

PLRA Daily Note

August 28th, 2024

[See here](#) for my highlights in last week's DOJ complaint against RealPage, which are mostly in the middle sections. Some of their arguments are deeper in the weeds than you might expect, e.g. with asymmetric “one-way ratchets”:

Expiration management can only raise prices — AIRM does not lower a unit's price if the lease term would fall in an underexposed period...

RealPage has even manipulated competitor mappings to increase the likelihood that AIRM or YieldStar would recommend price increases...

When the model calculates that the current day's “optimal” price will result in greater revenue than the previous day, a feature called the “governor” causes the model to recommend the current day's optimal price. But when AIRM or YieldStar calculates that the current day's optimal price will result in less revenue than the previous day, the governor recommends the recent average price *even though it is not optimal for the current day*...

In particular, the [down market](#) mechanisms (¶¶ 125–127, 134–138) are the parts that every investor should read:

RealPage created a “revenue protection” mode that effectively lowers output to increase revenues. Revenue protection activates when AIRM or YieldStar predict — using calculations incorporating competitors' data — that demand is too low for a landlord to meet its target occupancy. Rather than lowering the price to stimulate demand, the algorithm reduces the target number of leases, [and] then maximizes revenue for the *reduced* occupancy level...

Remember that with apartment REITs, we're really underwriting this larger feedback loop of policy and public opinion, more than the outcome of any particular case. And when the first of these RealPage suits was filed almost two years ago, I wrote a long [public note](#) about the already-diminishing returns of automated yield management, and suggested that pushing it further was no longer worth the regulatory risk.

Now, at the time, the loudest charges of “algorithmic collusion” related to Covid rent spikes. So you might expect that as rent growth moderates, some of that pressure would fade. But if anything, coordinating to stem market rent declines may be an easier charge to prove than coordinating to juice rent increases. And in political terms, it could turn out to be just as toxic.

To see why, think of the NIMBY conspiracy theories about corporate landlords keeping millions of market-rate units empty, because they're “making more on tax breaks” or whatever nonsense. One tiny grain of truth in that fever dream is that all revenue management requires at least *some* willingness to flex occupancy, even if it's just a few units for a few months. And the conspiracy rhetoric is effective because as housing costs increase, this idea of “yield managing” rental housing *at all* is becoming repulsive to more of the voting public.

Leave aside whether that's rational, or consistent with their other policy preferences. The point is that most people hate every kind of “dynamic pricing” — and for understandable reasons, housing may be the only case where the quantity is just as salient as the price. For example, no one gets mad

when their hotel or flight is half empty, and even anti-competitive flight cancellations are not an easy concept to follow. But if you could prove that RealPage landlords in concentrated submarkets were *coordinating* to target 94% rather than 95% occupancy in a given leasing season, and express that in terms of the number of empty apartments... that might already sound worse than any resulting impact on rents.

OK, I'm not saying they've proven it, or that "proof" is even really the right way to think about it. But if they demonstrate this effect and lose on statutory grounds, that still looks awful for landlords. And even just the email dumps and the rest of the fact pattern... look, it doesn't get any easier to lobby against rent control or get new projects approved, when everyone's reading about your "user groups" and "shared Google Drive documents."

From the other end, let's try to define the limits to this regulatory risk, apart from any damages. We'll start with the point about algorithmic "price gouging," which is not only hard to prove but hard to remedy. As I put it in that 2022 note:

[After] an extreme demand shock that pushes vacancy down to frictional levels, it's not implausible that widespread yield management in a given submarket could amplify — not cause, but amplify — the resulting spike in rents. [But] **I don't see how it requires a hub-and-spoke conspiracy. In other words, you'd get the same amplification even if you broke up YieldStar into five independent software companies...**

[So] other regulation may be warranted, like some of the emergency rent caps during Covid. [But] in the long run, the most effective response would be to subsidize even more new supply, so that the next demand shock can't have the same effect...

So now we have these more specific charges about what landlords are doing wrong in a normal or softening market, as opposed to an "extreme shock." And I'm conceding that if the DOJ prevails, those coordination mechanisms would be easier to shut down.

But in the above block quote, what I'm really gesturing at is the broader prospect of *autonomous* algorithmic collusion, and some of that applies here too. Even with no information sharing and separate pricing models, you could see a partial convergence back toward the same outcomes.¹

More importantly, the main driver of rent growth is still NIMBYism and undersupply. And the main point of my note was to separate the initial effects of automated pricing from the market-level effects that are now drawing fire, and to argue that the benefit to REITs from that second "interdependent" phase had been fairly modest.

Another way to say that is that the marginal returns from coordination were mostly being captured by lower-end private owners, or by RealPage itself. So if the REITs had to roll back from YieldStar/AIRM to the LRO model (for example) I don't know how much it would really reduce our revenue estimates. And in terms of capitalization, it's not as though REITs have ever gotten much credit from the stock or bond markets for exaggerated terminal growth rates, in comparison to the way they're monetized on the private side.

¹ [See here](#) for one good paper on autonomous collusion, if you're curious. AFAICT this is not fully addressed even in [Klobuchar's bill](#), much less by Kanter or Khan. But I'm not a lawyer or a game theorist, and maybe I'm overthinking it.

But let's bring this all back down to earth. My frustration with the REITs was not just about the antitrust overhang, as you can see from my conclusion:

Collusion is not the only way that algorithmic pricing has gotten non-real estate companies into legal or reputational trouble. Another minefield is inadvertent bias and discrimination, and it's one that we have to be especially sensitive to in housing.

So when I hear the REIT "data science" routine starting to include more individual profiling of residents, I just have to wonder how the risk/reward could possibly make sense. I mean, do you really want to wind up sending different renewal offers to two otherwise comparable units in the same building, based on scoring the residents with a black box "AI" that you can't fully audit? For another 20bps of revenue growth? As a public company? Really?

In other words, my core problem was similar to the "smart locks" that **didn't quite always lock**. The apartment REITs are *great* developers, and they're underlevered. Even tight development spreads are still a better option than fooling around with tech gimmicks they don't fully understand, from vendors they may not fully trust, with indirect risks they can't fully underwrite.

So if you want to debate my risk/reward point above, then let's have that debate in self-storage — where the pricing strategies are not only more of the value equation, but also more proprietary, and (so far) less interesting to regulators. With the apartment REITs, it just feels like a distraction from more development.

And if REIT investors are going to take "regulatory risk" seriously, this is what it sounds like. Not just handicapping each specific lawsuit or ballot measure, and having expert calls, and fretting about the political "climate." Half of that is just group therapy. When you really get serious about this subject in a permanent equity vehicle, you'll start to be less short-term greedy about the next 20bps of revenue, and more long-term greedy about external growth and platform value.

To be clear, "platform value" *does* include tech efficiencies on the cost side, but that's usually more about solid execution than cutting-edge "innovation." As I put it in another **public note** this year:

For any CEO who's being told by their employees or vendors that they can have it both ways, or any investors who believe it from CEOs — i.e. that a new consumer-facing revenue optimization tool will deliver higher returns on time/capital than all the previous optimization tools... without doing anything anticompetitive or otherwise unsavory... the term for that is not "AI," it's "magic."

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