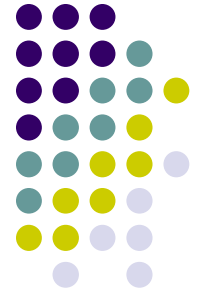


# The FIX Protocol: Delivering Savings to the Bottom Line



Stuart Adams, FIX Protocol EMEA Regional Director





# Agenda

- The FIX Protocol: A Brief Introduction
- Why do Standards Matter?
- How does the FIX Protocol Impact the World's Capital Market's?
- FIX Protocol Limited: Working for the Industry

# The FIX Protocol: A Brief Introduction

**FIX**PROTOCOL  
INDUSTRY-DRIVEN MESSAGING STANDARD™





# The FIX Protocol: A Brief Introduction

- For many market participants the FIX Protocol is the enabling technology for electronic trading
- FIX is an open messaging standard that was developed in 1992 by Fidelity Investments & Salomon Brothers.
- FIX was originally created to facilitate a bi-lateral communications framework for Equities trading, but it has significantly expanded since this time in response to evolving industry needs
- FIX is now the predominant messaging standard for pre-trade and trade communication globally within the Equity markets
- FIX functionality has expanded horizontally across the asset classes to support the Derivatives, Fixed Income and Foreign Exchange markets
- FIX functionality is now rapidly moving into the post-trade space, supporting Straight -Through- Processing (STP) from Indication-of-Interest (IOI) to Allocations and Confirmations.
- Functionality has steadily expanded through different version releases of the protocol



# FIX Support for Equities and Derivatives

Message Support	FIX Version						
	4.0	4.1	4.2	4.3	4.4	5.0	5.0 SP1
<b>Equities</b>							
Basic Order Flow	Good Support	Good Support	Good Support	Good Support	Good Support	Good Support	Good Support
IOI's and Advertisements	Good Support	Good Support	Good Support	Good Support	Good Support	Good Support	Good Support
Quotes	Good Support	Good Support	Good Support	Good Support	Good Support	Good Support	Good Support
Market Data	No Support	No Support	Good Support	Good Support	Good Support	Good Support	Good Support
Allocations	Some Support	Some Support	Good Support	Good Support	Good Support	Good Support	Good Support
Confirmations/Affirmations	No Support	No Support	No Support	No Support	Good Support	Good Support	Good Support
Trade Reporting	No Support	No Support	No Support	Some Support	Good Support	Good Support	Good Support
Program Trading	Some Support	Some Support	Good Support	Good Support	Good Support	Good Support	Good Support
Algorithmic Trading	Some Support	Some Support	Some Support	Some Support	Good Support	Good Support	Good Support
<b>Futures and Options</b>							
Basic Order Flow	No Support	Some Support	Good Support	Good Support	Good Support	Good Support	Good Support
Multi-leg Order Flow	No Support	No Support	Some Support	Good Support	Good Support	Good Support	Good Support
IOI's and Advertisements	Some Support	Good Support	Good Support	Good Support	Good Support	Good Support	Good Support
Quotes	No Support	Some Support	Good Support	Good Support	Good Support	Good Support	Good Support
Market Data	No Support	No Support	Good Support	Good Support	Good Support	Good Support	Good Support
Allocations	No Support	Some Support	Good Support	Good Support	Good Support	Good Support	Good Support
Confirmations/Affirmations	No Support	No Support	No Support	No Support	Good Support	Good Support	Good Support

<b>Legend</b>	 No Support	 Some Support	 Good Support	 Not Applicable
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NOTE: levels of support are based on fields incorporated into the core protocol at a given stage. This rating does not include custom fields, which can be added to earlier versions of the protocol to achieve given functionality.



# FIX Support for Fixed Income and Foreign Exchange

Message Support	FIX Version						
	4.0	4.1	4.2	4.3	4.4	5.0	5.0 SP1
<b>Fixed Income</b>							
Basic Order Flow	Red	Red	Yellow	Green	Green	Green	Green
Multi-Leg Order Flow (Repos, Swaps, Switches, Rolls)	Red	Red	Red	Yellow	Green	Green	Green
IOI's (Offerings)	Yellow	Yellow	Yellow	Green	Green	Green	Green
Quotes	Red	Yellow	Yellow	Green	Green	Green	Green
Allocations	Red	Yellow	Yellow	Green	Green	Green	Green
Confirmations/Affirmations	Red	Red	Red	Red	Green	Green	Green
Trade Reporting	Red	Red	Red	Yellow	Green	Green	Green
Collateral Management	Red	Red	Red	Red	Yellow	Yellow	Yellow
<b>Foreign Exchange</b>							
Basic Order Flow (Spots, Forwards)	Red	Yellow	Green	Green	Green	Green	Green
Basic Order Flow (Swaps)	Red	Yellow	Yellow	Yellow	Yellow	Green	Green
Quotes (spots, outright forwards, FX swaps)	Red	Yellow	Green	Green	Green	Green	Green
Market Data (executable streaming prices)	Red	Yellow	Yellow	Yellow	Yellow	Green	Green
Allocations	Red	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow

<b>Legend</b>	Red	No Support	Yellow	Some Support	Green	Good Support	Blue	Not Applicable
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NOTE: levels of support are based on fields incorporated into the core protocol at a given stage. This rating does not include custom fields, which can be added to earlier versions of the protocol to achieve given functionality.



# FIX Markets and General Support

Message Support	FIX Version						
	4.0	4.1	4.2	4.3	4.4	5.0	5.0 SP1
<b>Exchanges and Markets</b>							
Market Data (Including Price Dissemination)	Red	Red	Green	Green	Green	Green	Green
Reference Data (Instruments and Products)	Red	Red	Yellow	Yellow	Green	Green	Green
Parties Reference	Red	Red	Red	Red	Red	Red	Red
Market Structure	Red	Red	Red	Red	Red	Red	Green
Quote Driven Markets	Red	Red	Green	Green	Green	Green	Green
Order Driven Markets	Green	Green	Green	Green	Green	Green	Green
<b>General</b>							
News	Green	Green	Green	Green	Green	Green	Green
Email	Green	Green	Green	Green	Green	Green	Green
Transport Independence Framework	Blue	Blue	Blue	Blue	Blue	Blue	Blue

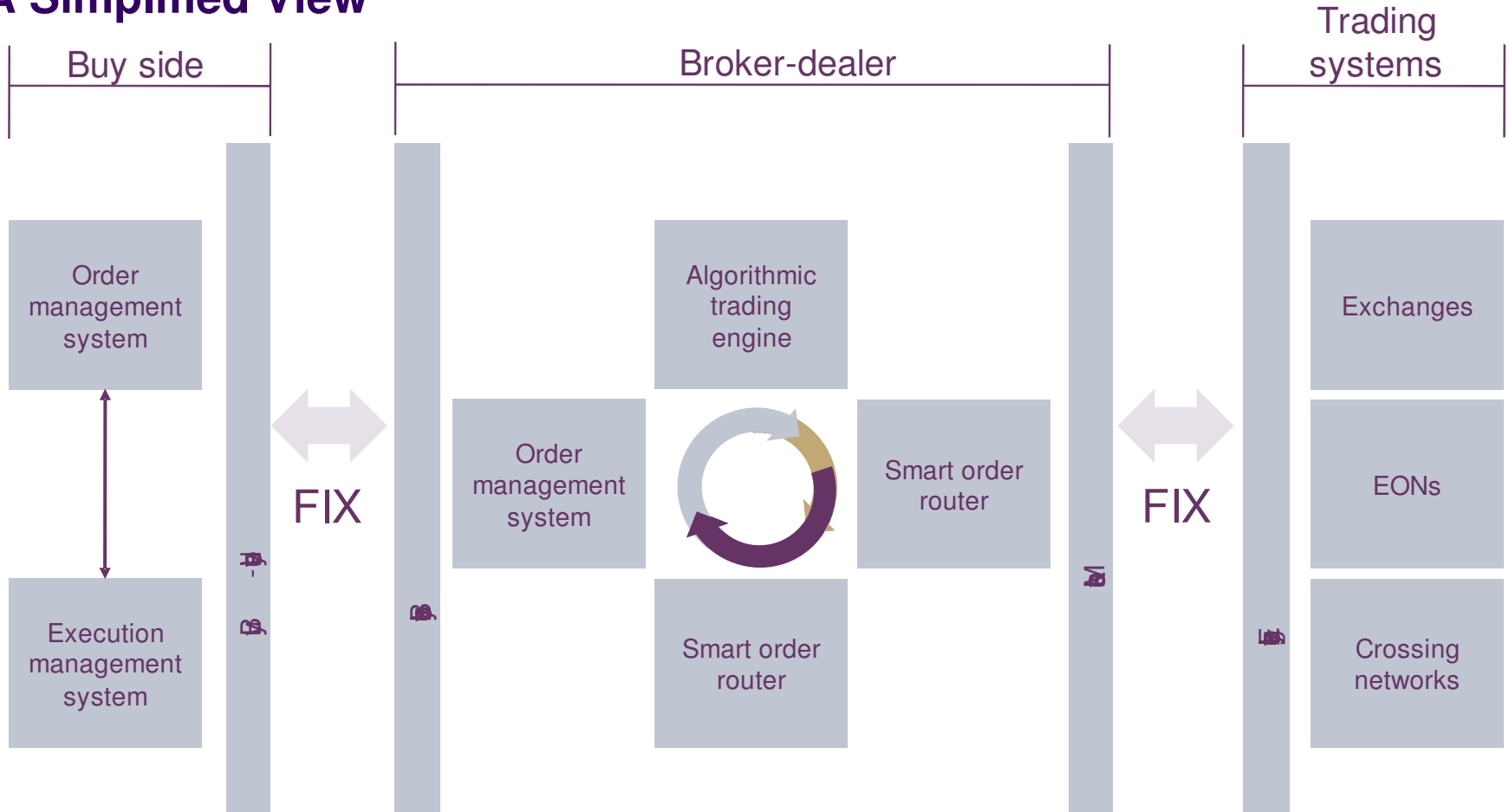
<b>Legend</b>		No Support		Some Support		Good Support		Not Applicable
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NOTE: levels of support are based on fields incorporated into the core protocol at a given stage. This rating does not include custom fields, which can be added to earlier versions of the protocol to achieve given functionality.



# FIX Usage Throughout the Investment Lifecycle

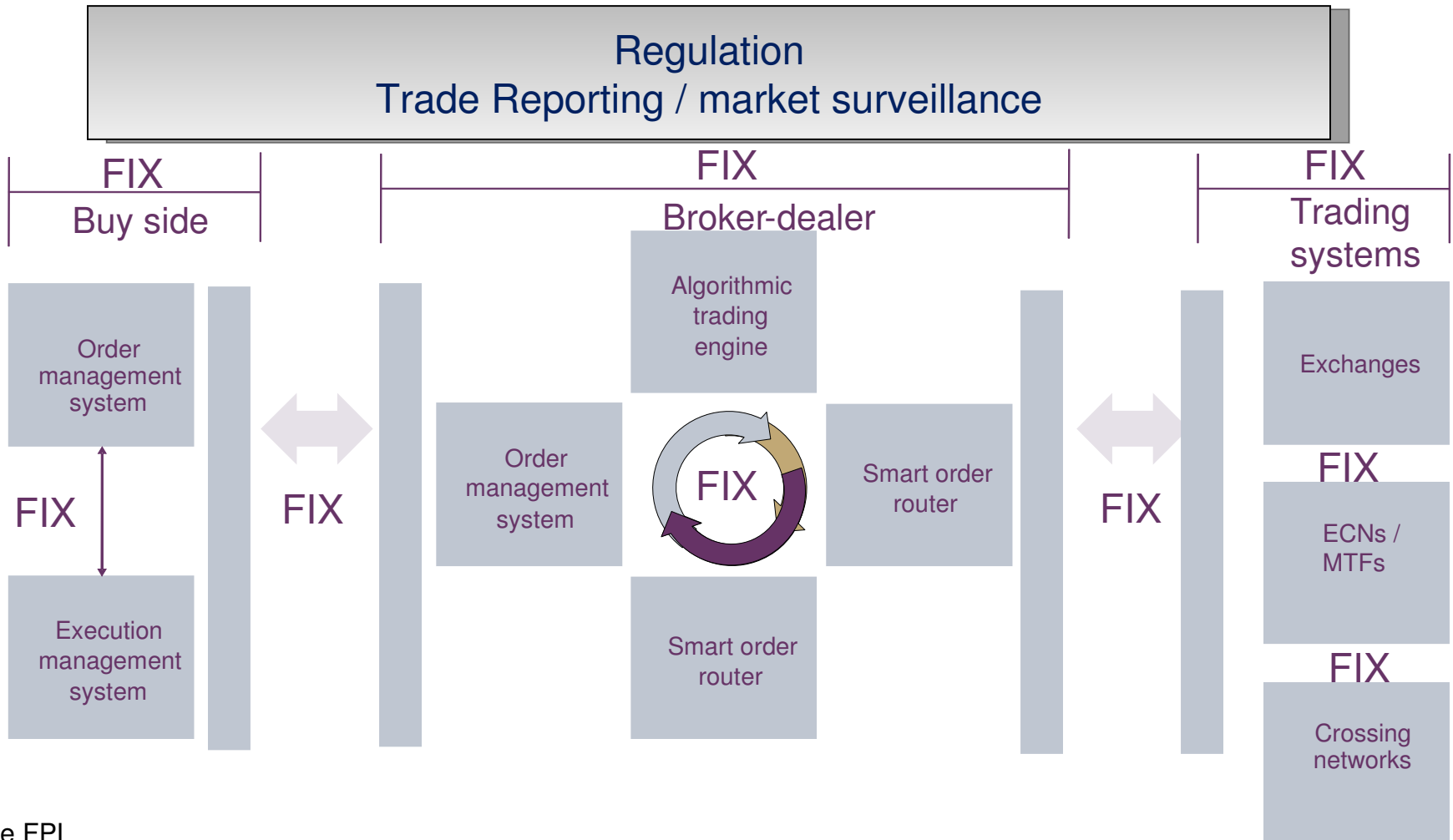
## A Simplified View





# Today's Investment Lifecycle

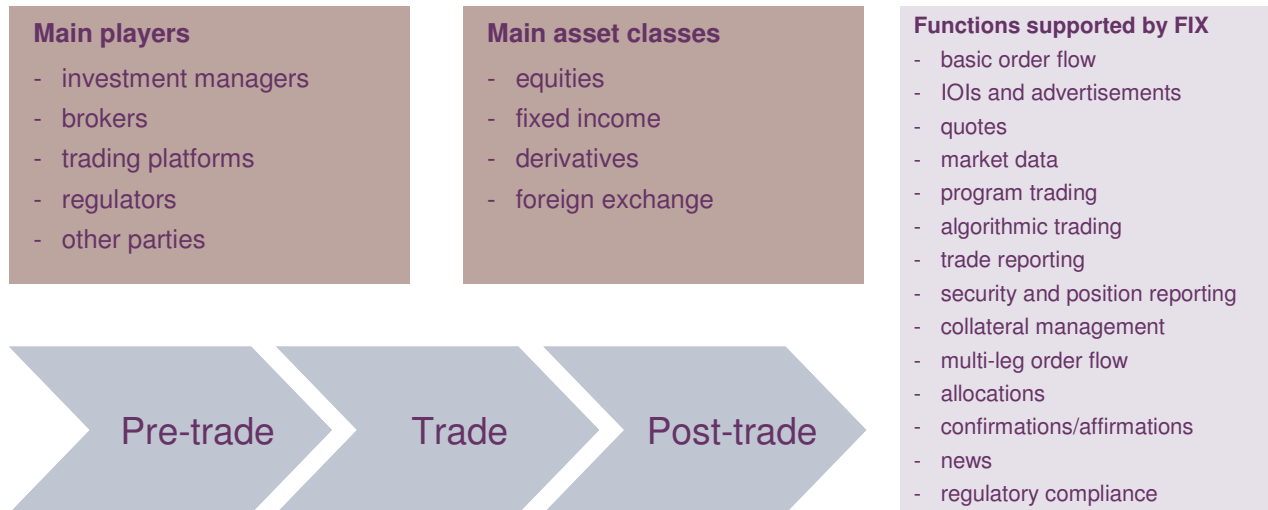
## FIX Adoption Increases Across the Board and Extends Into the Regulatory Environment





## In Summary...

...the activities and market players impacted by the FIX Protocol are far reaching:



# Why Do Standards Matter?

**FIX**PROTOCOL  
INDUSTRY-DRIVEN MESSAGING STANDARD™





## Why Do Standards Matter?

- Standards generate efficiencies and competitiveness in the sectors that adopt them.
- Prime examples of successfully adopted standards include the Internet Protocol (IP), Global System for Mobile Communications (GSM) and Hyperlink (HTML)
- Standards generate network effects which exist where the more parties that adopt a particular way of doing something, the greater immediate benefit is achieved to new parties who subsequently adopt the same way of doing it, as well as increasing the value to those who have already adopted it.
- Network effects can generate:
  - Greater economies of scale as costs reduce for example, as mobile phones and the GSM standard have grown in popularity, the cost of purchasing a handset has reduced significantly
  - The encouragement of competition; If a standard electronic interface exists between different suppliers, the technical amendments required to move supplier are significantly reduced
  - Greater operational efficiencies as new participants can benefit from the lessons learnt by earlier adopters

**Yes – Standards deliver efficiencies and savings**



# The Benefits of Standards

A summary of the types of benefits that can be achieved through the implementation of a standard and its network effects are demonstrated below:

## The benefits

### Economies of scale

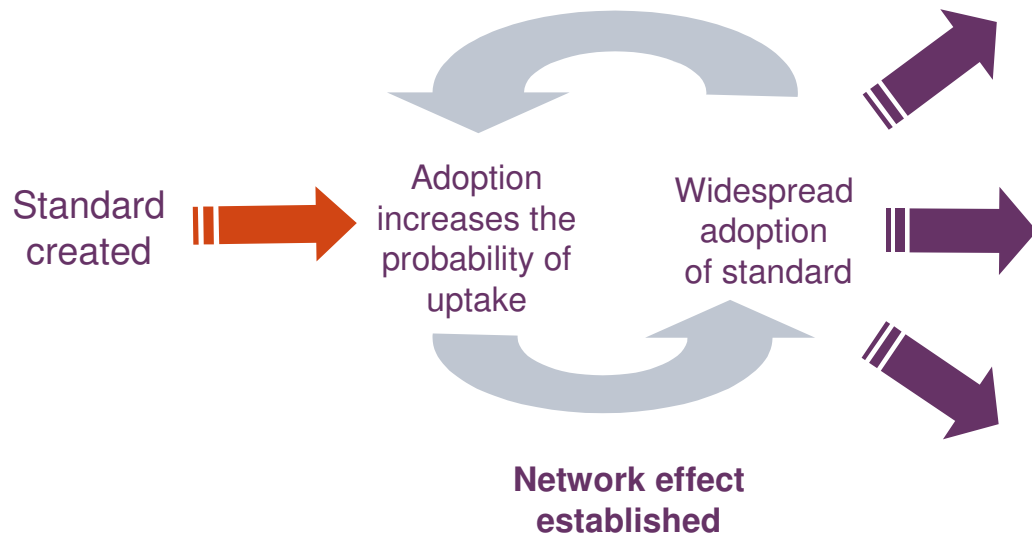
Provides a single framework around which products can be developed, leading to reduced costs for firms

### Expanded trading possibilities

Increases the number of parties that can interact and hence increases trading possibilities

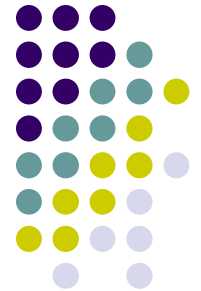
### Indirect network effects

Increases resource flow to, and competition in, the markets for standard-related products



# How the FIX Protocol Impacts the World's Capital Markets

**FIX**PROTOCOL  
INDUSTRY-DRIVEN MESSAGING STANDARD™





# What Benefits Can be Achieved by Adoption of the FIX Protocol?

- The FIX Protocol plays a pivotal role as a global messaging standard for trading and post-trade communications amongst brokers, investment managers, and exchanges / MTFs and ATSS.
- In global capital markets there are many spoken languages, the FIX Protocol provides one global language for messaging which reduces overall complexity and reduces potential for mistranslation.
- The FIX Protocol is continually enhanced to meet evolving industry requirements to provide greater support throughout the investment lifecycle.
- *It's all about lowering costs through increased efficiency for the ultimate benefit of the end investor!*



# The Benefits FIX Delivers to Market Participants

## Increased connectivity

Reduced costs and complexity of connectivity allow brokers, investment management firms, and trading platforms to achieve more optimal levels of domestic and international connectivity

- investment managers can increase the number of links with domestic and foreign brokers
- brokers can increase the number of direct links to trading platforms, including smaller platforms and those located outside domestic markets
- incumbent exchanges can increase the number of members that are connected directly, while new entrants can more easily reach a relatively high level of trading members

**FIX provides a platform on which competition and innovation in trade and post-trade activities can thrive, affecting interaction among various market participants and making markets more dynamic**



## More choice and increased competition

- more economic choice of providers, and improved access to wider range of services
- increased level of competition between brokers for provision of execution services
- increased actual and potential competition between trading platforms



## Higher level of innovation

- increased emphasis on product innovation in competition among brokers and trading platforms
- increased level of innovation—eg, new execution strategies, new technologies—particularly among brokers and trading platforms
- increased ease and speed of dissemination of new products



## Benefits for the End-Investor

Greater adoption of the FIX Protocol could deliver the following benefits to the end-investor:

### A reduction in explicit trading costs

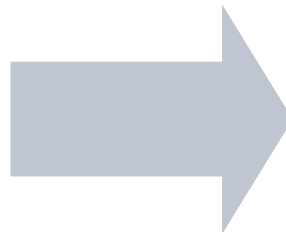
Investments in equities and other financial assets incur direct transaction costs. These costs are relatively transparent, and, from the end-investor's point of view, usually materialise in the form of a brokerage commission, which includes other costs, such as trading platform fees.

### A reduction in implicit costs

Although often not directly visible to end-investors, implicit costs, such as the bid–ask spread, are effectively passed on in the form of a worse execution price, i.e. worse than might have been achieved if the bid–ask spreads were tighter

#### Effects of FIX on markets

- lower trading costs
- higher liquidity
- wider scope of services
- more investment opportunities



#### Higher net returns and more optimal asset allocation of end-investors

retail investors	hedge funds
pension funds	other investors
mutual funds	



# The Size of the Markets Impacted by the FIX Protocol

The markets impacted by the FIX Protocol include:

- Many different equity markets globally including the USA, European, Asia Pacific and various emerging markets. In the USA, the equity market achieved an annual turnover of \$97 trillion in 2007
- The global foreign exchange markets with estimated monthly value in April 2007 of \$3.2 trillion<sup>1</sup>
- The exchange-traded derivatives markets with notional amounts in the USA, Europe and Asia-Pacific in 2007 of \$80.6 trillion<sup>2</sup>
- The global OTC derivatives markets with notional amounts in 2007 of \$516 trillion<sup>3</sup>

[1] BIS (2007), 'Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity in April 2007'.

[2] BIS (2007), 'BIS Quarterly Review'.

[3] BIS (2007), 'Triennial and semi-annual surveys on positions in global over-the-counter (OTC) derivatives markets at end-June 2007'.



## Limits to Achieving Maximum Benefit

The ability for firms to achieve maximum benefit from the adoption of FIX depends upon the following factors:

### **The level of uptake amongst firms**

For example, competition will be strongest in markets where a large proportion of trading platforms and brokers offer FIX capabilities, enabling reduced switching costs

### **The degree of “Full” standardisation**

Greater standardisation within the market enables firms to connect to new partners with limited customisation, therefore ensuring that cost savings are maximised



## Summary

The widespread adoption of FIX is:

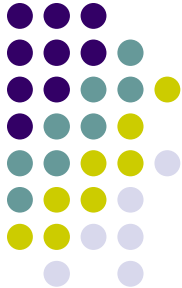
- Making markets more dynamic
- Reducing costs to market participants and the prices charged (commissions/ fees) by firms in the trading value chain
- Improving the overall efficiency of capital markets
- Lowering connectivity costs
- Increasing competition which is reducing brokerage execution commissions and trading platform fees
- Increasing the scope and quality of services provided, therefore impacting the level of activity, and liquidity in secondary markets, reducing the indirect trading costs facing investors
- Making cross-border implementation a more simple and economical option than previously.

All of the above ultimately lowers the overall cost of investing and increases the scope of services available to the end-investor!

# FIX Protocol Limited: Working for the Industry



Daniella Baker, FIX Protocol Marketing Manager





## FIX Protocol Limited

The FIX Protocol is owned and maintained by FIX Protocol Limited (FPL), a non-profit organisation with more than **200 members** globally. Employees from these member firms contribute time and effort to ensure the protocol is continuously developed to meet evolving market requirements

*‘To improve the global trading process by defining, managing, and promoting an open protocol for real-time, electronic communication between industry participants, while complementing industry standards’.*

*FPL Mission Statement*



# FPL Premier Member Firms

**Bank of America**

**Fidessa**

**ITG**  
INVESTMENT  
TECHNOLOGY  
GROUP

**ORC**

**BARCLAYS  
CAPITAL**

**globalink**

**JPMorgan**

**THOMSON REUTERS**

**BT**

**Goldman  
Sachs**

**Merrill Lynch**

**Tradeweb**

**citi**

**HSBC**

~~JP Morgan Chase & Co.~~  
**Morgan Stanley**

**TNS**

Transaction Network Services

**CME Group**  
A CME/Chicago Board of Trade Company

**IBM**

**NOMURA**

**UBS** Investment  
Bank

**CREDIT SUISSE**

**ICAP**

**NYFIX**

**Fidelity**  
INVESTMENTS

**INSTINET**

**NYSE Euronext**

**Ullink**



# FPL's Achievements: The Past 12 Months in Focus

## Technical Developments

- April 2009, FPL released FIX 5.0 Service Pack 2 which was developed closely with trading venues from across the globe to provide increased support for this market sector.
- Feb 2009, FPL released FIX Adapted for sTreaming (FAST<sup>sm</sup>) Protocol 1.2 offering incremental improvements to previous releases and enhancements that enable greater compatibility for the use of FIX with FAST
- Nov 2008, FPL appointed Ryan Pierce as the FPL Technical Director to work closely with new exchanges / MTF's globally to provide support and encourage more standardised FIX implementations
- June 2008, FIXatdl Version 1.1 Release Candidate 1.1 was released



## Continued

### Reducing Cost for the Industry

- May 2008, FPL in collaboration with other standards bodies developed the 'Investment Roadmap'. The roadmap provides market participants with consistent and clear direction to messaging standards usage across the major asset classes and throughout the trade-lifecycle, reducing duplication and generating cost savings

### Risk Management

- Sept 2008, FPL created a working group to help counterparties tighten order validation processes and controls and focus on system and client integration risks. There is increasing pressure from auditors and risk managers to gain confirmation that a counterparties' use of the protocol is assessed and validated. In 2009, this group will further focus on the validation of implementations.

### Emerging Markets

- Throughout 2008 FPL worked closely with emerging markets to encourage increased adoption of the protocol and welcomed new members from Nigeria, Russia, Turkey and Pakistan. FPL also created a Latin American subcommittee to assist in providing FIX education to the region and will continue to work closely with this group in 2009



## Continued

### Promotion of the Standard

- March 2009, FPL appointed Stuart Adams as EMEA Regional Director and Edward Mangles as the Asian Regional Director. Working closely with trading venues and regulators globally, the regional directors will ensure that the benefits of FIX and electronic trading are effectively communicated to encourage greater adoption and usage throughout the trade lifecycle.
- During 2008 FPL worked with regulators globally to increase awareness of the benefits of FIX, this included work with the SEC (USA), Investment Industry Regulatory Organisation of Canada, SEBI (India), Bursa Malaysia, ASIC (Australia) and the FSA in Japan
- Since June 2008 FPL has participated in or organised over 20 events across the globe to help promote adoption of the protocol and will host further events throughout 2009 and into 2010



## Your Firm Should Join FPL If:

### **Using the FIX Protocol is beneficial to your business**

The FIX Protocol is constantly enhanced to ensure it remains relevant and can support growing industry needs. FPL is dependant upon membership resources and funds to support the on-going development required to make this possible.

### **Your firm would like to influence the future direction of the protocol**

member firm employees can contribute to the many committees and working groups that lead the future development and promotion of the FIX Protocol.

### **Your firm would like to benefit from greater networking opportunities**

through participation in committees and working groups, or attending the many events FPL hosts in each region globally, FPL members frequently interact with industry



## Continued

### **Enhancing your FIX knowledge base would create more opportunities for your firm**

By participating in FPL activities and gaining access to early information about merging initiatives, member firms can significantly increase their understanding of the protocol, facilitating quicker resolution of FIX-related technical, implementation and business issues.

### **Your Firm Would like to Benefit from Brand-Building Opportunities**

FIX is a globally renowned brand, and FPL member firms benefit from the ability to use the FPL membership logo on all marketing materials, clearly demonstrating their support for this valuable initiative to their future client base.



Would you like to find out more?

Please visit the FPL website

[www.fixprotocol.org](http://www.fixprotocol.org)