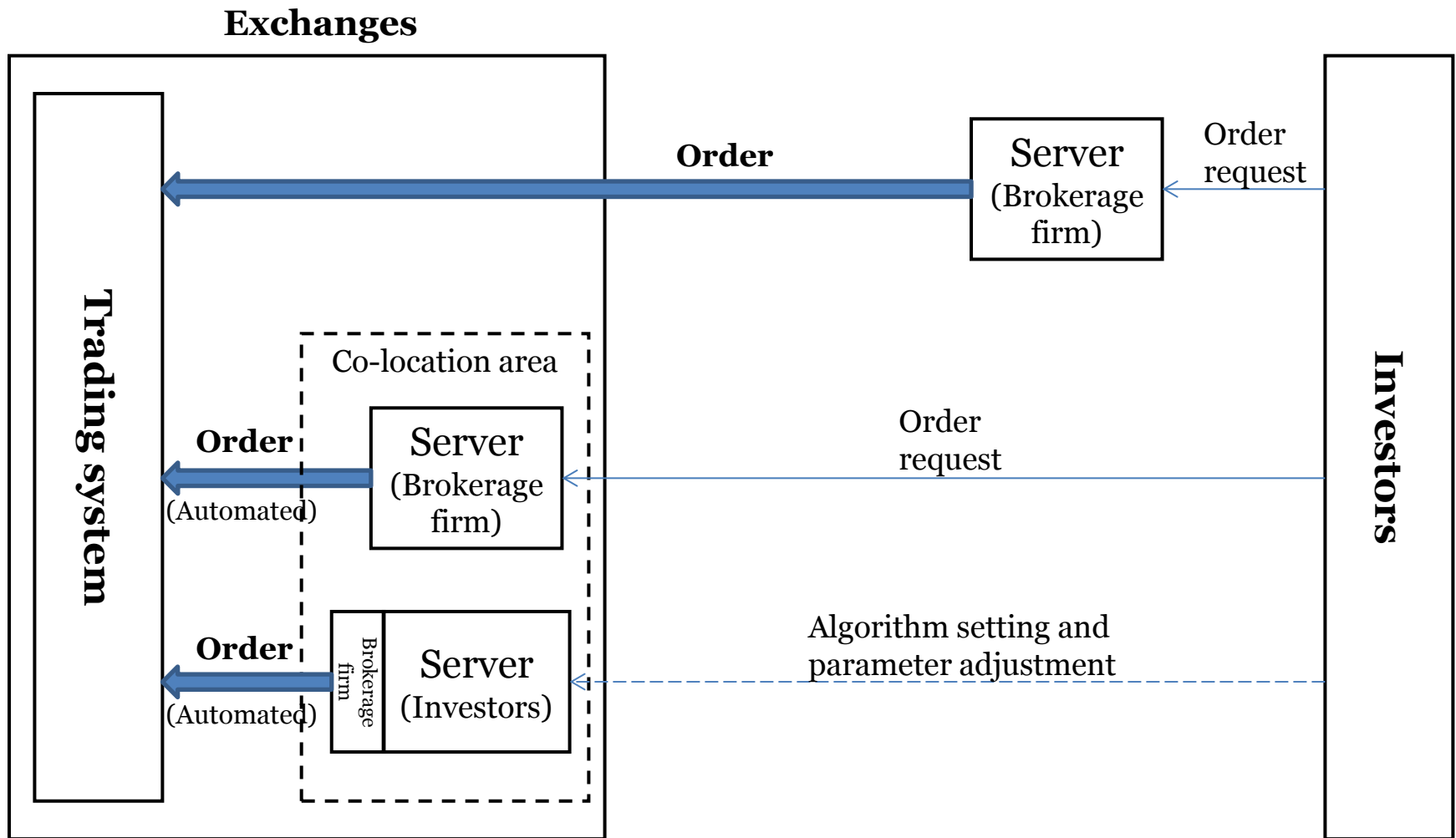


# Agenda for High-speed Trading

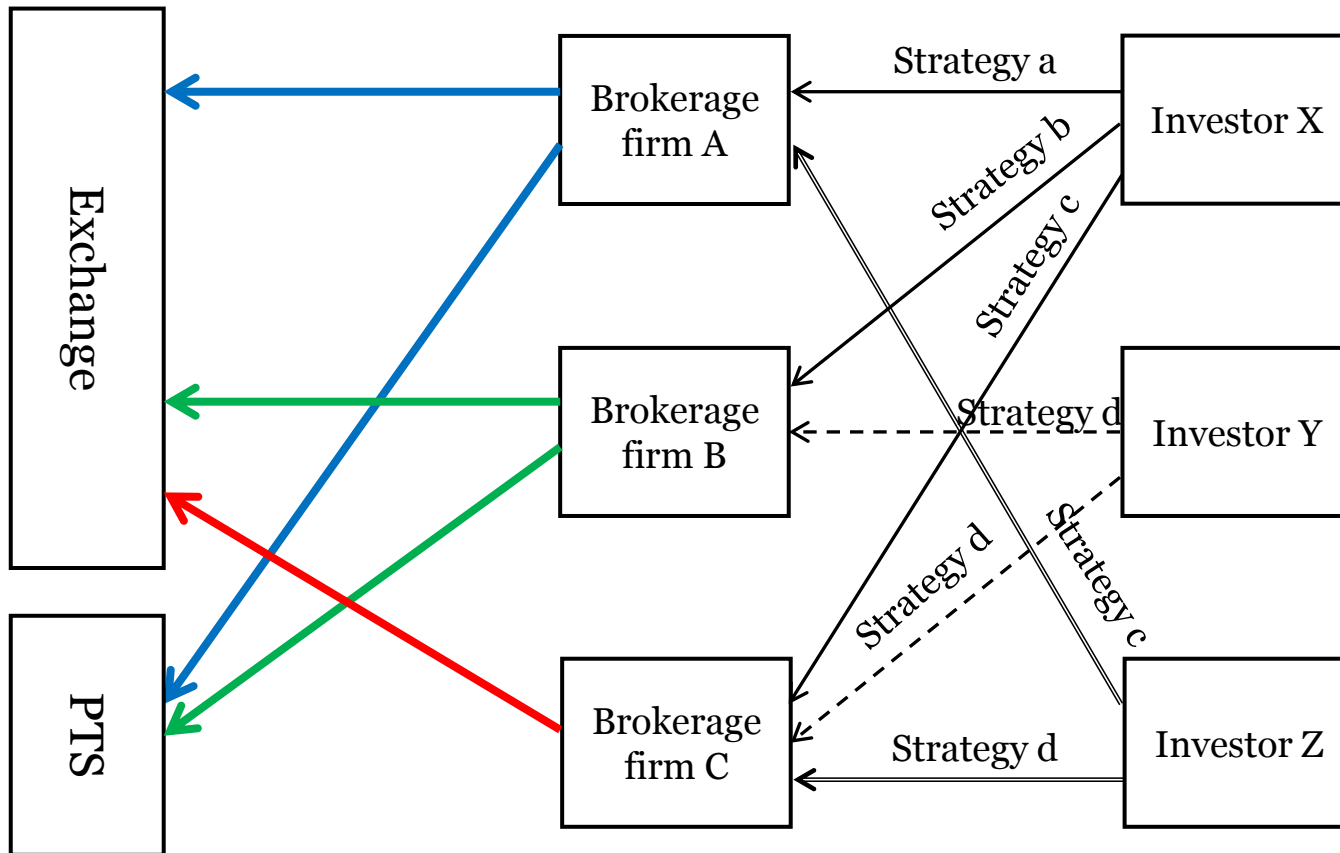
Financial Markets Division  
Financial Services Agency

# Trading Methods in a High-Speed Trading Environment



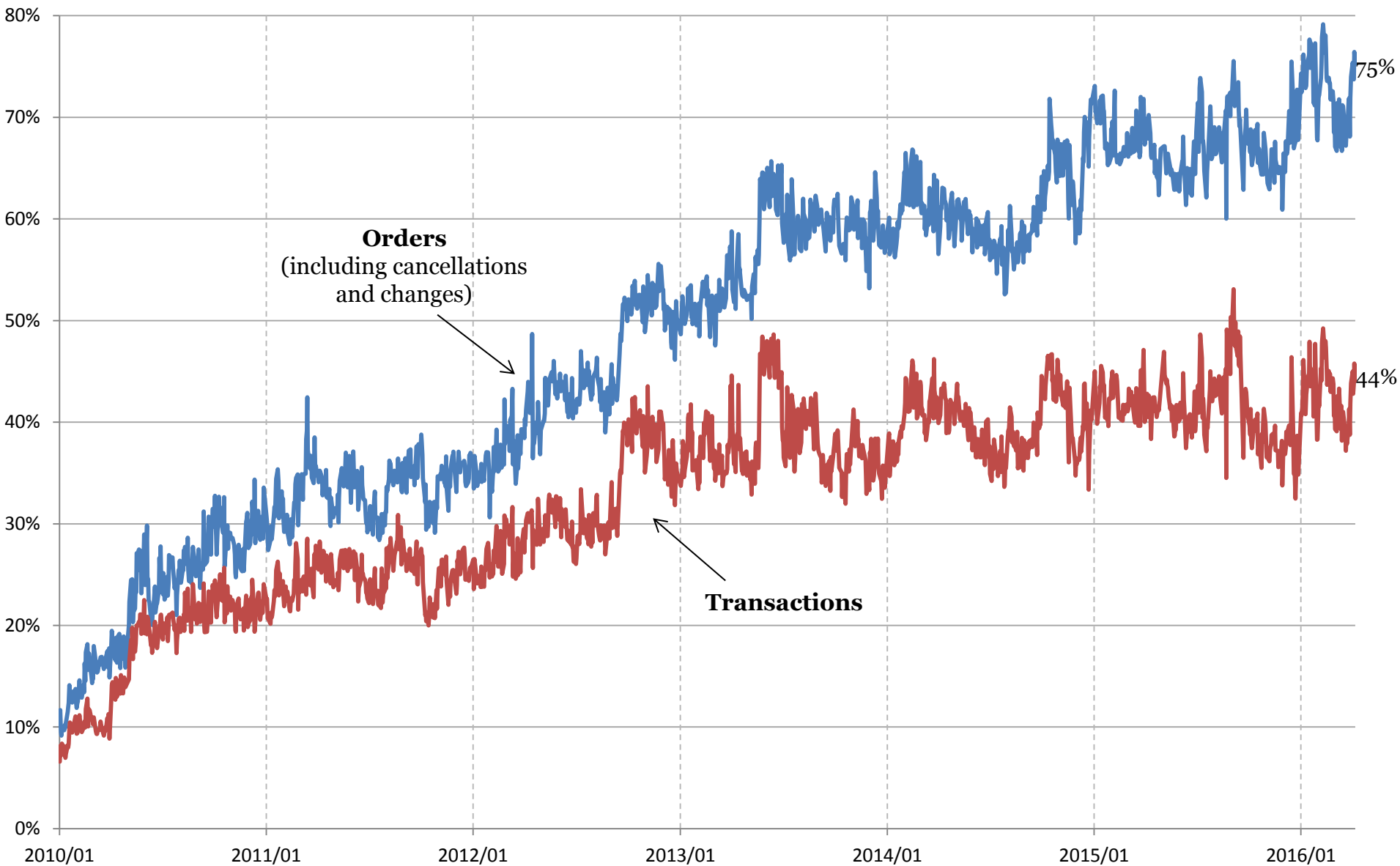
While trading methods have been rapidly diversified, the involvement of brokerage firms has become weaker nowadays. Also, it can be seen that flows of orders have become more and more systemized. With these points in mind, we should carefully evaluate whether risk has been increased in the above-mentioned environment.

# Interlinkage of Market Participants in a High-Speed Trading Environment



In the current markets, many investors put their orders through several brokerage firms so that their strategies are not recognized by the brokerage firms. This, however, makes it difficult for single brokerage firms to understand the whole picture of investors' activities. In this situation, we should carefully analyze the current conditions of the market, since exchanges and PTSs (Proprietary Trading Systems) may also struggle to capture entire pictures of trading activities in the markets.

# Shares of Orders and Transactions through TSE's Co-location Site



# Agenda items raised by regulators, academics and market participants

## **Stability of the markets**

How can we understand the relationship between fast and automated operation by HFT firms and transitory volatility increase and abrupt movement in the markets?

## **Integrity of the markets**

Abusive practices may benefit from the use of algorithmic technology, and algorithmic traders may be manipulated by other algorithmic traders.

## **Efficiency of the markets**

Excessive competition for speed may require much investment and reduce the efficiency of the markets as the increased costs could be translated to end-users.

## **Fairness of the markets**

Technological advantages may offer HFT firms the possibility of obtaining excessive profits at the expense of retail investors, which might be considered as unfair.

## **Price discovery functions of markets**

The dominance of algorithmic trading in the markets may impair the price discovery functions focusing on the long-term performance of the company.

## **Risks entailed by systems in the markets**

Algorithms that malfunction and operate in an unexpected way may trigger a chain reaction and pose serious risks to the markets.

## Discussion Points

- The general discussion points raised by regulators, academics and market participants regarding High-Speed Trading:
  - Stability of the markets
  - Integrity of the markets
  - Efficiency of the markets
  - Fairness of the markets (fairness among investors)
  - Price discovery functions of the markets (price formation based on companies' value)
  - Risks entailed by systems in the markets
- The specific points to be discussed:
  - While trading methods have been rapidly diversified, the involvement of brokerage firms has become weaker nowadays. Also, it can be seen that flows of orders have become more and more systemized. As a result, risks stemming from the systemized trading may have been increased in the current market environment.
  - Exchanges and PTSs may have difficulties in capturing entire pictures of trading activities in the markets. If so, the root cause analysis cannot be sufficiently done in the case of the abrupt or disorderly market moves.
  - Without properly addressing those risks, pension funds and individual investors may lose their confidence and thus it may slow the diversification of the market products/methods.

## Discussion Points (cont.)

- In the current market situation where most of the order flows of investors are automated with high-speed algorithms, the risks posed by cyber attacks, erroneous orders, etc. may instantaneously be transmitted.
- Regulation and supervision on exchanges and brokerage firms alone may not be sufficient to mitigate the above-mentioned risks.
- In order to avoid the risks, it may be necessary to request relevant parties to take proper action and to review those actions in order to ensure the effectiveness of the actions.
- Situation in the foreign markets, in particular, the US and European markets regarding high-speed trading and the regulatory responses should be also well analyzed, when the above-mentioned issues are discussed.
  - ✓ Under MiFID II, high-frequency algorithmic traders must be authorized as an investment firm and take measures including effective systems and risk control, and have an obligation to notify and provide information to the competent authority
  - ✓ Under proposed Regulation AT by CFTC, proprietary traders engaged in algorithmic trading through direct electronic access are required to register with the authority, and requirements such as risk control and source code repository are imposed on market participants using algorithmic trading systems.