



CREDIT MARKET LANDSCAPE

MAY 16, 2023

CHICAGO TRADING COMPANY CHICAGO / NEW YORK / LONDON

AGENDA

- Corporate bond market overview (focus on Investment Grade)
- Dealer/client connectivity
- Future innovation and developments
- CTC's role in the corporate bond market ecosystem

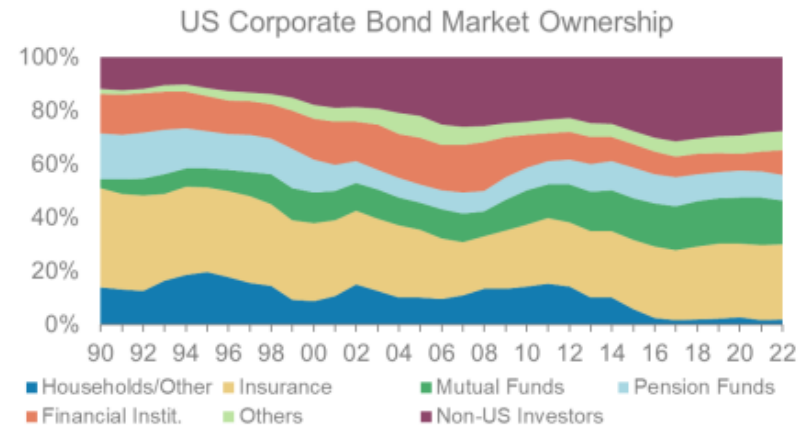
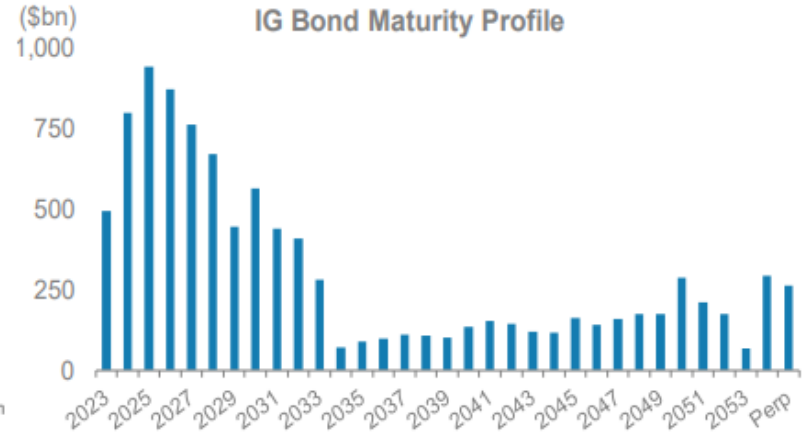
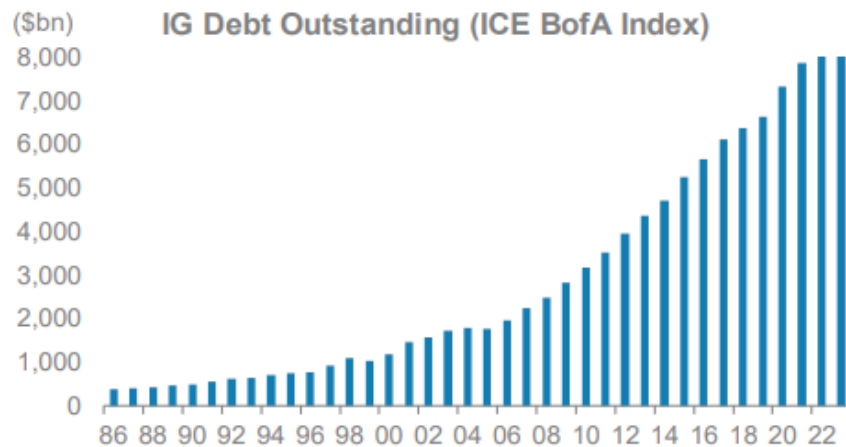


IG STATS

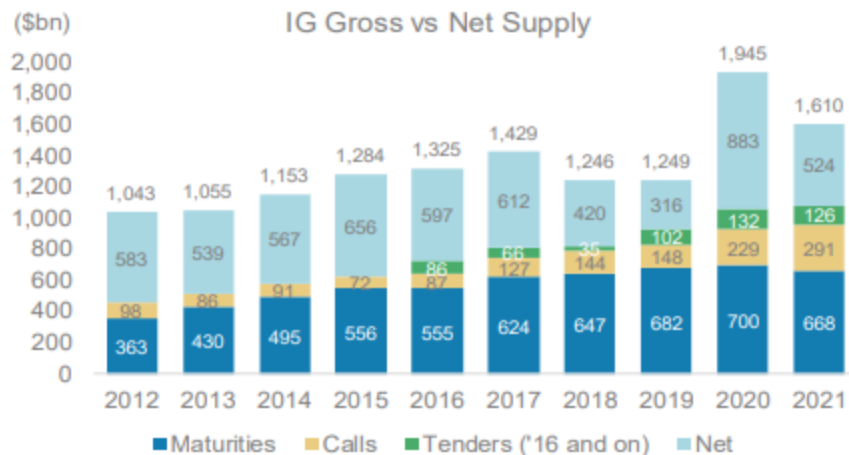
- US Corp bond market \$12t+, and has ballooned over last decade due to rapid build-up of debt since GFC, driven by easy/expansionary monetary policies
- Average annual issuance of USD\$ corporate bonds since 2008 ~1.8 trillion (IG+HY)
- Decline in overall Investment Grade bond quality (BBB's ~50% of issuance today, pre GFC was 39%)
- Extension of index duration (longer maturities and increased price sensitivity)
- Use of ratings-based, passive investments has ballooned over the past decade (holdings by corporate bond ETFs have increased 10-15x over past decade)
- Bloomberg/Barclays corp index duration, and LQD spread per unit of duration:



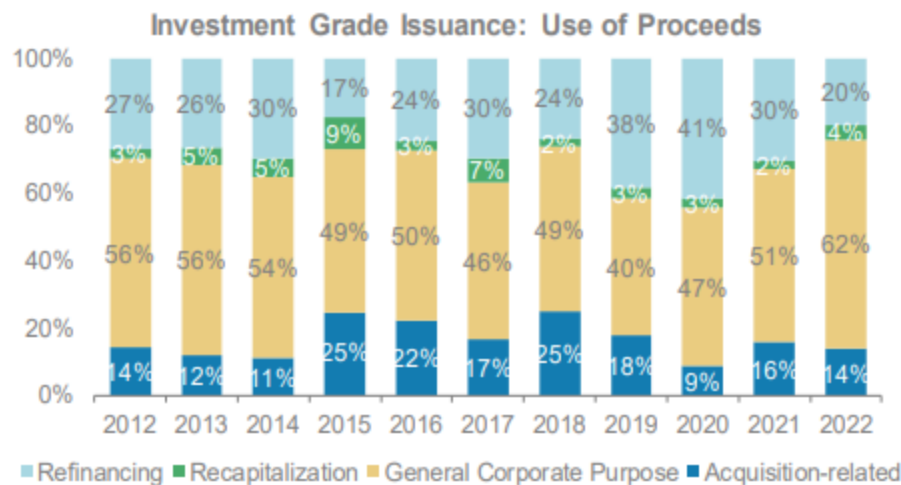
INVESTMENT GRADE CORPORATE BOND MARKET PROFILE



INVESTMENT GRADE NEW ISSUANCE TRENDS



Source: Dealogic, Bloomberg, Morgan Stanley Research Note: Excludes tranches <\$100MM



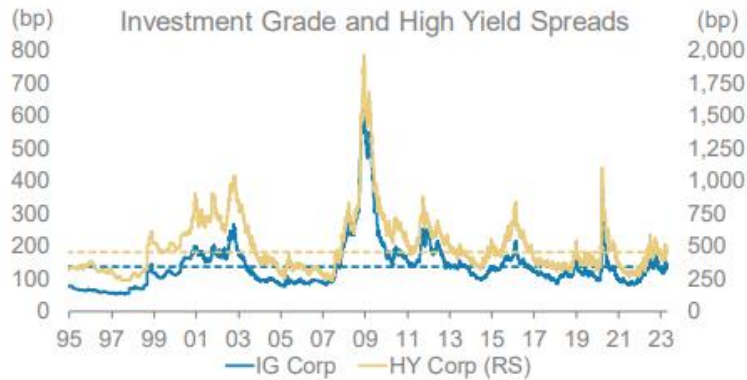
New Issuance Breakdown						
\$bn	2021YTD		2022YTD		YoY	
Sectors		% of Total		% of Total	Absolute	Share
Financials	260.5	42%	304.6	50%	17%	+7.9%
Consumer Discretionary	53.9	9%	41.1	7%	-24%	-2.0%
Consumer Staples	22.7	4%	19.8	3%	-12%	-0.4%
Energy	28.6	5%	17.3	3%	-39%	-1.8%
Materials	10.3	2%	10.3	2%	0%	+0.0%
Healthcare	22.1	4%	38.5	6%	74%	+2.7%
Industrials	28.7	5%	39.7	7%	38%	+1.9%
Information Technology	85.3	14%	33.1	5%	-61%	-8.3%
Media	5.6	1%	34.5	6%	516%	+4.7%
Telecom	39.6	6%	12.9	2%	-68%	-4.3%
Real Estate	17.2	3%	17.3	3%	1%	+0.1%
Utilities	46.6	7%	41.8	7%	-10%	-0.7%
US / Yankee						
US	398.4	64%	391.0	64%	-2%	-0.2%
Yankee	222.9	36%	220.2	36%	-1%	+0.2%
Coupon						
Fixed	580.8	93%	566.5	93%	-2%	-0.8%
Float	34.8	6%	42.2	7%	21%	+1.3%
SOFR	27.4	79%	41.9	99%	53%	+20.5%
Maturity Bucket						
3yr & in (1.5-3.5yr)	117.8	19%	121.5	20%	3%	+0.9%
5yr (3.5-6yr)	126.9	20%	153.0	25%	21%	+4.6%
7yr (6-8yr)	58.4	9%	36.7	6%	-37%	-3.4%
10yr (8-12yr)	153.4	25%	164.2	27%	7%	+2.2%
20yr (12-22yr)	52.5	8%	25.6	4%	-51%	-4.3%
30yr (22-32yr)	64.9	10%	80.8	13%	25%	+2.8%
>32yr (>32yr)	17.8	3%	18.0	3%	1%	+0.1%
Perpetual	29.6	5%	11.3	2%	-62%	-2.9%
Credit Quality (Median of M/S/F)						
AAA	4.4	1%	4.8	1%	10%	+0.1%
AA	53.6	9%	66.2	11%	24%	+2.2%
A	265.7	43%	277.7	45%	5%	+2.7%
BBB	249.5	40%	230.3	38%	-8%	-2.5%
Split	26.1	4%	17.1	3%	-35%	-1.4%
ESG Labeled Bonds						
All ESG Labeled	24.6	4%	30.2	5%	23%	+1.0%
Green	11.1	2%	16.8	3%	52%	+1.0%
Sustainability	11.0	2%	10.9	2%	0%	+0.0%
Social	2.6	0%	2.5	0%	-2%	-0.0%
Total	621.3		611.2		-2%	



CREDIT VALUATIONS

Market Summary

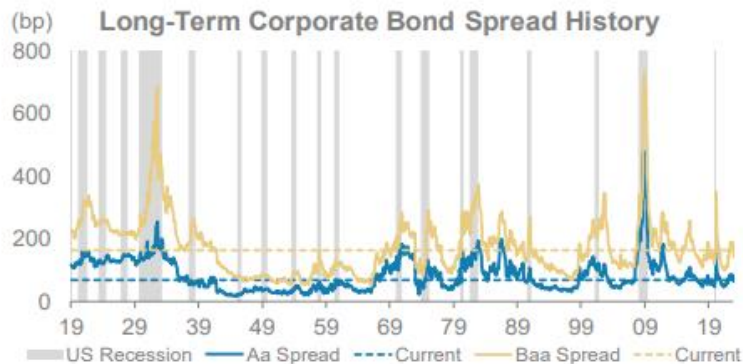
Corporate Credit Spreads



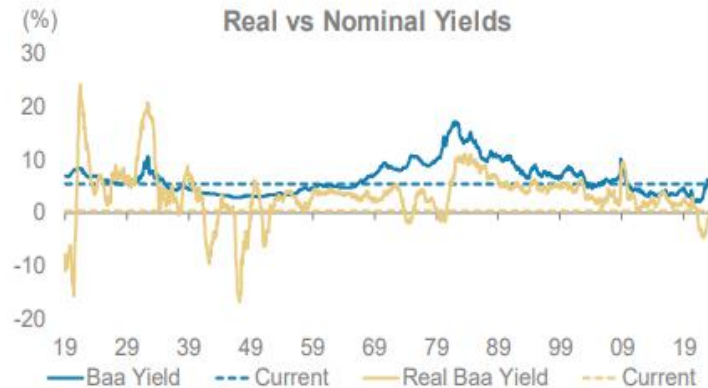
Source: Morgan Stanley, Bloomberg



Source: Morgan Stanley, Bloomberg



Source: Morgan Stanley, Bloomberg, Moody's, NBER



Source: Morgan Stanley, Bloomberg, Moody's

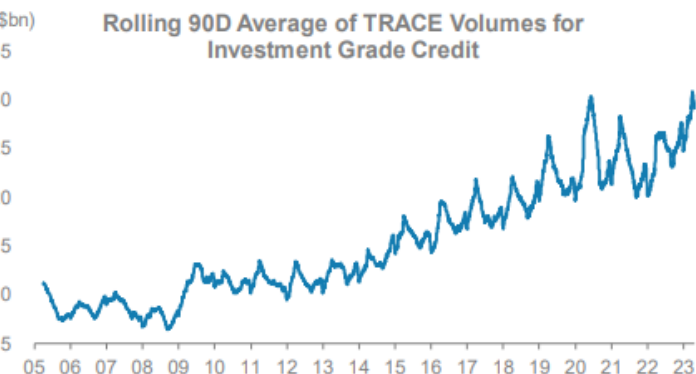


LIQUIDITY METRICS

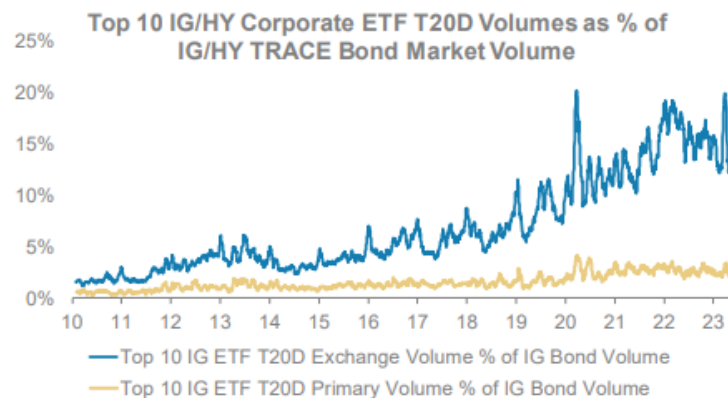
Investment Grade Liquidity Metrics



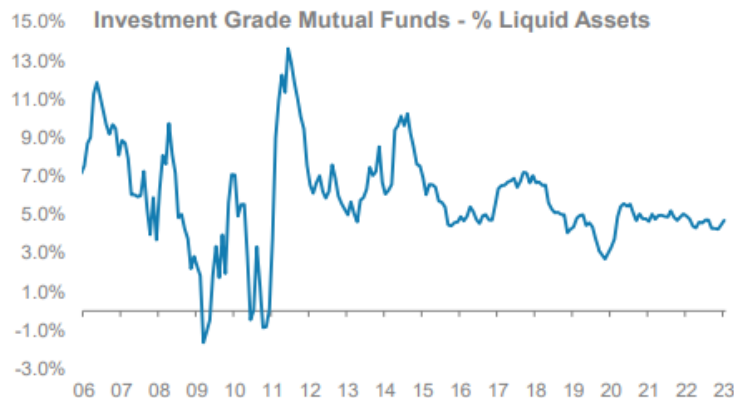
Source: Morgan Stanley Research, Bloomberg, FINRA Trace, ICE Bond Indices



Source: Morgan Stanley Research, Bloomberg, FINRA Trace



Source: Morgan Stanley Research, Bloomberg Note: 10 largest IG corporate-focused ETFs by total assets



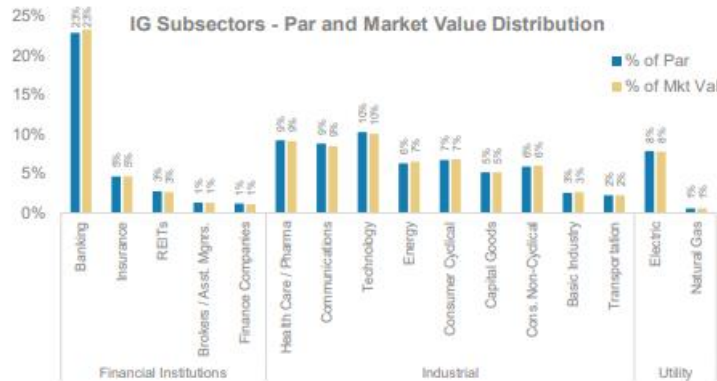
Source: Morgan Stanley Research, ICI



IG MARKET DISTRIBUTION ACROSS SECTORS, RAITINGS, PRICES/SPREADS >> TREND TOWARDS LOWER AVERAGE QUALITY

Investment Grade

Market Distribution Across Sectors, Ratings, Prices, and Spreads

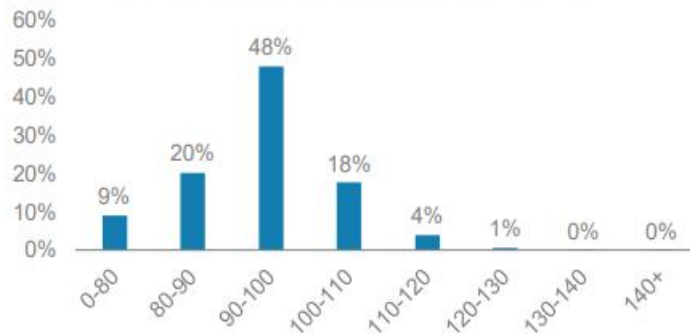


Source: Morgan Stanley, Bloomberg



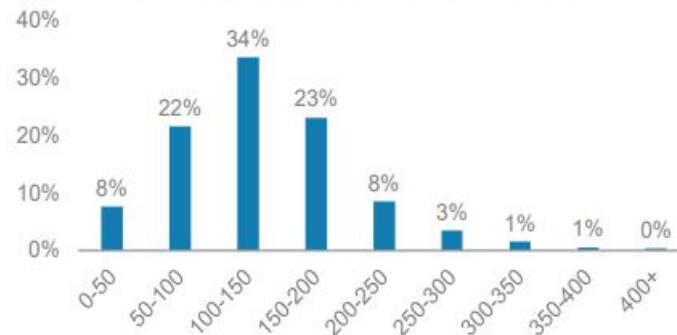
Source: Morgan Stanley, Bloomberg

% of Total IG Index in Each Price Bucket



Source: Morgan Stanley, Bloomberg

% of Total IG Index in Each Spread Bucket



Source: Morgan Stanley, Bloomberg



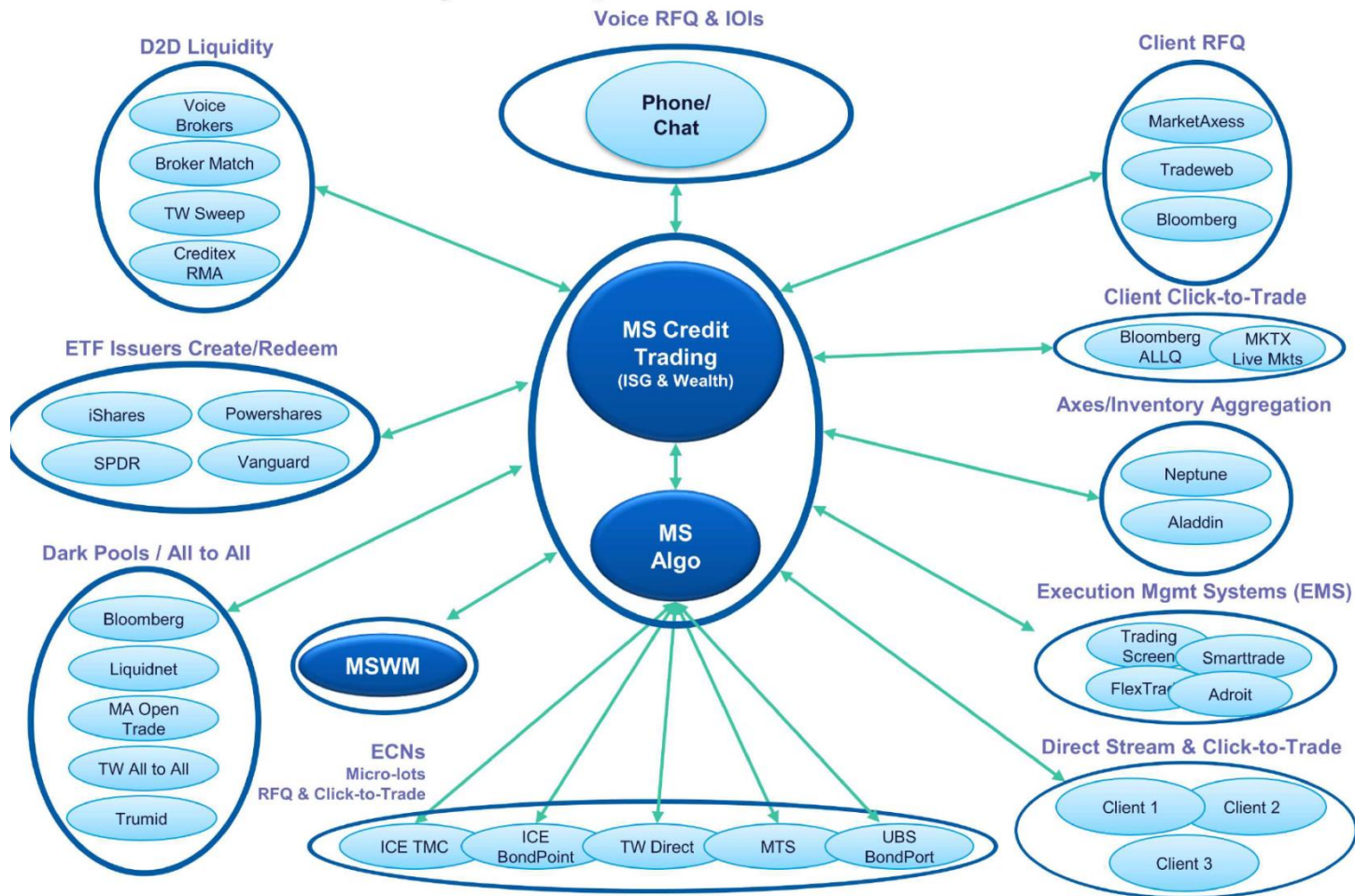
CORP BOND PARTICIPATION AND SELL-SIDE ORGANIZATION

- Variety of investment mandates driving flows in credit:
 - Short duration: corporate cash management , mutual fund/money manager, P&C insurance, retail
 - Intermediate duration: P&C/Life insurance (domestic and overseas), mutual fund/money manager, retail
 - Long duration: Life insurance (domestic and overseas), pension, mutual fund
- Dealer community set up to provide liquidity in a duration-specific manner
 - <5yr traders
 - >5yr traders
- Investment mandates and line trader organization can drive inefficiencies and relative value opportunities in IG credit



CREDIT CONNECTIVITY (DEALER PERSPECTIVE)

A web of connectivity in Corporate Credit



MARKETAXESS OWNS ~90% OF E-TRADING FLOWS IN CREDIT

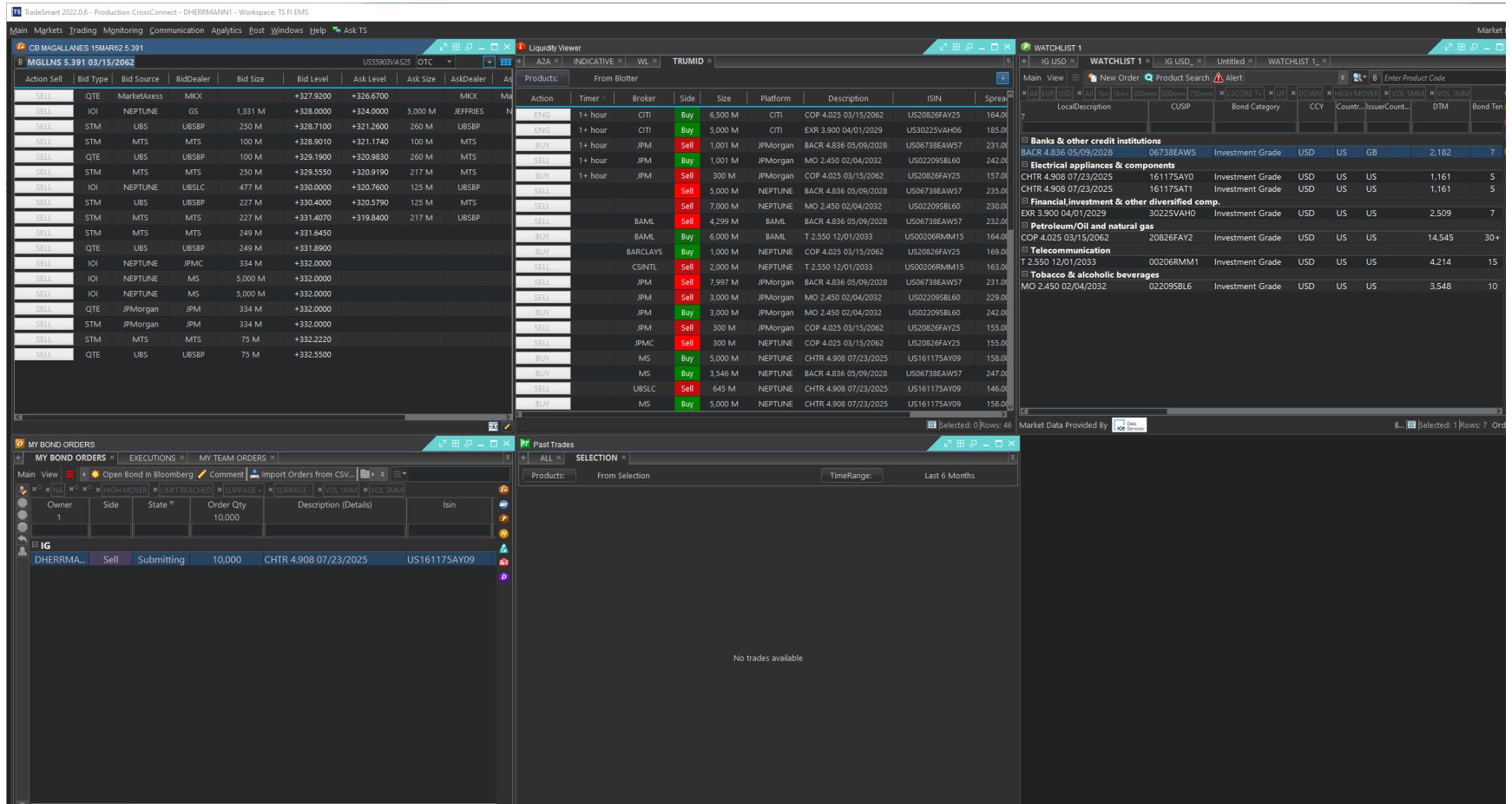
The screenshot displays the MarketAxess trading platform interface, which is used for credit trading. The interface is divided into several sections:

- Alerts:** A top-left panel showing a list of alerts with columns for Action, Size (000s), Short Name/Description, Cpn, Maturity, Level, Time Left, Source, Time In, and Watch List. It includes a search bar and filters.
- Market List:** A panel below Alerts showing a list of market listings with columns for Action, Size (000s), Short Name/Description, Cpn, Maturity, Level, Time Left, Source, Time In, and Watch List. It includes a search bar and filters.
- Live Markets:** A panel on the left showing a list of live markets with columns for Ticker, Sector, Maturity, Watchlists, Size, and Offer Level. It includes a search bar and filters.
- Main Trade List:** A large central panel displaying a detailed list of trades. The columns include Action, Size (000s), Issuer, Ticker, Coupon, Maturity Date, Identifier, Cpty Rating, Due at, Time Left, Status, Level, Benchmark, Spot Type, Price, Inquiry ID, Trade TL, MKTX, Watch List, Cross, Partials, Bond Ratings, and Coupon. The list shows various credit instruments like MORGAN S. MS, OPYRITYSP, BNP, VEOUA ENL, etc.
- Navigation and Tools:** A top-right navigation bar with tabs for Trade Single, Trade List, Manage Axes, Watch Lists/Alerts, Price Discovery, and Live Markets. Below this is a search bar and various filters.



EMS GUI example: TradingScreen/TradeSmart

EMS GUI example: TradingScreen/TradeSmart





CREDIT MARKET OVERVIEW

MAY 16, 2023

CHICAGO TRADING COMPANY CHICAGO / NEW YORK / LONDON