

**Supply and The Mam: how will a Democratic Socialist mayor address New York City's housing supply shortage?**

New York City now has one of the tightest housing markets since 1960. NYC's new mayor Zohran Mamdani is a Democratic Socialist that campaigned on certain high-profile policies to address the housing shortage: \$70 billion in new city-funded capital investment in affordable housing, accelerated land use approvals for such projects, a rent freeze for rent-stabilized apartments and increased taxes on companies and wealthy residents.

This Eye on the Market looks at the NYC housing shortage, its resulting demographic/economic costs and at prior policies enacted by the Adams Administration to jump-start housing development. We then focus on Mamdani's housing proposals and challenges they face, in part due to constraints on NYC borrowing and its fiscal burden which is already high vs other cities. We conclude with research on the generally long-term negative impacts of rent freezes on the housing stock. Bottom line: **if Mamdani's \$70 billion housing plan does not take flight, NYC will have to keep hammering away at restrictive zoning policies that impede development, forge private-public partnerships to improve housing abundance and affordability, and design solutions to the problem of uneconomic rent stabilized renovation cost-recovery rules.**

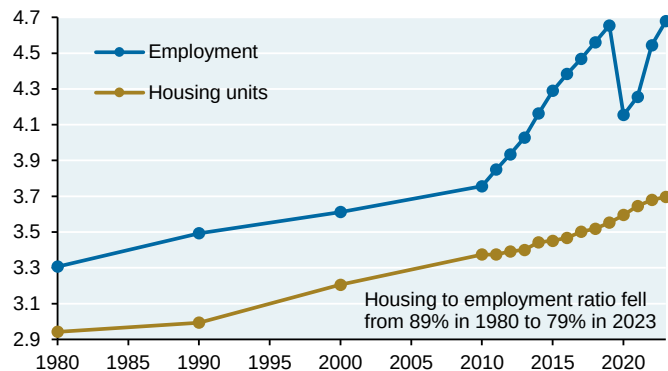
NYC borrowing constraints are a legacy of the Financial Emergency Act enacted during the city's financial crisis in the 1970's. Last fall I saw "*Drop Dead City*", a documentary on this period. It was entertaining but I remember thinking that it let Mayor John Lindsay off the hook almost entirely; Lindsay didn't even show up among the eighteen caricatures on the movie poster. The documentary focused instead on Mayor Abe Beame who inherited most of the mess and other protagonists. But Lindsay, NYC's young, articulate and charismatic mayor from 1966-1973, was the architect of many policies that eventually led to the crisis¹: a debt-financed spending spree, a quadrupling of municipal pension costs and growth in city payrolls to the point where Lindsay's government employed more people than the garment, banking and longshoring industries combined².

Michael Cembalest

JP Morgan Asset Management

Payroll employment and housing units in NYC

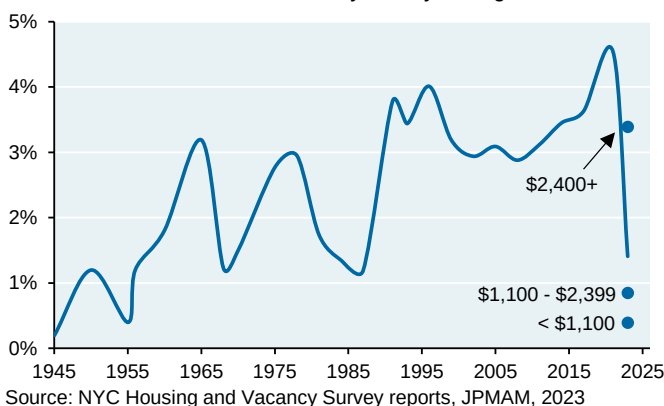
Millions



Source: New York City Comptroller, February 13, 2024

NYC rental vacancy rate

Percent, dots indicate 2023 vacancy rate by asking rent



Source: NYC Housing and Vacancy Survey reports, JPMAM, 2023

¹ "John Lindsay's Bright Shining Failure", City Journal, June 2010 and "The Fading Lessons of NYC's Fiscal Crisis", City Journal, Spring 2025. Between fiscal 1970 and 1975, NYC tax receipts rose by 54% but couldn't keep up with city spending which rose by 80%. Amid all the spending and taxing (by 1975 the combined state/city income tax rate reached ~19%), NYC lost 570,000 jobs between 1969 and 1977 and its population declined by a similar amount, falling to levels not seen since the late 1930s

² "How New York Became a Fiscal Junkie", New York Times, August 17, 1975. By the early 1970's, NYC had the highest ratio of debt to taxable real estate in the country; its short term borrowing against receivables grew by 12x in a decade, amounting to 30% of all such debt issued by states, cities, counties and local authorities

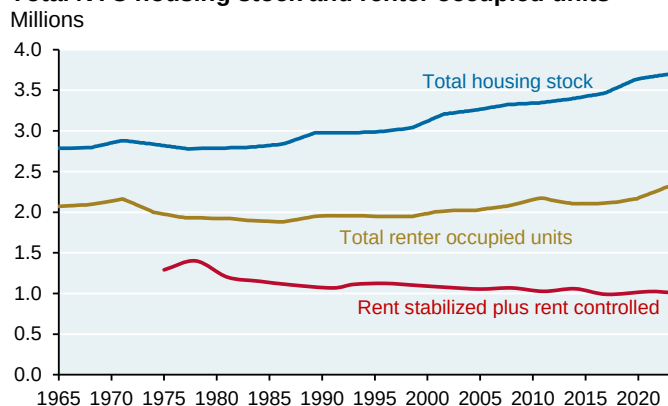


The NYC housing shortage: facts and figures

The NYC housing stock

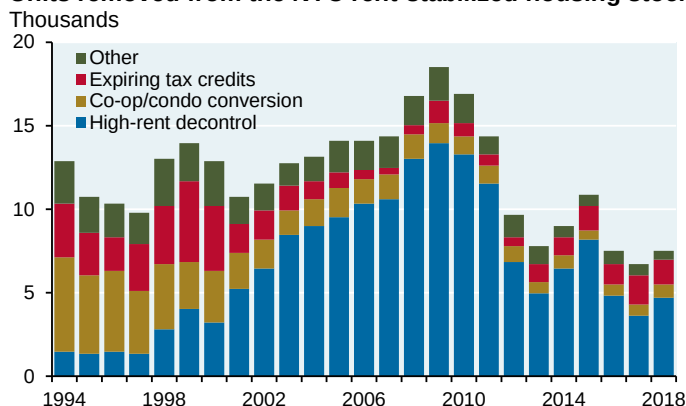
- NYC is primarily a rental city: 68% of housing units are rented with the remainder owned, and 71% of rental buildings were built before 1951
- Of 2.3 million occupied rental units, 41% are rent stabilized, 7% are public housing, 3% are rent controlled and the rest are unregulated³. Another 15% to 20% now have protection under the recently passed Good Cause Eviction law which protects tenants in unregulated apartments from eviction or lease termination without a specific, legally defined "good cause," such as non-payment, lease violations or creating a nuisance, while also limiting rent increases and requiring lease renewals
- Rental units include 177k units of public housing and ~300k voucher supported units. Due to the deferral of maintenance expenses, the latest estimate to repair NYC public housing units is \$78 billion over 20 years. Public housing rent collection rates fell from 90% pre-pandemic to 69% in 2024⁴. Almost 50% of the New York City Housing Authority budget is made up of federal funds which are at risk due to changes in HUD's Emergency Voucher Program, Trump Administration proposals to cut Section 9 public housing and Section 8 vouchers, and a possible two-year Federal cap on rental assistance to states for able-bodied adults⁵
- NYC nonfarm payrolls have grown by 25% since 2010 while the NYC housing supply has only grown by 9%⁶, reducing the housing to employment ratio from 90% to ~80%
- One remarkable thing about the NYC apartment rental stock: it is largely unchanged since 1965 (!), with almost all of the growth in the housing stock taking place in owner-occupied units

Total NYC housing stock and renter occupied units



Source: NYC Housing Vacancy Surveys, NYC HPD, NYT, JPMAM, 2024

Units removed from the NYC rent-stabilized housing stock



Source: NYS HCR, NYC Rent Guidelines Board, 2018

A refresher on rent regulation. **Rent stabilization** ties rent hikes to inflation and provides tenants with lease renewal protection for units built before 1973, and for units in newer 421-a, J-51 and 485-x tax-incentivized buildings. Most rent stabilized units are not means-tested other than some of these latter newer units. Before 2019, high-rent decontrol allowed landlords to remove rent-stabilized units from regulation once rents reached \$2,700 and became vacant, or if tenant income exceeded \$200k for two consecutive years. While 300k units were removed from rent stabilization from 1991 to 2018, the net decline was just 44k units after accounting for additions via tax incentivized buildings.

Rent control limits rent increases for units continuously occupied by individuals or successors from prior to July 1971 in buildings built before 1947. Rent controlled units have declined from 500k in 1978 to 14k in 2023.

³ "The 2023 New York City Housing and Vacancy Survey: Selected Initial Findings", New York City Department of Housing Preservation and Development, 2024

⁴ "2025 Mayor's Management Report", New York City Housing Authority, September 2025

⁵ "How Federal Budget Changes Could Reshape The New York City Public Housing Authority", NYC Independent Budget Office, September 2025

⁶ "Housing Production in New York City", Office of the New York State Comptroller, March 2025

**How large is the NYC housing shortage?**

- As per the latest triennial Housing & Vacancy Survey, NYC has among the tightest housing conditions in 50 years⁷. NYC rental vacancy rates are 1.4% (down from 3.6% pre-pandemic), one of the lowest figures since 1960. Vacancy rates are even lower after excluding the highest category of \$2,400+ rentals; vacancy rates are well below 1% for rentals below \$2,400. A properly functioning housing market typically has a vacancy rate of ~7% to keep a healthy balance of supply and demand as populations change and residents move⁸
- Estimates of the housing shortage for the NYC region which includes parts of NJ and downstate NY suburbs range from 342k to 540k units⁹. The same source cites a shortage of 227k units for NYC (6% of the housing supply), growing to 560k units by 2030. The Real Estate Board of New York (REBNY), a trade association of NYC landlords, estimates a much larger NYC current housing shortage of 434k units as of Q3 2025¹⁰

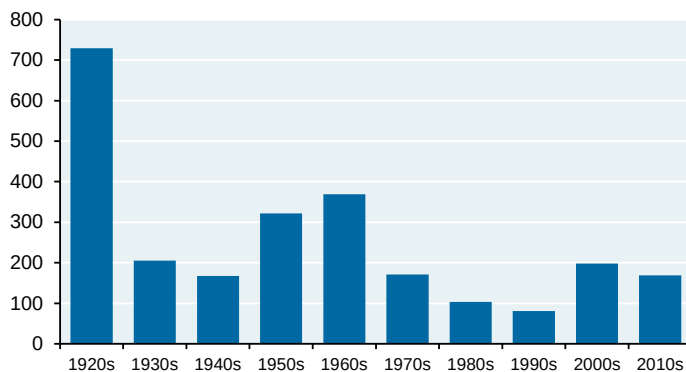
When city planners talk about a **housing shortage**, they're usually referring to the difference between existing units and the number of units needed to meet demand from new potential households. Household demand depends on population growth, net in-migration, individuals in overcrowded homes and adults who would form households if housing were more affordable. Shortage estimates typically exclude people who want to relocate to a city but cannot find affordable housing, and people who left due to high housing costs.

The latest pace of housing development

- NYC added 37k housing units in 2024, ~25% more than in 2023¹¹. However, to resolve the housing shortage, housing production would have to double to levels last seen in the 1950s and 1960s
- The number of NYC permits issued for new housing units in 2024 was at its lowest level in the 21st century aside from the years following the 2008 financial crisis¹². Slow permitting is a statewide issue as well; in 2024, North Carolina authorized twice as many new units as New York State with half the population
- REBNY cites a NYC development pipeline that is partially stalled: 47k units are in predevelopment, 31% of which have been there for five years or more due to a variety of permitting issues

NYC new housing production by decade

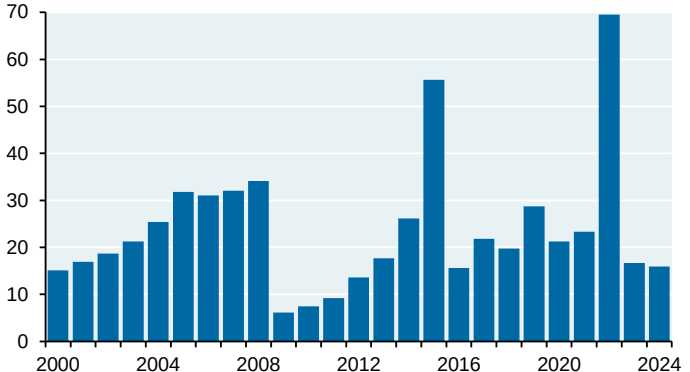
Housing units, thousands



Source: NYC Department of City Planning, Dec 5, 2024

Number of newly permitted housing units in NYC

Thousands



Source: New York City Rent Guidelines Board, May 2025

⁷ "Spotlight: New York City's Housing Supply Challenge", New York City Comptroller, February 13, 2024

⁸ "City of Yes Testimony of the NYU Furman Center Before New York City Council Subcommittee on Zoning and Franchises", NYU Furman Center, October 22, 2024; "The 2023 New York City Housing and Vacancy Survey: Selected Initial Findings", New York City Department of Housing Preservation and Development, 2024

⁹ "A Building Crisis: The Quality-of-Life, Population and Economic Effects of Housing Underproduction", Citizens Budget Commission, June 27, 2024

¹⁰ "New Housing Development Pipeline Report", REBNY, December 2025

¹¹ "Housing Production in New York City", New York State Comptroller, March 2025

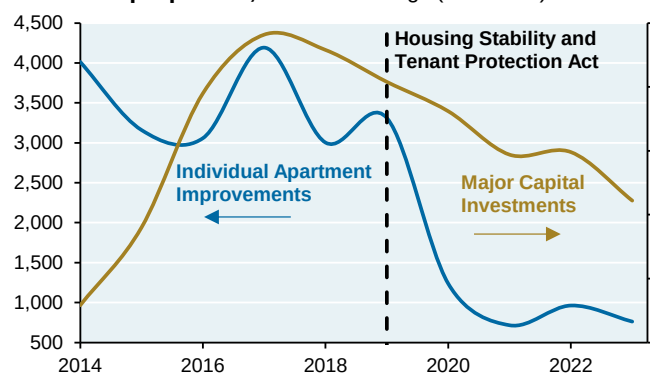
¹² "2025 Housing Supply Report", NYC Rent Guidelines Board, May 22, 2025



Warehousing of vacant rent stabilized units, the impact of the 2019 Act and dilapidation of the housing stock

- Landlords are warehousing 25k-50k rent stabilized units (intentionally left vacant and not available for rent) based on estimates from the 2023 triennial HVS survey and the City Journal. NYC rental vacancy rates would rise from 1.4% to 2.5% - 3.5% if all warehoused units were put on the market. The City Journal cited an example of why some units are warehoused in the wake of the **2019 New York Housing Stability and Tenant Protection Act (HSTPA)** which caps post-renovation rent increases¹³. Assuming a dilapidated rent stabilized unit on East 6th Street whose rent can only be increased by \$347 per month¹⁴ and \$111k of renovation costs, a landlord's payback period would be 27 years even before assuming any return on capital or financing cost
- The chart on the left shows filings for rent-stabilized unit improvements and building capital improvements before and after the 2019 Act. The Act's impact is clear: **it is no longer economic to renovate in many cases**. The chart on the right shows how NYC apartment operating cost inflation has grown much faster than one- and two-year rent stabilized rent increases. Due to these dynamics, ~200k rent stabilized units now face negative NOI according to the NYU Furman Center

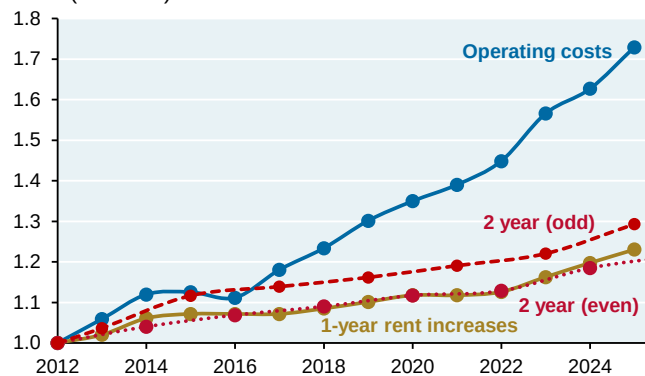
Apartment and building improvement filings at rent stabilized properties, Number of filings (both axes)



Source: Rent Stabilization Assoc of NYC, RE Board of NY, February 2024

Operating cost vs rent stabilized rent increases

Index (1 = 2012)



Source: Jason Barr (Rutgers), 2025

- The median discount to market rates for rent stabilized units is 25%, although this figure diverges sharply by borough¹⁵. For Manhattan the median rent stabilized discount is 50% compared to a ~10% discount in the other boroughs
- In 2023 Mayor Adams implemented the “Unlocking Doors” program to try and address uneconomic incentives for renovating rent stabilized units. The program reimbursed property owners up to \$25k-\$50k for renovation costs if owners agree to lease renovated units to low-income tenants with housing vouchers. The uptake was minimal (only one owner filled out the application and didn't proceed with the program)¹⁶. Challenges: the program was limited to units renting at \$1,200 for a 1 BR bedroom and \$1,400 for a 3 BR; in other words, apartments with long-standing prior tenants that need major renovations. Other uncertainties relate to payback periods and the political durability of the voucher program
- Members of the NY State Senate proposed rent stabilization reform to allow property owners to increase post-renovation rents up to the amount that a Section 8 voucher holder would pay for a comparable unit¹⁷. In some cases these amounts would exceed allowable increases under the 2019 Act, but would only apply to units previously occupied for 10 or more years by the same tenant. This bill is still in the State legislature

¹³ “Why are 50,000 New York City Apartments Vacant?”, City Journal, December 17, 2025

¹⁴ The 2019 Act limits rent stabilized increases to \$347 per month in buildings with 35 units or less, and to \$320 per month for buildings with more than 35 units

¹⁵ “Affordability of Rent Stabilized Units”, NYC Dep't of Housing Preservation and Development, 2018

¹⁶ “NYC will pay landlords to fix up empty apartments. No one has taken the offer”, Gothamist, Sep 2025

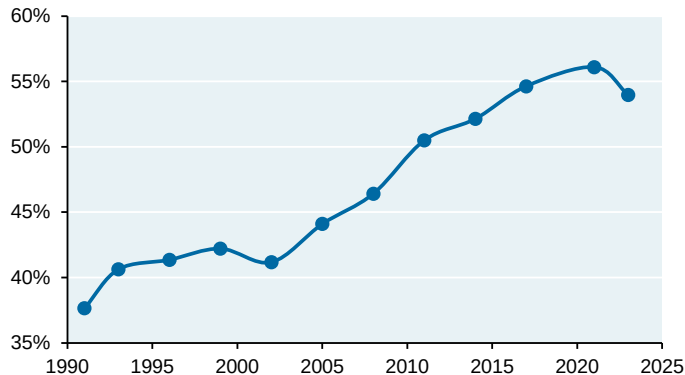
¹⁷ Senate Bill S6904, referred to as the Local Regulated Housing Restoration Adjustment

**Demographic and economic consequences of the NYC housing shortage**

- **Housing burdens.** 53% of median income NYC renters are considered “housing cost-burdened” meaning they pay more than 30% of their income on rent¹⁸. The ratio of median gross rent to income has risen from 37% in 1991 to 54% in 2023 as illustrated below
- NYC renters obtain fewer sq ft per \$ of rent than all other major cities surveyed (right chart)
- **Misallocation and immobility.** The NYC housing shortage has led to suboptimal housing conditions for most residents. As per the CBC report, 25% of NYC households are moderately or severely overcrowded, 66% are undercrowded and only 9% meet standards that align household size and space¹⁹. NYC severe overcrowding rates are more than twice the national average
- Annual turnover rates for NYC rental units are 41% lower than the national average, and the share of renters who have lived in their unit for more than 10 years is also 3.5x higher than the national rate. Similarly, the annual turnover rate for owner-occupied units is 17% lower than the national average
- When median income families leave New York City, based on the counties they typically move to, they save \$1,200 per year on taxes, \$5,600 on rental costs and \$18,300 on mortgage costs. In other words, housing is the much greater economic incentive to leave NYC than taxes
- **Homelessness.** 1.7% of the NYC population was homeless/sheltered as of 2024, the second highest rate of major US cities behind Denver. NYC homelessness increased 143% between 2022 and 2024. In contrast, homelessness remained flat in San Francisco and LA during the same time period²⁰
- **Opportunity costs.** The economic impact of closing the housing gap is substantial: the increase in population would boost NYC GDP by \$286 billion over the next decade and increase annual city tax revenue by \$1.4 to \$1.9 billion [CBC]. On the other hand, if housing units continue to be added at the same rate, the NYC region would forgo 330k-730k new jobs; half of those jobs would be related to the construction value chain²¹

NYC median gross rent to income ratio

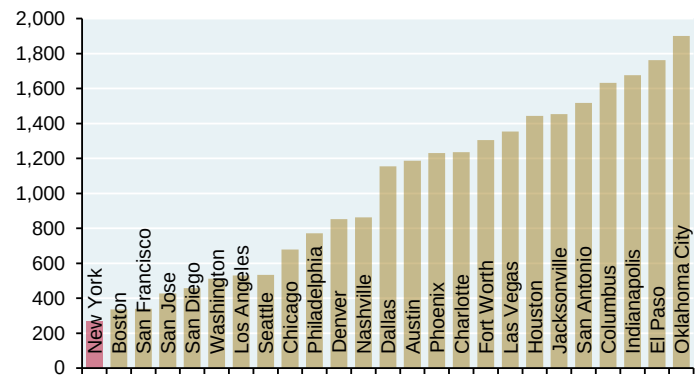
Renters < \$70,000 (2023 US\$)



Source: New York City Housing and Vacancy Survey, 2023

Average apartment sq ft per \$2,000 of rent by city

Square feet



Source: Apartments.com, JPMAM, November 2025

¹⁸ “City of Yes for Housing Opportunity Testimony of the NYU Furman Center Before New York City Council Subcommittee on Zoning and Franchises”, NYU Furman Center, October 22, 2024

¹⁹ As per the CBC, moderately overcrowded refers to 1.0 to 1.5 persons per room; severely overcrowded is more than 1.5 persons per room; undercrowded is less than 0.75 persons per room

²⁰ US Dept. of Housing and Urban Development (HUD), Census

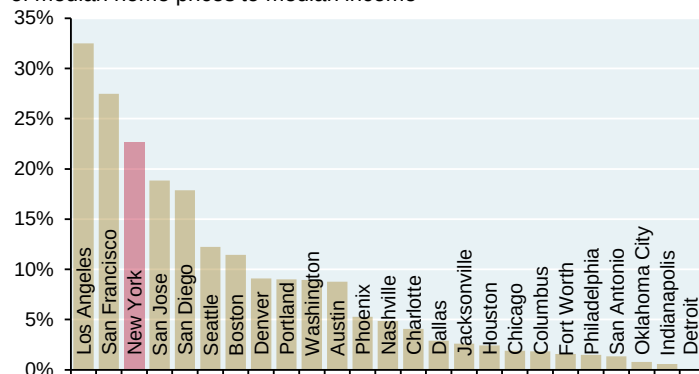
²¹ “Impact Analysis of Housing Undersupply on the Tristate Region”, Regional Plan Association, 2024



Some history on zoning conveys the difficulty, complexity and cost of building in NYC:

- From 1961 to 2022, 60% of NYC's 59 Community Districts experienced negative or limited growth in allowable residential building space, either due to downzoning or historic district creation²²
- As of 2022, 39% of all NYC residential buildings were impossible to tear down/rebuild since they were at or above their allowable floor area ratio (FAR); another 24% were within 25% of allowable FAR, rendering them uneconomic to tear down/rebuild as well. To make matters worse, 50% of properties with extra FAR were on lots of 2,500 square feet or less, rendering them difficult to rebuild economically
- **In 2024, 92% of housing near subway stops outside of Manhattan was three stories or less. If each building were redeveloped by adding double the current stories, "the affordable housing crisis would be over"**²³
- A 2022 piece from the Manhattan Institute²⁴ outlined how in parts of NYC, apartments can't be constructed where one-story retail establishments once existed; how some areas benefit from limited development "special district" status in place since 1978 (!!); and how some areas have never been zoned for apartment buildings at all, even along streets adjacent to public transit
- NYC building codes reportedly deviate more frequently from the International Building Code, even relative to other cities like Philadelphia. This can materially affect the cost of office-to-residential conversions given issues around mechanical ventilation and indirect access to natural light. Also: if more than 10% of a building façade is affected by a conversion, the entire structure must be regirded internally
- NYC, San Francisco and Los Angeles are the unholy trinity of housing unaffordability. The first chart is a proxy for housing shortages based on the ratio of median home prices to median income. This measure is meant to illustrate differences across cities rather than the exact shortage level, which is derived rather than measured empirically. In the second chart we return to a topic that has been shared in housing circles for many years: **the degree to which more land use restrictions coincide with low housing affordability**²⁵.

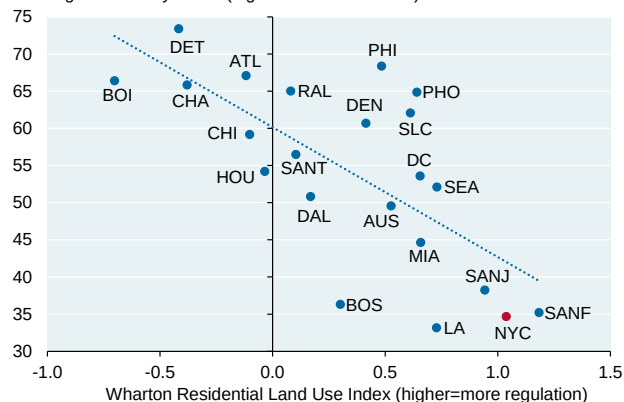
Housing shortage proxy, percent of housing units, based on ratio of median home prices to median income



Source: AEI Housing Center, Census, JPMAM, 2023

Zoning policies vs Housing Affordability

Housing Affordability Score (higher=more affordable)



Source: Wharton Zell/Lurie Real Estate Center, WalletHub, May 2025

²² "How Much Can Gotham Grow", Jason Barr (Rutgers), January 31, 2022

²³ "New York's Biggest Building Boom and Its Lessons for Today", Jason Barr (Rutgers), October 2024

²⁴ "How to Solve NYC's Housing Crisis", Eric Kober, Manhattan Institute, June 2022

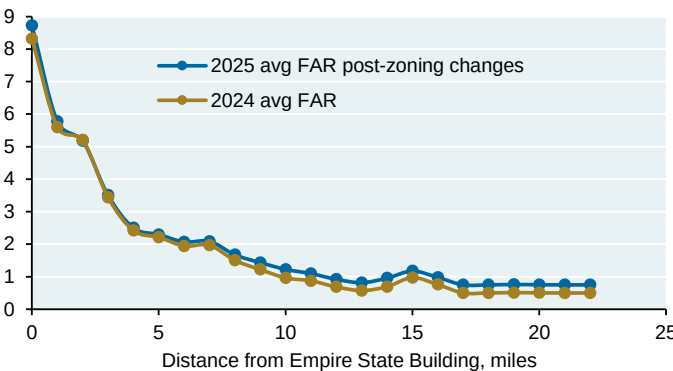
²⁵ Upzoning can substantially increase output per worker, increase mean wages and decrease commuting times, and can be a more powerful tool than investing in more public transit or road infrastructure. "Zoning and the Density of Urban Development", Delventhal (Claremont), Kwon (USC) and Parkhomenko (USC), Pacific Southwest Region University Transportation Center, August 2020. Zoning also negatively impacts productivity: Goldman Sachs estimates that zoning and regulatory issues explain 40% of the gap between economy-wide labor productivity (+1.6% annually since 1965) and the much lower labor productivity of the construction sector (-0.6% annually over the same time frame).



Recent regulatory changes: City of Yes (possibly a big deal) and new FAR rules (not a big deal at all)

- In December 2024 the City Council passed the **City of Yes** zoning reform plan with a goal of producing 80k new homes over 15 years²⁶. City of Yes eased permitting for new three-to-five story apartment buildings near transit hubs and commercial corridors, for one- and two-family homeowners adding accessory dwelling units and for faith-based organizations using existing campus or lot development rights. City of Yes also promoted conversion of office to housing, reduced parking mandates and created new high-density zoning districts that had previously been restricted by State law (see Appendix for zoning maps and details)
- **Much ado about very little: FAR changes.** The City of Yes and other zoning changes have increased FAR levels in parts of the city. The table shows allowable FAR changes by borough, and the chart shows allowable FAR changes based on distances from the Empire State Building before and after any rule changes. The changes from 2024 to October 2025 are very much on the margin: **some FAR increases in outer boroughs but less change in Manhattan or waterfront communities in western Brooklyn or Queens.** Also: in places like Staten Island, some FAR changes will not have as much impact on density due to 1 and 2 family district rules (i.e., if FAR increases, you can make a house bigger to accommodate a bigger family or more relatives but you cannot convert a 2 family house into a 4 family building). Bottom line: predicting how City of Yes and FAR changes will result in actual new development is a difficult task; seeing is believing
- **Proposed Development:** in August 2025 the City Council approved a "Midtown South Mixed-Use" plan to rezone 42 blocks of 23rd to 40th Street between 5th and 8th Avenues. The plan estimates that rezoning could create 9.7k new units by allowing a mix of commercial, manufacturing and residential uses in areas where residential housing is largely not currently permitted
- In November 2025 the City Council approved a "OneLIC Neighborhood Plan" to rezone 54 blocks in Long Island City and build 14.7k new housing units, including 4.3k permanently affordable units. The plan also commits \$2 billion in community investments for local public housing developments, transportation and public space upgrades, new parks and new public schools

NYC average allowable residential Floor Area Ratio
Total building floor area divided by total lot area, weighted by lot size



Source: Jason Barr (Rutgers), October 2025 NYC PLUTO data

Impact of Floor Area Ratio changes by borough
Weighted by lot size

Borough	2024 avg FAR	2025 avg FAR	Avg FAR % change	Total res floor area (sq ft, bn)
Bronx	1.9	2.1	7%	0.5
Brooklyn	1.7	1.9	8%	1.1
Manhattan	5.8	5.9	2%	0.9
Queens	1.0	1.2	25%	0.9
Staten Island	0.6	0.9	38%	0.2
Total	1.5	1.7	13%	3.6

Source: Jason Barr (Rutgers), October 2025 NYC PLUTO data

YIMBY: Yes, in my backyard

In 1999, a multiplex movie theater developed by Forest City Ratner and designed by Hardy Holzman Pfeiffer was built in my neighborhood on Court Street in Brooklyn. This hideous, hulking structure survived for around 20 years before closing for good in 2022 due to changes in moviegoing habits. It has stood vacant ever since, reportedly declining in value by 88% based on a 2023 appraisal. Here’s where rezoning might help. That parcel is subject to C6-2A zoning which limits the building’s height at 120 feet and limits the floor area ratio at 6.0. Such zoning is apparently not enough to attract new capital to repurpose the building, even at an 88% price discount. The neighborhood and the tax base would benefit from redevelopment, but it might require a building twice as high as the currently zoned limit to make a conversion to some other use financially viable.

²⁶ “City of Yes for Housing Opportunity”, New York City Department of City Planning, December 5, 2024



On Mamdani housing policies

The new mayor lists three main housing priorities on his website, enacted other housing policies early in his term and campaigned on a four-year rent freeze for NYC’s one million rent-stabilized apartments.

Housing priorities

- Construct 200k units of publicly-subsidized, union-built, rent-stabilized apartments over 10 years²⁷
- Accelerate land use approval process for 100% affordable housing developments
- Double spending to preserve public housing (renovations and building on underutilized city-owned land)

Enacted policies

- Revamp of the Mayor’s Office to Protect Tenants which defends tenant rights and advocates for habitable building conditions. The mayor plans to conduct “Rental Ripoff” hearings to solicit feedback from renters
- Two task forces to accelerate residential construction on city-owned land and to remove bureaucratic and permitting barriers that increase housing costs and slow construction

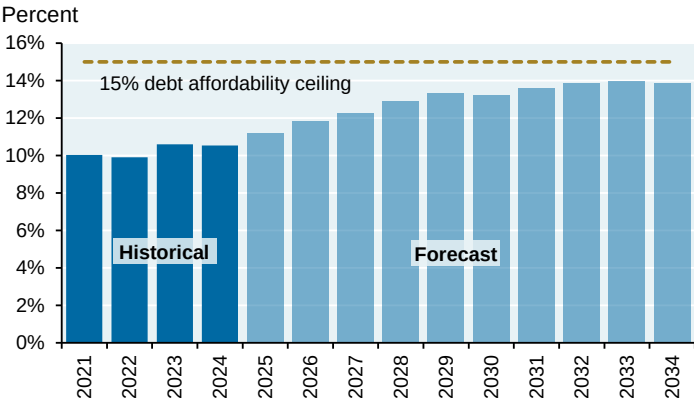
What should we make of these policies? While 200k new units over 10 years would substantially alleviate NYC’s housing shortage, there are some challenges the new mayor will face.

NYC budgetary and borrowing constraints

The mayor’s plan calls for \$70 billion in new housing investment from the City’s Ten-Year Capital Plan, raised via the municipal bond market. First challenge: NYC fiscal policies generally **cap debt service payments** (by custom rather than by law) at 15% of tax revenues. According to the 2026-2035 10-year Capital Strategy from the OMB, NYC debt service is already projected to reach 14.3% by 2033.

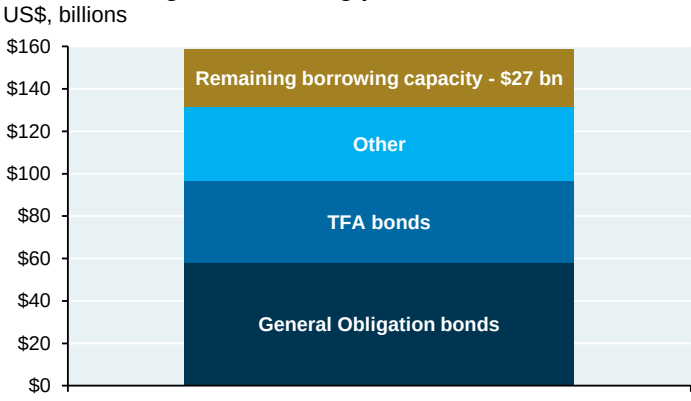
In addition to the debt service cap, NYC is also subject to a **state constitution debt limit** set at 10% of the 5-year average of NYC’s tax-assessed real estate value. At the start of the current fiscal year the city had ~\$96 billion in debt outstanding subject to the constitutional limit, leaving ~\$44 billion in unused borrowing capacity²⁸. This amount is already projected to fall to \$27 billion by 2029. Since NYC’s capital strategy already calls for additional debt issuance that runs up against debt limits, state approval for the mayor’s plan would be required unless NY State or the Federal Government share the cost.

Debt service as a share of tax revenues



Source: New York City Office of the Comptroller, November 29, 2024

NYC remaining debt-incurring power, 2029



Source: New York City Office of the Comptroller, December 1, 2025

²⁷ From what I can tell, this plan would entail the City providing funds to either non-profit or for-profit developers who would then own these rent-stabilized properties subject to the City’s terms and conditions, rather than the City building more public housing. The City might own the ground lease in some cases.

²⁸ “Annual Report on Capital Debt and Obligations, Fiscal Year 2026”, New York City Comptroller, December 1, 2025. Of the \$96 bn: GO bonds \$44 bn, TFA in excess of statutory exemption threshold \$25 bn, Other \$27 bn

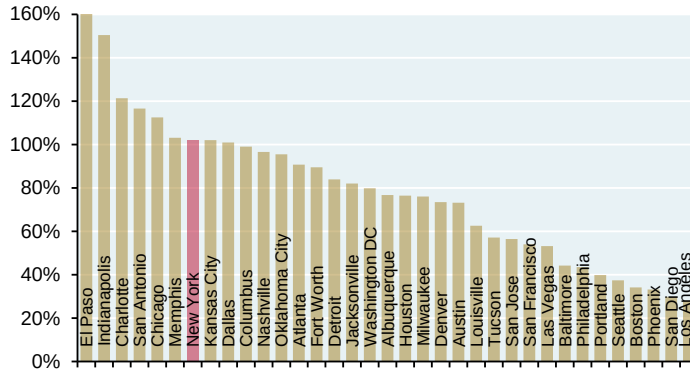


2026 Outlook

Despite these caps and oversight from the Independent Budget Office and NYC Comptroller, **NYC has among the highest fiscal burdens among major US cities** as shown below. Some charts include the cost of unfunded pension and retiree healthcare obligations; some strip out illiquid capital assets and related debt; some exclude restricted federal and state grants, endowments, fiduciary funds and special revenue funds; and some are computed per capita while others are computed per taxpayer. While results vary, one common denominator is clear: NYC has among the highest fiscal burdens of major US cities.

Municipal long term debt to revenues

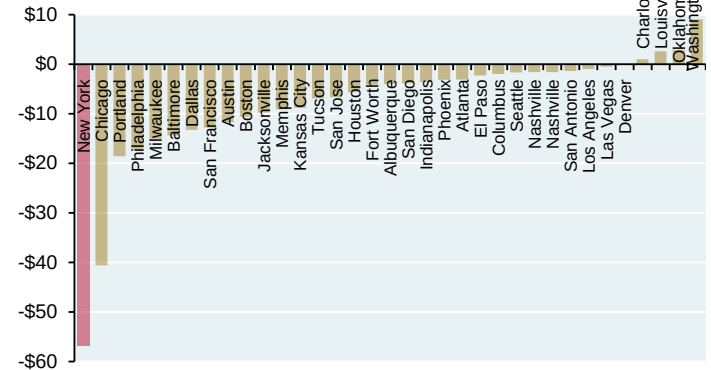
Percent of operating revenues



Source: Moody's, JPMAM, 2024

Net municipal obligations per taxpayer

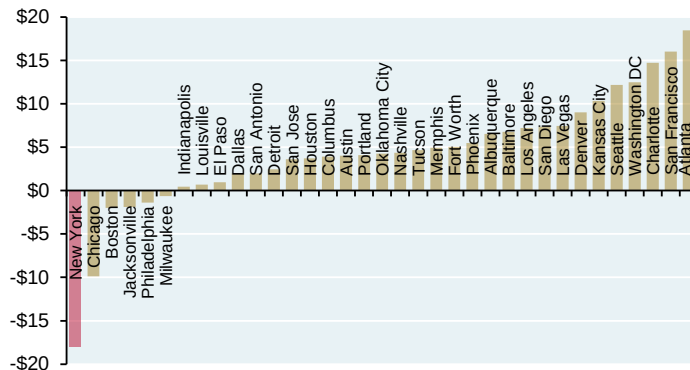
US\$, thousands



Source: University of Denver, JPMAM, 2025

Net municipal debt per capita

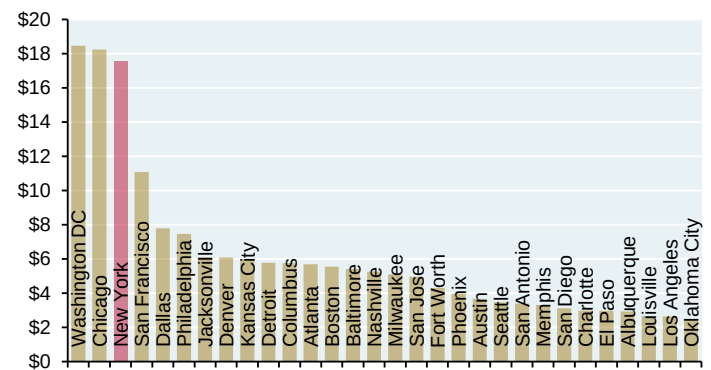
US\$, thousands



Source: Reason Foundation, JPMAM, 2023

Net direct debt and net pension liability per capita

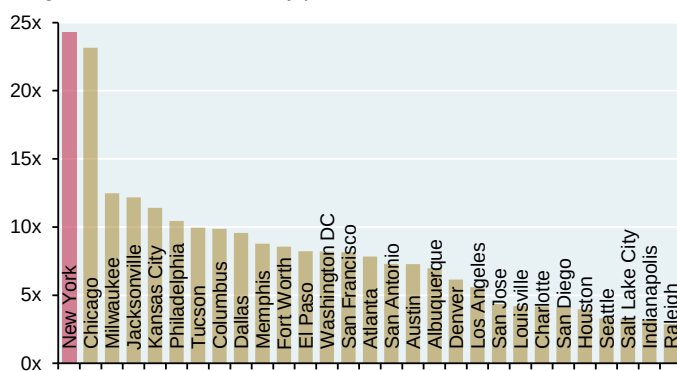
US\$, thousands



Source: S&P Capital IQ, JPMAM, January 12, 2026

Long term liability burden

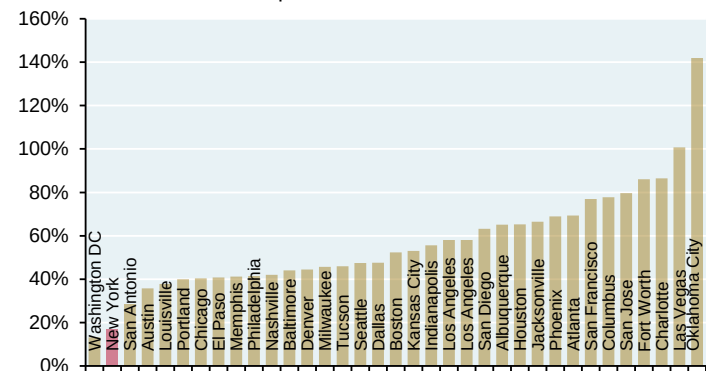
Long term liabilities divided by personal income



Source: Fitch Ratings, JPMAM, January 29, 2026

Municipal liquidity ratio

Net unrestricted cash as a percent of revenue



Source: Moody's, JPMAM, 2024

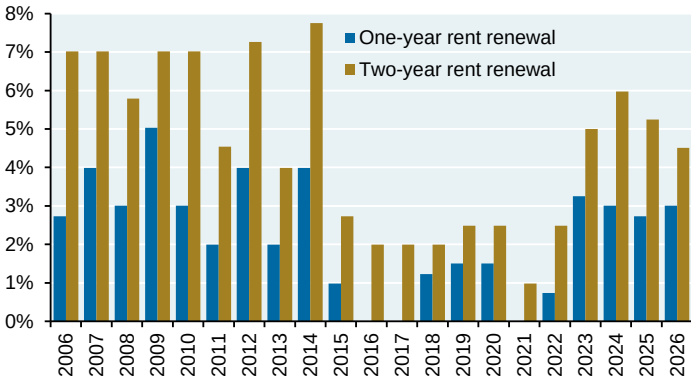


A proposed rent freeze on rent stabilized units

The mayor can appoint members of the Rent Guidelines Board which has the authority to set maximum rent increases for one-year and two-year leases. The RGB is composed of 9 members (2 representing tenants, 2 representing landlords and 5 from the general public) and has frozen rents before, mostly recently in 2016, 2017 and 2021. If the RGB agreed, a rent freeze could be in place by October 2026. A rent freeze would immediately help renters impacted by it, but what else might happen both in the short term and the long term?

Change in rent for NYC rent-stabilized apartments

Percent increase in rent

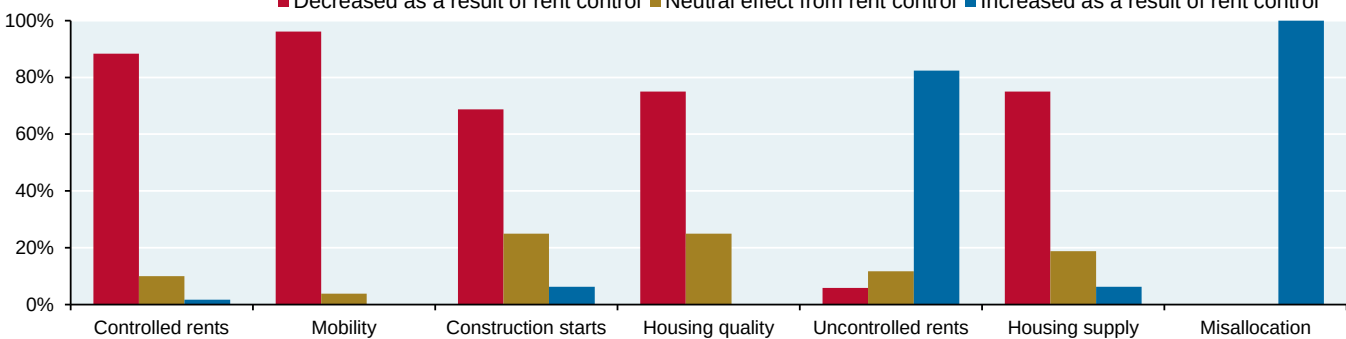


Source: S&P Global, November 2025. Year ending September 30

A meta-study in the Journal of Housing Economics looked at over 100 rent control studies from 1967 to 2023, primarily focused on North America and Europe²⁹. The author describes the results as unambiguous: while rent control effectively curbs rent growth, such policies also decrease tenant mobility, reduce supply of rental apartments, decrease construction of new units, decrease the quality of existing units, increase “misallocation” which refers to over/undercrowding and increase growth in rents of units not subject to the rent control policy. **In other words, a NYC rent freeze could result in even more rent stabilized units being warehoused by owners, even if it helps the population of rent stabilized tenants in the short term.**

Meta-study of empirical analyses on the effects of rent control

Share of 100+ studies



Source: Journal of Housing Economics, A. Kholodilin (DIW Berlin), February 2024

²⁹ “Rent control effects through the lens of empirical research: An almost complete review of the literature”, Journal of Housing Economics, A. Kholodilin (DIW Berlin), February 2024



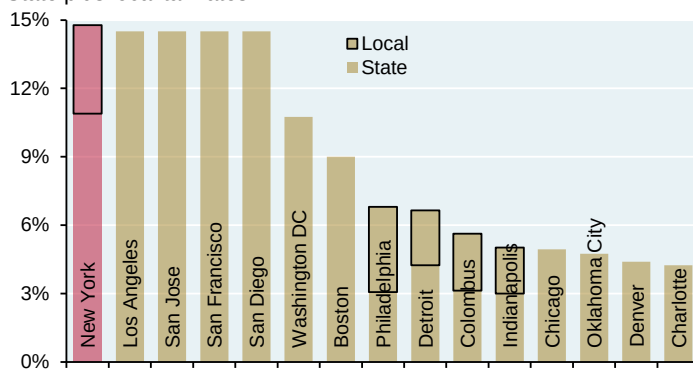
On personal and corporate income tax rates

The mayor has proposed a 2% surtax on NYC personal incomes over \$1 million. However, the mayor and City Council cannot unilaterally raise personal or corporate income taxes; such changes can only be enacted by the New York State legislature with bills signed by the Governor. As shown below, NYC already has the highest combined city-state personal tax rate in the US and the highest all-in corporate income tax rate at 17.4% (state plus city plus MTA surcharge)³⁰. Also: according to the CBC, New York State is the highest tax jurisdiction in the US based on tax collections per capita and #2 on tax collections per \$1,000 of personal income.

The mayor and City Council do have discretion to set property tax rates, subject to state guidelines regarding distribution of property tax burdens across classes (small residential, large residential, commercial, utility, etc). As shown below, rental buildings are subject to a disproportionate share of property tax revenues compared to smaller residential buildings and owner-occupied homes. The city ranks at the top here as well: NYC has the highest industrial, retail and multifamily property taxes per square foot of ten major cities³¹.

Top 15 marginal personal income tax rates

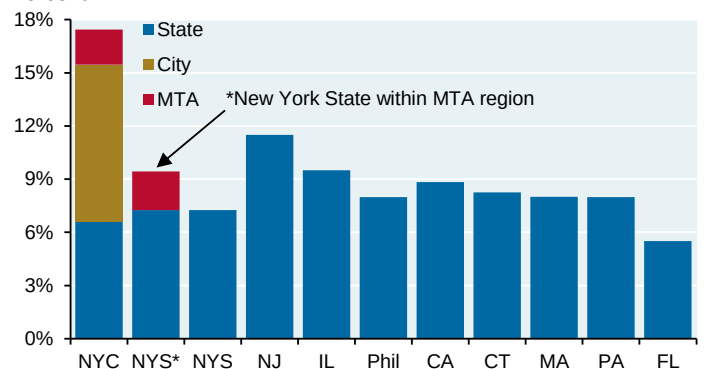
State plus local tax rates



Source: JPMAM, January 2026

Top marginal corporate income tax rates

Percent



Source: Citizens Budget Commission, January 2026

Effective property tax rates per square foot

	Industrial	Office	Retail	Multifamily
NYC	\$10.69	\$15.96	\$16.24	\$13.53
Atlanta	\$0.85	\$2.87	\$4.45	\$2.46
Chicago	\$2.09	\$16.88	\$7.49	\$4.27
Dallas	\$1.15	\$6.20	\$5.47	\$5.07
Houston	\$2.15	\$4.57	\$7.79	\$4.01
Los Angeles	\$4.44	\$4.80	\$7.00	\$6.48
Nashville	\$1.18	\$3.28	\$2.91	\$2.42
Miami	\$3.16	\$5.45	\$4.03	\$3.37
San Fran	NA	\$7.11	\$13.68	\$13.34
Wash DC	\$2.30	\$12.30	\$5.31	\$3.65

Source: Altus Group, Rosenberg & Estis, 2024

Market value and property tax shares by class

		Share of citywide market value	Share of citywide property tax revenues	Effective tax rate
Class 1	Residential <= 3 units	49%	15%	0.67%
Class 2	Larger rental buildings	24%	36%	3.31%
Class 3	Utilities	3%	8%	5.49%
Class 4	Commercial/Industrial	24%	42%	3.85%

Source: Furman Center, State of NYC Housing & Neighborhoods

³⁰ "Risky Business", Citizen's Budget Commission, January 28, 2026

³¹ "NYC commercial property tax rates compared to 9 other major cities", Rosenberg & Estis, July 2024

**Issues around union labor**

The mayor committed to use union labor for construction of the 200k units. Union labor is a critical component of the city's workforce and vital to sustaining middle class households; JP Morgan used extensive union labor when constructing its new 270 Park Avenue HQ³². But when the progressive de Blasio administration launched a plan to build and preserve 20k units of affordable housing, it opted to "take the political hit" and not use union labor due to its higher cost so as to be able to build more affordable units³³. According to the New York Housing Conference, NYC's \$3.75 bn affordable housing expenditure in 2026 would rise by \$1.75 billion if projects were developed based on union wages, implying a 45% premium. Other affordable housing cost estimates are lower, such as the 25%-35% union premium cited by Monadnock Development, an affordable housing builder.

Union labor costs appear to be part of the reason why the City's 485x tax abatement program has resulted in slower development of larger apartment buildings. The 485x property tax abatement rule includes a minimum wage floor of \$40 per hour for any building over 100 units. What has happened since the program began in April 2024? Of 180 projects seeking the 485x abatement, none exceed 99 units³⁴. This is in stark contrast to the prior 421a tax abatement program under which projects with 100+ units produced ~60% of all new supply. Only 5,600 units have applied for the 485x tax abatement program so far, all of which are in buildings < 100 units.

The high cost of construction insurance in New York City

Zoning issues are not the only challenge for companies looking to development apartment buildings and other commercial property in NYC. The city also has among the highest construction insurance costs in the country, in part due to a scaffolding law that is unique to New York regarding liability costs. New York construction insurance costs can reach 10% of a project's cost, the highest in the nation, and are 4x higher than the 2.5% level seen in New Jersey, Connecticut and Pennsylvania³⁵. The impact of insurance premiums varies across trades with sectors such as environmental, steel painting and scaffolding reporting rates as high as 15% - 20% of revenue. Some carriers have exited the New York construction insurance coverage market. One example: Liberty Mutual now excludes liability coverage for any construction operations taking place in New York City even if the policy is issued in Connecticut or New Jersey. Liberty Mutual will also no longer accept or add any New York-specific job locations to policies going forward.

New York's unique scaffolding law

Enacted in 1885, New York Labor Law § 240(1) was created to grant construction workers a legal avenue to recover for injuries resulting from workplace accidents. Similar laws were passed by other states with the same goal but have since been modified or repealed with New York now the only state with a strict liability statute on its books. A key difference: the New York law holds contractors liable irrespective of the actions or contributing liability of the workers; most other states use a comparative negligence model to determine contractor liability.

Injury rates actually fell in Illinois relative to New York after its scaffolding law was repealed. Illinois repealed its version of Labor Law 240 in 1995. For non-fatal injuries, Illinois was ~2.7 injuries per 100 private construction workers *greater* than New York prior to repeal and fell to ~0.7 injuries *less* than New York after repeal. For fatal falls, Illinois was ~1.7 fatal falls per 100,000 construction workers *greater* than New York prior to repeal and fell to ~2.0 fatal falls per 100,000 construction workers *less* than New York after repeal. Source: Michael Hattery, Director of Local Government Studies, Nelson Rockefeller Institute of Government, SUNY Albany, December 2013

³² "JPMorgan Chase's Chairman thanks the more than 1,200 union workers represented by the Building and Construction Trades Council for their work constructing 270 Park Avenue", WNY Labor Today, August 2, 2023

³³ "Mamdani will face tradeoffs in union-built affordable housing plan", Politico, January 21, 2026

³⁴ "Zero-sum game: 100-unit, mixed-income projects down to nothing", The RealDeal, December 9, 2025; "485x Abatement Halts NYC Mixed-Income Housing Projects", CRE Daily, December 11, 2025

³⁵ "Scaffold Law Economic Impact", HR&A Advisors, December 2025



Wrapping up

If Mamdani's \$70 billion housing plan does not take flight, NYC will have to keep hammering away at restrictive zoning policies and construction costs that impede development, and forge more private-public partnerships to improve housing abundance and affordability. Building on the foundation of *City of Yes* plan would be a great place to start. That was the core message in New York Governor Hochul's "*Let Them Build*" plan announced last month³⁶, a sign that New York might finally cut some of the red tape which consistently places the state close to last in cost-of-doing business surveys³⁷. Let's not jump the gun, however; a similar plan failed to pass the New York State legislature in 2023.

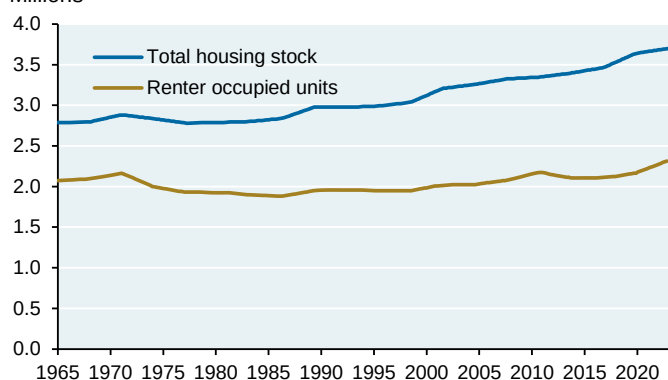
A recent article in the Georgetown Journal on Poverty Law and Policy concluded that the 2019 HSTPA Act and the Good Cause Eviction law are counterproductive: rather than helping the most vulnerable, these policies exacerbate housing scarcity, push out small landlords and make it harder for low-income renters to find and maintain stable housing³⁸. **Could there be an epiphany in City Hall?** Highly unlikely; based on his statements, this is not a policy view that NYC's new Democratic Socialist mayor is likely to adopt, suggesting that NYC and owners of one million NYC rent stabilized units may remain at cross purposes for years to come. In fact, some of the mayor's campaign statements imply that he would rely on city agencies to **seize or buy units that have fallen into disrepair**³⁹, some due to the 2019 Act itself and exacerbated by a four-year rent freeze he plans to enact, and transfer ownership to non-profit organizations, community land trusts and tenant groups⁴⁰. If so, that sounds like a contentious and premeditated recipe for conflict that may keep the NYC rental stock stuck in neutral, as it has been for the last 50 years.

Michael Cembalest

JP Morgan Asset Management

Total NYC housing stock and renter occupied units

Millions



Source: 2023 New York City Housing and Vacancy Survey, NYC HPD, 2024

³⁶ Hochul's plan referenced research from Empire State Development that manufacturing, housing and energy projects can take as much as 56% longer in NY to get from concept to groundbreaking compared to peer states

³⁷ NY State ranks last in taxation and outmigration according to the Public Policy Institute of New York; New York ranks 45th of 50 in a CNBC assessment of cost of doing business, cost of living and workforce, primarily driven by high taxes and housing cost; and New York ranks last in the Tax Foundation Tax Competitiveness Index

³⁸ "*When Good Intentions Backfire: How New York's Rent Laws Harm the Most Vulnerable*", Georgetown Journal on Poverty Law and Policy, March 2025

³⁹ As per Section 11-401, the City has the right to seize distressed properties via foreclosure by commencing an in rem proceeding on class 1 or 2 properties subject to a tax lien-to-market-value ratio $\geq 25\%$ and an average of five or more hazardous housing code violations per unit, or with emergency repair liens greater than \$1,000

⁴⁰ "*Zohran Mamdani wants to take more buildings from bad landlords. How would that work?*", Gothamist, December 16, 2025

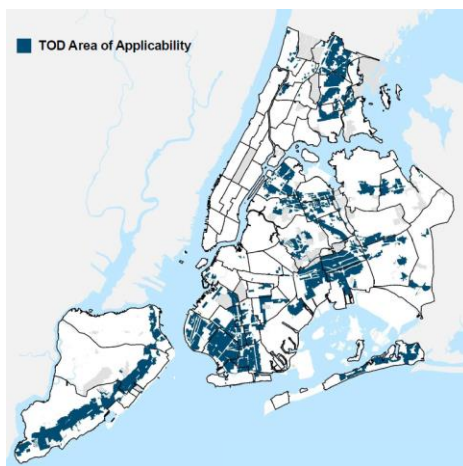


Appendix: City of Yes zoning change maps

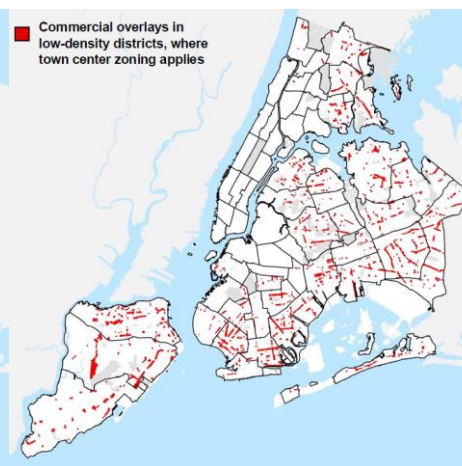
1. Transit Oriented Development relegalizes modest apartment buildings near subway/rail in low density areas
2. Town Center Zoning relegalizes housing above businesses on commercial streets in low density areas
3. Accessory dwelling unit reform allows one- and two- family homeowners in residential districts to add basement or detached units with a maximum size of 800 square feet
4. Universal Affordability Preferences allow buildings to add at least 20% more housing if the additional homes are “permanently affordable” to households earnings an average of 60% of Area Median Income in medium and high density districts
5. New rules eliminate parking requirements in Zone 1 (Manhattan and waterfront Brooklyn/Queens), relax them in Zone 2 and largely maintain them in Zone 3
6. Expansion of eligible geographies for non-residential to residential conversion

Some things to note about City of Yes⁴¹. While the plan represents a step change in NYC zoning policy, there were notable last minute carveouts that reduce the expected impact on new units by ~25%. Examples include “mass transit desert” areas of Southeast Queens where parking mandates were retained. As for the all-important issue of transit-oriented development, the new zoning rules generally apply to zones located within half a mile of subway, Metro North and LIRR stations. Exceptions include the 13 easternmost LIRR stations and four northern Metro-North stations where legislators cut the TOD zoning radius in half.

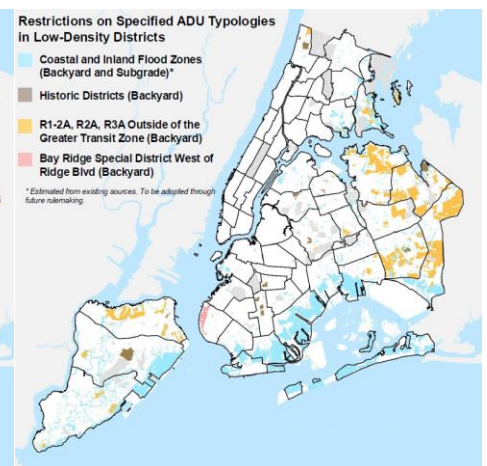
Transit Oriented Development



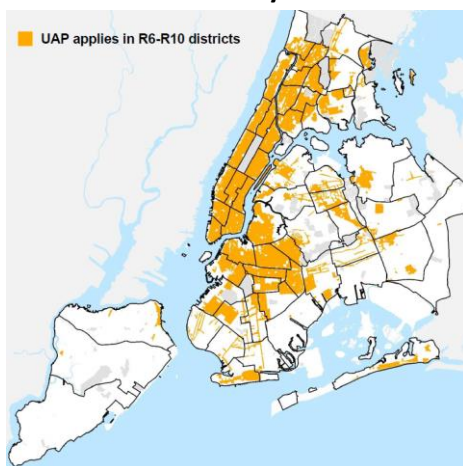
Town Center Zoning



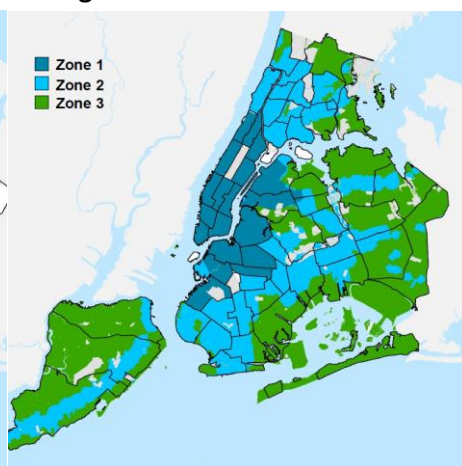
Accessory Dwelling Units



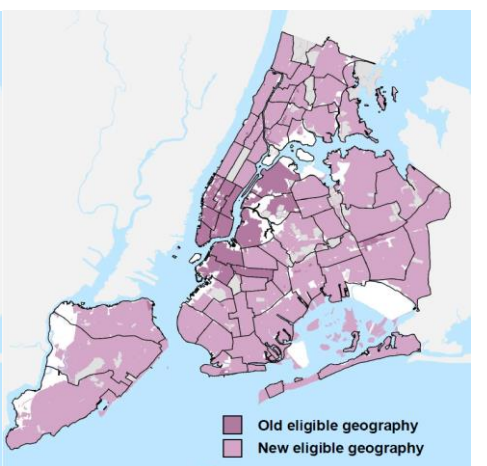
Universal Affordability Preferences



Parking mandates



Residential conversions



⁴¹ “The Blocks, Strips, and Neighborhoods Carved Out of City of Yes”, City Limits, January 6, 2025

**IMPORTANT INFORMATION**

This material is for information purposes only. The views, opinions, estimates and strategies expressed herein constitutes Michael Cembalest's judgment based on current market conditions and are subject to change without notice, and may differ from those expressed by other areas of JPMorgan Chase & Co. ("JPM"). **This information in no way constitutes J.P. Morgan Research and should not be treated as such.** Any companies referenced are shown for illustrative purposes only, and are not intended as a recommendation or endorsement by J.P. Morgan in this context.

GENERAL RISKS & CONSIDERATIONS Any views, strategies or products discussed in this material may not be appropriate for all individuals and are subject to risks. Investors may get back less than they invested, and **past performance is not a reliable indicator of future results.** Asset allocation/diversification does not guarantee a profit or protect against loss. Nothing in this material should be relied upon in isolation for the purpose of making an investment decision.

NON-RELIANCE Certain information contained in this material is believed to be reliable; however, JPM does not represent or warrant its accuracy, reliability or completeness, or accept any liability for any loss or damage (whether direct or indirect) arising out of the use of all or any part of this material. No representation or warranty should be made with regard to any computations, graphs, tables, diagrams or commentary in this material, which are provided for illustration/ reference purposes only. Any projected results and risks are based solely on hypothetical examples cited, and actual results and risks will vary depending on specific circumstances. Forward-looking statements should not be considered as guarantees or predictions of future events. Nothing in this document shall be construed as giving rise to any duty of care owed to, or advisory relationship with, you or any third party. Nothing in this document shall be regarded as an offer, solicitation, recommendation or advice (whether financial, accounting, legal, tax or other) given by J.P. Morgan and/or its officers or employees. J.P. Morgan and its affiliates and employees do not provide tax, legal or accounting advice. You should consult your own tax, legal and accounting advisors before engaging in any financial transactions.

For J.P. Morgan Asset Management Clients:

J.P. Morgan Asset Management is the brand for the asset management business of JPMorgan Chase & Co. and its affiliates worldwide.

To the extent permitted by applicable law, we may record telephone calls and monitor electronic communications to comply with our legal and regulatory obligations and internal policies. Personal data will be collected, stored and processed by J.P. Morgan Asset Management in accordance with our privacy policies at <https://am.jpmorgan.com/global/privacy>.

ACCESSIBILITY

For U.S. only: If you are a person with a disability and need additional support in viewing the material, please call us at 1-800-343-1113 for assistance.

This communication is issued by the following entities: In the United States, by J.P. Morgan Investment Management Inc. or J.P. Morgan Alternative Asset Management, Inc., both regulated by the Securities and Exchange Commission; in Latin America, for intended recipients' use only, by local J.P. Morgan entities, as the case may be.; in Canada, for institutional clients' use only, by JPMorgan Asset Management (Canada) Inc., which is a registered Portfolio Manager and Exempt Market Dealer in all Canadian provinces and territories except the Yukon and is also registered as an Investment Fund Manager in British Columbia, Ontario, Quebec and Newfoundland and Labrador. In the United Kingdom, by JPMorgan Asset Management (UK) Limited, which is authorized and regulated by the Financial Conduct Authority; in other European jurisdictions, by JPMorgan Asset Management (Europe) S.à r.l. In Asia Pacific ("APAC"), by the following issuing entities and in the respective jurisdictions in which they are primarily regulated: JPMorgan Asset Management (Asia Pacific) Limited, or JPMorgan Funds (Asia) Limited, or JPMorgan Asset Management Real Assets (Asia) Limited, each of which is regulated by the Securities and Futures Commission of Hong Kong; JPMorgan Asset Management (Singapore) Limited (Co. Reg. No. 197601586K), which this advertisement or publication has not been reviewed by the Monetary Authority of Singapore; JPMorgan Asset Management (Taiwan) Limited; JPMorgan Asset Management (Japan) Limited, which is a member of the Investment Trusts Association, Japan, the Japan Investment Advisers Association, Type II Financial Instruments Firms Association and the Japan Securities Dealers Association and is regulated by the Financial Services Agency (registration number "Kanto Local Finance Bureau (Financial Instruments Firm) No. 330"); in Australia, to wholesale clients only as defined in section 761A and 761G of the Corporations Act 2001 (Commonwealth), by JPMorgan Asset Management (Australia) Limited (ABN 55143832080) (AFSL 376919). For all other markets in APAC, to intended recipients only.

For J.P. Morgan Private Bank Clients:**ACCESSIBILITY**

J.P. Morgan is committed to making our products and services accessible to meet the financial services needs of all our clients. Please direct any accessibility issues to the Private Bank Client Service Center at 1-866-265-1727

LEGAL ENTITY, BRAND & REGULATORY INFORMATION

In the **United States**, **JPMorgan Chase Bank, N.A.** and its affiliates (collectively "**JPMCB**") offer investment products, which may include bank managed investment accounts and custody, as part of its trust and fiduciary services. Other investment products and services, such as brokerage and advisory accounts, are offered through **J.P. Morgan Securities LLC ("JPMS")**, a member of [FINRA](#) and [SIPC](#). JPMCB and JPMS are affiliated companies under the common control of JPM.

In **Germany**, this material is issued by **J.P. Morgan SE**, with its registered office at Taunustor 1 (TaunusTurm), 60310 Frankfurt am Main, Germany, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB). In **Luxembourg**, this material is issued by **J.P. Morgan SE – Luxembourg Branch**, with registered office at European Bank and Business Centre, 6 route de Treves, L-2633, Senningerberg, Luxembourg, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE – Luxembourg Branch is also supervised by the Commission de Surveillance du Secteur Financier (CSSF); registered under R.C.S Luxembourg B255938. In the **United Kingdom**, this material is issued by **J.P. Morgan SE – London Branch**, registered office at 25 Bank Street, Canary Wharf, London E14 5JP, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE – London Branch is also supervised by the Financial Conduct Authority and Prudential Regulation Authority. In **Spain**, this material is distributed by **J.P. Morgan SE, Sucursal en España**, with registered office at Paseo de la Castellana, 31, 28046 Madrid, Spain, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE, Sucursal en España is also supervised by the Spanish Securities Market Commission (CNMV); registered with Bank of Spain as a branch of J.P. Morgan SE under code 1567. In **Italy**, this material is distributed by **J.P. Morgan SE – Milan Branch**, with its registered office at Via Cordusio, n.3, Milan 20123, Italy, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE – Milan Branch is also supervised by Bank of Italy and the Commissione Nazionale per le Società e la Borsa (CONSOB); registered with Bank of Italy as a branch of J.P. Morgan SE under code 8076; Milan Chamber of Commerce Registered Number: REA MI 2536325. In the **Netherlands**, this material is distributed by **J.P. Morgan SE – Amsterdam Branch**, with registered office at World Trade Centre, Tower B, Strawinskylaan



2026 Outlook

1135, 1077 XX, Amsterdam, The Netherlands, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE – Amsterdam Branch is also supervised by De Nederlandsche Bank (DNB) and the Autoriteit Financiële Markten (AFM) in the Netherlands. Registered with the Kamer van Koophandel as a branch of J.P. Morgan SE under registration number 72610220. In **Denmark**, this material is distributed by **J.P. Morgan SE – Copenhagen Branch, filial af J.P. Morgan SE, Tyskland**, with registered office at Kalvebod Brygge 39-41, 1560 København V, Denmark, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE – Copenhagen Branch, filial af J.P. Morgan SE, Tyskland is also supervised by Finanstilsynet (Danish FSA) and is registered with Finanstilsynet as a branch of J.P. Morgan SE under code 29010. In **Sweden**, this material is distributed by **J.P. Morgan SE – Stockholm Bankfilial**, with registered office at Hamngatan 15, Stockholm, 11147, Sweden, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE – Stockholm Bankfilial is also supervised by Finansinspektionen (Swedish FSA); registered with Finansinspektionen as a branch of J.P. Morgan SE. In **Belgium**, this material is distributed by **J.P. Morgan SE – Brussels Branch** with registered office at 35 Boulevard du Régent, 1000, Brussels, Belgium, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE Brussels Branch is also supervised by the National Bank of Belgium (NBB) and the Financial Services and Markets Authority (FSMA) in Belgium; registered with the NBB under registration number 0715.622.844. In **Greece**, this material is distributed by **J.P. Morgan SE – Athens Branch**, with its registered office at 3 Haritos Street, Athens, 10675, Greece, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE – Athens Branch is also supervised by Bank of Greece; registered with Bank of Greece as a branch of J.P. Morgan SE under code 124; Athens Chamber of Commerce Registered Number 158683760001; VAT Number 99676577. In **France**, this material is distributed by **J.P. Morgan SE – Paris Branch**, with its registered office at 14, Place Vendôme 75001 Paris, France, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB) under code 842 422 972; J.P. Morgan SE – Paris Branch is also supervised by the French banking authorities the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and the Autorité des Marchés Financiers (AMF). In **Switzerland**, this material is distributed by **J.P. Morgan (Suisse) SA**, with registered address at rue du Rhône, 35, 1204, Geneva, Switzerland, which is authorised and supervised by the Swiss Financial Market Supervisory Authority (FINMA) as a bank and a securities dealer in Switzerland.

In **Hong Kong**, this material is distributed by **JPMCB, Hong Kong branch**. JPMCB, Hong Kong branch is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission of Hong Kong. In Hong Kong, we will cease to use your personal data for our marketing purposes without charge if you so request. In **Singapore**, this material is distributed by **JPMCB, Singapore branch**. JPMCB, Singapore branch is regulated by the Monetary Authority of Singapore. Dealing and advisory services and discretionary investment management services are provided to you by JPMCB, Hong Kong/Singapore branch (as notified to you). Banking and custody services are provided to you by JPMCB Singapore Branch. The contents of this document have not been reviewed by any regulatory authority in Hong Kong, Singapore or any other jurisdictions. You are advised to exercise caution in relation to this document. If you are in any doubt about any of the contents of this document, you should obtain independent professional advice. For materials which constitute product advertisement under the Securities and Futures Act and the Financial Advisers Act, this advertisement has not been reviewed by the Monetary Authority of Singapore. JPMorgan Chase Bank, N.A., a national banking association chartered under the laws of the United States, and as a body corporate, its shareholder's liability is limited.

With respect to countries in **Latin America**, the distribution of this material may be restricted in certain jurisdictions.

Issued in **Australia** by JPMorgan Chase Bank, N.A. (ABN 43 074 112 011/AFS Licence No: 238367) and J.P. Morgan Securities LLC (ARBN 109293610).

References to "J.P. Morgan" are to JPM, its subsidiaries and affiliates worldwide. "J.P. Morgan Private Bank" is the brand name for the private banking business conducted by JPM. This material is intended for your personal use and should not be circulated to or used by any other person, or duplicated for non-personal use, without our permission. If you have any questions or no longer wish to receive these communications, please contact your J.P. Morgan team.