

From: "Byrne Hobart from The Diff" <[diff@substack.com](mailto:diff@substack.com)>  
 To: [gbasin@gmail.com](mailto:gbasin@gmail.com)  
 Date: 11/23/2020 10:03:50 AM  
 Subject: Roblox: Tweenage Mutant MMT-ers



# Roblox: Tweenage Mutant MMT-e

Plus! The Gini Coefficient Bull Case for SaaS; Big Banks as Common Carriers; Yuan Bonds; In-House Chip

Byrne Hobart Nov 23

In this issue:

- *Roblox: Tweenage Mutant MMT-ers*
- *The Gini Coefficient Bull Case for SaaS*
- *Big Banks as Common Carriers*
- *Yuan Bonds*
- *In-House Chips*
- *Understanding Consulting*

## Roblox: Tweenage Mutant MMT-ers

Roblox is one of the latest in a bumper crop of tech IPOs. (S-1 [here](#) .) The product is a platform for building collaborative online games—think of it as something akin to a modable video game whose usage consists almost entirely of mods, most of whose audience is under 12 years old. In Roblox, players control customized 3-dimensional avatars, which interact in virtual environments—a small town, a school, a prison, a pizza parlor, etc. Players pay to access specific locations, and pay to customize their avatars and buy digital goods using an in-game currency called Robux.

This is all thoroughly unsurprising to anyone who read Neal Stephenson's 1992 novel [Snow Crash](#) . *Snow Crash* imagines a future in which people interact in a 3-dimensional world called the "Metaverse." Roblox's S-1 calls it a metaverse, too. Roblox sells avatars; *Snow Crash* popularized the

somewhat obscure Sanskrit word “avatar” as a term for a digital representation of a person. Here’s how Stephenson describes the social hierarchy of avatars:

Brandy and Clint are both popular, off-the-shelf models. When white trash high school girls are going on a date in the Metaverse, they invariably run down to the computer-games section of the local Wal-Mart and buy a copy of Brandy... Her eyelashes are half an inch long, and the software is so cheap that they are rendered as solid ebony chips. When a Brandy flutters her eyelashes, you can almost feel the breeze.

Of course, *Snow Crash* doesn’t predict everything. Roblox’s model is to issue a digital currency, which users can spend by buying experiences and avatars from each other. *That* model shows up in a later Stephenson novel, *Reamde*, which centers around a video game whose revenue consists of the FX spread between in-game gold and real-world currency.[1] That model always struck me as a tad unrealistic; the game industry is challenging enough when game publishers collect all the revenue from selling digital goods. Could it really work if the gaming companies only collected a *rake* on other players’ sales of digital goods? It implies a tricky Laffer Curve, where cutting taxes from their traditional near-100% level creates an explosion of in-game activity. That’s plausible in the real world, where there are plenty of real-world activities that actually add value by satisfying human needs; in a virtual world, the needs are entertainment and positional goods, both notoriously challenging categories to get right. And it’s plausible that a tax cut would reduce the incentive to evade taxes, but catching tax evaders is easier in a game world where the tax collector is omnipotent and nearly omniscient.

And yet, Roblox gets it right. They reported revenue of \$589m in the first three quarters of the year, up 68% Y/Y. But their revenue recognition materially understates just how much money customers are paying. The company’s revenue recognition policy works like this:

1. Accounting rules require them to report revenue only when a customer receives the goods in question. This is standard.
2. Some of their digital goods can be consumed immediately (say, a virtual pizza). Some can be used over long periods (a virtual hat). But since every game on the platform has its own arcane rules, it’s actually hard to tell which is which. What if the virtual pizza gives your avatar virtual calories, and that particular pizza prevents your in-game character from starving to death. Now the pizza is a long-lived asset!
3. After what I can only assume were some very memorable discussions between accountants and game designers, Roblox concluded that the only appropriately conservative policy was to treat all of the in-game goods as durables, and to recognize revenue over the expected time a player would participate in Roblox, which currently averages 23 months.
4. The net result of this is that Roblox gets money for its Robux upfront, but only recognizes it as revenue over a two-year period following each purchase of virtual goods.

This is insanely conservative. The real-world equivalent would be Chipotle selling you a burrito, and recognizing 32.6 cents per month of revenue from now until October 2022, starting only after you take the first bite. It’s necessary, because digital goods are messy, but it means Roblox’s GAAP revenue numbers are basically irrelevant. You want to look at their bookings number, which was \$1.24bn in the first three quarters of 2020, up 171% from the same period last year. Bookings represent actual money moving from players to Roblox; GAAP accounting, in all its majesty, insists that this revenue should be recognized straight-line ratably starting when the player exchanges Robux for a virtual dog or something.

Robux are not just interesting from a revenue recognition perspective. They also make Roblox a unique economic actor.

The “platform as company” model is one that I’ve used before. [Facebook operates like a government](#), more specifically a giant city, with zoning complaints and local interest groups. (Although it can collect much higher taxes than most cities.) Google, Twitter, and Netflix have similar platform tradeoffs. But reading the Roblox S-1, I’m struck by another political category: if all of these companies are like countries, they’re all like emerging markets, who have to use somebody else’s currency to purchase their imports. Roblox is not the only company that offers a virtual currency, but it is one of the few with key suppliers who accept that currency *and then spend it directly on consumption*. Here’s the crucial line from the S-1:

Developers and creators do not always cash out their Robux to real-world currency. Some choose to reinvest their Robux into developer tools, promote their experiences through our internal ad network, or spend the Robux as any other user would.

This makes Roblox one of a tiny number of institutions globally that can think in Modern Monetary Theory terms: it has a significant share of its expenses denominated in a currency that it can print.[2]

Roblox is building something much more interesting than a gaming platform aimed at kids: they're building a genuine virtual economy. Other online businesses are closer to a currency entrepôt, where money flows in and out but doesn't stick around. For Roblox, this means that there are two high-level drivers of their long-term cash economics: how much people spend on the game, and how much of that spending stays *in* the game. This is a very interesting S-curve to ride: one thing online games do is create a new status ladder; you can be a loser in real life and a celebrity to a few hundred people online. And since Roblox is a platform, not a game itself, it's a way to *manufacture those status games*, at scale. As the games get better, players get more invested in Roblox relative to real life, and more of their Veblen-type spending happens within the game.

This makes one of their strategic choices especially promising. As they note in their risk factors, Roblox's audience is extremely young now, but they're targeting an older audience over time.[3] This is not a way to grow the TAM, but to keep up the existing Roblox userbase. An app whose average user is 12 years old is an app whose userbase gets 8% older on a like-for-like basis every year. In general, social networks have an easier time making their userbase older than younger. In fact, almost *every* medium seems to age over time (the median age of a TV viewer is 56; the median age of a Facebook user is a little over 40; Snapchat's seems to be in the twenties, and TikTok is younger than that). New products tend to have younger users, and as a company matures, its growth shifts from active user counts and time spent to dollars spent per user.

Since Roblox's developers are often users, and vice-versa, the company has a built-in hedge. Older developers will make experiences that appeal to people their own age, so the average target age of Roblox's offering rises right along with the users themselves.

Many software businesses get described at a high level as if they run themselves. Facebook sets up a login page, and gives users some forms to fill out, and suddenly there's a Facebook. The sad record of Facebook clones and social-for-X startups shows that this is much harder than it looks; there's a lot of execution and many product decisions between a good concept and good execution. Roblox, to a greater extent than any technology company other than perhaps TSMC (to be the subject of a future *Diff* writeup), outsources the product question and focuses entirely on making execution as seamless as possible for external designers. This is a very hard system to bootstrap, but it creates a company that pivots by default. The product as experienced by users is constantly changing; as long as Roblox can keep its servers running, it can keep collecting its cut.

[1] I have enjoyed every Stephenson novel I've read, and his books often address themes that overlap with *The Diff. Cryptonomicon* is probably the best of them, but *Snow Crash* and *Diamond Age* are a smaller time investment.

[2] Technically, loyalty programs also have this feature. They can sell loyalty points for cash, and devalue them. What they can't do, that Roblox can, is pay suppliers in points that suppliers go on to spend at zero marginal cost to them.

[3] The most interest risk they cite in the risk factors has nothing to do with the external state of the business: it's that their programming language of choice, Lua, might get less cool over time.

## Elsewhere

### The Gini Coefficient Bull Case for SaaS

Jason Lemkin [points out that it's hard to make money in SaaS at a price point under \\$10/month](#). As he puts it:

Yes, 1m users paying x \$1 a month = a \$12m ARR business. But it is so, so hard to get 1,000,000 (!) paying customers in SaaS. And it's very hard to support them with any customer support or salespeople at that price point. At \$12 a year, how much can you spend on live support? Or sales commissions? Or even hosting?

But it's possible to reverse this argument: every product that lowers the cost of sales, support, or hosting expands the universe of potential SaaS companies. Some of these costs are close to fixed: it's hard to scale sales, for example, which sets a floor on some kinds of products. But customer support *can* be scaled; some fraction of it is inevitable, but some fraction is the entirely evitable result of poor UI, bugs, or incomplete documentation. A hypothetical \$1/month SaaS product is not all that exciting as a business, even if it does scale to millions of customers, but it does get more possible over time. And the large rewards earned by a relatively small number of SaaS companies at high price points implies that there's a larger set of hypothetically possible ones at lower prices.

### Big Banks as Common Carriers

For a subset of controversial industries, including firearms, cannabis, and some kinds of media, one of the major risks is losing access to banks. Bank of America, for example, [stopped doing business with some gun companies](#), and more recently some banks have [pulled away from fracking](#). (That particular moral judgment is much easier to make with WTI at \$43.)

A [proposed rule from the OCC](#) would require large banks to have quantifiable rules for which customers they work with and which they turn down. Large companies, I've noted before, suffer from superlinear PR risk: the bigger they are, the more likely they are to do something unpopular, and the more likely it is that any given unpopular thing they do will be newsworthy. A rule like this would set a new schelling point. It's a rule with some serious negative side effects—there are valid qualitative reasons for a bank to work with some customers and not others, and it's not as if their entire business should be replaced with a series of Boolean statements. But such a rule would allow some peripheral industries to access more capital (and be a pain for Silvergate Capital, a bank that trades at almost 2x book value because it specializes in working with the digital currency startups other banks are reluctant to take risks on).

### Yuan Bonds

Saudi Aramco is [considering issuing yuan-denominated bonds](#) (\$, *Nikkei*). I've written before that dollarization is contagious: a company that sells its product for dollars (such as almost any commodity producer) wants to denominate costs in dollars, too. Otherwise it has currency risk. So the suppliers to commodity producers price in dollars, and they deal with *their* suppliers in dollars, and so on. When margins are thin, more risks are existential. Saudi Aramco does not have thin margins, though. In 2019, the company's revenue was \$330bn, and reported net income was \$88bn. However, they paid \$49bn in royalties and \$90bn in income taxes, mostly to their controlling shareholder, which is also the entity that sets those taxes. So Saudi Aramco's *real* pretax income is more like \$227bn, giving them a 69% pretax margin. That's a big enough buffer that they can afford some volatility.

Saudi Aramco is unusually willing to accept the currency risk of yuan bonds, and has unique incentives, but that's how such shifts work: at first, they require a unique set of circumstances, but every time those circumstances obtain, the next company to consider non-dollar financing has slightly more reason to.

### In-House Chips

Mule of Mule's Musings has a [great piece on big tech companies' chip efforts](#). Apple, for example, has been ramping up R&D spending in absolute dollars and relative to revenue (2011: ~\$2b/2.5%; 2020: ~\$18bn, almost 7%). One way to read this is that advances in hardware are increasingly driven by specific demand, which can only accurately be measured by companies that sell tightly-integrated products directly to end users. At the height of Moore's Law, chip companies could be indefinite optimists, who knew that the next generation of hardware would coincide with the next generation of software that required it. Now, Amazon is designing chips for cloud computing, Google for machine learning, and Apple is offering ([giddiness-inducing](#)) chips for its own laptops.

### Understanding Consulting

Last week, I wrote about [how lower business travel will affect consulting companies](#), and a few readers with experience in the field reached out. One particularly interesting bit of feedback was from Aaron Renn, who sent me his [tyranny of the org chart](#) piece on the real function of consultants:

When you occupy a box on an org chart – in a company, a government, etc – or a known position inside a social structure, everything you say or do is seen through the lens of that box. If you are a middle manager say, what are the odds that you can even get access to the CEO, much less have the CEO act on your ideas? It doesn't seem likely.

Consultants, by contrast, exist outside the org chart. To steal a phrase, they stand behind a "veil of ignorance" about their status in the hierarchy. Consultants take great pains to maintain this, which is one reason why consultants have such nebulous, generic titles. It's to disguise the fact that the "partner" consultant is actually middle management in his own firm. This enables even top level executives in large corporations to engage with the consultants in a totally different type of way.


Large organizations have powerful economies of scale, but the hierarchy that makes those organizations possible also makes it hard to transmit information to where it's most needed. (The companies that are famous for having a flat org structure tend to be relatively small, and they also tend to have a very high bar for hiring.) In this view, consultants exist to subvert the status system long enough to share information, but not to overturn it completely. In other words, they're not just paid to show up. They're also paid to leave.

---

*This post is only for paying subscribers of [The Diff](#) , but it's ok to forward every once in a while.*

[Like & Comment](#)

© 2020 Byrne Hobart [Unsubscribe](#)  
548 Market Street PMB 72296, San Francisco, CA 94104

 Publish on Substack