

TORN CITY ECONOMIC REVIEW

Period: Through August 2022

Published: November 2022



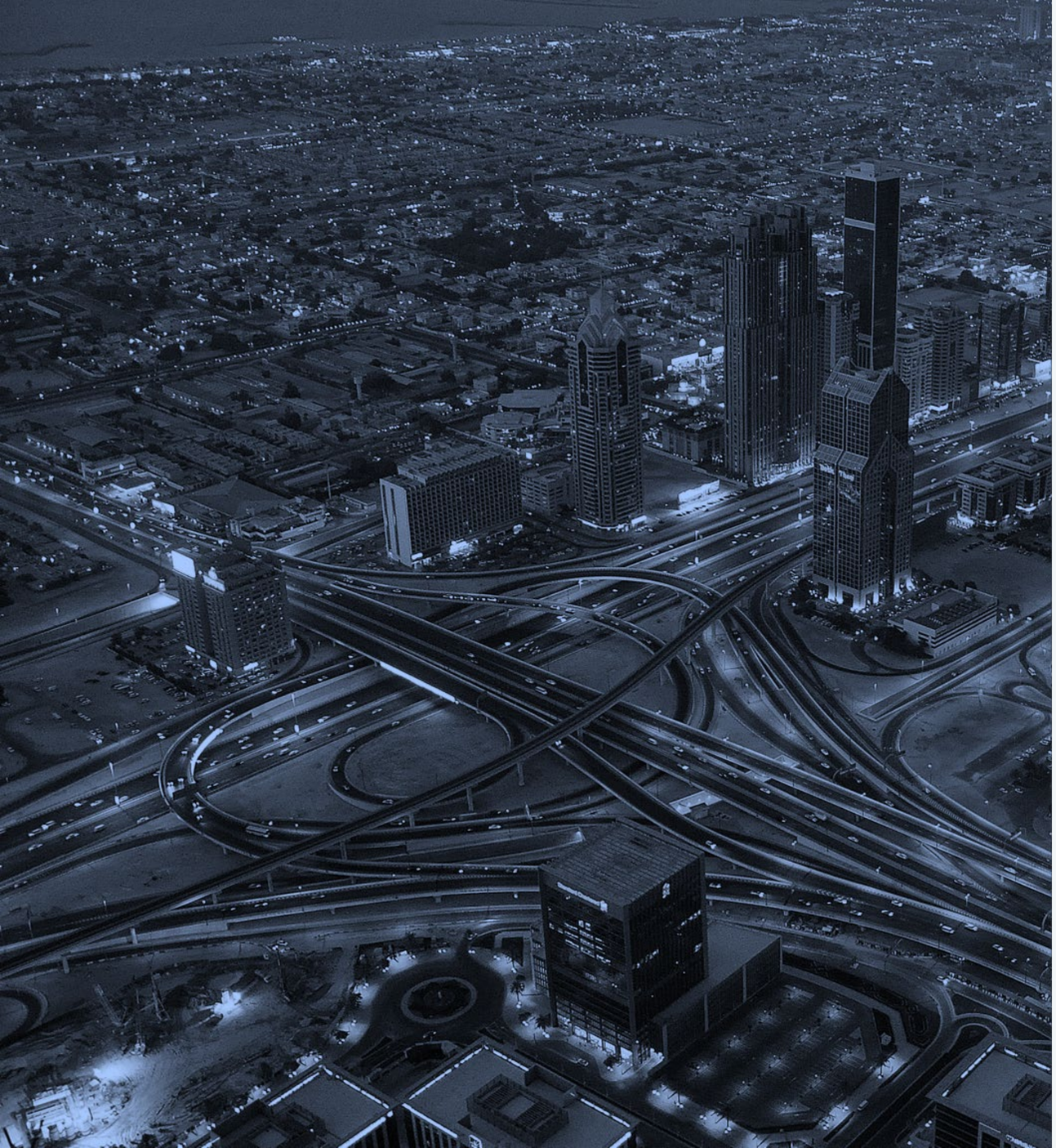
STATE OF THE UNION

Citizens, your city has continued to **grow**.

Daily active players rose to **38,314 per day**. That is a 4.2% increase from August 2021. Most of the growth is attributed to the Competitive player segment—our most deeply-engaged and dedicated citizens.

Also positively, **growth of the money supply remains in control**—though with higher daily variance. Stocks 3.0 contributed to this variance, due to active stock traders, but higher variance is not a concern.

Two years have passed since the previous Economic Review. This edition refocuses on the core of Torn City's long-term economic health: **Players**, **Money Supply**, and **Markets**.



TOPICS

PLAYERS
- ACTIVE PLAYERS ON THE RISE
- SEGMENT CATEGORIES
- SEGMENT ASSIGNMENT FLOWCHART
- SIZE OF SEGMENTS
- SEGMENT TRANSFER RATES

MONEY SUPPLY
- CURRENT STATE
- EXPANSION
- MONEY SUPPLY PER ACTIVE PLAYER

MARKETS
- INTERACTIVE DASHBOARD LINK
- POINTS MARKET
- PAWN SHOP

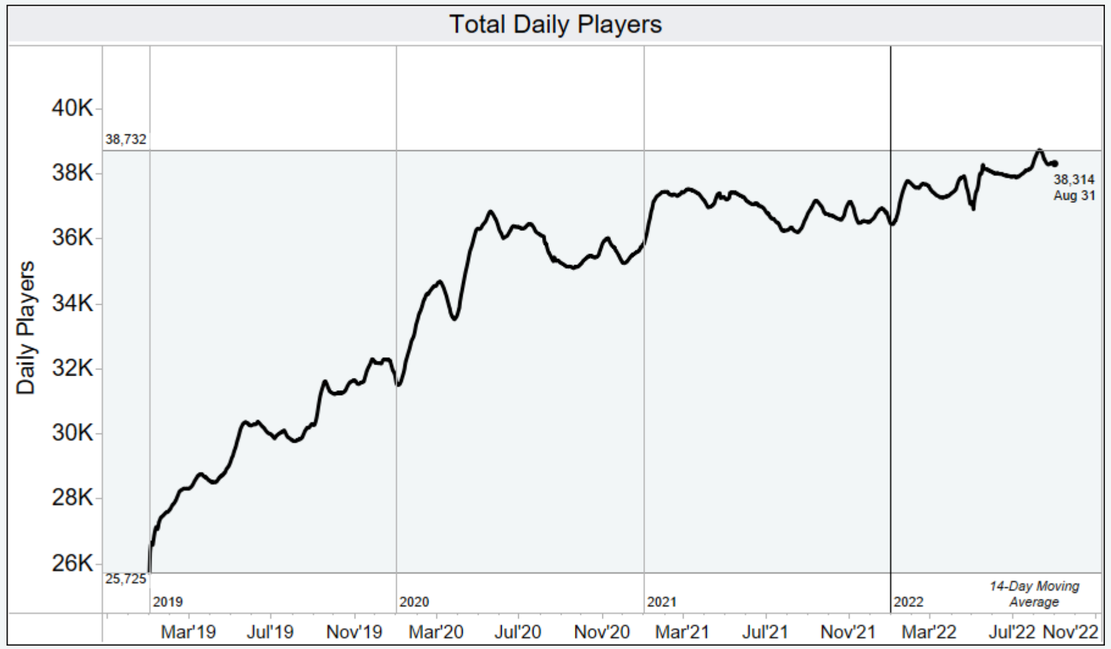
APPENDIX
- SEGMENT DISTRIBUTION BY SIGNUP YEAR
- STOCKS 3.0
- FAUCET-DRAIN MODEL
  - AVOIDING HYPERINFLATION



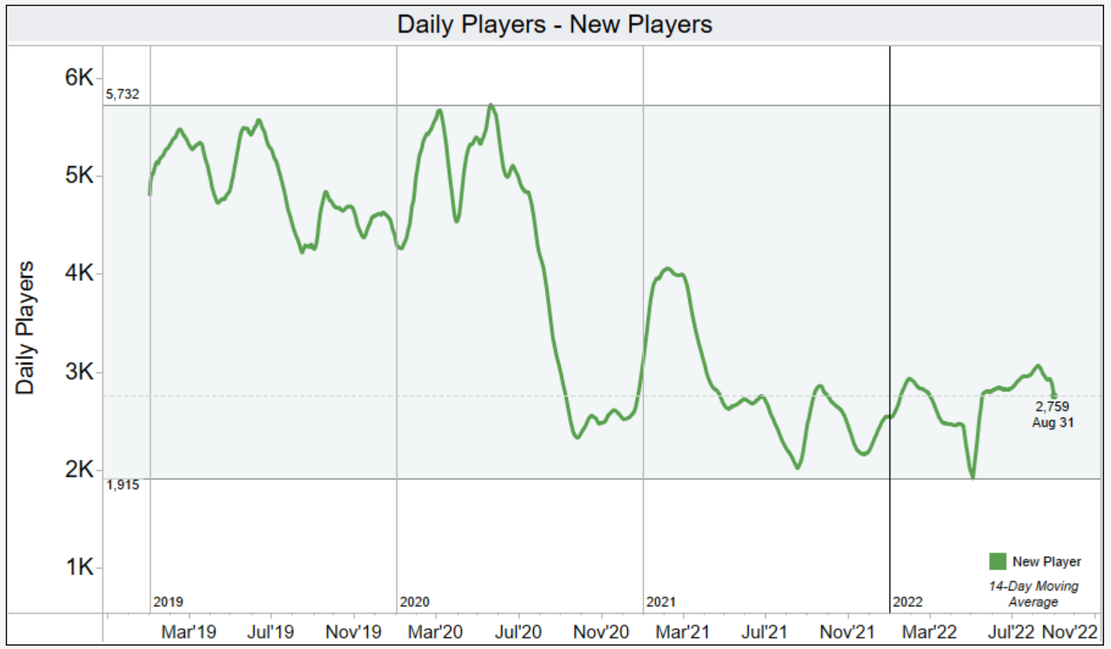
PLAYERS

ACTIVE PLAYERS ON THE RISE

Torn's active citizenship steadily increased over the past two years



New player signups declined, due to marketing tactics that targeted fewer players who were more likely to stick around



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A SIMPLER SEGMENTATION MODEL

Each day, players are assigned **one** of these segments, based on the preceding 14 days of activity

Core Segments

Competitive	Players who are High Energy **and** refilled 9+ times in the past 14 days
High Energy	Players who are Very Active, **and** used 5000+ energy in the past 14 days
Very Active	Players who were online for 13+ days of the past 14 days
Active	Players who were online for 9-12 days of the past 14 days

Other Segments

New Player	Players who are less than 60 days old
Semi-Active	Players who were online for 4-8 days of the past 14 days
Barely Active	Players who were online for 1-3 days of the past 14 days

SEGMENTATION FLOWCHART

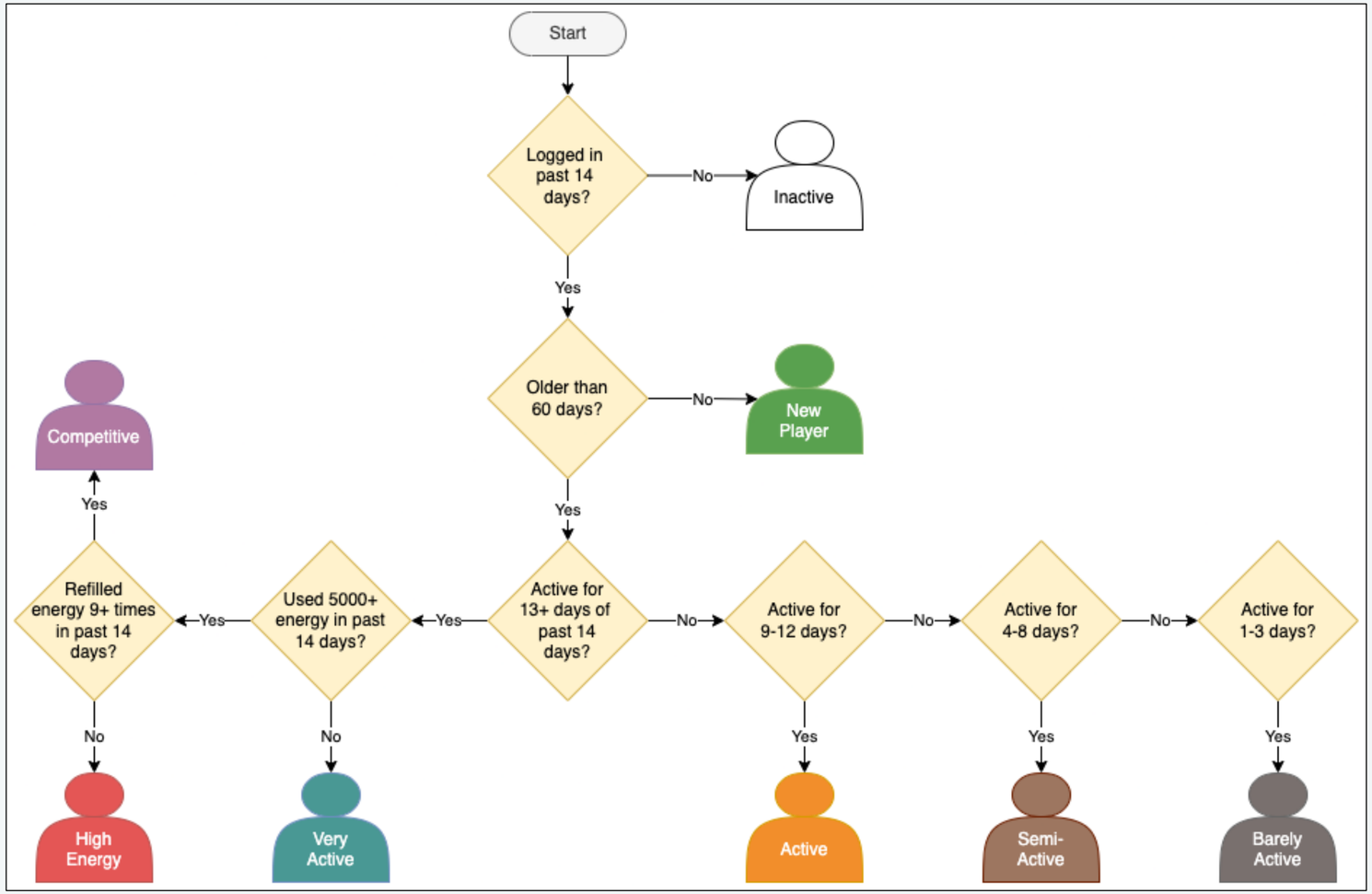
This flowchart exhibits how a player's segment is determined

- A player who is less than 60 days old, will be assigned the New Player segment, regardless of their engagement
- An older player who logged in 14 days, used 5000 energy, but only refilled energy 7 times, will be assigned the High Energy segment

This is a simpler segmentation model than shared in prior reports, focused on **Activity**, **Energy Use**, and **Energy Refills** as player differentiators

An individual's segment can change over time

- Many High Energy players become Competitive
- Many New Players become Very Active

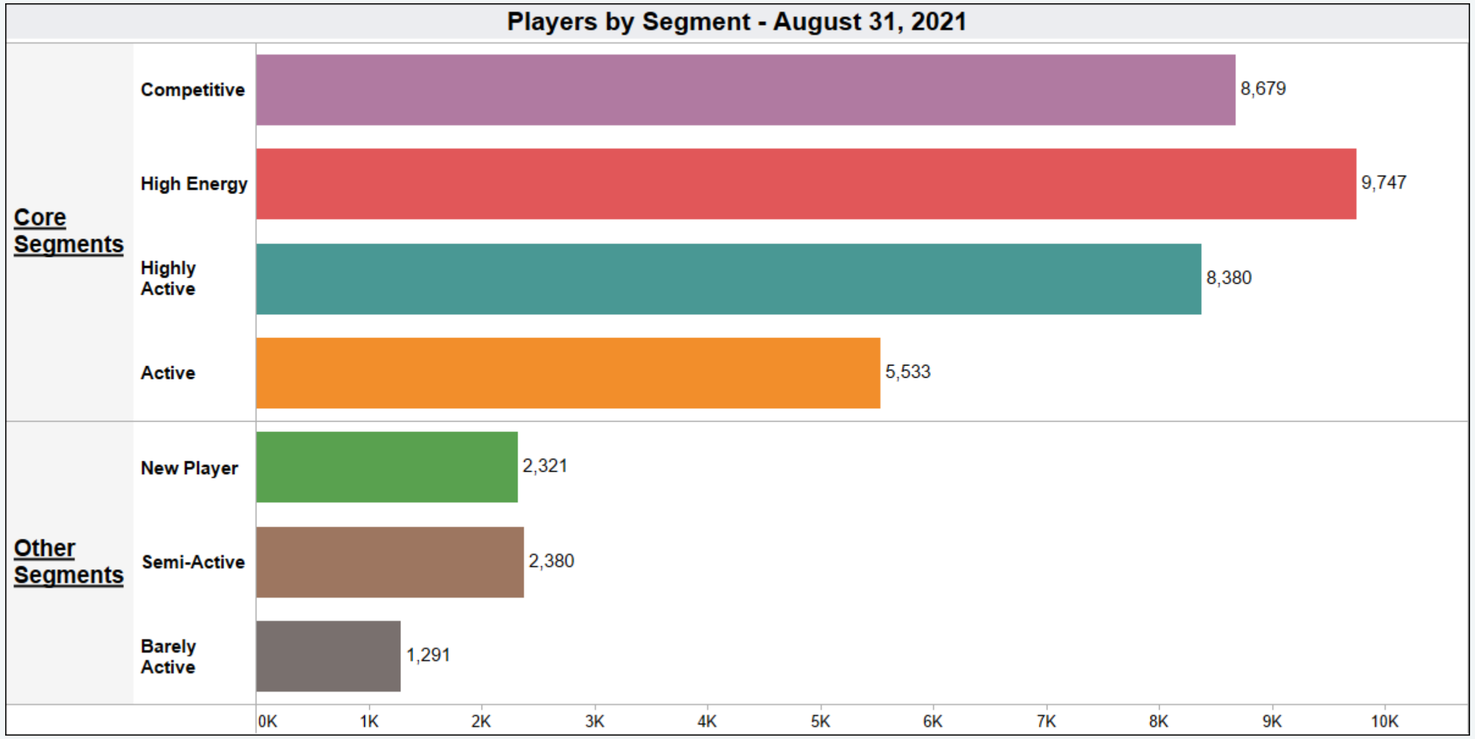


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SIZE OF SEGMENTS

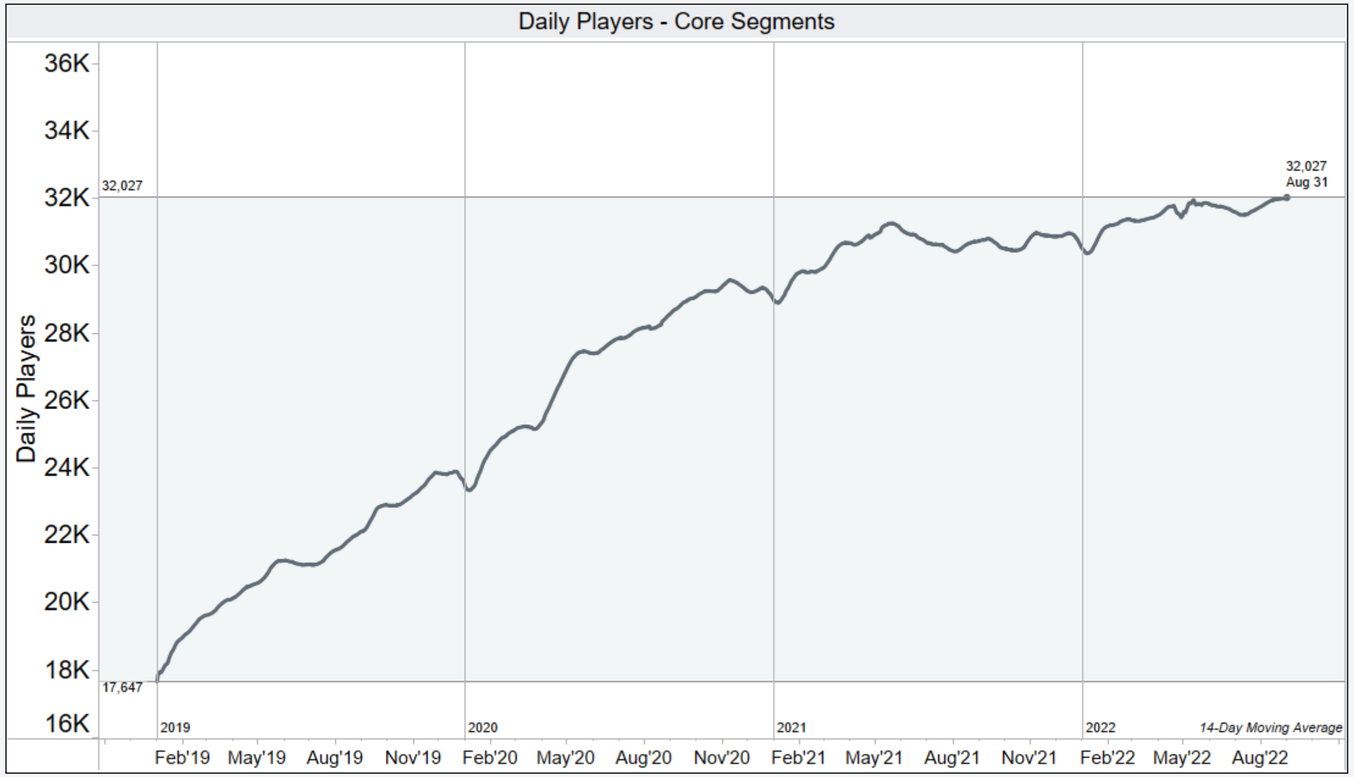
Most players qualify for a **Core Segment**

- These players are long-term citizens, though with varying levels of activity
- Competitive and High Energy are the most common



CORE SEGMENTS GROWTH

Core Segment membership steadily increased over the past four years, although at a slower pace after mid-2021

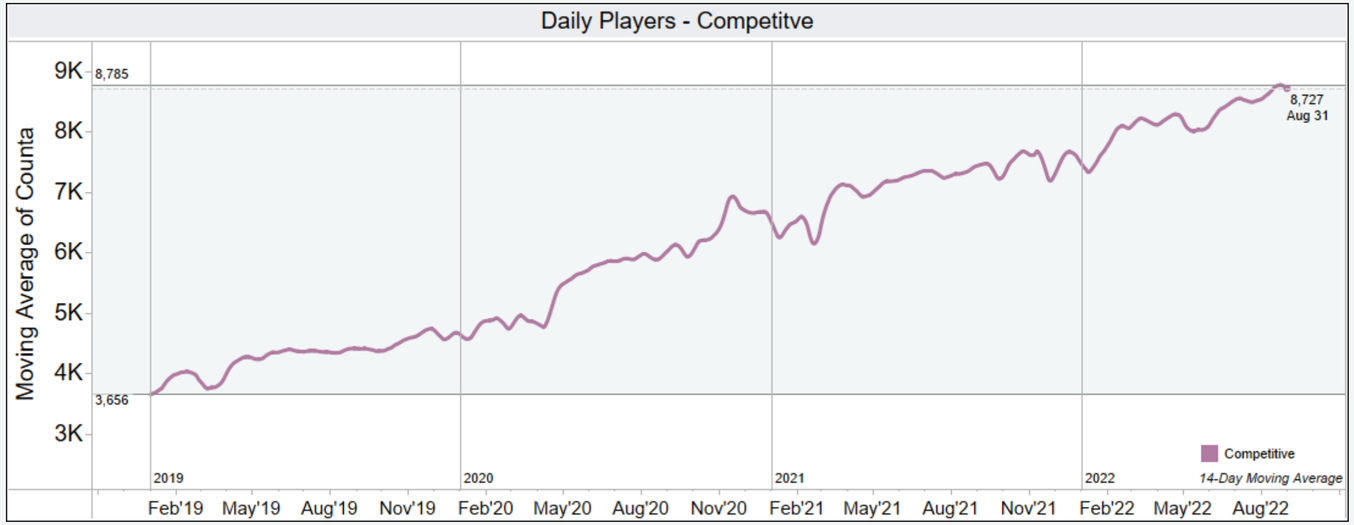


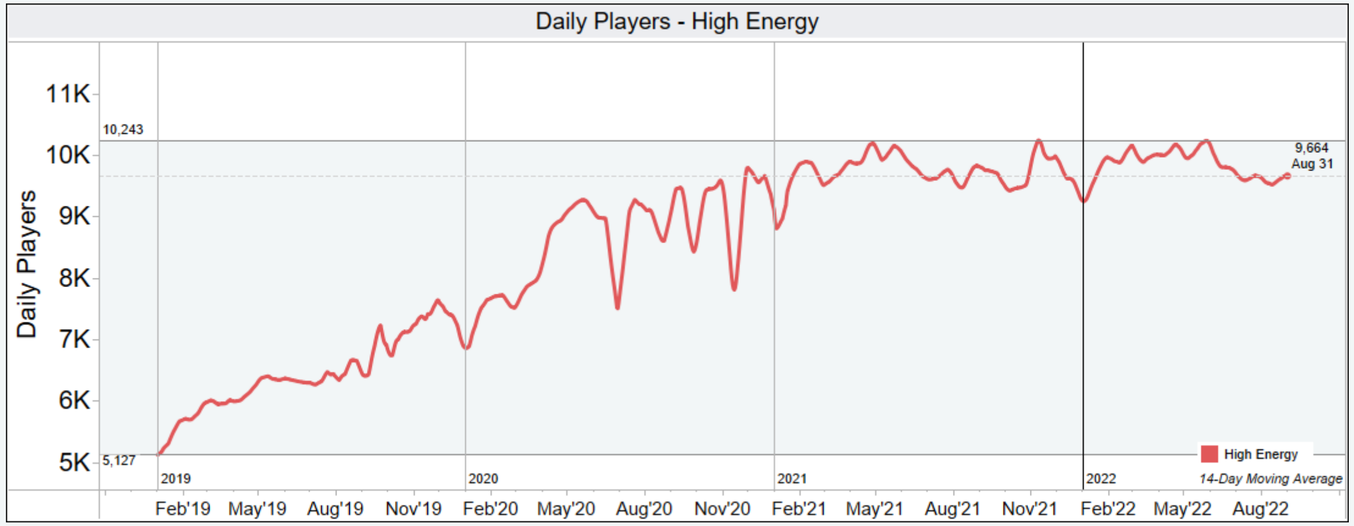
COMPETITIVE AND HIGH ENERGY

The Competitive segment continued to grow at a steady rate, recently peaking around 8700

The High Energy segment has been steady around 9500 players since 2021

- Many High Energy players **upgrade** to the Competitive segment; see Slides 13 & 14





**** High Energy volatility in 2020 is due to missing Energy Usage data for that time period***

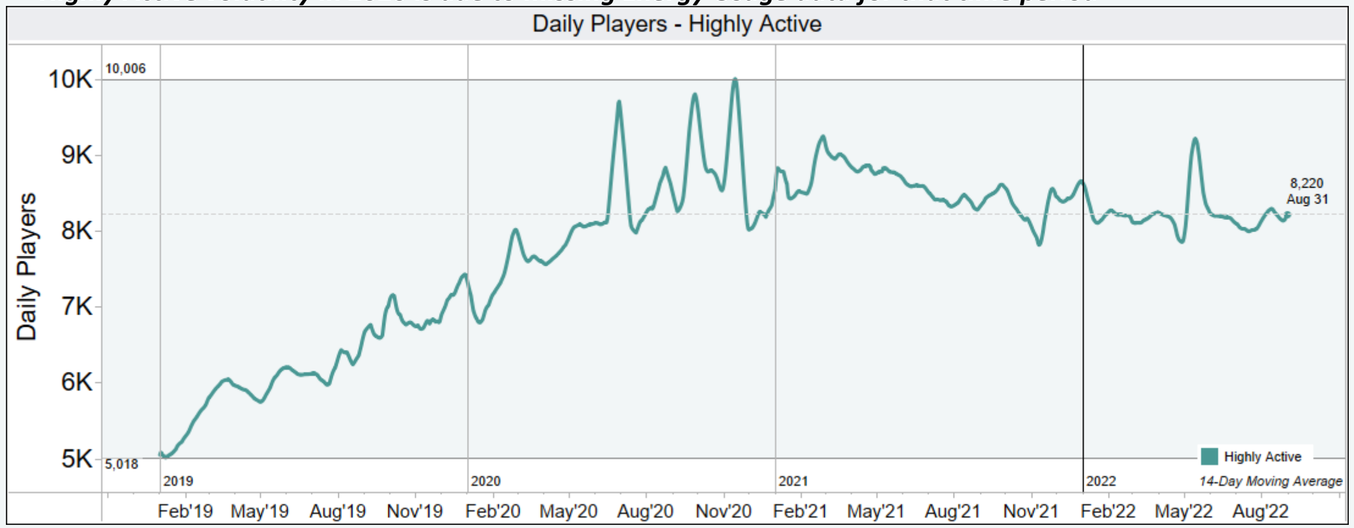
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HIGHLY ACTIVE AND ACTIVE

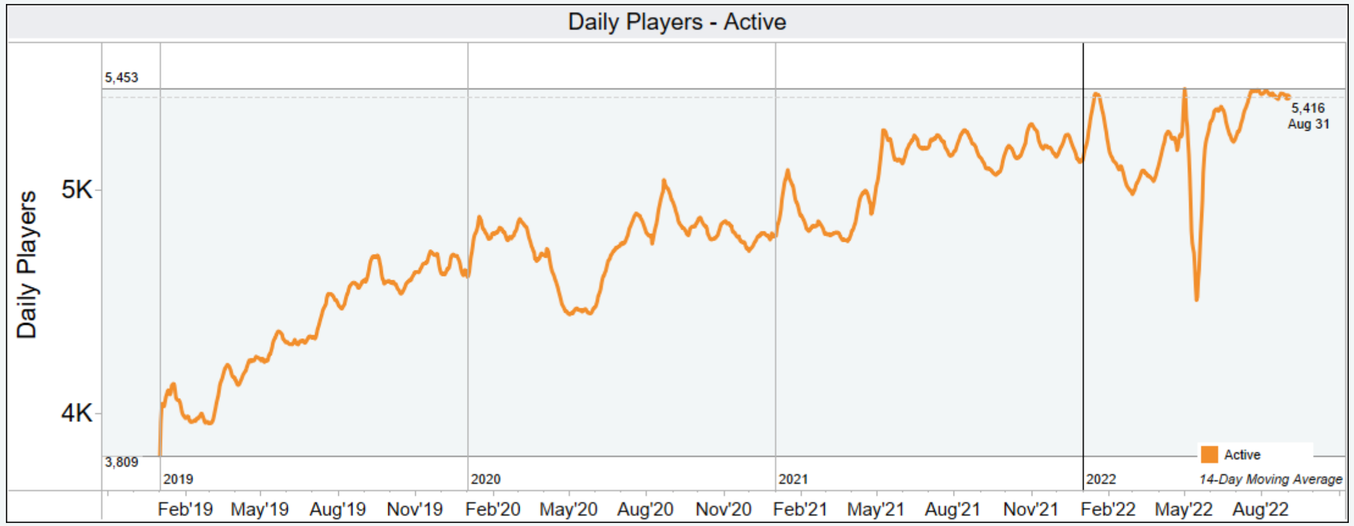
The Highly Active segment slightly declined in membership

- Many of these players upgraded to the High Energy segment, though others downgraded to the Active segment

**** Highly Active volatility in 2020 is due to missing Energy Usage data for that time period***



Active segment membership continued to increase at a steady rate

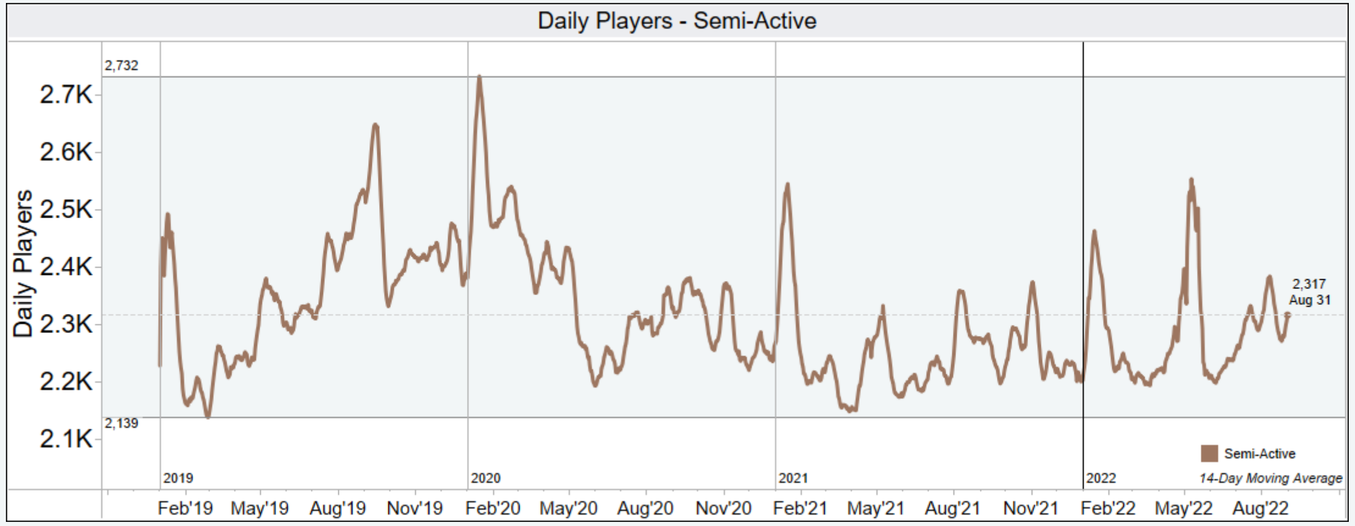


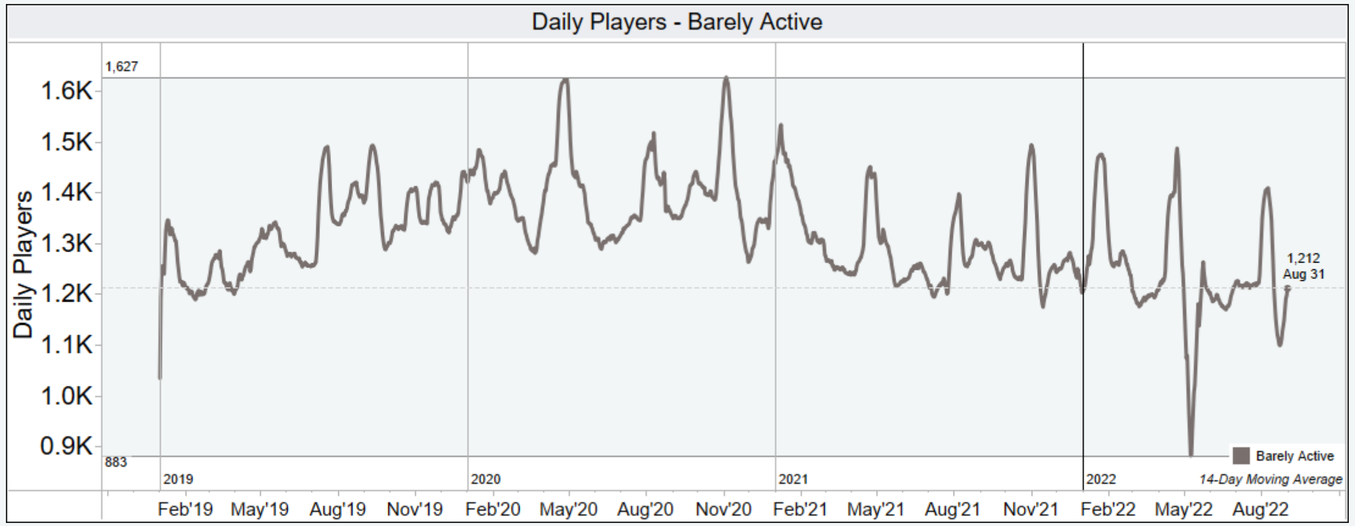
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SEMI-ACTIVE AND BARELY ACTIVE

The Semi-Active and Barely Active segments were steady, with low overall membership

Activity spikes roughly every 3 months, coinciding with quarterly email newsletters





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SEGMENT TRANSFER TABLE

This table exhibits how many players moved from one segment to another from July to August

Players are most likely to remain in their Prior segment, but many players will move up or down in activity and/or energy usage

From July to August 2022:

- 84% of Competitive players remained in the Competitive segment
- 10% of High Energy players upgraded to the Competitive segment
- 12% of Highly Active players upgraded to the High Energy segment

Segment Transfer Table

Prior Segment	New Segment: Competitive	High Energy	Highly Active	Active	Semi-Active	Barely Active
Competitive	84%	11%	1%	3%	1%	0%
High Energy	10%	70%	13%	6%	1%	0%
Highly Active	1%	12%	61%	21%	5%	1%
Active	4%	8%	23%	41%	20%	4%
Semi-Active	1%	2%	8%	26%	41%	22%
Barely Active	0%	2%	4%	6%	23%	64%

Month: August 2022

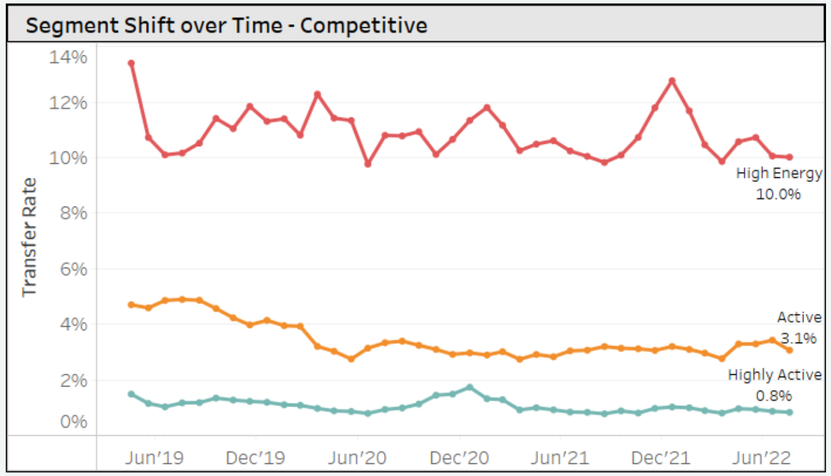
SEGMENT TRANSFER RATES

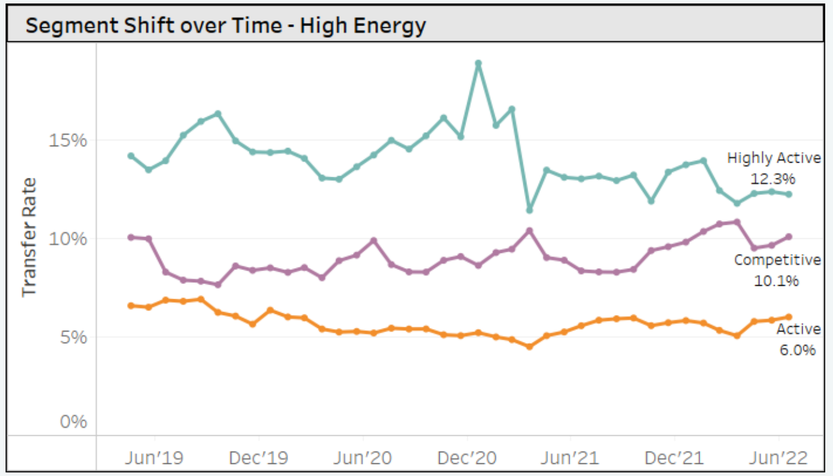
These charts exhibit how often players changed segments month-over-month

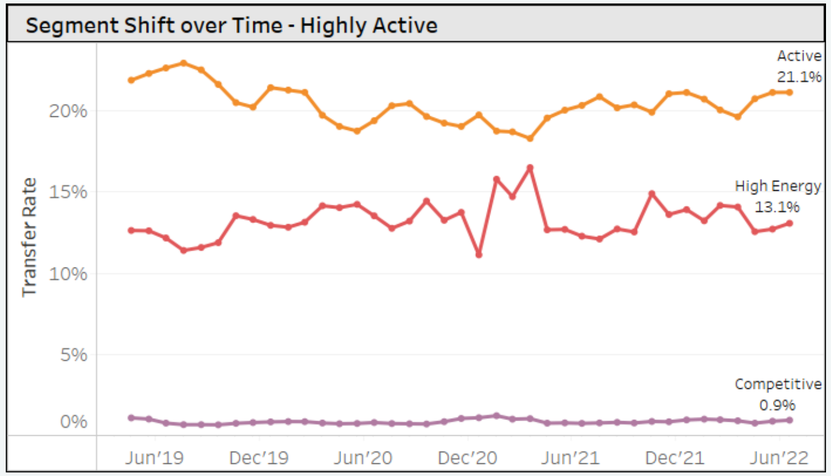
- **Changes** are in focus. Players who did not change segments are not shown

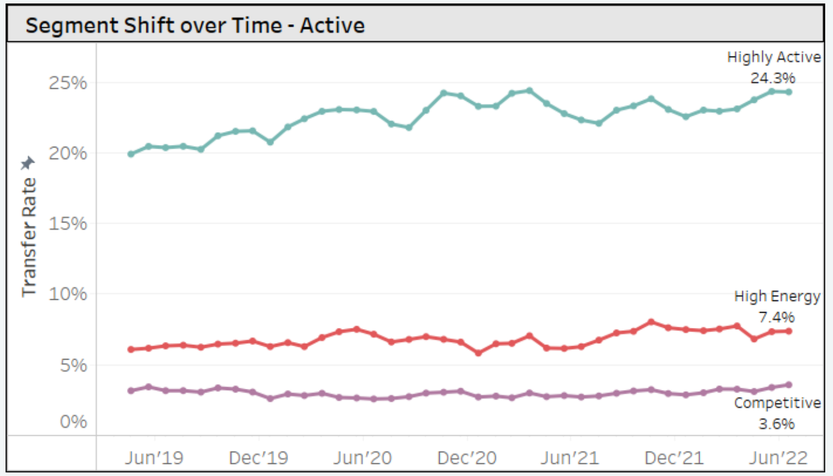
2-year Trend Highlights:

- Competitive players downgrade to High Energy at a slightly lower rate
- High Energy players upgrade to Competitive at higher rates
- Active players are more likely to become Highly Active or High Energy









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MONEY SUPPLY

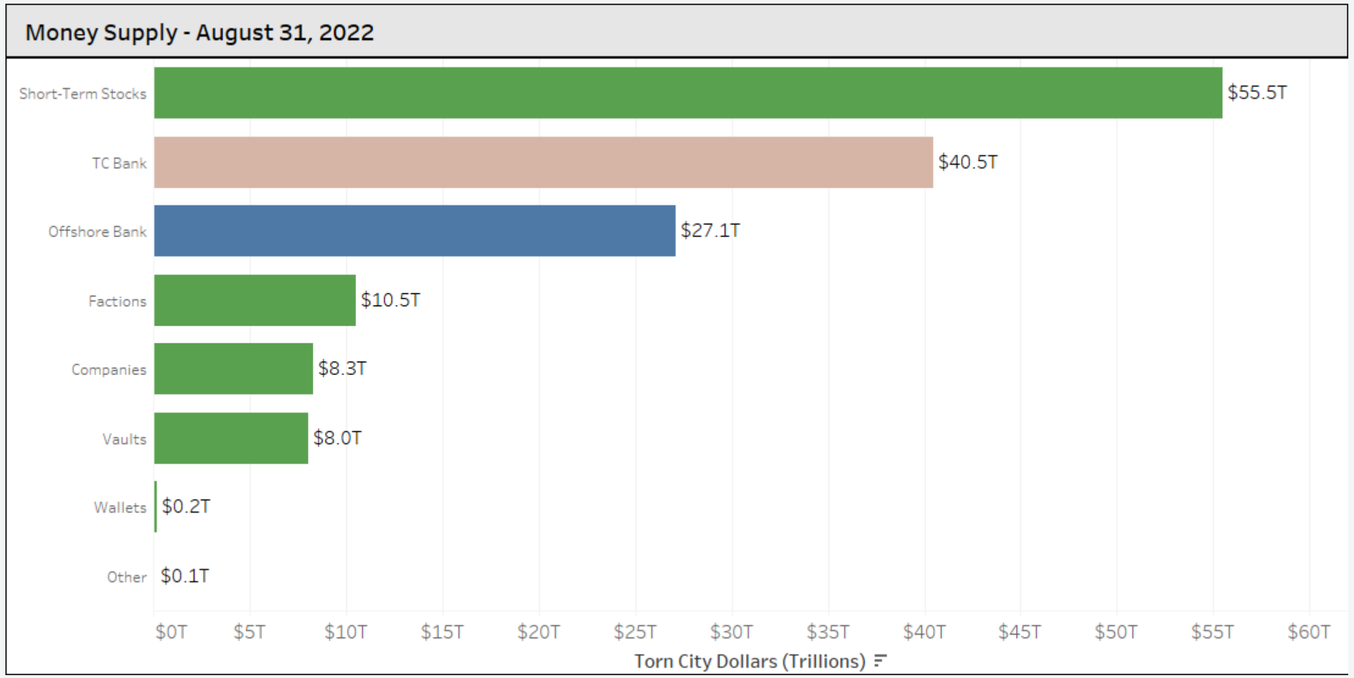
CURRENT STATE

There are three classes of cash on Torn City

1. **Immediate Access:** cash or value that can be immediately withdrawn and/or used
2. **Delayed Access:** cash that can be accessed after a time delay. The Offshore Bank is the only example, requiring players to fly to the Cayman Islands
3. **Restricted Access:** Cash that cannot be accessed until some criteria is met. The Torn City Bank, with it's time-based restriction on withdrawals, is the only example

With the release of Stocks 3.0, shares can be converted to cash on-demand

- However, most players treat shares as long-term assets rather than cash
- The value of shares held **fewer than 31 days** are now included in the money supply as "Short-Term Stocks"
- See Appendix Slide 27 for more information



Legend

Restricted Access (Torn City Bank)	Delayed Access (Offshore Bank)	Immediate Access (Various)

EXPANSION

The previous report noted a fast rate of money supply expansion in 2020 through June

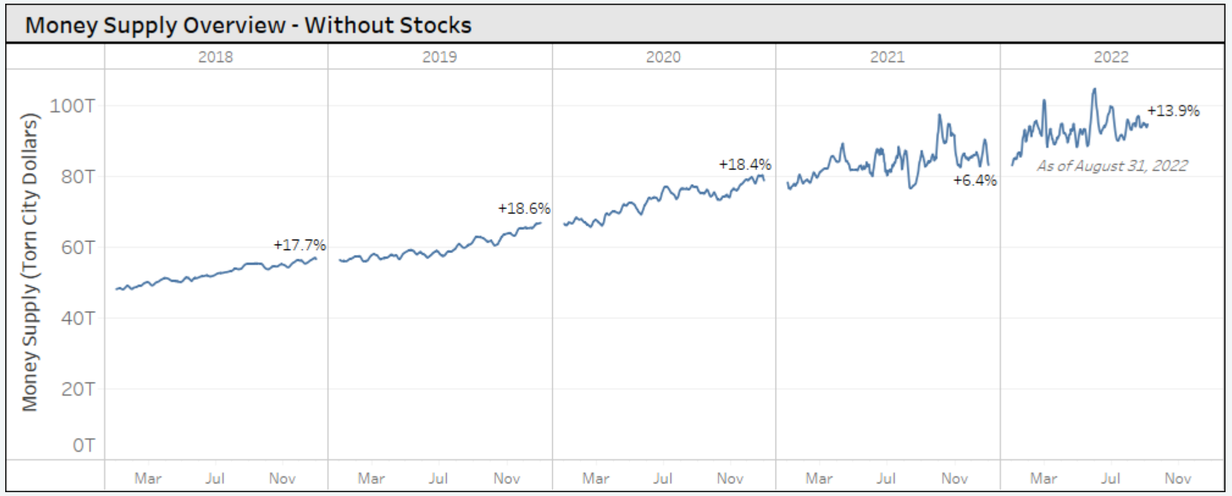
- The rate of expansion slowed, and we closed 2020 below the +20% target

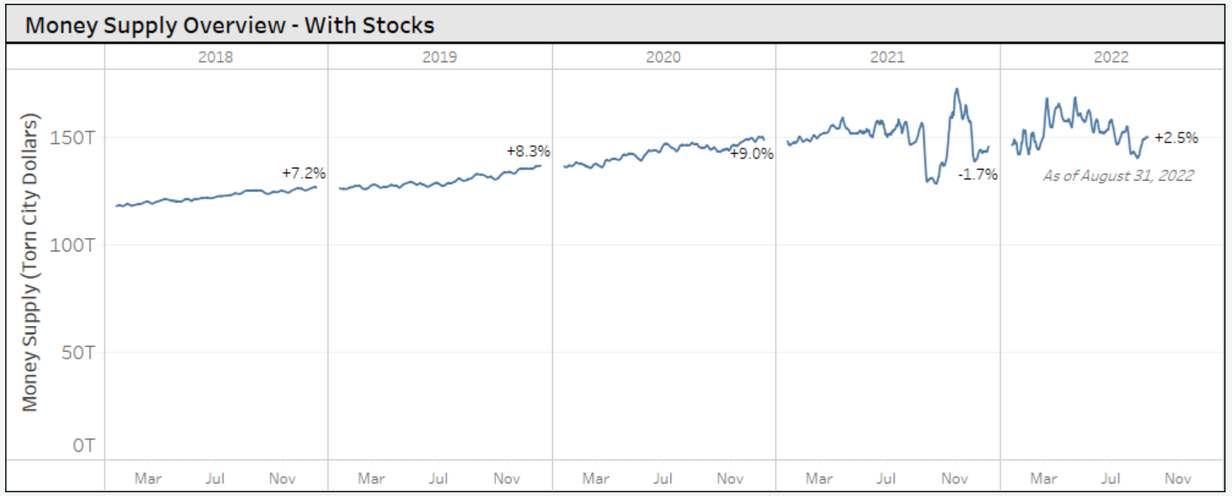
Expansion was low in 2021, due to an influx of cash into long-term stock investments

Expansion in 2022 is +13.9% through August

- This is on-pace for an acceptable +20.9% for the year

Although Stocks 3.0 substantially increased the money supply by allowing direct conversion of stock to cash, the *rate* of expansion is low



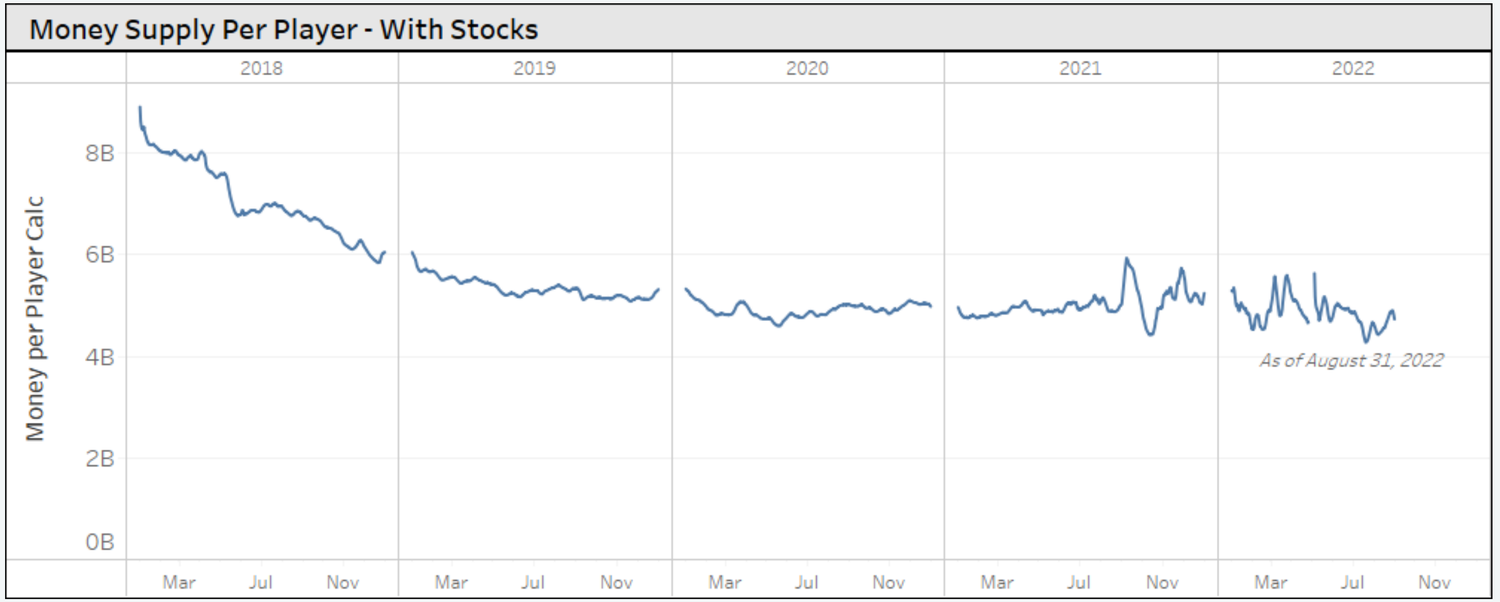


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MONEY SUPPLY PER ACTIVE PLAYER

On a *per-player* basis, the money supply has been stable for the past 2.5 years

- The money supply in total increased, but there are more players sharing it

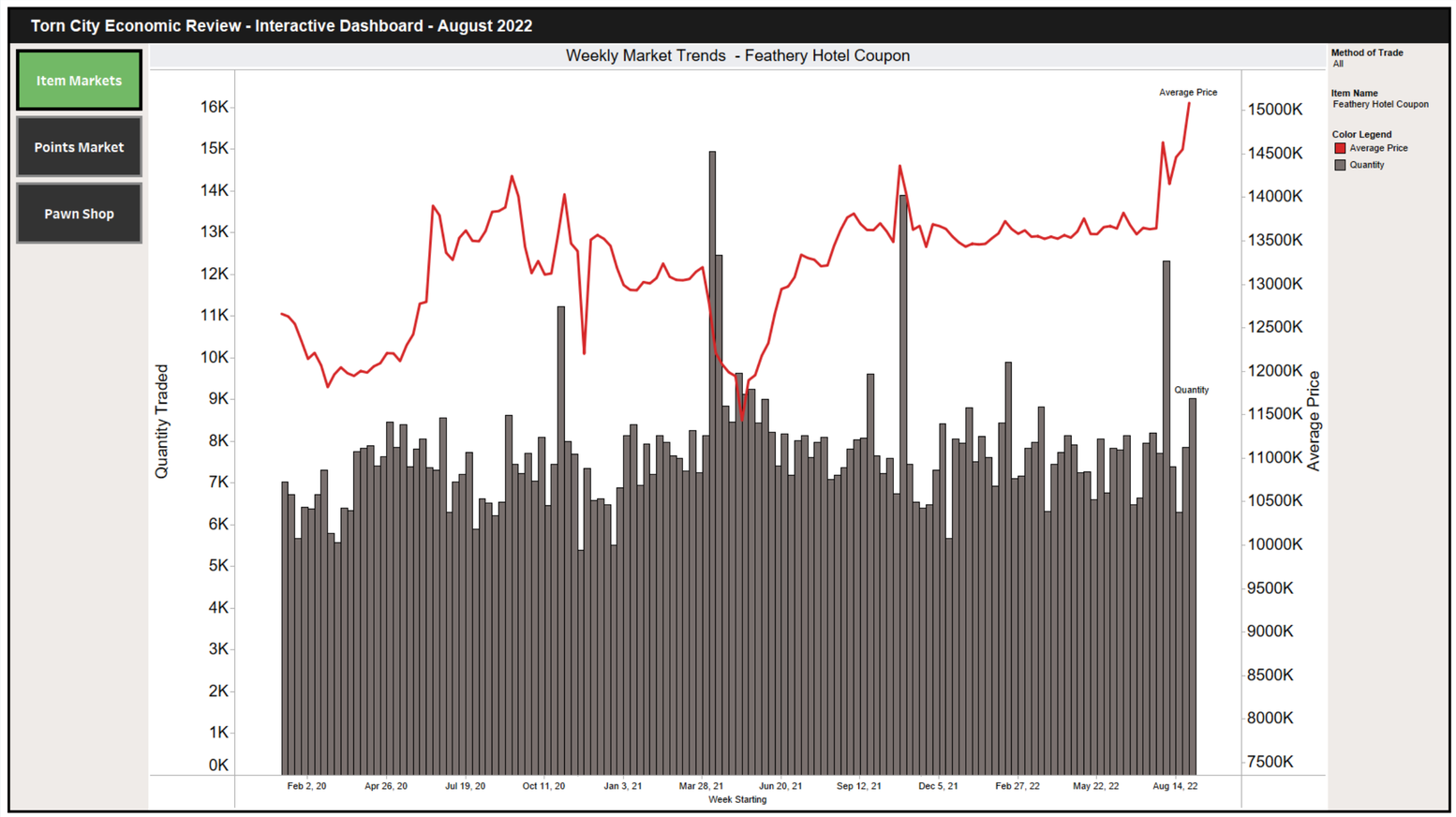



EUR/USD - 1,35379 - 00:00:00 14 giu (EEST)
EUR/USD (Bid), Ticks, # 300 / 300
23:35
23:40
23:46
Gold, spot - 1.276,820 - 23:00:00 13 giu (CEST)
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MARKETS

Tons of market data are available in this online interactive dashboard!

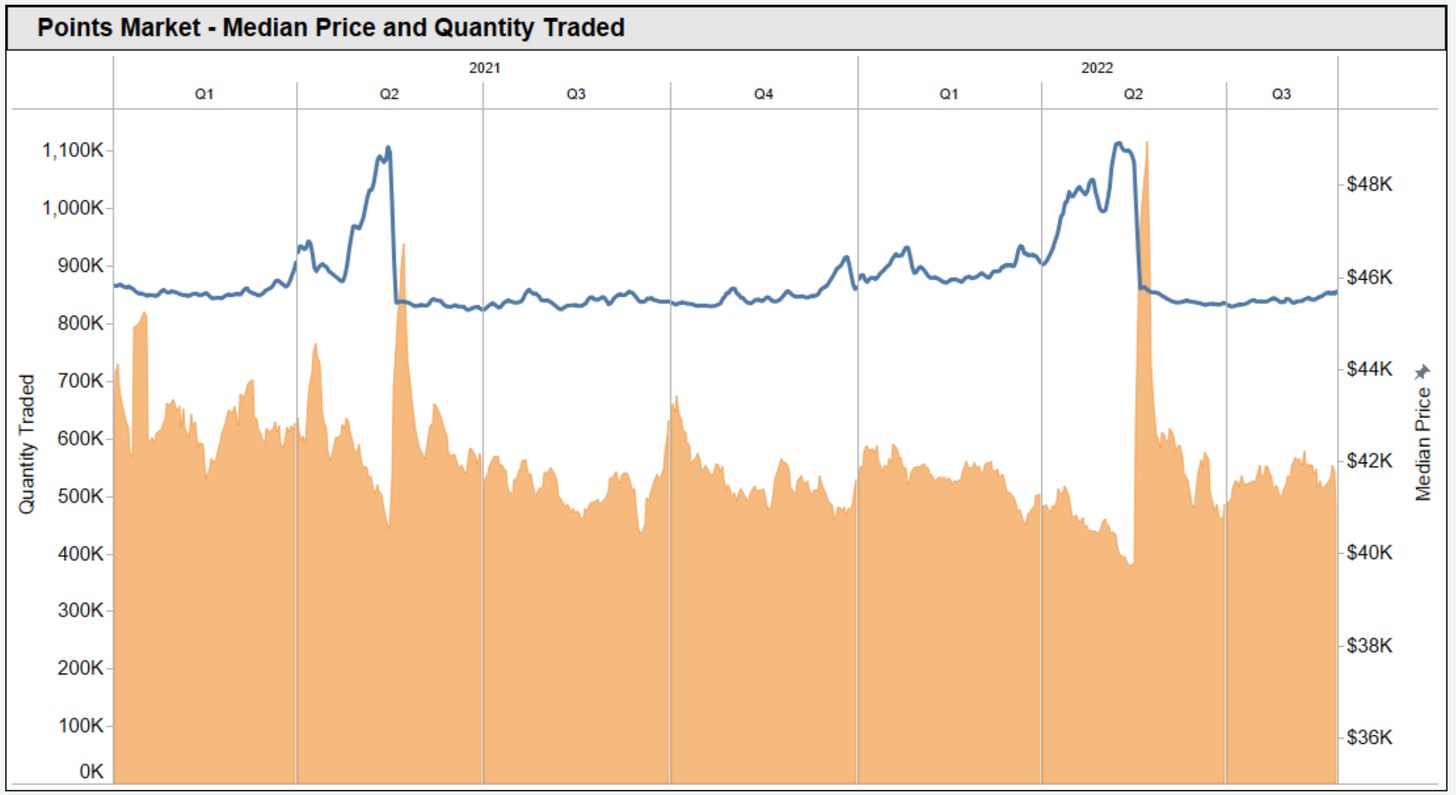
- The dashboard includes Item Markets, the Points Market, and the Pawn Shop



POINTS MARKET

Most of the year, the Points Market is stable
➢ Prices are usually steady around $46,000
➢ Quantity traded is usually around 550k per day

Clear seasonality exists around Museum Day
➢ In the months leading up to Museum Day, quantity traded declines and prices creep up
➢ **On** Museum Day, quantity traded spikes and prices plummet due to oversupply



Legend

Average Price

Quantity Traded

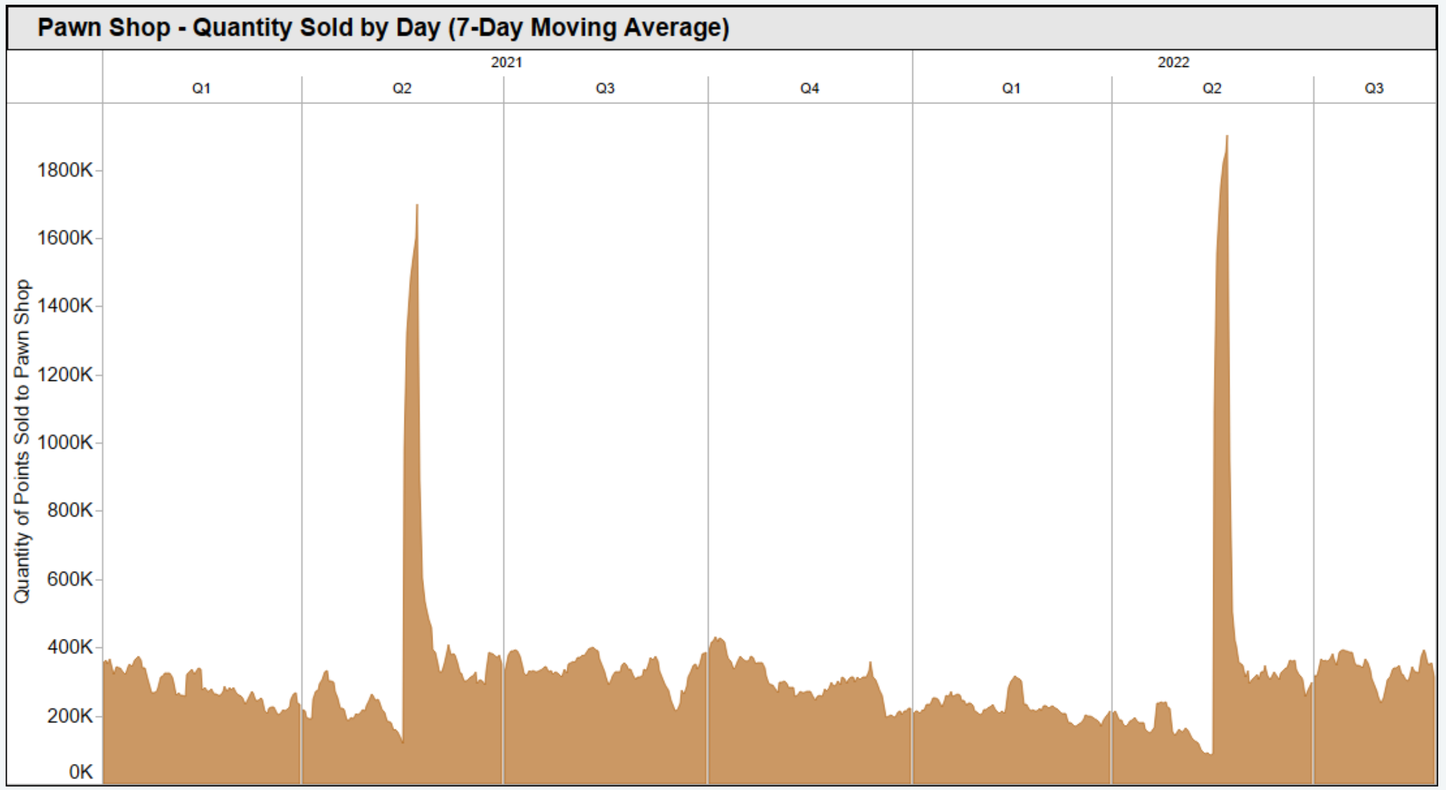
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PAWN SHOP - POINTS

The **Pawn Price** of Points is fixed at $45,000

The quantity pawned is steady in Q3 and Q4, but has seasonal effects in Q1 and Q2 due to Museum Day

- In the months leading up to Museum Day, quantity traded steadily drops lower and lower
- On and around Museum Day, quantity traded quadruples to nearly 2 million!





APPENDIX

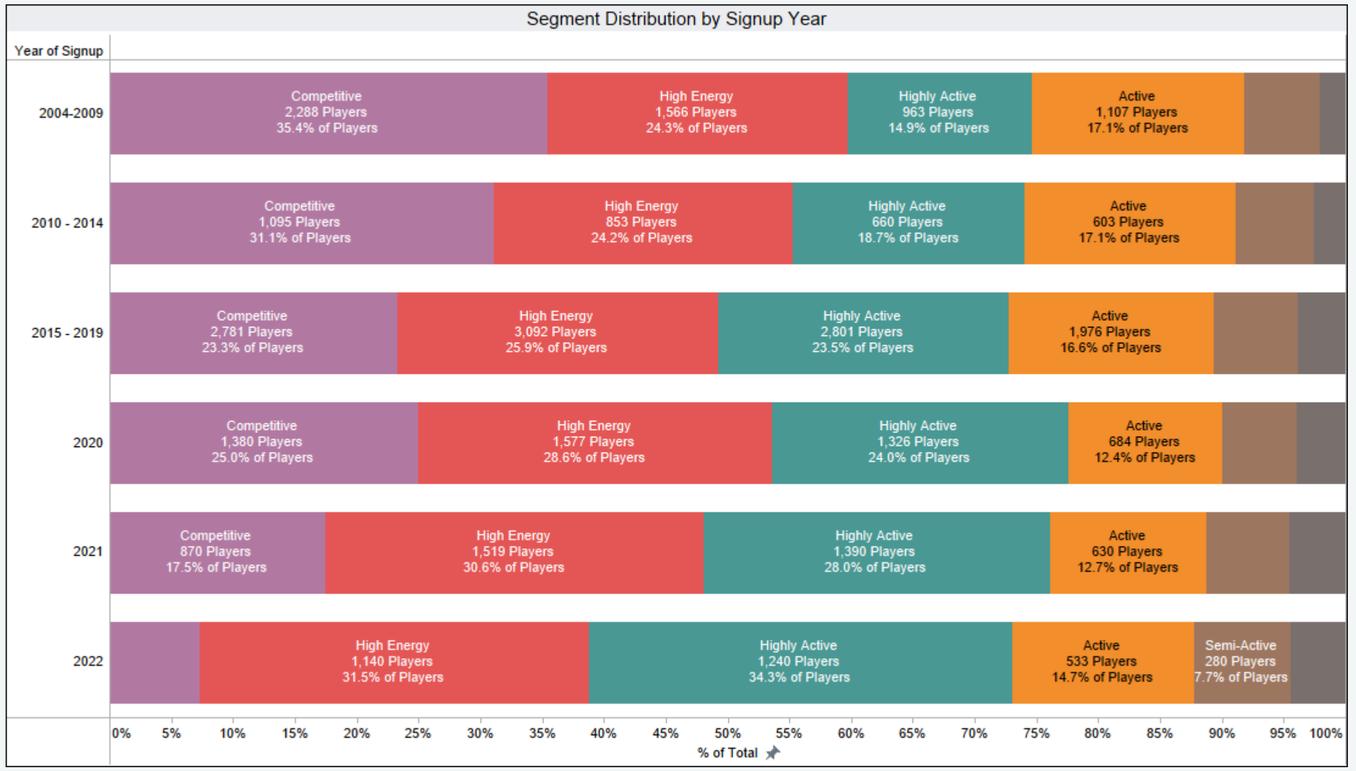
SEGMENT DISTRIBUTION BY SIGNUP YEAR

SEGMENT DISTRIBUTION BY SIGNUP YEAR

Older players are more likely to achieve the Competitive or High Energy segments

Newer players are most likely to be High Energy or Highly Active

- Highly engaged, but lacking the assets to reliably achieve the Competitive segment



**** The New Player segment is excluded from this view***

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STOCKS 3.0

STOCKS

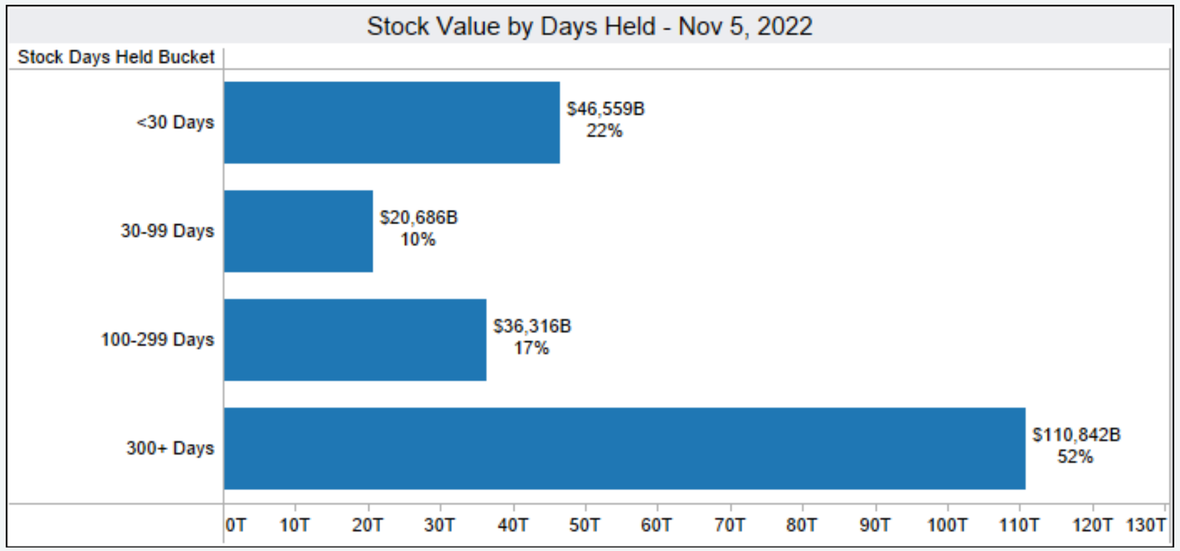
With the release of Stocks 3.0, all shares of stock can be readily converted to cash

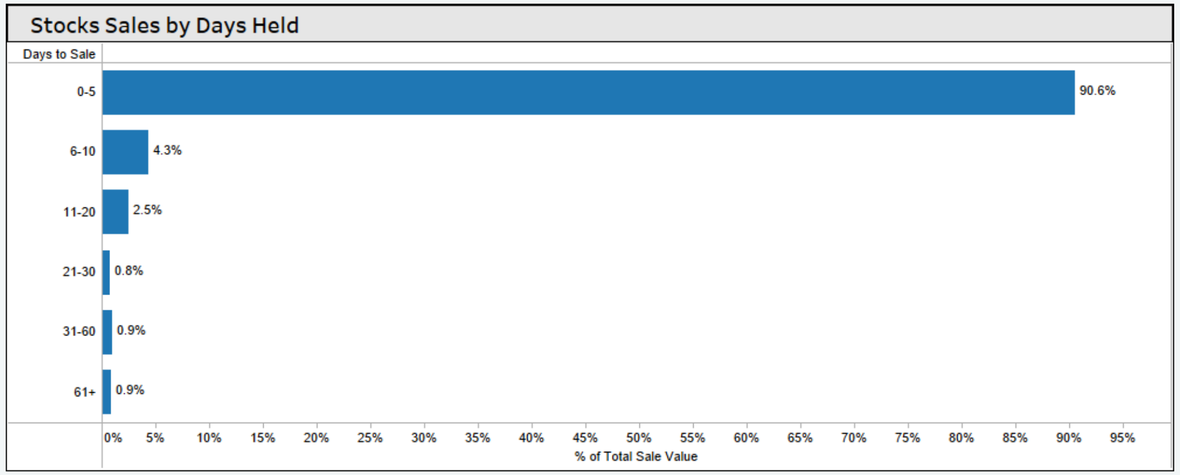
However, most players treat shares as **long-term investments**, not as cash

- Most stocks have been held for 300+ days
- Stocks that have been held for 30+ days are likely to be held for much longer

The vast majority of stocks that are sold, were held for **five days or less**

Conclusion: Shares that have been held for longer than 30 days are not being **treated** as cash, and are excluded from the money supply





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FAUCET-DRAIN MODEL

FAUCET-DRAIN MODEL

Torn's economy follows the **Faucet-Drain model**

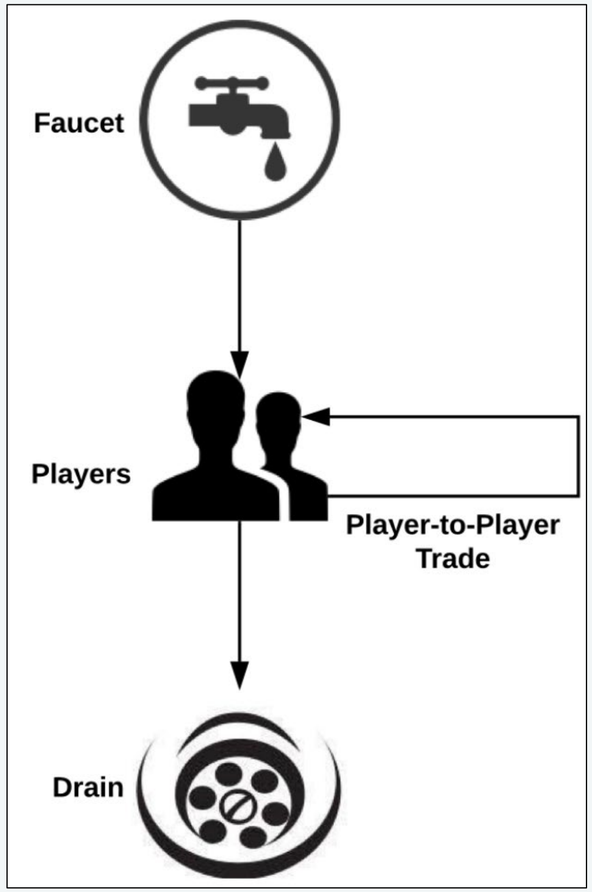
There are three parts

The **Faucet**, the **Drain**, and **Players**

- The **Faucet** represents all means by which items and Torn City Dollars (TCD) are created. Crimes are a common faucet for TCD
- The **Drain** represents all means by which items and TCD are destroyed. For example, using a Xanax is a drain for the Xanax item
- **Players** are the primary agents in this economic system. Faucets and Drains are most often activated by players

Additionally, players often **trade** with each other

- For example, players may trade Points on the Points Market
- When players trade with each other, it is neither a Faucet nor a Drain



AVOIDING HYPERINFLATION

A key economic objective is to avoid creating too many Torn City Dollars

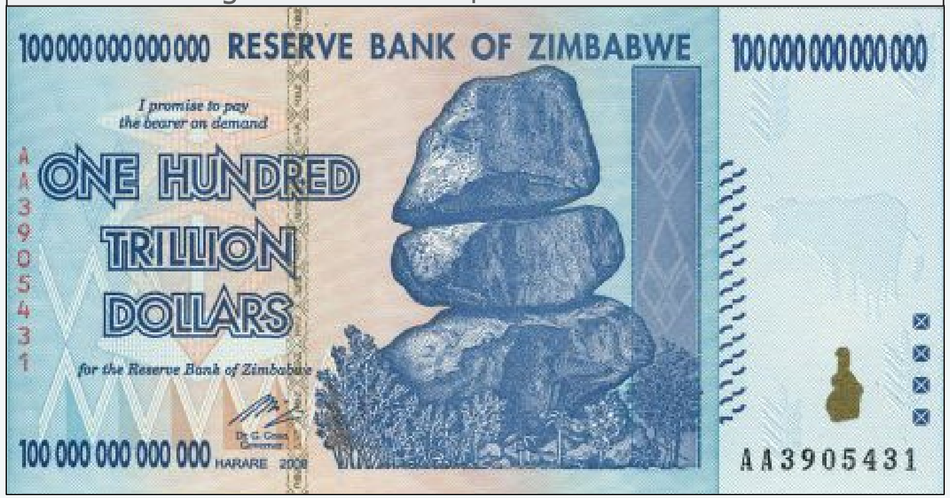
- Specifically, we want to avoid inducing hyperinflation

This can be a challenging goal under the Faucet-Drain model, as the Faucet usually creates much more than the Drain destroys

There was once a rip-off of Torn City called Ruined City

- That game's faucet was dramatically unbalanced, and caused the price of a Point to rise from **$2,147,483,647** to **$9,223,372,036,854,775,807** within 8 months
- That is an inflation rate of over **400 billion percent!**
- Clearly, we want to avoid this kind of crisis on Torn—and we work to ensure sustainable rates of expansion

Zimbabwe experienced hyperinflation in the late 2000s, leading to the shocking and collectible **$100 trillion dollar** bill



Click here to learn about hyperinflation in Zimbabwe!

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