EV3: Coke, Coupons, & Capital-Intensity

Last week I saw a tweet about Groupon. As a technology investor, it's a story so gruesome - like a bad car accident on the side of the highway - that it's almost impossible to look the other way. On a long flight home from Brazil, I eventually fell down my usual rabbit hole… *are coupons a good business?*


Sheel Mohnot @pitdesi · Mar 31
12 yrs ago, @Groupon was THE hottest company. Raised $1.4B in 4 years, from DST, A16Z, KP, NEA, Accel, Greylock etc, went public at $18B after turning down a $6B offer. Put Chicago on the tech map.

They acquired our company @FeeFighters, & stock rose $600M that day!

31 45 501 334.6K Tip

Sheel Mohnot @pitdesi · Mar 31
Today, the company is worth ~$100M and they got a new CEO who sits in the Czech Republic.

Absolutely wild for those of us who were there when it was the biggest thing around.

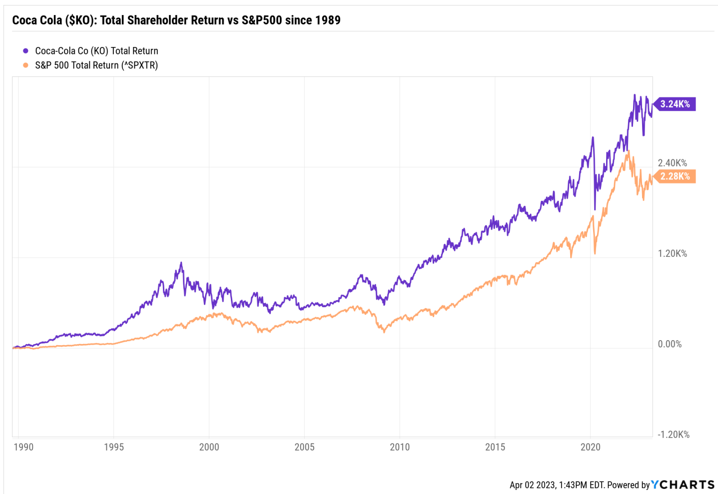
Coupons 101

In one of my favorite of his speeches, Warren Buffett explained the thinking behind putting 20% of Berkshire's portfolio into Coca Cola stock in 1989:

> "*At the time we bought Coca Cola just two years ago, we bought 7% of the company. We paid $1b, so we were essentially paying $14b for the whole thing. Now, if Philip Morris were to buy Coca Cola that day, they would have paid $30b. But Coca Cola wouldn't have sold it for that. And you wouldn't have sold it for that. The company was actually repurchasing stock at the time, so, in effect, they're buying for you. They're buying out your partners, at 50 cents on the dollar or less, which is a magnificent sort of business…"*
>
> *"It's an easy business, there's no doubt about it - you can sit down in five minutes - I mean, everybody here understands Coca Cola. There are 660 million eight-ounce servings of Coca Cola products being served around the world today. So in effect, we've got a 45 million soft drink business with our 7%. We think of businesses that way. I say to myself 'just increase the price a penny and that's another $450 thousand per day for Berkshire.' I mean, it's a nice sort of thing. When I go to bed at night, I figure by the time I wake up 200 million Cokes will have been consumed. We've got some Gillette too, and every night I think about 2 billion men's hair growing and 4 billion women's legs with hair, and it goes all night when I sleep…"*
>
> *"Now you tell me whether you think there's a penny, worldwide, of price flexibility per serving of Coke. Well, the answer is: you know there is."*
> *— Warren Buffett, 1991 speech at Notre Dame*

Most people don't realize this, but Coca Cola didn't just pioneer soda - they pioneered coupons as a distribution strategy. Legend goes that in 1888, Asa Candler - a pharmacist in Atlanta - bought the recipe to a 'tonic and headache remedy' from a local chemist for a mere $2k; $70k in today's dollars. Candler then re-branded the drink, inventing the famous "Coke" moniker, and launched the first ever coupon marketing campaign using magazines and direct mail to distribute slips of paper redeemable for a free $0.05 beverage.

The rest is history: from 1894-1913, 1 in 9 Americans tried a free Coke. At a $0.05 sticker price, the campaign cost a mere $425k - less than $15 million in today's dollars - to bootstrap a brand that generates over $10 billion in annual US sales over a century later. As for Buffett, his $KO shares - diamond-handed for 33 years and counting - have returned 32x vs 23x for the S&P500, generating $10b+ of outperformance for Berkshire shareholders. In 2022 alone, Berkshire clipped a $700 million dividend from $KO. Talk about a moat!

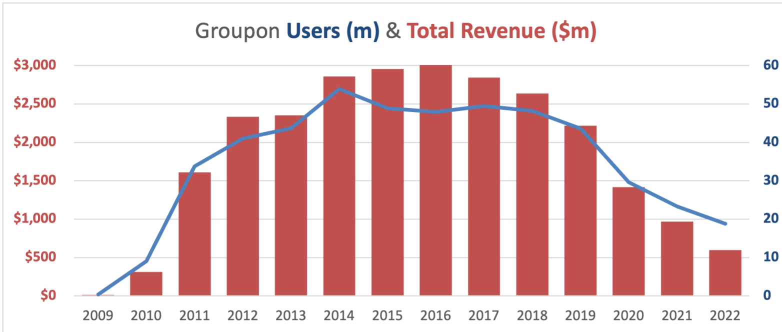


Web2 Coupons

A century later, coupons are still here, but have evolved into the digital age. A very high-level overview of the third-party rewards industry in the US today:

- 10b digital coupons are minted each year, of which roughly 7% or 700m are redeemed. The industry is highly-competitive with 2.7k sites competing for consumer eyeballs and merchant partners. The top five networks - Rakuten, Groupon, Slickdeals, Honey, Ibotta - have saved users $80b+ since inception.
- 180m Americans, or 2/3rds of American adults, redeem a digital coupon every year. We assume user behavior follows a typical 80/20 Pareto curve, implying there are 35m power users who redeem coupons every three weeks and a long tail of 145m casual users who redeem once per year.
- Given the publicly-reported financials of major platforms, we estimate annual GMV is around $30b (after discounts), implying an average ticket size of $45 [1]. Platforms charge merchants a commission of 10-20% [2], implying an annual revenue pool of $3-6b.
- Print coupons are a different beast: the total number of printed coupons is an order of magnitude larger than digital, but redemption rates are more than order of magnitude lower [3]. Net-net, digital coupons outpaced physical coupons for the first time in 2020.

While web2 rewards platforms have saved consumers >$80b, the aggregate value created for shareholders probably rounds to zero. To put it plainly, rewards networks are bad standalone businesses. In fact, if you ever need a visual representation of network effects eroding, you'd be hard pressed to find a better muse than Groupon, with its user base down >65%, revenues down >80%, and stock price down >99% from peaks:



As a pure-play publicly-traded company, Groupon is the most visible of many such cases. Rakuten bought its way into the space for $1b in 2014, and - despite growing GMV by 2.5x since then - generated a measly $63m of operating profits from that business in 2022 (i.e., a 6% yield on Rakuten's equity check, at a time when US2Y yields 4%+). Ibotta raised $245m and is pivoting to power first-party rewards ecosystem for huge merchants like Walmart, i.e. aiming to take home a smaller slice of hopefully-much-bigger pies. Honey sold to Paypal for $4b at the height of the fintech bubble, and is now fully-integrated into Paypal's payments ecosystem. The data points in one direction: web2 rewards networks are not viable standalone businesses.

The more interesting question is, why not?

The proximate cause is poor user engagement and retention. The average Groupon user - and remember that simple averages obscure the Pareto nature of user behavior - redeems 1-2 coupons, worth $35-70 in GMV, before churning; of which Groupon takes home 30%, or $11-21, as gross profit.

Groupon's cost to acquire a customer was >$25 during its growth years (+40m net user adds from '09-'12), meaning they lost money on the average incremental user. The company pulled back aggressively on marketing beginning in 2018, bringing CAC down to $10 and LTV/CACs into positive territory (1-2x), but at the cost of letting the majority of active users churn off the network (-30m net users churned from '18-'22).

GROUPON: UNIT ECONOMICS	**Metrics**	**Source**
How long does the average user stick around?	5-10 months	30% retention (Q3'22)
(x) How often does the average user make an order?	Every 4-5 months	2.7x per year (FY'22)
How many orders does the average user make before churning?	1-2	(calc)
(x) How large is the average order? (based on total cart size or GMV)	$35	$36 average (FY'22)
How much does the average customer spend before churning?	$35-$70	(calc)
(x) What is Groupon's gross profit take-rate? (based on % of GMV)	30%	FY'22 10-K
How much gross profit does Groupon earn per average user? (LTV)	$11-$21	(calc)
(%) How much does it cost Groupon to acquire a user? (CAC)	$10-$25	S-1, 10-Ks, TC
LTV / CAC	**0.5x (during growth) to 2.0x (during runoff)**	(calc)

So Groupon's unit economics were always doomed due to poor user engagement and retention. Groupon is a two-sided network, so low user engagement is synonymous with low supply-side utilization. In fact, Groupon reported that 75% of deals sell less than 10 units per month, despite them having 14m active users on the platform.

Again, the more interesting question is, why?

We count five key factors:

- **1) Low-quality inventory.** It's remarkable that Groupon spent a decade in the public markets - with a peak sales force of nearly 6k - without implementing any sort of outcome-based sales incentives. This drove artificial inflation of the supply-side with inventory that provided little value to users, and was effectively a direct wealth transfer from shareholders to the sales team's pockets. Per the company's own admission from (now-former…) CEO Kedar Deshpande, just two weeks ago:

  > *"Sales reps now have very specific target merchants. They are responsible for acquiring by vertical and geographic location… This is departure from our previous structure when the sales reps had the freedom to bring on any merchant with any deal structure and still make their sales quotas. Second, we are aligning the sales compensation to the performance of the deals and merchants that bring on the marketplace. In other words, they will be compensated based on the output of their deals, not just the number of deals launched or merchants acquired."* — Q4'22 earnings call

- **2) Indiscriminate supply growth.** Groupon's initial model was based on deeply discounted group buys. For users, the value proposition was very clear: *half-off.* But since there's limited capacity available at deep discounts, to chase growth Groupon eventually expanded beyond the original *Deals* product to an *Offers* product (15% discounts on always-on inventory) and even a *Market-rate* product (0% discounts with cash-back rewards). Groupon also began allowing merchant self-onboarding, which quickly grew to represent the majority of new inventory. While this sort of indiscriminate supply growth helps hit quarterly numbers, without careful execution it erodes user trust and with it the long-term value of the network:

> *"Our current Deals have too many restrictions… Not every merchant wants to run a deeply-discounted Deal and even for those who do, a deeply-discounted Deal may not make sense at all times… By providing a full catalog offering to our customers, we believe we can unlock customer purchase frequency and drive billings growth."* — Q1'21 investor deck
>
> *"With self-service, North America continues to leverage our improved platform to help our merchant partners to launch and help their deals and also to bring new merchant partners to our marketplace. In fact, in September, over 75% of our new inventory onboarded through self-service."* — Q3'22 earnings call

- **3) Weak local network effects.** Despite local merchants driving >90% of Groupon's revenues and gross profits, historically they've operated with a top-down management structure that prevented local network effects from emerging. When local managers aren't given autonomy, they lack the credibility to form strong commercial relationships with local merchants. Groupon finally acknowledged the power of local network effects, announcing a pivot to a "hyper-local" strategy on their last earnings call:

> *"Our new merchant acquisition strategy will be centered on fulfilling consumer intent by acquiring higher quality inventory that we know consumers want, instead of acquiring more for the sake of more. To do this, we are implementing a hyper local merchant acquisition approach, which is focused on acquiring the right merchant in the right category, the right location and with the right deal structure. In the first step of our hyper local approach, we are prioritizing merchant acquisition in our top 5 U.S. markets... Once we have proof of the concept, we expect to expand this hyper local approach to other North America and European capitals…. To do this, each of our top markets will be led by a city CEO, who will be responsible for leading inventory acquisition and management and the performance of overall market." — Q4'22 earnings call*

- **4) Platform risk.** Groupon started as an email newsletter. When Google added the "promotions" tab to Gmail in 2013, Groupon's email conversion rate - which drove 40% of volumes at the time - fell by 10% QoQ. Groupon pivoted to mobile (along with the rest of the world), which now generates >80% of volumes. However, mobile has its own platform risks, since iOS users - which drive the vast majority of revenues - are subject to Apple's 30% tax and ongoing technical whims. Short of having a direct, disintermediated relationship with users, Groupon will perpetually run the risk of an exogenous shocks to unit economics:

> *"Mobile customers spend more and they spend significantly more. They take longer to activate - roughly 30% longer to activate - and the reason for this is, in part because if you think about our email business, our current push business is very sophisticated. We send a couple of emails a day, are one of the largest emailers in the world, highly-visual, we've gotten very good at it, and built a bunch of technology around email.*
>
> *The adoption of mobile has been so extreme and so recent that we've yet to become a sophisticated in mobile as we are in email. We send one push notification today instead of multiple and we just don't have the same kind of relevancy sophistication that we have on the email side. As we build that out over the next several quarters, we hope to gain parity over time. That's the reason why, even though people are downloading our app like crazy, it's not translating into the unit growth." — Q3'13 earnings call*

- **5) No user ownership ⇒ no user loyalty.** The biggest roadblock to Groupon's unit economics is their 70% annual user churn. In any business, it's extremely difficult to compound value when growth is a matter of 1 step forward, 2 steps back. Groupon recently started issuing *G-Bucks* - site credits that are non-redeemable for cash, expire in 180 days, and whose terms can be arbitrarily changed by Groupon - in a weak attempt at improving user retention:

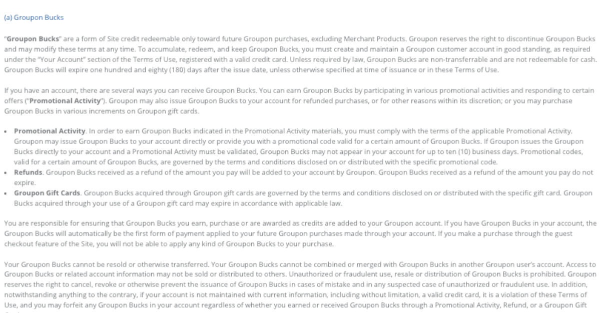
> *"We are also testing ways to leverage Groupon incentives as a means to get new customers to browse and engage with our full catalog of inventories. In our initial test, we*

> *are giving Groupon Bucks to customers when they purchase our full-price market-rate inventory. Our hypothesis is that by providing this additional value via G Bucks, it will incentivize customers to purchase our full-price inventory and get them back to Groupon later to use their G Bucks and make another purchase. Our initial test results have been promising: we have seen anywhere from 6% to 22% lift in conversion, depending on the test." — Q3'22 earnings call*

Web3 Coupons

How does a decentralized protocol stand up to the above criteria? Pretty damn well:

- Programmatic incentives can reward participants proportional to the gross profit generated for the network, or with some other reward scheme if appropriate (analogous to proof-of-coverage).
- Supply constraints can be managed with staking/slashing mechanisms, protocol rules for acceptable inventory, or by decentralized governance.
- Local network effects are strengthened, since there is no need to pay a large take-rate to shareholders, a larger share of value accrues to local networks (analogous to DeWi unlocking value for ISPs/landowners).
- Platform risk is greatly reduced in a model where users directly own tokens given the nature of a decentralized global platform like Ethereum vs centralized American corporations like Google/Apple as counterparties.
- User ownership is a core feature of tokenized models - rather than "G-Bucks", users get inalienable utility / economic / governance rights to an open-source protocol. Which of the two pictures below feels more likely to screw you over?



(a) Groupon Bucks

"**Groupon Bucks**" are a form of Site credit redeemable only toward future Groupon purchases, excluding Merchant Products. Groupon reserves the right to discontinue Groupon Bucks and may modify these terms at any time. To accumulate, redeem, and keep Groupon Bucks, you must create and maintain a Groupon customer account in good standing, as required under the "Your Account" section of the Terms of Use, registered with a valid credit card. Unless required by law, Groupon Bucks are non-transferrable and are not redeemable for cash. Groupon Bucks will expire one hundred and eighty (180) days after the issue date, unless otherwise specified at time of issuance or in these Terms of Use.

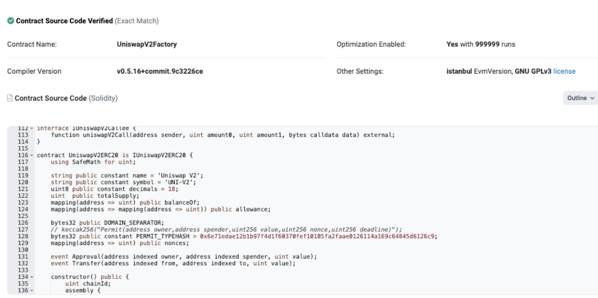
If you have an account, there are several ways you can receive Groupon Bucks. You can earn Groupon Bucks by participating in various promotional activities and responding to certain offers ("**Promotional Activity**"). Groupon may also issue Groupon Bucks to your account for refunded purchases, or for other reasons within its discretion; or you may purchase Groupon Bucks in various increments on Groupon gift cards.

- **Promotional Activity**. In order to earn Groupon Bucks indicated in the Promotional Activity materials, you must comply with the terms of the applicable Promotional Activity. Groupon may issue Groupon Bucks to your account directly or provide you with a promotional code valid for a certain amount of Groupon Bucks. If Groupon issues the Groupon Bucks directly to your account and a Promotional Activity must be validated, Groupon Bucks may not appear in your account for up to ten (10) business days. Promotional codes, valid for a certain amount of Groupon Bucks, are governed by the terms and conditions disclosed on or distributed with the specific promotional code.
- **Refunds**. Groupon Bucks received as a refund of the amount you pay will be added to your account by Groupon. Groupon Bucks received as a refund of the amount you pay do not expire.
- **Groupon Gift Cards**. Groupon Bucks acquired through Groupon gift cards are governed by the terms and conditions disclosed on or distributed with the specific gift card. Groupon Bucks acquired through your use of a Groupon gift card may expire in accordance with applicable law.

You are responsible for ensuring that Groupon Bucks you earn, purchase or are awarded as credits are added to your Groupon account. If you have Groupon Bucks in your account, the Groupon Bucks will automatically be the first form of payment applied to your future Groupon purchases made through your account. If you make a purchase through the guest checkout feature of the Site, you will not be able to apply any kind of Groupon Bucks to your purchase.

Your Groupon Bucks cannot be resold or otherwise transferred. Your Groupon Bucks cannot be combined or merged with Groupon Bucks in another Groupon user's account. Access to Groupon Bucks or related account information may not be sold or distributed to others. Unauthorized or fraudulent use, resale or distribution of Groupon Bucks is prohibited. Groupon reserves the right to cancel, revoke or otherwise prevent the issuance of Groupon Bucks in cases of mistake and in any suspected case of unauthorized or fraudulent use. In addition, notwithstanding anything to the contrary, if your account is not maintained with current information, including without limitation, a valid credit card, it is a violation of these Terms of Use, and you may forfeit any Groupon Bucks in your account regardless of whether you earned or received Groupon Bucks through a Promotional Activity, Refund, or a Groupon Gift Card.

Groupon Bucks terms of use



Contract Source Code Verified (Exact Match)

Contract Name:	**UniswapV2Factory**	Optimization Enabled:	**Yes** with **999999** runs
Compiler Version	**v0.5.16+commit.9c3226ce**	Other Settings:	**istanbul** EvmVersion, **GNU GPLv3** license

Contract Source Code (Solidity)

Outline

```
interface IUniswapV2Callee {
    function uniswapV2Call(address sender, uint amount0, uint amount1, bytes calldata data) external;
}

contract UniswapV2ERC20 is IUniswapV2ERC20 {
    using SafeMath for uint;

    string public constant name = 'Uniswap V2';
    string public constant symbol = 'UNI-V2';
    uint8 public constant decimals = 18;
    uint  public totalSupply;
    mapping(address => uint) public balanceOf;
    mapping(address => mapping(address => uint)) public allowance;

    bytes32 public DOMAIN_SEPARATOR;
    // keccak256("Permit(address owner,address spender,uint256 value,uint256 nonce,uint256 deadline)");
    bytes32 public constant PERMIT_TYPEHASH = 0x6e71edae12b1b97f4d1f60370fef10105fa2faae0126114a169c64845d6126c9;
    mapping(address => uint) public nonces;

    event Approval(address indexed owner, address indexed spender, uint value);
    event Transfer(address indexed from, address indexed to, uint value);

    constructor() public {
        uint chainId;
        assembly {
```

Univ2 Factory contract

The Internet Financial System is a new paradigm that creates opportunities for lousy businesses, like wireless telecommunications, to be replaced by open ecosystems secured by cryptography and game theory. Consider what a rewards network built on open rails might look like:

- Can token incentives drive higher engagement among power users? There's 35m power users who redeem coupons every three weeks. With token incentives, would they redeem a coupon every week? It's ambitious, but feels achievable given web3 protocols driving 4-5x retention improvements with airdrops (see: Spindl x Blur).
- Can token incentives turn some casual users into power users? There's 145m casual users who redeem coupons once a year. With token incentives, would 5-10% become power users? Given the Pareto principle, this would drive meaningful growth to overall market size.

- Can token incentives unlock bigger-ticket purchases? Churn is the biggest hurdle to offering discounts on bigger-ticket items. With incentives that explicitly reward retention, coupons for larger orders make more sense since merchants have more “at-bats” over which to earn back the discount.
- What take-rates could a network support with strong retention? If Groupon could improve average user retention to 3 years (vs 5-10 months today), they could theoretically bring take-rates as low as 5% (vs 30% today) while generating equal-or-better LTVs. How much could user activity grow with 6x lower take-rates?

We’re certainly not the first to this idea - we count at least a dozen related projects that have collectively raised $85m in seed capital over the past year:

- NFT-based loyalty platforms, including companies focused on enterprise-scale brands - e.g., Hang (raised $16m & partnered with Budweiser, Asics, BleacherReport), Forum3 (raised $10m & partnered with Starbucks), and Glow Labs (raised $4m & partnered with Neopets, Barbie, Forever21) - and others focused on medium-sized brands - e.g., TryYourBest (raised $10m), Kalder (raised $3m), and Flaunt & Taco (undisclosed raises).
- Other web3 teams building adjacent ideas include Cub3 (raised $8.5m) & Narratic building loyalty programs for web2 customers on top fungible tokens rather than NFTs; Spindl (raised $7m) and Sesame Labs (raised $4.5m) building attribution & marketing platforms for web3-native customers; and Spatial Labs (raised $10m) & Blackbird (raised $11m) building verticalized protocols for fashion/media and restaurants, respectively.
- Last-but-not-least, there are a handful of rewards networks around the world have gotten to scale in their respective markets, and who have a possible path towards bootstrapping a decentralized rewards network with their web2 business. For example, Kard in the US (raised $23m) connects 10m+ fintech app users to its merchant rewards; Drop in Canada (raised $74m) serves 5m+ users; Twid in India (raised $12m) has 40m+ registered users and CashKaro (raised $36m) serves 2m users; and ShopBack in Singapore ($390m raised) serves 35m+ users and does $2b+ of annual GMV (more than Groupon).

At EV3, we are actively investing and contributing to open networks - if you’re a builder or investor working on decentralized rewards networks, hit us up.

Footnotes

[1] Groupon reported $1.8b in gross billings, $0.6b in revenues, $0.5b in gross profits, and -$172m of free cash flows on a consolidated basis in 2022; their business is ~70% US by gross profits. Rakuten Rewards reported $10b+ of gross billings, $1.0b in revenue, and $63m of operating income in 2022; Honey reported $0.1b in revenue at the time of the Paypal acquisition (2018), growing 100% YoY. Ibotta claims $15b+ sales per year through their app.

[2] Groupon charges 15-25%; Slickdeals 1.0-8.5%, Honey 0.5-10%, Ibotta 3-10%, Rakuten $0.99 plus 8-20%.

[3] Per Vivvix 2022 Trends & Insights report, print coupon distributions were 125b (vs 10b digital) and redemption rates were 0.25% (vs 7% digital) in 2021.