

Standardization and the FIX Protocol: Establishing Standard Market Sources

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Agenda

- Why Are Standards Important?
- What is the FIX Protocol?
- The Importance of Standards in Financial Messaging
- What Benefits Can be Achieved by Adoption of the FIX Protocol?
- In Summary



FPL Premier Member Firms



Why Are Standards Important?



What did Standards do for the Shipping Industry?



ISO Standards Streamlined the Shipping Industry

Break-Bulk



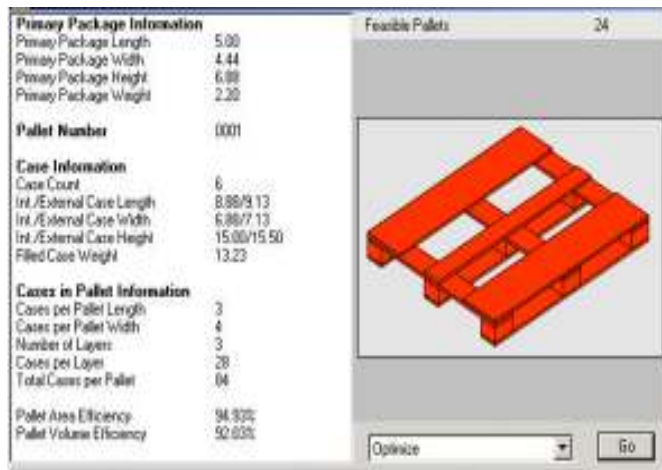
to

Containerisation

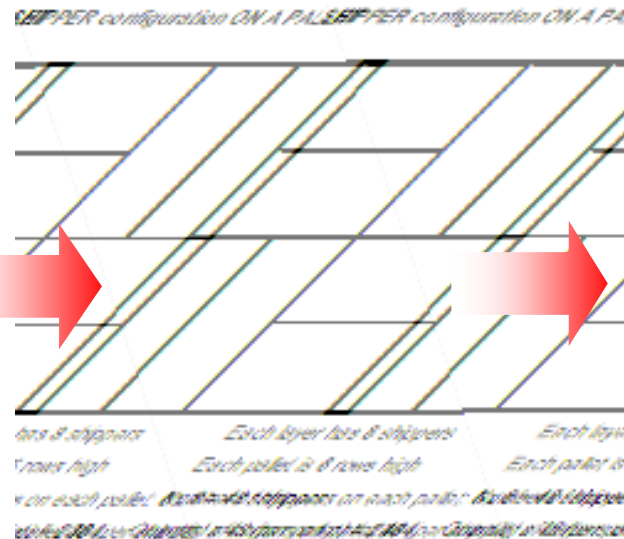


ISO Standards Reduced Shipping Industry Costs

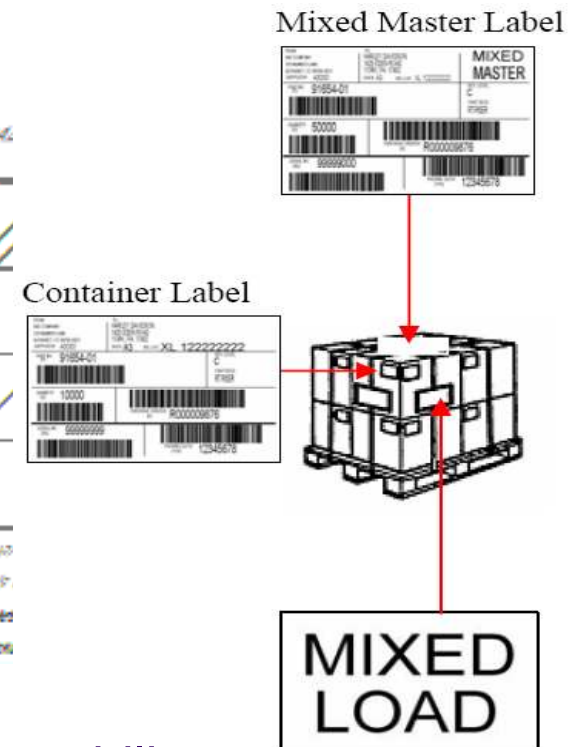
ISO Pallet sizes



ISO Carton sizes

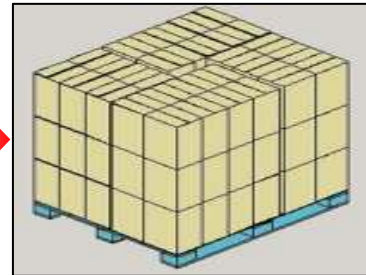
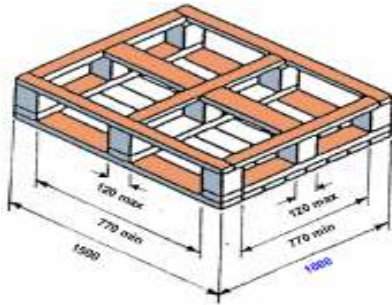


ISO Container sizes



Standards enabled handling efficiencies, denser packing ability, integration between importers and exporters and lower overall costs for handling goods.

ISO Standards Enable Global Inter-Operability



The FIX protocol is an ISO Compliant Standard

Multiple standards exist within the financial messaging space, and to avoid confusion and potential replication in usage, as of May 2008:

- The financial messaging Investment roadmap provides market participants with a consistent and clear direction to messaging standards usage by visually mapping the industry standard protocols (FIX, ISO, and FpML) to the appropriate business processes across the major asset classes

FPL is in collaboration with:

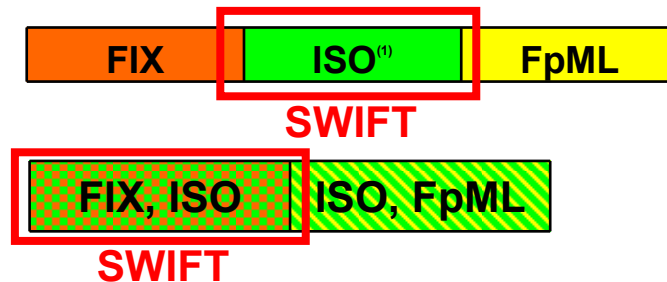
- ISDA (International Swaps and Derivatives Association),
- SWIFT (Society for Worldwide Inter-Bank Financial Telecommunication) &
- ISITC (International Securities Association for Institutional Trade Communication), developed a financial messaging Investment Roadmap.

This collaboration lays the groundwork for moving towards one common financial messaging standard, ISO 20022, while maintaining the existing independent syntaxes.



Investment Roadmap – FIX, ISO, FpML syntax

	Cash Equities & Fixed Income	Forex ⁽²⁾	Listed Derivatives	OTC Derivatives ⁽²⁾	Funds
Pre-Trade	Orange	Orange	Orange	Yellow	Green
Trade	Orange	Orange	Orange	Yellow	Green
Post-Trade	Checkered	Checkered	Checkered	Yellow	Green
Clearing / Pre-Settlement	Green	Green	Checkered	Yellow	Green
Asset Servicing	Green	N/A	Green	Yellow	Green
Settlement	Green	Green	Green	Green	Green
Pricing / Risk / Reporting	Diagonal Green	Diagonal Green	Diagonal Green	Diagonal Green	Diagonal Green

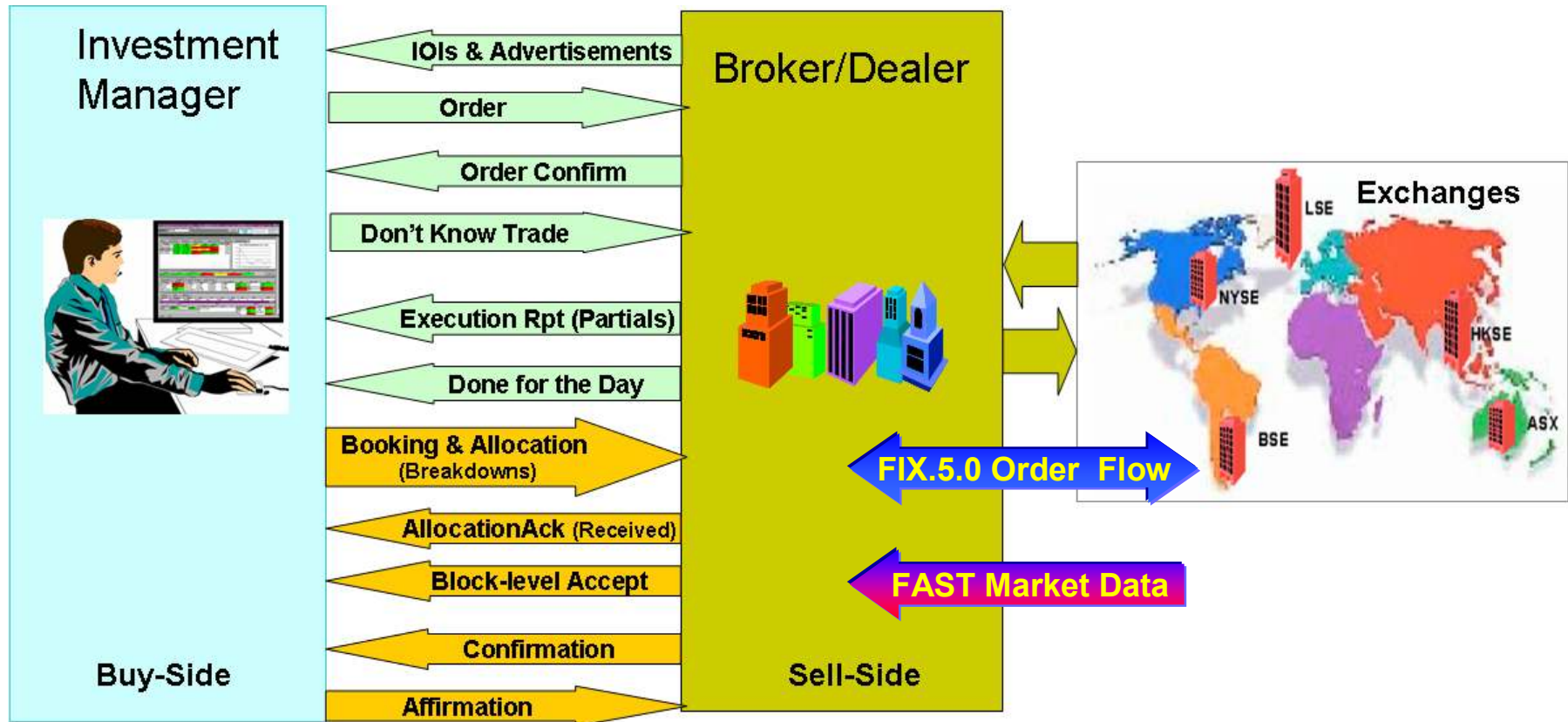


(1) Represents ISO 20022, ISO 15022 and SWIFT MT messages

(2) See OTC Derivatives breakout for details:

- Syndicated Loans, Privately Negotiated FX, and OTC Equity, Interest Rate, Credit, and Commodity Derivatives
- FpML payload may be used in combination with FIX business processes in dealer to buy side communication

The FIX protocol is an Industry Standard

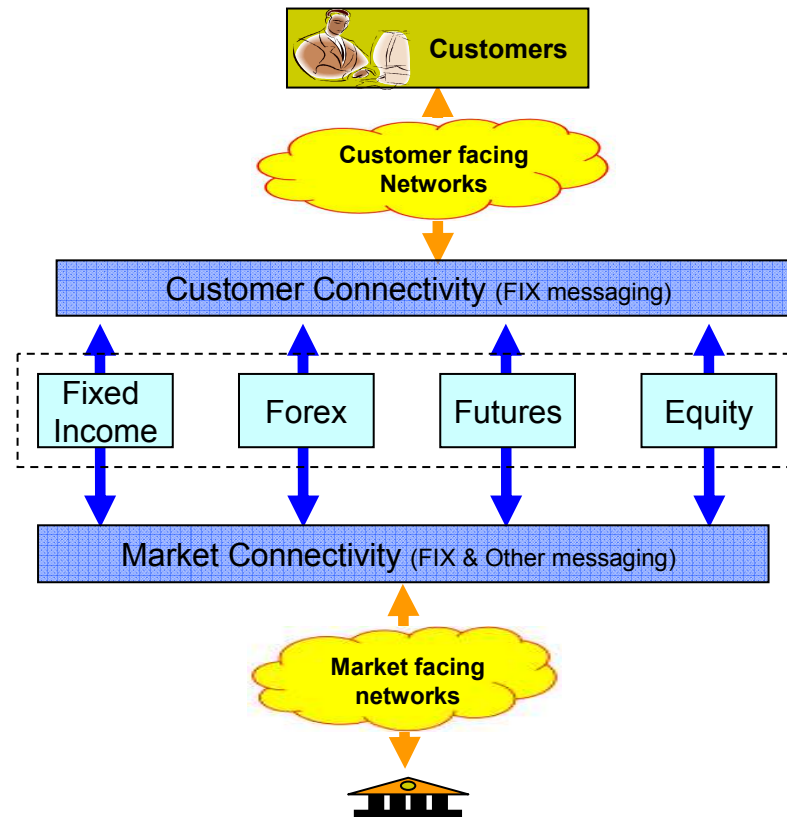


What is the FIX Protocol?



What is the FIX Protocol?

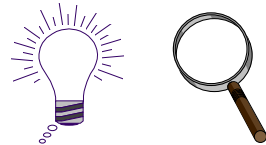
- The FIX Protocol is a **free and open messaging standard** that was developed in 1992 by Fidelity Investments & Salomon Brothers to facilitate a bi-lateral communications framework for Equities trading.
- Since its conception, its usage has significantly expanded in response to evolving industry needs and other asset classes.



FIX Order Flow

Investment Manager

Broker/Dealer



IOIs & Advertisements



Order



Order Confirm



Don't Know Trade



Execution Rpt (Partial Fill)
Execution Rpt (Partial Fill)
Execution Rpt (Partial Fill)



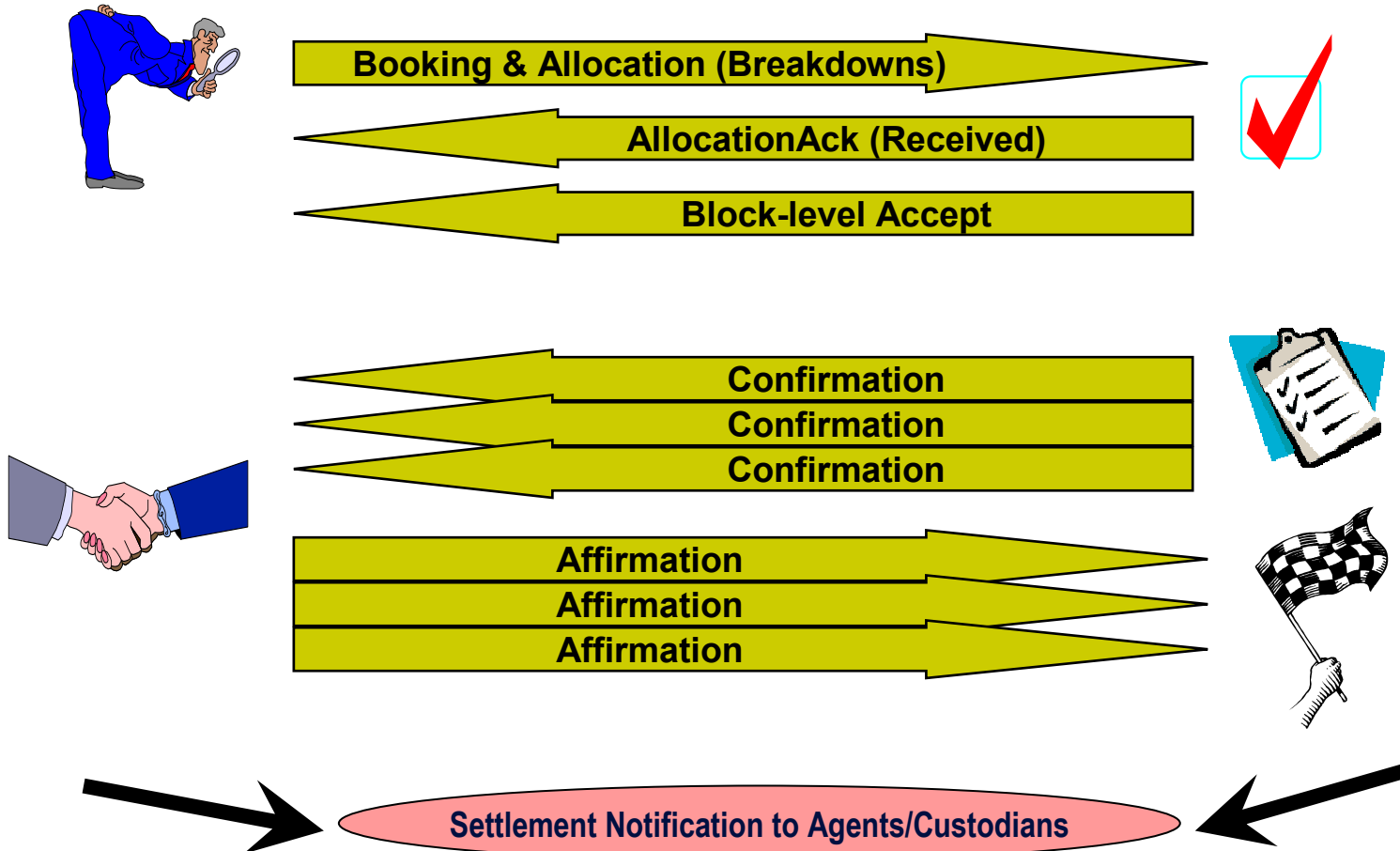
Done for the Day



FIX Post-trade Flow




Investment Manager

Broker/Dealer



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
Equities							
Basic Order Flow	Good	Good	Good	Good	Good	Good	Good
IOI's and Advertisements	Good	Good	Good	Good	Good	Good	Good
Quotes	Good	Good	Good	Good	Good	Good	Good
Market Data	No	No	Good	Good	Good	Good	Good
Allocations	Some	Some	Good	Good	Good	Good	Good
Confirmations/Affirmations	No	No	No	No	Good	Good	Good
Trade Reporting	No	No	No	Some	Good	Good	Good
Program Trading	Some	Some	Good	Good	Good	Good	Good
Algorithmic Trading	Some	Some	Some	Some	Good	Good	Good
Futures and Options							
Basic Order Flow	No	Some	Good	Good	Good	Good	Good
Multi-leg Order Flow	No	No	Some	Good	Good	Good	Good
IOI's and Advertisements	Some	Good	Good	Good	Good	Good	Good
Quotes	No	Some	Good	Good	Good	Good	Good
Market Data	No	No	Good	Good	Good	Good	Good
Allocations	No	Some	Good	Good	Good	Good	Good
Confirmations/Affirmations	No	No	No	No	Good	Good	Good
Trade Reporting	No	No	No	Some	Good	Good	Good
Security & Position Reporting	No	No	No	No	Good	Good	Good
Collateral Management (Listed Derivatives)	No	No	No	No	Good	Good	Good




Legend	 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
Fixed Income							
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
Foreign Exchange							
Basic Order Flow (Spots, Forwards)	Red	Yellow	Green	Green	Green	Green	Green
Basic Order Flow (Swaps)	Red	Yellow	Yellow	Yellow	Green	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
Confirmations/Affirmations	Red	Red	Red	Red	Yellow	Yellow	Yellow
Trade Reporting	Red	Red	Red	Yellow	Yellow	Yellow	Yellow

Legend		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 Markets and General Support

Message Support	FIX Version						
	4.0	4.1	4.2	4.3	4.4	5.0	5.0 SP1
Exchanges and Markets							
Market Data (Including Price Dissemination)	Red	Red	Green	Green	Green	Green	Green
Reference Data (Instruments and Products)	Red	Red	Yellow	Yellow	Green	Green	Green
Market Structure	Red	Red	Red	Red	Red	Red	Green
Quote Driven Markets	Red	Red	Yellow	Yellow	Green	Green	Green
Order Driven Markets	Yellow	Yellow	Yellow	Yellow	Green	Green	Green
General							
News	Green	Green	Green	Green	Green	Green	Green
Email	Green	Green	Green	Green	Green	Green	Green
Transport Independence Framework	Blue	Blue	Blue	Blue	Blue	Green	Green
Regulatory Compliance (MiFID, Reg NMS, Reg SHO, OATS, ACT, NYSE 80A)	Blue	Blue	Blue	Blue	Blue	Green	Green

Legend	 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.

Who currently uses FIX?

Today, it is estimated that there are in excess of 10,000 organisations using the FIX protocol.

- Virtually every major stock exchange and investment bank
- The world's largest mutual funds and money managers
- Thousands of smaller investment firms
- Leading futures exchanges offer FIX connections
- Major bond dealers either have or are implementing FIX connections

Less than 5% of these organisations actually contribute towards the advancement and sponsorship of the FIX protocol.

Many use FIX without realizing it, Bloomberg terminals for instance.

Does your Organisation use FIX?

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

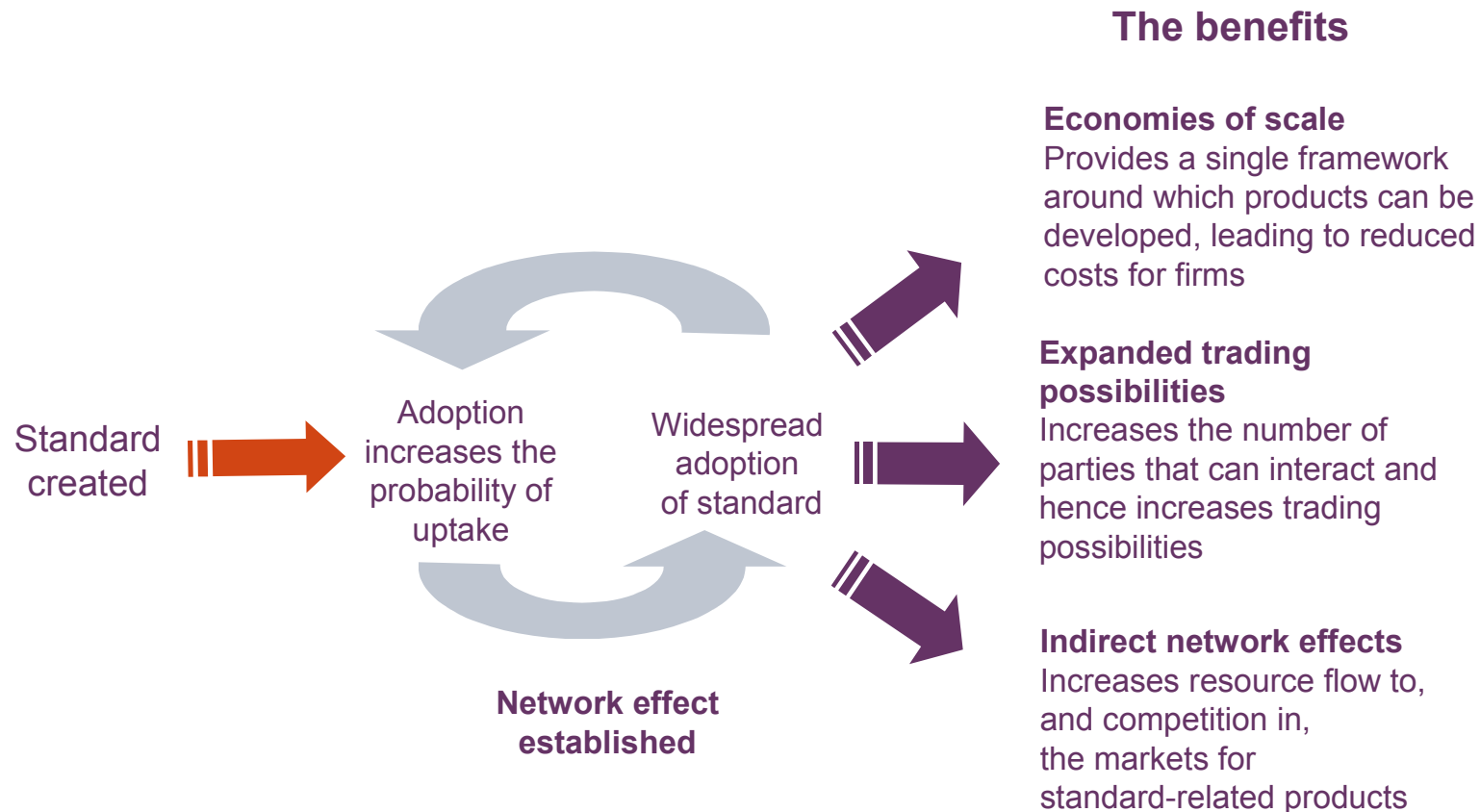
Benefits of Implementing the FIX Protocol

The key advantages that can be achieved include:

- A reduction in the cost and complexity of integrating various internal processes
- A reduction in the cost and complexity of linking to new trading partners
- A reduction in inputs (e.g. software and hardware) required to achieve automation, as a result of economies of scale or exploiting possibilities of infrastructure sharing
- An increase in the quality of communication between participants, as potential errors generated by manually re-keying information or those generated by using a translation engine are reduced

The Benefits of Standards

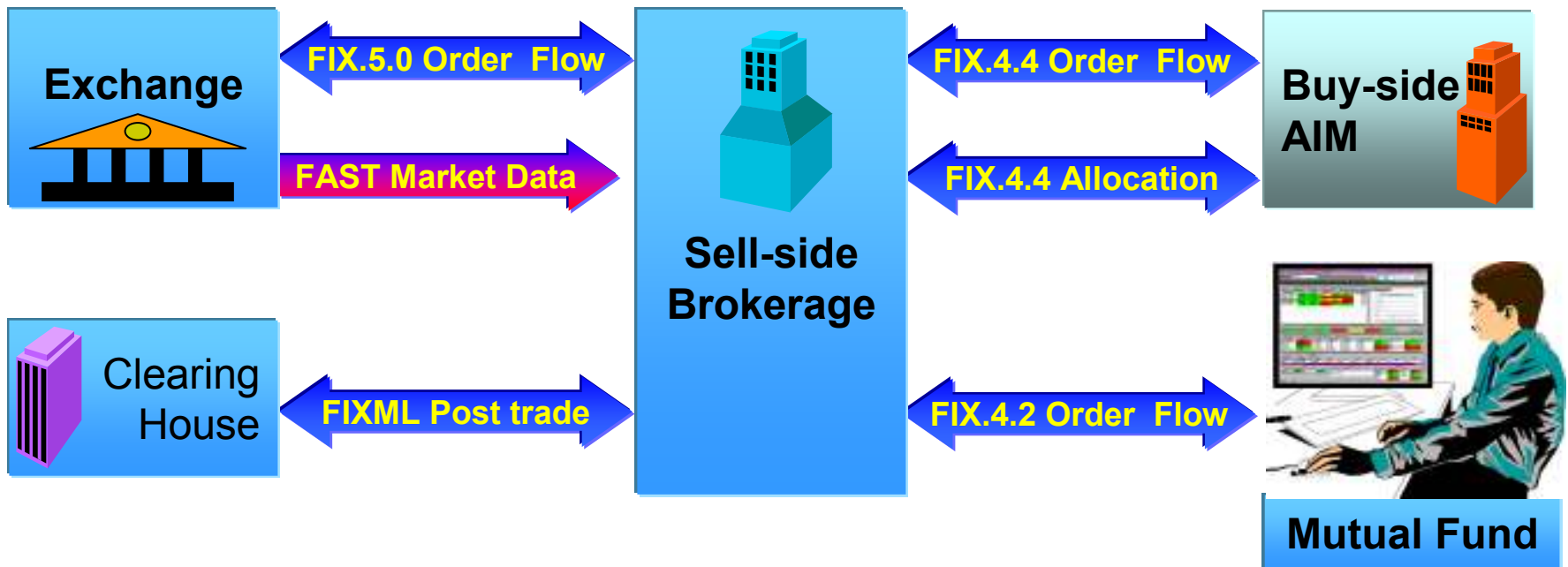
A summary of the types of benefits that can be achieved through the implementation of a standard and its network effects are demonstrated below:



Source: Oxera

Interoperability between Markets

Adoption of the FIX protocol will result in higher levels of interoperability for the financial services community and will save firms the cost of maintaining multiple syntaxes within the same area of the transaction lifecycle.



Interoperability between Asset Classes

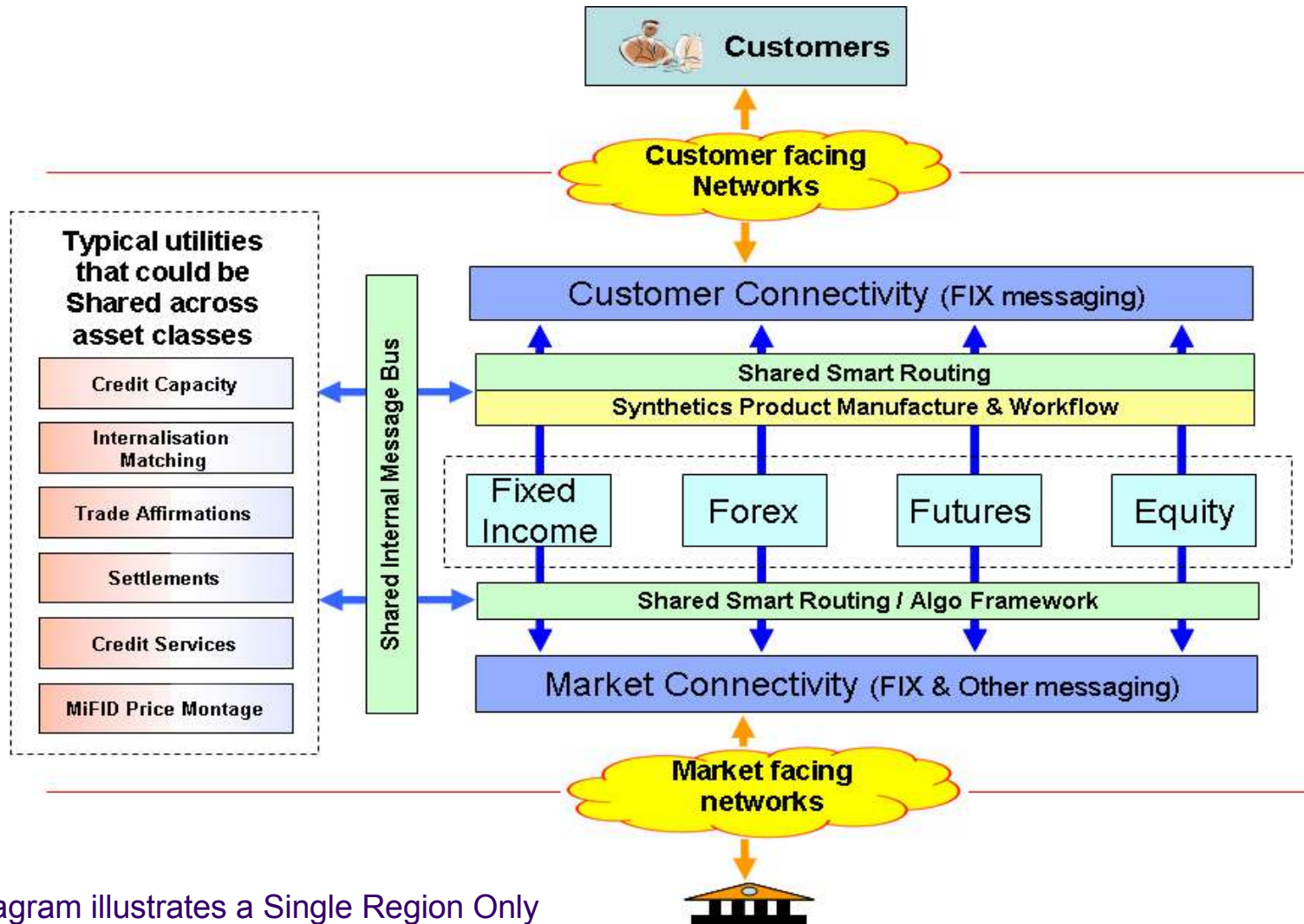


Diagram illustrates a Single Region Only

The Importance of Standards in Financial Messaging

Why are Standards Important within the Financial Messaging Sector

- If the Exchanges in China and Asia were to implement FIX 5.0 SP1, they would not only be rewarded with:
 - Backward compatibility with FIX 4.0, 4.1, 4.2, 4.3 and 4.4 versions,
 - Additional flexibility to create new products
 - Have a competitive advantage in Asia similar to the likes of the London Stock Exchange, Deutsche Bourse and Chicago Mercantile Exchange
 - Additional volumes in the longer term as more and more Brokers and Buy-side organisations adopt FIX
- The industry would benefit from lower costs which standards bring about as has been seen in other industries.

In Summary



Summary

The widespread adoption of FIX is:

- Making markets more dynamic
- Reducing costs to market participants and the prices charges (commissions / fees) of 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 simpler and more economical option

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

If you would like to find out
more please visit:
www.fixprotocol.org

