Arena Bonds Trading

– ROLE
UX Design

– FOR
Citi

– DATE
May 2017

– TYPE
Desktop App

Redesign of Citi's corporate bonds trading app. The system is used by traders every day – all day, in order to keep tabs on their profit and loss, marking bond prices and publishing prices to the sales team and clients.
The redesign goal was to add robustness and flexibility to help traders perform better and faster with easier decision-making.

Our challenge was to make a redesign that would allow a faster sales cycle and handling of bigger loads of bonds, increasing the business volume of the Credit Desk and preparing the desk for the challenges of the future. Also, I was asked to provide ways to show more information about the entire book and a single bond, to allow better decision making.

My Tasks

– Planning and Scope Definition

I defined the product together with the product manager, taking ownership features across the whole process. I balanced between user needs and business goals.
– Experience Strategy and Vision

I created prototypes to share the vision, design principles and content strategy. This helped evangelising ideas, gain alignment and drive decision making.
– Interactive Prototyping and Specs

I executed user journeys, wireframes, prototypes and design specs.
– Supervising of Visual Design Mockups

I supervised UI designers on the creation of final, pixel perfect mockups and handling to dev team.

Trader's Task Analysis

After 3 hours of team brainstorming and task mapping...

Out of the task analysis, it became clear that the activities could be classified into three main areas of interest:
1) Risk, in which the trader would spend most of the time, marking bond prices, analysing its profit and loss (PnL) and settings axes – discounts.
2) E-Trading, an area to manage all e-trading settings for automatic, low-amount, risk-reducing trades.
3) Runs, for the management of price publishing across sales and clients. By auto-scheduling most of the runs, this would be seamless to the trader and free time for more important tasks.

This early architectural decision was the first building block of the new operational model and would condition all tasks coming next.

Early Ideation Wireframes

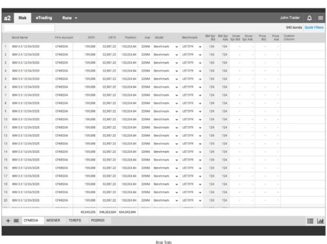
The first sketches included three areas, with a side on the left to quickly switch between different books, and a right side to show relevant information according to crossed data. Also, a notifications module was planned, as an aid for the trader to keep up with developments during the day.

Presenting to the team different interaction models for eTrading tab

Detailed Wireframes

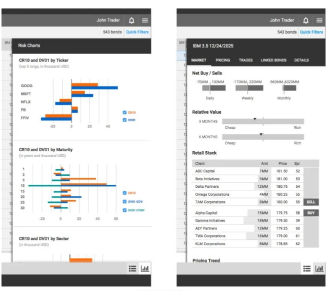
In the detailed wireframes I polished every detail of the overall frame and also the right side of charts and bond data.

The left side, for selecting different books, was moved to the bottom in order to allow more visible columns in the grid.
The following are samples from the full spec created over a year of work.


a2
Risk
eTrading
Runs
John Trader
543 bonds
Quick Filters
CFMEDIA
WDENER
TDREFG
PODROG

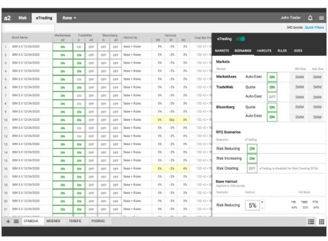
	Bond Name	Firm Account	DV01	CR10	Position	Axe	Model	Benchmark	BM Spr Bid	BM Spr Ask	Driver Spr Bid	Driver Spr Ask	Price Bid	Price Ask	Custom Column
1	IBM 3.5 12/24/2025	CFMEDIA	159,000	32,987.22	133,324.84	22MM	Benchmark	UST3YR	124	124	-	-	-	-	
2	IBM 3.5 12/24/2025	CFMEDIA	159,000	32,987.22	133,324.84	22MM	Benchmark	UST3YR	124	124	-	-	-	-	
3	IBM 3.5 12/24/2025	CFMEDIA	159,000	32,987.22	133,324.84	22MM	Benchmark	UST3YR	124	124	-	-	-	-	
4	IBM 3.5 12/24/2025	CFMEDIA	159,000	32,987.22	133,324.84	22MM	Benchmark	UST3YR	124	124	-	-	-	-	
5	IBM 3.5 12/24/2025	CFMEDIA	159,000	32,987.22	133,324.84	22MM	Benchmark	UST3YR	124	124	-	-	-	-	
6	IBM 3.5 12/24/2025	CFMEDIA	159,000	32,987.22	133,324.84	22MM	Benchmark	UST3YR	124	124	-	-	-	-	
7	IBM 3.5 12/24/2025	CFMEDIA	159,000	32,987.22	133,324.84	22MM	Benchmark	UST3YR	124	124	-	-	-	-	
8	IBM 3.5 12/24/2025	CFMEDIA	159,000	32,987.22	133,324.84	22MM	Benchmark	UST3YR	124	124	-	-	-	-	
9	IBM 3.5 12/24/2025	CFMEDIA	159,000	32,987.22	133,324.84	22MM	Benchmark	UST3YR	124	124	-	-	-	-	
10	IBM 3.5 12/24/2025	CFMEDIA	159,000	32,987.22	133,324.84	22MM	Benchmark	UST3YR	124	124	-	-	-	-	
11	IBM 3.5 12/24/2025	CFMEDIA	159,000	32,987.22	133,324.84	22MM	Benchmark	UST3YR	124	124	-	-	-	-	
12	IBM 3.5 12/24/2025	CFMEDIA	159,000	32,987.22	133,324.84	22MM	Benchmark	UST3YR	124	124	-	-	-	-	
13	IBM 3.5 12/24/2025	CFMEDIA	159,000	32,987.22	133,324.84	22MM	Benchmark	UST3YR	124	124	-	-	-	-	
14	IBM 3.5 12/24/2025	CFMEDIA	159,000	32,987.22	133,324.84	22MM	Benchmark	UST3YR	124	124	-	-	-	-	
15	IBM 3.5 12/24/2025	CFMEDIA	159,000	32,987.22	133,324.84	22MM	Benchmark	UST3YR	124	124	-	-	-	-	
16	IBM 3.5 12/24/2025	CFMEDIA	159,000	32,987.22	133,324.84	22MM	Benchmark	UST3YR	124	124	-	-	-	-	
17	IBM 3.5 12/24/2025	CFMEDIA	159,000	32,987.22	133,324.84	22MM	Benchmark	UST3YR	124	124	-	-	-	-	
18	IBM 3.5 12/24/2025	CFMEDIA	159,000	32,987.22	133,324.84	22MM	Benchmark	UST3YR	124	124	-	-	-	-	
19	IBM 3.5 12/24/2025	CFMEDIA	159,000	32,987.22	133,324.84	22MM	Benchmark	UST3YR	124	124	-	-	-	-	
20	IBM 3.5 12/24/2025	CFMEDIA	159,000	32,987.22	133,324.84	22MM	Benchmark	UST3YR	124	124	-	-	-	-	
			45,345,235	546,323,534	654,343,544										

Risk Tab


John Trader
543 bonds
Quick Filters
Risk Charts
CR10 and DV01 by Ticker
(top 5 longs, in thousand USD)
GOOG
MSFT
NFLX
FB
FFIV
-20
0
20
40
CR10
DV01
CR10 and DV01 by Maturity
(in years and thousand USD)
1
3
5
10
15
20
25
30
-20
0
20
40
60
CR10
DV01 GOV
DV01 CORP
CR10 and DV01 by Sector
(in thousand USD)
IBM 3.5 12/24/2025
MARKET
PRICING
TRADES
LINKED BONDS
DETAILS
Net Buy / Sells
-70MM
100MM
-170MM
320MM
-560MM
6320MM
Daily
Weekly
Monthly
Relative Value
3 MONTHS
6 MONTHS
Cheap
Rich
Retail Stack
SELL
BUY
Pricing Trend

Client	Amt	Price	Spr
ABC Capital	7MM	181.50	52
Beta Initiatives	9MM	181.00	53
Delta Partners	12MM	180.75	54
Omega Corporations	4MM	180.25	55
TAM Corporations	8MM	180.00	55
Alpha Capital	15MM	179.75	58
Gamma Initiatives	18MM	179.50	59
AEY Partners	12MM	179.25	60
TWA Corporations	16MM	179.00	61
KLM Corporations	8MM	178.85	62

Left: Single Bond Side Panel
Right: Book Summary Side Panel


a2
Risk
eTrading
Runs
John Trader
543 bonds
Quick Filters
Bond Name
MarketAxes
TradeWeb
Bloomberg
AE
Q
AE
Q
AE
Haircut by
Haircuts
RR
RI
RC
Final Bid Price
eTrading
MARKETS
SCENARIOS
HAIRCUTS
RULES
SIZES
CFMEDIA
WDENER
TDREFG
PODROG

Markets

Market			Bid Size	Ask Size
MarketAxes	Auto-Exec	ON	3MM	3MM
TradeWeb	Quote	ON	3MM	3MM
	Auto-Exec	OFF	3MM	3MM
Bloomberg	Quote	ON	3MM	3MM
	Auto-Exec	ON	3MM	3MM

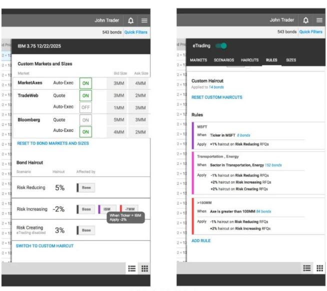
RFQ Scenarios

Scenario	eTrading	
Risk Reducing	ON	
Risk Increasing	ON	
Risk Creating	OFF	eTrading is disabled for Risk Creating RFQs

Base Haircut
Applied to 356 bonds

Scenario	Haircut	Hit Ratio
Risk Reducing	5%	1W 64%, 1MO 32%, YTD 64%

eTrading Tab


John Trader
543 bonds
Quick Filters
IBM 3.75 12/22/2025
eTrading
MARKETS
SCENARIOS
HAIRCUTS
RULES
SIZES
RESET TO BOND MARKETS AND SIZES
SWITCH TO CUSTOM HAIRCUT
RESET CUSTOM HAIRCUTS
ADD RULE

Custom Markets and Sizes

Market			Bid Size	Ask Size
MarketAxes	Auto-Exec	ON	3MM	4MM
TradeWeb	Quote	ON	3MM	2MM
	Auto-Exec	OFF	1MM	3MM
Bloomberg	Quote	ON	5MM	3MM
	Auto-Exec	ON	4MM	2MM

Bond Haircut

Scenario	Haircut	Affected by
Risk Reducing	5%	Base
Risk Increasing	-2%	Base IBM -7MM
Risk Creating eTrading disabled	3%	Base

When Ticker = IBM
Apply -2%

Custom Haircut
Applied to 14 bonds

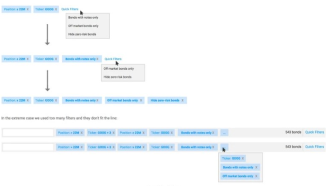
Rules

MSFT
When Ticker in MSFT 8 bonds
Apply +1% haircut on Risk Reducing RFQs

Transportation , Energy
When Sector in Transportation, Energy 152 bonds
Apply -1% haircut on Risk Reducing RFQs
+2% haircut on Risk Increasing RFQs
+2% haircut on Risk Creating RFQs

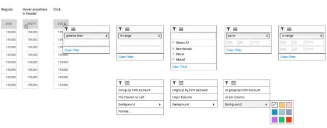
>100MM
When Axe is greater than 100MM 84 bonds
Apply -1% haircut on Risk Reducing RFQs
+2% haircut on Risk Increasing RFQs

Left: eTrading Rules Side Panel
Right: Custom e-Trading Side Panel

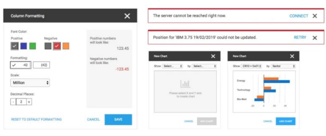

Position: ≥ 22M X
Ticker: GOOG X
Quick Filters
Bonds with notes only
Off market bonds only
Hide zero-risk bonds
Bonds with notes only X
Off market bonds only X
Hide zero-risk bonds X
Position: > 22M X
Ticker: GOOG + 3 X
...
543 bonds

In the extreme case we used too many filters and they don't fit the line:

Spec (1) – Filters


Regular
Hover anywhere in header
Click
DV01
greater than
in range
up to
Clear Filter
Select All
Benchmark
Driver
Model
Group by Firm Account
Ungroup by Firm Account
Pin Column to Left
Unpin Column
Background
Format...

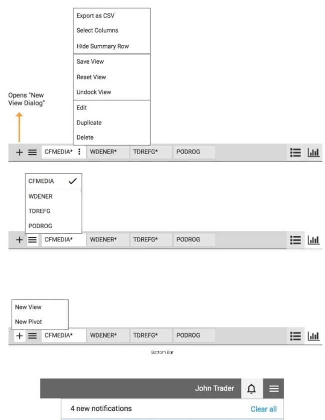
Spec (2) – Column Controls


Column Formatting
Font Color:
Positive
Negative
Formatting:
-42
(42)
Scale:
Million
Decimal Places:
2
Positive numbers will look like:
123.45
Negative numbers will look like:
-123.45
RESET TO DEFAULT FORMATTING
CANCEL
SAVE
CONNECT
RETRY
New Chart
Show
Select...
by
Please select X and Y axis to create chart
CR10 + DV01
Sector
Energy
Technology
Bio-Med
CANCEL
ADD CHART

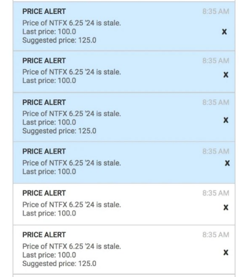
The server cannot be reached right now.

Position for 'IBM 3.75 19/02/2019' could not be updated.

Dialogs and Errors


Export as CSV
Select Columns
Hide Summary Row
Save View
Reset View
Undock View
Edit
Duplicate
Delete
Opens "New View Dialog"
CFMEDIA*
WDENER*
TDREFG*
PODROG
CFMEDIA
WDENER
TDREFG
PODROG
New View
New Pivot

Bottom Bar


John Trader
Clear all

4 new notifications

PRICE ALERT 8:35 AM
Price of NTFX 6.25 '24 is stale.
Last price: 100.0
Suggested price: 125.0

PRICE ALERT 8:35 AM
Price of NTFX 6.25 '24 is stale.
Last price: 100.0

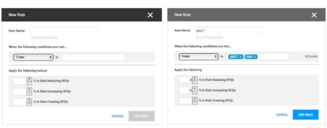
PRICE ALERT 8:35 AM
Price of NTFX 6.25 '24 is stale.
Last price: 100.0
Suggested price: 125.0

PRICE ALERT 8:35 AM
Price of NTFX 6.25 '24 is stale.
Last price: 100.0

PRICE ALERT 8:35 AM
Price of NTFX 6.25 '24 is stale.
Last price: 100.0
Suggested price: 125.0

PRICE ALERT 8:35 AM

Notifications Panel


New Rule
CANCEL
ADD RULE
38 bonds

Rule Name:
Up to 20 characters
When the following conditions are met...
Ticker in
Apply the following haircut
% in Risk Reducing RFQs
% in Risk Increasing RFQs
% in Risk Creating RFQs

Rule Name: MSFT
Up to 20 characters
When the following conditions are met...
Ticker in MSFT X IBM X
Apply the following
3 % in Risk Reducing RFQs
-2 % in Risk Increasing RFQs
% in Risk Creating RFQs

Rule Editor

PREV PROJECT
‹ Citi MFA Login

NEXT PROJECT
Citi Vantage ›

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