This paper asks how contract duration affects willingness-to-pay when buyers hold a real option to time consumption within a fixed window. The empirical setting is BLM U.S. timber auctions, where the winning bidder has a time-limited right to harvest and can choose when and how much to cut while facing uncertainty in lumber prices. The authors document that removals are sensitive to lumber prices and are concentrated near expiration, and they interpret these patterns as evidence that buyers value flexibility. They then develop a two-stage structural framework that combines an English (oral) auction with a finite-horizon dynamic cutting problem. Parameters are estimated using auction outcomes, bidder-type information (loggers versus sawmills), and quarterly harvest paths with FRED lumber prices. The model is used to quantify how extending duration (e.g., 3 to 4 years) changes ex ante valuations and expected seller revenue, and to characterize heterogeneity by bidder type, tract size, and market conditions.

The research question is clearly stated and practically meaningful for B2B markets where contracts embed a consumption or exercise window. The paper's core value is not that "longer duration can increase value" (which is intuitive), but that it attempts to measure the magnitude of this effect, show when it is large versus small, and connect post-award timing behavior to ex ante WTP using observed bids. The integration of bidding data with detailed post-auction consumption histories is a strength, and the focus on bidder heterogeneity (loggers versus sawmills) is potentially important for understanding revenue effects through the identity of the marginal (second-highest) bidder. I list my comments below.

Major comments

1. Conceptual

1.1. A central theme is "uncertainty" and "risk management." The paper's model is forward-looking and incorporates uncertainty through a stochastic lumber-price process and discounting, but it appears to remain risk-neutral. At the same time, parts of the narrative read as if risk aversion is a key driver. It would help to align the interpretation with the primitives. One option is to describe the mechanism as option value under price uncertainty plus operational constraints, rather than "hedging risk," unless risk preferences are explicitly modeled and discussed. This matters because related work (Lu and Perrigne, 2008) raises risk aversion as a potential consideration.

1.2. The causal interpretation also needs sharper framing. Reduced-form correlations between cutting and lumber prices, and between bids and contract term, are presented in a way that can sound causal ("*adding one month raises the winning bid …*"). Yet both harvesting and contract terms can be jointly driven by unobserved factors, and buyers may differ systematically across short- versus long-term contracts. The structural counterfactuals are positioned as isolating the causal effect of duration, but the identifying assumptions that allow this separation should be stated more explicitly and defended with targeted evidence. In particular, it would help to address the

concern that longer-duration contracts may attract a different mix of bidders (beyond the number of bidders), even if participation counts appear stable.

1.3. Relatedly, the paper treats lumber prices as exogenous to individual auctions because BLM sales are a small share of supply. That is plausible, but the argument would be more convincing if supported quantitatively and if the limits of this assumption were acknowledged. The paper also interprets "buyers accelerate harvesting when prices spike." Given the model structure, cutting does not feed back into prices, so the direction of causality is assumed rather than demonstrated. Readers will likely accept price exogeneity at the national level, but it would still help to be careful in language and to discuss any scenarios where local price endogeneity could matter.

1.4. Finally, the institutional motivation for a fixed harvest window could be deepened. The paper states that contracts are time-limited (typically 36 months) and that extensions can occur due to disruptions like weather or fire closures. That is useful background, but readers may still ask why the baseline is a fixed window rather than a more flexible arrangement, and what forces (investment needs, planning constraints, environmental policy, administrative capacity) govern the choice of duration. A clearer institutional rationale would also sharpen the meaning of the counterfactual policy lever.

2. Methodological

The structural approach is ambitious and potentially impactful, but several modeling choices are sufficiently load-bearing that they merit additional justification and sensitivity checks.

2.1. First, the auction stage is modeled as an oral ascending auction with dominant "bid up to value" behavior. The paper itself notes that the very high bid ratio (B2/B1 ≈ 0.98) can indicate strong correlation in values and common-value elements, yet it maintains an independent private-values environment for tractability and comparability with prior timber-auction work. This is a reasonable modeling choice, but the paper would be stronger if it provided additional diagnostics and clearer discussion of how the IPV assumption could affect recovered valuations and the duration effect.

2.2. Second, the entry process is treated as exogenous. The reduced-form evidence shows little covariate predictability for entry counts, but this does not fully rule out selection on unobservables or changes in bidder composition across contract terms. Since the counterfactual revenue effects depend on both valuations and competition, it would be helpful to show more directly whether observable bidder characteristics (and ideally any available proxies for capacity or scale) vary with duration, even if counts do not. The constructed "potential bidders" measure (unique bidders within 10 km over the sample period) is important here. I would encourage a clearer explanation of why this construction is appropriate, how sensitive it is to the radius choice, and whether potential-bidder variation differs across short versus long contracts.

2.3. Third, the cutting-stage model is a finite-horizon single-agent dynamic program with a discrete action set $q \in \{0, 0.25, 0.5, 0.75, 1\}$ and a payoff that is linear in price and includes convex costs. This captures timing and operational constraints, but it rules out some economically relevant margins, such as cutting now and storing logs to sell later. The paper motivates logger behavior partly by limited storage capacity, but the model does not explicitly include an inventory/holding-cost decision. It would help to clarify whether the model implicitly assumes harvested timber is effectively sold/processed contemporaneously, and why that is reasonable in this setting. If storage is feasible for some buyers, the estimated "option value of duration" could partly reflect the omission of within-contract inventory choice rather than duration per se.

2.4. Fourth, the estimation focuses on data from only three-year contracts due to computational burden, but the counterfactuals vary contract length up to 16 quarters (four years). This makes the extrapolation step important. The paper would benefit from an explicit identification discussion explaining why parameters estimated on the 3-year duration can be transported to out of sample horizons, and what evidence supports that transportability. The existence of revised terms and over-delays also raises a related issue: the effective exercise horizon may differ from the stated term for a non-trivial share of contracts. Clearer treatment of revised terms in estimation and simulation would increase confidence in the duration mechanism.

2.5. Fifth, the counterfactual revenue results are presented as increases in expected seller revenue from longer terms. However, longer terms also delay the seller's next sale and could reduce the present value of the revenue stream if the seller faces a dynamic capacity constraint. The current counterfactuals appear to focus on per-auction revenue, not on seller dynamic optimization over time. Even a back-of-the-envelope present-value adjustment, or a clear statement of what is held fixed, would make the managerial and policy implications more precise.

3. Contribution and positioning

3.1. The paper positions the timber setting as related to advance selling and draws analogies to consumer contexts with consumption windows. The advance-selling link is plausible in the sense that purchase precedes consumption, but in typical marketing settings the allocation mechanism is not an English auction, and the consumption window often interacts with behavioral frictions. I would encourage the authors to be explicit about what transfers and what does not. The paper may be most compelling as a B2B/industrial marketing contribution on contract design in auctions and resource-rights markets, with consumer analogies treated as suggestive rather than central.

3.2. The literature review could also be more tightly connected to core marketing conversations. The paper cites the advance-selling literature and classic work on expiration effects, which is helpful, but the overall framing still lacks a marketing narrative. A clearer articulation of the marketing contribution—beyond "duration matters"—would help, especially given existing research on uncertainty and contract duration in B2B relationships.

Minor comments

4. Conceptual and interpretation

4.1. Table 1 reports a higher mean for the second-highest bid than for the winning bid, which will surprise readers at first glance. The note suggests this is because second-highest bids are observed only in auctions with at least two bidders, which may be a selected subset with higher values. It would help to say this explicitly in the text and, if possible, to report winning-bid moments for the same two-bidder subset to make the comparison transparent.

4.2. The "uncertainty" motivation could be kept distinct from the finding that estimated volumes align closely with realized volumes. Table 2 and Figure 1 speak to accuracy of volume estimates, not to future price uncertainty. A brief clarification would prevent readers from interpreting "near-zero differences" as undermining the uncertainty channel.

4.3. The COVID period and the associated lumber-price spikes are potentially influential. The paper includes a COVID dummy in some regressions, but a short robustness check excluding the most extreme price-spike quarters would help reassure readers that the main estimates and counterfactual magnitudes are not driven by an unusual regime.

4.4. In Table 3, the lumber-price coefficient is significant for the mbf and value measures but not for acres. Since the paper interprets the overall pattern as strong price responsiveness, it would help to comment on why the acres specification differs (measurement noise, unit conversion, heterogeneity in stocking density, or timing conventions).

4.5. The sample accounting should be harmonized. Several analyses use 204 oral auctions with at least two bidders, while Table 1 reports 209 second-highest bids. A short explanation (missing covariates, filtering, or timing alignment with price data) would eliminate confusion.

4.6. Figure 3 cites an auction sample of 2023Q1–2025Q2, which is different from the main stated sample (2012Q2–2023Q1). Please take caution here and clarify why the time period is different.

4.7. Finally, Table ordering and referencing could be cleaned up. As written, Table 5 appears before Tables 3 and 4 in the narrative flow.