FIXED INCOME TRADING EVOLUTION

HOW HAS FIXED INCOME TRADING EVOLVED?

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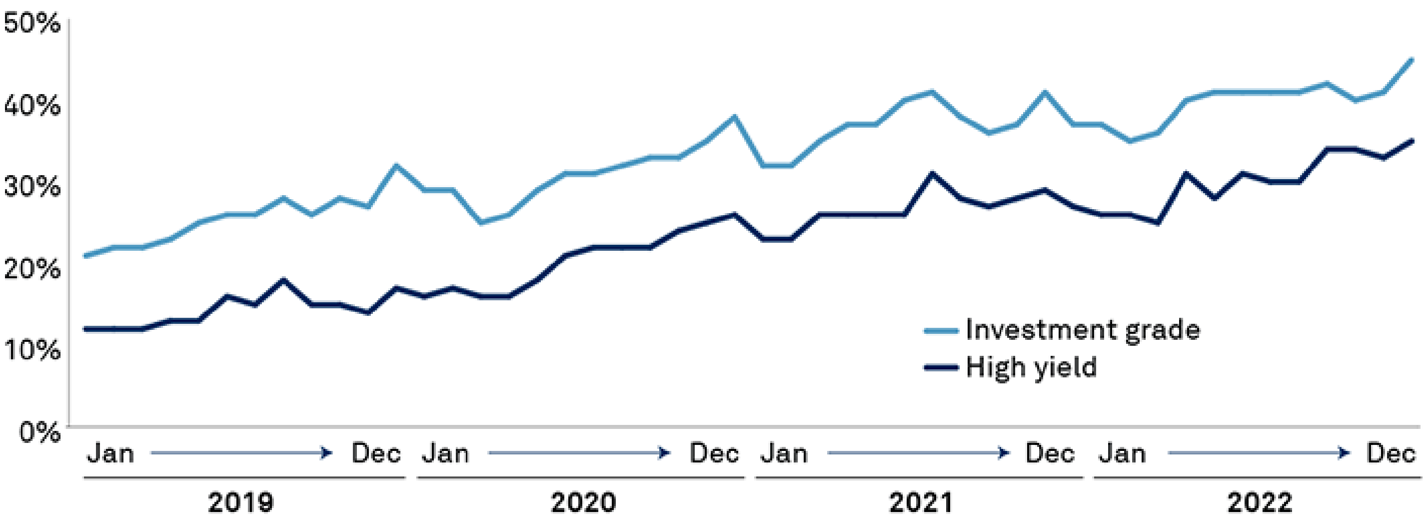
Fixed income trading is an evolving marketplace that has embraced the use of technology over recent years. There are an estimated 115 fixed income trading platforms globally, with continued growth in electronic participation (see Exhibit 1). For reference, in 2008, there were only a handful.

Exhibit 1: E-trading over time



Source: Greenwich MarketView. Available at: https://www.sifma.org/resources/research/understanding-fixed-income-markets-in-2023

While still considered an over the counter (OTC) market, most of the fixed income market share and liquidity has migrated onto electronic platforms. In 2022, 65% of the 592 billion U.S. Treasuries average daily volume traded electronically. Over the same period, 40% of U.S. Investment grade bonds and 35% of U.S. high yield bonds traded electronically.[1]

As the fixed income universe has shifted to electronic platforms, more instruments and mechanisms have arisen to satisfy evolving market needs.

[1] Source: Greenwich MarketView

From manual to digital

Fixed-income trading has traditionally relied on telephone conversations. If a financial institution or corporate entity wished to purchase or sell a fixed-income security, they would have to contact a dealer, or, in some cases, multiple dealers. They would then need to await bids or offers from each dealer and subsequently choose the most suitable counterparty based on pricing and other factors. This procedure was largely manual, involving both the initiation of orders and the determination of prices, all the way to execution of the trade.

While this bilateral process still exists today, particularly for large, complex and/or illiquid orders, the fixed-income market is undergoing a digital transformation that aligns the asset class with the broader, global economy. This transformation has fostered the advancement of different trading mechanisms and solutions across the fixed income universe.

Evolution by segment

U.S. Treasuries

U.S. Treasuries are the most liquid market globally, with the majority of the market's trading taking place electronically via a Request-For-Quote (RFQ) process. However, the segment isn't without its liquidity challenges, as evidenced by the deterioration of the market in 2020:

- Liquidity in U.S. Treasuries still comes with electronic order size limitations. With large orders, to mitigate the risk of markets moving against them, traders often break down orders into smaller ones and resort to the traditional bilateral trading processes to satisfy their immediate liquidity needs.
- Off-the-run Treasuries have also experienced pronounced liquidity issues amidst rising market volatility and widening bid-ask spreads, with older Treasuries struggling to trade in the wake of newly released ones.
- Most electronic trading platforms limit RFQ for Treasuries to five dealers, which requires some post trade work to ensure the best dealers are selected by curve and trade size.

Credit

The credit market has benefited from significant technological advancements in fixed income, featuring a wealth of options to improve liquidity through the traditional RFQ route or more advanced open trading and dark pool access.

- Traditional RFQ's have improved in the partial execution space. Investors can allow dealers to provide partials (the maximum executable proportion of an order) into an auction with new technology that enable investors to hit multiple offered partials, often allowing the investor to build a position to the originally desired size. This improves average price for the investor and allows dealers to unload undesirable positions.
- Anonymous-to-all participants trading has improved liquidity and tightened bid/ask spreads through greater participation from buy side firms, hedge funds, and smaller regional dealers. The new potential to participate as a price maker in an RFQ auction has improved performance while minimising market impact. Both parties benefit as the price taker receives a better price than the street is offering, while the price maker captures a portion of the bid/offer spread.

OUR SOLUTION TO HELP ADDRESS THESE CHALLENGES

With dealer selection we analyse all electronic trade data to evaluate dealer response rates and hit rates to determine the optimal dealer line up by duration subsector.

In addition to the traditional RFQ process, as a Broker Dealer, Russell Investments has access to the interdealer market for treasuries with its ability to uniquely leverage sell side capabilities. The distinct advantage to the interdealer market is the flexibility to work orders and disguise size. The interdealer market acts as a central order book that allows you to iceberg (display small quantities of a large order) large sizes, staging the full parent order, but only showing it partially in the order book. This can be worked into a number of strategies, including Time-Weighted Average Price (TWAP), passive, or aggressive strategy over the day and ensure active participation as well as elimination of timing risk by traders.

Our powerful network offers a greater source of diverse global liquidity

Russell Investments uses all its tools to improve clients' performance, mitigate risk, and minimise impact in the market.

Concerns of market impact can be reduced through indications of interest (IOI) platforms that represent dark pool liquidity; matching buyers and sellers based off indications of interest and negotiating prices. Traders with more tools in their toolkit are now tasked with data gathering and identifying the optimal route for trading.

A POWERFUL NETWORK
Over 400+ global dealing relationships

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ADVANCED FEATURES
State-of-the-art technology

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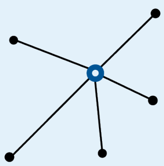
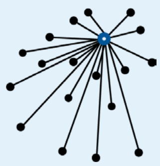
Greater source of global liquidity and cost savings



Pre-2000

ONE TO FEW

One investor (center blue) can trade with a few dealers over the phone.



Pre-Crisis

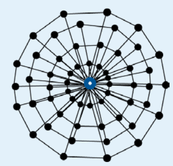
ONE TO MORE

One investor can trade with up to 30 dealers electronically

Crisis

ALL-TO-ALL

All to all trading expanded liquidity from bulge bracket dealers to smaller regional dealers and buy side price makers



Today

EMS

Electronic management systems allow traders to source liquidity from multiple platforms and layer opportunities for better average pricing

Source: Russell Investments

Emerging market debt

Emerging market debt can be a complicated asset class with many nuances and variables depending on the country and currency. Despite its digital transformation, these markets require expertise and knowledge to mitigate errors and reduce risk for the investor.

- As the market has become more digitised, sourcing liquidity has become streamlined, increasing electronic trading market share and trading capacity.
- New electronic infrastructure allows for a two-way quote from dealers in local emerging markets which reduces information leakage for large size trades. This allows traders to disguise trading direction while still receiving competitive bids and offers. Execution will be in the direction of the staged order, but only the winning liquidity provider knows which side the order is on.
- An investor can now request an upsize to the execution and ask for a larger quantity. Traders with the tools to competitively quote out orders while also disguising size and direction, can drastically improve execution cost and therefore the performance of the fund.

However, while strides are being made in emerging market debt trading, there is still room for further progress. Automation and rising participant adoption of the asset class is constantly evolving the market ecosystem and the instruments available.

> *Automation and rising participant adoption of the asset class is constantly evolving the market ecosystem and the instruments available.*

Access to emerging market debt global liquidity

Russell Investments trades in 106 different countries across 35 different currencies.

***Total Trades* 6820** — ***Total Performance vs Average* 80.01**

***Unique Dealers* 68** — ***Total Performance vs Cover* 14.61**

***Countries* 89** — ***Average Bids Per Trade* 5.44**

Country	USD Volume						
ALBANIA	$ 10,769,230.72	DOMINICAN REPB.	$ 71,934,889.61	LITHUANIA	$ 3,235,119.36	SAUDI ARABIA	$ 111,906,214.85
ANGOLA	$ 28,750,950.19	ECUADOR	$ 20,907,766.39	MALAYSIA	$ 90,130,971.51	SENEGAL	$ 17,874,292.64
ARGENTINA	$ 56,297,234.43	EGYPT	$ 54,398,328.89	MAURITIUS	$ 1,791,236.48	Serbia	$ 30,867,450.47
ARMENIA	$ 21,406,080.10	EL SALVADOR	$ 22,071,534.32	MEXICO	$ 883,122,469.72	SINGAPORE	$ 7,981,815.74
AZERBAIJAN	$ 19,178,276.46	ESTONIA	$ 357,743.97	MONGOLIA	$ 27,540,218.59	SOUTH AFRICA	$ 238,803,040.92
BAHAMAS	$ 10,170,135.45	ETHIOPIA	$ 1,509,615.42	MOROCCO	$ 28,092,587.40	SOUTH KOREA	$ 85,796,989.30
BAHRAIN	$ 19,508,041.50	GABON	$ 4,412,306.66	MOZAMBIQUE	$ 774,209.09	SRI LANKA	$ 30,261,577.06
BARBADOS	$ 815,986.22	GEORGIA	$ 20,499,859.84	NAMIBIA	$ 1,069,642.24	SURINAME	$ 318,059.58
BELARUS	$ 8,516,355.40	GHANA	$ 34,013,896.17	NIGERIA	$ 43,182,978.87	TAIWAN	$ 59,358,296.54
BENIN	$ 5,012,017.07	GUATEMALA	$ 38,945,724.95	NORTH MACEDONIA	$ 19,241,023.95	TANZANIA	$ 1,441,143.64
BERMUDA	$ 163,025,954.39	HONDURAS	$ 7,899,674.33	OMAN	$ 42,432,813.14	THAILAND	$ 67,141,391.49
BRAZIL	$ 373,045,749.90	HUNGARY	$ 77,575,919.46	PAKISTAN	$ 10,687,768.88	TRINIDAD AND TO	$ 3,836,063.58
BULGARIA	$ 2,988,647.48	INDIA	$ 107,201,152.40	PANAMA	$ 88,728,306.73	TUNISIA	$ 10,386,078.92
BURKINA FASO	$ 1,493,873.53	INDONESIA	$ 311,321,924.24	PAPUA N.GUINEA	$ 3,025,629.11	TURKEY	$ 110,911,457.89
CAMBODIA	$ 2,130,398.33	IRAQ	$ 2,225,109.20	PARAGUAY	$ 21,263,659.88	UAE	$ 158,582,466.29
CAMEROON	$ 2,403,651.22	ISRAEL	$ 155,191,289.24	PERU	$ 172,290,947.13	UKRAINE	$ 99,557,685.24
CHILE	$ 155,598,186.26	IVORY COAST	$ 33,092,343.19	PHILIPPINES	$ 56,315,249.54	URUGUAY	$ 76,613,093.55
CHINA	$ 566,925,285.57	JAMAICA	$ 6,075,365.81	POLAND	$ 70,629,563.77	UZBEKISTAN	$ 7,400,039.55
COLOMBIA	$ 182,155,170.63	JORDAN	$ 12,222,824.00	PUERTO RICO	$ 3,711,369.21	VIETNAM	$ 5,595,823.66
COSTA RICA	$ 17,159,974.79	KAZAKHSTAN	$ 43,544,843.87	QATAR	$ 124,579,650.44	Zambia	$ 21,887,656.95
CROATIA	$ 15,929,967.68	KENYA	$ 30,194,858.90	ROMANIA	$ 73,327,428.93	**Grand Total**	**$ 5,954,549,851.65**
CYPRUS	$ 11,639,109.87	KUWAIT	$ 24,501,721.23	RUSSIA	$ 256,398,722.44		
CZECH	$ 24,036,077.57	LEBANON	$ 2,872,656.54	RWANDA	$ 4,529,943.99		

Source: Russell Investments multi-venue platform from January 2020 to December 31, 2022

How can execution management systems help?

This paper has covered a lot of new tools and protocols for sourcing liquidity, disguising order flow, and improving execution in fixed income – but how does a trader manage all this information at once?

Execution management systems (EMS) have been around for decades in the equity space and are finally making their way into the fixed income universe. EMS platforms allow traders to centralise data such as liquidity scores, consolidate live or indicative pricing, direct connections to dealer algorithms, and internalize electronic platforms.

Many EMSs identify auction opportunities without sending data to multiple locations, opting into indications of interest (IOIs) for dark pools, or providing real-time transaction cost analysis for pre and post trading. One of the most rapidly advancing components of EMS is the ability to create a smart order router that is customized to the instructions and purpose of the order.

For instance, resting a corporate bond order in a dark pool IOI and exposing it to additional all-to-all-auction opportunities while having a time expiration after two hours to auto-execute in an RFQ if nothing is completed, provides substantial opportunistic liquidity that can drastically improve performance and execution costs.

While adding an EMS can be viewed as an additional cost, the upside in liquidity efficiency and execution performance can outweighs this when executing portfolios needing cash, duration and sector management.

> *…how does a trader manage all this information at once?*

How do transition managers add value in fixed income events?

Since the turn of the millennia, Russell Investments and other institutional asset managers have developed specialist fixed income transition services, and asset managers are increasingly seeing the benefits that using a transition manager can bring to them. Execution capabilities have significantly improved this process, with transition managers having specialist traders who can add real value in sourcing liquidity.

Although asset managers and transition managers both trade fixed income bonds, the strategy and market interaction could not be more different. Asset managers are focused on alpha, research and trade ideas as they're hired to outperform a benchmark. Transition managers are focused on exposure, risk, and execution as they are hired to mitigate a shift.

Russell Investments' trading desk is uniquely designed to disguise large order flow and minimise a trading footprint in the market to allow for better performance in large transition events. The aggregation of all these tools, while they might not help traditional asset managers find alpha, they do improve order efficiency, market depth, and execution quality in all asset classes. Hiring a skilled transition manager evidences the asset owner's level of care and due diligence which is consistent with their fiduciary responsibilities during changes to their portfolio structure. A transition manager has a clear mandate: minimise the performance impact of the transition.

Execution services: Russell Investments provide global reach and market depth to our clients with access to 400+ dealers across 110 countries. Clients leverage our unique trading to improve access to liquidity venues, platforms and counterparties they don't have access too, along with 24-hour coverage in markets not staffed by clients' internal desk. Russell Investments acts as an extension, in an agency only capacity, that allows clients to improve execution quality and performance for their funds.

QUESTIONS?

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