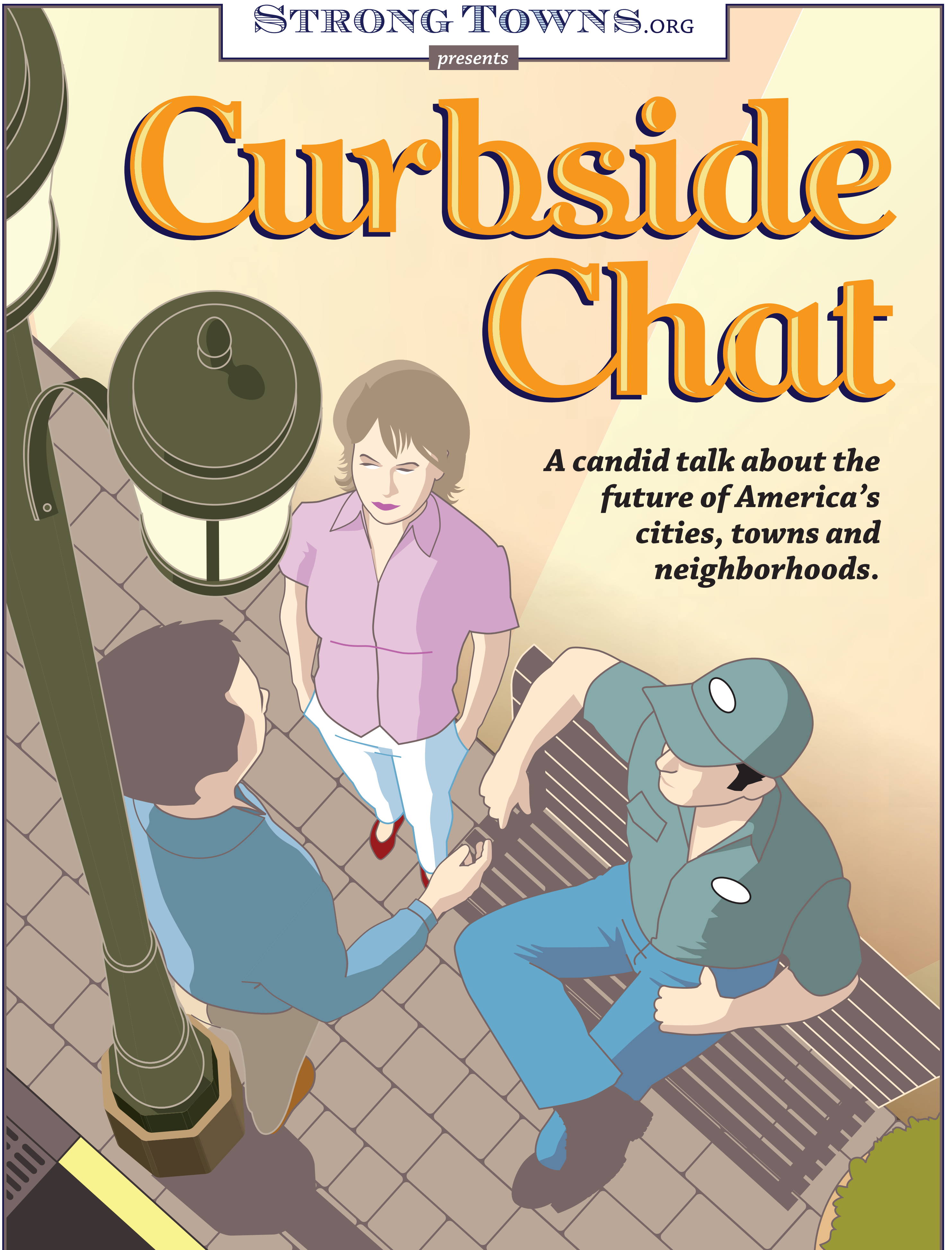

STRONG TOWNS.ORG
presents
Curbside Chat
A candid talk about the future of America's cities, towns and neighborhoods.

Curbside Chat

A candid talk about the future of America's cities, towns and neighborhoods

Strong Towns would like to acknowledge our many individual supporters. Their donations and endless promotion of our work is collectively making a huge impact, for us and in their own communities. Keep doing what you can to build strong towns.

We also want to thank the Blandin Foundation whose support of the Curbside Chat program allowed us to assemble this report. We value not only the financial commitment they have made to Strong Towns, but their willingness to look outside standard convention to find solutions for a new age. We all are fortunate to have their leadership.

Finally, we want to acknowledge the in-kind contributions of Community Growth Institute and Don-jek, two organizations with a common vision for a more prosperous America that they felt compelled to share. The countless hours diverted from these two organizations were the intellectual capital that started the Strong Towns movement.

You can become a supporter of Strong Towns by going to

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NOTE TO READER: In writing this report, we tried to avoid the use of jargon and language that may be too technical for a broad audience. We used a team of non-technical editors to proof early drafts. Where they were unclear of the meaning of a word or phrase, we tried to find alternative language that would work. If we could not identify an acceptable alternative, or in instances where we wanted to clarify our use of a specific term, we have **highlighted the word** and provided a definition in the Glossary of Terms on page 54. We hope you find this approach an acceptable compromise that enlightens without disrupting the flow of the text.

Introduction

We often forget that the post-World War II American **pattern of development** is an experiment. We assume it is the natural order because it is what we see all around us, but our own history—let alone a tour of other parts of the world—tells a different story.

Across cultures, over thousands of years, people have built places scaled to the individual. It is only the last two generations here in the United States that we have scaled places around the automobile. This dramatically changed the way we built cities and towns, creating a dominant horizontal component to post-World War II growth. It also changed the underlying economic relationship between public infrastructure and private sector investment, between local governments and growth.

While the United States has sustained economic prosperity for two generations, today the economy is stalled. A housing bubble is in the process of correcting along with a corresponding bubble in commercial real estate. The traditional ways we have stimulated the economy in down times—low interest rates and public works spending—have failed to create sustained growth. More drastic measures, such as the Federal Reserve's quantitative easing program, have also proven ineffective.

It is time to ask whether this experiment is really working.

What we have found is that the underlying financing mechanisms of the "**suburban era**"—our post-World War II **pattern of development**—operate like a classic **Ponzi scheme**, with ever-increasing rates of growth required to sustain long-term liabilities. Cities and towns benefit from a growing **tax base** associated with new growth, however they also typically assume the long-term liability for maintaining new infrastructure.

This exchange—a near-term cash advantage for a long-term financial obligation—is one element of a **Ponzi scheme**.

The other is the fact that the revenue collected does not come close to covering the costs of maintaining the infrastructure. In America, we have a ticking time bomb of unfunded liability for infrastructure maintenance. The American Society of Civil Engineers (ASCE) estimates the cost at $2.2 trillion[1] —but that's just for major infrastructure, not the minor streets, curbs, sidewalks, and pipes that serve our homes.

The reason for the gap is the public yield from our development pattern—the amount of tax revenue obtained per increment of liability assumed—is ridiculously low. Over a **life cycle**, a city frequently receives just a dime or two of revenue for each dollar of liability. The engineering profession will argue, as ASCE does, that we're simply not making the investments necessary to maintain this infrastructure. This is nonsense. We've simply built in a way that is not financially productive.

We've done this because, as with any **Ponzi scheme**, new growth provides the illusion of prosperity. In the near term, revenue grows, while the corresponding **maintenance obligations**—which are not counted on the public balance sheet—are a generation away.

We completed one **life cycle** of the suburban experiment using a pay-as-you-go approach. As we reached this point—around the mid-1970s—growth in America slowed. Although multiple factors were involved, one significant cause was our suburban cities were now seeing cash outflows for infrastructure maintenance. We'd reached the "long term" and the end of commitment-free money.

It took us a while to work through what to do, but we ultimately decided to go "all in" using debt. In the second **life cycle** of the suburban experiment, the United States financed new growth by borrowing staggering sums of money, both in the public and private sectors. By the time we crossed into the third **life cycle** and flamed out in the foreclosure crisis, our financing mechanisms had, out of necessity, become exotic, even predatory.

Our problem was not, and is not, a lack of growth. Our problem is sixty years of *unproductive* growth. The American **pattern of development** does not create real wealth; it creates the illusion of wealth. Today we are in the process of seeing that illusion destroyed and with it the prosperity we have come to take for granted.

This illusion is our greatest immediate challenge. We've embedded the prosperity of the suburban experiment into our collective psyche as the "American dream"—a non-negotiable way of life that must be maintained at all costs. What will we throw away trying to sustain the unsustainable? How much of our dwindling wealth will be poured into propping up this experiment?

We don't ask those questions lightly. One of the case studies of unproductive growth featured in this report is the street I live on with my wife and two daughters. Another is a system I designed as a city engineer. Like most Americans, those of us working on this report are trying to understand how cities and towns that had been so successful and so prosperous can suddenly become unable to afford even basic obligations like street maintenance. It doesn't seem possible that such productive people should have such struggles.

This booklet is a companion to our Curbside Chat program. The Chat presentation itself contains so much information—information that challenges the very core of our collective beliefs on growth and development—that it was overwhelming to many participants. Our hope is this companion booklet will be an additional resource which people can go back to again and again to absorb, at their own pace, the enormity of the change that is upon us. We urge you to share it with others.

The Curbside Chat program is ongoing. If you would like to have a Curbside Chat in your community, please visit our website at www.StrongTowns.org to sign up. We want to make it to every city, town and neighborhood where people want to take control of their own future and make their town a strong town.

Keep doing what you can to build strong towns.

Charles L. Marohn, Jr. PE AICP
Planner, Engineer, Executive Director of Strong Towns

Background from the Financial Crisis

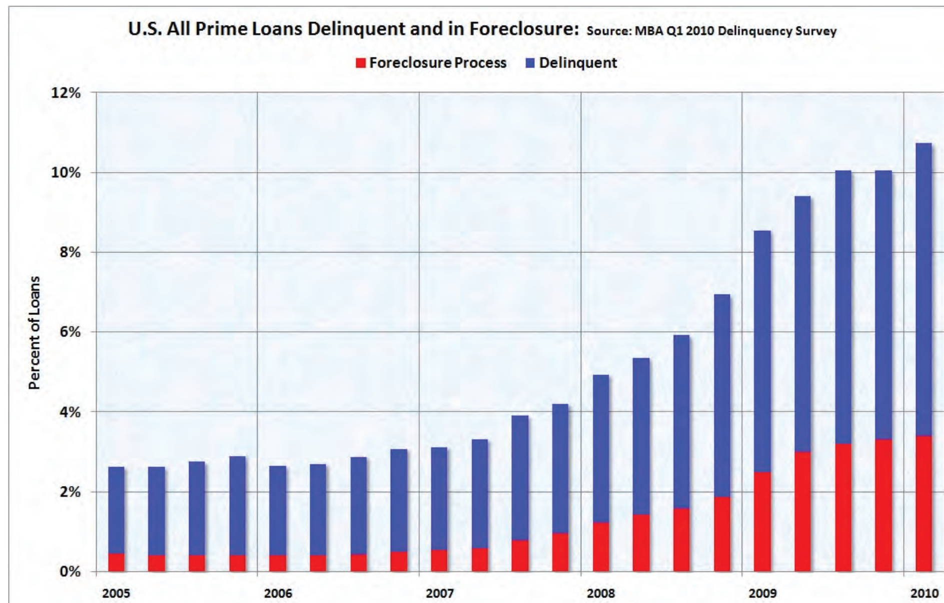
The Big Concepts of the Curbside Chat

There are three concepts that everyone concerned with the future of America's cities, towns and neighborhoods should know and understand. They are the *Big Concepts* of the Curbside Chat program.

1. The current path cities are pursuing is not financially stable.
2. The future for most cities will not resemble the recent past.
3. The main determinant of future prosperity for cities will be local leaders' ability to transform their communities.

In the following pages, we will demonstrate how cities and other local governments are, for the most part, financially insolvent, despite decades of robust growth. Further, we will demonstrate how the financial challenges of our time will change the way communities address issues relating to growth and development. Finally, we will examine how local leaders' ability to shepherd their communities through this difficult transition will be the key to future prosperity.

Home foreclosures at record highs



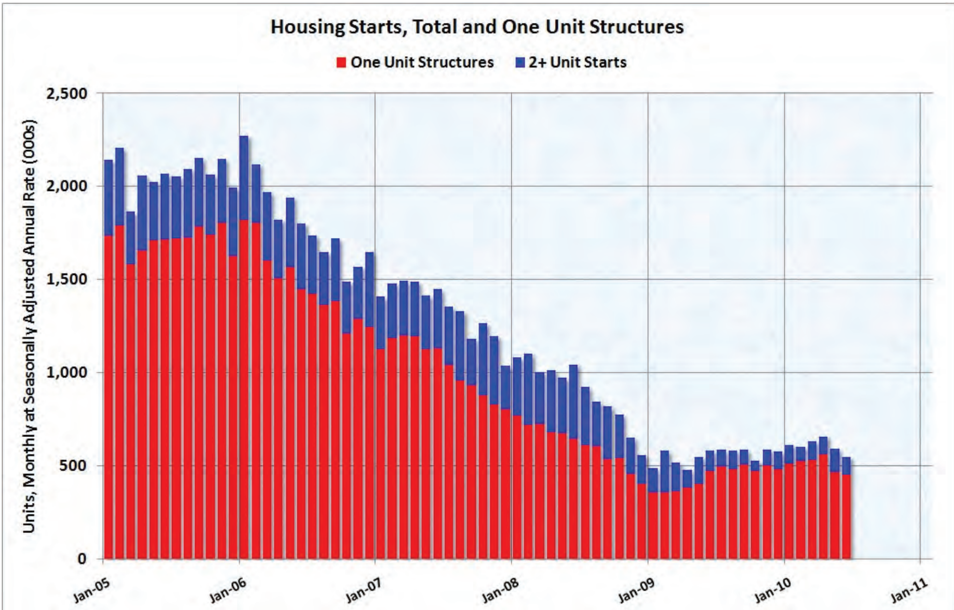
The housing boom in the first years of this century propped up a struggling economy. With middle class wages stagnating, rising housing prices and home equity offset the lack of wage gains and allowed Americans to improve their standard of living, largely by taking on additional debt.

The housing boom had three primary causes: (1) abnormally low interest rates sustained over a long period of time, (2) the gradual, yet systematic, elimination of lending standards for home mortgages and home equity loans, and (3) a common belief that rising housing prices would continue indefinitely into the future[2].

The boom ended, bursting the bubble in housing prices. Homeowners with short-term financing and little equity quickly found themselves underwater, owing more on their mortgage than their home was worth. Unable to refinance when their loan reset to unfavorable terms, many were driven into foreclosure.

An August 2011 report from Standard and Poor's indicated that there are 47 months of what they call "shadow inventory" currently in the system[3]. These are homes coming on the market through foreclosures, mortgage modifications and other measures. Not included in this "shadow inventory" are homes backed by Fannie Mae, Freddie Mac or the Federal Housing Administration, a significant and growing segment of the housing market.

Housing starts at record lows

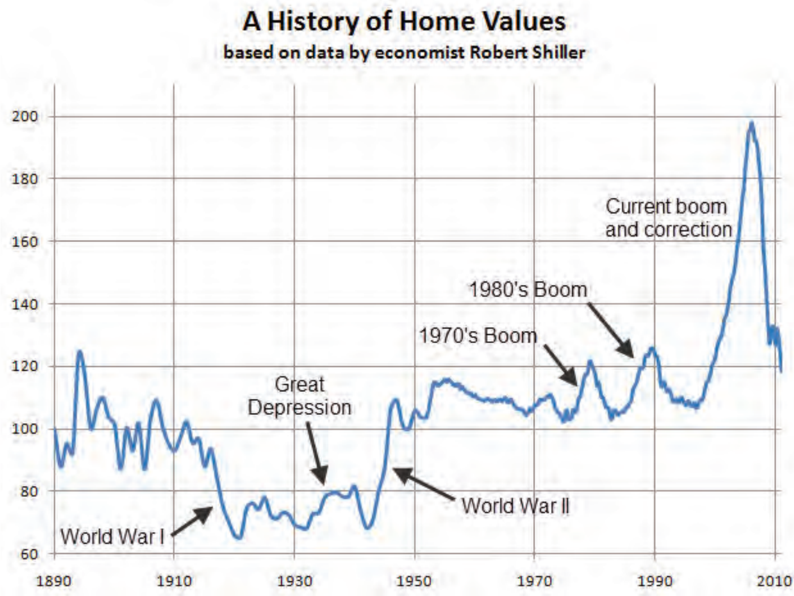


Despite record low interest rates, temporary home buyer credits and renewed FHA emphasis on making housing more affordable, new construction continues to be depressed throughout most of the country. In August 2011, the Commerce Department reported that new home sales fell to an annual rate of 298,000[4].

If a builder does not have a home buyer lined up with a substantial down payment before starting construction on a new home, they are speculating on a future sale. Each new home going on the market today will be competing with 13 to 17 homes going through the foreclosure process[5]. Few home builders would speculate in such a depressed market, even if they had the financial ability to do so.

Over the past two decades, many local economies have been driven by construction-related activities. The money to finance residential and commercial construction, and the jobs it created, came primarily from lenders outside these communities. As long as this stream of outside loans remained available, local economies were able to flourish. With the pipeline of outside financing now largely severed, once-booming towns are struggling with the loss of jobs and a lack of growth.

Housing prices have fallen dramatically, but the real estate correction has not hit bottom



Economist Robert Schiller created an index of home values measuring the investment value of a home over time. The index starts in 1890 by establishing a benchmark median home price and tracking inflation-adjusted values over time.

Prior to World War I, housing prices fluctuated around this benchmark before mass-production techniques reduced prices. Then, the Great Depression and World War II reduced demand, which kept prices low. Following World War II, prices rose back above the median and fluctuated in a narrow band for the first five decades of the **suburban era**.

Starting at the end of the 1990s, property values took a dramatic and unprecedented turn upward, breaking all previous levels for home valuation. There has been some correction, but prices still have a long way to fall just to reach historic norms.

Commercial real estate also correcting dramatically, posing a more immediate financial problem than residential real estate

Commercial real estate prices rose more dramatically than residential property and have correspondingly corrected more sharply.

Commercial real estate differs from residential real estate in a couple of key respects. First, while residential loans are typically long-term instruments (frequently 30 years), commercial real estate is financed in shorter time increments, often a loan of three, five or seven-years with a balloon payment at the end. Second, where residential mortgages are sold on the secondary market and frequently **securitized** to spread ownership and risk amongst many investors across the world, a commercial real estate loan is more likely to be held by a single, local or regional bank.

The dramatic drop in commercial real estate prices threatens the viability of local banks. Unable by law to simply extend loans that have lost their equity, local banks cannot put off facing up to investments that have gone bad. The spate of bailouts and government assistance has been directed to large, "too-big-to-fail" institutions and not towards smaller banks. As a result, many local banks across the country are in real danger of becoming insolvent. If this were to occur, one of the few remaining sources of capital for local growth would disappear.

Mechanisms of Growth

The four Mechanisms of Growth of the suburban era

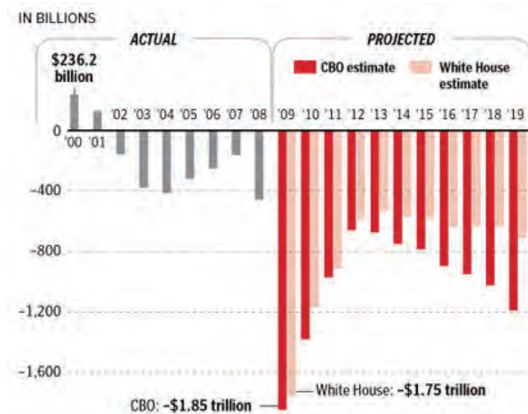
In recent decades, the cities and towns of the United States have progressed out of financial distress by increasing their rate of economic growth. This begs the question: Can we grow our way out of the current financial crisis? To answer that, it is important to understand the ways that America's cities and towns have grown since World War II. These are significant because they are quite different from the way cities have grown historically.

The four mechanisms used to promote growth in the United States since World War II are:

1. **Government transfer payments:** money from the state or federal government used to build infrastructure and invest in local growth.
2. **Transportation spending:** public money invested in transportation improvements—such as an increase in traffic lanes, construction of an overpass or bridge, installation of a traffic signal, etc.—that create a platform for enhanced local growth.
3. **Public and private debt:** the ability of local governments to take on debt has been important to sustain growth, but the private sector's ability to finance growth through leverage has been even more important.
4. **The Growth Ponzi Scheme**: the financing that takes place when additional revenue from new growth is used to pay off liabilities from past growth.

All of these mechanisms have run their course and, from this point forward, will have a diminished influence on the growth of cities and towns.

Long-term federal and state budget problems preclude funding local growth

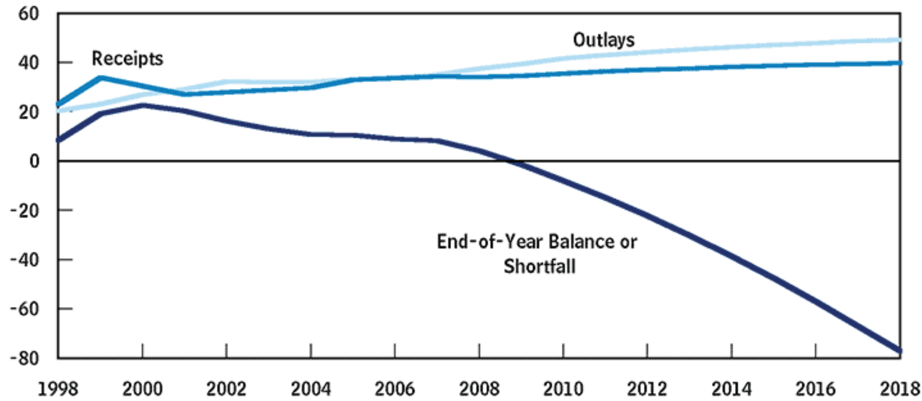


The American Society of Civil Engineers (ASCE) reported that the United States has a $2.2 trillion shortfall in maintaining infrastructure[6]. The U.S. currently spends roughly $180 billion per year on infrastructure[7], an amount that, while staggering, does not even start to address the problems we face. An organization like ASCE will argue that we simply need to spend more money, but that is not realistic given the other obligations we face, particularly those associated with the retiring baby boom generation.

The fact that infrastructure spending is not likely to be a priority is not a partisan observation. Regardless of whose political diagnosis and prescription is favored, funding basic local improvements, especially maintenance, is not likely to be a high priority for federal and state governments. Maintenance of infrastructure is primarily a local concern and, while federal and state governments have played a significant role for the past two generations, that role has been steadily diminishing.

From the perspective of a local government, the federal and state governments are unreliable partners over the long term. It is far more likely that they will continue to cut programs that aid cities rather than shift resources to fund local growth initiatives.

The Federal Highway Trust Fund is insolvent



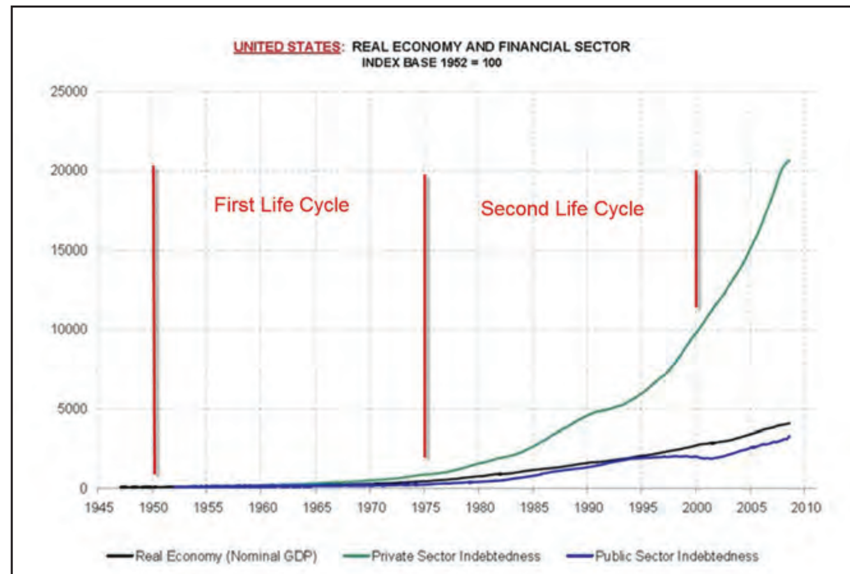
Federal Highway Trust Fund

In 2008, the federal government approved a transfer of $8 billion from general revenue funds to prop up the insolvent Federal Highway Trust Fund, followed by transfers of $7 billion and $19.5 billion in 2009 and 2010 respectively[8]. Normally the Federal Highway Trust Fund contains only revenue collected from the federal gas tax (currently $0.184 per gallon of gasoline[9]), which is redistributed to the states for highway construction and maintenance. The fund was established in 1956 as part of the Highway Revenue Act.

Today, the interstate highway system as it was originally envisioned has been built. And then some. Most of our spending now goes to maintaining this system, and we only have a fraction of the money necessary to do so. If we continue to fund highway improvements through gas tax revenue, an increase of multiple dollars per gallon[10] is necessary to meet our obligations, a proposition politically unthinkable in the face of rising energy prices and a slowing economy.

It is not realistic for cities to count on new transportation improvements to create a platform for local growth. It is more likely that maintenance burdens will continue to be shifted from federal to state and from state to local governments, with little additional funds available for system expansion.

Massive levels of private sector debt will limit future growth



One way local governments have experienced growth is through an increase in debt. While this includes a limited amount of public debt, it is private sector debt in the form of construction loans, commercial loans and mortgages that have had the greatest impact on growth.

There is much discussion in the United States about trillions of dollars of public sector debt and whether these debt levels are wise or sustainable. What is not often understood is how high the levels of debt in the private sector are. In the United States, private sector debt levels far exceed those of the public sector.

We financed the first generation of suburban expansion largely from savings and investment. The second generation was paid for largely by taking on increasing levels of debt. This shift was required to keep growth going because the **suburban pattern of development** did not generate enough wealth to sustain itself. The difference was made up by borrowing.

During the first years of the third generation of suburban expansion, lending standards were gradually abandoned in the quest for more growth. By the end of the housing bubble, lending practices became predatory, involving exotic terms and conditions, before housing flamed out altogether. Today, our ability to continue to grow by taking on more debt is very limited.

The Growth Ponzi Scheme

Since the beginning of suburbanization, “new growth” has been the cure for our local economic ills. New growth creates new **tax base**, which provides local governments with the revenue necessary to provide services and maintain infrastructure. Through a federal or state investment in local growth, a transportation investment by the DOT or a debt-funded investment from the private sector, new growth occurs, adding **tax base** and new revenue for the local government.

There is a strong incentive for local officials to look at this exchange in a positive way. In the near-term, there is very little local government investment needed to bring about substantial increases in the **tax base**. The catch is that the local government agrees to maintain the new infrastructure for the long-term. In other words, the city or town trades a long-term maintenance obligation for a near-term cash advantage.

This only makes sense as a long-term strategy if either (1) the rate of growth continues to increase so that there is always enough new growth to pay for the existing liabilities, or (2) the **pattern of development** generates more excess wealth than it costs to maintain. Unfortunately for the United States, neither of these hold true with the current **suburban pattern of development,** which we examine in the following case studies.

Case Study: Road serving a low-density neighborhood

A rural, dead-end road serving a subdivision of five-acre lots is improved by the city. The gravel surface is shaped and then an asphalt surface is added. Half of the cost of the project is assessed to the property owners on the road and the other half is paid for by the city.

We asked the question: Based on the taxes being paid by the property owners on this road, how long will it take the city to recoup its half of the project cost?

The answer: 37 years.

Of course, the road will not last 37 years. It will require additional maintenance and potentially reconstruction in that time period. Based on the current rate of taxation, these costs will not be paid by the property owners abutting this road.

Case Study: Street serving a medium-density, suburban subdivision

A suburban subdivision has a paved street that has deteriorated and needs replacement. The street serves the subdivision only; there is no through access. A project is commissioned to remove the existing surfacing, fix the underlying street base and resurface the street. The total cost of the project is $354,000.

We asked the question: Based on the taxes being paid by the property owners on this street, how long will it take the city to recoup its half of the project cost?

The answer: 79 years.

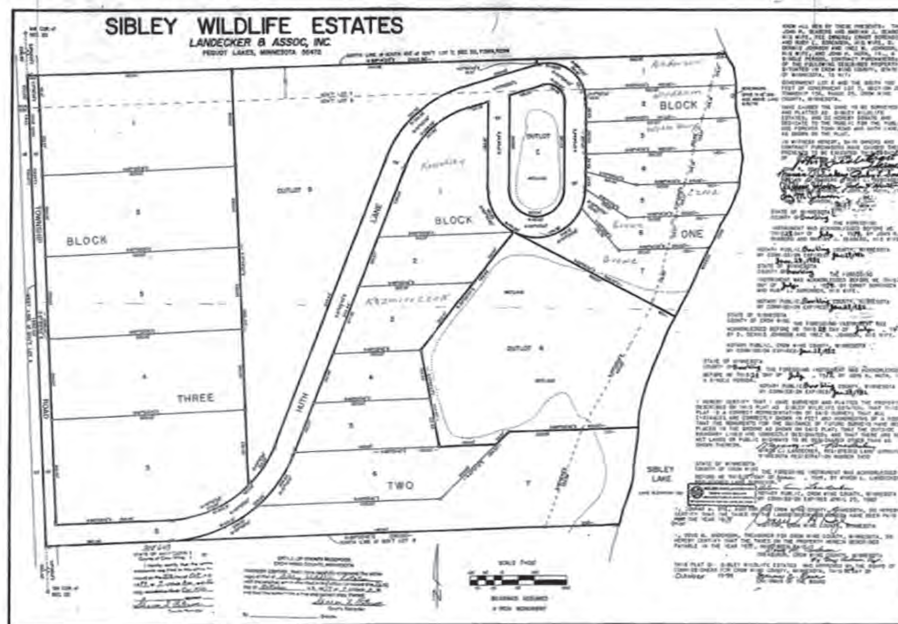
We then asked: If the city were to raise taxes to cover these costs within the expected **life cycle** of the street, how much would the local tax rate need to go up?

The answer: 46% immediately with an additional 3% annual increase for each of the next 25 years.

It should be noted that this street had the highest density of any street in this community.

Case Study:

Road serving a set of high-value, shoreline properties



A group of shoreline property owners have petitioned a city to have their access road improved and the maintenance taken over by the public. The road serves these properties only; there is no through access. The petition indicates that the property owners agree to cover all of the costs of construction if the city will agree to take over the long-term maintenance.

The reaction of the city council was the public would now be getting a "free road." We asked the question: Based on the engineer's estimate of current construction costs, what is the anticipated maintenance cost after one **life cycle** and how much tax revenue will the city have collected by then?

The answer: The long term-maintenance cost was $154,000 while the total long-term revenue collected for maintenance was just $79,000.

We then asked: If the city were to raise taxes to cover these costs within the expected **life cycle** of the road, how much would the local tax rate need to go up?

The answer: 25% immediately with an additional 3% annual increase for each of the next 25 years.

Case Study: Urban street serving a traditional, residential neighborhood

A street in an older neighborhood is scheduled to be reconstructed. The neighborhood is three blocks from the city's core downtown and has stagnated for decades as new investment in the community has been directed to the edge of town. Property values along the street are significantly lower on a per lot basis than areas on the periphery.

The city engineer has estimated the cost for basic maintenance of the street surface at $80 - $100 per foot. We asked the question: Over a **life cycle** of the improved street, how much tax revenue is collected by the city for a street maintenance effort?

The answer: $27 per foot.

For the city to cover the basic cost to maintain just the street surface, private sector investment in this corridor needs to increase in value by at least 300%. This will not happen in the current development model, where excessive regulation limits additional development in the neighborhood, the auto-orientation of the street corridor discourages added housing density and the established incentives direct new private sector capital to the periphery of town.

Case Study: Providing municipal utilities to a rural industrial park

A city has a rural industrial park that has stagnated. It is trying to re-energize the park by providing municipal sewer and water service. The cost of the project is estimated at $1.9 million. With a total of 25 lots within the park, the cost per lot is $76,640.

We asked the question: If the city were to **bond** for this improvement—or a similar, maintenance project in the future—how much private sector investment would be needed to generate sufficient tax revenue to retire that debt?

The answer: $8 million, or $320,000 per lot, if all of the tax revenue were devoted to debt service and not to other city services and activities.

It should be noted this is substantially higher than the rate of private sector investment experienced thus far within the park.

Note: Expenditures on industrial parks and commercial development are often justified by local governments due to the potential for job creation. The endnotes and glossary of this report contains a discussion on the relationship between jobs and growth at the local level.

Case Study:
Construction of an urban business park with full municipal services

A city has a business park built in 1995. All of the lots have been sold and the city is considering doubling the park on adjacent property. City officials believe the project has been so successful that they want to repeat it.

We asked the question: If we could double the size of the park and get the same level of private sector investment, would this be a good investment for taxpayers?

The answer: No.

The cost for the current park is an inflation-adjusted $2.1 million. It generated private sector investment totaling $6.6 million. If all of the private investment happened immediately after the new park was built (it is more likely to be phased in over time), it would take 29 years for the tax revenue from the park to pay off the debt incurred.

During the 29 years, the city's taxpayers outside the park would need to pay to maintain the park, including street maintenance, plowing, mowing the right-of-way, police protection, fire protection and any other government service needed. In short, it would take more than a generation for this investment to start to pay off under a rosy scenario and then **maintenance obligations** would start to come due.

Case study: A sewer system for a small municipality

A small city has a sanitary sewer system built with federal government support in the 1960s. That system was updated, again with federal government support, in the 1980s and has now deteriorated to the point where it needs to be completely replaced.

The cost to replace the system: $3.3 million.

The cost per household: $27,000

The city's median household income: $27,000

Having built this system originally for public health and economic development reasons, public health is now threatened by the deterioration of the sewer system and economic development remains elusive. This city is now in a position where it cannot maintain its basic infrastructure. It is, essentially, a ward of the state, unable to meet its basic obligations to its residents.

This is the situation many small towns across America now find themselves in.

Case Study:
An economic development investment in a rural community

A remote, rural community is seeking outside investment to spur economic development. With the assistance of a prominent politician, they embark on a project to dredge a nearby river to create a harbor and then extend municipal services to the area. They hope to attract $32 million in private sector development in what they are calling the "Riverwalk of Northern Minnesota" (overlooking the obvious fact that San Antonio's famous Riverwalk is a redevelopment project).

The total cost of the project is $13.2 million, which is being paid almost exclusively by federal and state sources. This is a public investment of $45,000 per family within the community.

We asked the question: Since the city is now obligated to maintain this infrastructure indefinitely, how many years would it take for them to retire a $13.2 million debt from the tax revenue from $32 million in private-sector investment?

The answer: 71 years.

That assumes that they get the entire $32 million in private sector investment, a doubling of the total existing **tax base** of the community. The infrastructure is not expected to last even half of this period of time without needing significant, costly maintenance.

Case Study: A major bridge project built to relieve congestion

A small town on the outskirts of a major metropolitan area has an old bridge that runs through town. Due to local land use decisions made for economic-development purposes, as well as regional land use trends and traffic patterns, the bridge has become a source of major congestion.

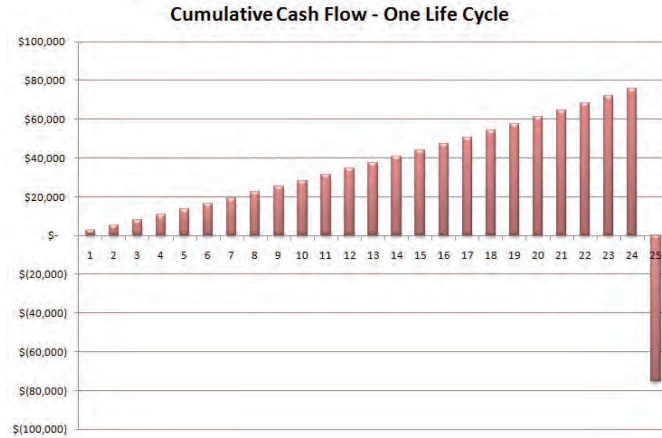
A proposed replacement bridge would be relocated to the edge of the community, relieving congestion in the core downtown. It would serve an estimated 16,000 vehicles per day—many of them commuters that have opted to live in a remote location. There is another high-capacity bridge in the area, but to use it adds significant delay for a daily commute. The total cost for the project is $668 million.

We asked the question: If the benefits of this bridge were deemed to be purely local and, as such, it would be paid for through a user toll, what rate would need to be charged to recover the cost of this bridge?

The answer: $6 per trip.

Incidentally, there is no plan to establish a toll. The construction of this bridge has the support of the state's governor, both state senators, and the district's representative in Congress.

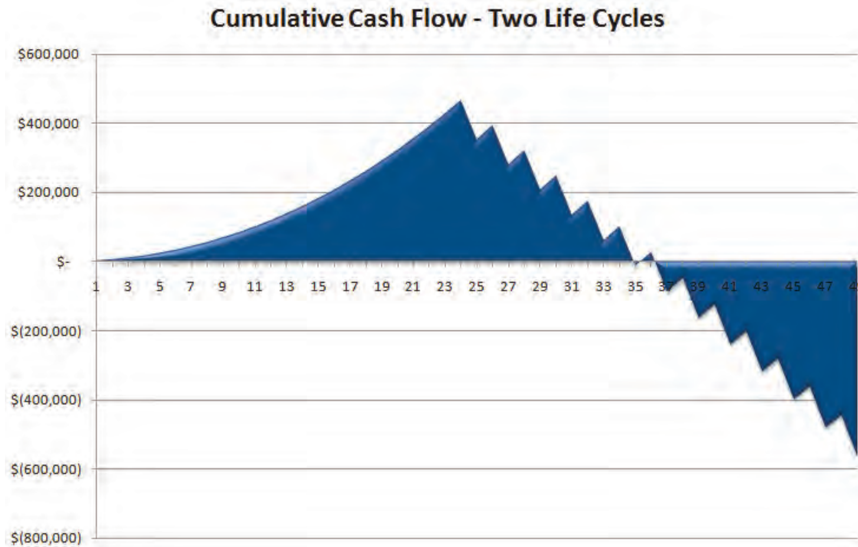
The tradeoff is realized after one life cycle



The benefits of growth are immediate: additional **tax base** and tax revenue. The costs come after one **life cycle**, when infrastructure needs to be maintained. The post-World War II **pattern of development** in the United States does not generate enough excess wealth to cover the long-term maintenance costs the pattern creates. There are simply too many roads, streets, sidewalks, pipes, hydrants, manholes, etc. to maintain with too little **tax base** to do it.

This means that prosperity lasts one **life cycle**, with obligations overwhelming the system as time goes by. Consider a single development where the percentage of taxes dedicated to maintenance is set aside in a fund each year. Throughout the first **life cycle**, the fund would have a positive balance until it was time for a maintenance project. Then, because the cost of maintenance far exceeds the revenue collected up to that point, the fund goes dramatically in the red.

Long term decline is guaranteed if we continue the suburban development pattern



A **pattern of development** that is unproductive because it generates more long-term costs than revenue is not financially sustainable. In America, we associate the post-World War II **pattern of development** with prosperity because we have seen it improve our lives and raise our standard of living in the near term. Yet, despite taking on trillions of dollars in debt to create yet more growth, we are more overwhelmed than ever with the costs of maintaining our cities and towns. Our places are in decline. Doing more of the same will only make things worse.

Swapping long-term obligations for near-term cash works for a while, but as with any **Ponzi scheme**, it ultimately collapses under its own weight. We have grown in a pattern that is inefficient, making poor use of our resources and investments. The lack of productivity in our development pattern means that we can no longer afford to maintain all of the underutilized roads, streets, sewer systems, water systems and sidewalks we have built. This is the financial reality we must now confront.

Implications of a Spatial Shift

As our economy grows more fragile, outside volatility matters more and more

In our quest to sustain a living pattern that is not financially viable, the United States has gone from being the world's largest creditor nation to the world's largest debtor nation. As individuals, our savings rate is anemic and has even been negative for long stretches in recent years. All this debt creates a system lacking resilience; we are dependent on the future being an improved version of the past.

There are reasons to believe that the key conditions that enabled America's suburban expansion will not continue. The success of the American economy as currently configured is dependent on cheap energy, but world oil consumption is growing rapidly as supplies show signs of strain and even contraction. Dramatic prices increases seem inevitable.

The United States has also enjoyed sixty years of cheap financing due to its status as the world's reserve currency. As we get further from the financial devastation of the Second World War, successful countries worldwide are questioning why a free-spending America continues to deserve such advantage. We have also become accustomed to historically-low interest rates, particularly in the last decade, but we should have no reasonable expectation this will continue indefinitely.

The United States has grown highly susceptible to Black Swan events

It is rational for humans to envision the future as an extension of the past, even though we understand that history is filled with events that changed the course of humanity.

A wealthy individual in 1912 would have been completely justified, based on decades of history, in diversifying their fortune with investments in Britain (at the time the world's reserve currency and most stable economy), Germany (a growing economy and proven industrial power) and Russia (an emerging market rich in natural resources). No amount of observation of the past would have predicted that these three nations would be plunged into a war that would see Britain nearly bankrupted, Germany propelled into historic hyperinflation and the Russian government overthrown by communists. This is the essence of the Black Swan, an event that may be predictable in hindsight, but difficult to foresee ahead of time because it does not fit the trajectory of observed history[11].

We are in the midst of an historic transformation of the United States economy. While this time may someday be condensed to a few pages in a history book, we are experiencing it in slow motion. It is not easily discernable where this transformation will take us, but it is clear that high levels of debt, limited savings, and an over-reliance on one pattern of growth has made our economy fragile and lacking the resiliency necessary to withstand a negative Black Swan event.

Learning from history: Long Depression of the 1870s

Dorothea Lange

The Long Depression of the 1870s was a worldwide economic crisis. In the United States, the end of the Civil War brought about huge investments in railroads with thousands of miles of tracks built. Much of it was financed by government land grants and subsidies, with the speculative creation of railroad towns serving as another outlet for capital. This created jobs and economic expansion until the Panic of 1873, a Europe-based currency crisis that exposed the unproductive railroad investment and caused a long bout of deflation.

Author Richard Florida has discussed this crisis in his book *The Great Reset*. He explains how the economy languished in the late 1800s until there was a "spatial fix", a movement of people, ideas and capital away from the prevailing economic model of the time—farming and railroad-related development—into a new and more productive arrangement. The result was the American Industrial Revolution, the growth of America's cities and the greatest expansion of the economy up to that time.

Learning from history: The Great Depression

photo by David Shankbone

The Great Depression of the 1930s was another worldwide economic crisis. In the United States, the end of the First World War brought about the *Roaring '20s* and huge investments in America's industrial and agricultural capacity. Much of it was financed by speculation; buying on margin and leveraging of paper securities drove prices to unsustainable levels. This created jobs and economic expansion until the Stock Market Crash of 1929, which exposed bad investments and deprived America's industrial and agricultural capacity of consumer demand.

As Richard Florida also discussed in *The Great Reset,* the economy languished throughout the 1930s until World War II created enough demand to meet the productive capacity of the country. Many economists at the time were concerned that the end of the war would send the United States back into depression, but another "spatial fix" prevented that from happening. This time the movement of people, ideas and capital was away from the industrial city and into a new living arrangement: the suburban experiment. Only through the deployment of resources in building this new living arrangement was the United States able to sustain the demand needed to stabilize prices and grow the economy.

America's current economic condition is not cyclical but a correction demanding a spatial shift

The mechanisms we have used to sustain suburban growth in America—government transfer payments, transportation spending, debt and the Growth Ponzi Scheme—are waning. This is exposing the fact that the suburban **pattern of development** cannot be financially sustained. Local governments are being forced to absorb the cost of maintaining their own infrastructure systems. This cannot be accomplished in the current **pattern of development** without significant tax increases and significant cuts in services.

The answer is not to continue to pour America's remaining wealth into suburban development which is not sustainable. The answer is another spatial shift; a change in the **pattern of development** moving away from mass-suburbanization and towards an arrangement with a higher public return on investment.

Dead Ideas

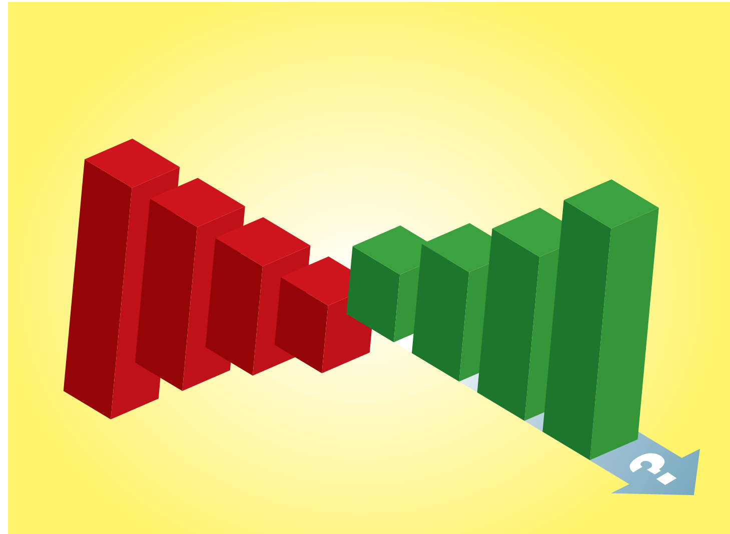
There are no solutions, just rational responses

Once a problem is identified, it is natural to want a clear solution. We are often asked what can be done to solve this problem? When people ask this question, they often mean: What is the solution that will allow me to continue to live essentially the way I do now without undergoing too much turmoil? The answer is: no such solution exists.

The analogy we have used at Strong Towns is: A person gets in a car accident. They are badly hurt, unable to work, have no insurance and have large debts that now cannot be repaid. There is no "solution" to this situation. There are only rational and irrational responses.

The way forward for our communities is to adopt a set of rational responses to the current situation. This will include shedding some "dead" ideas from the recent past and embracing a broad set of strategies to start making America's communities more productive. Local leaders need to position their communities for change if they want to be prosperous in the coming decades.

Dead Idea: We can continue to grow without considering the Return on Investment

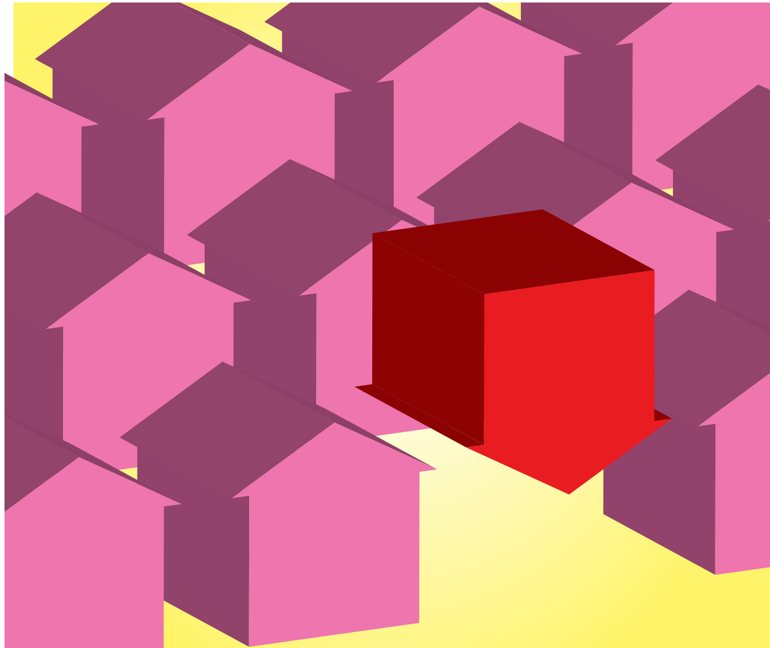


The suburban development pattern has offered cities and towns, in the name of growth, an exchange of near-term cash benefits for long-term financial liabilities. Benefit/cost analyses done in support of this style of development almost always deal with cash flow concerns while overlooking long-term maintenance costs beyond a single **life cycle**. Analyses of large transportation projects completely overlook any financial return, focusing instead on quality of life issues such as reduced driving time. As a result, we have made very inefficient use of our infrastructure investments.

America will not have a productive economy while we ignore the financial productivity of our places. When each component of a system costs more to maintain than it produces in excess wealth, the sum of those components will run a perpetual deficit. New growth alleviates the near-term problem at the expense of creating a greater long-term disparity.

Our places need to create value, not destroy it. We have to demand that our cities, towns and neighborhoods produce a positive financial return. This will mean completely rethinking how we invest in our communities.

Dead Idea:
We can solve our local financial problems by bringing in more growth



American cities and towns have long sought to create new growth as a way to increase the local **tax base** and enhance tax revenues. The way we have financed growth—exchanging near-term gains for long-term liabilities—has encouraged an inefficient use of our infrastructure investments. More than two generations into this approach, local governments are overwhelmed with infrastructure to maintain. Doing more of the same approach will only make the long-term problem worse.

With an end to the four *Mechanisms of Growth* from the post World War II era, however, the way our communities grow is changing. We are not likely to see large projects and major, leveraged- investments with capital coming from outside the community. We are most likely to see small-scale projects funded by local capital, such as a homeowner buying the neighboring property out of foreclosure, converting it to a duplex and then renting it.

Our local regulatory, planning, financing and engineering systems are designed to work in the Old Economy. If we are to see growth at the local level in a **New Economy**, all of these systems need to be rescaled to fit the changed reality.

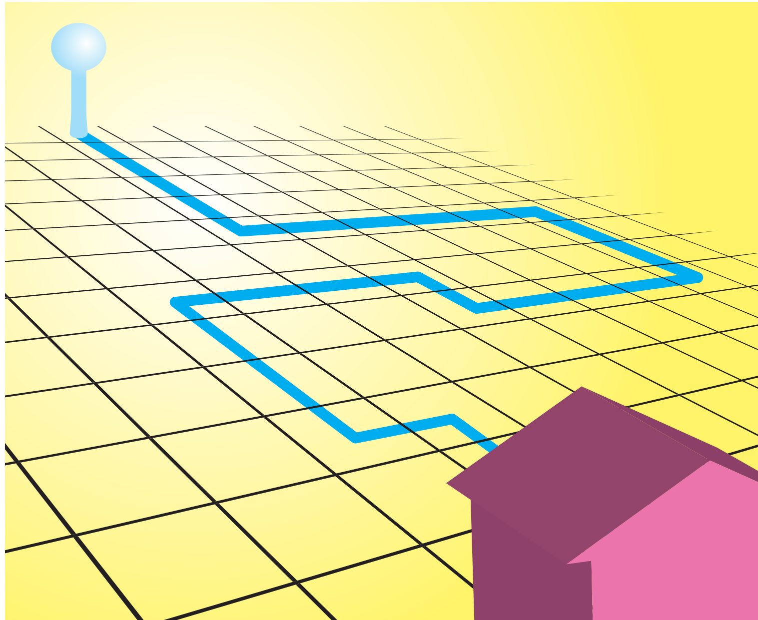
Dead Idea: Attracting a large employer will solve our problems

For every community that has won the lottery by landing one large employer that brought jobs and prosperity, there are thousands of communities that have pinned their hopes to this approach and come up with nothing.

The standard economic development model at the local level in the United States relies on convincing an employer from outside the community to relocate to the community. We have established an immense system of subsidies, supports and programs to facilitate these transactions. Not only is this vastly inefficient, it almost never works as planned.

The worst part of the economic "hunting" strategy is that is takes the focus off the local community's home-grown economic activity. A necessity in the **New Economy** is not seeking that one business that will bring in fifty jobs, but instead working with fifty local businesses to grow one job each. Not only is that a more sustainable and resilient approach, but one where every community has the capacity to be successful.

DEAD IDEA: PROPERTY OWNERS HAVE A RIGHT TO DEVELOP THEIR PROPERTY AND THE PUBLIC HAS AN OBLIGATION TO MAINTAIN THE INFRASTRUCTURE



Prior to **suburbanization**, the United States was comprised of areas that were either clearly rural or, even in the small towns, clearly urban. This helped simplify the role of local government, which was necessarily more active in the urban areas than in the remote, rural spaces. As the difference between rural and urban has diminished, the expectations of local government in formerly-rural areas have grown.

Many local officials believe the maintenance of infrastructure is exclusively the role of local government, although privately-owned and maintained infrastructure is not uncommon. Where local governments assume the obligation of maintaining infrastructure, it must ensure that the **pattern of development** is productive enough to maintain itself over the long term. When the public is taking on long-term obligations, local officials need to demand a **pattern of development** that pays for itself.

Local governments can hold to the notion that property owners have a right to develop their property in the way they see fit, but they then must release the public from an obligation to maintain the infrastructure. As seen in the case studies of this report, when each new development creates such tremendous, unfunded public obligations, growth ultimately raises the tax rate and lowers the overall standard of living. The indirect public subsidy of unproductive growth needs to end.

Starter Strategies for Strong Towns

At Strong Towns, we do not have all the answers to the questions raised in this report. What we can offer is a set of strategies to get your community started on the path to local resiliency:

1. Stop. Don't double down.
2. Develop a real Capital Improvements Plan.
3. Adopt strategies to increase the public return on investment.
4. Adopt a **Form-Based Code** throughout high amenity areas.
5. Adopt new road and street standards that maximize value.
6. Prioritize walkability in areas where it creates value.
7. Coordinate investments in parks and public buildings with economic development and value-creation strategies.
8. Implement a resilient economic development strategy.
9. Establish a platform for Community Supported Agriculture.
10. Engage your neighbors online and off.

Strategy 1.
Stop. Don't double down

There is a natural and understandable tendency of humans to go back to what was successful in the past. Since World War II, we have seen the Mechanisms of Growth used to bring about near-term prosperity. Many cities and towns are doing everything they can to double down on the current strategy, using their remaining resources to induce more growth in the current model.

Cities and towns should freeze all planned projects and reevaluate their capital improvement efforts through the prism of creating a higher rate of return. Continuing to do projects that have long-term obligations exceeding locally-generated revenue potential simply makes the problem worse.

Strategy 2. Develop a Real Capital Improvements Plan

Maintenance of infrastructure is the elephant in the room that cities simply can't ignore any longer. In our current system, few cities have any clue of the scale of their commitments for infrastructure maintenance, when they will come due and what funding sources are relied on. For any responsible decision-making, this information must be developed.

The first step is to compile a complete inventory of all infrastructures the community is currently obligated to maintain, their condition, an estimate of their remaining life and approximate replacement/maintenance costs. With modern **GIS** and database systems and a cadre of trained volunteers, most of this information is reasonably obtainable.

We call this a real Capital Improvements Plan to contrast it with the standard approach to CIP's, which is more of a wish list of future projects than a balance sheet of the public's future obligations.

Strategy 3.
Adopt strategies to increase the public return on investment

Once a real Capital Improvements Plan has been assembled and there is an accurate understanding of the community's long-term liabilities, public officials can start to make intelligent decisions on how to improve and maintain the infrastructure.

When it comes to infrastructure maintenance, return on investment (ROI) is a function of two variables: public cost and tax revenue. To maximize ROI on a specific block or project, the public cost for maintaining the infrastructure needs to be reduced and/or the value of the private sector investment in that area needs to increase.

Instead of a standard zoning map, the community should create a map that establishes "high amenity" and "low amenity" areas. Areas of "high amenity" are those where an increase in the level of public investment will create a proportional increase in private sector value. These are places where the ROI can be increased by making incremental improvements to the public realm beyond simple maintenance.

To improve ROI in a high amenity area, the City must look at improving the quality of life for people who live there. This means understanding the little things that make these properties more valuable. Amenities like neighborhood parks and shopping are important, as are connections to them for pedestrians and bikers, but so are more subtle things like the pattern of building, the amount of shade trees and how views terminate along streets. There is no quick fix here—growing a high-amenity area requires incremental improvements over time.

In contrast, a low amenity area is one in which increased public investment will not result in a proportionately higher increase in private sector value. Some places can have wider streets, nicer sidewalks, new sewer and water utilities and other improvements but will still not attract any new private sector investment. These are places where the ROI can be increased by reducing the public's long-term commitments to infrastructure maintenance.

This strategy manages contraction by allowing the community to target limited tax dollars to investments which will be most productive.

Strategy 4. Adopt a Form-Based Code[12] throughout high amenity areas

Our current, **standard zoning codes** do not handle the type of development most cities want, need or are *most likely to see*, very well.

What most cities need—and are most likely to see if they approach it correctly—are small-scale developments (single-lot), renovations of existing homes to a higher use (single-family into a duplex) and conversions (residence to a business, or the reverse). Standard zoning approaches this type of request as if it were a new, **greenfield development**, subjecting applicants to excessive regulation, approvals and review processes without providing anything of substantive value to the property owner or the neighborhood in return.

A **form-based code** targeted to high-amenity areas would streamline the regulatory process for people wanting to invest in existing neighborhoods. It would also ensure that the final form the development takes creates neighborhood value by being complementary to the existing neighborhood pattern. These high-amenity areas are the places cities and towns need private sector investment the most because they are the areas where they have the greatest amount of public sector obligation for maintaining infrastructure, such as sewer, water and streets.

Strategy 5.
Adopt new road and street standards that maximize value

Creating productive places in a **new economy** requires changes in our standard approach to roads and streets. The standard approach today is focused almost exclusively on moving automobile traffic instead of creating value by enhancing the neighborhood. The streets we have built create a public realm dominated by fast-moving automobiles, a feature that in turn encourages horizontal expansion and buffering. We have shown that this carries an enormous cost. A more balanced approach to our urban streets would cost less and yield more.

We also need to reevaluate the roads we build outside of urban areas. We pay an immense amount of money to speed up the first and last minutes of each trip. Particularly in low volume situations, high-speed traffic is an expensive luxury. Reducing the road sections will provide adequate capacity for the minimal volumes at less cost. The only offset is a reduced travel speed for these limits areas.

Strategy 6.
Prioritize walking and biking in areas where it creates value

An essential part of making traditional neighborhoods (the places where we have the greatest public investment in infrastructure) more attractive to private sector investment is to physically reconnect them to destinations like businesses, parks, gathering spots and other neighborhoods. All cities need to perform a **walkability study** to determine areas of low and high connectivity and where they can get the highest rate of return (induce the most value and private-sector investment) by improving non-motorized connectivity.

As an example of the return in value, consider a family that wanted to relocate to a traditional neighborhood and, due to great walkability, could get by with only one car. That family would save an estimated $7,500 per year on transportation costs[13]. If instead of spending that money on transportation, they could invest it in their home, they would have (at 6% over 30 years) an additional $103,000 of purchasing power. That is tangible value that can be captured in our development pattern.

We almost always use the ease of automobile travel as the top design criteria for the public realm. To improve the overall financial productivity of these neighborhoods, we need to accommodate the automobile, but walkability needs to be the primary design criteria.

Strategy 7.

Coordinate investments in parks and public buildings with economic development and value-creation strategies

Investments in parks and public buildings provide a tremendous opportunity to leverage dollars for local economic development and to encourage private sector investment.

Placemaking, as it is called today, is something our ancestors inherently understood. They actually occupied the public realm rather than driving through it quickly so they knew that, for a place to have value, the design had to be right. Properly designed and placed public buildings and parks enhance the public realm and create value that is captured by neighboring properties.

Think of a neighborhood school—which people want to be near—as opposed to a suburban school campus, which people do not want to live near because of traffic and other issues. Or a traditional town square, which adds value when properly located and designed, as opposed to building a park with a large parking lot where land is cheap on the edge of town. New York City's Fifth Avenue would have much less value without Central Park, even if the municipal equivalent of Disneyworld were located on the edge of the city.

Strategy 8.
Implement a resilient economic development strategy

Local economic development advocates most often pursue job creation strategies designed to attract a single, new business that will provide a high number of jobs. This high-risk / high-reward approach makes good headlines and provides plenty of political cover, but is not as effective as an approach based on building from within. Being dependent on a handful of major businesses or a single industry also makes a community vulnerable to shocks beyond their control. Slow and steady is not always flashy, but it often wins the race.

Instead of a strategy that seeks one business with fifty new jobs, a resilient strategy is one that adds one new job to fifty existing businesses. Same number of jobs, but far more achievable and at much less cost. The City of Littleton, Colorado, has pioneered an approach called "Economic Gardening"[14] that should be the standard approach for cities and towns in the **New Economy**.

Strategy 9.
Establish a platform for Community Supported Agriculture

Our American pattern of living has no greater short-term vulnerability than our food supply, which is a massively complex system dependent on such fragile mechanisms as international shipping and overnight financing. The economics of how we currently grow, harvest, process and distribute food has been made possible by the suburban development pattern, which rewards consolidation and efficiencies of scale. As this pattern unwinds, agriculture is likely to become more localized.

Our cities and towns have no fallback position from bare grocery store shelves. A resilient community is one that has the ability to feed itself locally. Especially in a time when we are short on jobs, **Community Supported Agriculture** (CSA) is a great way to grow a local economy, build resiliency and eat better in the process. The things necessary from a community's standpoint—area for a farmer's market, for example—are nominal in cost. The benefits, especially in a time of need, could be priceless. This is cheap insurance with a lot of upside.

Strategy 10. Engage your neighbors online and off

Sean Gosiewski

We need the support and assistance of our neighbors—as well as their ideas and intuition—particularly in times of difficulty. The post-World War II development pattern inhibits the day-to-day interactions that used to be commonplace. For example, it is not possible to have a substantive conversation with your neighbor as you pass each other in your cars. We need to make a conscious effort to overcome these obstacles.

Ideas are like viruses in how they transmit from person to person. In an age where ideas are the capital of industry, successful communities will be places designed to facilitate spontaneous human interaction. A community built for idea transmission is an incubator of prosperity.

The American population is engaged online in nearly every aspect of their lives. Cities need to meet their citizens there and harness the collective intellect, energy and commitment people have for their towns. There is no financial barrier to entry, only a government's willingness to open themselves fully to those they serve.

Placemaking Principles for Strong Towns

To get a higher return on our public investments requires an understanding of what it takes to build great towns and neighborhoods. The following principles of placemaking help build Strong Towns.

1. A Strong Town is financially stable and must not be dependent on government subsidy for the common maintenance of basic infrastructure systems.
2. A Strong Town is economically vibrant and diverse. The town must have a local economic composition that encourages financially-sound business creation and expansion, as well as allow for creative destruction.
3. A Strong Town is designed with a physical layout that enhances the public realm and thus adds value to each property that fronts it. New growth and development must improve the public realm.
4. To build an affordable transportation system, a Strong Town utilizes roads to move traffic safely at high speeds outside of neighborhoods and urban areas. Within neighborhoods and urban areas, a Strong Town uses complex streets to equally accommodate the full range of transportation options available to residents.
5. To make transportation systems more efficient and affordable, to create economic opportunity and to enhance the community, neighborhoods in a Strong Town must be mixed use, with properly-scaled residential and commercial development.
6. A Strong Town utilizes a system of interconnected parks and civic structures to provide value to property owners within the community. Parks, greens, squares and civic buildings provide value when they enhance the public realm, create memorable landscapes and provide for spontaneous gatherings.
7. A Strong Town requires age diversity in order to sustain itself. Designing neighborhoods for safe, independent living at all stages of life is critical for a Strong Town.
8. A Strong Town is connected to the region and, no less importantly, to the world, while knowing their unique place within these systems.
9. A Strong Town has a leadership ethic that emphasizes open, transparent, inclusive and efficient governance, as well as active and forward-thinking engagement with citizens and private-sector partners.
10. Strong Towns reduce costs associated with land use, transportation and development, and are able to reinvest these savings to strengthen their long-term position in the region and the world.

Conclusions

There are three main points that Strong Towns, through the Curbside Chat program, is trying to help public officials and those that are active in their communities understand. They are:

1. The current path cities are on is not financially stable.

The support systems that have grown and maintained our current development pattern are going away. This is true whether we at the local level want them to or whether or not it is the right thing to do. Continuing to build our places in financially unproductive ways over the long term will no longer work. Even with a dramatic change in course, cities and towns cannot meet many of their current obligations. Some difficult times lie ahead.

2. The future for most cities is not going to resemble the recent past.

We cannot take a snapshot of the past sixty years and simply project future growth and prosperity based on what we have experienced. We are more than two life cycles into the suburban development experiment, a pattern of living that has never been attempted anywhere else in the world at any point in human history. The conventional wisdom we have developed over the past sixty years is breaking down. Not only is the United States not going back to 2005 anytime soon, we are likely to find that the entire post-World War II development experience was based on a transient set of conditions that we cannot recreate. We need to prepare ourselves for great change.

3. The main determinant of future prosperity for cities will be the ability of local leaders to transform their communities.

In a changing America, prosperity need not be elusive, but it will not be defined by the suburban variables of growth in traffic volume, feet of pipe installed, number of new lots created and retail space available. These were not real markers of prosperity anyway, only false metrics we used to reinforce the value of our growth model. A true prosperity for our communities will ultimately be

measured by ordinary people in ways that will defy statisticians, economists and engineers.

Sustained prosperity will emerge in communities where local leaders grasp the changes that are happening, engage their citizens on the implications of the transition and take proactive steps to strengthen their communities. Local leaders are waking up to the fact that they are on their own, that help is not coming from Washington D.C., the state capital, the transportation office or any of the traditional sources. This can be scary, but also liberating.

Americans have the resources, the capacity and the ability to rebuild our cities and towns in a way that is truly productive and financially viable. We will not have a strong America while our cities and towns are financially frayed. Addressing this is the greatest challenge for the current generation of community leaders.

We need to start building Strong Towns.

About Strong Towns

Strong Towns is a Minnesota-based, 501(c)3 non-profit organization. The mission of Strong Towns is to support a model for growth that allows America's towns to become financially strong and resilient.

This is based on an understanding that the American approach to growth is causing economic stagnation and decline along with land use practices that force a dependency on public subsidies. The inefficiencies of the current approach have left American towns financially insolvent, unable to pay even the maintenance costs of their basic infrastructure. A new approach that accounts for the full cost of growth is needed to make our towns strong again.

The Strong Towns approach ultimately requires a reorientation of emphasis and a renewed understanding of what it takes to build a town or a neighborhood. The current approach to growth emphasizes investments in new infrastructure to serve or induce new development. A Strong Town approach emphasizes obtaining a higher return on existing infrastructure investments.

You can read the Strong Towns Blog, published three times a week, tune in to the Strong Towns Podcast, learn more about the Strong Towns movement and make a donation to support Strong Towns online at www.StrongTowns.org.

About the Curbside Chat program

The Curbside Chat program is a major initiative to bring the Strong Towns message to public officials, community advocates and decision-makers across the United States. You can learn more about the Curbside Chat program or sign up to host a Chat in your community by going online to www.Curbside-Chat.org.

Endnotes and Bibliography

On Jobs and Growth

As we put this report together, we understood that we needed to answer the most frequently asked question we get when we do a Curbside Chat, that being: "*Why don't you talk about jobs?*" Jobs are critically important, perhaps more now than at any time since the Great Depression, but we often confuse the discussion of building infrastructure that is productive with building infrastructure to create jobs. It is possible to do both, and our current situation demands that we do so.

The following article was published on our blog earlier this year. It delves into the financial realities of job creation and infrastructure investments at the local level.

If it creates jobs then it must be good, right? (Strong Towns Blog, January 10, 2011)

At the local government level our focus on jobs and growth obscures our understanding of the current financial turmoil as well as how we can actually create a sustained recovery. Jobs and growth are the results of a productive system, not a proxy for one. Until we reconfigure our places, sustained prosperity will remain elusive.

A large part of our Curbside Chat presentation is devoted to showing how our post-WW II development pattern fails to create enough revenue to financially sustain itself. We analyze real developments and compare their ongoing maintenance costs with the actual revenue they generate to show how our modern cities are financed like a classic **Ponzi scheme**, where revenue from new entrants is used to pay off past obligations.

From the perspective of the city or town, this is devastating. The whole is a sum of the parts, and when each part is running a deficit, it is easy to understand why municipal budgets are stretched beyond the breaking point. New growth may pay for itself, but only through one life cycle. After that, the costs to maintain the infrastructure dwarfs any tax revenue generated.

This analysis is also devastating to the cadre of professionals—engineers, planners, economic developers, municipal financial advisors—that make their living off of promulgating new growth. To them we blaspheme, challenging a belief that is nearly religious: more growth is always good. They'll respond to our analysis with something like the following:

But there is new investment, and that creates jobs and people buying stuff and all of that creates tax revenue. Your analysis is too simplistic. It is a bigger system and you don't take that into account.

To which my inner monologue responds, "How's that working out for ya?"

I'm going to repeat a fact that we've stated before here at Strong Towns Blog, one that makes some people—especially economic development professionals and others vested in the current system—quite angry: In nearly every American city, the balance sheet does not benefit from a new job.

Local economic development officials talk endlessly about creating jobs, jobs, jobs and the need to invest in job creation. Since most American cities have no income tax, these efforts produce no tangible financial return to the city. If we spend $100,000 at the local level to create jobs, there is no basis to believe that this will ever result in $100,000 being returned to the city through new tax receipts.

But what about sales tax? Again, few cities rely on the sales tax for any of their revenue. Where we are in Minnesota, cities are actually prohibited from independently enacting a local sales tax. They are only able to institute such a tax when it is approved by voters, approved by the legislature and tied for a set duration directly to a specific project. Any new jobs could generate millions and millions in sales and, except in rare instances, none of this revenue is going to be diverted to the municipal government.

Most local governments rely on property tax as their primary funding source. In a theoretical world, this should create every incentive to maximize the amount of property value while simultaneously minimizing the amount of ongoing liability—particularly in infrastructure maintenance—that the city assumes. In the real world, nothing like this happens. Cities fight each other—through subsidies, waivers of regulation and other "business friendly" approaches—for each new business, each new job, each new housing subdivision, giving little if any consideration to the long-term maintenance costs they assume.

All of this ultimately drives up local property taxes which, as any business will tell you, is not "business friendly."

Why does this happen? How can cities pursue policies that are so clearly contrary to their own long-term interests? The answer is simple: they have the incentives to do so.

Our Mechanisms of Growth —the ways we have funded new growth for the last two generations—cover up the true cost of our development pattern, creating the Ponzi-scheme comfort of new revenue today while postponing the day of financial reckoning, when the local government will be faced with unfathomable **maintenance obligations**, at least a **life cycle** into the future.

In many places, we're a life cycle or more into this pattern and the growth has now stopped. Things are getting desperate, and will only get more so with each passing day. Contrary to our federal and state approach to "recovery", the answer to this problem is not more growth. The answer is a different development pattern.

Unfortunately, the entities that provide the primary incentives for the current **pattern of development**—the federal and state governments—are dealing with their own **Ponzi schemes** and funding shortfalls. They desperately need to lower their costs while simultaneously creating more income and sales tax revenue, local government budgets be damned. The sooner our local leaders understand that,

the sooner they can begin to shape their own future.

There is no magical mathematical formula that will allow our cities to take on more obligations than they can support, yet remain solvent and productive places. More growth and more jobs are not the magic answers for local governments. To have a real recovery, we need a new **pattern of development**, one from which jobs and growth will ultimately flow. It can't be the other way around. We need to start building Strong Towns.

Glossary of Terms

Bond: In the one case that this term is used, we are referring to the process by which cities take on debt by selling bonds—which are promises to repay—to the public.

Form-based code: A form-based code is a type of zoning regulation that emphasizes the form and pattern of development. This is in contrast to the standard zoning code adopted by nearly all cities in the post-WW II development period, which emphasizes the separation of uses into pods. Most building done prior to 1930 within cities, towns and neighborhoods used form-based codes.

Greenfield development: This refers to development on ground that has not been previously used for residential or commercial development. Typically greenfield development involves conversion of farmland or forested areas. The opposite of greenfield development would be redevelopment of existing neighborhoods.

Life cycle: This is the amount of time that a given infrastructure improvement will last until a major rehabilitation is needed. All infrastructure deteriorates over time and must be maintained. For example, a street is maintained each year by sweeping, plowing and sealing cracks, but it would not reach the end of a life cycle until there was a need to perform a resurfacing of some type.

Maintenance obligations: These are the implied obligations that a local government has to maintain local infrastructure systems. Frequently, the initial cost of building infrastructure is shared by a combination of federal and state governments, transportation departments, developers, property owners and local governments. Maintenance of this infrastructure then shifts to strictly a local government obligation.

New Economy: We use this term to refer to the set of economic conditions that are emerging from the current economic recession. It is our belief that this new set of economic conditions will differ significantly from those experienced between the Great Depression and the market corrections of 2008.

Pattern of development: This is the way in which our cities, towns and rural countryside have been reshaped by human intervention. We sometimes refer to the "suburban" pattern of development, which is how we identify the way we have built most places in the United States following World War II. We also sometimes call this the "current" pattern of development. For cities and neighborhoods that existed prior to World War II, the suburban pattern of development has meant the incorporation of parking lots and auto corridors into the existing framework. For post-WW II development, the subur-

ban pattern of development includes the horizontal expansion of commercial development along transportation corridors and the conversion of farms and forests into auto-based housing developments.

Ponzi scheme: While we understand that our use of the term Ponzi scheme can be seen by some as provocative, we need to point out that we are not describing a diabolical plan put in place by an individual with malicious intent. In our modern approach to growth, cities exchange a modest near-term cash advantage for significant long-term financial obligations. To meet the obligations, a city must grow at ever-increasing rates so as to always have enough new revenue to pay for the mounting obligations. This functions just like a Ponzi scheme, without the malicious intent. A detailed, five-part series on this topic may be found online at http://www.strongtowns.org/the-growth-ponzi-scheme/.

Securitized: As we use this term, it describes the act of bundling many individual home mortgages together and then selling parts of the combined package off as individual securities. The goal of the investor is to own a security that is diversified across many mortgages, thus theoretically lowering the risk of an individual default.

Standard zoning codes: Most modern municipalities that deal with land use controls have adopted similar regulations based around (1) separating uses from each other (e.g. commercial, residential, industrial) and (2) accommodating travel by the automobile within and between pods of different uses.

Suburban era: When we use this term, we are referring to the time period following World War II up to the present.

Tax base: Tax base refers to the size of the local economy that a city, town or county can tax for its revenue. For cities using the property tax, this would equal the total value of all properties within the city that are eligible for taxation.

Endnotes/Bibliography

1. *Report Card for America's Infrastructure.* <http://www.infrastructurereportcard.org>.

2. In 2006, well ahead of the housing crisis, Peter Schiff of EuroPacific Capital gave a speech at the Western Regional Mortgage Bankers Conference that explained, in detail, the pending housing correction. It included the three noted observations as key causes of the housing bubble. The speech can be viewed at http://youtu.be/jj8rMwdQf6k.

3. "Shadow inventory improves but still threatens housing recovery." *CNN Money*, 22 Aug. 2011. <http://money.cnn.com>.

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9. "Gasoline Tax Rates by State." *GasPriceWatch.com.* <http://www.gaspricewatch.com/usgastaxes.asp>.

10. In 2009, Strong Towns performed an analysis of the needed gas tax increase for one transportation district in Minnesota, found here: <http://www.strongtowns.org/journal/2009/4/15/the-cost-of-development-highway-edition.html>. With static traffic volumes, the analysis suggested a needed gas tax increase of over a dollar a gallon. Later conversations with officials from Mn/DOT that have indicated a dynamic approach—one that accounted for reduced driver demand—suggests an increase of between two and three dollars per gallon. The exact number is unknown and not necessary to identify as there is no elected or appointed official has advocated for increases in the gas tax as the sole way to fund transportation improvements.

11. For more on this topic, we recommend "*The Black Swan*" by Nicholas Nassim Taleb.

12. For more information on Form-Based Coding, we recommend the work of the Form Based Codes Institute, <http://www.formbasedcodes.org>. For a model code, we recommend the SmartCode, <http://www.smartcodecentral.org>.

13. "The Costs to Cities of Auto-centricity." *Strong Towns Blog.* 12 May 2010.

14. A primer to the Economic Gardening concept is available from the City of Littleton <http://www.littletongov.org/bia/economicgardening>.

STRONG TOWNS.ORG

2500 University Avenue, Suite E2
Saint Paul, Minnesota 55114

E-Mail: info@strongtowns.org

Phone/Fax: Toll Free at 888-454-5226

Design: Mike Kooiman • mykey3000.com

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