



# Examining The Growth Machine Model in Hartford, CT

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## Abstract

This mixed-methods analysis examines Hartford County of Connecticut's conformity to the "Growth Machine Model," a theory of urban development proposed in the 1970s by Harvey Molotch. He posited that corporations, financial institutions, local governments, and high-net-worth individuals drive urban development. I examine how the municipality of the central business district—Hartford, CT—uses infrastructure spending to spur local economic growth in the larger Hartford County, measured in terms of GDP per capita. There is substantial literature regarding the GMM in mid- and large-sized metropolitan regions, but little research has been published on small metropolitan areas. We selected Hartford as a case study due to its robust insurance, aerospace, and finance industries, which create an attractive employment landscape and robust private sector.

## Background of Hartford County

Hartford functions as a sound case study to examine the GMM.

- Experience similar demographic patterns as other urban metropolises, with post-war "White Flight" following a decline in the manufacturing sector and introduction of the G.I. Bill
- Transition to a service-based economy focused on insurance, aerospace, and finance, with spatial proximity of firms leading to a central business district (CBD) in Downtown Hartford
- Residential outgrowth into urban peripheries marked the start of Hartford's weakening as CBD as the tax base shrunk
- Public-private partnerships have been encouraged starting in the mid-2010s

## Methods

I analyzed GO bond authorizations from the Office of Policy & Management/Department of Public Works, Department of Transportation, and Economic Development Funding from 2000 until 2019 (right before COVID-19) using data found in the budget books from the Connecticut General Assembly. After analyzing all of the itemized expenses of these three departments, I was able to conclude that they were the primary programs that contributed to infrastructure and community development, such as building renovations, transportation upgrades, capital equipment purchasing funds, and other development projects like parks, sports stadiums, and cultural centers. I aggregated these categories to determine each fiscal year's spending, which would tell me how much was spent on infrastructure development in the Hartford region. We compare the bond authorizations over the 20-year period with employment rates and GDP/capita to ensure positive correlations.

## Agglomeration Economies

The City of Hartford functions as an agglomeration economy. Agglomeration economies follow a positive feedback loop that support GDP growth. We assume that there is a positive correlation between GDP and employment, following the "multiplier effect" which posits that an increase in employment rates and subsequent rise in income increases spending, generating income for firms. Thus, GDP is boosted. We can also measure the concentration of industries through the "location quotient," which was 6.72 for the insurance sector, 9.99 for the aerospace sector, and 2.55 for the finance sector. All of these numbers exceed 1, meaning there is a greater number of employment opportunities in that region compared to other sectors.

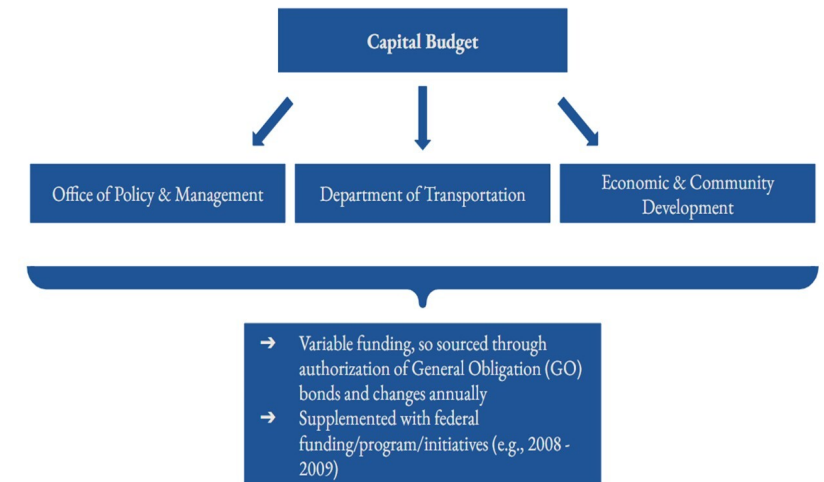


Figure 1: Capital Budget Allocations

## Conclusions

- Public-private partnerships help sustain infrastructure development and encourage bond investments
- Itemized expenses from the Economic & Community Development show that in-kind and cash aid to private actors stimulate GDP growth
- Transportation investments facilitate easy access to the CBD, retaining human capital and reinforcing the agglomeration economy
- Workforce development initiatives could be considered, but we would have to find data that shows their isolated effect on GDP/capita

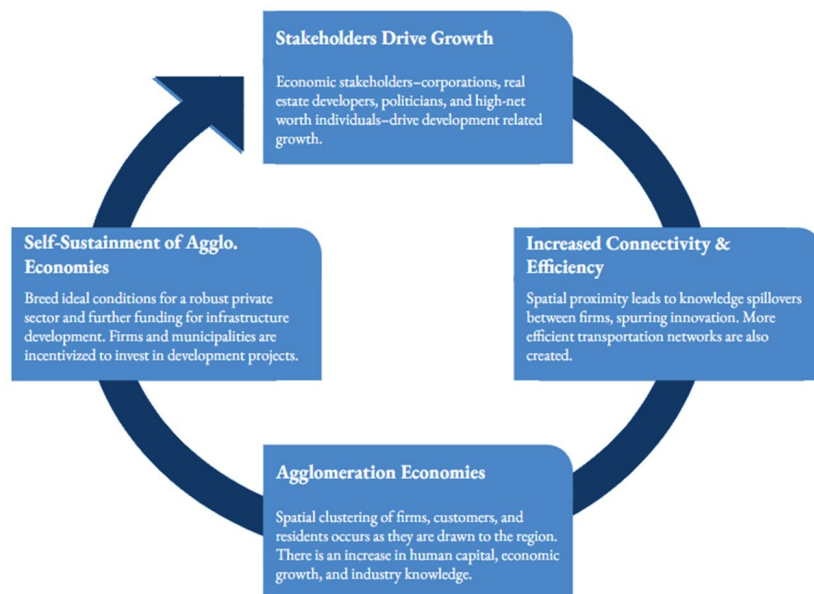


Figure 2: The positive feedback loop of agglomeration economies

### Hartford County GDP/capita, 2000 - 2019

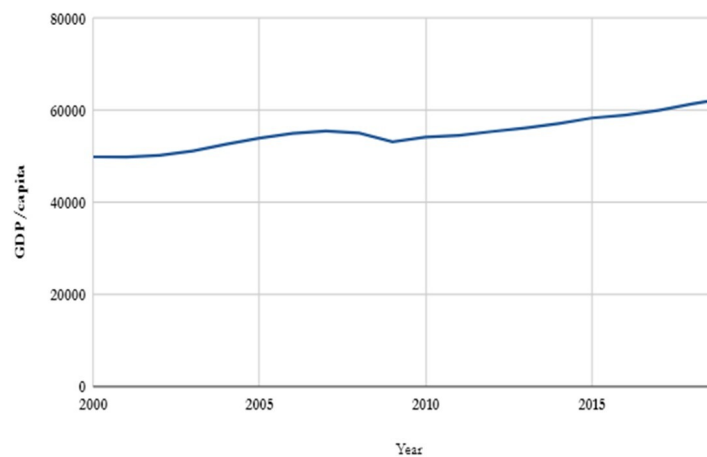


Figure 3. Hartford County GDP/capita, 2000-2019.

### Capitol Region of CT Development Funding, 2000 - 2019

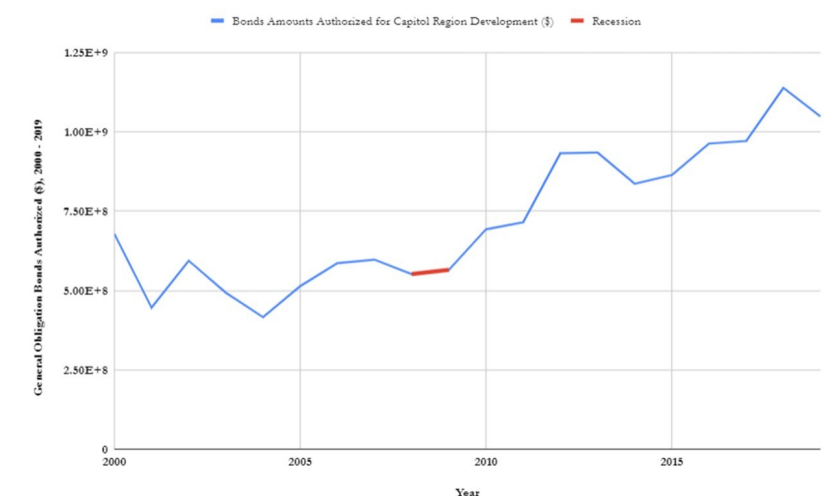


Figure 4. Bond issuances in Hartford County, 2000-2019.

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