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Xometry, Inc. (XMTR): the Pets.com of Manufacturing

Culper Research Expert Interview Question: "Is there anything else that we haven't covered, but that you think we should know about Xometry?"

Former Xometry Executive: "No, not really … But maybe now you'll be able to call Randy [Xometry CEO Randolph Altschuler] out on some of his bullshit."

We are short Xometry, Inc. ("Xometry", "XMTR", "the Company), a 2021 IPO and holdover from the era of VC-fueled delusions of grandeur. We believe Xometry continually misleads investors about key aspects of its business: the Company claims to generate recurring revenues, a 6.1x LTV to CAC ratio, and operating leverage. However, we believe Xometry has a massive Buyer churn problem, is generating a sub-1.0x LTV to CAC ratio, and harbors deeply unprofitable and rapidly deteriorating unit economics. Xometry has temporarily papered over this deterioration with the December 2021 acquisition of Thomas, a Yellowpages for machine shops whose acquisition we view as largely a financial engineering gimmick. With one hand, management serenades investors with claims to take the manufacturing world by storm, yet with the other hand, management sells stock hand over fist, having sold over $45 million since the Company's post-IPO lock-up expired. We think Xometry's unviable business case is unraveling, and we expect shares to trade lower as the Company's manufactured narratives crumble.

"Even though we're not a SaaS company, we have reoccurring revenue."

"[the analogies to Airbnb and Uber], I love them all."

"…increasing account stickiness and spend over time…substantial revenue visibility and predictability."

– Xometry CEO Randy Altschuler

<u>Xometry's Recurring Revenue Narrative is Bogus; the Company has a Massive Effective Churn Problem</u>

Xometry attempts to paint itself as integral to the manufacturing processes of large corporations, but the reality is that the Company is an increasingly commoditized middleman for engineers and tinkerers seeking prototyping and small run parts. The Company has raised over $780 million since inception, yet still burns cash, with $88 million cash burn on just $132 million in gross profits over the LTM. To justify these massive losses to investors, Xometry claims that the Company generates recurring revenues from a customer base (i.e., engineers) which "orders over and over again". However, our analysis of the Company's own SEC filings suggests that this is not the case. Instead, Xometry appears plagued by churn, with effective Active Buyer churn hitting 65% in 2019 and 94% in 2020. Importantly, the Company seemingly tried to hide these figures from investors, only disclosing CAC payback period, which allows investors to estimate churn, after being compelled to do so via a series of SEC comment letters as part of the IPO process. In 2021 and 2022, Xometry stopped disclosing these figures, suggesting to us that churn continues to torture the business.

Xometry entrenches itself in this recurring revenue charade by reporting a contrived and misleading "percentage of revenue from existing *accounts*" metric, which management commentary then further conflates into a garbled, meaningless mess. For example, CFO Rallo stated at a recent conference that "94% to 96% of our orders every single month or quarter are coming from existing *customers*." However, "*Accounts*" (or "*customers*" as CFO Rallo conflates here) refers not to *Active Buyers*, but to their *employers*. For example, Xometry could in 2016 receive an order from a Chicago-based engineer at Lockheed Martin who then never orders from Xometry again. However, if in 2022, Xometry received an order from a Denver-based engineer at Lockheed Martin, the Company would count this order as from "an existing customer", even as Xometry might have spent thousands in AdWords to acquire each engineer separately. One former Xometry executive we spoke with opined that Xometry possessed 10+ Active Buyers per Account, corroborating our view that the Company-provided metric is meaningless.

Xometry itself adjusted its own Active Buyer figures downwards from 24,160 to 21,345 just 3 weeks after its June 2021 IPO, which not only imply that XMTR's pre-IPO Active Buyer growth rate was overstated by 31% and highlights our concerns regarding the customer base, but raises additional questions about the Company's controls. We have found that historically, companies that have restated key data points typically harbor deeper-buried issues within other reported metrics.

Finally, the Company's own disclosures in its IPO prospectus also appear to corroborate our view on churn, touting "over 43,000 total buyers", but with only 18,846 buyers active in the LTM.

Xometry's 6.1x LTV to CAC Claims are Bogus; We Think the Company Can't Even Earn Back Advertising Spending

Xometry claims to generate 6.1x LTV to CAC ratios on customer (i.e. Buyer/engineer) acquisition spending, yet the Company does not disclose actual underlying LTV or CAC figures to support this claim. Instead, Xometry baldly states that LTV is based on Monte Carlo simulations, Markov chain stochastic models, and neural networks:

> *LTV* means the estimated cumulative lifetime gross profit attributable to a particular buyer cohort divided by the number of buyers acquired during the cohort period. Each buyer cohort is defined as all buyers who were acquired during a specific period. To estimate the cumulative lifetime gross profit, we use a method that relies on Monte Carlo simulations of Markov chain stochastic models obtained from neural networks. The simulations provide the distribution of outcomes for each customer, including mean lifetimes, expected revenue and churn. The average of the outputs from this model is the cumulative lifetime gross profit.

We find these models akin to a sleek black box filled with mashed potatoes. Using the Company's own financials, we estimate LTV to CAC has not only never been 6x, but has deteriorated to just 0.85x for the LTM ended Q3 2022; for every dollar Xometry spends in advertising, the Company only ever gets back $0.85 in lifetime gross profits:

Culper Est. Xometry LTV to CAC	Q4 20	Q1 21	Q2 21	Q3 21	Q4 21	Q1 22	Q2 22	Q3 22
Marketplace Revenues per Active Buyer (LTM)	$7,503	$7,432	$7,286	$7,226	$7,584	$7,727	$7,946	$7,779
Marketplace Gross Margin (LTM)	24%	24%	24%	24%	25%	26%	28%	29%
Annual Gross Profits per Active Buyer	$1,766	$1,769	$1,728	$1,745	$1,892	$2,016	$2,186	$2,236
Effective Churn (Culper est. 2020 actual)	94%	94%	94%	94%	94%	94%	94%	94%
Lifetime Gross Profits per Net New Buyer	$1,879	$1,882	$1,838	$1,856	$2,012	$2,145	$2,326	$2,379
Advertising Expenses per Net New Buyer (LTM)	$1,640	$1,662	$1,666	$1,814	$2,230	$2,527	$2,807	$2,792
LTV to CAC (Only Advertising Expenses)	**1.15x**	**1.13x**	**1.10x**	**1.02x**	**0.90x**	**0.85x**	**0.83x**	**0.85x**

Given the myriad of other expenses inherent to Xometry's business (advertising spending was just 10.7% of LTM total operating expenses), we believe Xometry's unit economics are deeply negative; the Company loses thousands and thousands of dollars on each net new customer.

Core to Xometry's bogus LTV to CAC claim is the assumption that customers "land and expand", spending more and more with the Company over time. However, the Company's financials once again run counter to this narrative; Xometry's quarterly revenues per Active Buyer peaked pre-IPO, in Q3 2020. We also spoke with three current Xometry customers, each of whom stated that using Xometry for mainline manufacturing was a non-starter. In the words of one current customer, "We use them [Xometry] for small production runs, capping out at 100 pieces…If we were at 10,000 units, I wouldn't even be looking at Xometry, because even a 5% markup would be really significant."

Finally, while Xometry has long touted its "patented" instant quotes as a competitive advantage, numerous competitors now have similar abilities, including Fictiv, Protolabs (PRLB), Fathom (FATH), Sculpteo (owned by BASF), and Materialise (MTLS). Xometry thus spends and re-spends massively to acquire and re-acquire Buyers, who are highly price sensitive, and thus compare quotes across these various platforms. Website traffic data via SimilarWeb corroborates this view: Xometry relies on paid search to generate 18.9% of site traffic, multiples higher than every other competitor we reviewed in the 1.0% to 9.3% range.[1]

Company	Paid Search Traffic
Fast Radius	1.0%
Fathom	1.1%
Fictiv	1.4%
Rapid Direct	1.9%
Unionfab	4.4%
Materialise	6.4%
Protolabs	9.3%
Xometry	**18.9%**

Xometry's Operating Leverage Claims are Bogus; Unit Economics Have Deteriorated Substantially Since IPO

Despite its broken business model, Xometry now claims to be generating operating leverage, which we again see as highly misleading, if not an outright lie. While Xometry did report lessened Adjusted EBITDA losses in Q3 2022 vs. the prior year, our analysis suggests the improvement is more than entirely due to headline contributions from Thomas, which the Company acquired in December 2021. On a standalone basis, we estimate LTM operating losses in Xometry's marketplace worsened from $44 million in Q3 2021 to $85 million in Q3 2022: Xometry is not only not showing operating leverage as management claims, but underlying economics have deteriorated significantly since IPO, and management are flailing for excuses. We think the Thomas acquisition was largely a financial engineering gimmick to mask the unraveling of Xometry's core business.

Xometry's "ESG" Reshoring Sympathies are Self-Serving Hogwash

Xometry management also panders to the ESG crowd by parading various reshoring tropes, such as that the Company "provides local, resilient supply chains", "makes US manufacturing more competitive", and "really want[s] to help save our world." Sell-side analysts then parrot this narrative with claims such as that Xometry is

[1] October 2022 data; latest available.

"supported by secular shifts such as onshoring & supply chain redundancies/resiliency…" We find such sympathies largely empty and self-serving. Xometry claimed in late 2020 that orders are filled "almost entirely" in the US, yet the Company now provides Buyers with overseas options (primarily in China), which both our customer calls and own experience suggest are a popular option for CNC machining due to their massive discounts. One former Xometry executive we spoke with estimated that prior to their leaving the Company in early 2021, overseas orders constituted as much as 30% of the business, and growing. The executive described to us that while the US-first narrative was once a point of pride, the Company had embraced China in response to intensifying competition. We believe this reliance on Chinese manufacturing to be not only a departure from the Company's USA-first claims, but a material undisclosed risk to Xometry's business in light of constant international tensions. Meanwhile, various machinist forums describe Xometry in less than kind terms, calling it "mostly shit", "where machine shops take their dreams to die", and encouraging other machinists "don't waste your time."

Xometry is Not Even a True Marketplace; it's a Structurally Hamstrung Market Maker

Xometry is a market maker, not a true marketplace. Whereas marketplace businesses record their net take rate or fees on gross merchandise value ("GMV") as revenues, *Xometry records GMV itself as revenues*, while the Company's net "fees" are represented by gross income. This accounting difference has created a massive valuation disconnect among naïve analysts who value Xometry on a multiple of revenues. Rather, on an apples-to-apples basis, Xometry trades at an astounding 9.9x gross profits vs. just 2.0x to 5.6x gross profits for marketplace and 3D printing businesses; even Amazon trades at less than half of Xometry's multiple at 4.6x.

The Bottom Line: Xometry's Business is Unraveling While Insiders are Cashing Out

In Q3 2022, Xometry pushed out calls to generate positive EBITDA for the full 2023 year, blaming temporary factors. We think these are lame excuses for its unraveling business. At the same time, Xometry insiders have wasted no time selling stock; at least 8 insiders have sold $45.4 million in stock since November 2021 – less than a month after the Company's IPO lock-up expired – and have continued to sell shares through January 2023. We think shares will continue lower and see considerable downside.

Xometry's Recurring Revenue Claims are Bogus; Xometry is Plagued by Buyer Churn

We view Xometry as emblematic of the VC-backed value-destructive era of spending a dollar to make fifty cents. Consider that on the Company's IPO day, CEO Randy Altschuler took to CNBC to proclaim that he "loves" all the analogies to Airbnb and Uber, and associated Xometry with hot markets, saying:

> "We're helping electric vehicle companies, we're helping robotics companies, autonomous vehicles, companies that are trying to solve the issues we're having today with carbon, so it's just a thrill..."

Xometry now claims to hold a TAM of $2.4 trillion, which is a larger figure than the manufacturing output of the entire United States, for context. Chief among Xometry's promotional narratives are its claims to generate "recurring revenues" from a customer base which "orders over and over again." Xometry's investment case rests here; absent this "recurring revenue" narrative, investors have no reason to believe that Xometry might ever become profitable. See from Co-Founder and CEO Randy Altschuler at a May 2022 conference presentation:

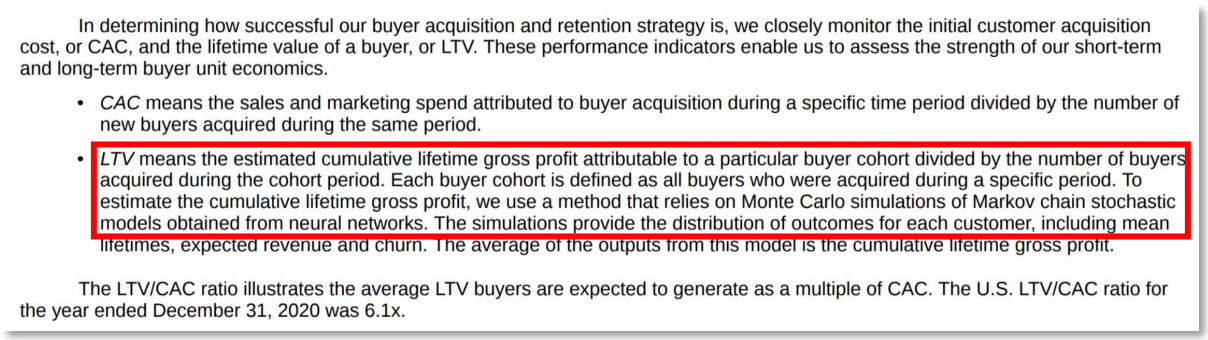
> "…none of our cohorts are tailing off. So you're looking at it's sticky, and the cohorts continue to order over and over again. So as we've been calculating that LTV to CAC, we have some sort of terminal value on when they're going to extinguish. We haven't seen that. Of all the monthly cohorts we've had since we

started our company, all of our cohorts have continued to do well, except for one cohort, so one monthly cohort from January of 2014. So that creates a really nice predictable set of recurring revenue. That's why we were so confident in giving guidance for this year. And even though we're not a SaaS company, we have reoccurring revenue, and that just enables us to manage our business."

However, we believe this recurring revenue narrative is totally contrived; contrary to the Company's claims, Xometry's marketing dollars appear to have gone in search of more and more unprofitable, one-off customers who effectively churn out in under a year.

Xometry's Own Disclosures – Made Only After SEC Comments – Imply 94% Churn Rates in 2020

Xometry's own pre-IPO disclosures appear to expose a flimsy business model which suffers from massive churn. In its April 14, 2021 IPO prospectus, Xometry stated that its LTV to CAC ratio was 5.3x in 2019 and 6.1x in 2020. However, the Company did not disclose the associated dollar values of either its LTV or CAC, and importantly, the Company's LTV was not based in any sort of present-day realities, but based on "a method that relies on Monte Carlo simulations of Markov chain stochastic models obtained from neural networks."[2]

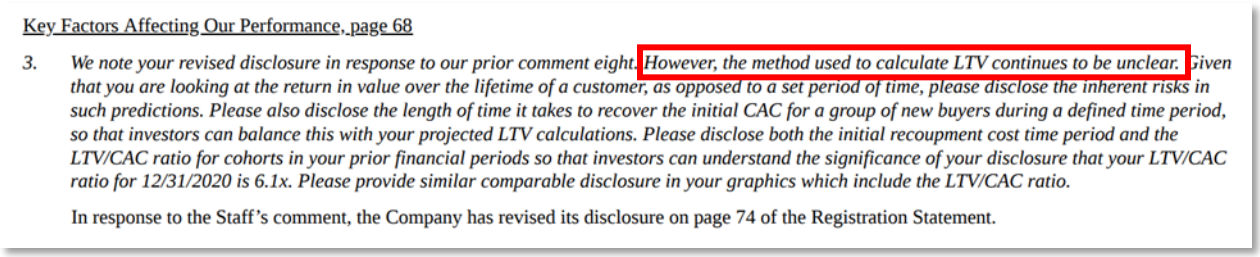


In determining how successful our buyer acquisition and retention strategy is, we closely monitor the initial customer acquisition cost, or CAC, and the lifetime value of a buyer, or LTV. These performance indicators enable us to assess the strength of our short-term and long-term buyer unit economics.

- *CAC* means the sales and marketing spend attributed to buyer acquisition during a specific time period divided by the number of new buyers acquired during the same period.
- *LTV* means the estimated cumulative lifetime gross profit attributable to a particular buyer cohort divided by the number of buyers acquired during the cohort period. Each buyer cohort is defined as all buyers who were acquired during a specific period. To estimate the cumulative lifetime gross profit, we use a method that relies on Monte Carlo simulations of Markov chain stochastic models obtained from neural networks. The simulations provide the distribution of outcomes for each customer, including mean lifetimes, expected revenue and churn. The average of the outputs from this model is the cumulative lifetime gross profit.

The LTV/CAC ratio illustrates the average LTV buyers are expected to generate as a multiple of CAC. The U.S. LTV/CAC ratio for the year ended December 31, 2020 was 6.1x.

In June 2021 comment letters, the SEC called Xometry out for increased disclosures, including "the length of time it takes to recover the initial CAC for a new group of buyers during a defined time period, so that investors can balance this with your projected LTV calculations."



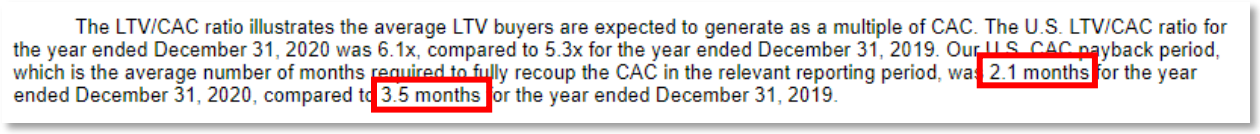
Key Factors Affecting Our Performance, page 68

3. *We note your revised disclosure in response to our prior comment eight. However, the method used to calculate LTV continues to be unclear. Given that you are looking at the return in value over the lifetime of a customer, as opposed to a set period of time, please disclose the inherent risks in such predictions. Please also disclose the length of time it takes to recover the initial CAC for a group of new buyers during a defined time period, so that investors can balance this with your projected LTV calculations. Please disclose both the initial recoupment cost time period and the LTV/CAC ratio for cohorts in your prior financial periods so that investors can understand the significance of your disclosure that your LTV/CAC ratio for 12/31/2020 is 6.1x. Please provide similar comparable disclosure in your graphics which include the LTV/CAC ratio.*

In response to the Staff's comment, the Company has revised its disclosure on page 74 of the Registration Statement.

As a result, Xometry was then forced, in effect, to disclose that its 2019 and 2020 payback periods were 3.5 months and 2.1 months, respectively:

[2] See page 9 for our full views and assumptions underlying our belief that Xometry's true LTV to CAC is under 1.0x.



The LTV/CAC ratio illustrates the average LTV buyers are expected to generate as a multiple of CAC. The U.S. LTV/CAC ratio for the year ended December 31, 2020 was 6.1x, compared to 5.3x for the year ended December 31, 2019. Our U.S. CAC payback period, which is the average number of months required to fully recoup the CAC in the relevant reporting period, was 2.1 months for the year ended December 31, 2020, compared to 3.5 months for the year ended December 31, 2019.

These payback period figures analyzed in tandem with Xometry's LTV to CAC claims reveal that the Company has an egregious churn problem; we calculate that – using the Company's own disclosures – Xometry's effective churn rate was 65% in 2019 and 94% in 2020:

	2019	2020	2021
LTV to CAC	5.3	6.1	undisclosed
Payback period (months)	3.5	2.1	undisclosed
Implied life of Buyer (months)	18.55	12.81	n/a
Annual churn rate	**65%**	**94%**	**n/a**

Despite – as recently as last May[3] – continuing to claim that Xometry has an LTV to CAC of 6.1x "which grew 15%", the Company has not disclosed payback period figures at any further point in 2021 or 2022, suggesting to us that the churn problem still plagues the business.

Finally, the Company's own disclosures in its IPO prospectus appear to corroborate our view on churn, touting "over 43,000 total buyers" but only 18,846 Active Buyers in the LTM.

Xometry Misleads Investors by Conflating "Active Accounts" with "Active Buyers"

Xometry further entrenches itself in the recurring revenue charade by reporting "percentage of revenue from "existing Accounts", which is consistently 94% to 96%. We think this is a contrived figure designed to again create the false impression that Xometry is a recurring revenue business.

The distinction between Accounts and Buyers is critical to understanding the Company's claims, yet management commentary conflates the two metrics. For example, at the Company's June 2022 Bank of America conference presentation, Xometry CFO James Rallo was asked plainly: "what percentage [of your jobs] are recurring versus kind of one and done or one-off? And how has it changed over time?" Rather than answering directly, Rallo opted for a long-winded response which both avoided answering the substance of the question altogether and appears to us to be intentionally misleading (author emphasis, shortened for brevity):

> "I also talked about, let's see, the number of *accounts*, right, to do over 50,000. And so if you look at how that's grown, right, over, really since the first quarter of '21, it's tremendous. And what that tells you is back to the predictability of the business. Remember, I said 94% to 96% of our orders every single month or quarter are coming from *existing customers*. So we still have *every cohort* that we've started the company with in 2013. *We haven't lost one.* So we track all that."[4]

Rallo's commentary can be read to imply that there are 47,500 (i.e., 95% of 50,000) engineers buying parts from Xometry each month, yet we think this is miles from reality. We spoke with two former Xometry executives, each

[3] See Xometry's May 2022 JP Morgan Global TMT conference transcript.
[4] Note that the statement that "We haven't lost one cohort" says nothing as to the underlying strength of such cohorts.

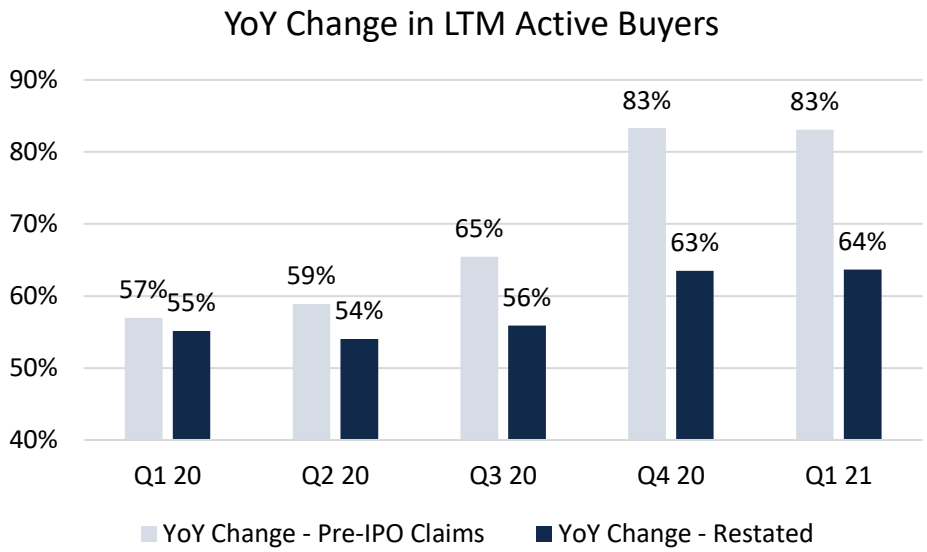
of whom stated to us that Xometry's "Accounts", as defined, refers not to "Active Buyers" as is also reported by the Company, but to the *employers* of said Buyers. Per the first former Xometry Executive:

> "There's any number of ways to look at that [metric] … the metric that gets reported is number of *accounts*, so it wasn't as important that John Smith at SpaceX was ordering every month, but that *SpaceX* was ordering every month – growing that account, not that buyer … So it might be true that a procurement team might spend every month but the *Buyer* is an engineer."

This former Executive estimated that the average Account consists of 10+ Buyers. We spoke with a second former Xometry executive who confirmed the same methodology, stating that, "If I'm working with one engineer buying from me from Ford, and I find a new engineer at Ford to buy from me, *that's the same Account*." As such, we think Xometry's contrived KPI is totally meaningless at best.

Xometry's Post-IPO Active Buyer Count Restatement Raises Further Concerns

Xometry's post-IPO revisions of its customer count not only bolsters our view of the Company's churn problem but suggests that the Company's go-public valuation was inflated by overstated Buyer figures. On July 20, 2021 – just 3 weeks after raising over $300 million – the Company disclosed revised buyer metrics for the past 5 quarters, implying that the Company overstated growth in Active Buyers:



We have found that historically, companies that have restated key data points typically harbor deeper-buried issues within other reported metrics.

Xometry's LTV to CAC and Operating Leverage Claims are Bogus

Xometry's Unit Economics Have Deteriorated Since IPO; We Think True LTV to CAC is a Paltry 0.85x

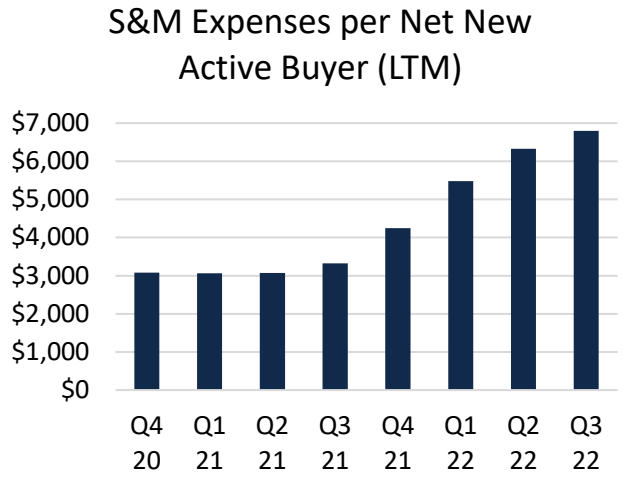
While Xometry serenades investors with 6.1x LTV to CAC estimates based on Monte Carlo simulations and Markov chains, we believe that here in the present reality, Xometry's unit economics have deteriorated such that the Company does not even earn back its advertising expenses. We estimate that over the LTM ended Q3 2022, each

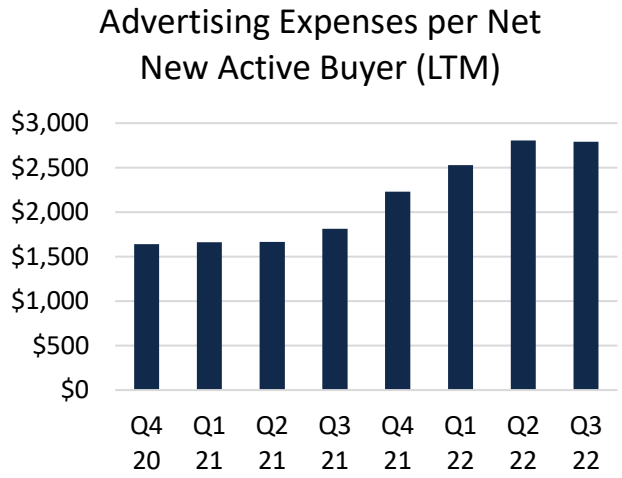
net new Active Buyer generated $2,379 in lifetime gross profits, while Xometry has spent $2,792 in advertising expenses per net New Buyer, representing an LTV to CAC of just 0.85x. Our assumptions are detailed below:

Culper Est. Xometry LTV to CAC	Q4 20	Q1 21	Q2 21	Q3 21	Q4 21	Q1 22	Q2 22	Q3 22
Marketplace Revenues per Active Buyer (LTM)	$7,503	$7,432	$7,286	$7,226	$7,584	$7,727	$7,946	$7,779
Marketplace Gross Margin (LTM)	24%	24%	24%	24%	25%	26%	28%	29%
Annual Gross Profits per Active Buyer	$1,766	$1,769	$1,728	$1,745	$1,892	$2,016	$2,186	$2,236
Effective Churn (Culper est. 2020 actual)	94%	94%	94%	94%	94%	94%	94%	94%
Lifetime Gross Profits per Net New Buyer	$1,879	$1,882	$1,838	$1,856	$2,012	$2,145	$2,326	$2,379
Advertising Expenses per Net New Buyer (LTM)	$1,640	$1,662	$1,666	$1,814	$2,230	$2,527	$2,807	$2,792
LTV to CAC (Only Advertising Expenses)	**1.15x**	**1.13x**	**1.10x**	**1.02x**	**0.90x**	**0.85x**	**0.83x**	**0.85x**

Since we estimate that Xometry is not even getting paid back on its advertising expenses, we think that after considering the multitude of other ongoing costs of running the business, the Company holds deeply negative unit economics and no chance of ever reaching profitability.

This deterioration is largely the result of skyrocketing customer acquisition costs in tandem with churn. Over the last twelve months, Xometry spent $72.0 million in sales and marketing expenses while growing net New Buyers by 10,602, implying $6,793 in sales and marketing expenses per each net New Active Buyer, up massively from $3,121 in Q1 2021. Much of this spending is advertising expenses, which in turn was dominated by Google AdWords spending. Per a former Xometry executive we spoke with, AdWords "was far and away the most marketing money we spent."





Xometry has rained down AdWords to gain market share, but we believe that the Company is engaged in a race to the bottom. While the Company's patented "instant quote" prowess may have once been an advantage, this is no longer the case; we found similar or identical instant quote offerings for 3D printed and/or CNC offerings at numerous competitors, as shown in the table below:

Provider	Instant Quote	Website Marketing Notes
Fictiv (private)	YES	"Get high quality parts manufactured on demand"
Materialise (MTLS)	YES	"Get started with an instant quote"
Protolabs (PRLB)	YES	"Lead times as fast as 1 day"
Stratasys (SSYS)	YES	"Request instant quotes"

Unionfab (private)	YES	"…get a price, lead time, and feedback…"
Fathom (FATH)	YES	"Get an instant quote … Parts as soon as same day"
Scupteo (BASF-owned)	YES	"Parts you need in just a few clicks"

Even in the words of one former Xometry executive we spoke with, "It's really the golden age to be an engineer because there's so many options now." One customer we spoke with told us that that while Xometry was once growing as a percentage of their total spending, RapidDirect, a China-based platform with a similar offering, has since taken share due to its lower prices:

> "RapidDirect gets more of our slow lead time, larger order business, but Xometry gets the one-off, 'we need this next week' orders … Xometry is never the absolute cheapest, even their overseas option. For most, I can find a cheaper solution that looks like Xometry but is based overseas … I was doing traditional manufacturing, then I found out about Protolabs, then Xometry [3 years ago], then RapidDirect, so I've shifted a lot since then to RapidDirect."

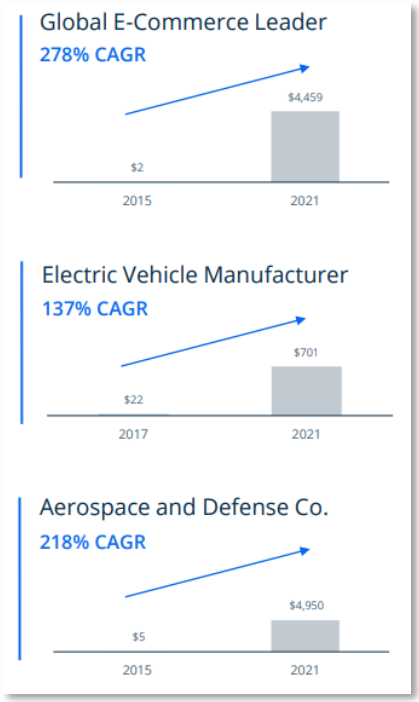
Corroborating our view that Xometry customers have little loyalty to the Company, and instead shop around for quotes, our review of website traffic data via SimilarWeb (October 2022; latest available) suggests that Xometry relies massively on paid search traffic as compared to peers:

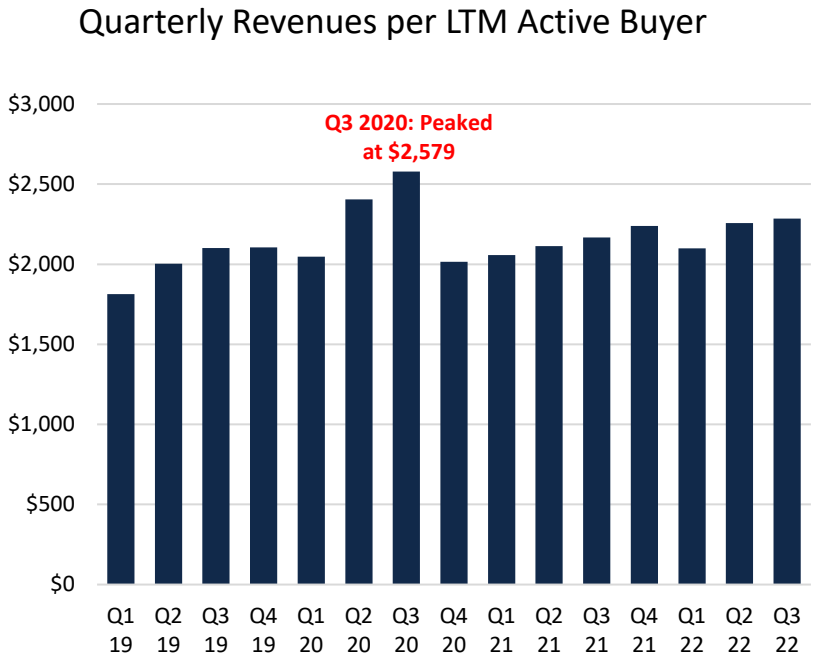
Company	Paid Search Traffic
Fast Radius	1.0%
Fathom	1.1%
Fictiv	1.4%
Rapid Direct	1.9%
Unionfab	4.4%
Materialise	6.4%
Protolabs	9.3%
Xometry	**18.9%**

While Xometry's CAC has skyrocketed, Buyer spending hasn't kept pace. We suspect Xometry's black box LTV models project customers spend increasingly large amounts with the Company over time, in keeping with the Company's "land and expand" narrative. See from a December 2022 interview in which CEO Altschuler stated:

> "We've seen more customers lean in because this is a more efficient way for customers to source their parts … Not only do we have more customers than ever, but we're growing deeper within our customers. We call that a land and expand strategy..."

Xometry's investor presentations also cherry-pick a handful of customer case studies, as shown below. However, on a consolidated basis, marketplace revenues per LTM Active Buyer peaked 2 years ago, in Q3 2020:





Supposed Operating Leverage is Entirely Due to Headline Impact of Thomas, in our View

Nevertheless, management now claims that this flailing model is bearing fruit and the Company is generating operating leverage. This has been a claim over the past several months and quarters:

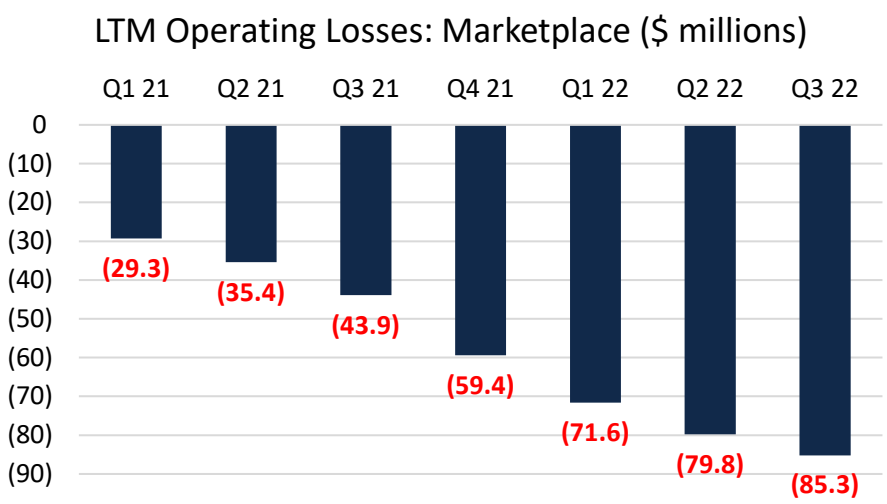
- On November 10, 2022, during the Company's Q3 2023 conference call, CEO Altschuler stated that "We reduced our adjusted EBITDA loss by $1.8 million quarter-over-quarter to $6.5 million, underscoring the operating leverage in our model."

- At the September 14, 2022 Goldman Sachs conference, CEO Altschuler stated that "We can still do that [invest in technology, sales, and marketing] and really gain operating leverage. So that's why you saw from Q1 to Q2 a real jump forward on operating leverage."

- On August 10, 2022, during the Company's Q2 2023 conference call, CFO Rallo stated that "So we've got good efficiencies in our sales and marketing this quarter. We expect to get good synergies or what I would say is good leverage in the rest of our operating lines."

We see this as yet more misdirection; Xometry's headline improvements in EBITDA losses are more than entirely due to the headline inclusion of Thomas rather than leverage in the marketplace business. After backing out our estimate of inorganic contribution[5] from the Thomas acquisition, we estimate Xometry generated LTM operating losses of over $85 million:

[5] After Xometry acquired Thomas in December 2021, the Company began disclosing revenues and gross margins by segment, but did not provide operating income (losses) or Adj. EBITDA by segment. We estimate segment-level operating income (losses) by applying operating expenses proportionately to each segment as a percentage of revenues.



Just weeks after the September 2022 Goldman conference, Xometry pushed back its calls to generate positive Adjusted EBITDA from full-year 2023 to merely the second half of 2023. On the Q3 2022 conference call, Xometry's prepared comments once again misled investors by citing the incrementally negative news as if it were positive:

> "We now expect to be profitable on an adjusted EBITDA basis in the second half of 2023, driven by strong buyer and order growth and further improvement in gross margins, driving faster gross profit growth in our marketplaces. We expect significant leverage over fixed and semi-fixed costs, including public company costs."

This statement later required clarification from analysts on the call, again exemplifying to us Xometry management's constant promotional nature. Management explained away the worsened guidance as due to temporary factors; we view the problem as structural to the business.

For Mainline Manufacturing, Xometry is a Non-Starter: a Solution in Search of a Problem

We believe Xometry is stuck on a value-destructive treadmill of acquiring and re-acquiring the same engineer Buyers; the Company cannot "jump the gap" to mainline purchasing departments, which view Xometry as a solution in search of a problem. **We interviewed three current Xometry customers, each of whom stated that while they use Xometry for prototyping and small runs, the case for mainline manufacturing simply doesn't exist.** See the words of one buyer we spoke with who was touted by Xometry as a case study:

> "The actual CNC or manufacturing side, we have our own local vendors that we use for that. The only reason why it's [our spending with Xometry] so small, our vendors around here, we get really, really good prices. And we schedule the work, we have budgeting and we don't need quick turnarounds for quotes, and as long as our order is out to the vendors, they get our stuff back. We just don't need [Xometry]…"

> "If all of the local shops are booked up for whatever reason, that's the only reason we'd ever use that [Xometry]… I'd say there are 25 shops that we use regularly … That's [local shops offer] the best price, so we're able to work out a partnership. We constantly have a volume that we need, so we're able to work out a deal … If you're an established company where you're needing something made, you're going to get a local partnership going."

> "Xometry themselves are truly just the middleman. It's always going to be more expensive."

A second current Xometry Buyer at a Fortune 500 medical supplies company uses Xometry for low volume prototyping runs of 1 to 50 parts, but stated that mainline manufacturing was again not a consideration:

> "We're still mostly in the mode of using local or semi-local or I'd say regional machine shops for CNC and injection molding. We started those relationships a long time ago, and the companies making those parts have been making them for a while … you don't want to change to another injection molding house if you don't have to. For us, we're talking about high quantities being hundreds of parts."
>
> "So when we order from Xometry, we're ordering relatively low volumes. It could be a single part, or 25 to 50, but that would still be a prototype run."

Yet another current Xometry customer told us that they use Xometry for orders of no more than 100 parts, making the Company a non-starter for even moderately sized production orders, much less major manufacturing jobs:

> "We use them [Xometry] for small production runs, capping out at 100 pieces … If we were at 10,000 units, I wouldn't even be looking at Xometry, because even a 5% markup would be really significant."

We also spoke with an executive at a Xometry competitor, who reiterated their view that platforms such as Xometry's aren't used for runs over 100 units:

> "They [Xometry] are basically a layer, you could say an agent, to help customers build parts, and they charge an additional cost. If you go to production, it doesn't make sense for customers like Apple to use them because of that additional cost … When [Buyers] grow, they will go with a contract manufacturer to remove the middleman layer. When the run gets above 100 units, they will eliminate the middleman."

We believe these structural shortcomings have left Xometry's core business in a constant scramble to acquire and re-acquire engineers through blasting out Google AdWords, which, as we've opined above, is simply a massively unprofitable venture.

Xometry's "Reshoring" Sympathies are Empty and Self-Serving

We find Xometry's reshoring narrative to be yet another cheap promotional ploy. CEO Randy Altschuler takes pains to paint Xometry as a sort of savior to US manufacturing:

- At a September 2022 Goldman Sachs conference, Altschuler stated, "I think we want to really help save our world. And by the way, it's magnificent for the American if I'm thinking about America, right? And the American economy is a great sector to invest in, and I think that's the place to be."

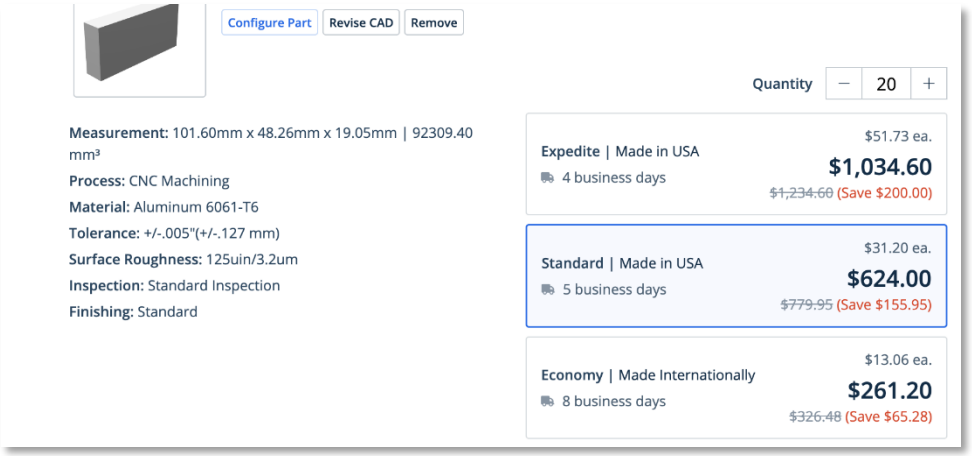
- In the Company's 2021 Letter from the CEO, Altschuler wrote, "In the United States, we are committed to playing a pivotal role in revitalizing and strengthening our domestic manufacturing base. In contrast to the ineffectual 'supporting' American manufacturing rhetoric, Xometry is helping in tangible ways…"

- In October 2020, CEO Randy Altschuler went on a podcast and claimed that Xometry "absolutely" ought to "strengthen the fabric of manufacturing and job creation across the US" and that "Xometry, part of its goal is to make it [US manufacturing] more competitive…"[6]

Bullish sell-side analysts have lapped up this narrative, claiming, for example, that "XMTR has a significant growth opportunity ahead supported by secular shifts such as onshoring & supply chain redundancies/resiliency…" Our view is that Xometry provides little value to US-based manufacturers, and appears to be quietly pivoting to Chinese suppliers in its effort to remain competitive amid low-priced competition.

A Material Portion of Xometry Suppliers are China-Based

Based on our own experience and calls with customers, we believe that that a material portion of Xometry's revenues are generated from overseas sellers, in stark contrast to the Company's "USA first" ethos. See for example one CNC part we uploaded to Xometry's online interface, which shows the massive discounts (58% to 75% off) that Buyers can earn for purchasing from overseas sellers.



Quotes we ran for other parts also showed similar discounts for CNC machining fulfilled through China:

Process	Expedited	Standard	Economy (Int'l)	Discount
CNC (1 pc.)	$3,824.13	$2,267.99	$750.51	67% to 80%
CNC (20 pcs.)	$60,603.00	$35,455.00	$16,326.60	54% to 73%
CNC (20 pcs.)	$7,179.40	$4,141.40	$1,973.60	52% to 73%

We also spoke with a Xometry customer who corroborated these discounts, describing that they will typically opt for the overseas option "when we have a big expenditure" as "it's probably more than two times to two and a half times cheaper." This same customer stated that the overseas option "is made typically in China" and "is almost always offered [by Xometry] now", suggesting to us that Xometry's has grown its Chinese business over time.

[6] This portion of the interview (at 29:00) was notably absent from this portion of the posted transcript. Later in the interview at 34:30, the interviewer appears to be under the impression that "your supply chain, your manufacturing base is entirely the US…" which today would appear to be a false assumption.

Xometry now holds dedicated landing pages for Chinese manufacturers, and even touts the overseas options in an October 2022 case study, stating that, "By partnering with Xometry, Mezli quickly discovered another benefit: they were able to reduce their costs by approximately 20% and take advantage of faster lead times by using our overseas supplier options."

We spoke with a former Xometry executive who left the Company in early 2021, and described to us the internal decision the Company made to embrace Chinese manufacturing:

> "The whole American manufacturing thing was a point of pride at Xometry at the time, and I was proud of it, but at a certain point our competitors were getting so competitive that we were seeing these stupid low prices from our competitors … Xometry embraced it [China] and it [China] was a bit of a boom…"

This same executive estimated that 30% of Xometry orders had become borne by overseas suppliers by his early 2021 departure. Per the former executive, "I'd say 70% was domestic and 30% was overseas … It wouldn't surprise me if the number's only gone up since then."

Ironically, CEO Altschuler previously started an offshoring services firm, OfficeTiger. Founded in 1999, OfficeTiger reportedly did not generate profits, but was acquired in March 2006 by RR Donnelley and is now touted as a win by Altschuler. During Altschuler's subsequent two failed Congressional campaigns[7], his outsourcing past was criticized by incumbent Tim Bishop, who stated, "Altschuler may be 'offended' by increased scrutiny on his outsourcing past, but the middle-class families he put out of work deserve much more than his feigned outrage." Similarly, we think Xometry investors deserve more than empty claims and constant misdirection.

Machinists Take a Dim View of Xometry, In Contrast to the Company's "Savior" Narratives

Our review of various machinist forums also suggests that by and large, Xometry remains an afterthought for machine shops; Xometry is used to fill excess capacity and is a marginal contributor to operations. See various quotes from machinists below, which not only raise this concern, but corroborate many of our concerns around quality and consistency of the Company's customers:

> "Xometry is where machine shops take their dreams to die."

> "When they started sending work to China was when they dropped their prices to the us partners. When I got a new five axis mill and CMM my prices dropped bad at xometry. So all the advantage I got by adding a five axis mill… they absorbed. Once in a while a nice priced job comes through."

> "From our experiences, the recent job board changes have reduced the partner payout substantially. Jobs were always low pay, but the new changes have reduced prices even further … For now, we continue to work with Xometry and utilize their job board to fill in holes in our schedule when it works in our favor. But we are not expecting significant revenue from Xometry now or in the future."

> "I have tried mightily to get Xometry jobs to align with my business parameters. I've cold-called Xometry reps, I've sent loads of feedback, etc. All to no avail ... after 1.5 years and >100 jobs completed, I still see the same class of low-margin, high-complexity, tight-deadline jobs."

[7] Per his LinkedIn profile, Xometry Co-Founder Laurence Zuriff also served as Finance Chair of the Randy Altschuler for Congress campaigns from December 2009 to November 2012.

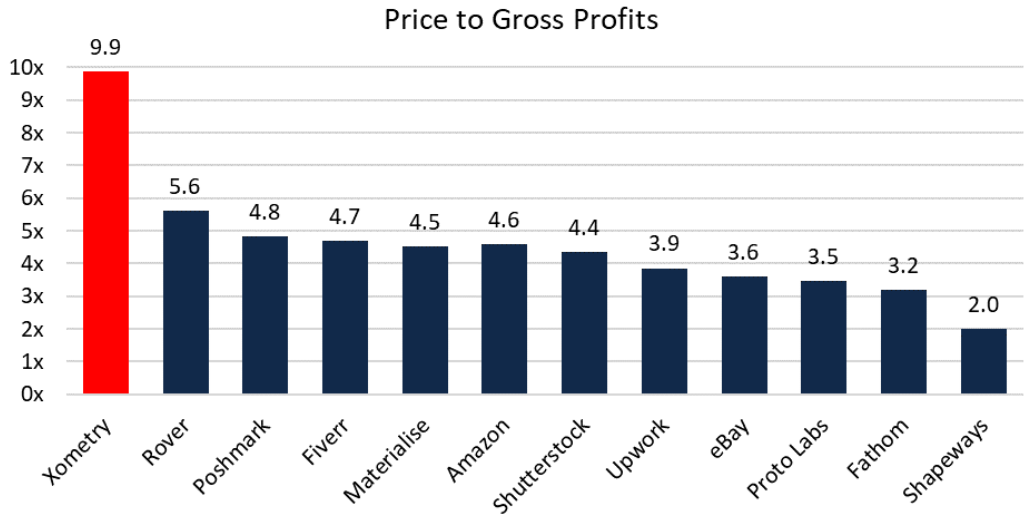
> "Xometry is fine IF you have a shortfall in regular work and need some filler to make your monthly/quarterly goals, or just want something to fiddle with while you wait for regular work to pick up. It's VERY difficult to make a living wage on Xometry work."

> "Xometry is mostly shit, but you can find a diamond in the rough every once in a while. My main gripes with Xometry are first, they don't pay shit. Second, anyone can upload parts. High school kids, random guys off the street with zero design experience, etc. Many of the parts on there border on un-manufacturable, and definitely not worth the $200 they're probably offering you to cut it. It could be a good way for you to bring in a little cash and hone your skills. Otherwise I'd say don't waste your time."

Xometry is a Structurally Broken Business That Remains Wildly Overvalued

While Xometry calls itself a marketplace business, the Company is in reality a market maker business, as it takes on pricing risk when filling Buyer orders. As such, Xometry's revenues are represented by gross order values, which is markedly different than true marketplaces, whose revenues represent only the net take rate on gross transactions. Thus, Xometry holds a structurally lower gross margin than true marketplace businesses.

Moreover, we've seen even bearish sell-side analysts value Xometry on a multiple of revenues, which is an erroneous comparison. Disregarding for a moment the fact that Xometry has continually burned more and more cash since its inception, the Company ought to be compared to peers on the basis of gross profits, which captures the above differences in accounting. On this basis, Xometry is wildly overvalued as compared to both 3D printing and "marketplace" peers:



Insiders are Rapidly Taking Money off the Table

Xometry closed its IPO in late June 2021, and its lock-up expired on November 12, 2021. Insiders have wasted no time cashing out, as they started selling shares less than a month later, and haven't stopped selling since. The

following table summarizes insiders sales, both in the open market and through 10b5-1 plans.[8] We think shares continue lower as insiders continue to cash out and the Company's flimsy business case unravels.

Role	Insider	Value of Shares Sold to Date	Value of Remaining Shares	% Sold
Co-Founder	Laurence Zuriff	$11.4 million	$24.5 million	**-32%**
CRO	Bill Cronin	$8.8 million	$3.4 million	**-72%**
CFO	James Rallo	$8.6 million	$17.1 million	**-33%**
Co-Founder, CEO	Randy Altschuler	$8.6 million	$9.8 million	**-47%**
CSO	Kathy Mayerhofer	$2.9 million	$1.0 million	**-75%**
COO	Peter Goguen	$1.6 million	$3.7 million	**-31%**
Director	George Hornig	$3.2 million	$2.2 million	**-58%**
Director	Emily Rollins	$1.2 million	$0.1 million	**-91%**

[8] Value of shares sold includes the exercise and sale of options, when applicable. For example, CFO Rallo was granted shares such that his peak ownership reached 1.15 million shares, of which he has since sold down. The "% Sold" column represents the value of remaining shares directly held vs. the value of the shares that have been sold thus far.