DataFest Script

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1.

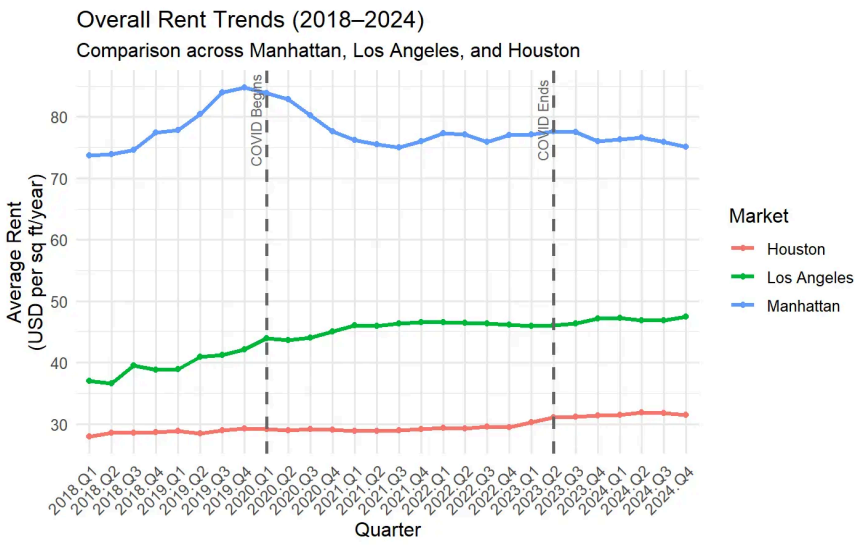
Problem

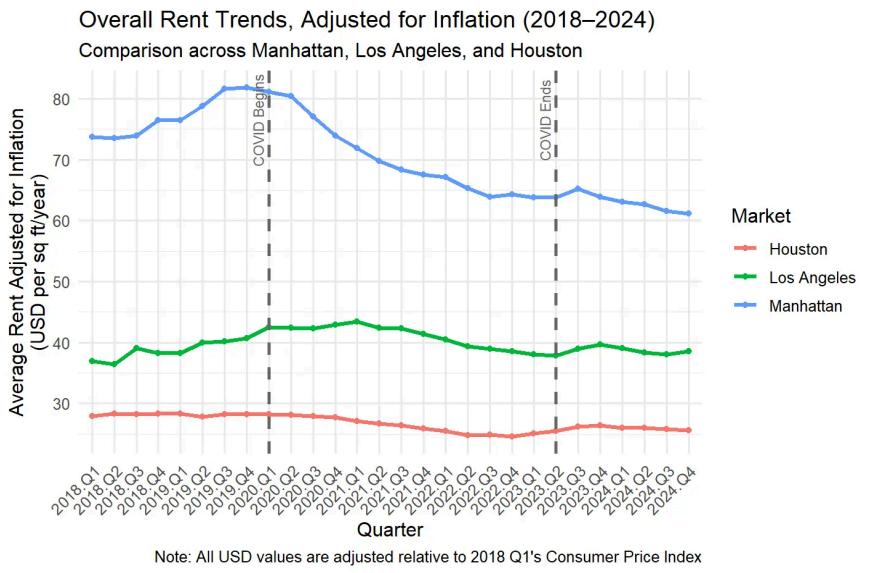
1. The Housing market has yet to fully recover from the reverberating consequences of the COVID pandemic, a problem that the data suggests is not uniform across the three major economic centers of the US: Houston (TX), Manhattan (NY), and Los Angeles (CA).
2. We observed ~~four~~ three trends— the Overall Rent Trends, Availability & Occupancy, ~~Availability & Sublet Availability~~, and New versus Rental Sublet Space Availability— which all indicate a homogenous decline during the COVID pandemic, but disproportionate "recovery" indicators…
3. Suggesting that different policy and choices could improve the proportion of corporate rental land to which is occupation or leased, which we're assuming is the goal for Savills.

Indicators: Rent, Availability, and Occupancy

PART 1: Average Rent

> There is a disproportionate and staggered reaction to the pandemic on the part of each of the three markets, and similarly a disproportionate recovery in rent prices post-pandemic.

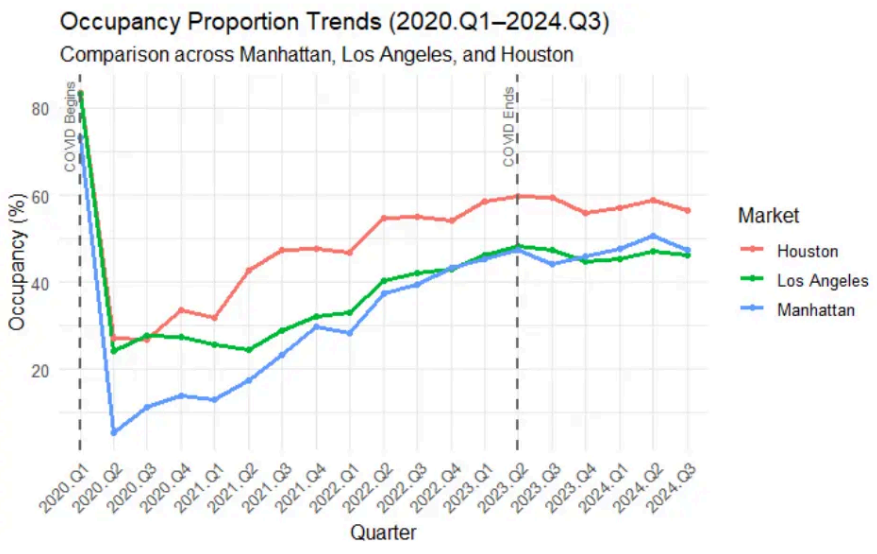


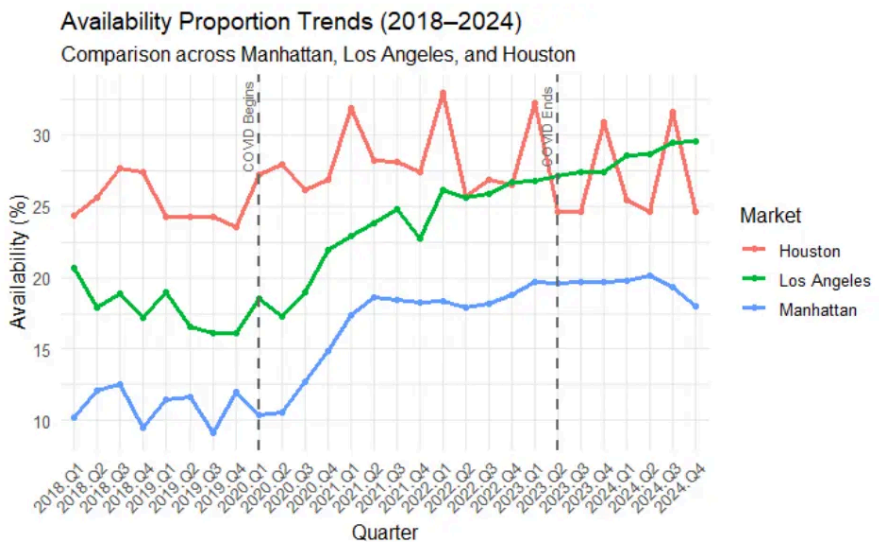


1. 👎 Manhattan's average rent sharply declines…
   1. And LA's inflation-adjusted rent slowly tapers off in a reversal of its previous, gradual incline.
   2. Same story with Houston, which had previously maintained an equal rent price but which tapered off.
2. 📝 These results inform a fact that the data bears out: the scarcity of a square foot of property— borne out in the valuation mechanism we call price— declined during COVID as physical work became impractical and virtual work became commonplace.
3. 💡 Interestingly, around the quarter the pandemic is declared "over", the rent is already trending upwards (even accounting for inflation), yet…
   1. Plateaus (dipping relative to inflation) across Manhattan and Houston while…
   2. Stubbornly increasing in proportion to inflation in Los Angeles.

PART 2: Availability versus Occupancy

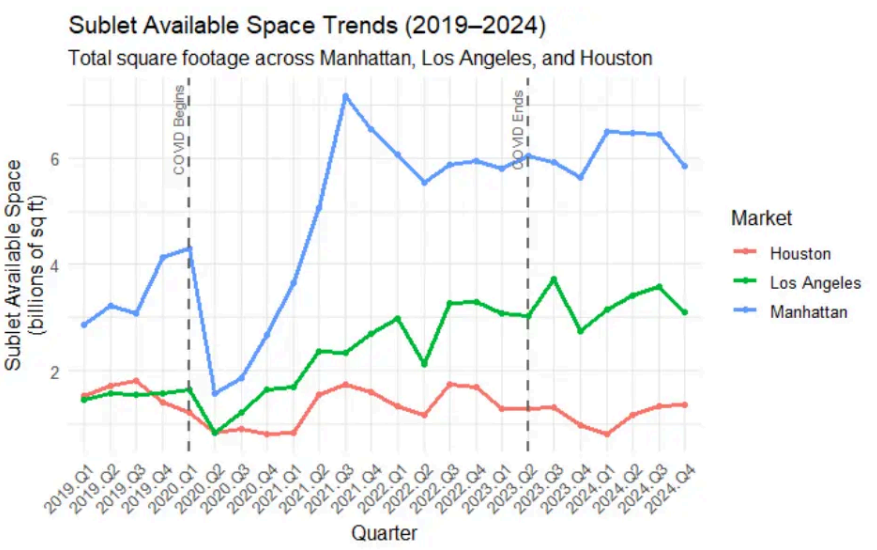
> The `Availability` visualization affirms that cities disproportionally reacted to the pandemic, and that their recovery was also disproportional.
>
> However, the premise that the cities are recovering is based on a decrease in `% Availability`, a metric which conflicts with the results the `Occupancy` visualization produced.
>
> So perhaps the cities are not recovering, and the "recovery" is surface-level investment rather than an actual resuming of economic/business activity.

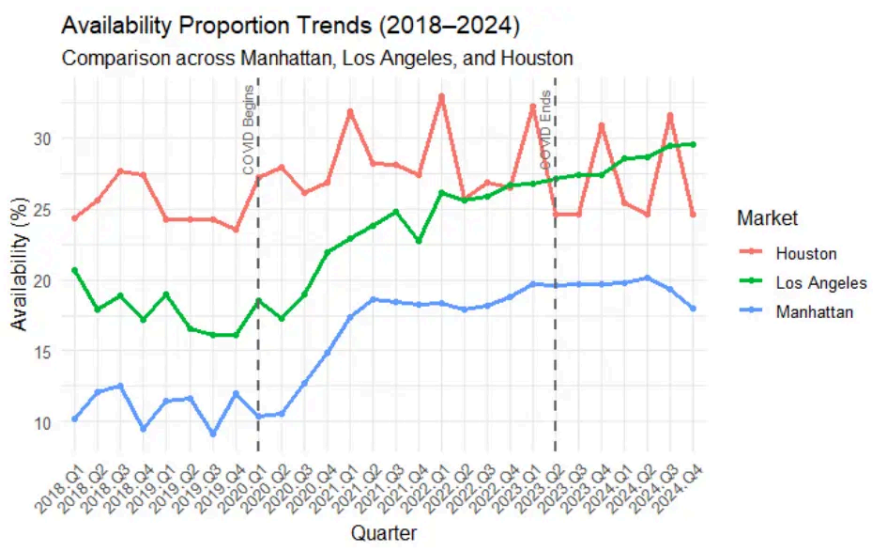




- The **Availability Proportion Trends** visualization affirms our prior visualization's staggered reaction to the pandemic: looking at the exact moments the availability lines spiked…
  - Houston refused to budge for half of a year longer than Los Angeles and Manhattan, which reacted more or less the next quarter after COVID began.
  - While the two other cities' markets reacted during the 3nd quarter of 2020, Houston only spiked during the *first quarter of 2021*. Perhaps this indicates a stability or confidence in the Houston commercial real estate market, or…
  - More likely, that the contracts Houston businesses signed were on-average set to expire later than that of other places, and that LA's late reaction in pricing was just their stubbornly retaining their high rates.
- Notably, the **Availability** visualization tracks well with the **Rent** visualization in that…
  - The cities whose rents dipped by a greater percentage— Houston and Manhattan— saw a proportional decrease in availability, meaning…
  - More area were leased out as rent decreased.
- Perhaps the **Availability** visualization's trend indicates that…
  - Decreasing the cost of rent incentives purchase of commercial real estate,
  - Which should correlate with increased commerce and investment as the businesses operating on that property produce wealth for the city,
  - Which would be a positive with respect to future property valuation.
- Or, perhaps the implications of the trend are fictional, which the **Occupancy** visualization seems to indicate:
  - The percentage of buildings owned that are actually filled with office workers hasn't changed since the end of the pandemic, which could indicate that…
  - People aren't actually moving into the buildings are being made available through that leasing that's happening.

PART 3: Availability and Sublet Availability





-
- This visualization

Solution

New vs Rental/Rental Sublet Space Availability:

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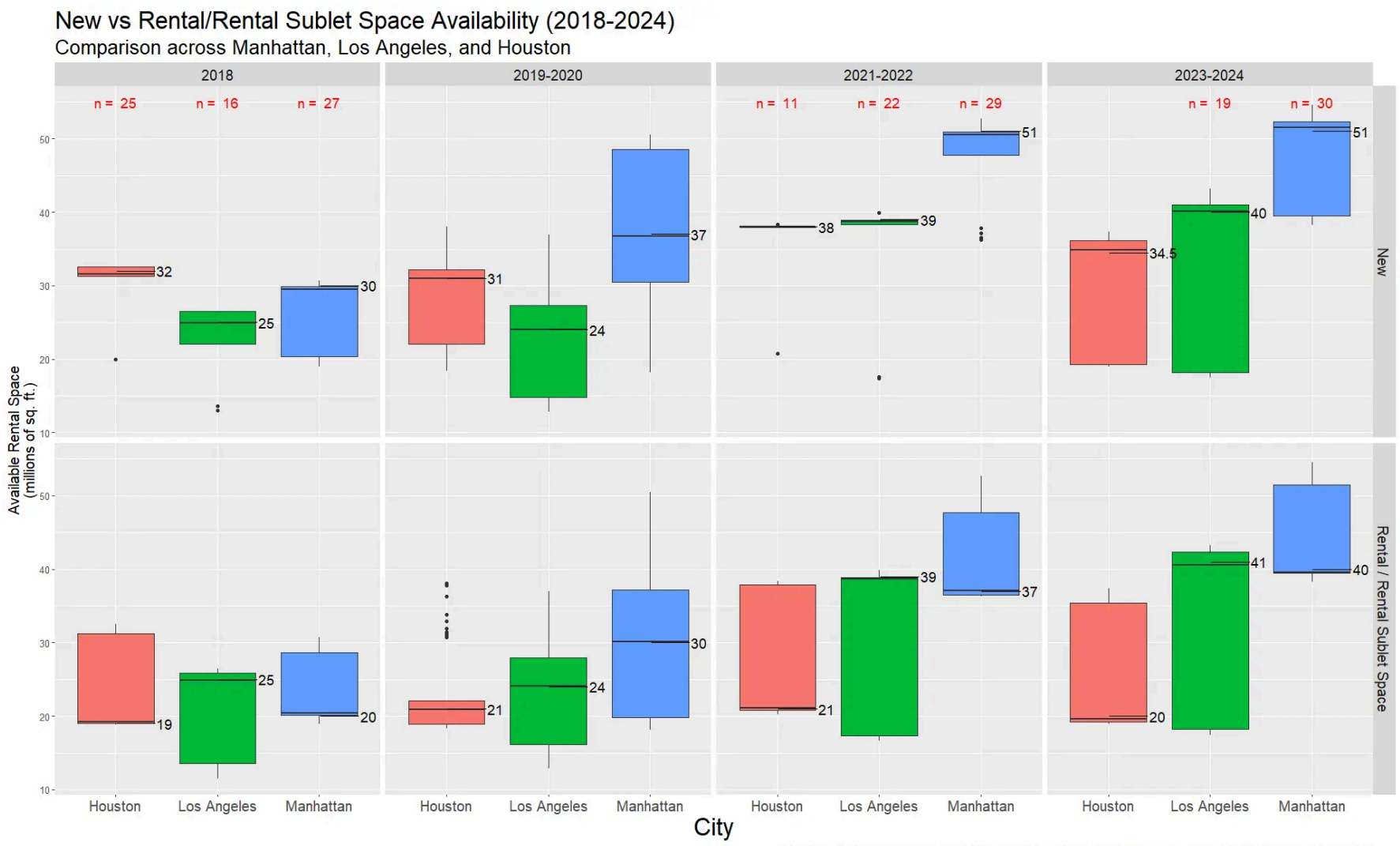

1. 💡 In this `New vs Rental/Rental Sublet` space visualization, we can (finally) compare the relative performance of the rental space market post-pandemic to pre-pandemic and during the pandemic itself.
2. 🧪 *Houston businesses seemed to be more interested in keeping their properties than other cities:*
    1. When compared to the spike in New *and* Rental/Sublet Properties that both LA and Manhattan saw during the pandemic, the slight incline in `Availability` overall is paltry.
    2. 📝 We can be fairly certain this isn't because of just contract delays, since...
        1. Other metrics like `Availability` (which we looked at earlier) reacted less than a year later, yet
        2. The `2021-2022` median remained approximately level with `2019`.
3. ⚠️ The discrepancy between the behavior of Houston businesses compared to those in Manhattan and LA could perhaps be explained by the relative levels of `Rent`:
    1. Perhaps Houston's cheaper rent per square foot meant companies found the cost of moving out to be more bearable compared to the other two locations, since the LA and Manhattan land costs a relative premium.
    2. Or, perhaps Houston businesses are of a different sort— a higher proportion of manufacturing business, which are less able to move, for example.
    3. But regardless of which explanation is correct, the reaction of businesses suggests some inherent, irreplicable differences in the nature of businesses in Houston. So perhaps Houston can be considered an anomaly.
4. 👍 On the other hand, the behavior of Manhattan versus Los Angeles *does* suggest a discrepancy in the *choices* between the two cities:
    1. Manhattan's average rent continued to decrease— them believing that the (inflation-adjusted) value of their property *is* less valuable— and this decision is seemingly affirmed by the decrease in Available Rental Space from `2021-2022` to `2023-2024`, indicating that...
        1. 📝 Though only the lower quartile (a fourth) of new available rental space moving towards this direction, nonetheless suggests that businesses are more interested in signing leases under these conditions.
        2. 💡 This tracks with the `Availability` graph, which also indicates that more land is being occupied in Manhattan as they drop their rents.
    2. In contrast, Los Angeles' real-estate market rent has stubbornly not changed compared to their pre-pandemic rates (even adjusted for inflation), and this decision seemingly is costing them, as their Available Rental Space remains as scarily-high as during their COVID levels.
        1. 💡 `Availability` affirms this concerning trend: the `% Availability` keeps ticking up quarter after quarter, as their rent prices remain stubbornly high.
5. ☆ **While not confirming this, the data is waving and pointing at** dipping rent being an appropriate and necessary response to the consequences of virtual work on the demand for commercial land.

Warnings

> *When making these conclusions...*

1. 💡 Even though there's a lot of *investor confidence* in the revitalization of NYC— as indicated in the decrease in new commercial real estate space in NYC—...

1. The fact that neither this bar nor the occupancy are close to pre-pandemic figures yet suggests that the market trends haven't yet "rewarded" by real consistency in "back to the office" figures, and therefore…
2. ⓘ *Revisiting the point we discussed with respect to rent*… We should be careful not to arrive at too certain of a conclusion.
    1. Remember, that `Occupancy` graph we ascribed credit for directly tracking to pandemic seems to indicate that the improvements we saw weren't tracking with *actual activity* in the offices.