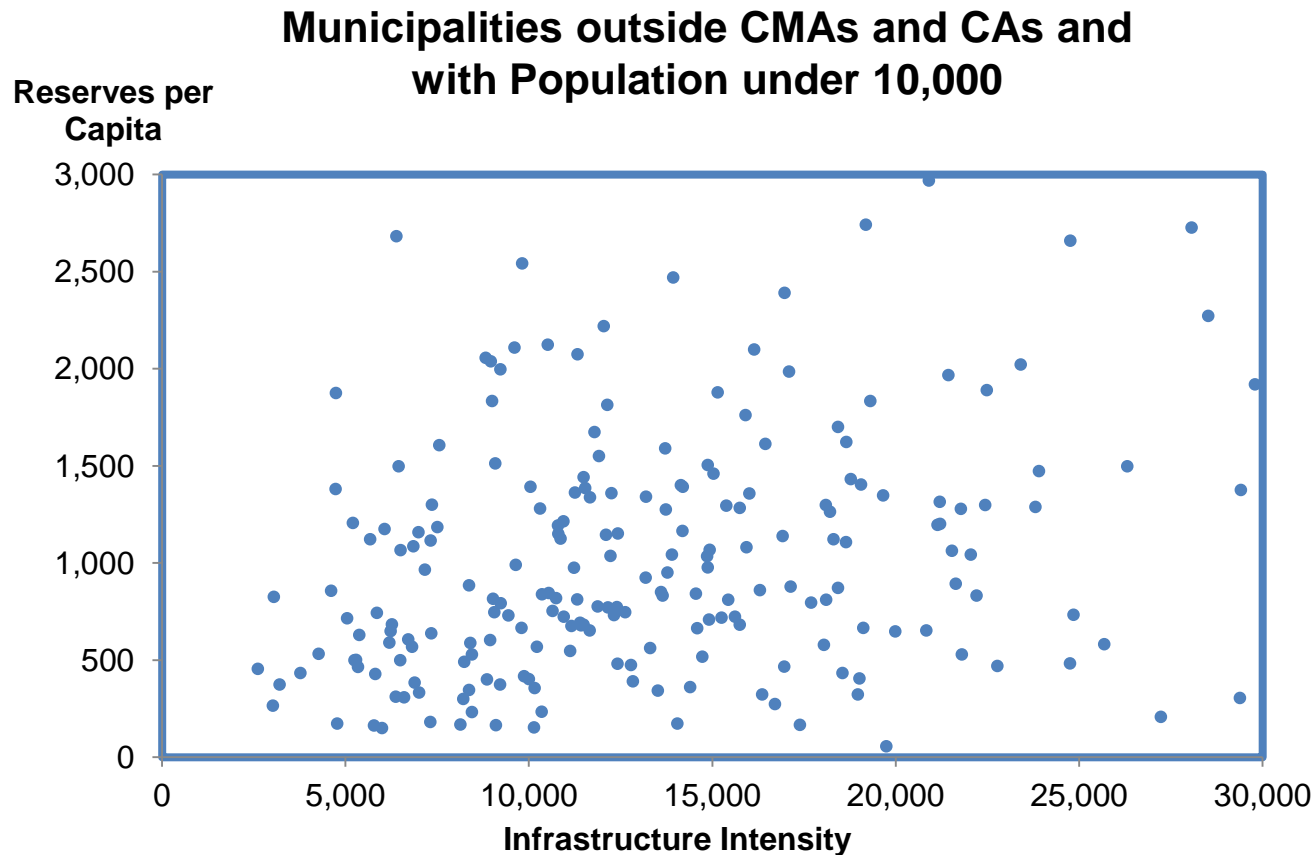
- The investment needs and timing identified in asset management plans, including desired service levels and acceptable levels of risk
- Preferences with respect to pay-as-you-go capital versus funding from reserves
- The preferred trade-off between reserve funding and debt financing

Reserves per capita tend to rise with infrastructure intensity in urban areas



Data sources: Tangible capital assets and reserves, 2013, FIR
Population, 2013, Ontario Ministry of Finance

However, reserves per capita are not well correlated with infrastructure intensity in small municipalities



Data sources: Tangible capital assets and reserves, 2013, FIR
Population, 2013, Ontario Ministry of Finance

Key findings – reserve management

- Overall, municipalities have increased their savings, with fast growing municipalities saving the most
- Many municipalities, especially smaller ones, appear to have difficulty setting money aside
- Reserves per capita are not well correlated with infrastructure intensity in small municipalities, but they do tend to be correlated in large urban areas

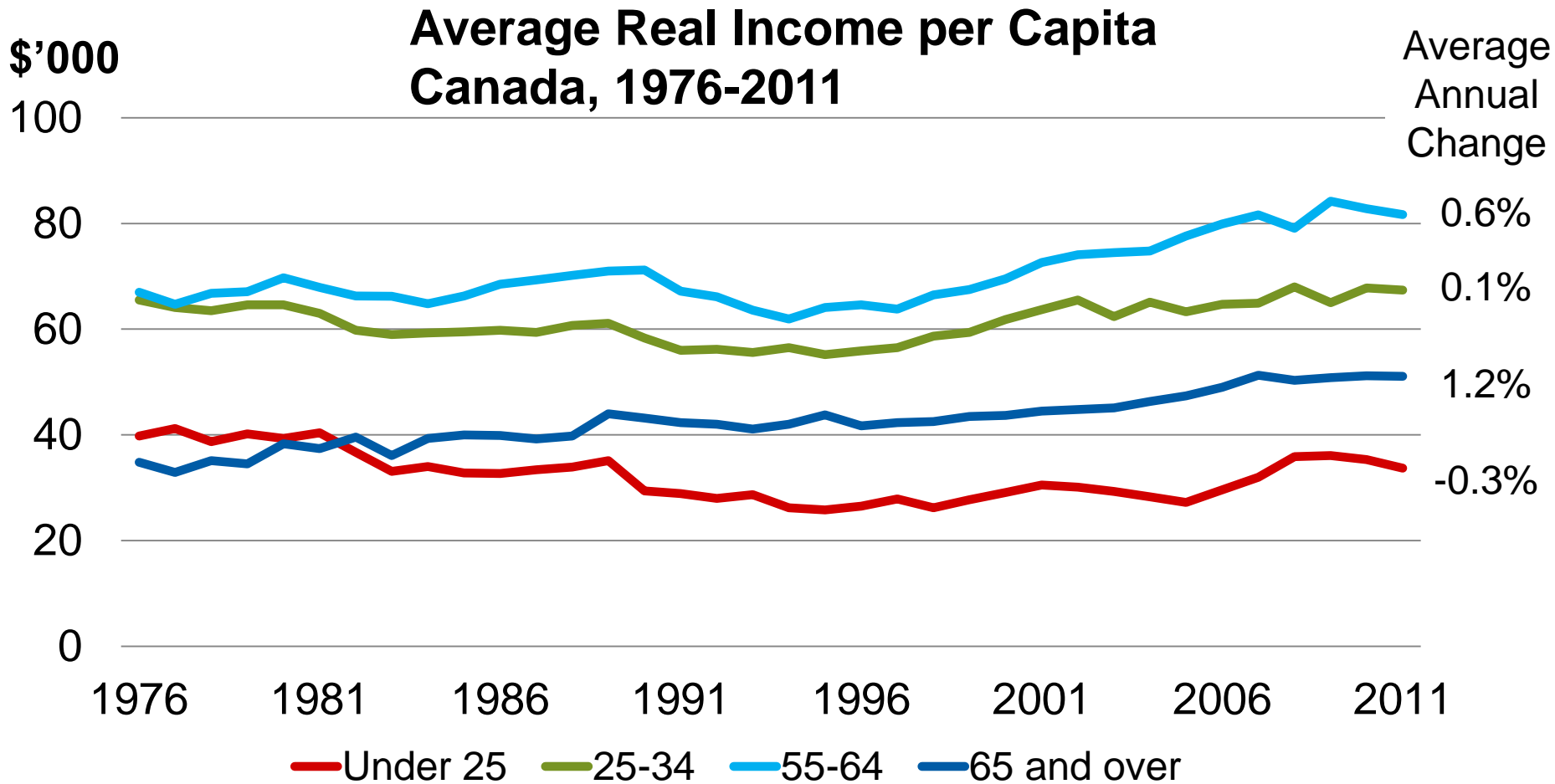
The Need for Intergenerational Equity



Intergenerational equity

- Good fiscal planning means that the generation of people who benefit from an asset is also the one paying for it
- However, several sources suggest that the children of baby boomers will be the first to have lower lifetime income than their parents
- So... we may need to save more today to be able to pay for future asset management needs

Currently, income gains are going to the older generations

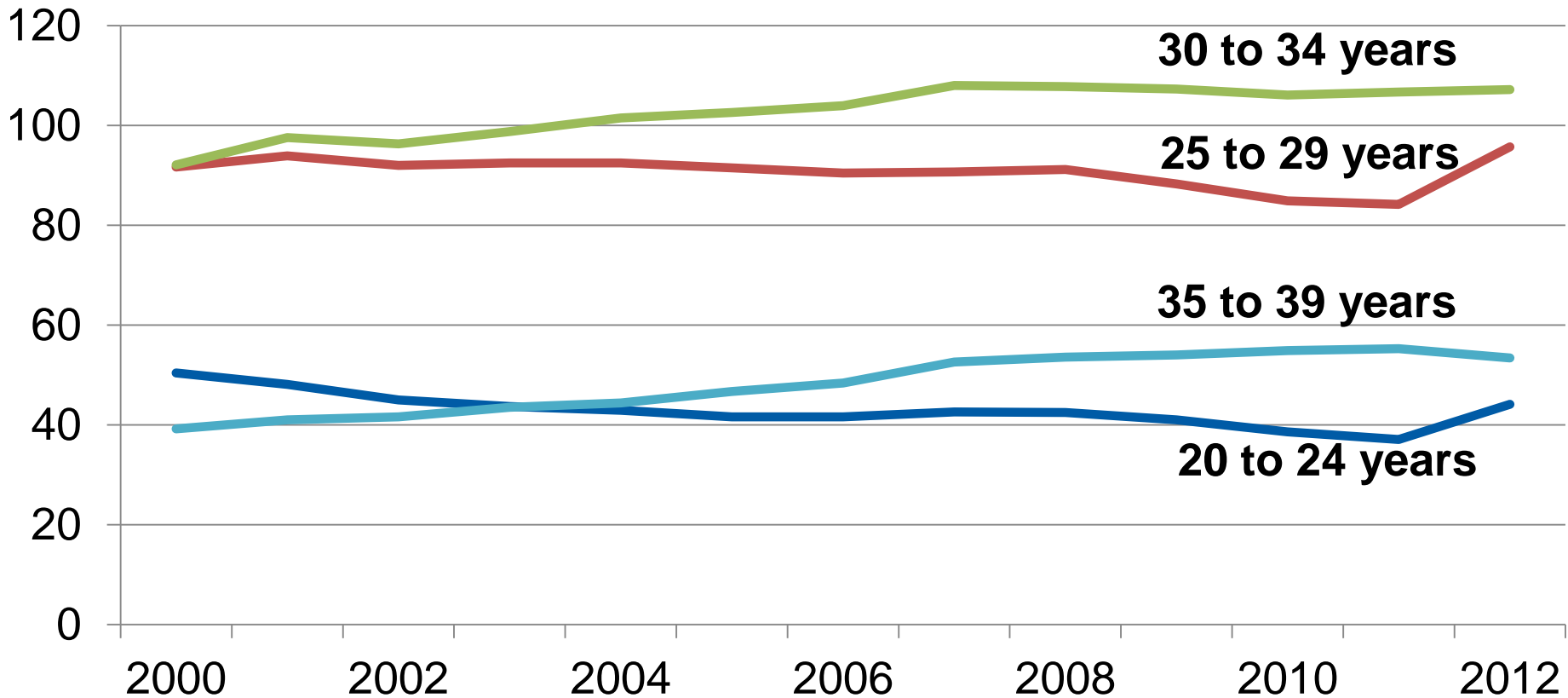


Source: Calculations based on Statistics Canada's Survey of Labour Income Dynamics (SLID) – Cansim Table # 2020404

Family formation is being delayed

Number of Live Births per 1000 Women

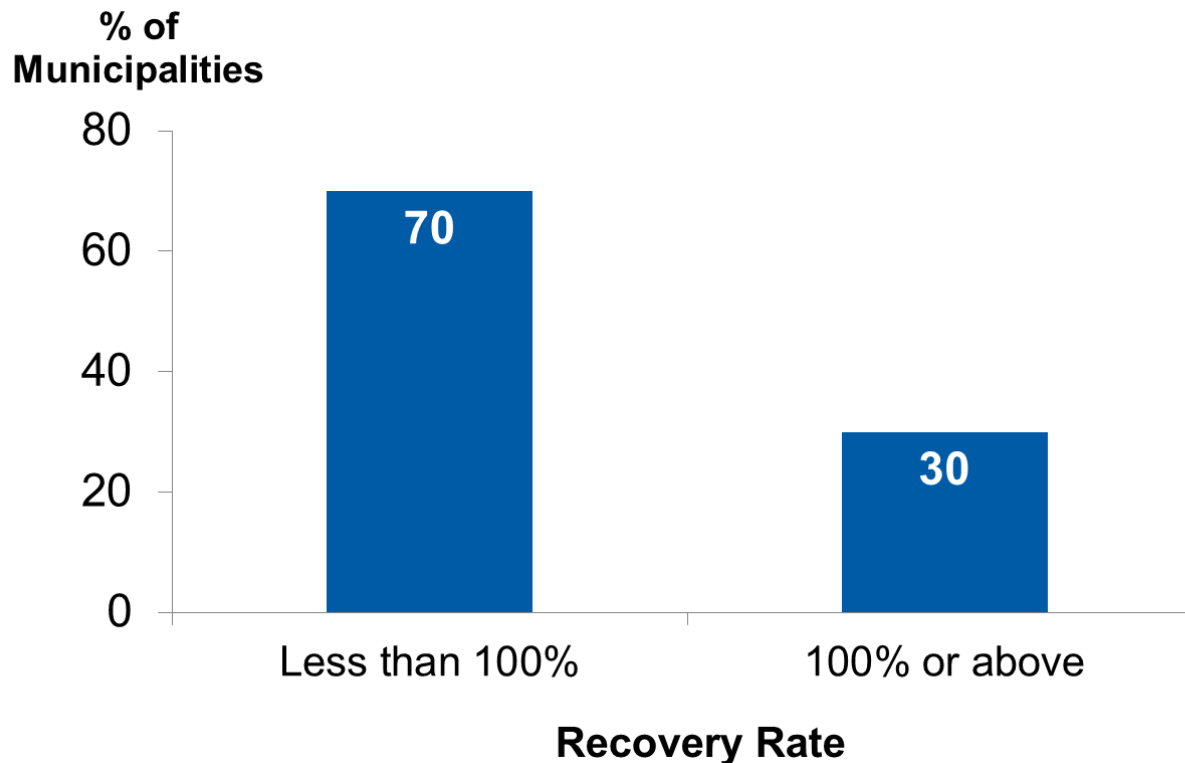
Age-Specific Fertility Rates in Ontario



Source: Statistics Canada

An example of an intergenerational equity issue: failure to achieve full cost recovery for water and wastewater

Water and Wastewater Cost Recovery, 2013



Notes:

1. Recovery rate = Revenue / Adjusted Operating Expenses
2. Adjusted operating expense is reported operating expenses with amortization adjusted to reflect replacement cost using Non-Residential Building Construction Price Index (NRBCPI)

Sources: Water and wastewater revenue and expenses, 2013, FIR; NRBCPI, Statistics Canada

Key findings – intergenerational equity

- Sharing the cost burden equitably between generations is a key principle of financial sustainability
- Income gains are going to older generations, and family formation is being delayed
- Tax and rate increases at or below the rate of inflation are shifting the burden of asset management investment to future generations

8. Are We There Yet?

In this section

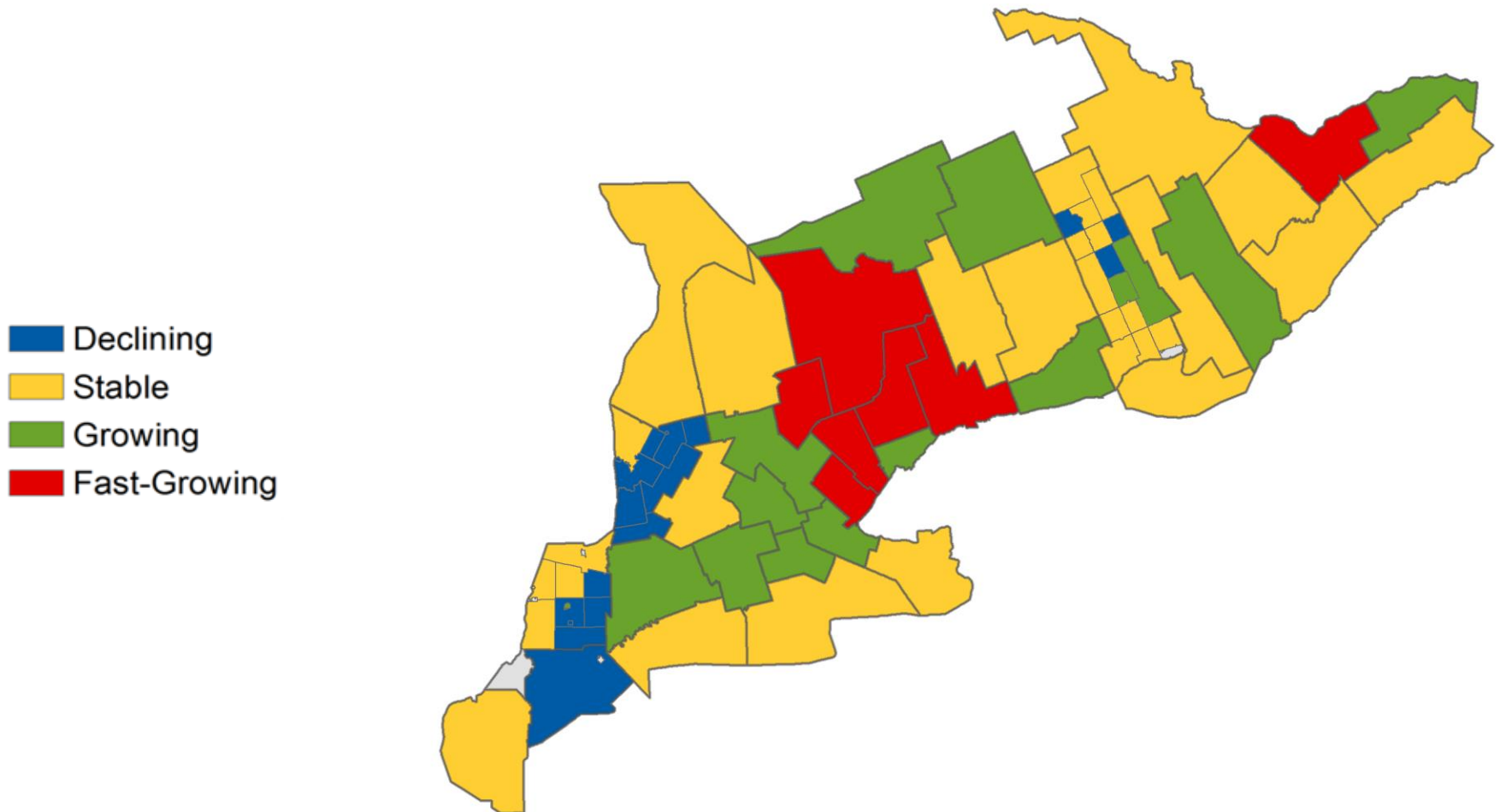
1. Have Ontario municipalities achieved financial sustainability?

Results by municipal growth profile:

- Declining municipalities
- Stable municipalities
- Growing municipalities
- Fast-growing municipalities

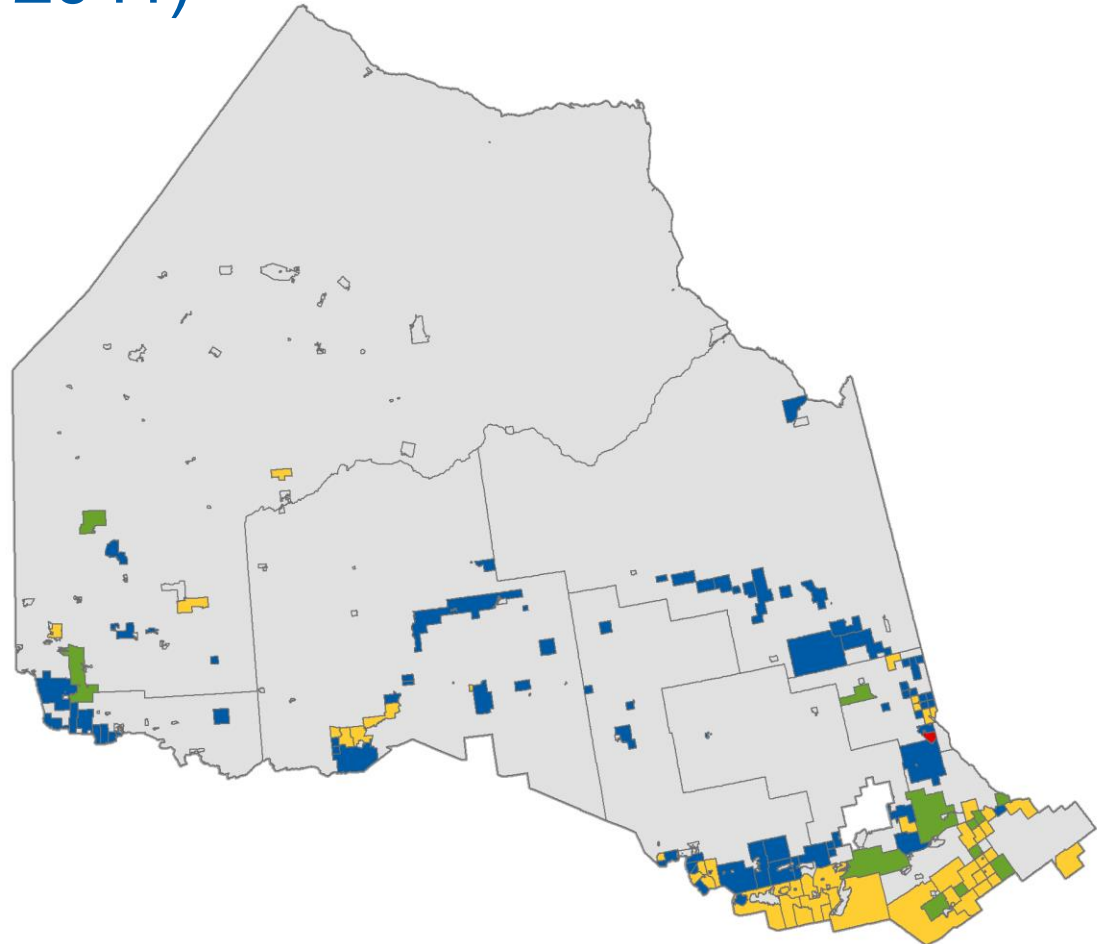
Declining Municipalities

Southern Ontario Municipalities with declining population (2001-2041)



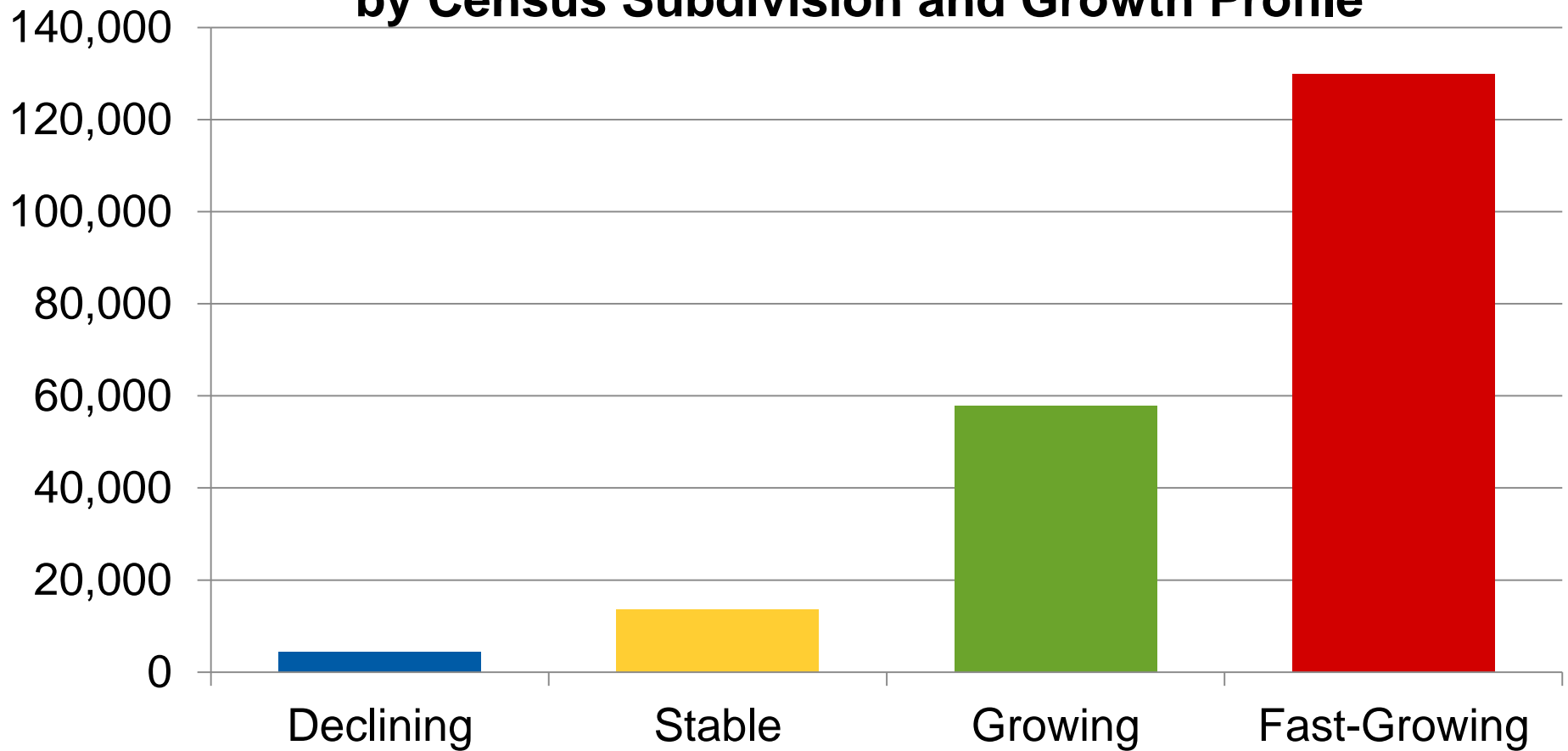
Many Northern Ontario Municipalities have declining populations (2001-2041)

- Declining
- Stable
- Growing
- Fast-Growing



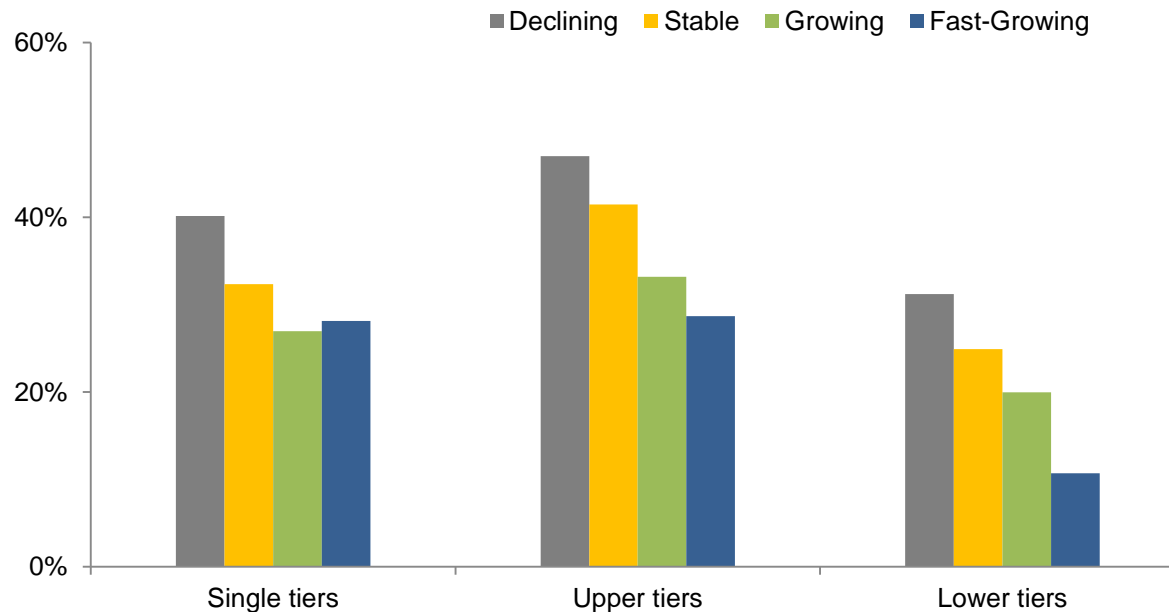
Municipalities with declining populations tend to be smaller

Average 2015 Population by Census Subdivision and Growth Profile



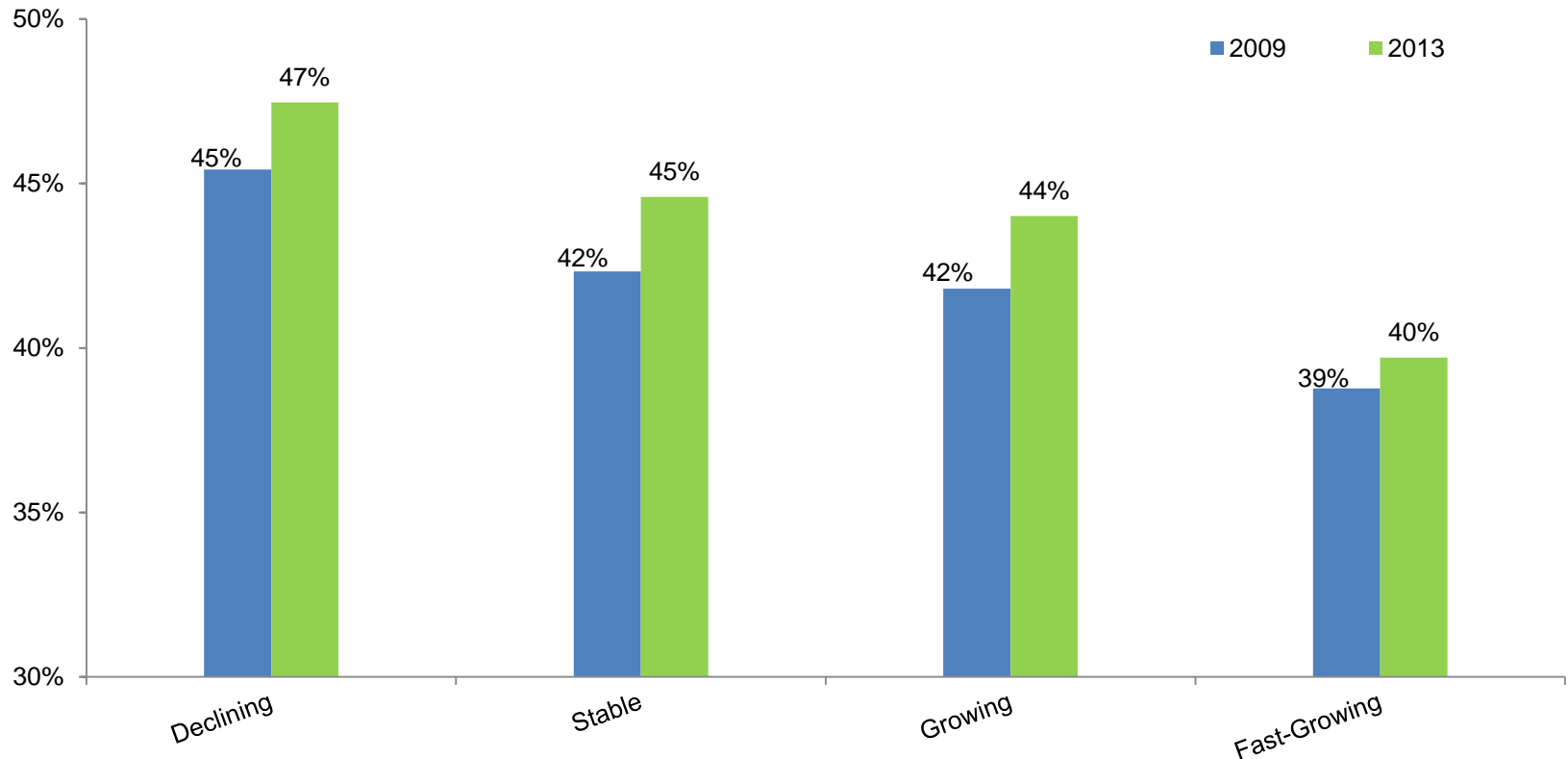
Declining municipalities are more reliant on transfer payments

Transfer payments as Percentage of Total Revenue (2009 – 2013 Municipal Average)



Declining municipalities often face the added challenge of managing aging assets

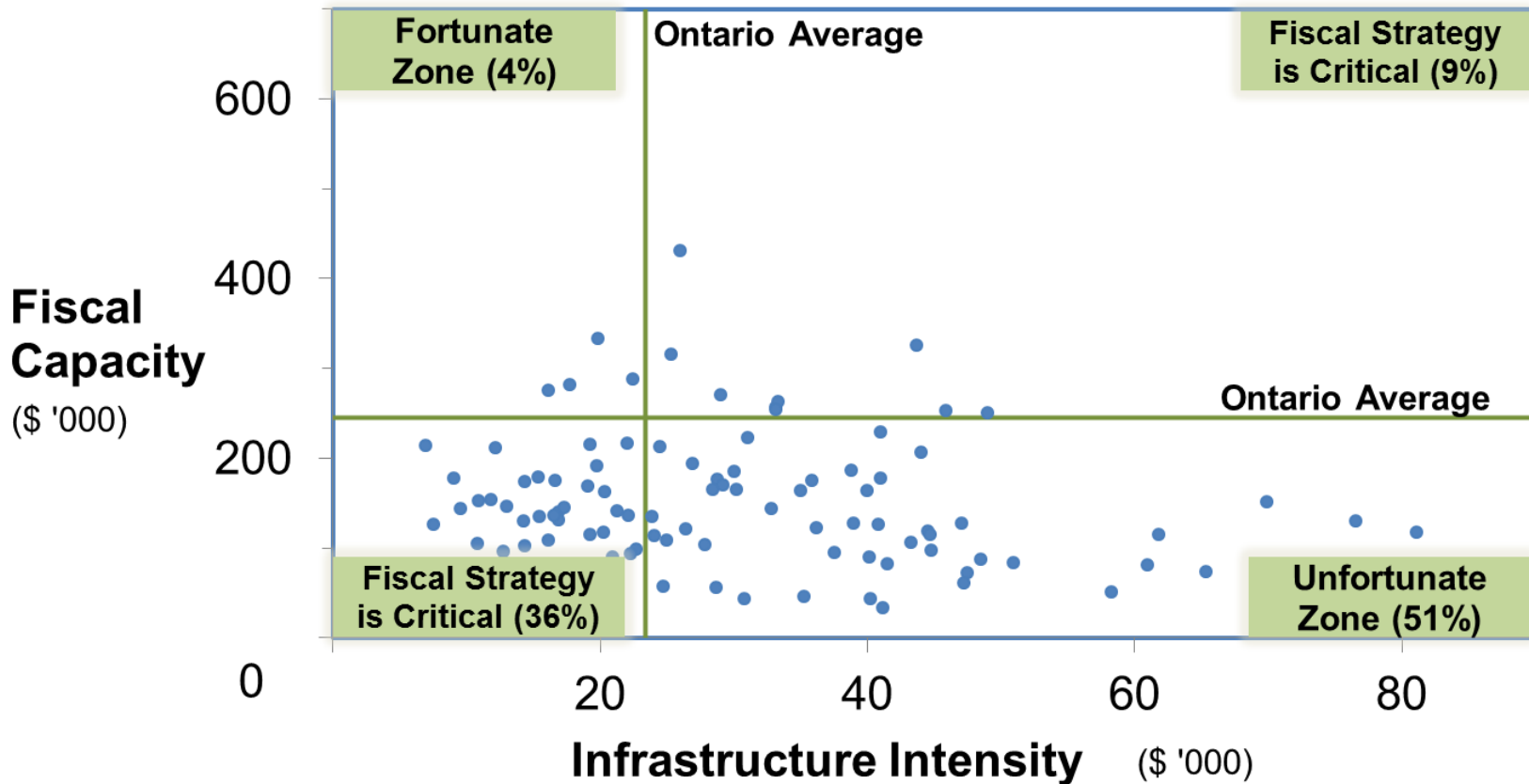
Percentage of Tangible Capital Assets Amortized



2009 Municipal Average: 42%
 2013 Municipal Average: 44%

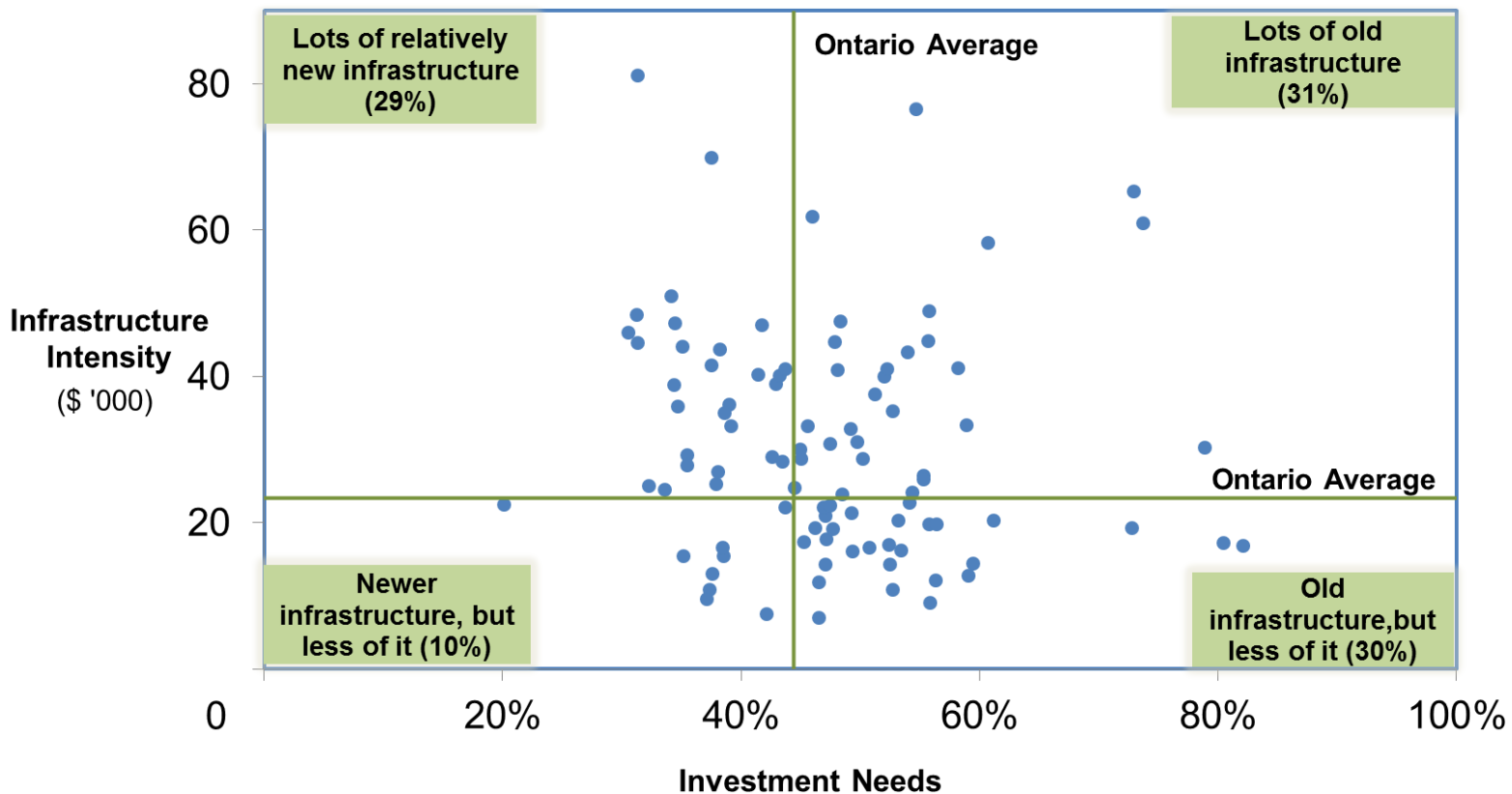
Almost 90 per cent of declining municipalities have below average fiscal capacity and 60 per cent have above average infrastructure intensity

Fiscal Capacity vs. Infrastructure Intensity



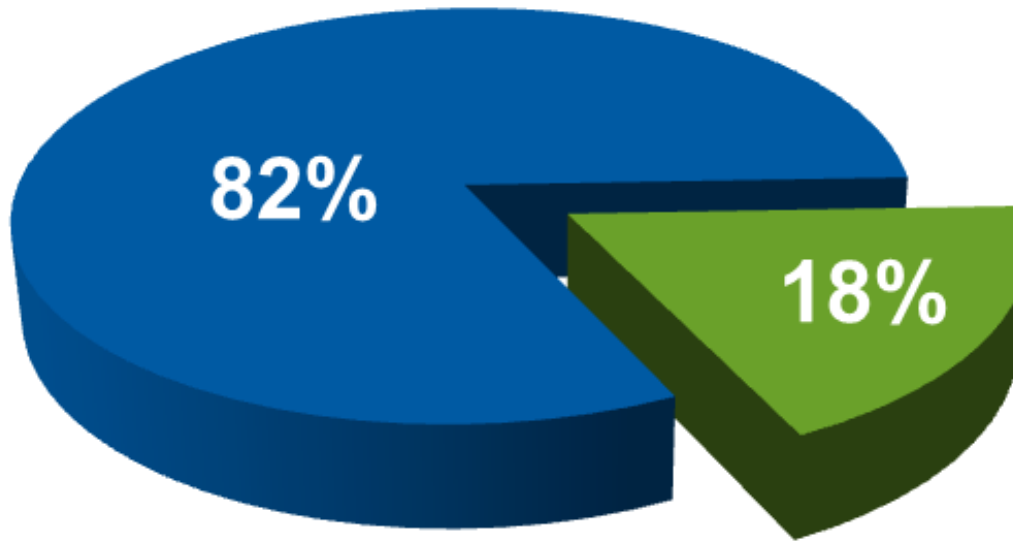
Almost one-third of declining municipalities have large amounts of older infrastructure

Infrastructure Intensity vs. Investment Needs



About 80% of declining municipalities have deteriorating infrastructure

Percentage of Declining Municipalities

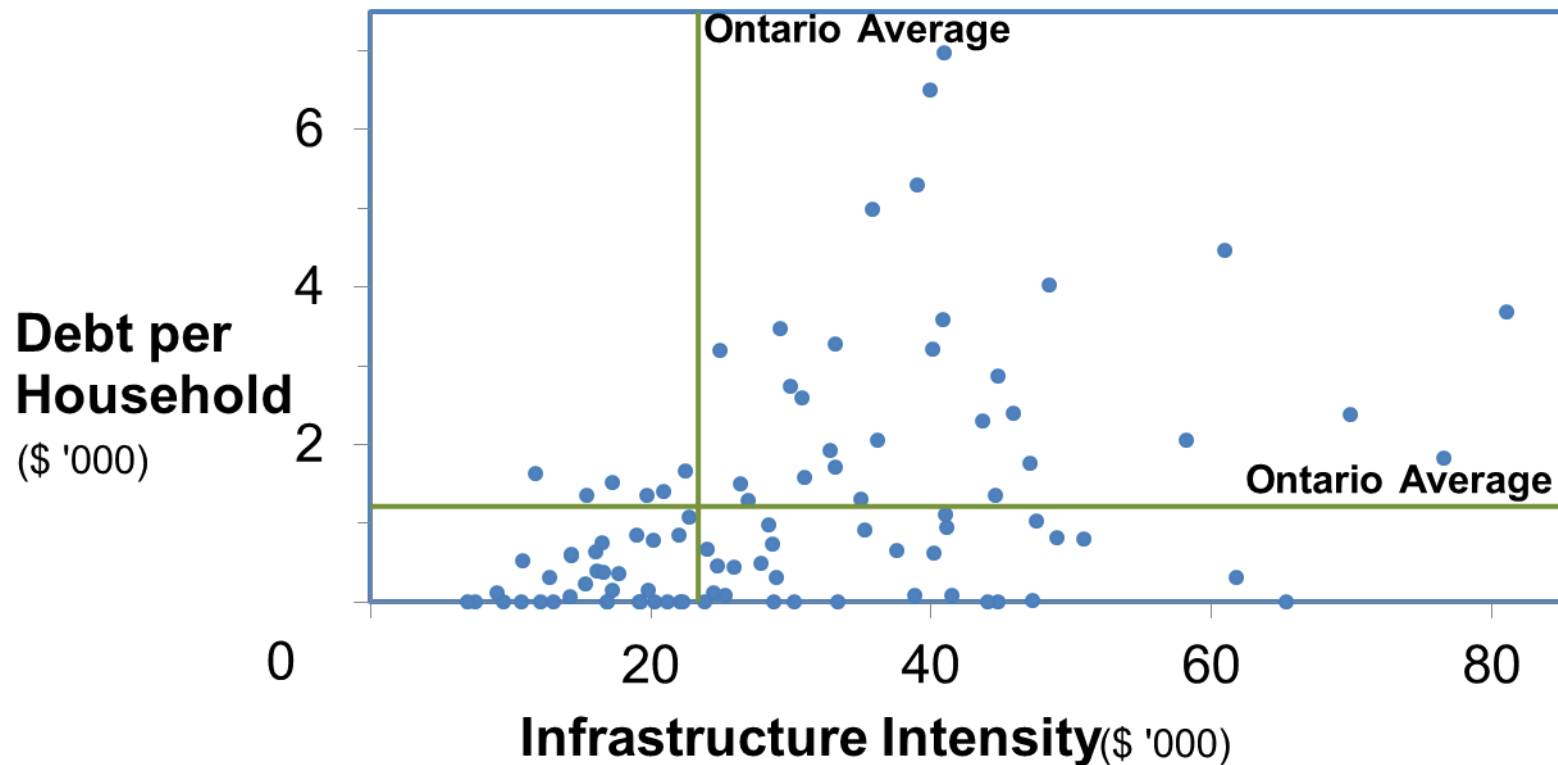


- Capital expenditures below adjusted amortization
- Capital expenditures above adjusted amortization

Sources: Population estimates, 2001- 2041, Ontario Ministry of Finance; Capital expenditures and amortization, 2013, FIR

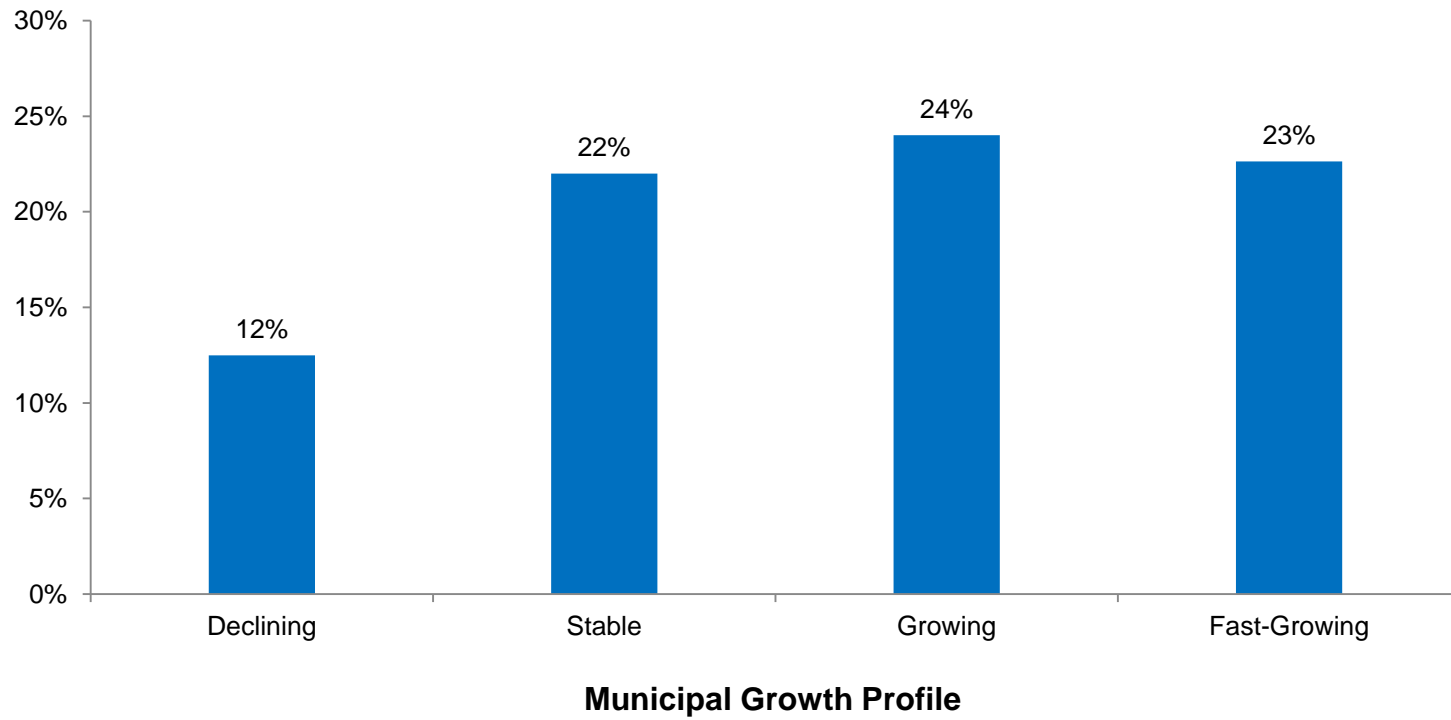
Most declining municipalities avoid debt, but some have taken on debt to deal with their infrastructure needs

Debt per Household vs. Infrastructure Intensity



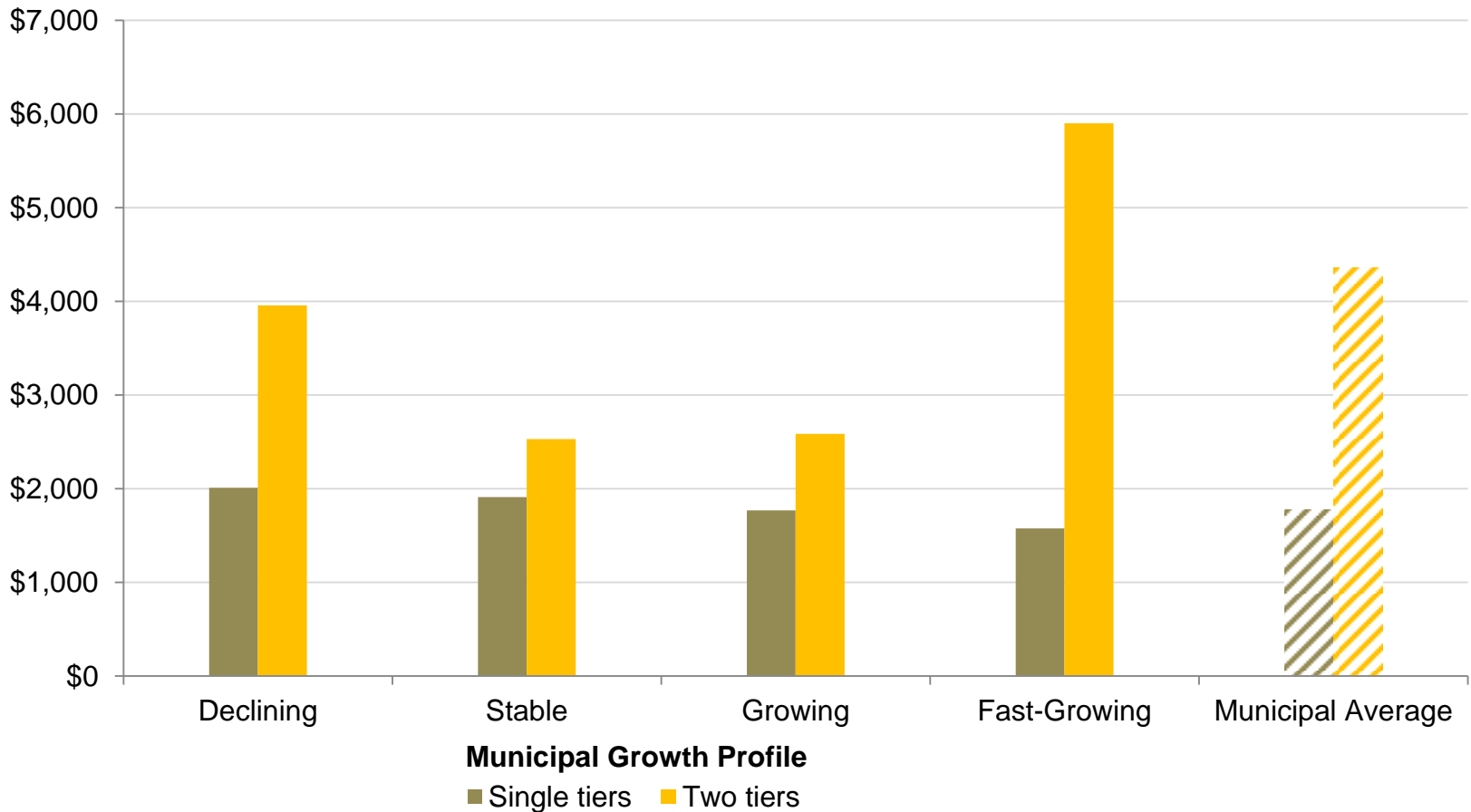
Declining municipalities are less able to use reserves for capital investment

Percentage of Capital Expenditure Funded by Non-DC Reserves (2009-2013 Average)



Yet they tend to save more

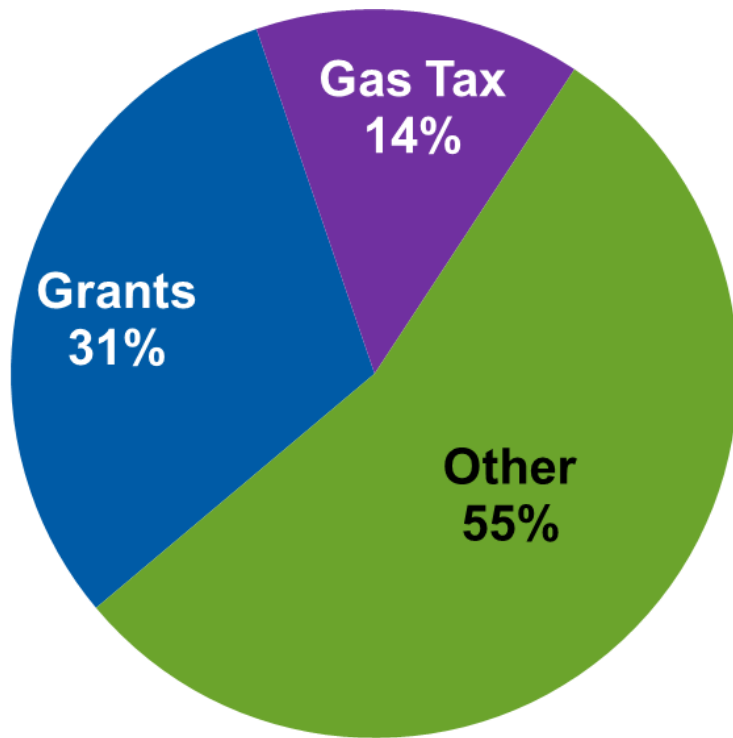
Non-DC Reserves per Household (2013)



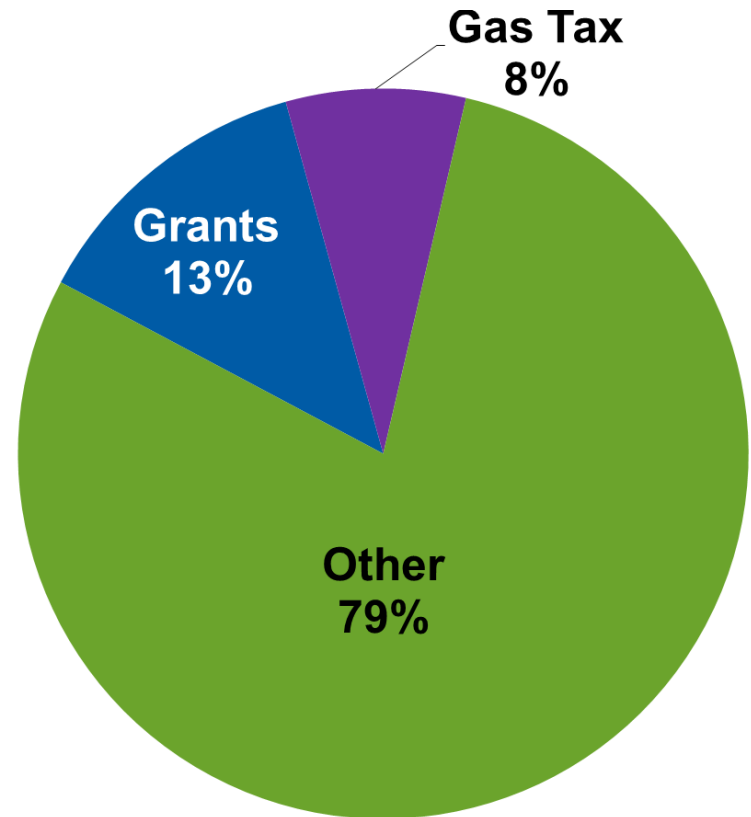
Declining municipalities are much more reliant on grants for capital investment

Funding Sources for Capital Expenditures

Municipalities with Declining Population



All Other Municipalities



Sources: Financing sources, 2013, FIR; Population estimates, 2001-2041, Ontario Ministry of Finance

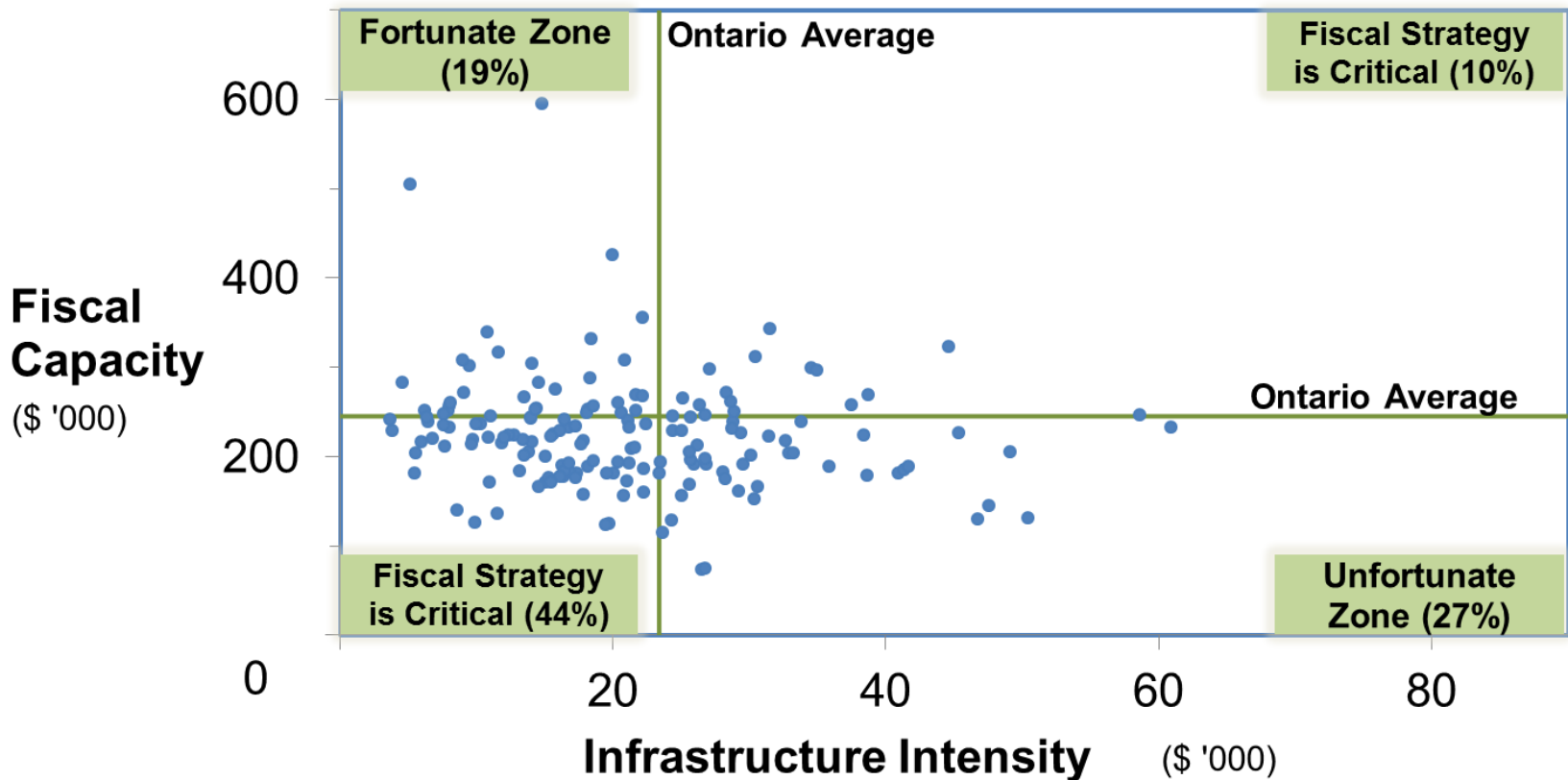
Key findings

- Municipalities with declining populations are likely to have deteriorating infrastructure
- Many declining municipalities have no debt because they know they cannot afford the carrying costs, even though they have compelling investment needs
- Declining municipalities that cannot afford to save or issue debt are forced to wait for infrastructure grant programs

Stable Municipalities

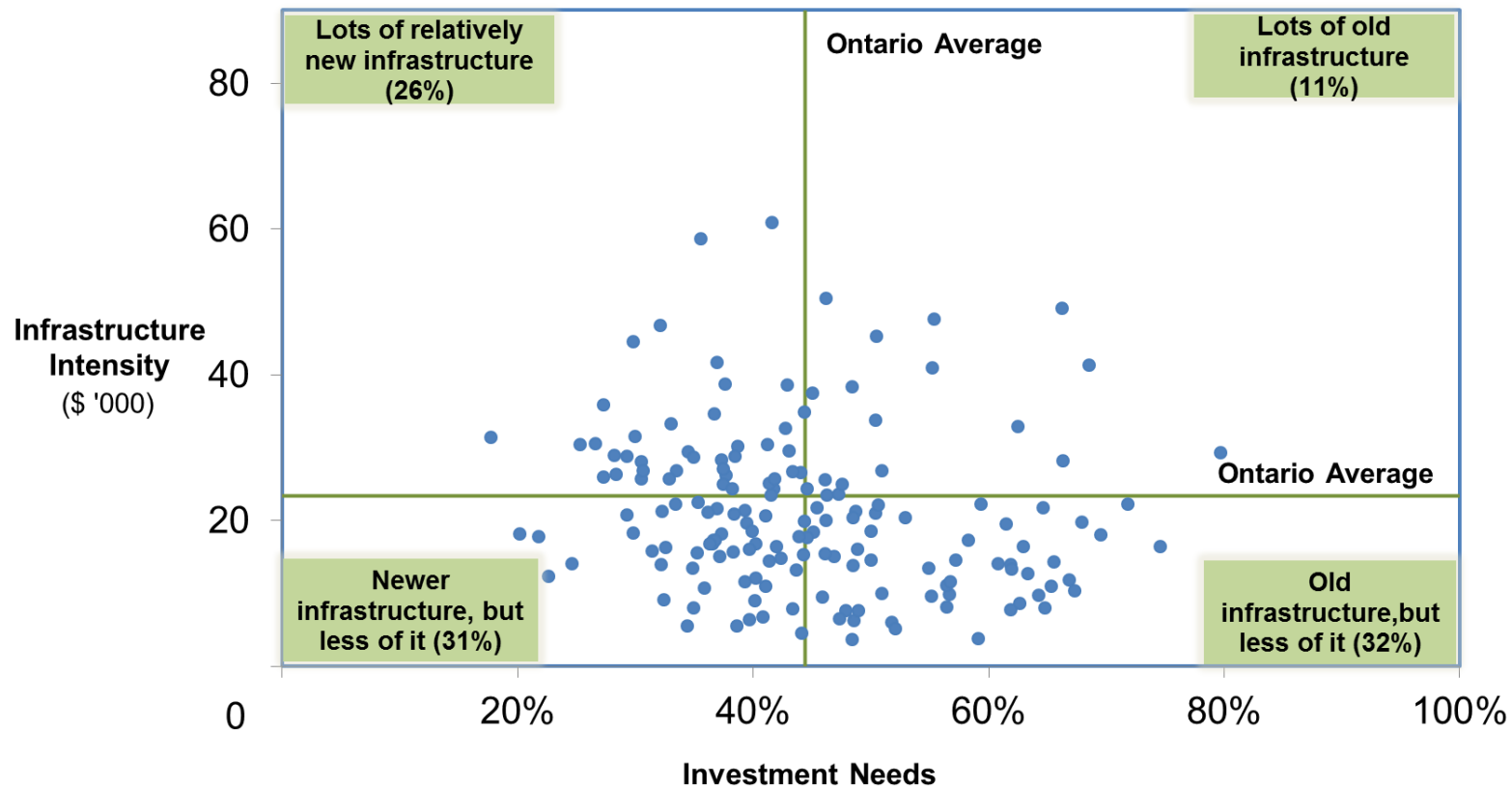
Most stable municipalities have below average fiscal capacity, but most also have below average infrastructure intensity

Fiscal Capacity vs. Infrastructure Intensity



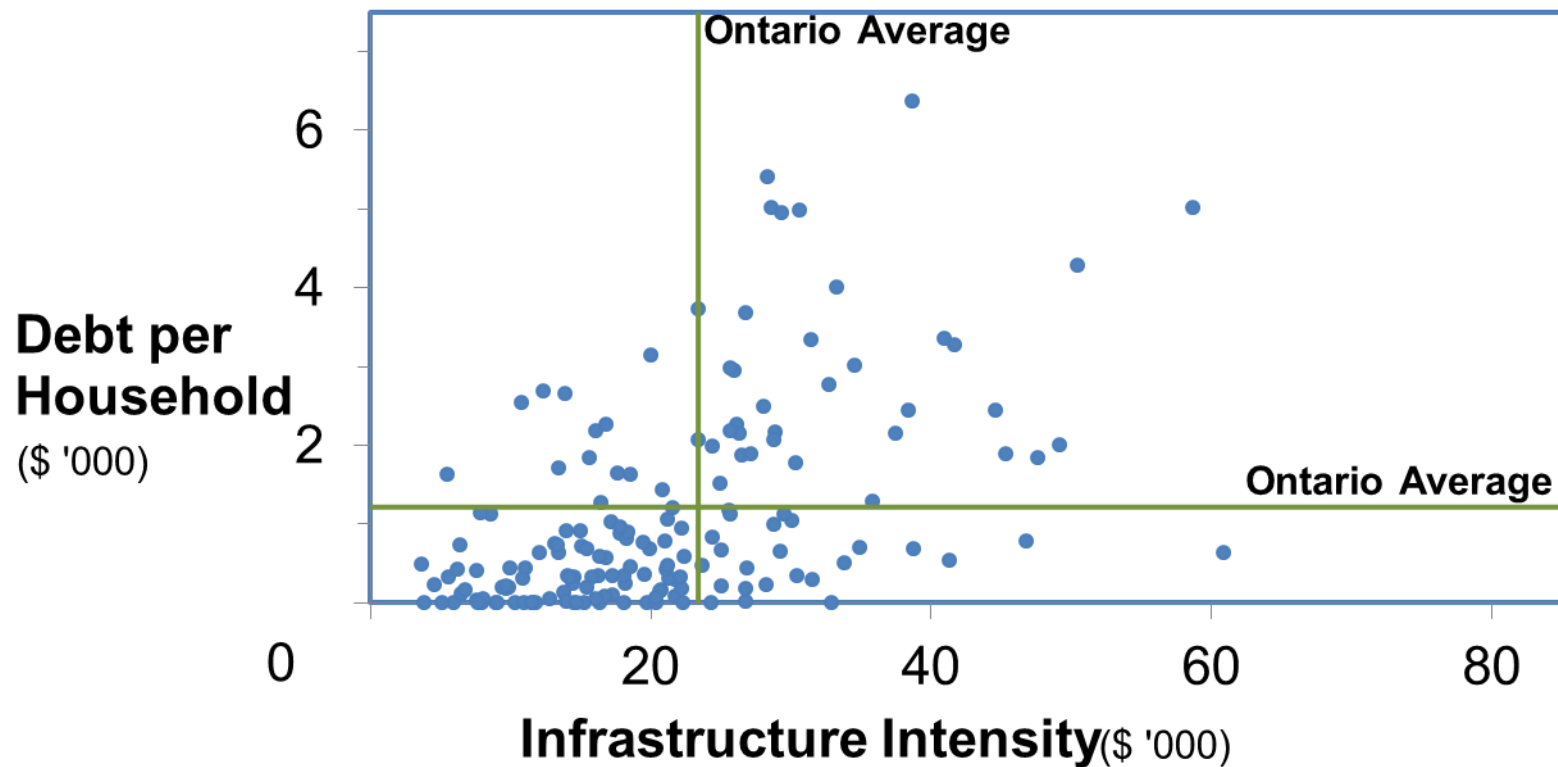
Stable municipalities tend to have below average infrastructure intensity and their infrastructure is noticeably newer than declining municipalities

Infrastructure Intensity vs. Investment Needs



The vast majority of stable municipalities have below average municipal debt

Debt per Household vs. Infrastructure Intensity



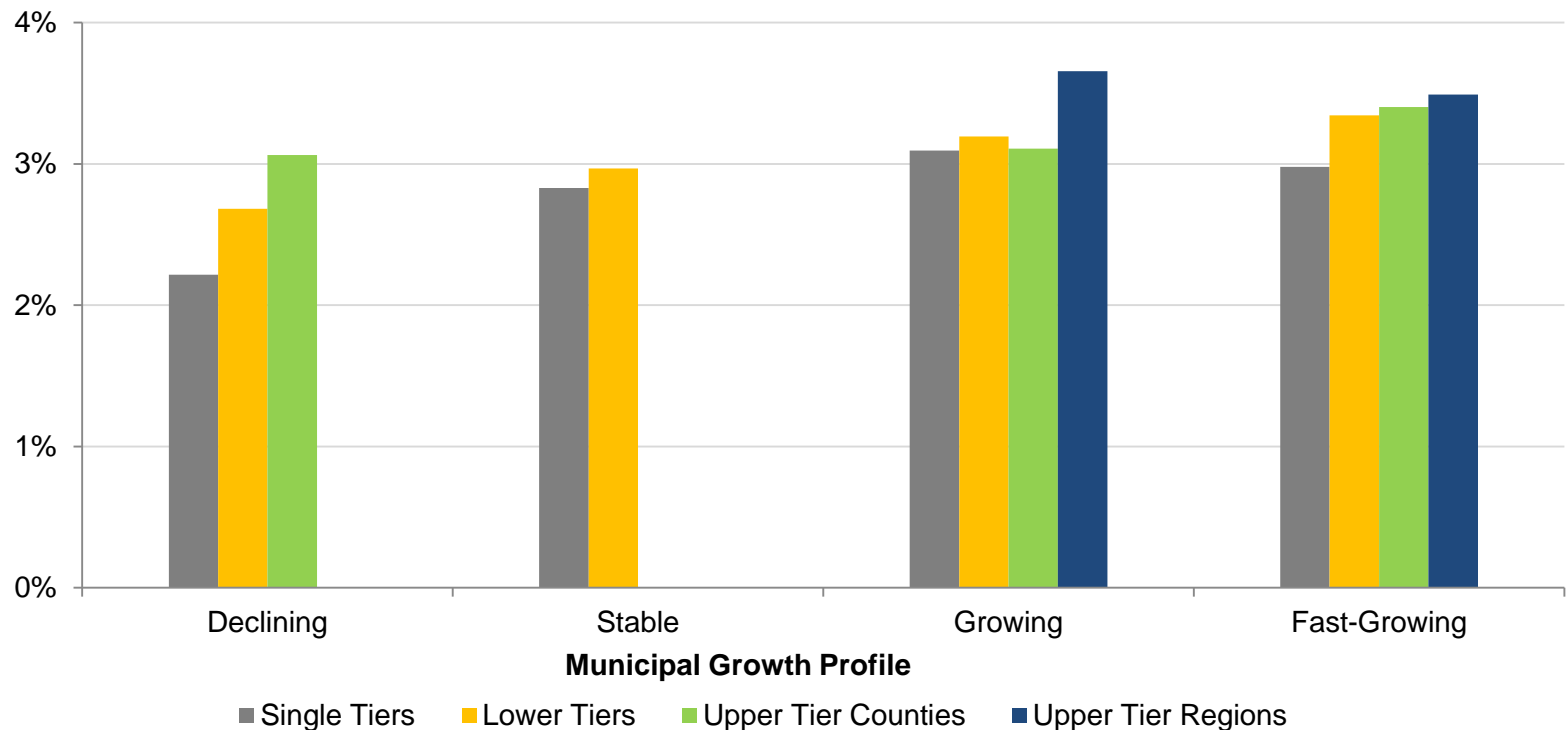
Key findings

- Municipalities with stable populations tend to have below average fiscal capacity and below average infrastructure intensity
- They have newer infrastructure than declining municipalities
- Stable municipalities tend to have lower-than-average debt, and rely relatively more on transfer payments

Growing Municipalities

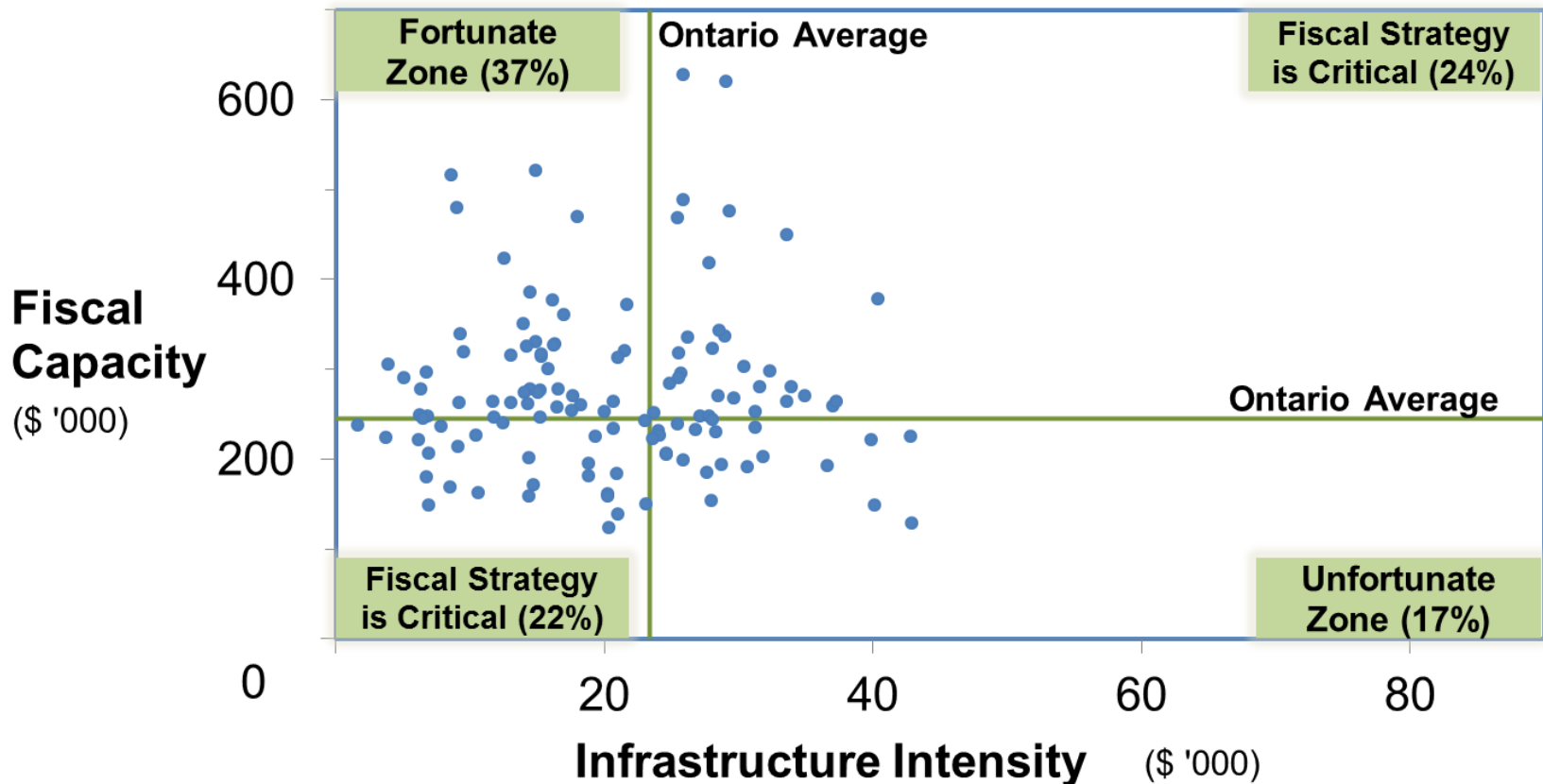
The tax burden is highest in growing and fast-growing regional municipalities

Property Tax per Household to Average Household Income (2009-2013 Average)



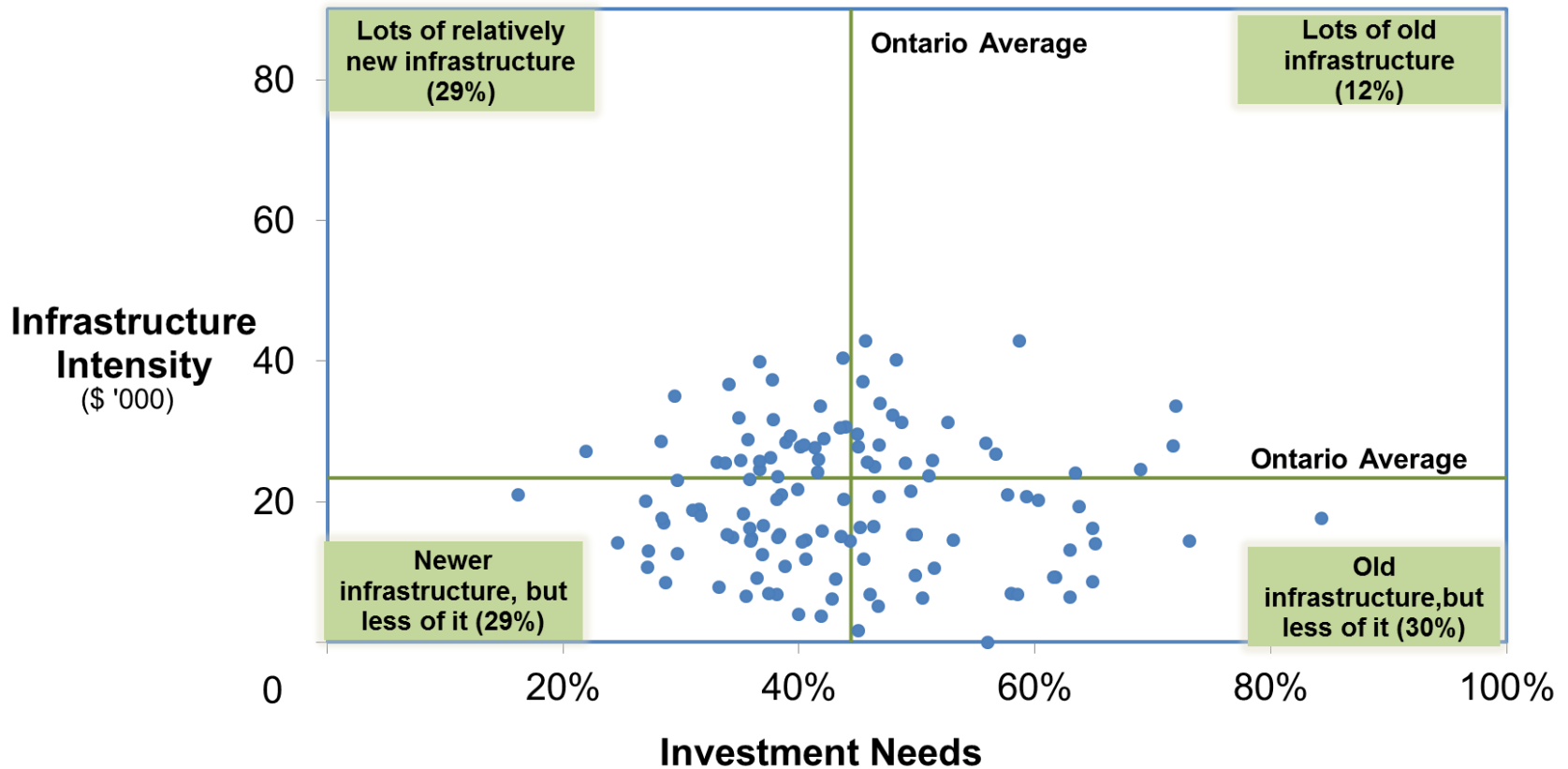
The majority of growing municipalities have above average fiscal capacity, and the majority surprisingly have below average infrastructure intensity

Fiscal Capacity vs. Infrastructure Intensity



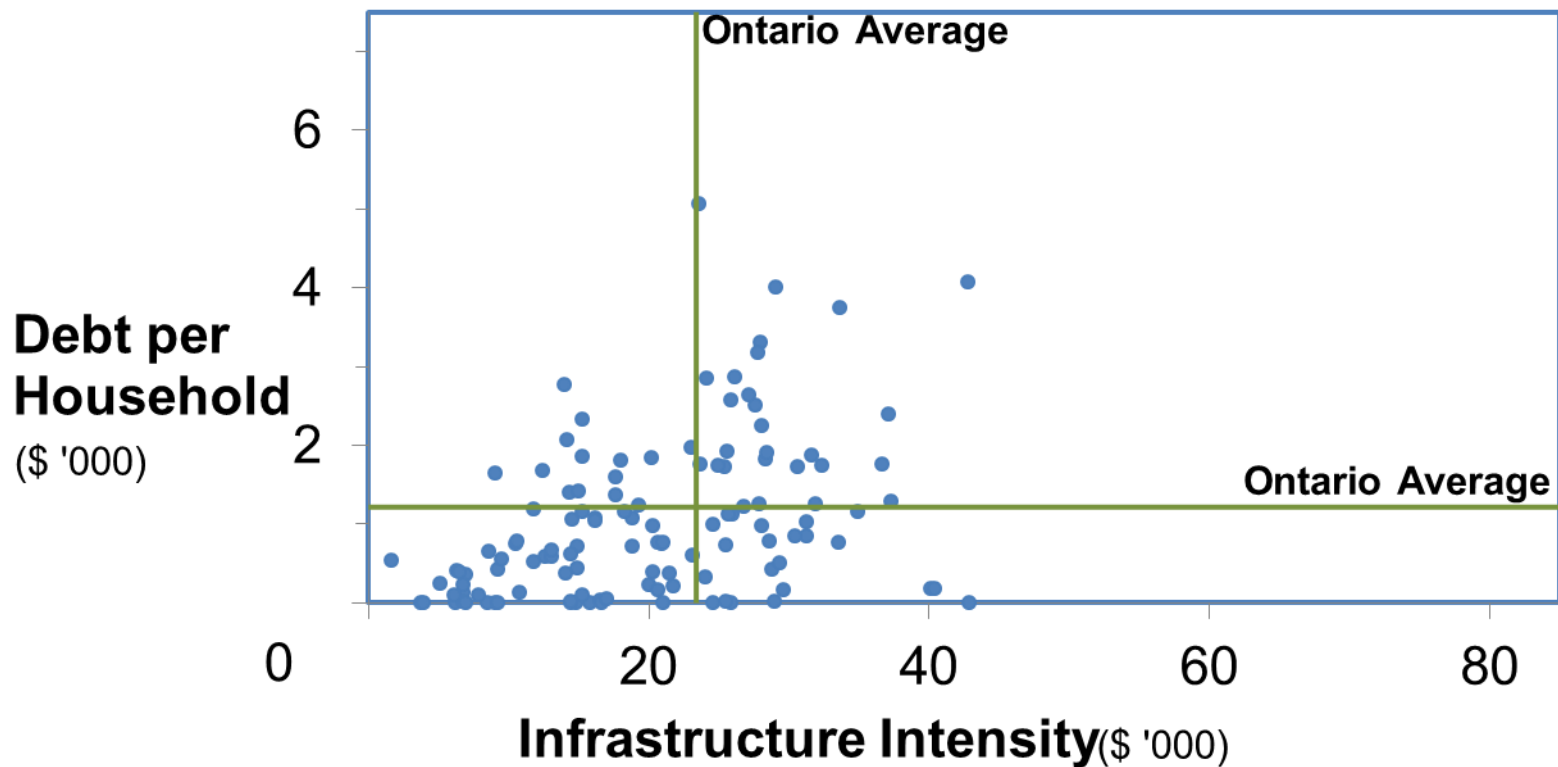
Almost 60% have newer-than-average infrastructure, and about 60% have less infrastructure than average

Infrastructure Intensity vs. Investment Needs



Growing municipalities with higher infrastructure intensity are more likely to take on debt

Debt per Household vs. Infrastructure Intensity



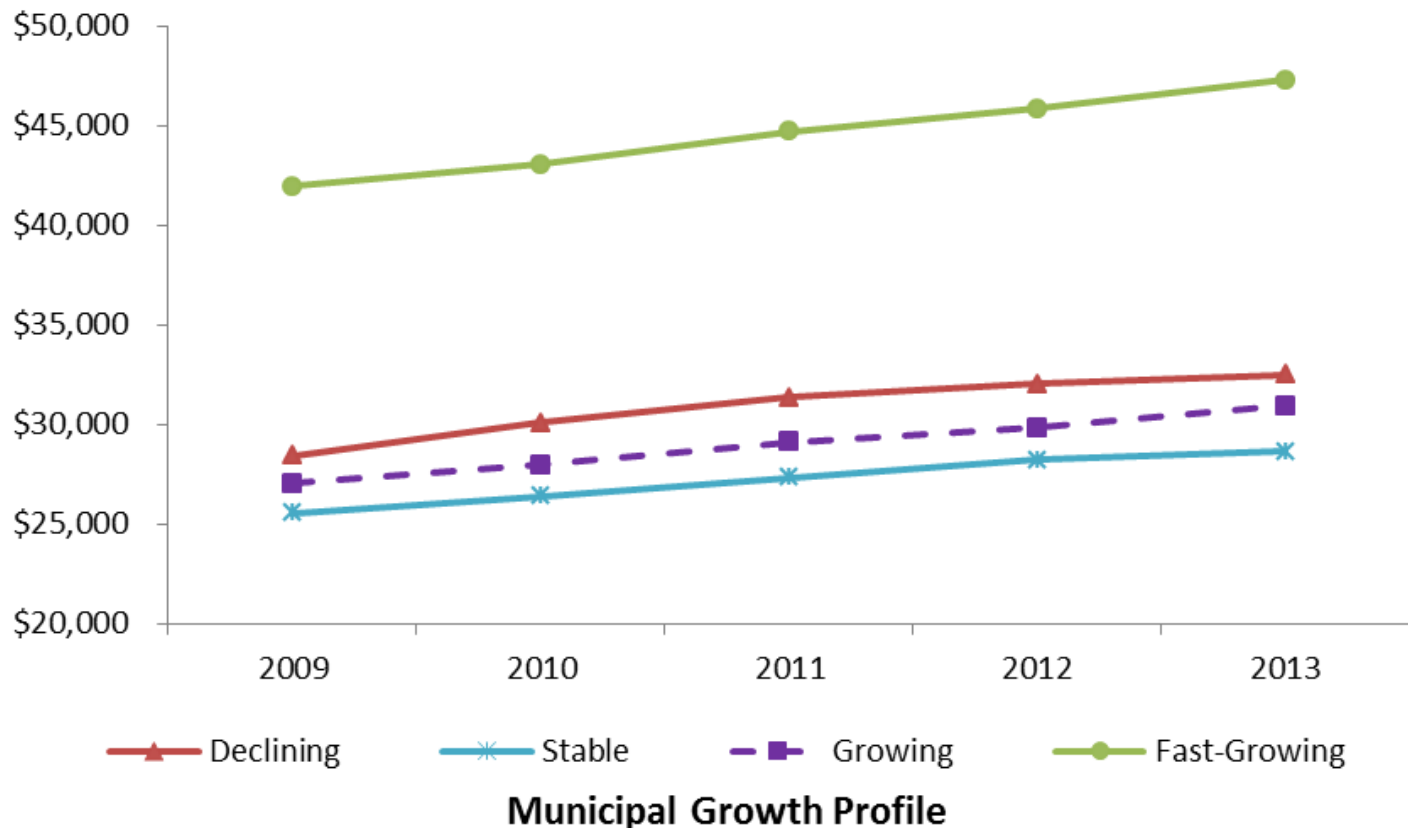
Key findings

- Growing municipalities are twice as likely as stable municipalities to be in the fortunate zone – high fiscal capacity and low infrastructure intensity
- Close to 60 per cent have newer-than-average infrastructure, about the same as stable municipalities
- Growing municipalities tend to take on more debt as their infrastructure intensity rises

Fast-Growing Municipalities

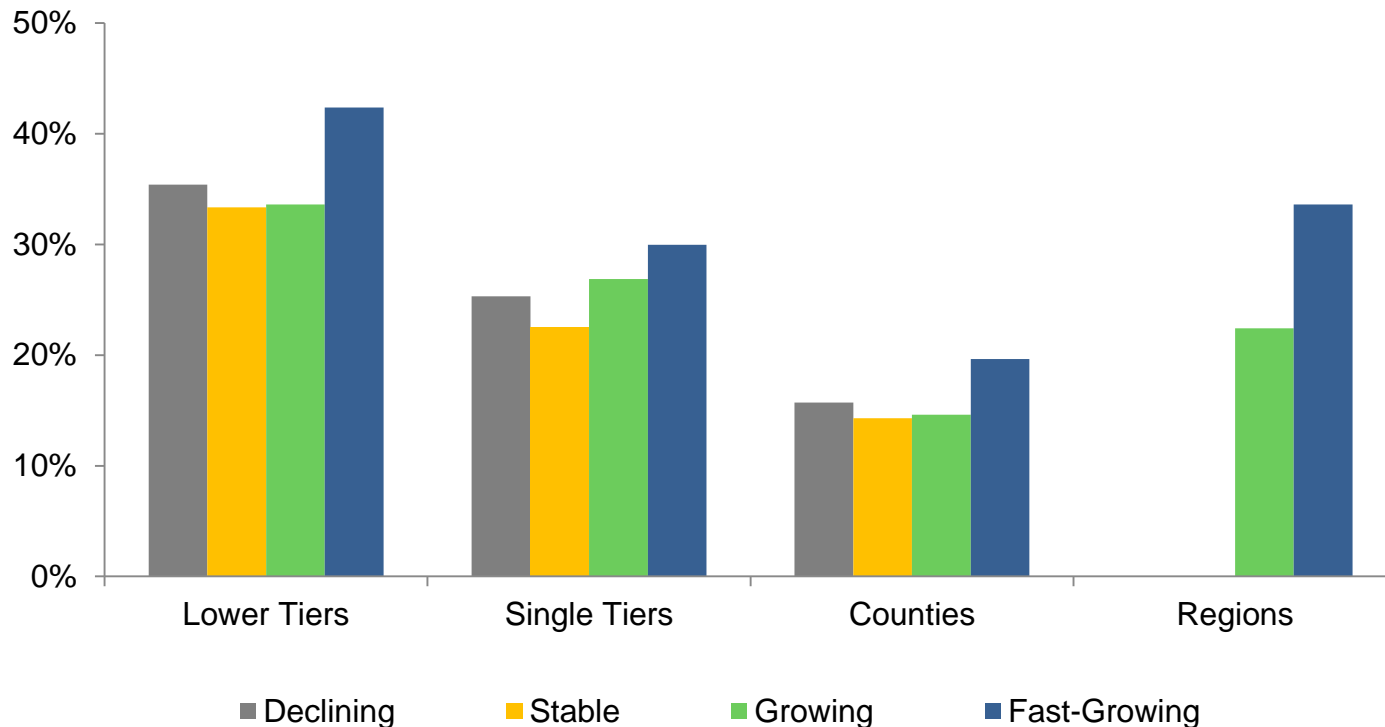
The municipal capital asset base has been growing at a fairly consistent pace, but fast-growing municipalities have a much larger asset base

Tangible Capital Assets per Household



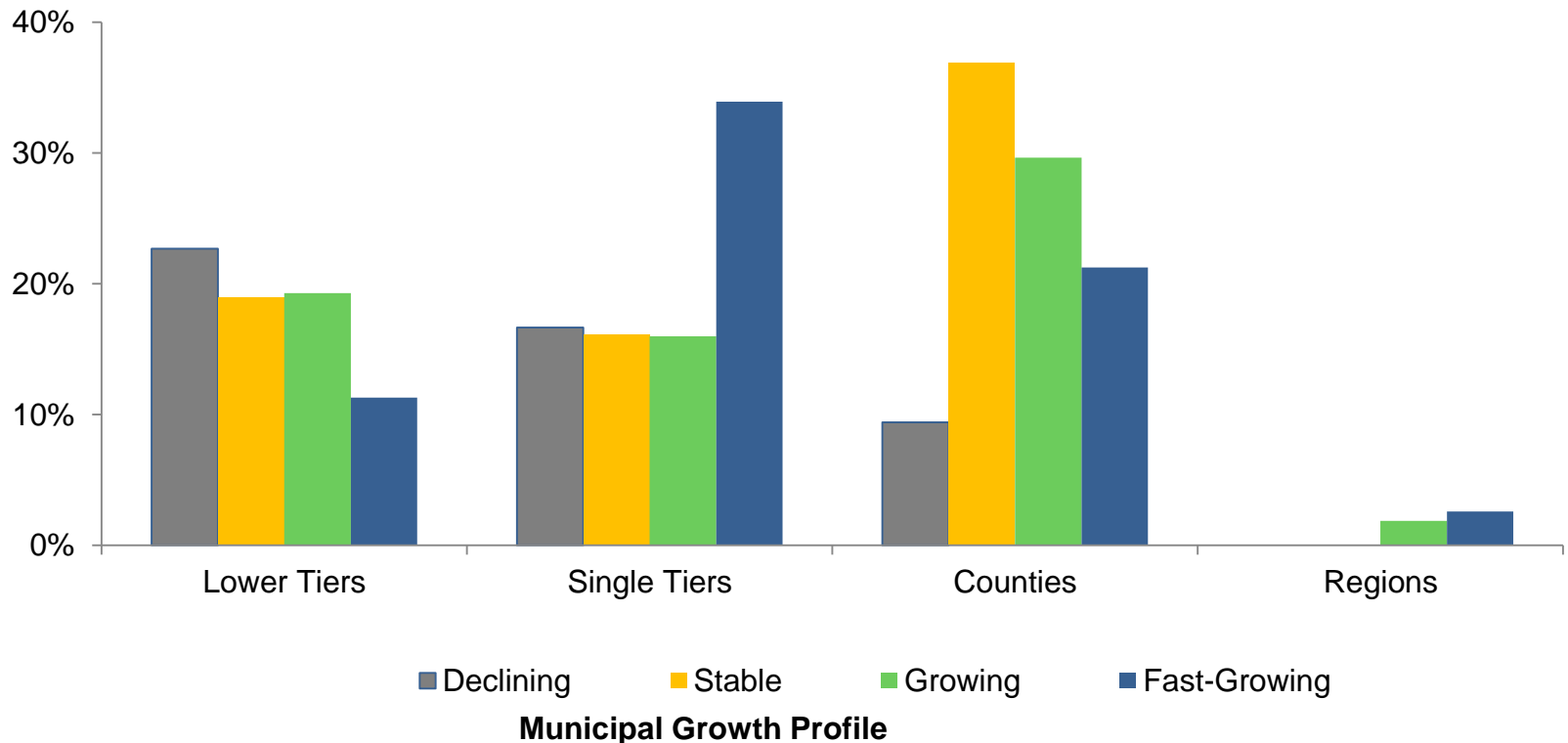
Fast-growing municipalities put more of their resources into capital investment

Capital Expenditure to Operating Expenditure (2009-2013 Average)



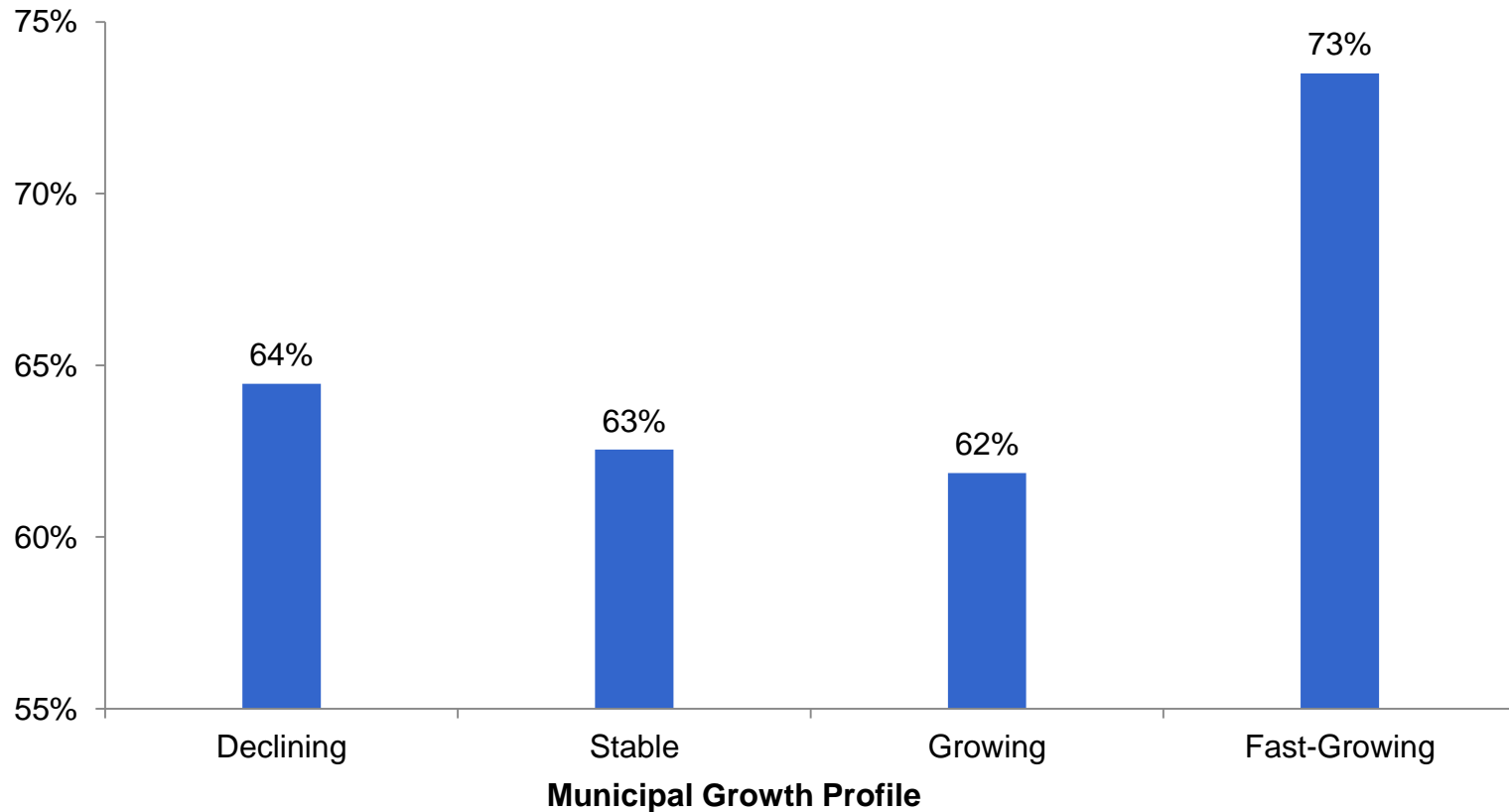
Fast-growing single-tier municipalities spend relatively more on pay-as-you-go capital

**Percentage of Capital Expenditure Funded by Property Tax
(2009-2013 average, excluding reserve draws)**



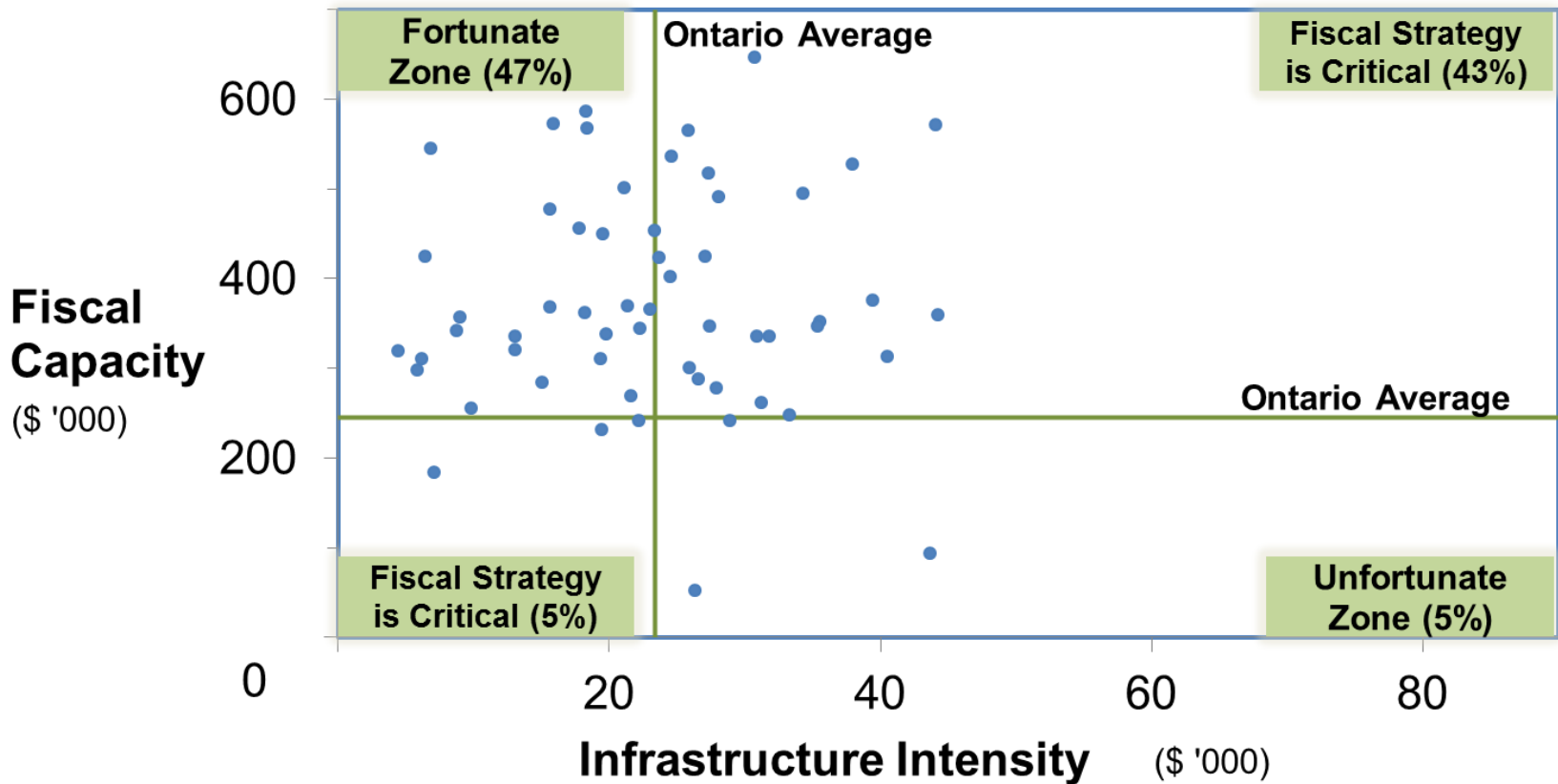
The debt-to-tax ratio is much higher in fast-growing municipalities

Debt to Property Tax Ratio (2013)



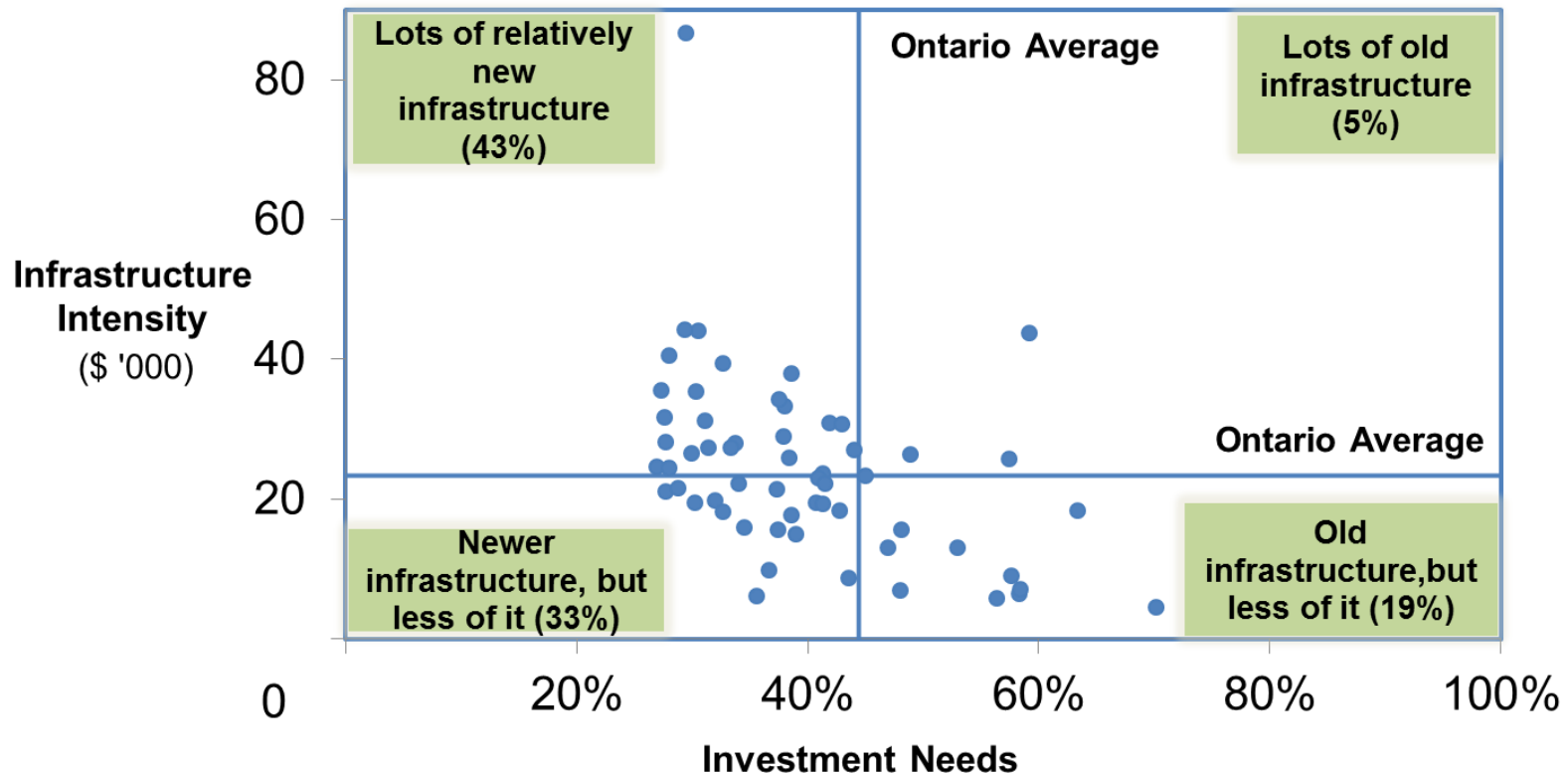
Fast-growing municipalities have strong fiscal capacity

Fiscal Capacity vs. Infrastructure Intensity



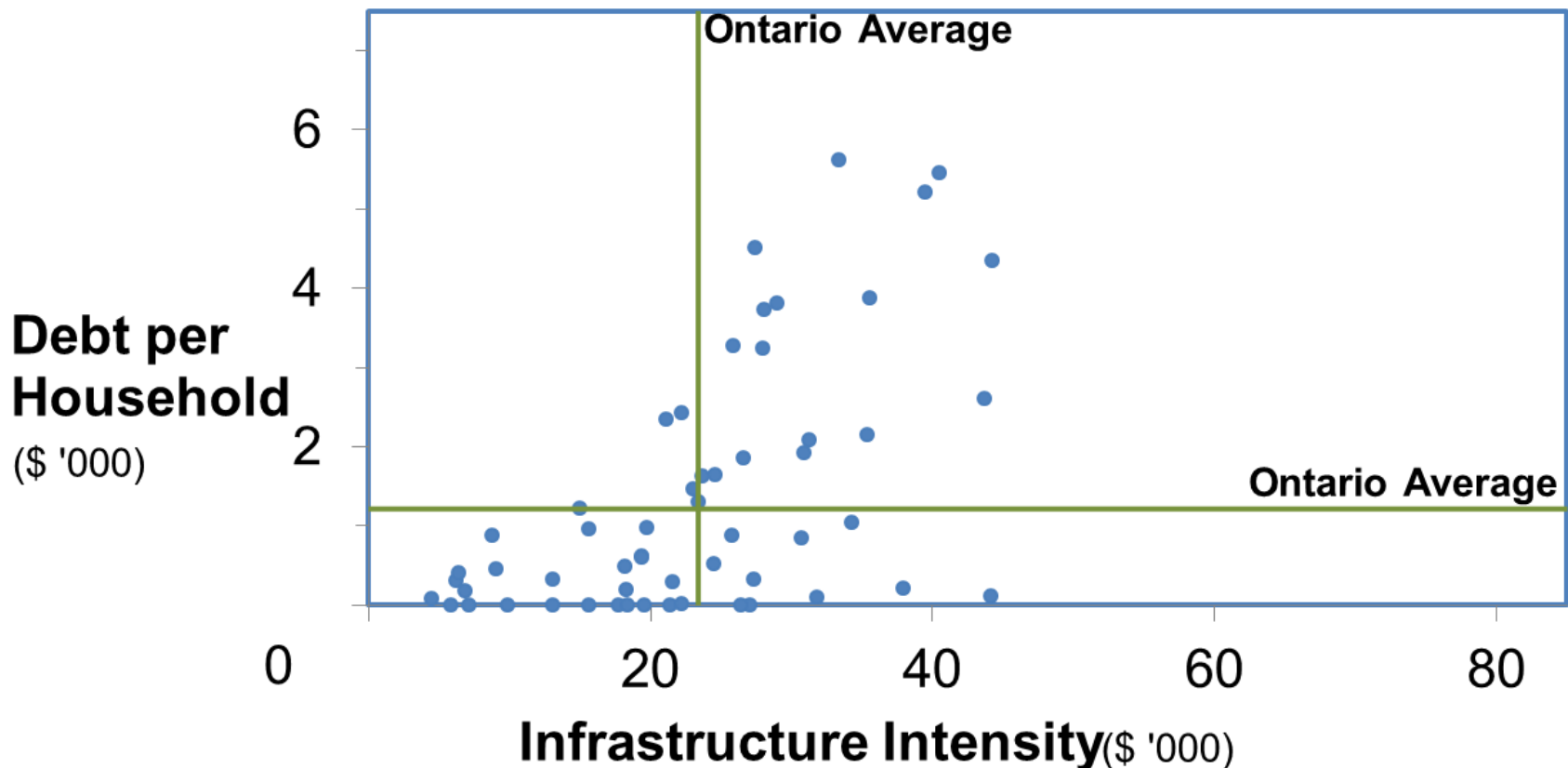
Most have relatively new infrastructure

Infrastructure Intensity vs. Investment Needs



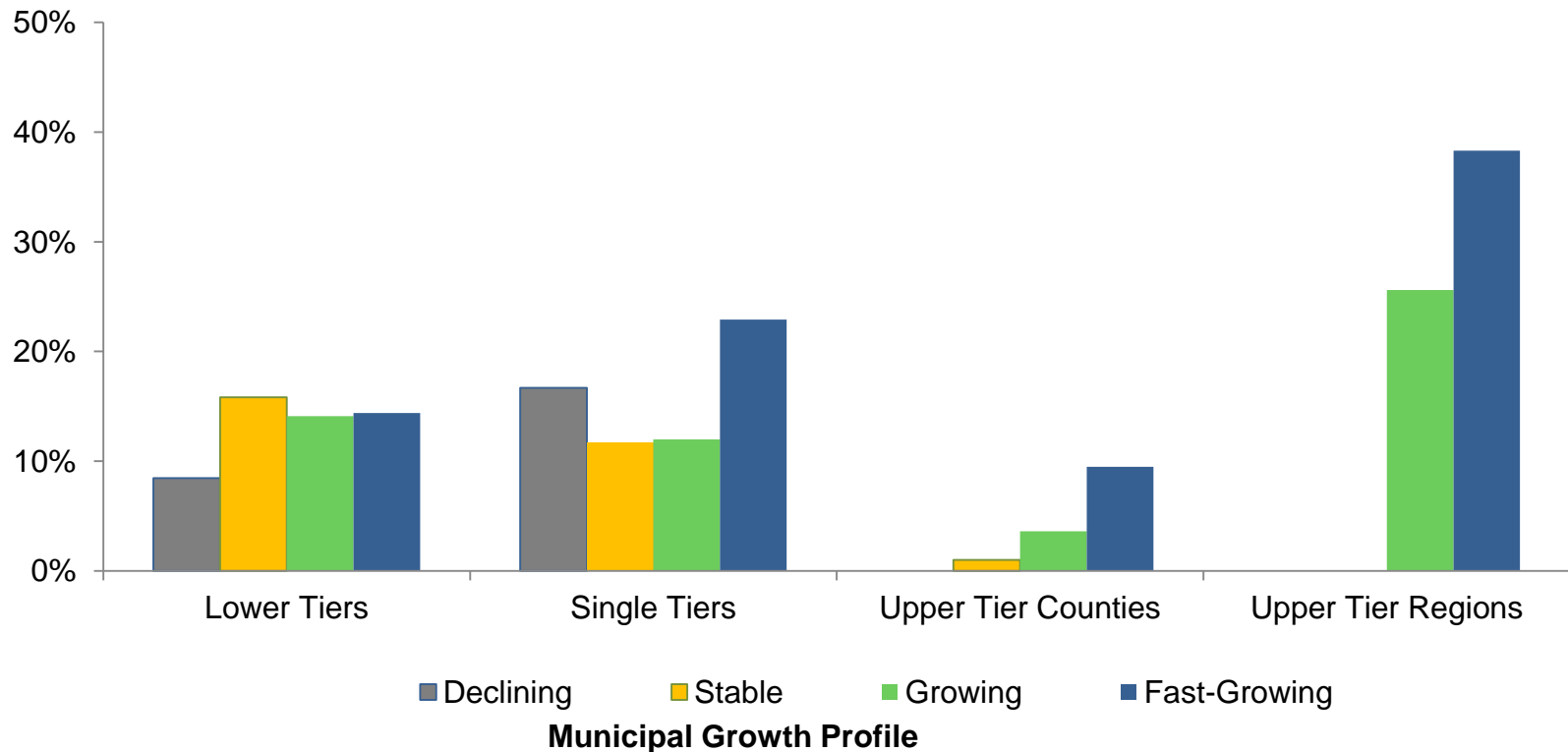
Debt tends to rise with infrastructure intensity for fast-growing municipalities

Debt per Household vs. Infrastructure Intensity



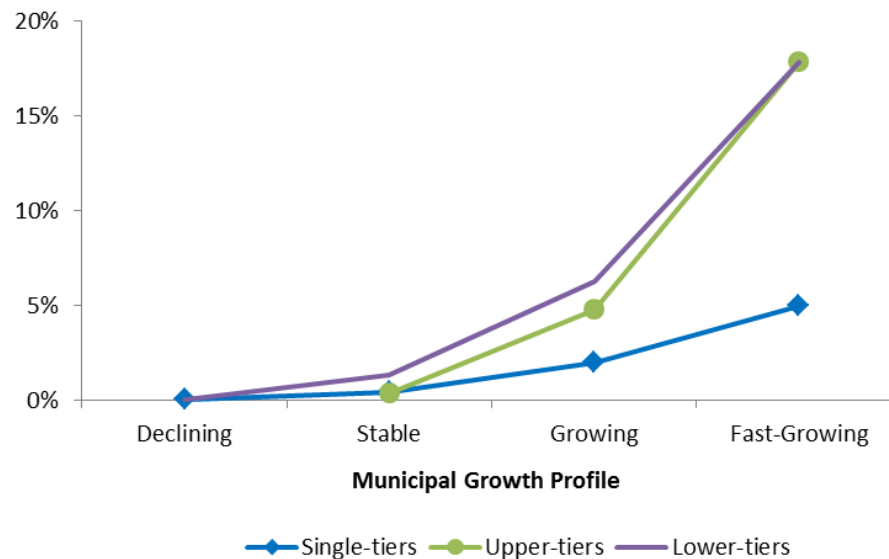
Fast-growing municipalities use more debt in financing capital assets

Percentage of Capital Expenditure Financed by Debt (2009-2013 Average)



Development charges are an important funding source in growing and fast-growing municipalities

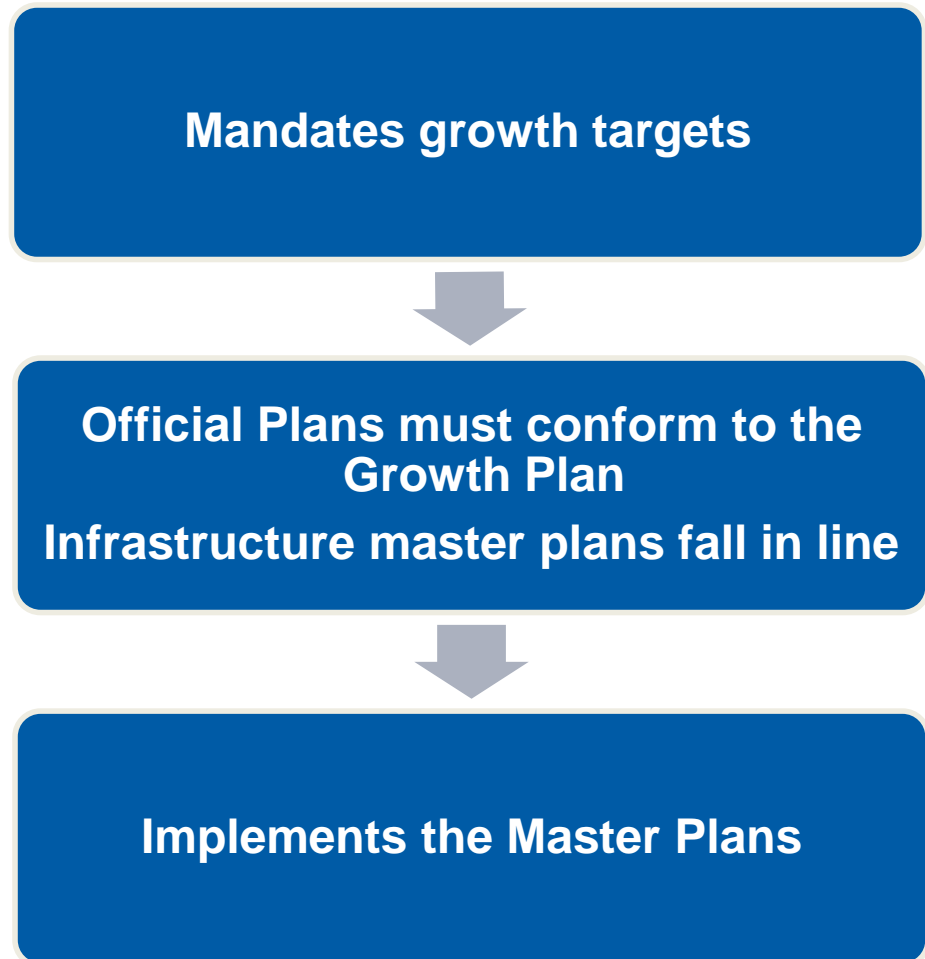
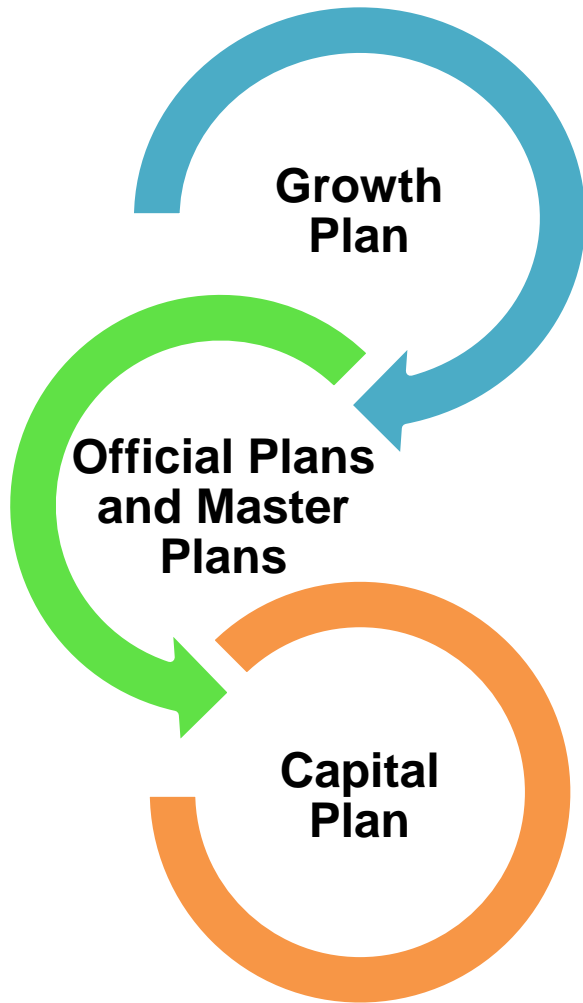
Percentage of Capital Expenditure Funded by Development Charges (2009 - 2013 Average)



But fast-growing municipalities face three great challenges

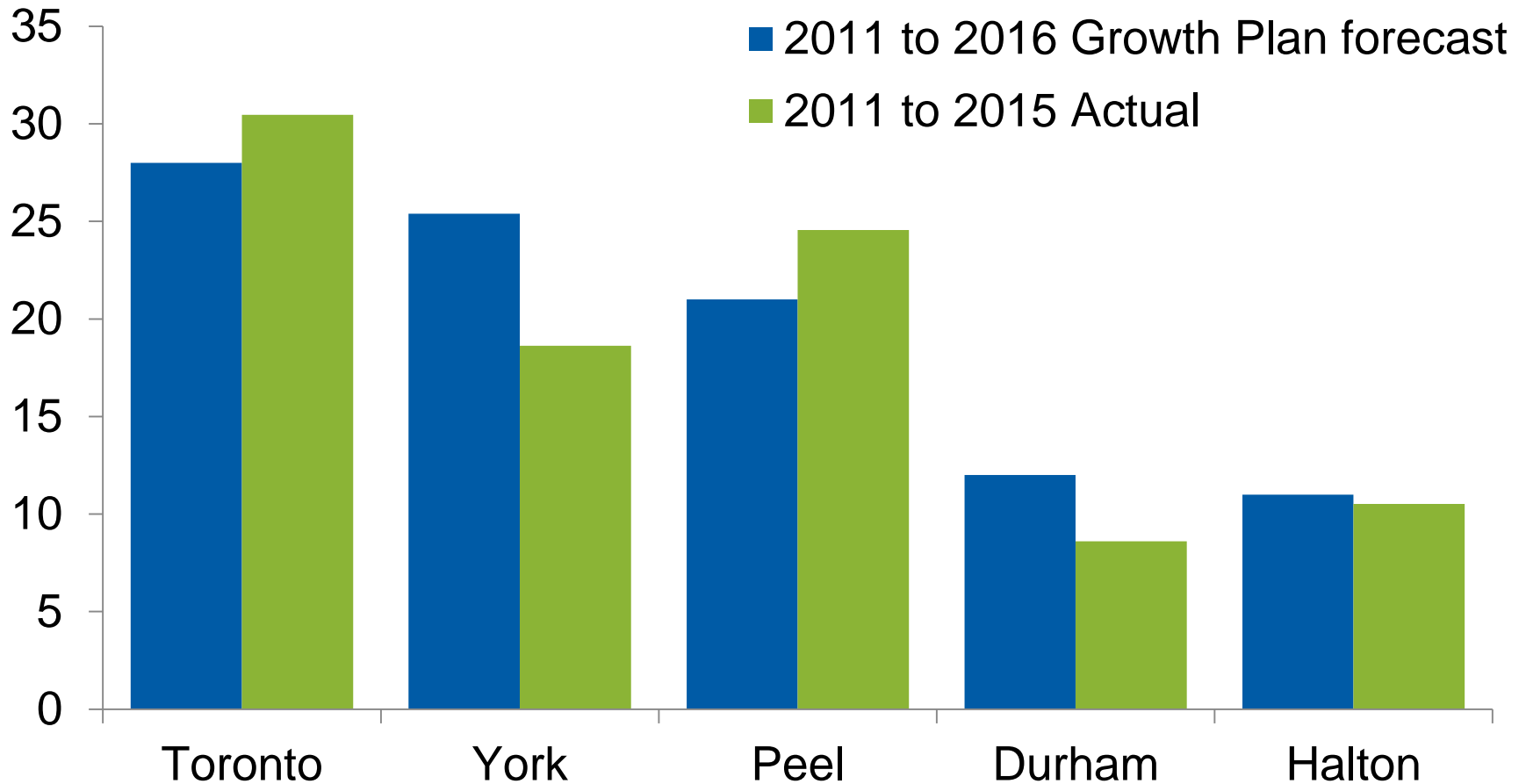
- A potential disconnect between actual growth and Growth Plan targets
- Heavy reliance on development charges to fund infrastructure
- The future cost of asset management for a large and aging asset base

Infrastructure is being built for the Growth Plan population

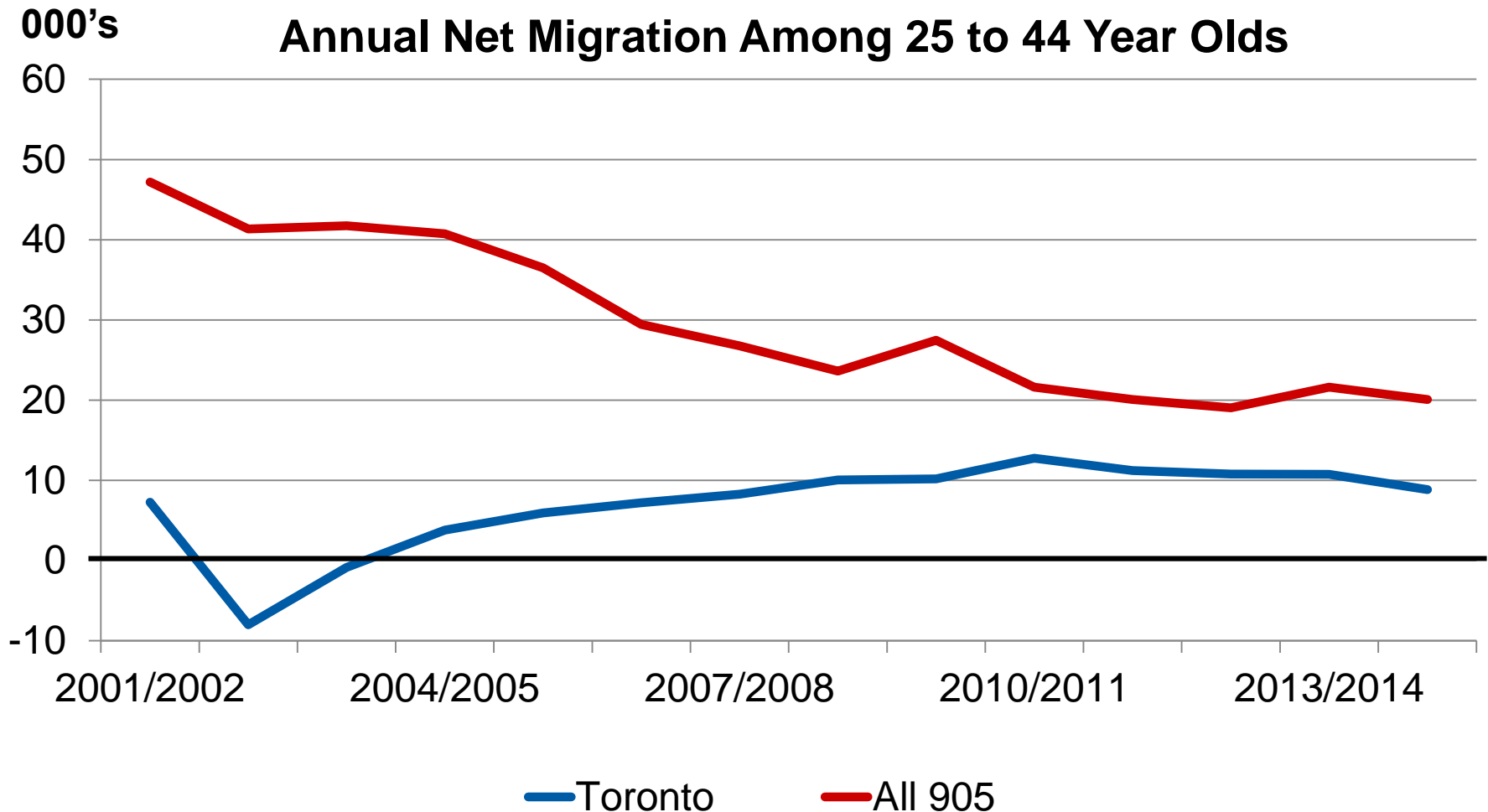


But some have been growing more slowly than expected

Annual Population Growth (000's)

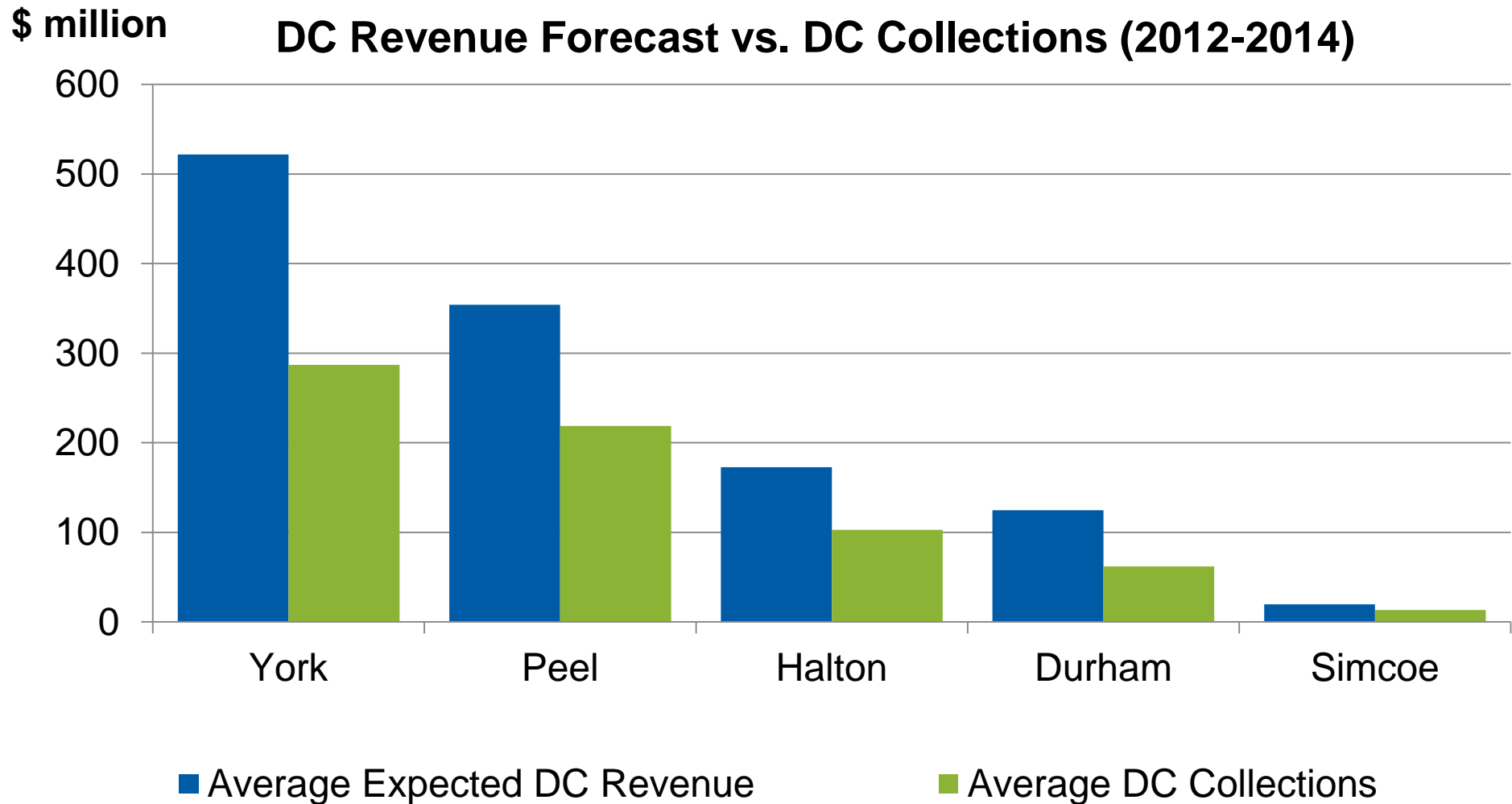


People of prime working age are less keen to leave the Toronto core



Source: Statistics Canada

Slower than expected growth means lower than expected development charges

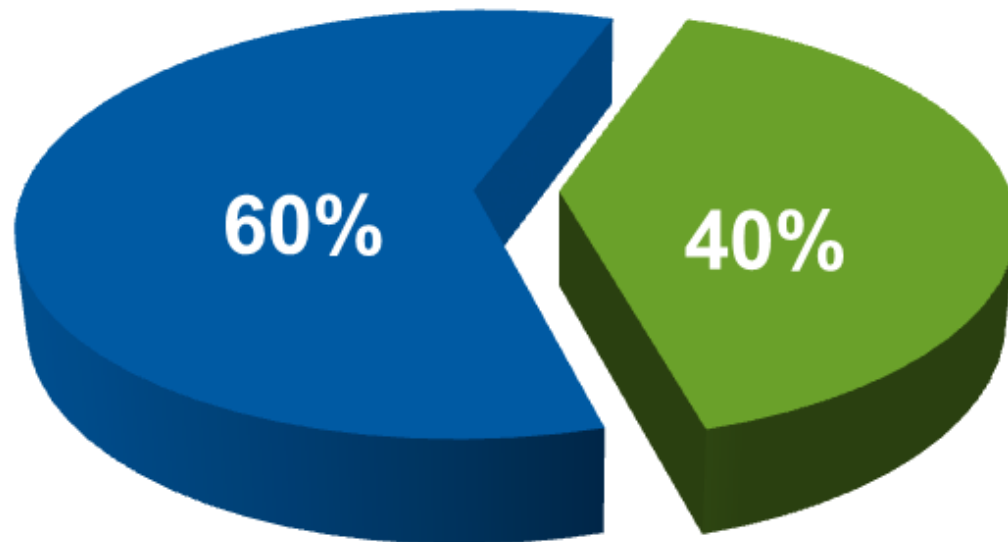


If development charges are below expectations, that means more debt and more risk

- There is a risk of temporary (or permanently) stranded infrastructure and/or stranded debt
- Or it means that capital spending will need to be reduced, which would put capital plans out of step with Growth Plan population targets

Sixty percent of the growing municipalities are not investing enough in asset management

Percentage of Growing and Fast Growing Municipalities



- Capital expenditures below adjusted amortization
- Capital expenditures above adjusted amortization

Sources: Population estimates, 2001-2041, Ontario Ministry of Finance; Capital expenditures and amortization, 2013, FIR

New revenue sources will ultimately be needed to meet future infrastructure needs

- The operating cost of large amounts of new infrastructure and rising asset management costs cannot be sustained with an appetite for property tax increase in the 2-3% per year range
- Development charges do not cover the cost of infrastructure needed for growth, creating a significant tax levy pressure

Key findings

- Fast-growing municipalities have financial sustainability challenges, but different ones from other municipalities
- They face a risk of stranded infrastructure and/or stranded debt
- They also face looming asset management challenges, especially those with high infrastructure intensity
- Substantial new revenue sources ultimately will be needed for fast-growing municipalities to achieve long-term financial sustainability

9. Achieving Financial Sustainability:

Developing a Fiscal Strategy

In this section

Achieving financial sustainability

1. Preparing and adopting a fiscal strategy
2. Preparing asset management plans
3. Preparing capital plans that cover the next 10 years at a minimum

Fiscal strategy, fiscal plan, long-term financial plan and the like are conceptually similar terms



A good fiscal strategy has a number of elements

- A long-term capital plan (ten years or more)
- An asset management plan
- A comprehensive full funding plan for capital
- Recognition of the operating cost of capital in a multi-year budget
- Full cost recovery for water and wastewater
- A reserve management plan (contributions and draws)

...continued

- A debt management plan that interacts appropriately with the reserve management plan
- Adequate contributions to pay-as-you-go/state-of-good repair capital (separate from life cycle and replacement costs)
- A plan for the use of capital transfers and subsidies from other levels of government (part of the funding plan for capital)
- A forecast of development charge revenue, where appropriate (part of the funding plan for capital)

Indicators can be helpful in developing a fiscal strategy

Growth
Management
Index (GMI)

Infrastructure
Backlog Ratio

Asset
Sustainability
Ratio (ASR)

Projected Real
Cost of Capital
per Capita

One way to align capital investments with population growth is to use a Growth Management Index (GMI)

$$\mathbf{GMI} = \frac{\textit{Growth in Asset Base (\%)}}{\textit{Population Growth (\%)}}$$

Where asset base is the estimated replacement value of all tangible capital assets

- A GMI of 1 indicates that growth in the asset base is proportional to growth in the population base
- A GMI over/under 1 for a prolonged period would indicate that the asset base is increasing or decreasing on a per capita basis
- While the index will fluctuate over time, it is reasonable to expect a long-term average close to 1
- If a municipality decides either to increase or decrease service levels, the index may be above or below one for a prolonged period

An infrastructure backlog ratio can inform capital prioritization

Indicator: Infrastructure Backlog Ratio

$$= \frac{\textit{Estimated cost to bring assets to a satisfactory condition}}{\textit{Total Infrastructure Assets}}$$

Where total infrastructure assets is denoted by the estimated replacement value of infrastructure assets

- This ratio provides an estimate of which asset classes have had a significant amount of deferred maintenance. Those that pose health and safety risks should be given greater priority

Intergenerational equity means capital costs accrue to those who use the assets

Indicator: Projected real cost of capital per capita

$$= \frac{\text{Annual Principal and Interest} + \text{Annual Reserve Contributions}}{\text{Projected Population}}$$

- Residents who directly benefit from the assets should pay for them
- If the real cost of capital per capita is projected to fluctuate over time, it should be justified by changing service levels

Contributions to reserves should be based on asset replacement values and useful lives

Indicator: Asset Sustainability Ratio (ASR)

$$= \frac{\text{Capital Contributions to Asset Renewal}}{\text{Asset Consumption Costs}}$$

Where:

$$\begin{aligned} & \text{Capital contributions to asset renewal} \\ = & \text{Contributions to replacement reserves} \\ & + \text{principal debt payments}^* \\ & + \text{interest earned}^* \end{aligned}$$

$$\begin{aligned} & \text{Asset consumption costs} \\ = & \frac{\text{Replacement value of assets}}{\text{Expected life of assets}} \end{aligned}$$

- Annual contributions to replacement reserves should not fluctuate significantly year over year
- The ASR should average above 1 over the long run and trends in the ratio should be well-understood

*For the purpose of asset renewal. This may vary by municipality

Municipal policies should have an eye towards financial sustainability

- Debt policies, where applicable, should consider items such as the debt profile, including peak debt as well as the desired credit rating for the municipality
- Reserve policies should include contribution levels required to meet reserve targets
- The capital plan should take a long-term view (10 years at a minimum) and consideration should be given to lifecycle costs and the potential impact to the operating budget

10. Conclusions

Conclusions

- I. Financial sustainability is about the stewardship of the long-term
- II. The path to financial sustainability is highly dependent on a municipality's rate of growth
- III. A useful conceptual framework involves:
 - Grouping municipalities according to their rate of population growth (declining, stable, growing, fast-growing)
 - Fiscal capacity versus infrastructure intensity
 - Infrastructure intensity versus investment needs
- IV. To achieve financial sustainability, most municipalities will need a fiscal strategy that articulates the long-term relationships between the capital plan, reserve management and debt management
- V. Intergenerational equity is a critical part of real financial sustainability

Conclusions

- V. Fiscal capacity, infrastructure intensity and investment needs all have a major impact on how easy or difficult it is to achieve financial sustainability
- VI. Asset management is simultaneously one of the greatest challenges to financial sustainability and essential to achieving it
- VII. The time to act is now – while financial sustainability is within reach
- VIII. The path to financial sustainability will look different in different places, which means that the provincial and federal governments will need differentiated approaches to financial support for the municipal sector