



The Impacts of Electronic Trading on the Front Office

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April 2007

Outline

- Fears vs. Reality
- US Treasury Markets the impact of electronic execution on volume
- Foreign Exchange building a franchise using e-trading
- Interest Rate Swaps straight-through processing as the catalyst for e-trading
- Money Markets where are we?
- BARX offerings



Fears vs. Reality

Fears: the traditional reasons for resistance to electronic trading:

- ▶ Fears over loss of jobs e.g., less coverage required, less traders needed to manage flow
- Margin compression as multidealer platforms only allow dealers to compete on price
- ▶ Too much transparency ("winners curse") leading to less desire to put capital at risk



Fears vs. Reality

Reality: what did we find?

- Jobs change
 - Traders → X-Box generation risk managers
 - Flow sales → structured sales
- Margins have reduced but exploding volumes have more than made up for it
- As markets become increasingly price-transparent, "size discovery" is becoming the valuable commodity
- New opportunities have emerged prompt and strong investment in technology can present dealers with a real first-mover advantage
- The breadth of market data generated is creating an appreciating asset, and generates the possibility of algorithmic trading
- Security and efficiency
 - Single, automated point of entry leads to near-zero error rates
 - STP reduces back office costs and operational risk
- Firms can now reach the "long tail" historically too expensive to cover, dealers with a good e-strategy can now cover these clients, and with enough of them they can be a sizeable revenue source

But you have to invest in technology and infrastructure properly – offering electronic execution without the right level of straight-through processing brings all the downsides but without the upside



US Treasury Markets – the impact of electronic execution on volume

- Average daily trading volume for UST increased from:
 - ► US\$226 billion in 1998 → <5% 'e'</p>
 - ► US\$556 billion in 2005 → >70% 'e'
- Whereas total UST outstanding only increased from:
 - US\$3.35 trillion in 1998
 - US\$4 trillion in 2005



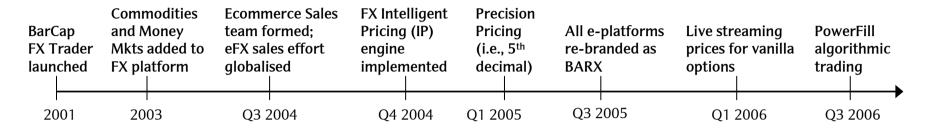
Beginning in the late 90s, technology was introduced that allowed traders to both view and execute prices on a screen in real time, which improved both pre- and post-trade transparency.



Source: Bond Market Association

Foreign Exchange – building a franchise using e-trading

BARX FX Build-Out



Euromoney eFX Rankings (and Overall FX Rankings)

2002 2003 2004 2005 2006

Provider	Rank
UBS	1 (2)
Goldman Sachs	2 (4)
Citigroup	3 (1)
Dresdner	4 (14)
Deutsche Bank	5 (3)
CSFB	6 (6)
JP Morgan Chase	7 (5)
Barclays Capital	8 (10)
SEB	9 (9)
HSBC	10 (12)

(1)
2 (3)
(15)
ł (2)
(5)
5 (9)
(16)
3 (6)
(7)
(4)

Provider	Rank
UBS	1 (1)
Deutsche Bank	2 (2)
Dresdner	3 (12)
Barclays Capital	4 (7)
Citigroup	5 (3)
JP Morgan Chase	6 (4)
Goldman Sachs	7 (6)
SEB	8 (N/A)
ABN AMRO	9 (11)
HSBC	10 (5)

Provider	Rank
Deutsche Bank	1 (1)
UBS	2 (2)
Barclays Capital	3 (5)
HSBC	4 (4)
Goldman Sachs	5 (8)
Dresdner	6 (13)
Citigroup	7 (3)
ABN AMRO	8 (9)
Merrill Lynch	9 (6)
SEB	10 (21)

Provider	Rank
Deutsche Bank	1 (1)
UBS	2 (2)
Barclays Capital	3 (4)
Citigroup	4 (3)
RBS	5 (5)
HSBC	6 (7)
Goldman Sachs	7 (6)
Dresdner	8 (13)
Bank of America	9 (8)
ABN Amro	10 (11)



Interest Rate Swaps – straight-through processing as the catalyst for e-trading

Execution

Bloomberg
TradeWeb
BARX Fixed Income

Bloomberg

- * Widespread distribution
- * Bloomberg Analytics
- * Multi-dealer and single dealer swaps pages
- * Single dealer order based trading

TradeWeb

- * Multi-dealer RFQ
- * Spread/Rate-based trading
- * Strong technology
- * High cost of participation
- * Well developed post trade (STP) functionality

BARX Fixed Income

- * Proprietary technology
- * Reduced dependency on 3rd party distributors
- * Main channel for innovative product development for Barclays

Only viable with very high levels of post trade automation and industry-driven STP

Confirmation

Swapswire

- * Eliminates expensive paper-based confirmation and reconciliation process
- * Reduces back-office resource overhead
- * Trade confirmation, trade capture, and broker confirmation on one screen/one action

Risk <u>Management</u>

LCH

Switchfix

London Clearing House

- * Ability to net multiple, bilaterally negotiated swap agreements in single, multi-lateral agreement
- * Lower counterparty and operational risk
- * Standardized processing

Switchfix & Fra-Cross

- * Reset matching service
- * Personalized and efficient method to manage unwanted risk
- * Fully integrated into the Swapswire system



Money Markets – where are we?

What is out there

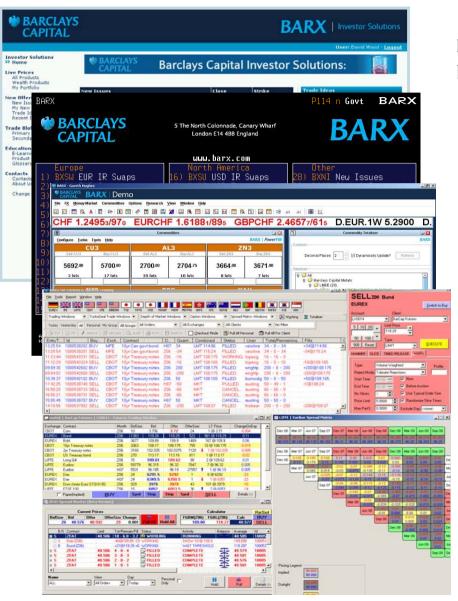
- E-Mid, 360T, FX-All offer multidealer B-2-C portals for execution of MM deposits
- Other third party platforms are considering MM deposits
- Bloomberg, MTS, Eurex and Brokertec offer electronic repo execution
- Barclays offers MM deposit trading on our proprietary multi-asset class BARX platform

How is it developing?

- Liquidity is currently very fragmented
- Client traction is patchy as the money market product is still very much viewed in the "secondary product" space, i.e. a tag-on for FX, fixed income etc. rather than being seen as a product in its own right. This is exacerbated by the lack of serious offering from multidealer platforms but presents opportunities for proprietary bank portals that offer multiple asset classes
- Efficiency improvements in the B-2-C repo market by platforms such as Bloomberg are starting to have an effect but it's still early days, and varying degrees of technology integration from participant dealers has a drag-effect on the uptake



BARX offerings



BARX offers access to Barclays Capital's liquidity through innovative proprietary platforms and via leading ECNs in the following asset classes:

- Fixed Income
- Foreign Exchange
- Futures & Options
- Commodities
- Equities
- Money Market deposits and Repo
- Structured Products

Our commitment to e-trading:

- Uptime over past 6 months **99.75**% (513 trading minutes lost out of 206,000)
- Over 100 IT personnel dedicated to development and technical support
- Over 120 E-Sales and Client Services personnel dedicated to marketing, client onboarding and business support
- BARX is a single global brand for all our e-trading services













Questions?



Top 2

in Gilts, US Treasuries, TIPS, Agency Discount Notes, European Government Bonds

January 2007



No 1 Market Maker on:

MTS Italy MTS Denmark MTS Belgium

January 2007



No 1

Interest Rate Swaps

December 2006



Top 2

Single dealer market
US Treasuries and European
Government Bonds

December 2006



No 1

in EUR & USD Eurobonds

January 2007

