

# **“ARE THE GATEWAY MARKETS OVERPRICED?”**

by

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### *Abstract*

The conventional wisdom, supported by current pricing, asserts that the “gateway” markets offer superior returns (as well as liquidity) due to a number of perceived advantages. While this view is largely taken as an article of faith in much of the institutional real estate community, this paper asks whether this conventional wisdom may soon be up ended. In particular, the gateway markets seem firmly ensconced in state and local jurisdictions which often differ markedly from non-gateway markets with regard to a number of important characteristics relating to their political economy: 1) fiscal imbalances, 2) taxation, 3) regulatory burden, 4) public-sector services, and 5) political corruption. At least in this author’s view, these differences represent impediments to growth and newly evolving risks which currently may be mispriced. Time will tell.

## I. Introduction

The conventional wisdom is that “gateway” markets offer superior returns and liquidity – at least in comparison to their non-gateway counterparts – due to a number of perceived advantages, including: the difficulties of permitting new construction, physical supply barriers (*e.g.*, certain mountainous coastal regions), concentrations of “credit” tenants, locales of leading “knowledge” companies and institutions, *etc.* While this view is largely taken as an article of faith in much of the institutional real estate community, this paper asks whether this conventional wisdom may soon be up ended. In particular, the gateway markets seem firmly ensconced in state and local jurisdictions where the political economy often differs markedly from non-gateway markets.

Some pundits point to the COVID pandemic as chief among the reasons for a host of ills lately befalling large American cities. Furthermore, some of these pundits (*e.g.*, Florida (2020) and Ouazad (2020)) view the COVID pandemic as a temporary crisis (much like the LTCM default, the 9-11 terrorist attacks, the GFC, *etc.* – for which, investors, lenders and tenants seem to have short memories) and that sooner or later (particularly when herd immunity, a vaccine and/or therapeutics are effectively realized) this too will pass. Instead, this paper pushes back on this narrative, arguing that significant long-term headwinds (*e.g.*, pricing combined with underlying fiscal and political challenges – among other assorted maladies) threaten the gateway markets in a manner that predates the COVID pandemic.<sup>1</sup> To be sure, the pandemic’s adverse effects have accelerated some of these headwinds and created new ones. Among the most-pronounced accelerations is the increase in the “work from home” (WFH) trend – which, in earlier incarnations<sup>2</sup> was often referred to as “telecommuting” or “hoteling.” Both practitioners (*e.g.*, Ismail, *et al.* (2020)) and academics (*e.g.*, Davis, *et al.* (2021)) have weighed in on the matter. The general consensus seems to be that the trend will adversely and permanently effect office buildings (and business-oriented hotels), with high-skilled office workers changing locational preferences (*e.g.*, benefitting Sunbelt cities), reduced office visits, *etc.* While this paper generally supports these assertions, this paper generally concludes its empirical analyses with the year 2019 – so as to avoid making too much of the immediate effects of the

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<sup>1</sup> Others have voiced similar, but I contend, less full-throated concerns – notably Bragg, *et al.* (2018 and 2021).

<sup>2</sup> The current incarnation is abetted by advances in video-conferencing and file-sharing software, as well as improving internet speeds and reliability. Additionally, the COVID pandemic has provided a large-scale experiment on the efficiency of the WFH trend; on balance, the results seem positive and encourage further workplace flexibility. Moreover, the large-scale nature of the COVID-related quarantine measures have helped to encourage widespread adoption (albeit in varying degrees) of the WFH trend, a requisite ingredient to its effectiveness.

COVID-19 pandemic – and, instead, stresses that the gateway markets faced these significant headwinds well before the emergence of the COVID pandemic.

The headwinds particularly faced by gateway markets primarily relate to five important characteristics: 1) fiscal imbalances, 2) taxation, 3) regulatory burden, 4) public-sector services, and 5) political corruption.<sup>3</sup> The assertion made here is that these concerns have not been given sufficient attention (in terms of both the strategic/tactical asset-allocation issues and property-level due diligence) with regard to their severity and long-term impacts on growth and risk and therefore, future risk-adjusted returns. Time will tell.

## **II. Pre-COVID Pricing & Liquidity**

### **II.A. COVID-Era Public-Market Pricing**

Exhibit 1 measures the change in both enterprise and equity values, as measured by price changes in the public REIT market, for selected property types – since the pandemic’s pricing effects took hold in mid-February of 2020 – through early November of 2020:<sup>4</sup>

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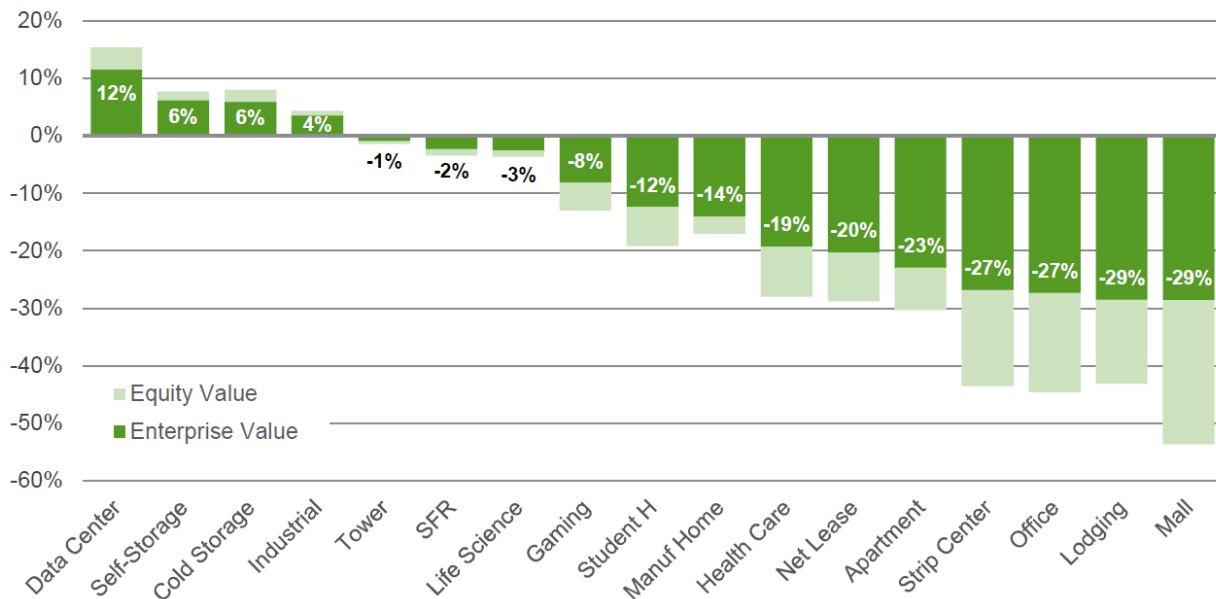
<sup>3</sup> For some, one notable exception to this listing is climate change. Because the preponderance of gateway markets are located in coastal areas, it would seem another risk well worth considering. Hsiang, *et al.* (2017) attempted to quantify the median economic damage scaled by county-level gross domestic product (GDP) due to future climate change across the U.S. While it is not surprising that the southeast portion of the country is forecasted to experience significant economic damage (from 5 to 25%), it does seem surprising that much of the northern portion of the country is forecasted to benefit – economically speaking – from the same climate-related changes. Moreover, the Supplemental Materials of the authors’ study provide a forecast of coastal (residential and commercial) property damage due to climate change (again, as percentage of county GDP). While significant (adverse) impacts are projected to range up and down the eastern seaboard and wrap around those areas bordering the Gulf of Mexico, they predict comparatively little damage anywhere else, including the west coast.

This is, of course, not to suggest that these other parts of the country are immune from natural disasters. One only has to begin to think about west-coast earthquakes, “tornado alley,” *etc.* before seeing the folly in such an assertion. Instead, the point here is that the likelihood and magnitude of these other natural disasters should already be incorporated into sophisticated investors’ analytics.

More broadly, this paper spends little time exploring those elements/characteristics which are believed to be already incorporated into sophisticated investors’ analytics. Instead, this paper tries to focus on under-appreciated growth impediments and evolving risks.

<sup>4</sup> Shortly thereafter, [Pfizer](#) announced favorable (but preliminary) results with regard to a potential COVID vaccine; the announcement helped reverse some of the earlier stock market losses (*e.g.*, see Grant (2020)). Less than two weeks later, [Moderna](#) announced similarly favorable results – resulting in a further rebound of stock prices (*e.g.*, see McCabe, *et al.* (2020)).

**Exhibit 1: Changes in Enterprise and Asset Values, for Publicly Traded REITs, by Property Type, for the Period February 21, 2020 through November 4, 2020**



Source: Green Street Advisors, “REITs Amid a Pandemic,” November 4, 2020.

Despite the public market’s more than 20% “hair cut” in asset valuations<sup>5</sup> for most core property types, private-market valuations have remained largely unchanged (perhaps due to the paucity of private-market transactions since the onset of the pandemic). Consequently, this paper views with

<sup>5</sup> In passing, two interesting observations can be made:

- a) Because the underlying assets of the REITs are essentially unchanged over this period of time, these public-market valuation changes may represent better “comps” than a small sample of private-market transactions (which often differ in terms of location, lease length, tenant credit-quality, construction quality/design, *etc.*) used to infer valuation changes for the entire population of private-market assets.
- b) The so-called “digital” real estate (*e.g.*, cell towers, data centers), which comprises approximately 30% of the NAREIT index, has been among the best-performing sectors. If you extend the picture to include cold storage, self-storage and industrial, you then confront the whole notion that – at least during the pandemic – property returns have improved in sectors accommodating the fewest people (*i.e.*, returns  $\uparrow = f(\# \text{ people}) \downarrow$ ). It would seem to upend how successful property investments have been traditionally considered; it inverts the gauzy notions about the “built environment,” “walkability,” *etc.* – the sorts of things that developers, architects, engineers, *etc.* passionately describe.

skepticism the 2020 private-market real estate pricing data<sup>6</sup> and concludes the following analyses of private-market real estate pricing with 2019.

## **II.B. Pre-COVID Private-Market Pricing**

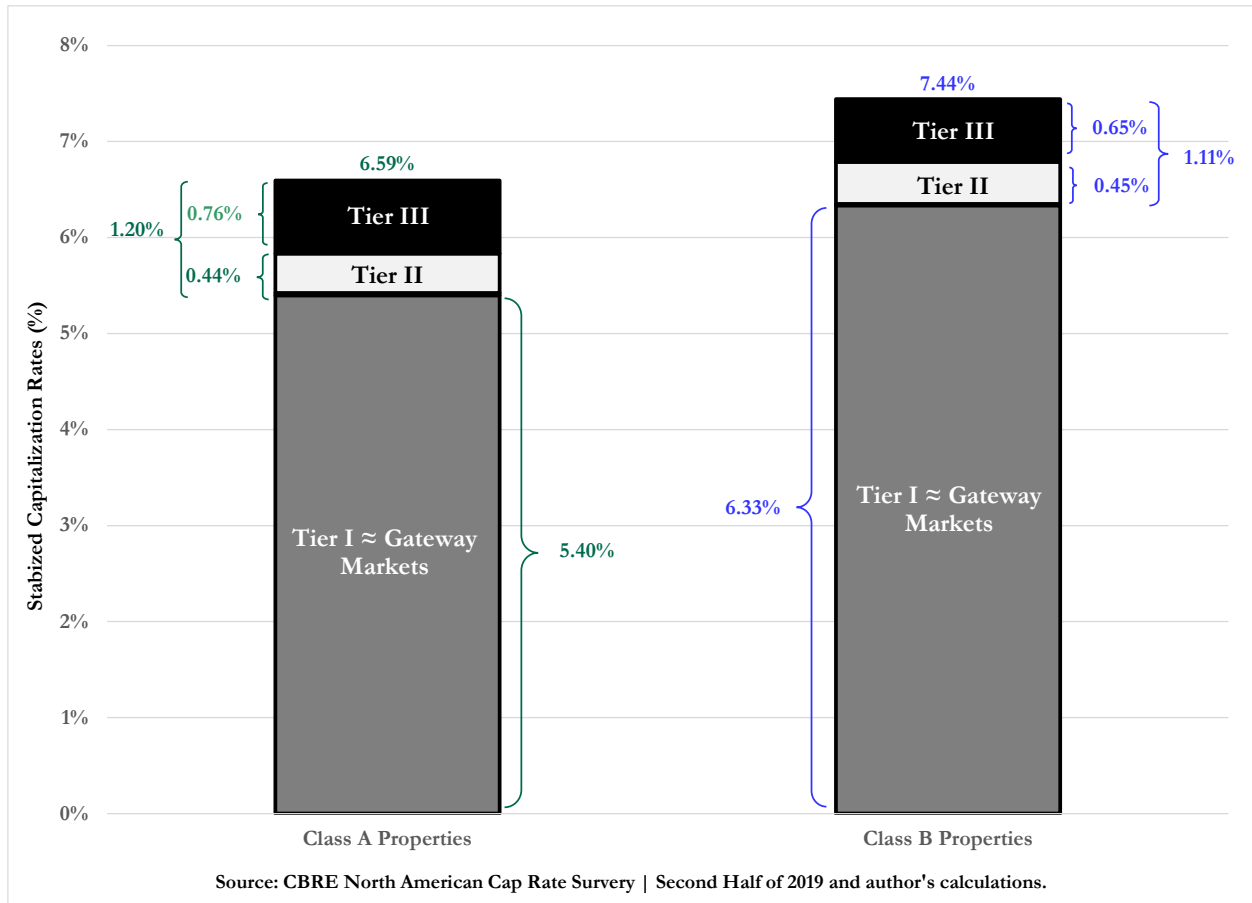
A year-end 2019 snapshot of pre-COVID private-market pricing seems to support the conventional wisdom, as reported capitalization rates are approximately 50 to 100 basis points lower in the gateway<sup>7</sup> markets (after controlling for property type and class) as compared to the secondary and tertiary markets, respectively, and illustrated in Exhibit 2:

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<sup>6</sup> Even if current prices could be reasonably estimated, what constitutes “stabilized” net operating income? Accordingly, all such pricing metrics (including estimated capitalization rates) seem wildly imprecise.

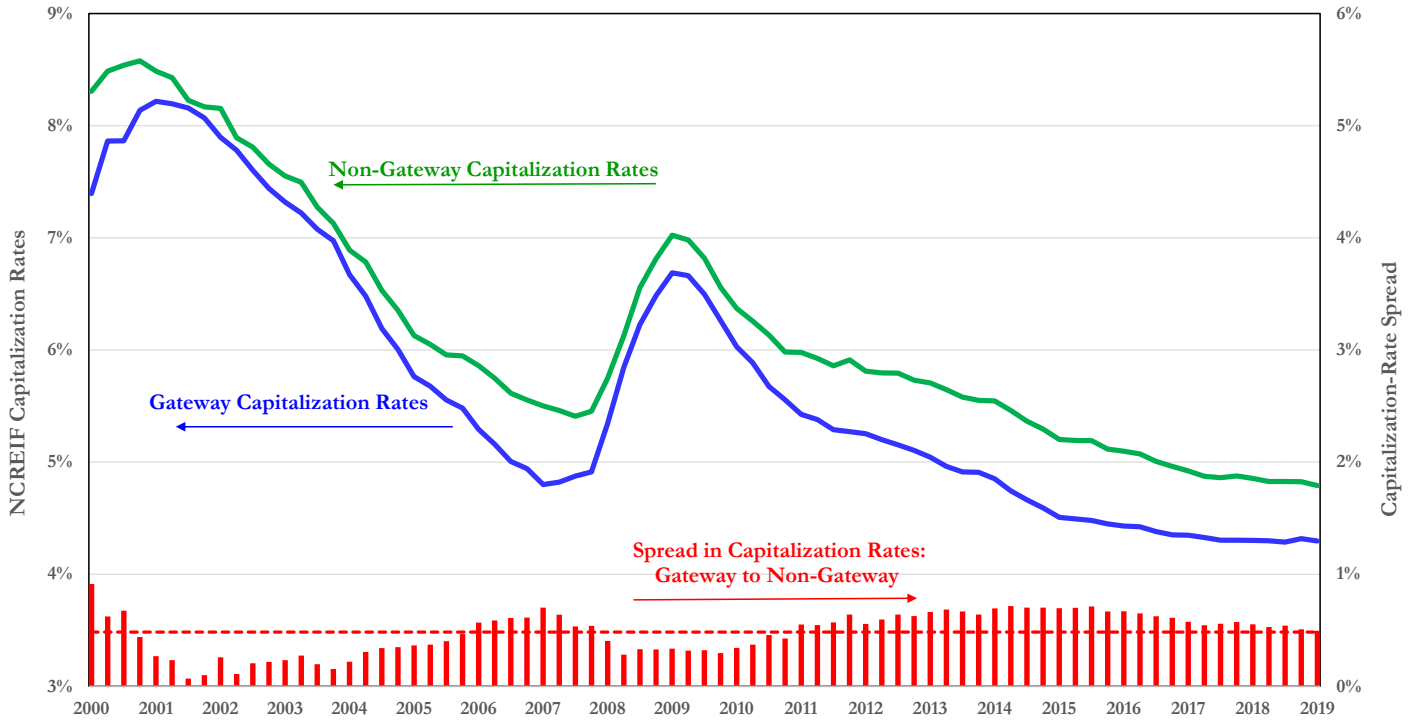
<sup>7</sup> The CBRE North American Cap Rate Survey provides estimated capitalization rates for core property types, stratified as between Class A and Class B properties – among other classes – and further delineates those rates geographically as between Tier I, II and III markets. For purposes of this graph, the Tier I markets are considered the near equivalent of gateway markets. [Interestingly, the Survey’s definition of “gateway” markets varies by property type (*e.g.* while Dallas is considered a Tier I industrial market, it is considered a Tier II office market).] The CBRE-estimated capitalization rates by property type are then equally weighted when producing the summary illustrated above.

## Exhibit 2: CBRE-Estimated Capitalization Rates, by Geographic Tiers and Property Class as of the Second Half of 2019



When examining the time series of capitalization rates using the NCREIF Property Index, we see a similar spread as between gateway and non-gateway markets, which has remained fairly consistent over the twenty years (measured in quarterly intervals) ended in 2019:

**Exhibit 3: Comparison of NCREIF Capitalization Rates as between Gateway and Non-Gateway (Tier II and III) Markets, for the Period 2000-2019**



Sources: NCREIF and authors' calculations.

More precisely, these twenty years have witnessed an average spread in capitalization rates of approximately 50 basis points (with a standard deviation of less than 20 basis points). The ending spread matches, almost exactly, the 20-year average.

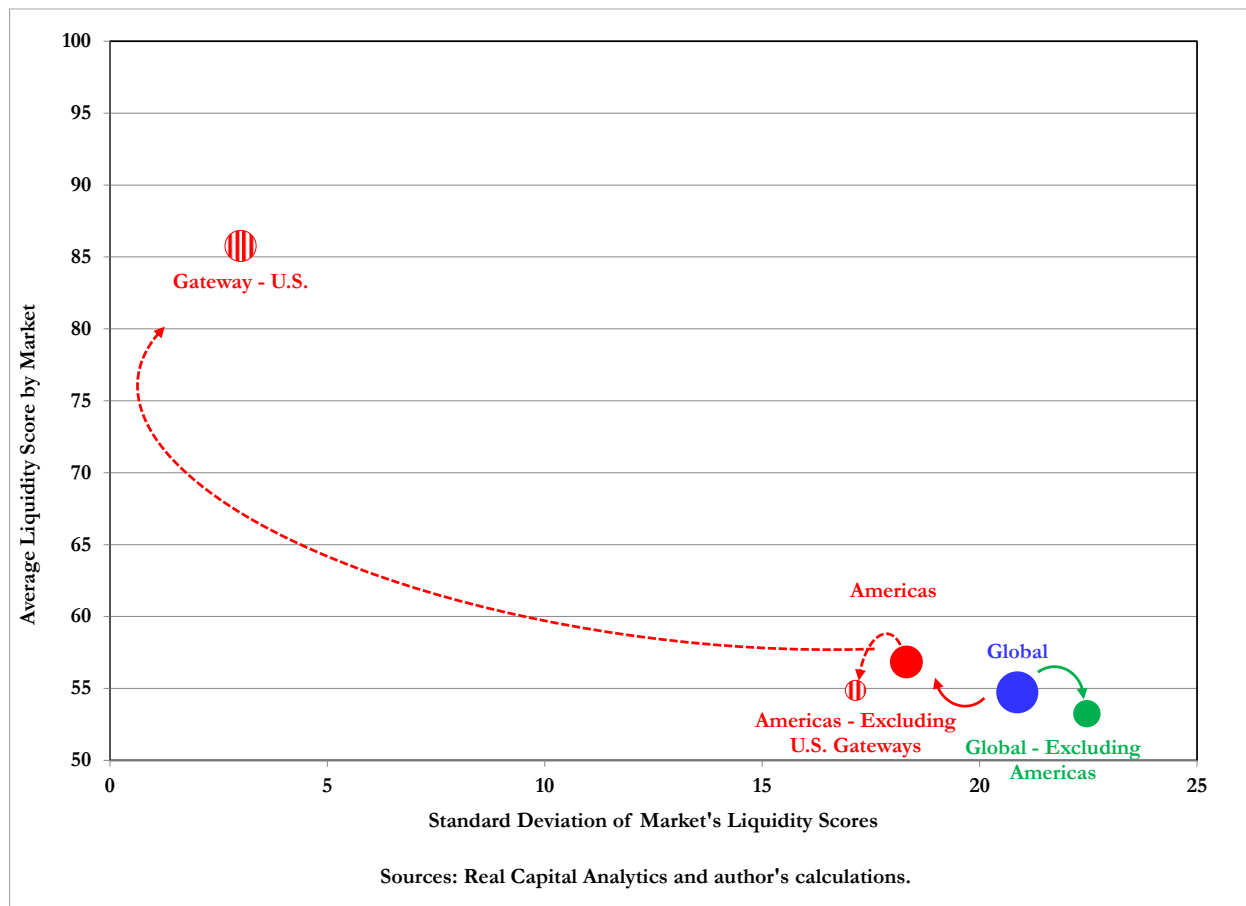
### II.C. Pre-COVID Liquidity

These initial lower yields (*i.e.*, higher prices) represent the market's consensus view on forecasted income growth and on the riskiness of returns as well as the enhanced liquidity of the gateway markets – as illustrated by the mean and volatility of one liquidity<sup>8</sup> measure shown in Exhibit 4:

<sup>8</sup> Real Capital Analytics determines each market's liquidity score as a weighted composite of: *a*) transaction volume (25%), *b*) the number of unique buyers (25%), *c*) share of cross-border investment (20%), *d*) share of continent's top 200 buyers (15%), *e*) share of investment-grade transactions (10%) and *f*) share of global top 200 buyers (5%).



## Exhibit 4: RCA Liquidity Scores, by Market, for the Period 2015-2019



Over the five years ended in 2019, the United States comprised about 50% of the global transaction volume and, of the U.S. volume, Real Capital Analytics' major markets<sup>9</sup> comprised about 40%. In addition to liquidity, two other factors often voiced in favor of the gateway markets are: 1) supply-side restrictions, and 2) scale/size. The former – a restraint on future competition, often as function of: *a*) greater regulatory/zoning burdens in coastal areas, *b*) topographical considerations in certain gateway markets and *c*) the local economy – is widely believed to reduce risk and improve growth rates for (net) rents, representing a significant portion of the investment thesis advocating high-barrier-to-entry markets. The latter factor (scale/size) makes such markets particularly appealing to large firms and/or funds; notwithstanding issues of diversification, the internal costs of the firm (as well as certain external due-diligence costs) are such that, for example, acquiring one \$1 billion property (not unheard of in certain office markets) are far less than acquiring ten properties at a

<sup>9</sup> For domestic metropolitan areas, Real Capital Analytics identifies Boston, Chicago, Los Angeles, New York, San Francisco and Washington, D.C. as “major markets” – which, for purposes of this illustration, coincides with this paper’s working definition of “gateway” markets.

price of \$100 million each. Yet another potential explanation for the greater liquidity in gateway markets is behavioral: in the corporate-suite version of “herd immunity,” it is typically far better to fail conventionally – than unconventionally.<sup>10</sup>

### **II.C. Defining Gateway Markets**

While there is no universally accepted definition of gateway (and non-gateway) markets, there is generally some agreement on the characteristics of such markets; these would include: offers scale (or large-sized investment) and liquidity, act as a transportation hub,<sup>11</sup> play an important role in the macro economy, *etc.* And because this paper occasionally utilizes the data provided by the NCREIF Property Index, the availability such data also plays a role in the choice of the non-gateway markets; unsurprisingly, the problems of data availability are largely confined to the non-gateway cities.<sup>12</sup> It was also decided to group markets by the Combined Statistical Area (CSA), which acknowledges that certain markets which are tied together by both proximity and commerce (*e.g.*, Baltimore’s relationship to Washington, D.C. is one such example). Ultimately, it was decided that the following markets (*i.e.*, CSAs) were chosen – as shown in Exhibit 5:

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<sup>10</sup> For example, a poorly performing investment in Manhattan may be more easily forgiven than one in, say, Indianapolis.

<sup>11</sup> As an historical artifact, such cities often evolved from their location on/near navigable waterways (*e.g.*, see: Burghardt (1971)), which – prior to the introduction of the railroad – was critical to the movement of commerce. Atlanta is a notable example of an important location which emerged after the introduction of the railroad.

<sup>12</sup> For example, some investors may argue that Cleveland, Detroit, New Orleans, Pittsburgh, San Antonio, *etc.* merit inclusion as non-gateway markets to be examined herein; however, the paucity of NCREIF data (owing to the lack of institutional investment in these markets) necessitates their exclusion.

## Exhibit 5: Gateway (Tier I) and Non-Gateway (Tier II and III) Markets

<u>Tier I</u>	<u>Tier II</u>	<u>Tier III</u>
Boston	Atlanta	Austin
Chicago	Dallas	Charlotte
Los Angeles	Denver	Jacksonville
New York	Houston	Kansas City
San Francisco	Miami	Las Vegas
Washington, D.C.	Philadelphia	Minneapolis
	Phoenix	Nashville
	San Diego	Orlando
	Seattle	Portland
		Raleigh
		Sacramento
		Salt Lake City
		San Antonio
		Tampa

By design, the Tier I or gateway also directly correspond to the “major markets” used by Real Capital Analytics. Nothing is sacrosanct about this direct correspondence, other than to suggest that it is a widely followed definition. Undoubtedly, other definitions are available and plausible.<sup>13</sup>

### III. Considering Future Performance

#### III.A. Conceptual Framework

While there many ways to think about these questions, let us consider the simple proposition that gateway and non-gateway property investments ought to offer identical expected Sharpe ratios or risk-adjusted returns.<sup>14</sup> For the purposes of illustration, let us begin with the conventional wisdom that the gateway markets offer safer investments than their non-gateway counterparts (and, as such,

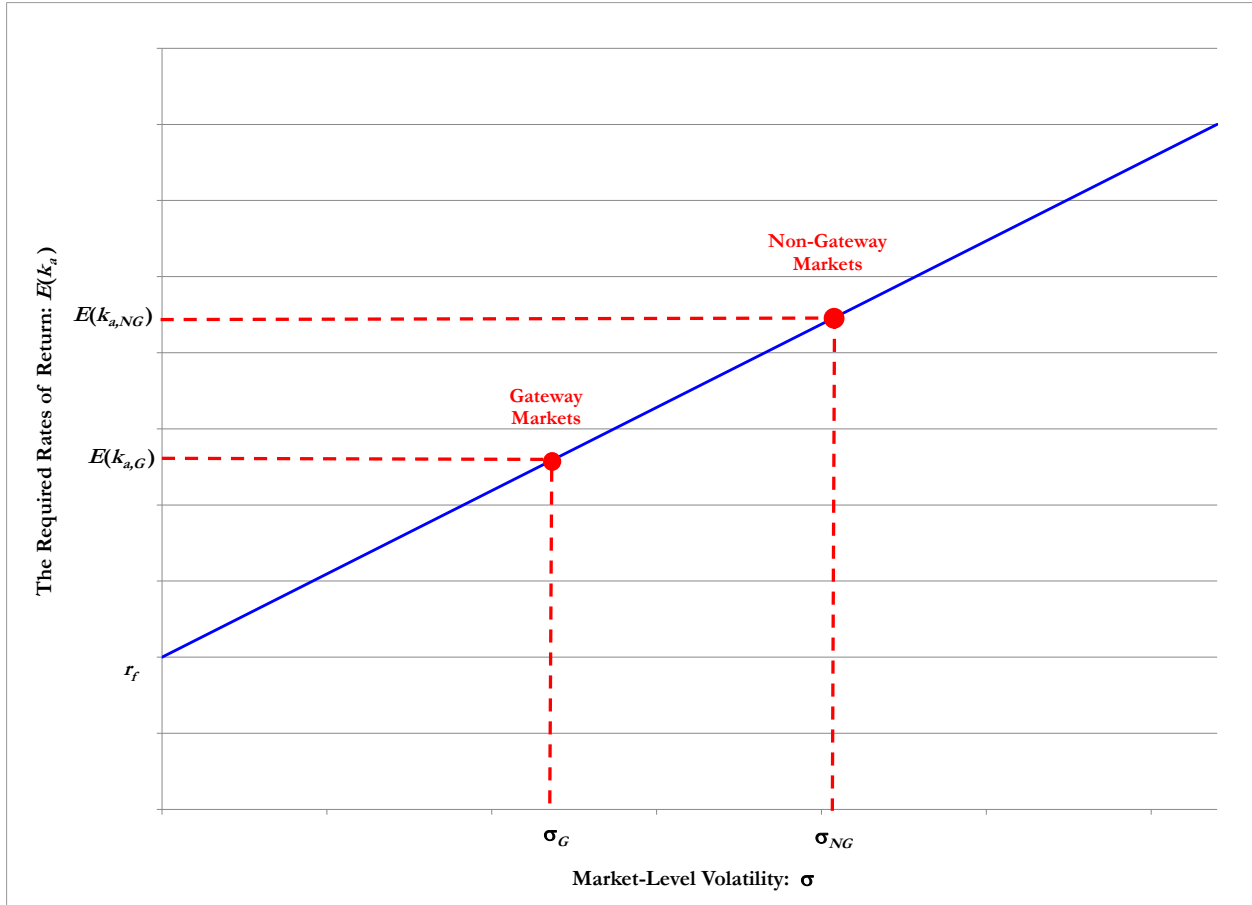
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<sup>13</sup> For example, Green Street considers Seattle as a “gateway” market, but not Chicago. And, in the context of the housing market, Gyourko, *et al.* (2013) define a “superstar” category, as places that persistently experience high price growth relative to supply growth, and identify (38 of 279) metropolitan statistical areas that meet their definition at varying points over the four decades ending with the 2000s.

<sup>14</sup> While one could instead focus on systematic risk ( $\beta$ ) – rather than total risk ( $\sigma$ ) – this paper takes the view that total risk is more descriptive of the manner in which real estate decisions are made by institutional investors.

the gateway markets offer a lower expected risk premium than offered by the non-gateway markets), as illustrated in Exhibit 6:

**Exhibit 6: Pricing Illustration of Gateway v. Non-Gateway Markets,  
In Order to Produce Identical Risk-Adjusted Returns**



The equivalent *ex ante* Sharpe ratios (SR) simply imply that the ratios of the expected asset-level risk premium  $[E(k_{a,i}) - r_f]$  to the volatility of those returns  $[\sigma_i]$  are identical (for  $i = G$  and  $NG$ , representing gateway and non-gateway markets, respectively):

$$SR_G = SR_{NG} \tag{3}$$

$$\frac{E(k_{a,G}) - r_f}{\sigma_G} = \frac{E(k_{a,NG}) - r_f}{\sigma_{NG}}$$

We can expand upon the risk premium by recognizing that, for long-term investors, the return-generating process is dominated by the initial cash-flow yield  $\left[\frac{CF_1}{P_0}\right]$  and the expected growth  $[E(g)]$  in those cash flows over time, such that we can rewrite<sup>15</sup> Equation (3) as:

$$SR_G = SR_{NG} \quad (4)$$

$$\frac{\left(\frac{CF_1}{P_0}\right)_G + E(g)_G - r_f}{\sigma_G} = \frac{\left(\frac{CF_1}{P_0}\right)_{NG} + E(g)_{NG} - r_f}{\sigma_{NG}}$$

On *ex ante* basis, we know the risk-free rate  $[r_f]$  and the initial cash-flow yield in gateway and non-gateway markets with reasonable precision; consequently, we can rewrite Equation (4) such that we effectively isolate the known and unknown quantities:

$$\underbrace{\left(\frac{CF_1}{P_0}\right)_{NG} - \left(\frac{CF_1}{P_0}\right)_G}_{\approx \text{Observable}} = \underbrace{\left[E(g)_G - E(g)_{NG}\right]}_{\approx \text{Unobservable}} + \underbrace{\left(\frac{\sigma_{NG}}{\sigma_G} - 1\right)}_{\approx \text{Unobservable}} \underbrace{\left[\left(\frac{CF_1}{P_0}\right)_G + E(g)_G - r_f\right]}_{\approx \text{Unobservable}} \quad (5)$$

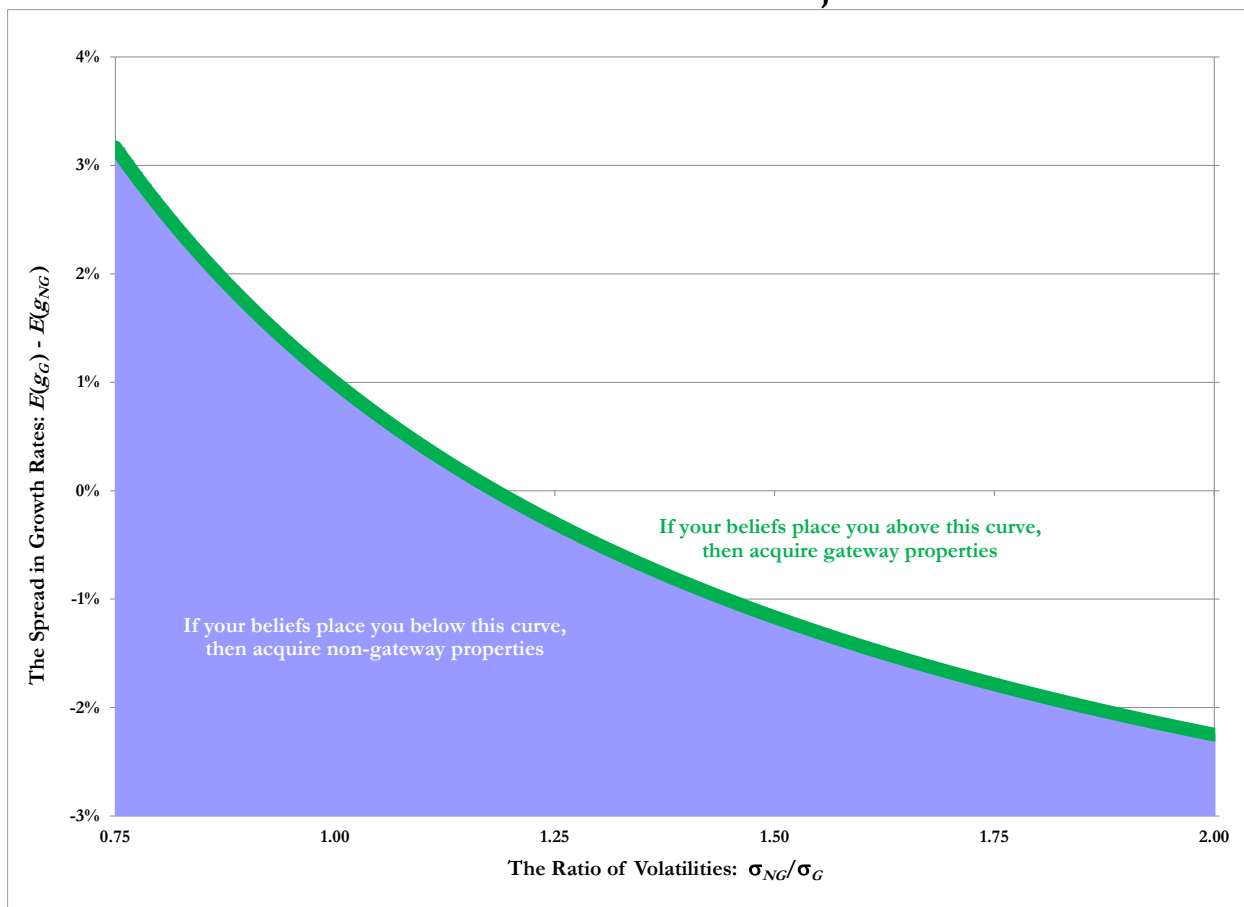
Equation (5) suggests that successful long-term investing is largely about judging future prospects regarding growth and volatility, on a relative basis (for our purposes, gateway *v.* non-gateway markets), in light of the current pricing (again, on a relative basis).<sup>16</sup> Equation (5) provides us with a

<sup>15</sup> Of course, we could add complexity to the analysis by considering, as one example, the effects of cap-rate shifts over various holding periods (*e.g.*, see Pagliari (2017)). We could also add a return premium for the greater illiquidity of non-gateway markets. But, for now at least, let's focus on a simpler set of tradeoffs.

<sup>16</sup> If some investors wish to ignore risk (as apparently is often the case – *e.g.*, see: Pagliari (2020) and Riddiough (2020)) or, equivalently, to assume that the risks are equal as between gateway and non-gateway markets, then Equation (5) simplifies to merely balancing the differential in initial cash-flow yields to the differential in expected cash-flow-growth rates.

framework by which to consider the unknown quantities: relative cash-flow growth and volatilities – given a particular cash-flow-yield differential. See Exhibit 7 for an illustration:

**Exhibit 7: Pricing Illustration of Gateway v. Non-Gateway Markets:  
The Required Spread in Growth Rates Given Volatility Ratios  
In Order to Produce Identical Risk-Adjusted Returns**



The green curve of Exhibit 7 represents the combinations of relative growth rates and volatilities that produce identical long-term risk-adjusted returns, as between gateway and non-gateway markets, given their current pricing. However, if investors’ *ex ante* beliefs place them in a position above that curve; they should then tilt their portfolios towards gateway markets (and away from non-gateway markets). Conversely, if their *ex ante* beliefs place them in a position below that curve; they should then tilt their portfolios towards non-gateway markets (and away from gateway markets).

**III.B. Laggardly Growth and/or Overlooked Risks?**

Having set the conceptual framework, let’s revisit some of the potentially overlooked (to varying degrees) characteristics of gateway and non-gateway markets, with respect to their differing political

economies.<sup>17, 18</sup> As earlier noted, this paper asserts that investors give insufficient attention<sup>19</sup> to the following characteristics: 1) fiscal imbalances, 2) taxation, 3) regulation, 4) public-sector services, and 5) political corruption. Let’s investigate each in some detail:

## **IV. Fiscal Imbalances**

### **IV.A. State Surplus/Deficit per Taxpayer**

A strong fiscal position is often the precondition for long-term public-sector spending on various social programs (*e.g.*, “safety nets,” transfer payments, *etc.*) and infrastructure investments. Alternatively stated, a weak fiscal position often leads to difficult political choices<sup>20</sup> – a vicious cycle of painful spending cuts and damaging tax increases – which lead to a series of troublesome civic outcomes (*e.g.*, increased crime, worsening schools, crumbling infrastructure, *etc.*). Moreover, it is well known that states (and local jurisdictions) often vary considerably in terms of their fiscal conditions; consider the illustration of Exhibit 8:

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<sup>17</sup> From a fiduciary’s standpoint, it is important to be as apolitical as possible when assessing estimating future risk-adjusted returns. However, it would seem the increasing political divisions between “blue” and “red” states (as well those hueing “purple”) suggest the potential for very different impacts on the future performance of commercial real estate.

<sup>18</sup> A variation of this gateway *v.* non-gateway dichotomy is the current discussion (*e.g.*, “the year of the suburbs” – see Logan (2020)) revolving around the exodus from the urban core to the suburbs (within a given market); at its essence, the migration – albeit on a smaller geographic scale – is often framed along the same lines (*i.e.*, tenants moving to locations with lower taxes, safer streets, better schools, *etc.*). While this paper takes no issue with such assertions, it does note that economists have long considered the issue of “leakages” – or the interconnectedness of markets – and the ease of substitution. As such, the assertion here is that this paper’s oft-cited headwinds effect the entire market (albeit, in varying degrees) – not just the urban core of a given market/metropolitan area.

<sup>19</sup> At least anecdotally, stories are often told about institutional investors being slow to fully appreciate the substantial “cap ex” required by certain property types (the chronic underperformance of suburban-office properties is often used as a case in point).

<sup>20</sup> Unlike the federal government, state and local governments have no ability to manipulate the currency; accordingly, state and local governments cannot “print” their way out of these painful choices.





(as well as the commercial real estate economy) and much of the 2020 public-sector fiscal data has yet to be reported, it seems a reasonable conjecture that the pandemic has served to particularly worsen the fiscal position of the gateway markets. (However, the current administration may be more likely to accommodate a “bailout” of deeply indebted states.)

#### **IV.B. Unfunded Public-Sector Pensions**

Among those jurisdictions with significant fiscal imbalances, underfunded (often, severely so) defined-benefit pension-fund obligations to public-sector (current and former) employees (and often their spouses)<sup>22</sup> are typically found. Warren Buffett (2002) famously referred to financial derivatives as “weapons of mass destruction” seeing them as “carrying dangers that, while latent now, are potentially lethal.” He has recently said much the same thing with regard to the state’s unfunded pension obligations.<sup>23</sup>

To provide some context for the scope of the problem: unfunded public-sector pension liabilities total nearly \$5 trillion across the country (which is distinct from the approximate \$16.8 trillion of federal debt (excluding intra-governmental debt) at the end of 2019).<sup>24</sup> However, not all states equally share the problem; Exhibit 9 provides an estimate of each state’s unfunded pension liabilities<sup>25</sup> divided by its population. From the vantage point of their unfunded public-sector pension liabilities, the gateway markets are located in states which (when equally weighted) have an average rank of 35<sup>th</sup> (with an average unfunded liability of approximately \$19,300 per capita), whereas Tier II markets have an average rank of 19<sup>th</sup> (with an average of \$13,100) and Tier III markets have an average rank of 18<sup>th</sup> (with an average of \$12,400).

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the non-gateway markets present the same magnitude of challenges when attempting to identify city/state relationships.

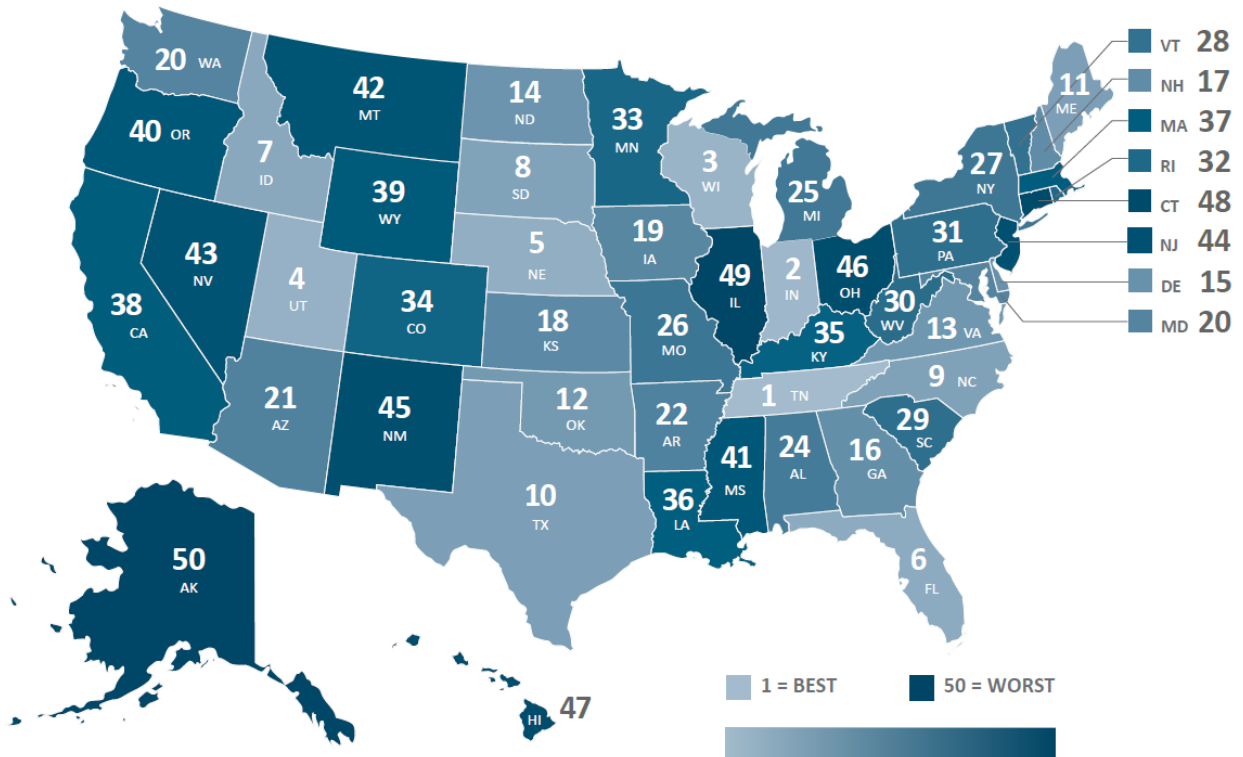
<sup>22</sup> These problems of unfunded pension liabilities are not new. As but two examples, consider the books of Lowenstein (2008) and Whitney (2013). Instead, the size and complexity of the problems remind us of the old saying: “hidden in plain sight.”

<sup>23</sup> See: Warren Buffet interview on CNBC’s “[Squawk Box](#),” February 25, 2019.

<sup>24</sup> The \$5 trillion figure is provided by ALEC, while the \$16.8 trillion figure is provided by the [U.S. Government Accountability Office](#).

<sup>25</sup> There is much debate about the appropriate discount rate for estimating the present value of future pension-related promises. The ALEC analysis uses the risk-free rate, which essentially comports with the prevailing academic view – as nicely summarized by Novy-Marks and Rauh (2011).

**Exhibit 9: State's Unfunded Pension Liabilities per Capita, in 2019**



Source: Savidge, Williams, Williams and Estes, “Unaccountable and Unaffordable 2019,” American Legislative Exchange Council (ALEC), March 2020

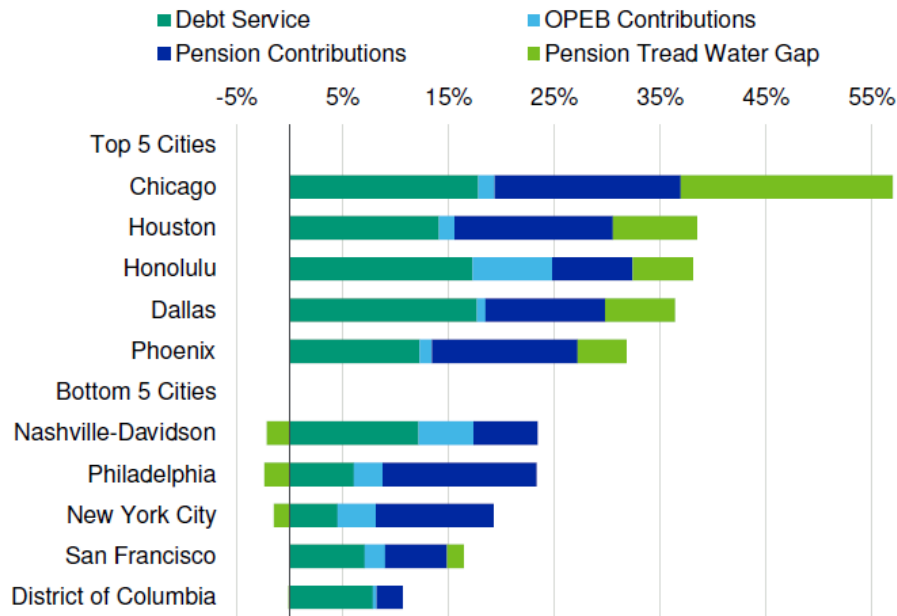
The opaque accounting of these liabilities adds to the uncertainty. Adding to the shroud of state-level liabilities is that many cities and counties sponsor their own defined-benefit public-sector pension plans. While an examination of all such entities<sup>26</sup> is beyond the scope of this paper, Moody’s (2019) examined the adjusted net pension liability<sup>27</sup> of the country’s 50 largest city and county governmental entities, using 2017 data (the last year for which complete data were then available).

<sup>26</sup> For example, the [Urban Institute](#) identifies 5,232 state and locally administered defined-benefit public-sector employee-retirement systems in 2017.

<sup>27</sup> Like other financial advisors, Moody’s is leery of the actuarially assumed discount rates (the median of which was 7.5%) used by state and local officials to determine the present value of the (estimated) future pension benefits and other post-employment benefits by these local governmental entities when preparing their annual financial reports; instead, Moody’s used a more conservative discount rate (the median of which was 3.6%) to determine the present value of estimated future benefits. It is their belief that the lower rate of return is more in keeping with present capital-market conditions, for prudently invested financial assets.

For simplicity’s sake, Exhibit 10 focuses on the best- and worst-performing cities (rather than counties):

**Exhibit 10: Adjusted Net Pension Liabilities as a Percentage of City’s Annual Revenues, 2017**



Source: “Adjusted Net Pension Liabilities for Most of the 50 Largest Governments in 2017,” Moody’s Investor Services, December 18, 2018.

By Moody’s estimate, Chicago’s annual pension obligations<sup>28</sup> exceed 55% of the city’s annual revenues – the worst ratio of any large city in the country. On the other hand, New York, San Francisco and the District of Columbia were all found to be the best-performing cities, with ratios of less than 20%. However, such analyses can be often complicated by the byzantine and complex ways in which the state’s (as well as county and multi-county jurisdictions) unfunded pension liabilities are overlaid on top of the city’s liabilities. For example, citizens of Chicago owe – in

<sup>28</sup> Included in these financial obligations is Moody’s estimate of the “pension tread water gap.” Like many of its fiscally struggling peers, Chicago’s annual contribution to its employees’ pension plans is less than the actuarially estimated contribution to keep the fund’s net pension liability unchanged (*i.e.*, to merely “tread water”). The “gap” is the difference between employers’ actual annual contribution and the amount necessary to cover the present value of the projected retirement benefits earned by plan participants in that year (also known as the “service cost”) – assuming all of the actuarial assumptions are realized – plus the annual interest on the unfunded pension liability.

principle – their fraction of the (seven) underfunded city pension plans plus their fraction of the (three) underfunded (Cook) county retirement plans, untold metropolitan area retirement plans,<sup>29</sup> and certain (five) state plans (*e.g.*, the retirement-plan obligations of the state’s judges and justices).

#### IV.C. Unfunded Public-Sector Pensions

As other measures of fiscal health, consider Exhibit 11:

**Exhibit 11: Certain Measures of State Fiscal Health – Gateway *v.* Non-Gateway Markets**

	Debt and Unfunded Liabilities <i>v.</i> GDP <sup>(1)</sup>		Rainy Day Fund as a Percentage of Revenue	Yield Spread Over AAA <sup>(2)</sup>
	{stated as percentages}			{stated in bps}
Gateway States <sup>(3)</sup>	19.03	13.18	6.36	43.88
Non-Gateway States	<u>8.09</u>	<u>9.22</u>	<u>10.84</u>	<u>13.48</u>
Difference, as a Number	<u>10.94</u>	<u>3.95</u>	<u>-4.48</u>	<u>30.40</u>
Difference, as a Percentage	<u>135%</u>	<u>43%</u>	<u>-41%</u>	<u>226%</u>

**Notes:**

- <sup>(1)</sup> Debt and unfunded liabilities as a percentage of GDP. Based on fiscal year 2019 data, except for California, which is fiscal year 2018.
- <sup>(2)</sup> Spread over Municipal Market Data's AAA benchmark (for general-obligation debt, adjusted for the applicable maturity).
- <sup>(3)</sup> Includes the states of California, Connecticut, Illinois, Maryland, Massachusetts, New York, New Jersey and Virginia.

Sources: Leslie P. Norton, "Is Your State in Financial Trouble? Here's How All Fifty Stack Up," *Barron's*, August 30, 2020 – based upon Eaton Vance; State Comprehensive Annual Financial Reports; Bureau of Labor Statistics; National Association of State Budget Officers; Moody's; S&P and author's calculations.

The high levels of indebtedness (in conjunction with deficit spending) of those states comprising the gateway markets has led to serious downgrades in the perceived credit worthiness of their state’s financial obligations (the rightmost column above). Beyond the increase costs of debt service, these higher spreads to high-credit debt represents the bond market’s consensus view on the political economy of these states.

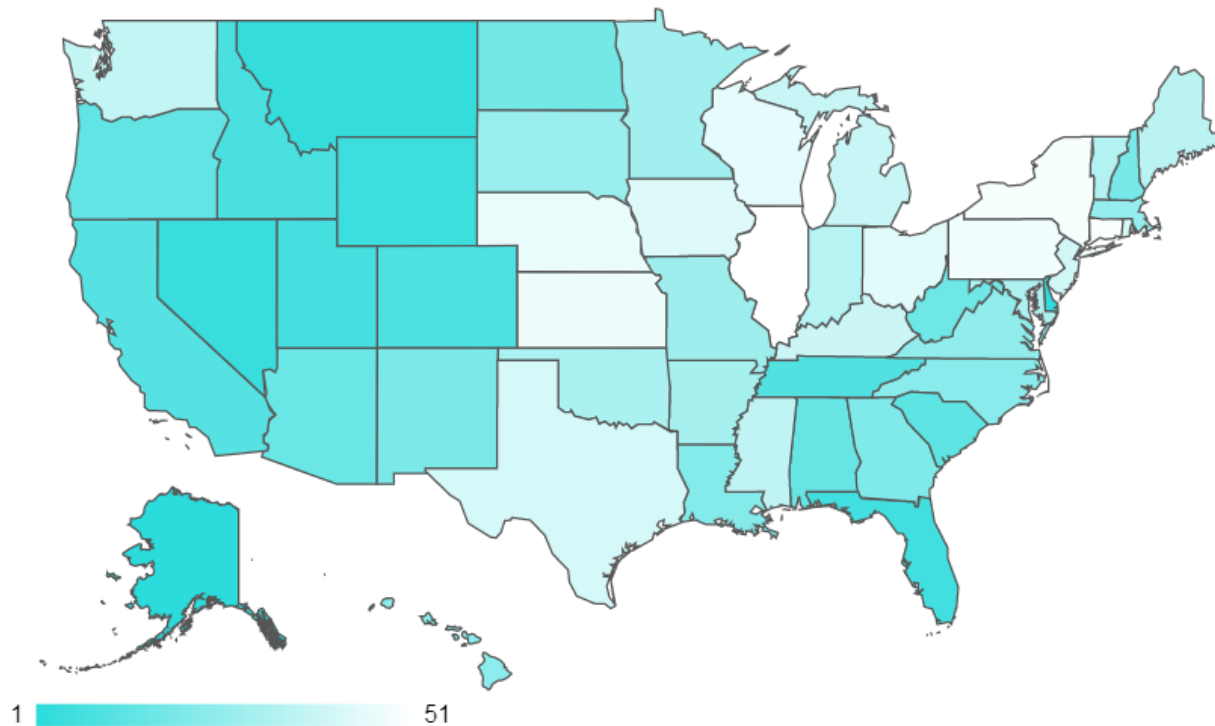
<sup>29</sup> One of which is the [Metropolitan Water Reclamation District Retirement Fund](#); it is, unsurprisingly, “under water.” At year-end 2019, its assets were estimated to equal approximately 56% of its \$2.7 billion in liabilities.

## V. State & Local Taxation

### V.A. Overall State-Level Taxes

Let's begin with overall state taxation<sup>30</sup> expressed as a percentage of median household income for the 50 states plus the District of Columbia, as illustrated in Exhibit 12:

**Exhibit 12: Overall State & Local Taxes as a Percentage of Median Household Income**



Source: John S. Kiernan, "Tax Rates by State," WalletHub, March 10, 2020.

From the vantage point of overall state taxation rates (based on each state's median household income), the gateway markets are located in states which (when equally weighted) have an average rank of 45<sup>th</sup> (with an average tax liability of approximately \$9,500 per household),<sup>31</sup> whereas Tier II markets have an average rank of 28<sup>th</sup> (with an average of \$6,700) and Tier III markets have an average rank of 22<sup>nd</sup> (with an average of \$6,000).<sup>32, 33</sup>

<sup>30</sup> For purposes of this calculation, overall taxes includes the state's income, sales, property and vehicle taxes.

<sup>31</sup> Just as context, the highest (*i.e.*, the worst, in this particular ranking scheme) average ranking that gateway markets can achieve is 48<sup>th</sup>.

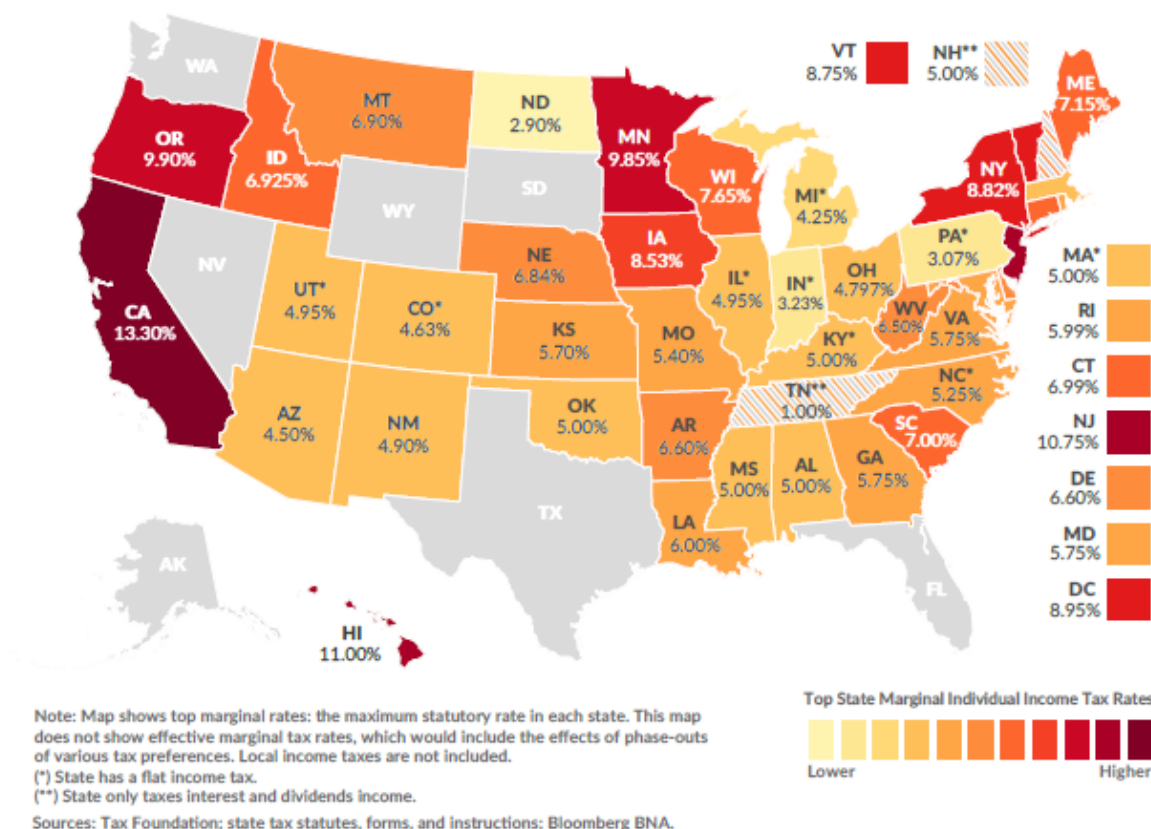
<sup>32</sup> Whereas the map displayed in Exhibit 11 expresses state and local taxes as a percentage of median U.S. household income, these rankings are expressed based on each state's median household income.

Putting aside various service fees (*e.g.*, drivers’ licenses, vehicle taxes, *etc.*, which tend to be a *de minimus* portion of total revenues), state and local taxes are essentially derived from three sources: (corporate and personal) income taxes, sales taxes, and property taxes. Let’s consider each in turn; but let’s focus mostly on the third – as property taxes are acutely important to real estate investors.

### V.B. State-Level Income Taxes

Let’s begin with the top marginal personal income-tax rate by state, as illustrated in Exhibit 13:

**Exhibit 13: Top Marginal Personal Income Tax Rates by State, for 2020**



Source: Katherine Loughhead, “How High Are Income Taxes in Your State?,” Tax Foundation 2020.

From the vantage point of top marginal income-tax rates, the gateway markets are located in states which (when equally weighted) have an average rank of 38<sup>th</sup> (with a top marginal tax rate for married

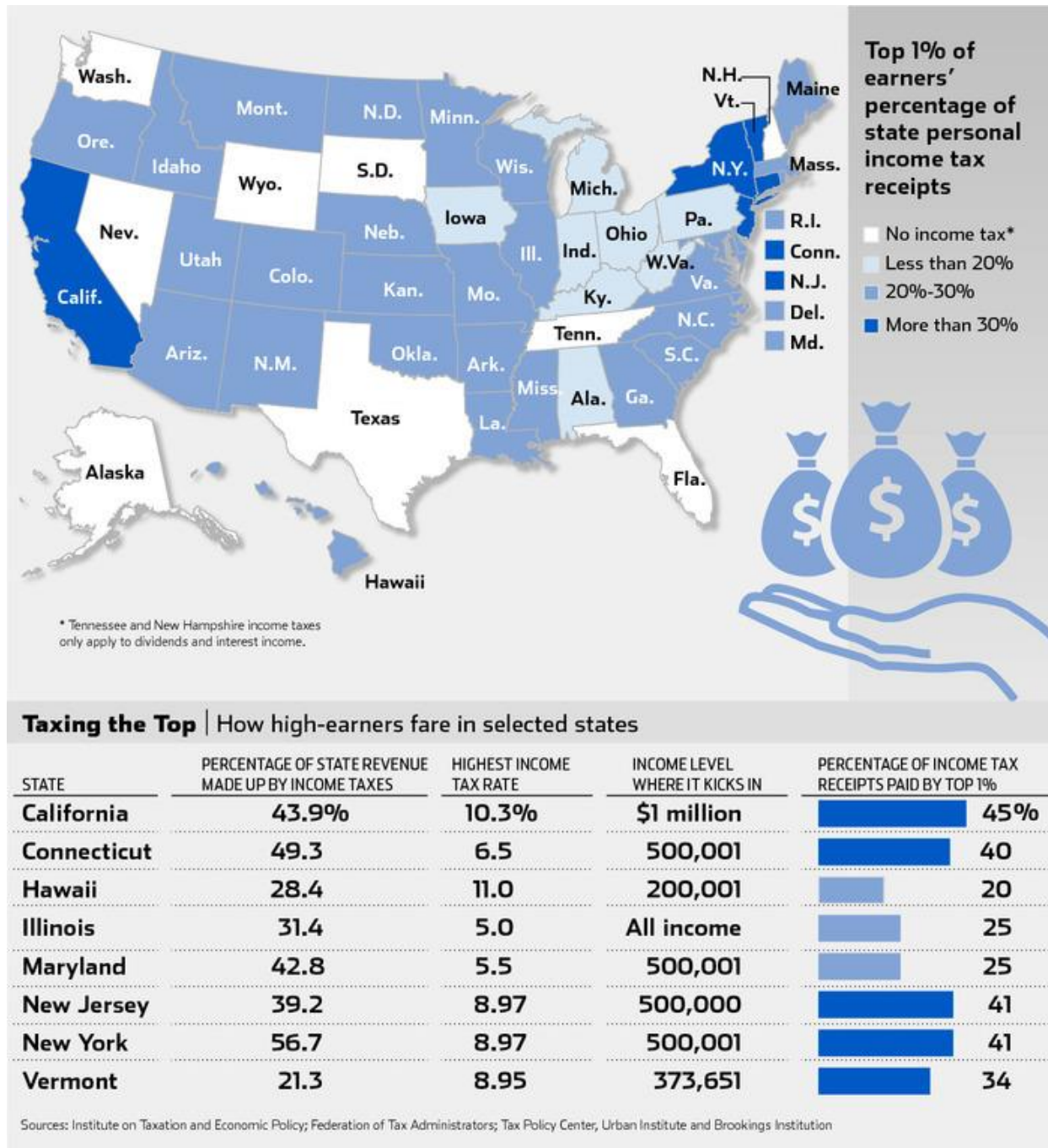
<sup>33</sup> Differentials in state and local taxes per household are far from telling the entire story about cost differentials between markets. Not only do median household incomes vary, significantly in some cases, across markets, but there may also be differential costs specific to a certain locale. The costs of earthquake and/or wildfire insurance in California and the costs of water and high-wind insurance in Florida are just two examples.

couples filing jointly of 8.36%), whereas Tier II markets have an average rank of 14<sup>th</sup> (with a top rate of 3.52%) and Tier III markets have an average rank of 18<sup>th</sup> (with a top rate of 3.98%).

When looking at income taxes at the state level, consideration should be given to the share of state revenues attributable to income taxes and to the concentration of those taxes amongst the state's citizens. Four states (California, Connecticut, New Jersey and New York) – containing all or a portion of three gateway markets (Los Angeles, New York and San Francisco) rely heavily on the state's income tax as a significant source of the state's revenue (*i.e.*, 40% or more of the state's income-tax revenues is paid by the “top 1%” of wage earners), such that tax is concentrated among the state's wealthiest citizens, as illustrated in Exhibit 14:



Exhibit 14: State Income Tax Rates, Percentage of State Revenues & Paid by the Top 1%



Source: Robert Frank, "The Price of Taxing the Rich," *The Wall Street Journal*, March 26, 2011.

Such reliance on the wealthy to pay 40% or more of the state's income tax creates certain risks: a) the income of the very rich tends to be more volatile than those in lower income brackets (and, as

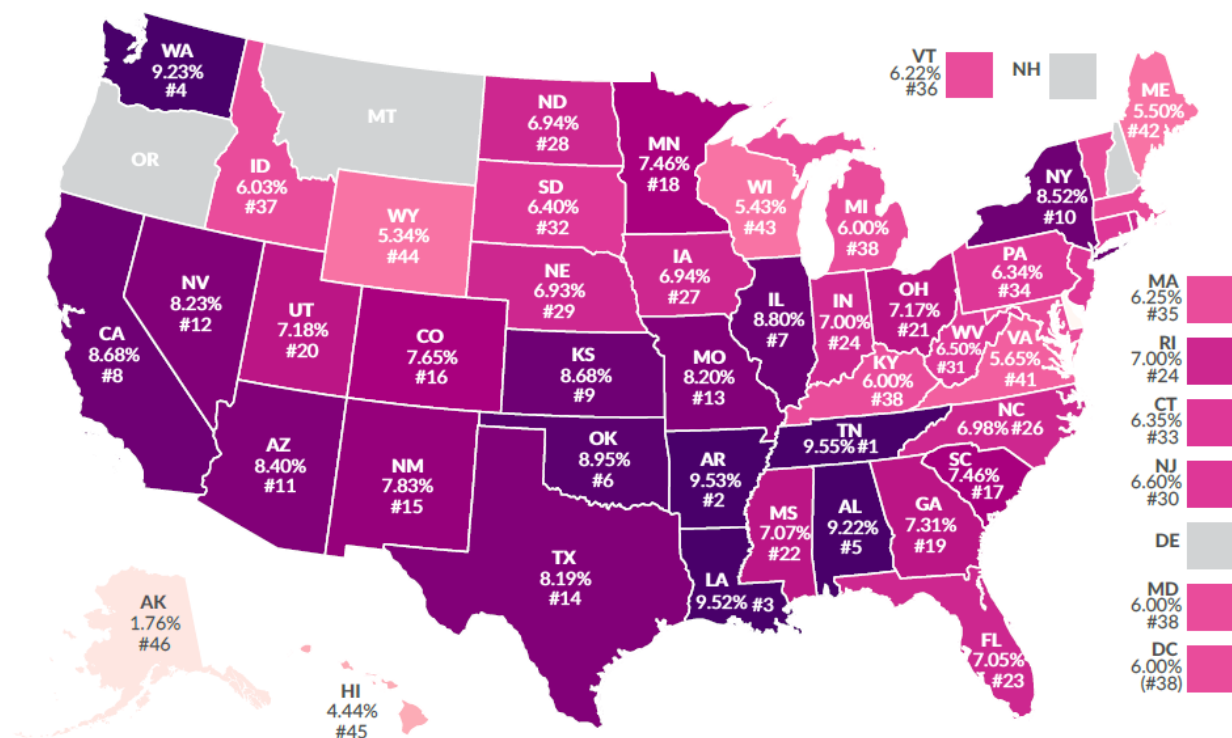


such, state revenues are more volatile<sup>34</sup>) and *b*) the rich have greater mobility (when the burden of higher taxes outweighs the perceived benefits of living in a given state, they can move more easily than most).

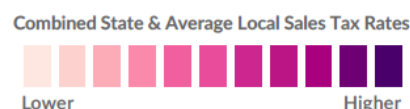
### V.C. State-Level Sales-Tax Rates

Another important element of state-level taxation is the rate at which sales of various goods and services are taxed; see Exhibit 15 for an illustration:

Exhibit 15: Sales-Tax Rates by State, for 2020



City, county and municipal rates vary. These rates are weighted by population to compute an average local tax rate. The sales taxes in Hawaii, New Mexico, and South Dakota have road bases that include many business-to-business services. D.C.'s rank does not affect states' ranks, but the figure in parentheses indicates where it would rank if included. Sources: Sales Tax Clearinghouse; Tax Foundation calculations; State Revenue Department websites



Source: Janelle Cammenga, “State and Local Sales Tax Rates, Midyear 2020,” Tax Foundation, July 2020.

From the vantage point of the average combined state and local sales-tax rates,<sup>35</sup> the gateway markets are located in states which (when equally weighted) have an average rank of 27<sup>th</sup> (with an

<sup>34</sup> As one perspective on the volatility of state income taxes, consider that at the peak of the GFC-related recession, state tax revenues fell 17 percent below their level one year earlier, while personal income taxes were 27 percent lower – see Davis, Singh and Wintner (2019).

average combined state and local sales-tax rate of 7.15%), whereas Tier II markets have an average rank of 38<sup>th</sup> (with an average of 8.09%) and Tier III markets have an average rank of 32<sup>nd</sup> (with an average of 7.24%).<sup>36</sup>

#### **V.D. Property Taxes**

While other forms of state level taxation may inhibit property valuations, local property taxes have a particularly strong effect. No matter how one squares the circle on estimates of unfunded pension and other liabilities (see §IV), they have an adverse impact on property values – harming those values in several ways:

- 1) The estimated present value of future increases in property taxes<sup>37</sup> represents a current reduction in property values.
- 2) The uncertainty revolving around how these unfunded pension liabilities are to be ultimately resolved also represents a further reduction in property values.
- 3) And, because politicians are forced to walk a financial tight rope, trying to balance raising taxes (of all sorts) against a reduction in services (*e.g.*, infrastructure, schooling, policing, *etc.*); this reduction in services (see §VII) represents yet another reduction in property values.

As such and notwithstanding the often arcane ways in which local property taxes computed and apportioned, real estate investors are keenly aware of their importance. Exhibit 16 illustrates the effective (2020) property-tax rate the variation in property taxes by state:

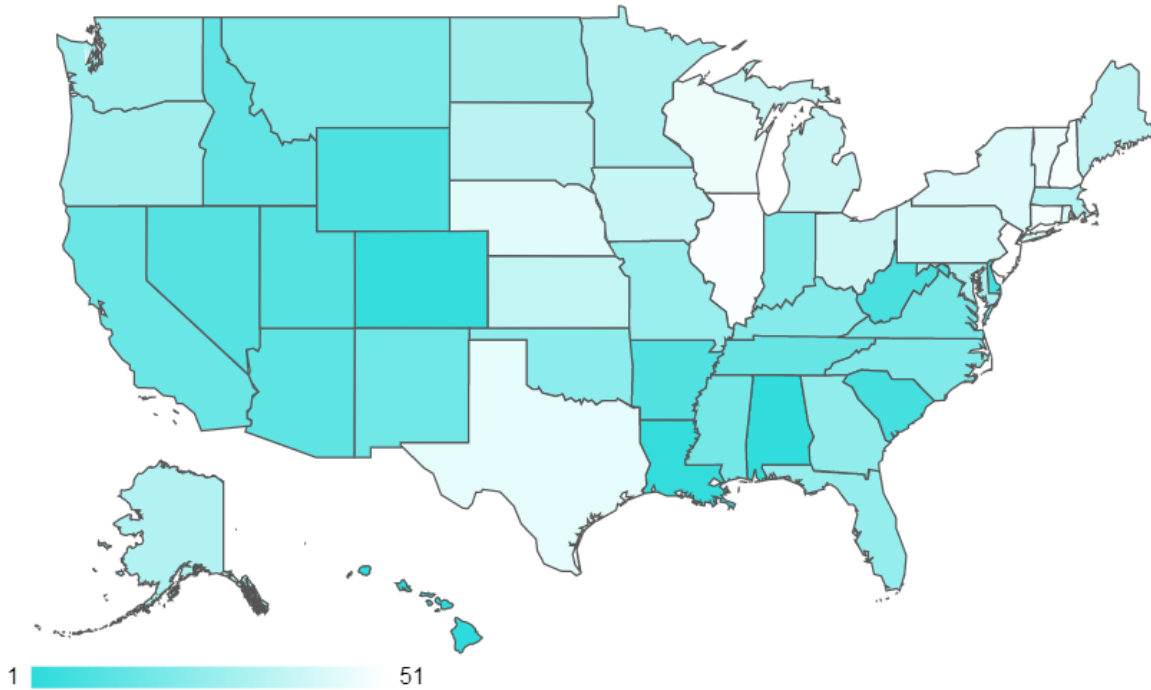
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<sup>35</sup> This examination of state sales-tax rates ignores how such taxes charged by local jurisdictions (*e.g.*, groceries are exempt in some jurisdictions, partially taxed in some others and fully taxed in yet others). Moreover, some local jurisdictions impose sales-tax charges in addition to the state-level sales taxes; as a particular example: Chicago (along with Long Beach and Glendale, California) imposes the highest sale-tax rate in the country, with a combined (city, county and state) rate of 10.25% – see: Walczak (2019).

<sup>36</sup> It is not always the case that high-tax states are uniformly high across all major categories, though Illinois and New Jersey are certainly examples where this is largely true. Tennessee and Washington are, on the other hand, states with no (or almost no) state income tax, but have among the highest sales-tax rates in the country.

<sup>37</sup> At some point, the unfunded liabilities must be paid and there is likely to be a significant increase in property (and other) taxes. See §V generally.

### Exhibit 16: Effective Property-Tax Rates by State – 2020



Source: John S. Kiernan, “Property Taxes by State,” WalletHub, February 25, 2020.

From the vantage point of effective property-tax rates, the gateway markets are located in states which (when equally weighted) have an average rank of 31<sup>st</sup> (with an average effective property-tax rate of 1.38%), whereas Tier II markets have an average rank of 25<sup>th</sup> (with an average of 1.05%) and Tier III markets have an average rank of 27<sup>th</sup> (with an average of 1.06%).<sup>38</sup>

In addition to the level of property taxes, it is also the rate of increases (particularly, rates of increases greater than initially anticipated) in such taxes over time that can be troublesome to property investors. Here too, many of the states in which the gateway markets are located also reflect significant increases over the last 10 years or so – see: Divounguy, Chattopadhyay and Hill (2019).

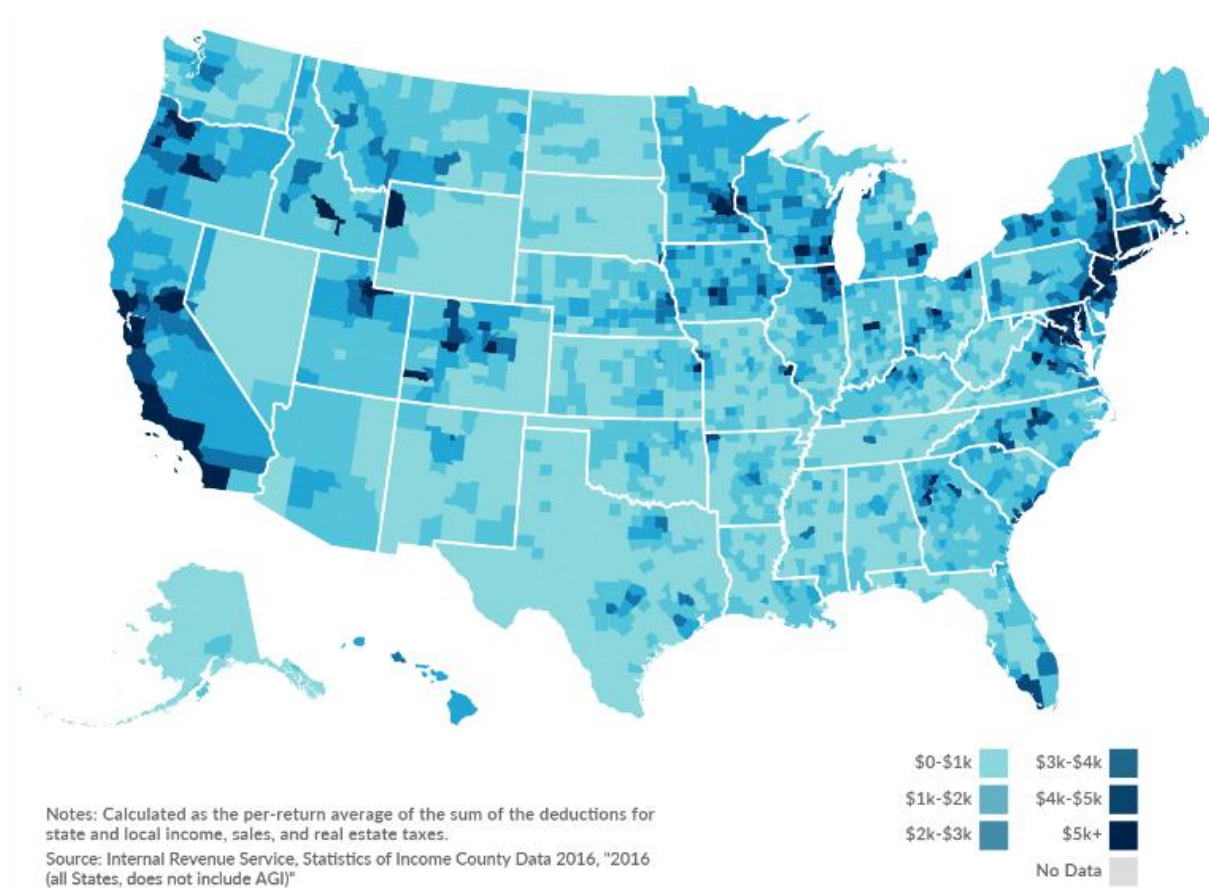
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<sup>38</sup> The averages for the gateway markets are skewed downward, because of the relatively low property-tax rates in California and the District of Columbia. If those two jurisdictions are removed from the computation, then the gateway markets are located in states which have an average rank of 39<sup>th</sup> (with an average effective property-tax rate of 1.67%). Conversely, averages for the Tier II markets are skewed upward, because of the relatively high property-tax rate in Texas impacting both Dallas and Houston. If those two jurisdictions are removed from the computation, then the Tier II markets are located in states which have an average rank of 16<sup>th</sup> (with an average effective property-tax rate of 0.68%).

### V.D.1. “SALT” Limitations

As indicated by Kaeding (2019), the 2017 revision to the U.S. Tax Code [informally known as the Tax Cuts and Jobs Act (“TCJA”)] generally reduced the federal income-tax liability of most Americans. However, the Act (starting with the 2018 tax year) also limited the annual deduction for state and local income taxes paid to \$10,000 (also known as the “SALT” limitation). Six states – California, New York, New Jersey, Illinois, Texas, and Pennsylvania – claimed more than half of the federal deductions for paid state and local taxes. As such, the limitation most affects those high-income taxpayers, who itemize their deductions and live in high-tax jurisdictions with high home values. Exhibit 17 illustrates that the impact of the SALT limitation is not monolithic within a state:

**Exhibit 17: County-Level Estimate of Counties which Most Benefitted from the “SALT” Deductions (Based Upon 2016 Itemized Deductions for State and Local Filers)**



Source: Nicole Kaeding, “Testimony before the House Ways and Means Select Revenue Measures Subcommittee,” Tax Foundation, June 25, 2019.

Clearly, those portions of the map shaded in dark blue directly corresponding to the gateway markets are expected to be most severely hurt by maintaining the limitation on the SALT deduction

(to \$10,000 per annum) and, in turn, are expected to have the most adverse effects on home values<sup>39</sup> – which may cause these residents to reconsider the location of their primary residence (and, in all likelihood, much of their wealth- and/or job-creation). Given the shifting political winds, it will be interesting to see whether the new administration and Congress repeal (or substantially modify) these SALT limitations. As indicated above, the consequences of this limitation fall squarely on the rich<sup>40</sup> and, as such, the popularity of their repeal may be in question.

### **V.D.2. Threat: Capital Levy = $f(\text{Real Estate's Immobility})$**

Raising other state and local taxes may cause households and firms to relocate<sup>41</sup> to friendlier locales; but, because of real estate's very immobility, a number of economists<sup>42</sup> advocate using property taxes to finance unfunded governmental liabilities (including the liabilities of public-sector pension plans – see §IV.B.).

Arnott and Meulbroek (2018) explicitly acknowledge the likelihood of property taxes as the instrument for this capital levy and estimate that, nationwide, unfunded state and local pension burdens average 20% of home values – a ratio which exceeds many owners' equity. Moreover, if real-estate prices have yet to fully adjust to reflect these unfunded pension obligations, then many homeowners' equity could be at further risk. The authors point to Detroit, as an example of the public pension burden ultimately devastating the housing market.

For commercial property owners, the concern is heightened by the belief that it is far more politically expedient to rally the citizenry to increase real estate taxes on commercial properties, than it is levy additional property taxes on owner-occupied housing. This bifurcation in property taxes

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<sup>39</sup> These adverse impacts may be mitigated by: *a*) the limitation is scheduled to expire on December 31, 2025 (when most of the individual tax changes in the TCJA are also set to expire), and *b*) some taxpayers may simply opt for the newly expanded standard deduction, which was doubled in the TCJA (rather than itemizing their deductions, with the capped SALT limitation).

<sup>40</sup> Wamhoff (2021) estimates that eliminating the limitation would cost the federal government approximately \$90 billion per year, and that "...62 percent of the benefits would go to the richest 1 percent and 86 percent would go to the richest 5 percent."

<sup>41</sup> Recall Walter Wriston's [admonition](#): "Capital goes where it's welcome and stays where it's well treated."

<sup>42</sup> For example, Brinkman, Coen-Pirani and Sieg (2016) suggest that equilibrium can be realized when underfunding is capitalized into property prices, noting that differences in funding levels are systematically related to differences in economic fundamentals such as wage levels, the size of the public sector in a city, and the compensation of public-sector workers. In the authors' view, funding policies matter if housing also serves as collateral for households that are potentially credit constrained; a policy intervention that mandates higher funding rates for municipalities than those adopted in equilibrium improves household welfare.

rates is already seen in Chicago<sup>43</sup> and has been threatened in California.<sup>44</sup> The risk to commercial property owners is that, in the name of “fairness,” this sort of disproportionate taxing increases in the future.<sup>45</sup>

More broadly, there is also the risk, that once a “temporary” (or one-time) tax is put in place, that spendthrift politicians – despite earlier promises – often have difficulties allowing such a tax to expire (*e.g.*, see Cochrane (2018)).

### **V.D.3. Home-Appreciation Rates**

One perspective on the harmful impacts of fiscal imbalances, large (and uncertain future) property taxes, deteriorating infrastructure, *etc.* is given by the ten-year home appreciation rates for selected metropolitan areas – see Exhibit 18:

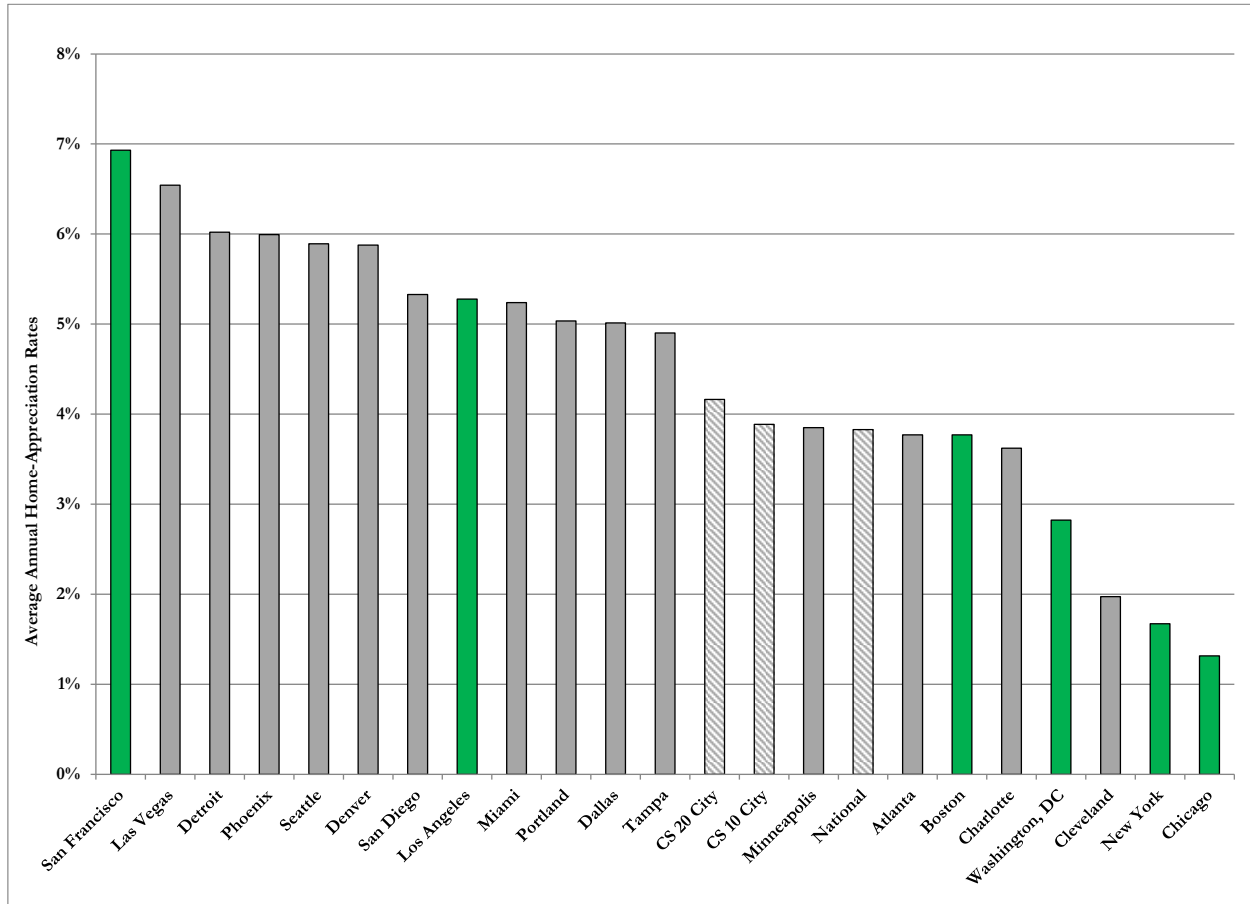
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<sup>43</sup> Illinois’ Cook County (which includes Chicago) is one of the few counties in the country that utilizes a “classification” system, such that commercial properties in Cook County are taxed at a rate equal to 2.5 times the rate on owner-occupied housing. Nationwide, “homestead” deductions and exemptions, which decrease the taxable value of real property by a fixed amount for owner-occupied property, are found in 46 states and the District of Columbia – according to the [Tax Policy Institute](#).

<sup>44</sup> California’s Proposition 13 creates significant disparities between assessed and true market values (because the legislation limits the growth in the property owner’s real estate tax liability to the greater of 2% per annum or the rate of inflation). However, Proposition 15, which was on the ballot last fall and lost, would have partially repealed Proposition 13 such that most non-residential real estate would be taxed at its fair market value.

<sup>45</sup> Moreover, if one is concerned with the equitable apportionment of property taxes, is it really “fair” to have a single office building pay, say, \$10–20 million in annual property taxes? It sends no children to school (generally, over half of the tax property taxes collected are paid to the local school district(s)), but typically removes its own trash, provides its own (albeit, limited) security, shovels the snow (in certain climates) from its own sidewalks and parking facilities, *etc.* While this is not meant to suggest that commercial properties should pay zero in property taxes, it is meant to suggest that something far less than \$10-20 million per year might more fairly represent the burden placed on municipal services by your typical high-end office building. And by way of context, each \$10 million in property taxes impairs the building’s value, at today’s pricing, by approximately \$200 million.

**Exhibit 18: Home-Appreciation Rates for Selected Metropolitan Areas  
for the Ten-Years Ended December, 2019**



Sources: S&P Global CoreLogic Case-Shiller and author’s calculations.

For the ten years ending in 2019, none of the gateway markets fall in the “happy medium” with regard to home-appreciation rates. Two of the gateway markets – Los Angeles and, particularly, San Francisco – have experienced among the highest home appreciation rates of any major metropolitan area in the country. This presents its own problem, brought on by worsening the home-affordability problem experienced in such markets (see subsequent discussion (§VI.B.) on rent control).<sup>46</sup> On the other end of the spectrum, the four other gateway markets – Boston, Washington, D.C., New York and Chicago – have experienced some of the lowest home appreciation rates; moreover, those appreciation rates for New York and Chicago have failed to keep pace with the rate of inflation (1.75%), such that homeowners experienced a real (*i.e.*, inflation-adjusted) decline in home values.

<sup>46</sup> Interestingly, Lu and Tanzi (2019) examine income inequality for large U.S. cities. Their analysis suggests that only two gateway cities were among the top-ten worst cities in terms of income inequality: New York (4<sup>th</sup> worst) and Chicago (9<sup>th</sup>). Rounding out the top ten were: Atlanta (1<sup>st</sup>), Miami (2<sup>nd</sup>), New Orleans (3<sup>rd</sup>), Cleveland (5<sup>th</sup>), Cincinnati (6<sup>th</sup>), Dallas (7<sup>th</sup>), Tampa (8<sup>th</sup>) and Pittsburgh (10<sup>th</sup>).



These faltering home-appreciation rates are often reflective of worsening fiscal conditions, increasing taxes, anti-business sentiments, *etc.*

## **VI. Regulatory Burden**

### **VI.A. Regulatory Freedom**

Another form of taxation, at least as a frictional cost to the economy, is the level of regulatory burden. Economists tend to view certain burdensome regulations as a manifestation of rent seeking by entrenched (and powerful) constituencies and to the detriment of small businesses – thereby worsening the prospects for future growth in employment, goods and services. While these frictional costs are in many ways less observable than other forms of direct taxation, economists have long held (*e.g.*, Stigler (1971)) that a high level of regulation acts like a tariff which are enacted to protect local producers; these large levels of governmental bureaucracy (or “red tape”) favor large incumbent firms (which can better afford to navigate the labyrinth of red tape found in heavily regulated jurisdictions) and disfavor small nascent firms. It is these small nascent firms which are typically the source of new employment opportunities in a dynamic economy.

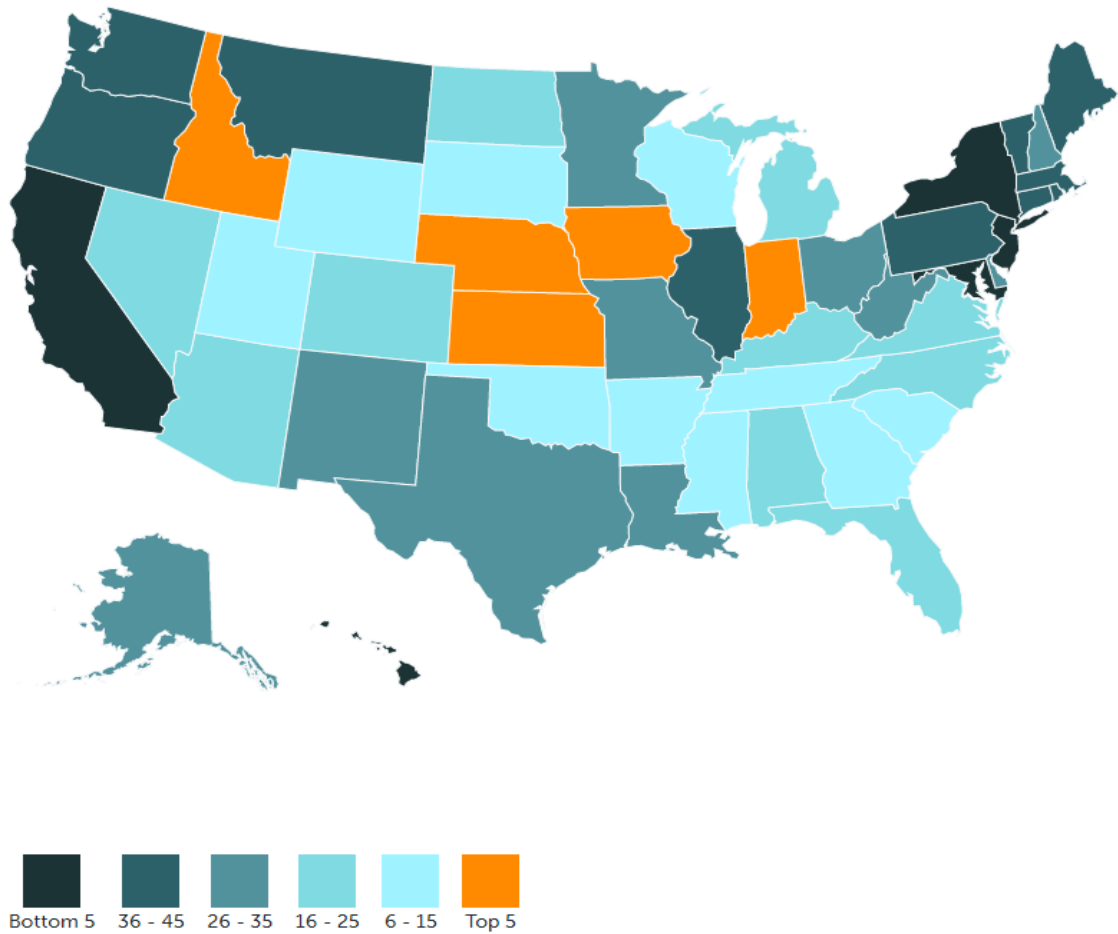
Exhibit 19 provides an illustration of regulatory “freedom” by state:<sup>47</sup>

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<sup>47</sup> Ruger and Sorens (2018) rank “freedom” by scoring “... all 50 states on over 200 policies encompassing fiscal policy, regulatory policy, and personal freedom. We weight public policies according to the estimated costs that government restrictions on freedom impose on their victim.” This particular view emphasizes the “regulatory” dimension of their work, which includes the ranking of the state’s liability system, property rights, health insurance and the labor market.



### Exhibit 19: Regulatory “Freedom” by State, for 2018



Source: Ruger and Sorens, “Freedom in the Fifty States, 5<sup>th</sup> Edition,” Cato Institute, 2018.

From the vantage point of regulatory freedom, the gateway markets are located in states which (when equally weighted) have an average rank of 42<sup>nd</sup>, whereas Tier II markets have an average rank of 27<sup>th</sup> and Tier III markets have an average rank of 24<sup>th</sup>.

#### VI.B. Rent Control

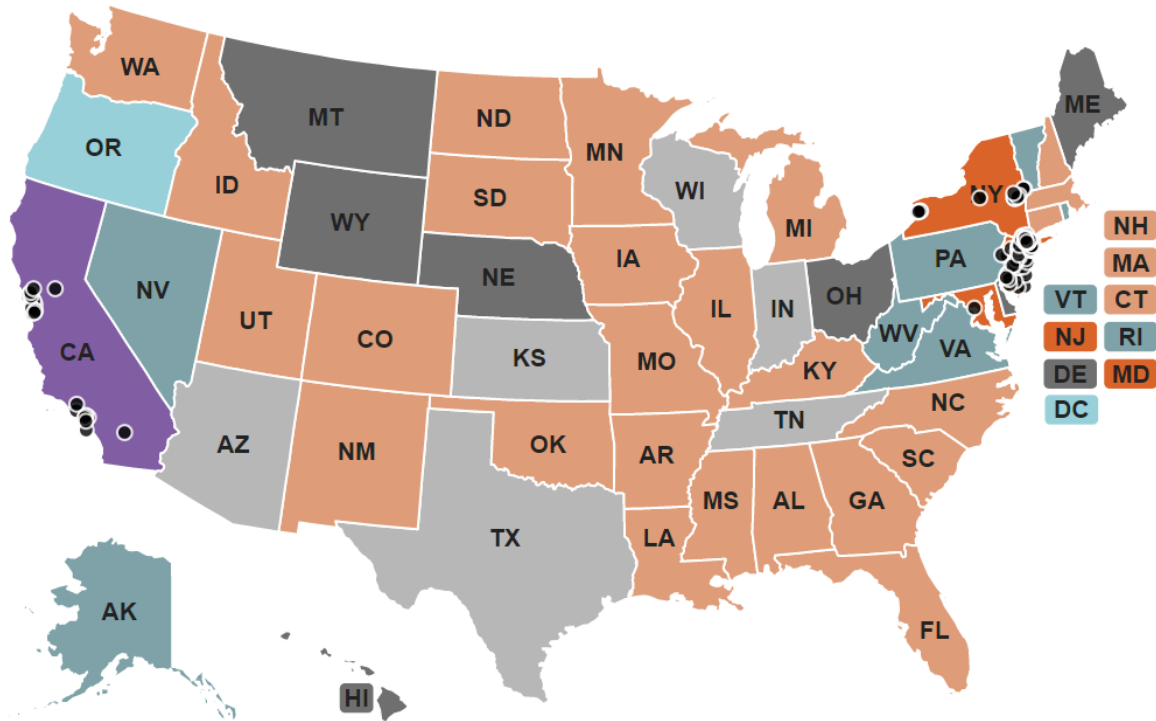
From the standpoint of real estate investors, an important example of such regulatory burdens is rent control. The existence of and proposals for (often well-intentioned) rent control which, most economists have long believed,<sup>48</sup> spur adverse (long-term) impacts upon housing supply and

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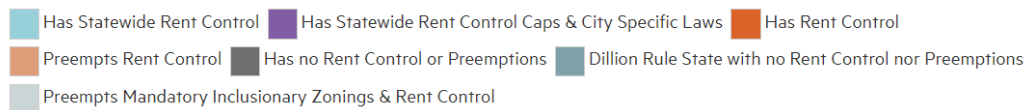
<sup>48</sup> Block (undated) reports that: “Economists are virtually unanimous in concluding that rent controls are destructive. In a 1990 poll of 464 economists published in the May 1992 issue of the *American Economic Review*, 93 percent of U.S. respondents agreed, either completely or with provisos, that ‘a ceiling on rents reduces the quantity and quality of housing available.’”

affordability and, in turn, on multifamily-property valuations. Nevertheless, as conditions of housing affordability worsen (see earlier discussion (§V.D.3.) on home-appreciation rates) in many large cities, increasing political pressure for expanding rent control can be anticipated. Exhibit 20 provides an overview of various rent-control regulations and initiatives across the country:

**Exhibit 20: Rent-Control Laws by State, for 2020**



*\*Not intended for use as legal advice. Information pulled from publicly available sources.*



Source: “[Rent Control Laws by State](#)” National Multi-Housing Council, September 2, 2020.

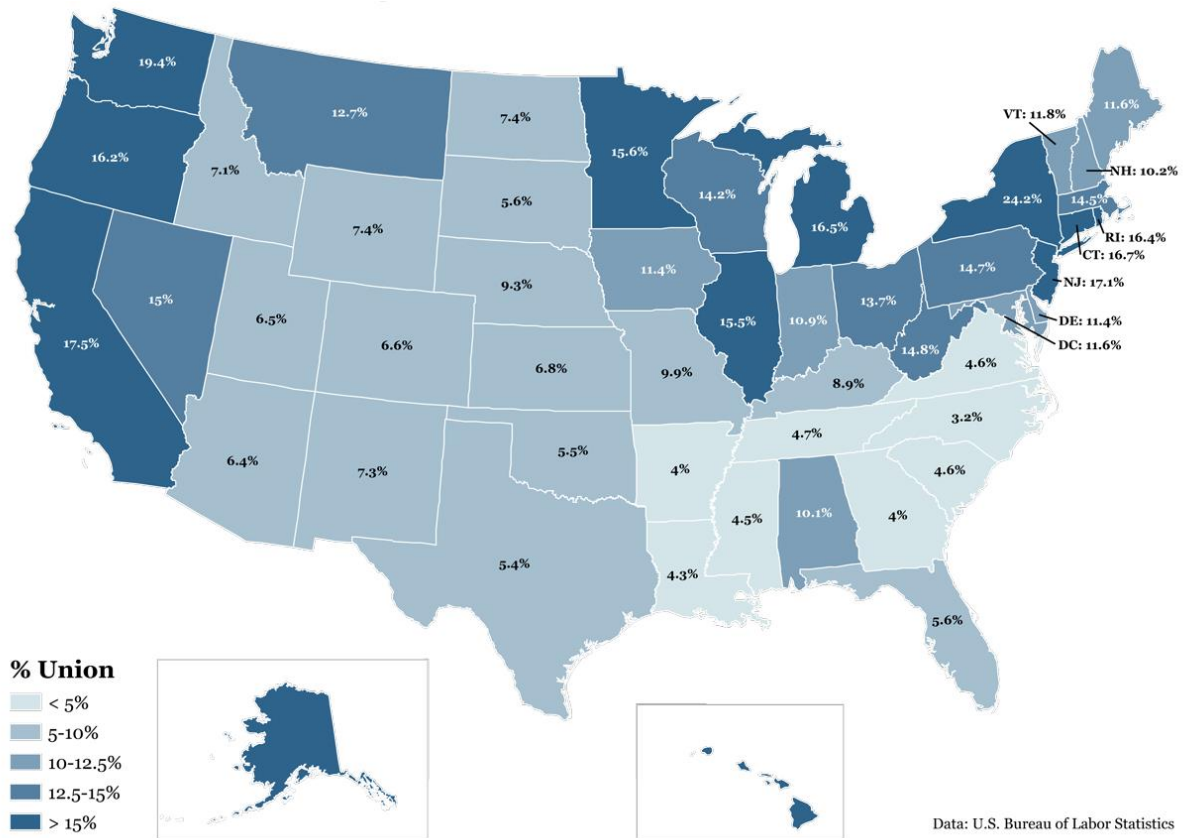
### V.C. Unionized v. Right-to-Work States

Another form of regulatory burden can be the degree to which the workforce is unionized. States (and cities) vary in their degree of labor unionization. In 2019, the percentage of U.S. workers who were members of unions was 10.3%, according to the Bureau of Labor Statistics (2020).<sup>49</sup> However,

<sup>49</sup> While the nationwide rate of unionization among public-sector unions (33.6%) was more than five times that of the private sector (6.2%), the number of unionized employees was roughly the same: there were 7.1 million public-sector unionized employees and 7.5 million private-sector unionized employees in 2019.

unionization participation rate varies widely by state. Hawaii and New York, which are not right-to-work states, have the highest participation rates (23.5% and 21.0%, respectively); North and South Carolina, which are right-to-work states, have the lowest (2.2% and 2.3%, respectively).<sup>50</sup> Exhibit 21 provides an overview of the estimated portion of the state population which is unionized:

**Exhibit 21: Percentage of State’s Labor Force Which Is Unionized, for 2020**



Source: U.S. Bureau of Labor Statistics, 2020

While the figures above do not differentiate between private- and public-sector union members, this can serve as a meaningful distinction. In the private sector, it is generally assumed that the employee and employer come to a reasonable compromise on the tradeoff between the employee’s total

<sup>50</sup> The Sunbelt states, with their comparatively low levels of unionization, have often been the beneficiaries of significant capital investment by multi-national companies looking to expand their operations. Well-known examples include: BMW’s and Boeing’s expansion into South Carolina, Mercedes Benz into Georgia, and Volkswagen into Tennessee. To be fair, cities and states aggressively compete (in terms of land assembly, infrastructure improvements, grants, tax credits, *etc.*) for such facilities – just as they did when Amazon announced its search for a second headquarters. But particularly for blue-collar operations, the existence of a state’s right-to-work laws is an important element of such companies’ deliberations.

compensation and the total productivity that employee provides to the organization (*i.e.*, the employee’s rent-maximizing wage is juxtaposed with the profit-maximizing behavior of the firm); in the long run, the self-correcting mechanisms of the marketplace generally arrive at or near “fair market value.” In the public sector however, the self-correcting mechanisms of the marketplace are generally much duller and more protracted; moreover, these mechanisms are often muted by the high levels of (collectively bargained) unionization and the political pandering of certain politicians. Consequently, there is more uncertainty about whether the employee and employer have arrived at something approaching fair market value – some or all of which may be reflected in the fiscal imbalances found in certain states with inadequate pension-funding levels (see §IV.C.).

## **VII. Crowding Out Public-Sector Services**

As earlier noted, the fiscal imbalances of many state (and local) governments – typically the result of severely underfunded pension liabilities – often force state (and local) politicians to walk a precarious tightrope: government officials are compelled to raising all sorts of taxes (see §V) while at the same time paring back on certain services (*e.g.*, schooling, policing, infrastructure, *etc.*).<sup>51</sup> The end result is often dissatisfaction experienced both by tenants and by property owners (and, if sufficiently severe, mortgage lenders).<sup>52</sup> This metaphorical tightrope is more difficult to traverse for those governmental entities with more-severe fiscal imbalances (*i.e.*, consider those dealing from weakness rather than strength).

And against this backdrop of excessive public-sector spending, how well have state and local governmental entities delivered services? To be sure, measurement of these attributes is less precise than, say, identifying various tax rates. We can nevertheless glean some sense in the disparity of services rendered. Many citizens might find higher taxes worthwhile if these governmental entities provided superlative services. However and as earlier noted, the excessive pension-fund liabilities also have the adverse effect of crowding out important government-provided services. This crowding out can be observed in the lowly ranking on a number of service-related fronts for various cities<sup>53</sup> – see Exhibit 22:

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<sup>51</sup> As one example, the heavy burden of underfunded retirement plans for public-sector teachers causes many active teachers to feel as though they are underpaid – *e.g.*, see: DiSalvo (2019).

<sup>52</sup> The importance of these fiscal imbalances has gained traction with certain practitioners. For example, see Muoio, *et al.* (2019).

<sup>53</sup> In order to determine the best- and worst-run cities, [WalletHub](#) compared 150 of the most populated cities across six key categories: 1) financial stability, 2) education, 3) health, 4) safety, 5) economy and 6) infrastructure and pollution. These characteristics were evaluated using 38 relevant metrics. An overall “Quality of City Services” score for each city was calculated based on its weighted average across all 38 metrics. Finally, the Quality of City Services score for each city was divided by the “Total Budget per Capita”

## Exhibit 22: Estimates of Well- and Poorly Run Major U.S. Cities

Overall Rank	City	Quality of City Services: Rank	Total Budget per Capita: Rank	Markets Considered, by Tier			
				Tier I			
				Tier I	Ring	Tier II	Tier III
(1=Best)							
22	Raleigh, NC	33	32				✓
27	Salt Lake City, UT	25	41				✓
34	Phoenix, AZ	63	38			✓	
46	Las Vegas, NV	39	58				✓
63	Portland, OR	12	96				✓
65	Boston, MA	3	104	✓			
72	Houston, TX	89	71			✓	
74	San Diego, CA	17	107			✓	
78	Austin, TX	16	110				✓
83	Miami, FL	38	100			✓	
88	Tampa, FL	35	109				✓
89	Minneapolis, MN	28	111				✓
91	San Jose, CA	13	123		✓		
92	Orlando, FL	54	102				✓
96	San Antonio, TX	73	103				✓
97	Bridgeport, CT	103	91		✓		
99	Dallas, TX	104	93			✓	
103	Jacksonville, FL	129	74				✓
106	Nashville, TN	115	94				✓
110	Kansas City, MO	119	98				✓
113	Charlotte, NC	52	126				✓
114	Seattle, WA	10	139			✓	
120	Denver, CO	53	132			✓	
124	Sacramento, CA	72	133				✓
128	Baltimore, MD	127	111		✓		
129	Riverside, CA	98	134		✓		
132	Atlanta, GA	100	135			✓	
133	Kansas City, KS	145	106				✓
134	Los Angeles, CA	43	144	✓			
135	Philadelphia, PA	121	130				✓
142	Chicago, IL	136	137	✓			
146	New York, NY	19	148	✓			
149	San Francisco, CA	22	149	✓			
150	Washington, DC	34	150	✓			

Sources: McCann, “Best- and Worst-Run Cities in America,” WalletHub, 2020 and author’s calculations.

(dollar amount) in order to construct a “Score per Dollar Spent” index – displayed as “Overall Rank” – which was used to rank-order the cities in the sample.

Looking over the earlier list of high-tax states, one finds a number of gateway markets common to both lists. From the vantage point of well-run cities, the gateway markets are located in cities which (when equally weighted) have an average rank of 131<sup>st</sup> (where 1 = best and 150 = worst), whereas Tier II markets have an average rank of 91<sup>st</sup> and Tier III markets have an average rank of 89<sup>th</sup>. While paying more in taxes to get more in services seems reasonable; to pay more to get less seems both unreasonable and unsustainable – as appears to be the plight of most of the gateway cities (with Boston the notable exception).

### **VIII. Political Corruption**

Unfortunately, the old story about political power and corruption is often most evident in the gateway markets. Consider the following exhibit which ranks certain states and the District of Columbia based on federal public corruption convictions<sup>54</sup> per capita – see Exhibit 23:

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<sup>54</sup> The Department of Justice's [Public Integrity Section](#) yearly submits a report to Congress on total convictions of public (federal, state or local) officials on federal corruption charges.

**Exhibit 23: Federal Public Corruption Convictions (1998-2018)  
per Capita for Selected Jurisdictions**

<u>Rank for Convictions Per Capita</u>	<u>State/District</u>	<u>Convictions 1999-2018</u>	<u>Average 2010–2018 Population</u>	<u>Conviction Per 10,000 Population</u>
2	Oregon	69	3,977,209	0.17
3	Utah	56	2,933,157	0.19
4	Minnesota	112	5,438,745	0.21
5	Colorado	129	5,331,928	0.24
7	Washington	174	7,061,656	0.25
8	Nevada	76	2,825,173	0.27
10	Kansas	88	2,890,310	0.30
11	North Carolina	314	9,913,763	0.32
12	California	1,380	38,420,266	0.36
16	Connecticut	153	3,583,812	0.43
25	Massachusetts	370	6,725,543	0.55
26	Georgia	564	10,056,432	0.56
27	Texas	1,517	26,804,011	0.57
28	Arizona	384	6,719,860	0.57
29	New York	1,128	19,557,157	0.58
30	Missouri	350	6,050,961	0.58
35	Illinois	893	12,842,949	0.70
36	Florida	1,386	19,862,381	0.70
37	Tennessee	482	6,529,916	0.74
38	Pennsylvania	985	12,765,797	0.77
39	New Jersey	721	8,853,244	0.81
44	Maryland	555	5,922,939	0.94
45	Virginia	795	8,263,231	0.96
51	District of Columbia	606	653,410	9.27

Sources Adopted from Simpson, *et al.*, “Anti-Corruption Report #12,” University of Illinois at Chicago, February 17, 2020 and author’s calculations.

From the vantage point of federal corruption per capita, the gateway markets<sup>55</sup> are located in states which (when equally weighted) have an average rank of 29<sup>th</sup> (with an average conviction rate of approximately 0.63 for every 10,000 people), whereas Tier II markets have an average rank of 21<sup>st</sup> (with an average of 0.48) and Tier III markets have an average rank of 20<sup>th</sup> (with an average of 0.47).

<sup>55</sup> Because of the District of Columbia’s unique role, its conviction rate was excluded from these calculations. However if it were to be included, the gateway markets would have an average rank of 31<sup>st</sup>, with an average conviction rate of approximately 1.50 for every 10,000 people – or more than three times the rate of the non-gateway markets.

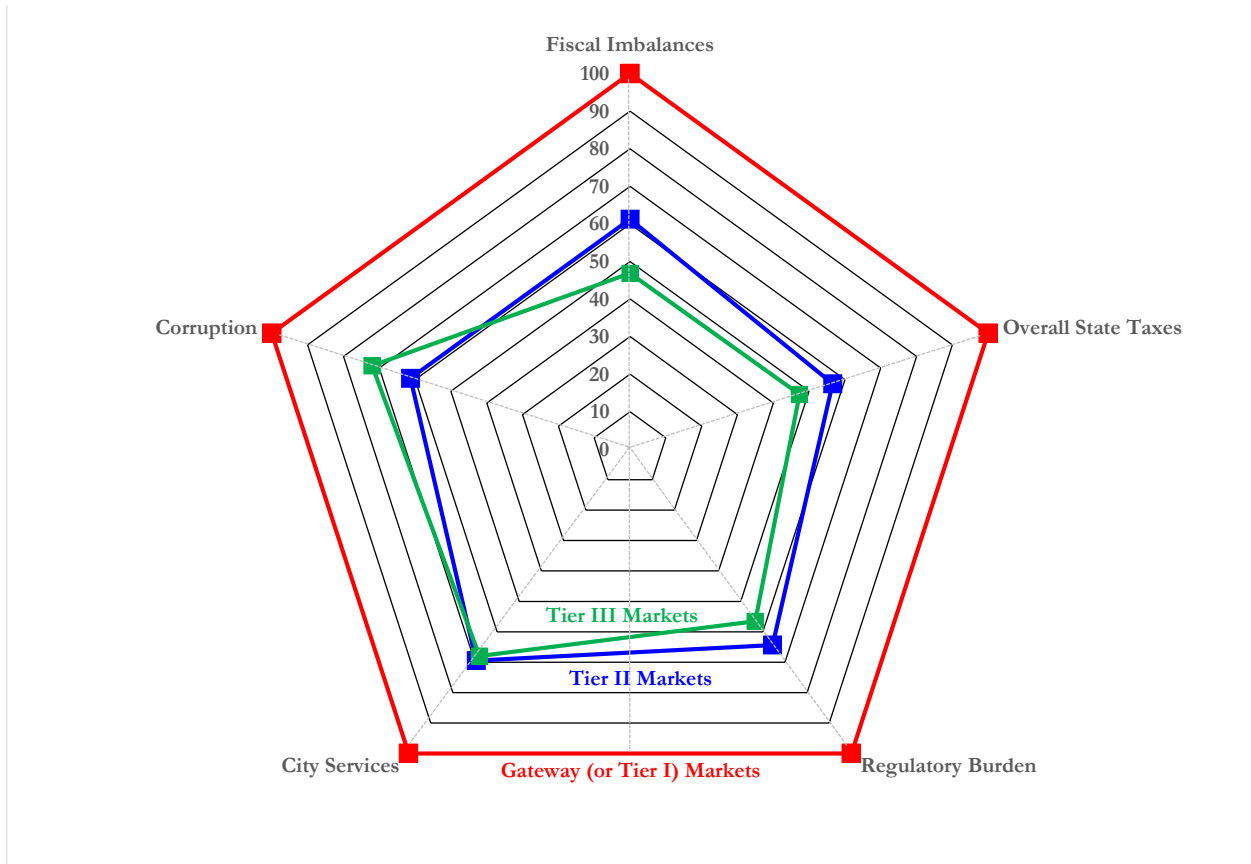
Moreover, it could be argued that the sheer number of convictions – not the rate per capita – is a better measure of the climate of corruption and cronyism in which these commercial real estate markets operate; if so, the gateway markets apparent disadvantage is exacerbated.

## **IX. Summary of Certain Concerns**

Exhibit 24 summarizes the rankings of the gateway (or Tier I) markets relative to the non-gateway (Tier II and III) markets with regard to five particular characteristics: 1) fiscal imbalances, 2) taxation, 3) regulatory burden, 4) public infrastructure, and 5) political corruption. But because the rankings represents differing scales across the various characteristics, Exhibit 24 rescales the earlier (equal-weighted) rankings such that the highest ranking (where higher scores denote worse rankings) is arbitrarily reset to one hundred (in all cases, this pertains to the ranking of the gateway markets) and then expressing the rescaled ranking for the non-gateway markets as a percentage of the earlier ranking (*e.g.*, if the earlier ranking of a given characteristic was the 80<sup>th</sup>, 60<sup>th</sup> and 40<sup>th</sup> for the Tier I through Tier III markets, respectively, then the rescaled rankings would be the 100<sup>th</sup>, 75<sup>th</sup> and 50<sup>th</sup>). While it would be preferable to use the average metric (*e.g.*, the surplus/deficit per taxpayer for the first characteristic), this is not feasible across all characteristics – as in several cases, third-party sources only provide a ranking (not a particular metric).



**Exhibit 24: Summary of Selected Characteristics for Gateway & Non-Gateway Markets**



Sources: see earlier exhibits.

Exhibit 24 illustrates the particular dimensions by which the gateway markets trail the non-gateway markets (*i.e.*, the relative rankings for the gateway markets, as shown in red, all lie well outside the rankings of the non-gateway markets – where Tier II markets are shown in blue and Tier III in green). As a crude indication, the Tier II markets average approximately 63% of the gateway ranking and Tier III markets average approximately 58%.

## **X. Market Resiliency**

For many of these characteristics, Chicago looks particularly troublesome.<sup>56</sup> Can these problems be favorably resolved over a reasonable period of time? Will its fiscal problems be resolved through the cooperation and coordination of its creditors? If not, will a judicial restructuring be necessary? But if Chicago’s problems cannot be successfully resolved, what does this portend for other gateway

<sup>56</sup> For additional details, see: Pagliari (2019). There are already institutional whispers about “red-lining” future commercial real estate investments in Chicago.

markets? Does Chicago become the “canary in the coal mine” representing a harbinger of worsening characteristics for these other markets? Or (again, assuming its structural problems cannot be favorably and timely resolved), does Chicago merely represent an aberration? At present, it is all inherently unknowable.

A more optimistic perspective notes that markets are resilient and that the urban core is an important part of the national fabric (*e.g.*, see: Florida (2014) and Glaeser (2011)). As a case in point with regard to resiliency, New York City was on the verge of bankruptcy in the 1970s (and, as stressed earlier, these fiscal problems are often associated with other civic maladies (*e.g.*, increased crime, worsening schools, crumbling infrastructure, *etc.*)). Then, a variety of civic and business leaders coalesced to both reform New York’s fiscal problems<sup>57</sup> and restore its image across the country (and around the globe). In New York’s case, reversing the fiscal problems and projecting a favorable image led to remarkable growth, which is often the elixir that helps cure fiscal and other problems. Moreover, New York has since withstood a number of (man-made and natural) disasters, including the 9-11 terrorist attacks (2001), the global financial crisis (2007-08) and hurricane/tropical storm Sandy (2012).<sup>58</sup> However, such resiliency is not guaranteed. Two “rustbelt” examples serve to illustrate opposite sides of the coin: compare the metamorphosis of “Pittsburgh steel” (*e.g.*, consider business titans like Andrew Carnegie, the Mellon family, George Westinghouse, *et al.* – captaining the high-tech industries of their era<sup>59</sup>) to the collapse of “Detroit muscle.”<sup>60</sup>

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<sup>57</sup> It is generally difficult for state and local governments to “tax their way out” of fiscal problems. Without meaningful reform of the underlying spending problems, business leaders are reluctant to invest further. When economists and policy makers consider raising taxes, one of the considerations is the likely impact on consumption and investment decisions of the citizenry. In other words, people respond to economic incentives. Recall the old adage: “If you want less of something, tax it; if you want more of something, subsidize it.”

<sup>58</sup> Whether New York emerges stronger and better from its current maladies remains to be seen. If not, New York sports fans may describe their plight by invoking a variation of an old joke: *Q*: Who’s the only person to hold basketball legend Michael Jordan (“MJ”) to under 20 points per game? *A*: His college coach, Dean Smith (at the University of North Carolina, MJ scored an average of 17.7 points per game – in comparison to his 30.1 point average in the NBA). The New York variant may be: *Q*: Who’s responsible for New York’s downfall? *A*: Her politicians.

<sup>59</sup> On a lesser technological scale, consider another Pittsburgh native, Henry John Heinz, and his creation of one of the world’s largest manufacturer (H.J. Heinz Company) of branded foods.

<sup>60</sup> Detroit was once America’s fifth-largest city; its bankruptcy was, by some accounts, “a slow-moving train wreck” taking place over 40-50 years. While Detroit’s problems were vast, some of its fiscal parallels to the

And, while municipal accounting practices generally serve to spotlight (albeit, often in a muddled way) the liabilities of a particular governmental jurisdiction, those same practices tend to poorly highlight the fair market value of a municipality's assets. So, another optimistic note is to consider the amount of valuable assets owned by these municipalities; for example, parking garages, bridges, toll roads, marinas, *etc.* are candidates<sup>61</sup> for “monetization” by these municipalities, by entering into long-term leases<sup>62</sup> with one or more infrastructure investors. Whether the financeable portion of these assets will generate sufficient upfront proceeds to stem the severe fiscal difficulties of some of these municipalities – particularly after other politically competing claims for such funds are settled – remains to be seen.

## **XI. Conclusions**

The conventional wisdom is that the “gateway” markets offer superior returns<sup>63</sup> and liquidity due to a number of perceived advantages. And indeed, current pricing seems to support this conventional wisdom. However, the gateway markets seem firmly ensconced in state and local jurisdictions which often differ markedly from non-gateway markets with regard to a number of important characteristics: 1) regulatory burden, 2) fiscal imbalances, 3) taxation, 4) public-sector services, and 5)

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current gateway cities – including massively underfunded pension plans (which became a contentious item in Detroit's court-directed bankruptcy reorganization) – are troubling.

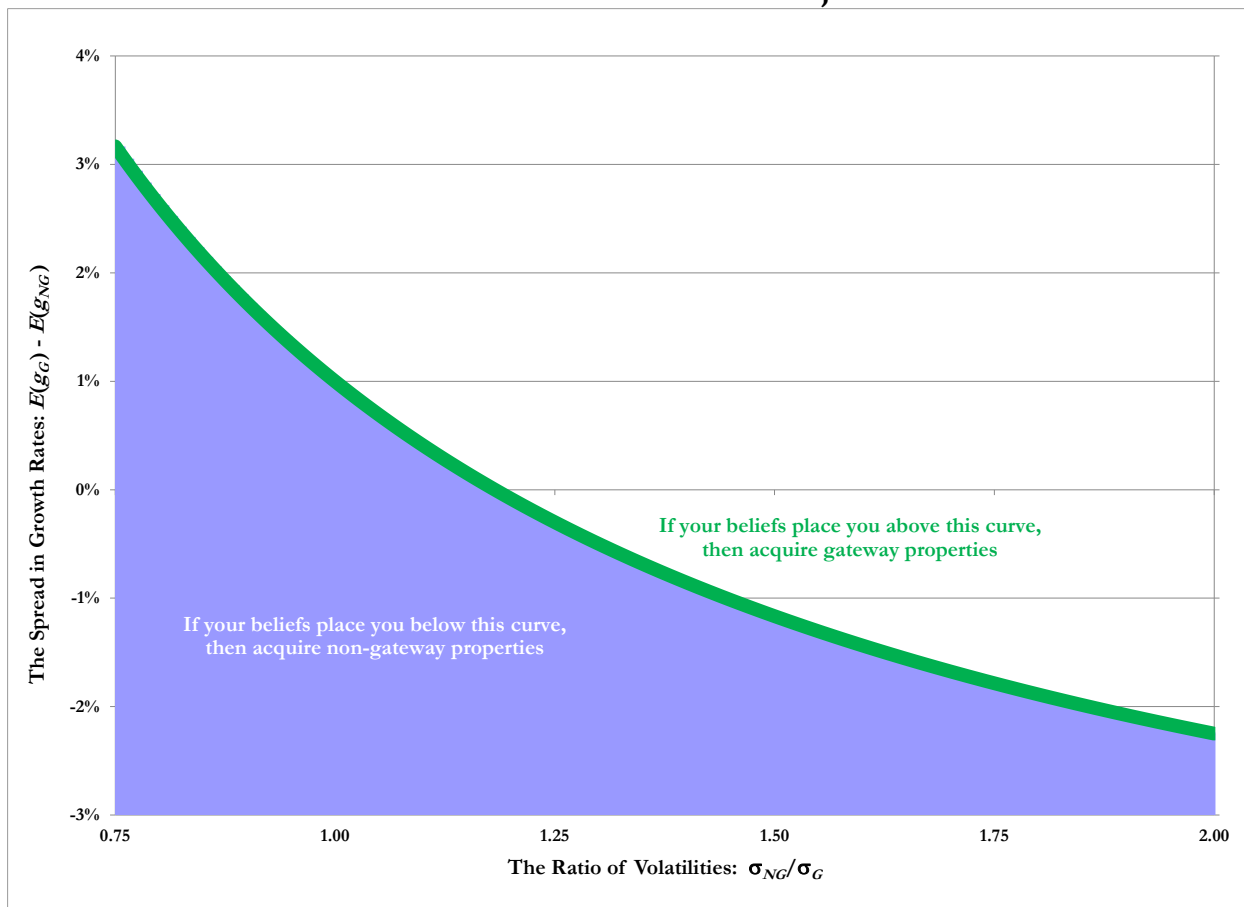
<sup>61</sup> One of the previously overlooked – at least from a financial perspective – assets brought to light during Detroit's bankruptcy was its art museum (*e.g.*, see: Dolan (2014)). Another option for municipalities to explore is revising their zoning/building codes to be less-restrictive (*e.g.*, see Renn (2020)); the possibility of new construction/development offers the chance to expand the tax base (*e.g.*, see: New York's rezoning 40% of the city after the 9-11 attacks – see Bragg, *et al.* (2017)). Of course, this option only has value to the extent that the city provides a growing/expansionary environment.

<sup>62</sup> As a variation of sale/leaseback transactions found in the private sector, the infrastructure investments typically provide an upfront cash payment to public-sector entity in return for a claim on the future revenue generated by the asset(s) and, at the end of this long-term lease, control reverts back to the municipality. [Such arrangements may also improve operating efficiencies – replacing public-sector-provided services with those from the private sector – as well as reducing the municipality's payroll and related costs (*e.g.*, see §IV.C., underfunded public-sector pension plans) for providing such services.] In principle, these infrastructure transactions are similar to other forms of municipal borrowing (*e.g.*, revenue bonds *v.* general obligation bonds). For example, consider a municipality that pledges future tax revenues supporting a bond issue; instead of a tax, these financeable assets usually involve a service fee paid by customers (some of whom may be citizens of other municipalities).

<sup>63</sup> Both in private correspondence and in his working paper with D'Alessandro, Fisher (2021) refutes the conventional wisdom of gateway markets providing superior risk-adjusted returns.

political corruption. While these headwinds are not thought to be the death knell of the gateway markets, it is the responsibility of the investment fiduciary to evaluate these growth impediments and evolving risks. Tilting towards or away from the gateway markets largely depends on how that investor handicaps the spread in growth rates and the ratio of the volatilities – as illustrated in Exhibit 7 (reproduced here for the reader’s convenience):

**Exhibit 7: Pricing Illustration of Gateway v. Non-Gateway Markets:  
The Required Spread in Growth Rates Given Volatility Ratios  
In Order to Produce Identical Risk-Adjusted Returns**



May the conventional wisdom soon be upended?<sup>64</sup> There is no definitive answer to such musings about future risk-adjusted returns. Only the passage of time will tell. That said, a clear-minded (and politically agnostic) investigation (along with some theoretical constructs to frame the decision-making process) of such issues may assist pension plans, endowment funds and other institutional investors consider more deeply their portfolio allocations.

<sup>64</sup> In a more-sophisticated manner and more broadly, Cornell (2018) questions the stationarity of returns.

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