

Trading & Capital Markets



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Online broker definition

An online broker is a trading provider that allows its clients to open and close positions using a digital platform.

Before the internet became ubiquitous, individual investors would either have to place orders over the phone or allow their broker to place trades on their behalf.

Online brokers allow for much greater control over trades, executing them far faster than was possible over the phone and enabling individual traders to manage multiple positions at once. This has opened financial trading up to more people than ever before, via execution-only brokers that offer online trading with lower costs than an advisory or discretionary service.

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Stock trading apps comparison

Feature	E*TRADE	TD Ameritrade	Fidelity	Interactive Brokers Open Account
Watch List Syncing	✓	✓	✓	✓
Stock Alerts	✓	✓	✓	✓
Charting - After Hours	✓	✓	✓	✓
Charting - Drawing	✗	✓	✗	✗
Charting - Study Customizations	✓	✓	✓	✓
Heatmapping	✗	✗	✓	✗
Stream Live TV	✓	✓	✓	✓
Barcode Lookup	✓	✓	✗	✗
Mobile Trading	★★★★★	★★★★★	★★★★★	★★★★★

Source: 'Best Stock Trading Apps for 2020', Brian Reinkensmeyer, StockBrokers.com (2020)

Mobile Trading App Comparison

Feature	E*TRADE Open Account	TD Ameritrade Open Account	Fidelity Open Account	Interactive Brokers Open Account
iPhone App	✓	✓	✓	✓
Android App	✓	✓	✓	✓
Apple Watch App	✓	✓	✓	✓
Trading - Stocks	✓	✓	✓	✓
Trading - After-Hours	✓	✓	✓	✓
Trading - Conditional Orders	✓	✓	✗	✓
Trading - Mutual Funds	✓	✗	✓	✓
Trading - Simple Options	✓	✓	✓	✓
Trading - Complex Options	✓	✓	✓	✓
Trading - Option Rolling	✗	✓	✗	✗
Touch / Face ID	✓	✓	✓	✓

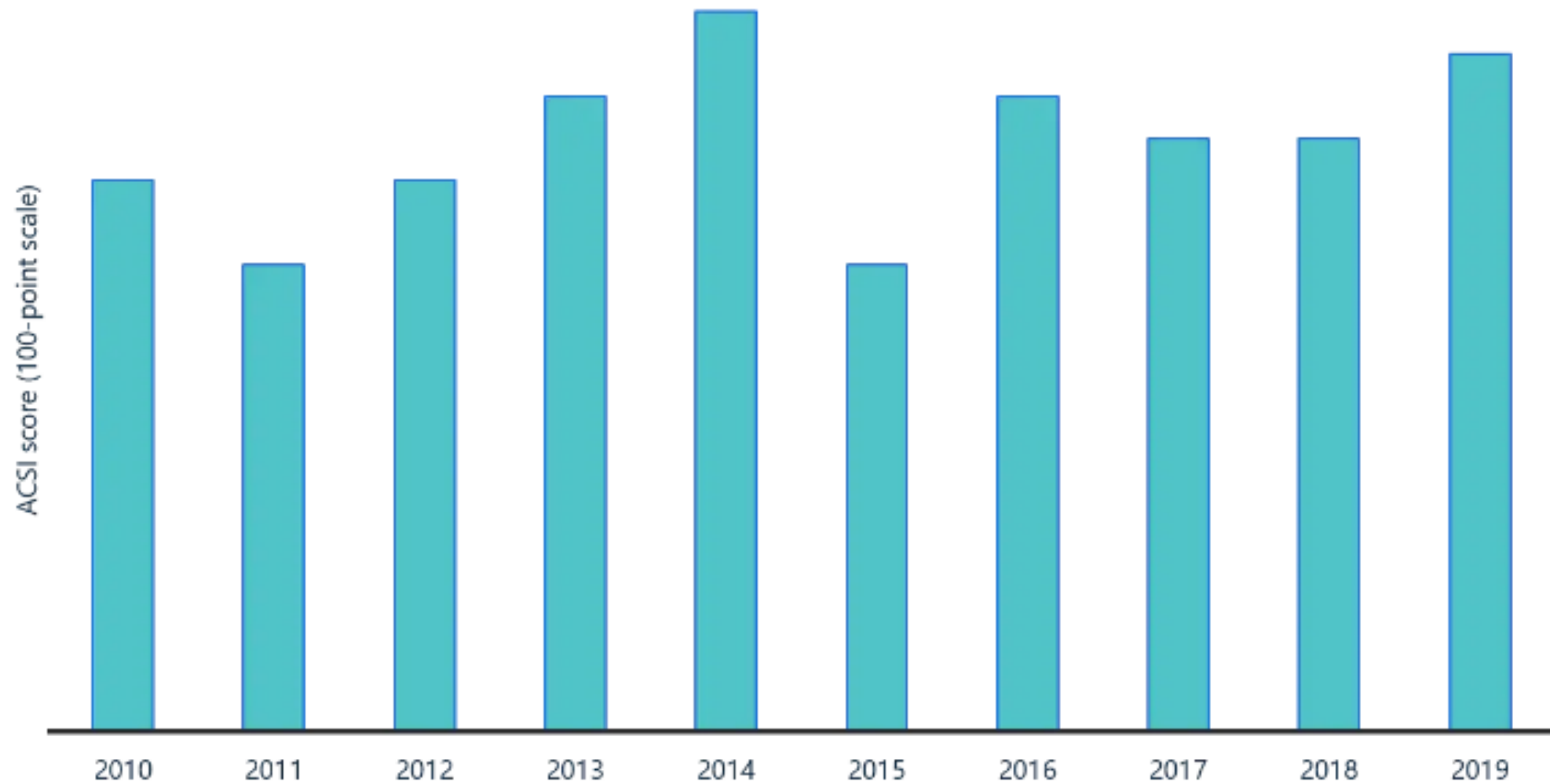
Source: 'Best Stock Trading Apps for 2020', Brian Reinkensmeyer, StockBrokers.com (2020)

Online Brokerage Recent Developments

2020 was a year of vast consolidation for the online brokerage industry. That followed the "no-fee" price war launched in October 2019 by Charles Schwab, a company founded on low-cost brokerage fees in 1971. The price war caused sharp drops in brokerage stock prices. For big names like Schwab, the stock price declines created a target-rich environment for acquisitions.

In October, stock traders new and old alike watched with trepidation as Schwab closed its \$26 billion acquisition of [TD Ameritrade](#). But E-Trade was next in line, snapped up by Morgan Stanley for \$13 billion in a deal announced in February 2020. And just Thursday, 1/21/21, U.K.-based IG Group Holdings agreed to acquire Tastytrade, the parent of Tastyworks, for \$1 billion.

Customer Satisfaction with E-Brokerage Services in United States, 2010 - 2019



Source: <https://www.mordorintelligence.com/industry-reports/global-e-brokerages-market>

What is the Robinhood trading?

Robinhood is a FREE “No Commissions” Broker. The first of its kind! Unfortunately, it appears Robinhood made the decision to go with zero commissions at the sacrifice of features that have been standard on every broker for many years which makes it unsuitable for active traders or investors.

The Pros of Robinhood's Free Trades Offer

If you are trading at a firm like Ameritrade or E*Trade, you could easily be paying \$10-15/trade. That means it's not unlikely for an active trader to generate \$200 in commissions each day.

Just think, \$200/day is \$52k/year. And that is going straight to the broker! This makes any reduction in commissions an appealing offer.

When Robinhood first started advertising their Free Trades commission structure I immediately thought, "what's the catch?". Robinhood, as advertised, charges \$0.00 commission on buys and sells. In their Fees Section they note that traders still have to pay the FINRA and [SEC](#) fees on the sell orders.

These generally amount to less than 50 cents per trade, so it's very marginal. The biggest advantage to Robinhood is the Free Trades. That's their selling point, but it's the only selling point.

Source: <https://www.warriortrading.com/robinhood-app-review-real-cost-free-trades>

The True Cost of Free Trades

- No Leverage means Cash Balance Margin Only
- Mobile App Only Trading means No Hot Keys or 1 Click Orders
- No Level 2 or Time & Sales means No Reading Market Sentiment
- No Short Selling

Robinhood Introduces Crypto Trading

As a technology driven brokerage with less overhead, Robinhood announced that it will start offering [cryptocurrency](#) trading on its platform. In the last four days since the announcement was made, more than 1 million interested users have joined Robinhood's waiting list.

The first group of customers will enjoy the new service which will be first available in 5 states – California, Massachusetts, Missouri, Montana, and New Hampshire – starting from February 2018. This service will be rolled out to other states in waves. The good news is that Robinhood can bump you up the wait-list if you do one little thing – invite your friends to join. Not only that. You stand a chance of getting a free stock like Apple, Ford or Sprint.

Robinhood revenue

Year	Revenue
2015	\$2.9 million
2016	\$9.3 million
2017	\$21 million
2018	\$69 million
2019	\$111 million
2020	\$673 million

Source: <https://www.businessofapps.com/data/robinhood-statistics/>

Robinhood total transactions

Year	Total transactions
2016	\$0.5 billion
2017	\$50 billion
2018	\$100 billion
2019	\$150 billion
2020	\$350 billion

Source: <https://www.businessofapps.com/data/robinhood-statistics/>

Robinhood users

Year	Users
2015	0.5 million
2016	1 million
2017	2 million
2018	6 million
2019	10 million
2020	13 million

Source: <https://www.businessofapps.com/data/robinhood-statistics/>

What Is a Robo-Advisor?

Robo-advisors (also spelled robo-adviser or roboadvisor) are digital platforms that provide automated, algorithm-driven financial planning services with little to no human supervision. A typical robo-advisor collects information from clients about their financial situation and future goals through an online survey and then uses the data to offer advice and automatically invest client assets.

The [best robo-advisors](#) offer easy account setup, robust goal planning, account services, portfolio management, security features, attentive customer service, comprehensive education, and low fees.

Source: <https://www.investopedia.com/terms/r/roboadvisor-roboadviser.asp/>

Benefits of Using Robo-Advisors

The main advantage of robo-advisors is that they are low-cost alternatives to traditional advisors. By eliminating human labor, online platforms can offer the same services at a fraction of the cost. Most robo-advisors charge an annual flat [fee of 0.2% to 0.5%](#) of a client's total account balance. That compares with the typical rate of 1% to 2% charged by a human financial planner (and potentially more for [commission-based](#) accounts).

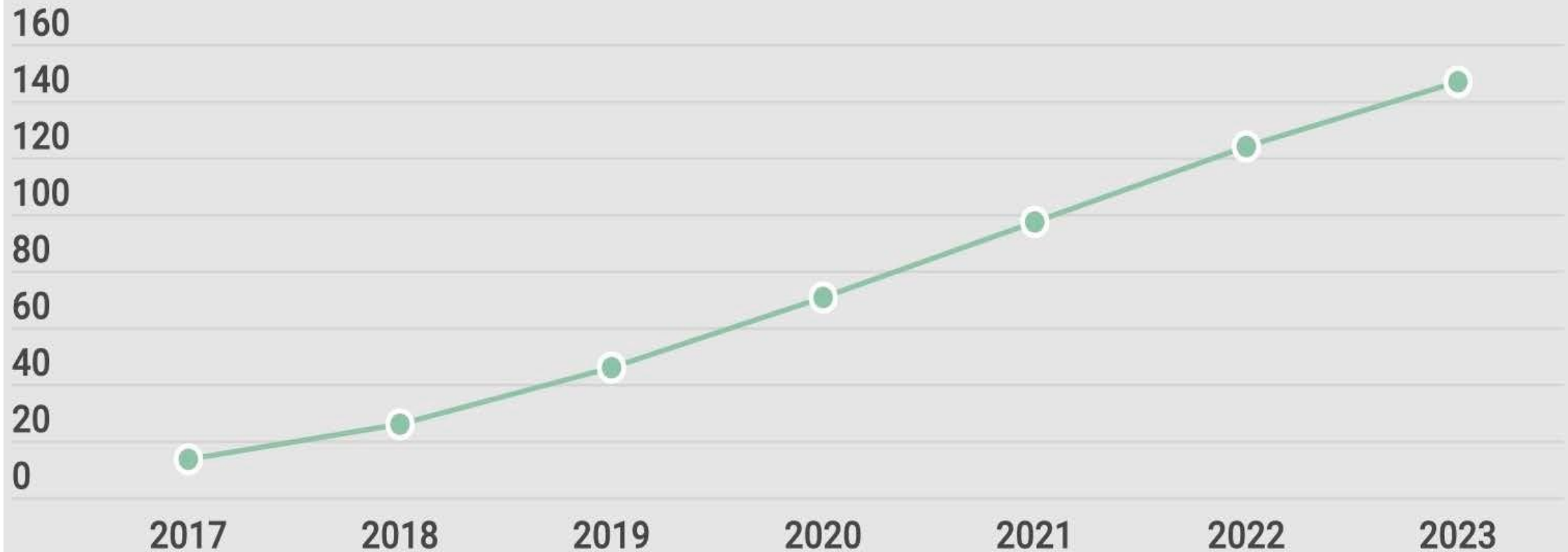
Robo-advisors are also more accessible. They are available 24/7 as long as the user has an Internet connection. Furthermore, it takes significantly less capital to get started, as the minimum assets required to register for an account are typically in the hundreds to thousands (\$5,000 is a standard baseline). One of the most popular robo-advisors, Betterment, has no account minimum at all for its standard offering.

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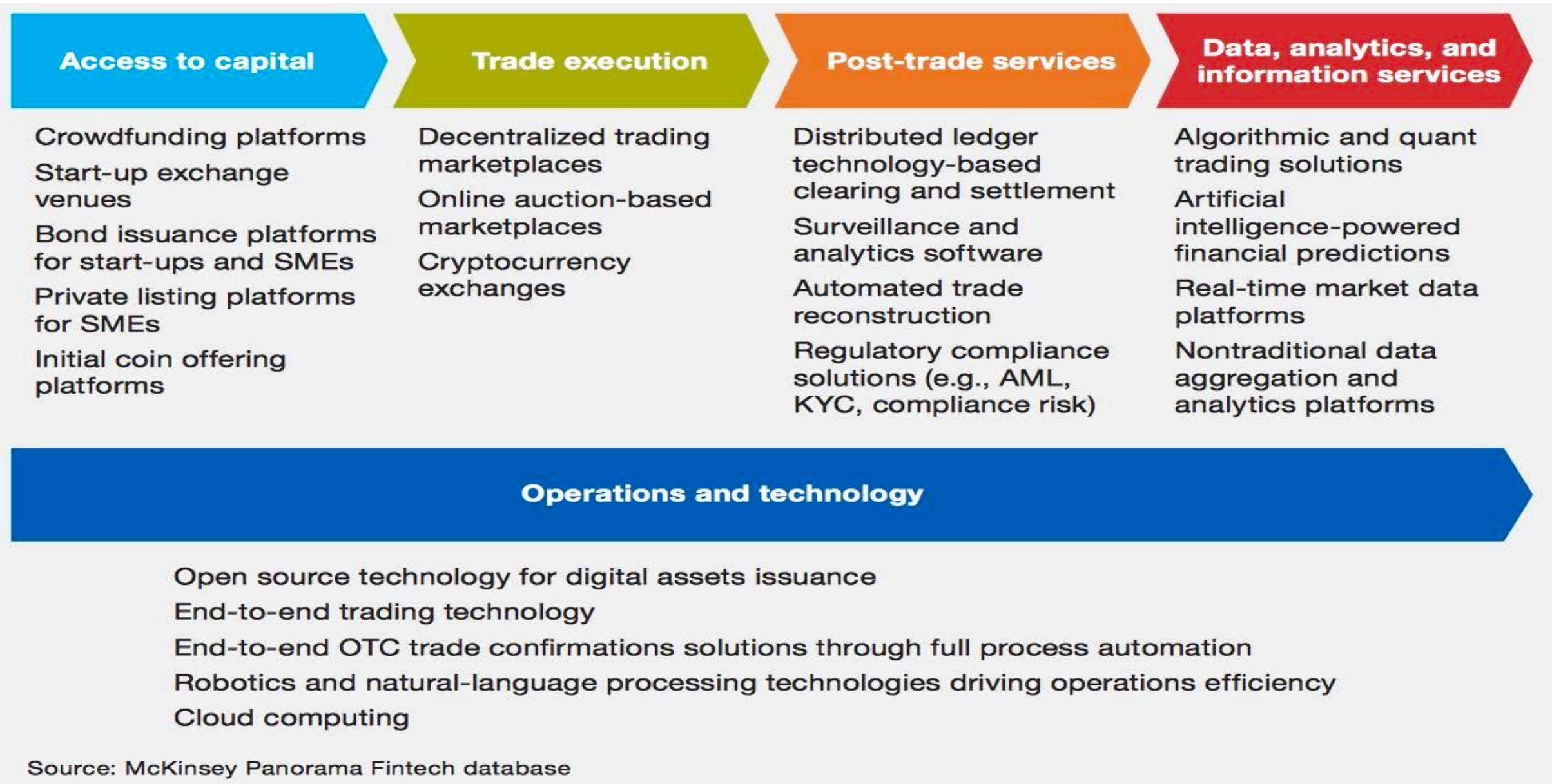
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Number of users in the robo-advisors segment, in millions



Source: 'Robo-advisor Industry to hit \$1.4trn This Year' Jastra Ilic, LearnBonds

Capital Markets Fintech



Capital Markets FinTech Startups

- IEX (2012) – Stock Exchange
- Kantox (2011) – Institutional FX Trading
- Pitchbook (2007) – Private Capital Market Research
- Q4 (2006) – Investment Research
- Trumid (2014) – Bond Trading & Data Platform
- TruValue Labs (2013) – Analytics on ESG Investing

Crypto Exchanges

- Critical gateway to implement public policy & instill confidence.
- Responsible for vast majority of crypto secondary market.
- Greater than 30 million direct members.
- Lack brokered access or meaningful market integrity rules.
- Custodial wallets are honey pots for hacks.
- Decentralized exchanges present new opportunities & policy risks

Central Bank Digital Currency

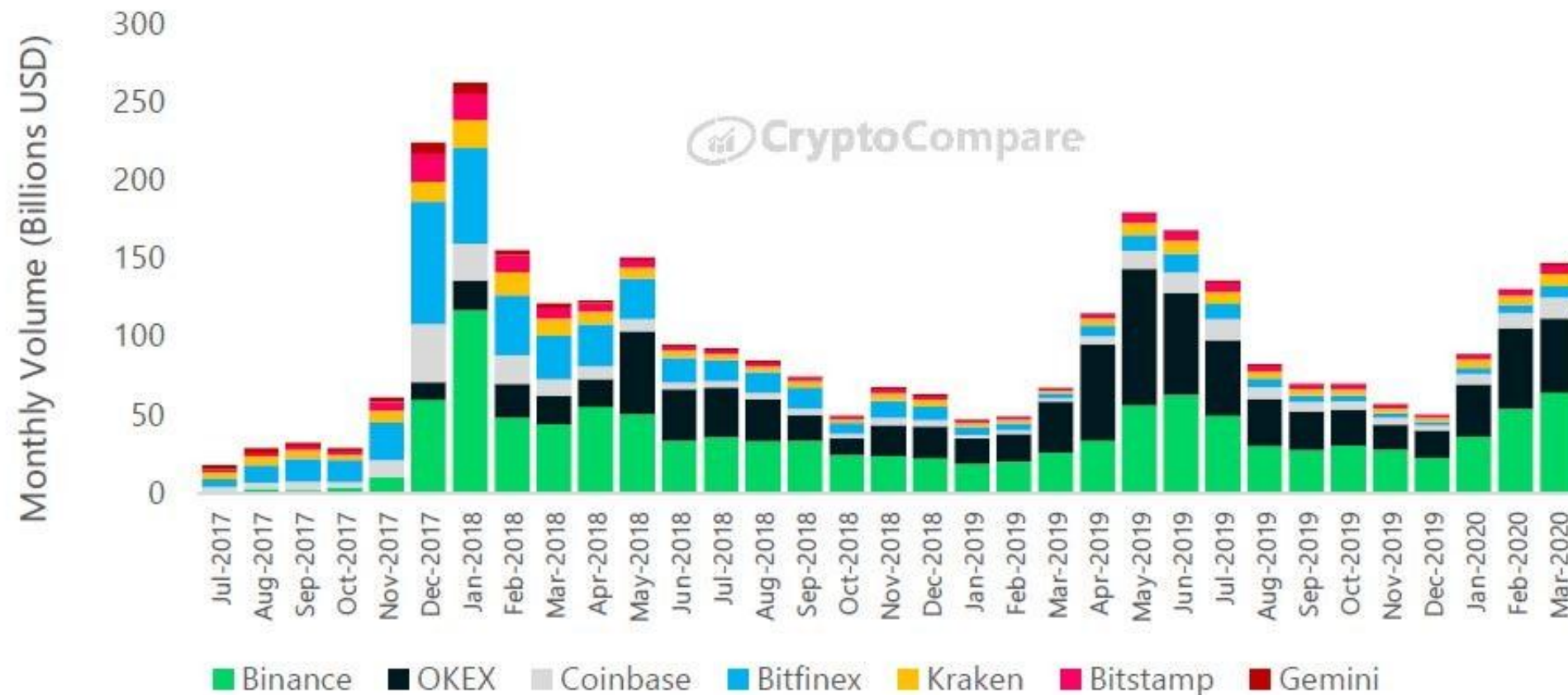
- Central Banks already issue digital reserves to commercial banks
- Stable Value Tokens are being Promoted by Private Issuers
- Strategic consideration: Should access to digital reserves be expanded?
- Design considerations:
 - Widely accessible vs. Wholesale
 - Token or Account based
 - Interest bearing or Not
 - Level of account services

Central Bank CBDC Concerns

- Potential of pro cyclical runs to CBDC
- Changes to commercial banks' deposits and funding models
- Effects on credit allocation and overall economy
- Monetary policy implementation & transmission
- Resilience of open payment infrastructures
- Guarding against illicit activity
- Central Bank Digital Currency, though, likely will be seen in adoption

Crypto Exchanges 'Top Tier' Trading Volumes

Historical Monthly Top Tier Exchange Volume



Source: 'Exchange Review March 2020', CryptoCompare (2020)

Crypto Lending and Borrow

- Lending Crypto or Fiat collateralized by Crypto
 - BlockFi, Celsius, CoinLoan, Crypto.com, ETHLend, Genesis Capital, Nexo, Salt

Traditional Finance vs. Decentralized Finance



Proprietary software
Central clearing
Intermediaries
Trust in institutions
Censoreable
Permissioned
“Separate castles”
Limited transparency
Registered instruments
Credit-based assets



Open source
Blockchain
Peer-to-peer / web
Trust in technology
Censorship resistant
Permissionless
Composable, modular
Transparent
Bearer instruments
Commodity-based assets

Crypto 'DeFi' Platforms

- Exchanges
 - Binance, IDEX, Uniswap
- Crypto Lending & Borrow
 - Compound, Dharma, InstaDapp, Maker, Nuo, REX, Synthetix
- Prediction Markets
 - Augur, Hedge Trade

Crypto Public Policy Challenges

- Illicit Activity, particularly on Decentralized Exchanges
- Tax Compliance and Reporting
- Markets Readily subject to Fraud, Scams, and Manipulation
- Exchange and Wallet Custodial Arrangements
- Beneficial Ownership of Crypto Assets
- Remediation of Non compliant ICOs & Exchanges
- Personal Data Privacy (e.g. GDPR)
- Adapting Existing Laws & Regulations, where appropriate
- Staying Abreast of Technological Developments
- International Regulatory Arbitrage

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