

MARKETS MEDIA

**SEC ROUNDTABLE:
TRADING AND MARKETS
UPDATE**

AXA FLEXES MUSCLE

P.36

*Axa Investment Managers
CEO Dominique Carrel-Billiard*

p.32 Sell Side Chugs Along

Amid well-publicized missteps, big Wall Street banks continue to provide value for the buy side.

p.50 Street Streamliner

SunGard's capital markets group helps market participants simplify operations and procurement.

p.58 Life: Late Summer

New York vs. Hong Kong style, Hammarhead specialty motorcycles, and power pocket squares.

TECHNOLOGY/ Markets Devour Bandwidth

Network capacity is straining under the crush of bandwidth-intensive transactions from high-frequency and algorithmic trading.

Telecommunications is the gating factor in the expansion of electronic trading.

“From the inception of the transatlantic cable that linked London and New York for foreign exchange, technology has transformed the securities industry,” said Faisal Hoque, founder and chief executive of BTM Corp.

“But today’s trading landscape is fragmented as a result of constantly evolving technologies,” said Hoque. “The New York Stock Exchange still boasts a physical trading floor, but many bourses have traded in their floors for an electronic interface.”

Hardware, software and networks have to be not only adequately sized for today, but also flexible and quickly and easily scalable for the inevitably ramped-up needs of tomorrow.

Moore’s law holds that over the history of computing hardware, the number of transistors on a chip doubles approximately every two years. The tenet “affects both hardware and software,” said Chris Pickles, head of industry initiatives at telecom concern BT Global Banking & Financial Markets. “Pro-

cessing has to be able to double every 18 months.”

Pickles noted that networks that move messages between exchanges, brokers, banks, investment managers and central counterparties, are governed by a different law.

“Butter’s Law says you need to be able to double capacity every nine months,” said Pickles. “If you look at the expected growth in message volumes from (Options Price Reporting Authority) – heading for 13 million messages per

second per firm – you can see how Butter’s Law relates.”

Exchanges deploy incentives and fees to limit message volumes, so as to not have to upgrade hardware and software as often, and so that exchange members don’t have to keep upgrading their network connectivity. “Exchanges have suggested filtering out a proportion of the messages and ticks, but firms today want to receive every single tick, because today their IT systems can make use of that data,” Pickles said.

Market participants can connect with exchanges and data sources at 100 megabits per second, implying an aggregate 1 billion bits per second in the case of OPRA. Network providers are racing to keep ahead of exponentially growing demand for capacity and speed.

Exchanges have tried compressing messages so that a larger volume fits down a smaller pipe. However, that approach is being reconsidered as “major exchanges and data sources are going for the size of network capacity that carries the data unthrottled and fastest,” Pickles noted.



Faisal Hoque, founder and chief executive of BTM Corp



Chris Pickles, head of industry initiatives at BT Global Banking & Financial Markets.

INSTITUTIONS

MID-YEAR

European asset-management divestitures are at the lowest level since the financial crisis of 2008-09.

EXCHANGES

July 31

Maple Group secures its \$3.7 billion buyout of TMX Group, 13 months after LSE Group abandoned its bid for TMX.