

UBX™ AI ENGINE



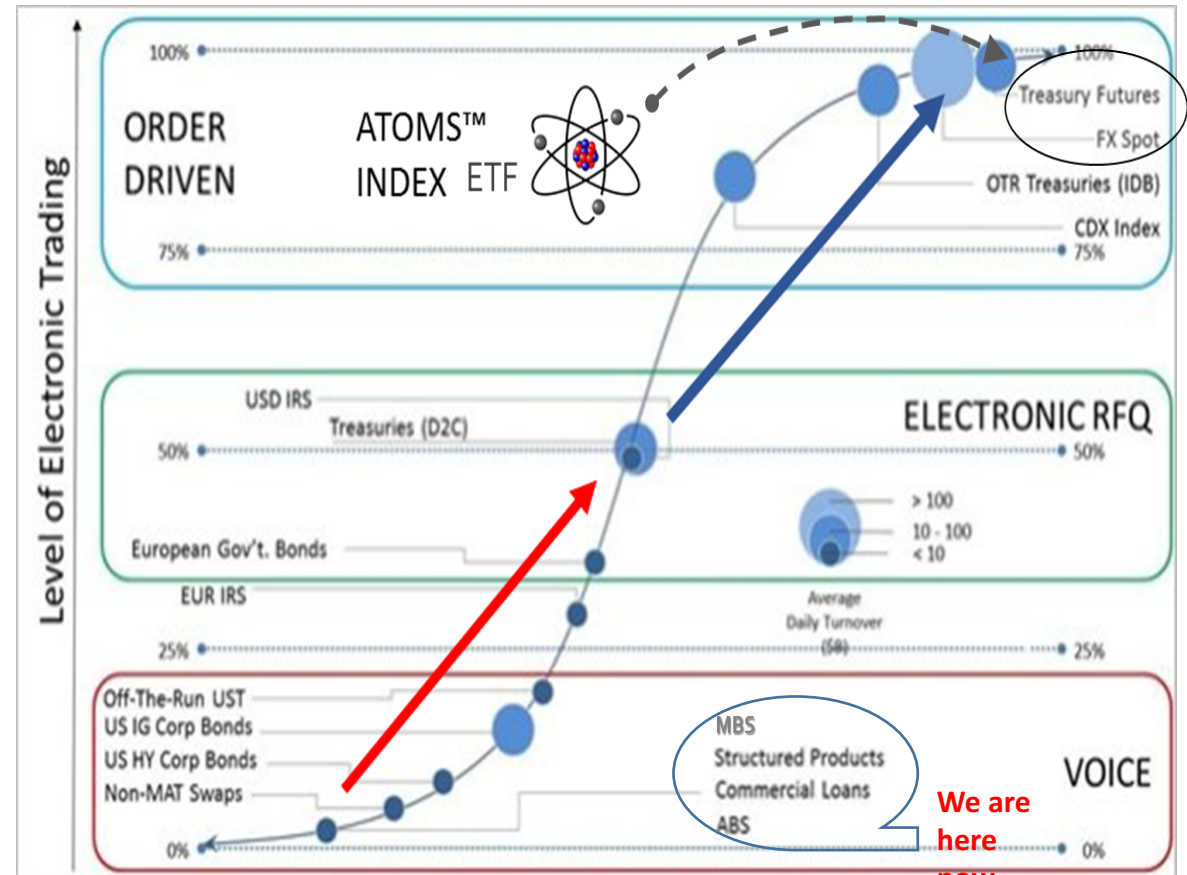
Transition KDS Global
From
Subscription Service
To
All-to-All Alternative MBS Trading Exchange

We can accomplish the transition by exploiting and leveraging KDS Global, LLC core competencies:

- Agency MBS big data infrastructure
- Expertise in cloud computing and big data analytics
- Mortgage Backed Securities Valuation and Analytics
- UBX-Blockchain enabler



- All-to-All trading exchange becomes **“market price benchmark”**.
- Generate **alpha for our clients** via tighter bid/ask, higher liquidity, and greater transparency.
- Increase market efficiency in the **“off-the-run” and specified pools**.
- **Entire mortgage market:** PassThrough & Structured Products markets at both the collateral and bond levels >\$6T



We want to be here

We are here now...



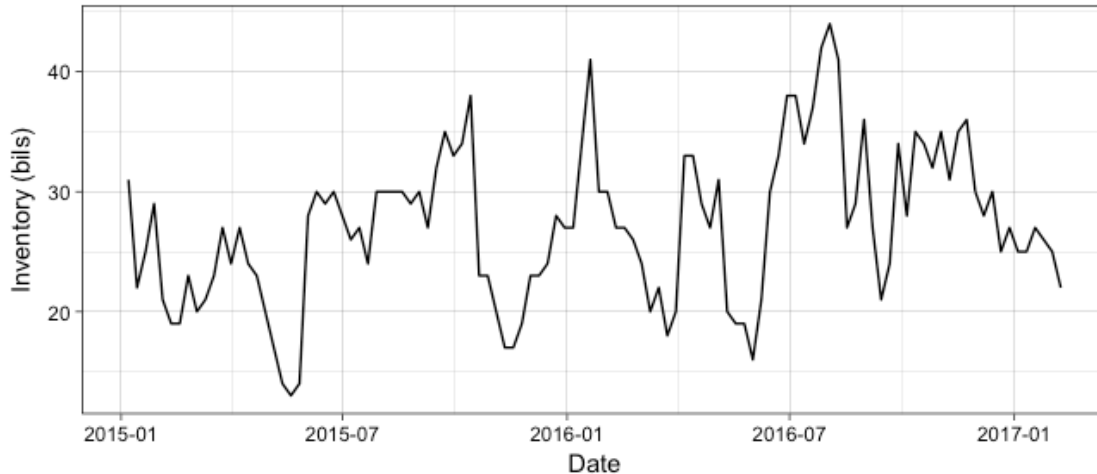
MBS Market Pain Point:

Fixed income markets have lower liquidity than in the years leading to the financial crisis.

- Regulatory reform and higher capital rules.
- Reluctance of banks to commit balance sheet as liquidity providers.
- Lower dealer leverage, less inventory, and lower liquidity



Primary Dealer Agency MBS Inventory

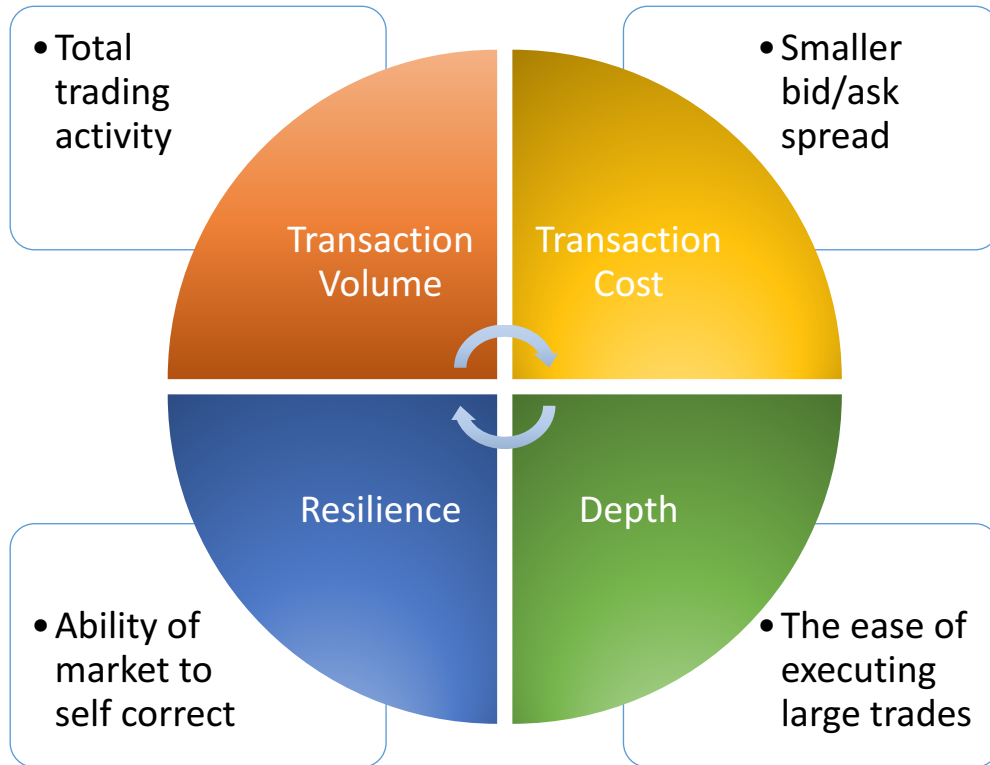


Source: Federal Reserve

The Opportunity :

Create an all-to-all alternative trading exchange

- Fixed income institutional buy side participants are embracing alternative trading systems.
- Primary dealers are looking at ways to reduce the capital they commit to trading.
- The all-to-all trading exchange is gaining in popularity both the buy-side and sell-side. An all-to-all trading exchange allows institutional investors, broker-dealers, and private funds to trade with one another on the exchange.



Agency MBS Liquidity

Total trading volume: measures the dollar volume of transactions – higher volume is associated with higher liquidity.

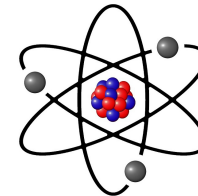
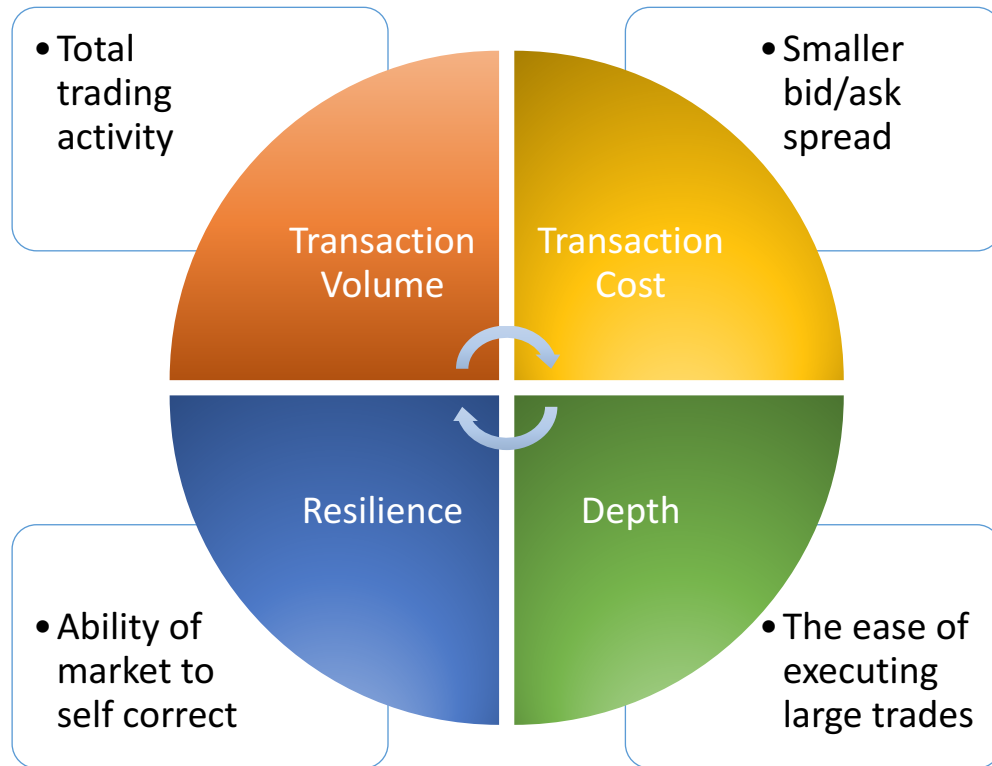
Transaction Cost: execution at mid-market, Smaller bid/ask spread.

Resilience: Ability of market to self-correct after sell-off or price dislocation.

Depth: The ease of executing large trades.



KDS Global Enabling Technology



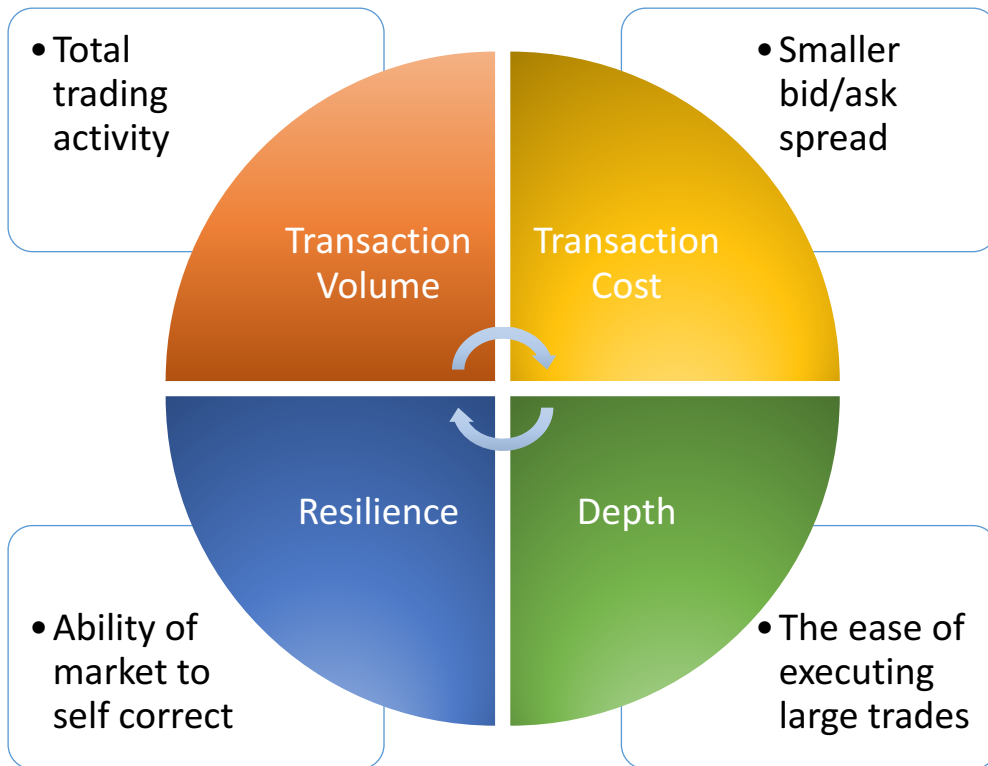
ATOMS™ Index provides real-time pricing of all outstanding and tradeable MBS lowering transaction costs and promoting resilience

ATOMS™ Index smaller bid/ask spreads – participants execute trades at “mid-market”.

ATOMS™ Index real-time feed back of MBS returns allows the market to self correct following price dislocations



KDS Global Enabling Technology



UBX™ is an open-source standard analytic engine for mortgage backed securities to power the ATOMS™ Index analytics.

UBX™ offers all participants in the exchange common analytics and never need to leave the platform to analyze trades.

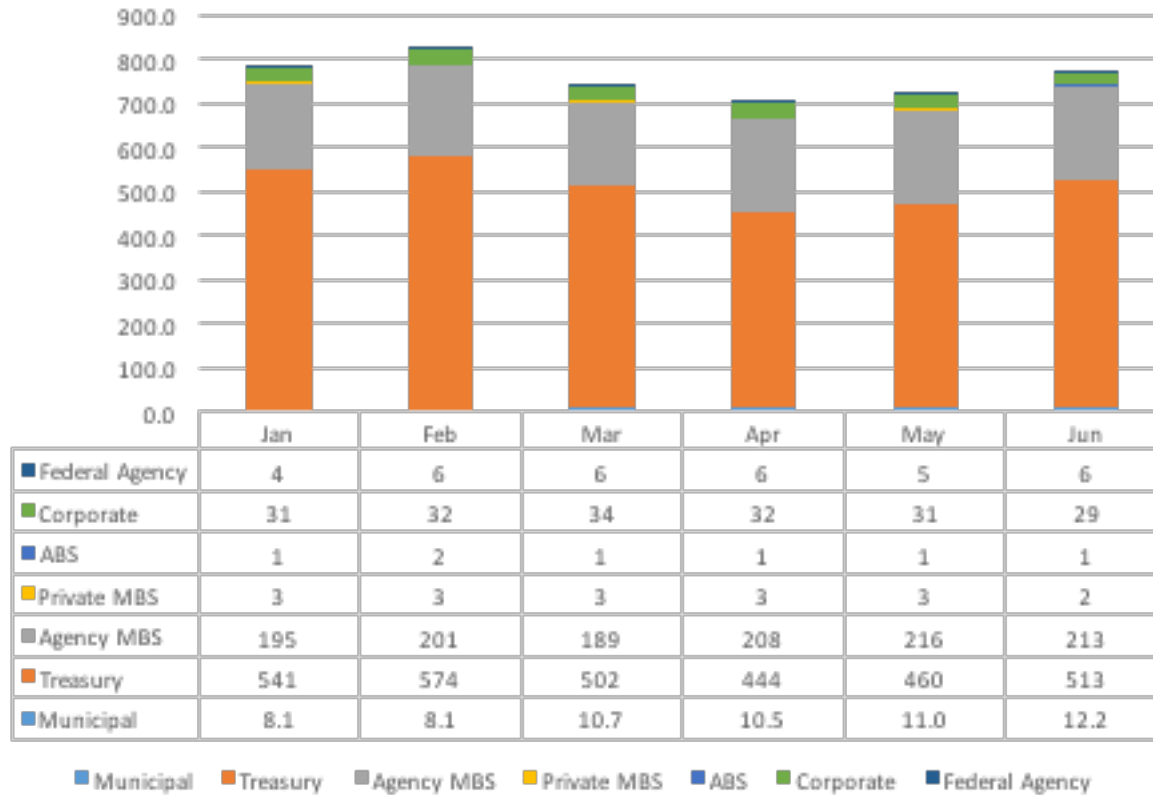
ATOMS™ provides depth to the market. Real time price feedback and analytics contributes to the depth of the market.



- The all-to-all broker/dealer earns riskless trading commissions by matching buyers and sellers on the exchange.
- The broker/dealer must be registered with FINRA as alternative trading system (ATS) and meet minimum capital requirements.
- KDS Global, possesses the data backbone and analytic expertise which are the prerequisites to build a successful all-to-all trading platform.
 - There are over 1 million tradable MBS cusips.
 - Pricing transparency supported via ATOMS™ Index.
 - Analytics supported by UBX™.



Daily Trading Volume (billions)



As of July 2017, daily trading volume of Agency MBS stood at \$213 billion, second only to the U.S. Treasury trading volume.

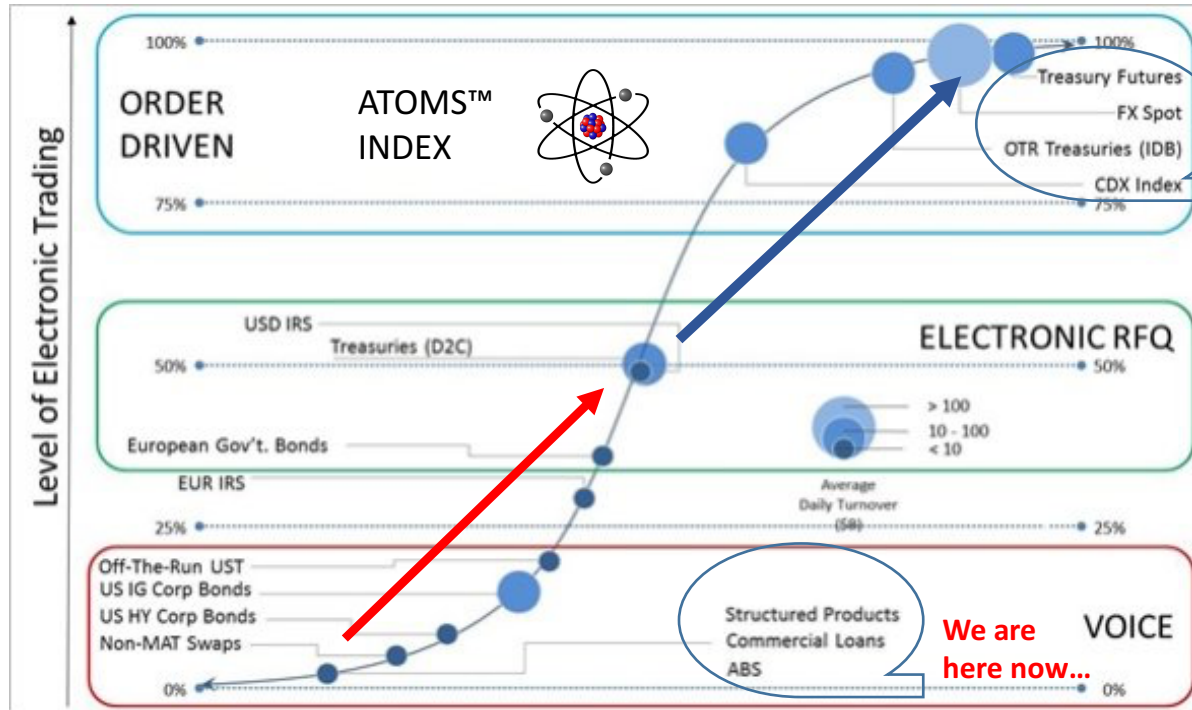
Of the \$213 billion, Tradeweb claims daily trading volume of \$96 billion, primarily TBA.

On the Tradeweb platform, there are 16 Agency MBS liquidity providers (broker-dealers). This implies an average daily trading volume of \$6 billion per day.

Tradeweb's statistics suggest that 54% of Agency MBS trading volume is specified pools.



Structure of the Mortgage- and Asset-Backed Markets



- The structured products market is the most sophisticated in terms of data requirements, structuring, and cash flow analytics
- The least sophisticated in terms of electronic trading followed.

KDS Global, LLC data, cloud, and analytic technologies can be used to move the market up the curve to capture trading volume economics.

Source: TABB Group