

Global Foreign Exchange Market Cools as Financial Markets Stabilize

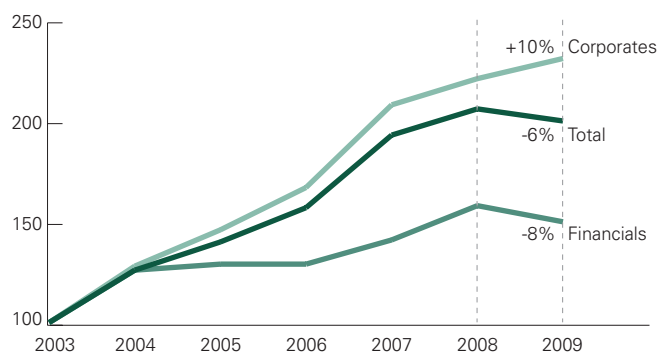
Following a 15% increase in global trading activity from 2007–2008 and a much larger increase the prior year, worldwide foreign exchange trading volume was flat to slightly lower at roughly \$100 trillion last year. The cooling down of global FX markets brought to an end an impressive run that saw new records for volume set in each of the prior two years.

The slowdown in global foreign exchange markets began in the second quarter of 2009 as world financial markets began to stabilize, and continued through the end of the year. Because Greenwich Associates completes interviews for its research on global FX markets mid-way through the fourth quarter of every year, it's possible that reported volume totals actually understate the extent to which markets slowed in calendar year 2009, and volumes could have notched a modest decline from 2008 to 2009 due to a significant falloff in activity at year-end.

(Note: Greenwich Associates tracks foreign exchange volume among a universe of 1,497 end-user corporate and institutional customers; volume figures cited in this report exclude inter-bank transaction and volume generated from other sources. Interviews were conducted in September, October and November 2009, and research covers the prior 12-month period.)

Among the financial institutions that constitute the lion's share of the global FX market volume, trading volumes were flat to just slightly lower last year, as a 23% decline in hedge fund trading volume was partially offset by a 16% increase among retail aggregators. Among corporations, which generated only 11% of total volume in 2009, foreign exchange volume increased 10% from year to year.

Changes in Foreign Exchange Trading Volume

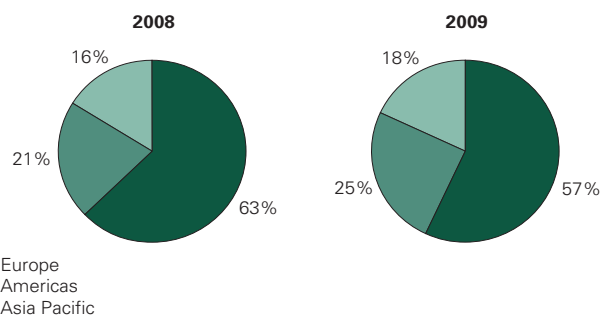


Note: 100 is used as a base for 2003. Data reflects percent change in FX trading volume from respondents on a year-over-year matched sample. Based on 1,103 responses in 2009 and 1,116 in 2008. Source: 2010 Global Foreign Exchange Study

Trading volumes in the United States declined 10% from 2008 to 2009 and U.K. trading volumes fell by 14%. Trading volumes in Continental Europe and Japan were essentially unchanged year-to-year. Throughout the rest of Asia, trading volumes actually grew nearly 10%, driven by an increase among a handful of large banks.

Worldwide, trading volumes among the biggest users of foreign exchange markets — primarily financial institutions generating more than \$50 billion in annual FX trading volumes — declined about 7%. Trading volumes among corporations and financial institutions with lower average annual totals increased slightly.

Trading Volume by Geographic Area



Note: Based on 1,497 responses in 2009 and 1,437 in 2008. Source: 2010 Global Foreign Exchange Study

Slowdown Can't Stop E-Trading Expansion

Electronic foreign exchange markets continued their expansion last year, even as the broad FX market treaded water in volume terms. Customer e-trading volumes increased 7% from 2008 to 2009. While this growth pales in comparison to the 37% expansion in e-trading from 2007 to 2008, the fact that electronic trading systems were attracting business in the second half of 2009 when overall FX volumes were contracting suggests that market participants continue to actively shift trading volumes to these platforms from other channels. For Greenwich Associates' complete analysis of the electronic foreign exchange market, see our dedicated white paper on the topic: *Electronic FX: As Global Markets Normalize, Slow But Steady Growth*.

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Hedge Fund Falloff

FX trading volumes among hedge funds declined 23% from 2008 to 2009 — a drop-off that had a disproportionate impact on global foreign exchange growth rates. As of the end of 2008, hedge funds generated only about 14% of global FX trading volume. Until recently however, hedge funds had accounted for a much higher proportion of the market's growth. From 2006 to 2007 — a period during which global FX volumes grew by 30% — hedge fund trading volumes increased 180%. The global financial crisis brought that phase of growth to a sudden stop, with hedge fund FX trading volumes dropping 28% from 2007 to 2008. "After continuing to decline over the past 12 months, hedge fund trading volume remains at just 14% of the market, allowing retail aggregators to close the gap in terms of contributions to global FX trading volumes," explains Greenwich Associates consultant Tim Sangston.

Percent of Total FX Trading

Institution Types vs. Total Market

Institution Type	2008	2009
Financials	87%	86%
Retail aggregators	11%	12%
Hedge funds	14%	14%
Corporates	11%	13%
Government agencies	2%	1%

Note: Based on 1,497 responses in 2009 and 1,437 in 2008.
Source: 2010 Global Foreign Exchange Study

Emerging Market Currencies Going Mainstream

A growing share of global foreign exchange market participants are becoming active in emerging market currencies, which are now traded by 58% of FX users. The trend of increasing use of emerging market currencies has been consistent across both financials and corporates, with financial use increasing to 59% in 2009 from 53% in 2008 and corporate use increasing to 60% from 52%.

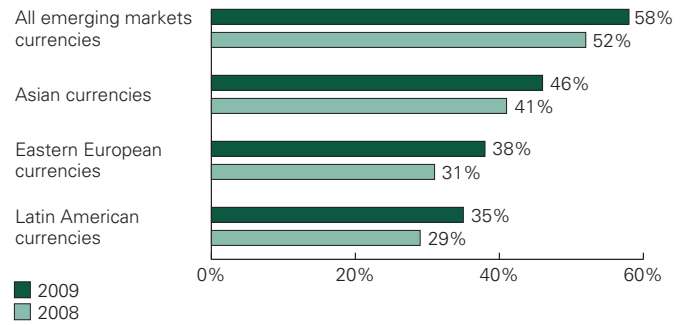
The proportion of global FX users active in Latin American currencies increased to 35% in 2009 from 29% in 2008; usage of Eastern European currencies increased to 38% from 31% and trading in Asian currencies increased to 46% of market participants from 41%. "In total, the \$13.1 trillion in emerging market currency trading volume made up 11% of global FX trading volume from 2008 to 2009," says Greenwich Associates consultant Frank Feenstra.

Diverging Approaches: Corporates and Financials

The global foreign exchange market is increasingly evolving into two distinct markets as corporations and financial institutions diverge in their goals, priorities and the methods they use for trading.

Overall, 71% of financial institutions and 92% of banks trade FX electronically, compared to only half of corporations. Among market participants that do not use e-trading, fully 42% of corporates say they have no plans to start trading FX electronically at any point, compared with only 23%

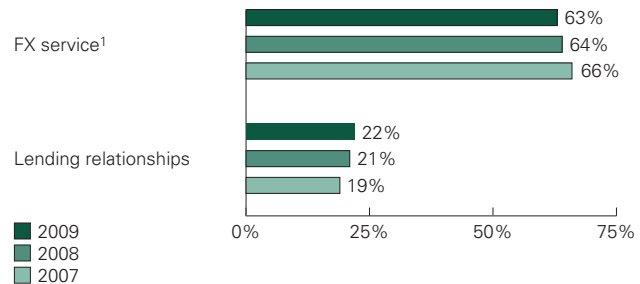
Use of Emerging Markets Currencies



Note: Based on responses from 1,241 respondents.
Source: 2010 Global Foreign Exchange Study

of financials. There is even division among active e-traders. Among corporates that trade FX electronically, a large majority — 83% — use third-party or multi-bank systems, with only 29% using single-bank systems and 13% using both. Although 73% of financials also use multi-bank systems, 54% use single-bank or proprietary systems. "Corporations that use e-trading platforms execute about 38% of their trading volume electronically, while financial e-traders use the systems for up to 62% of their total FX volume," says Greenwich Associates consultant Peter D'Amario.

Factors Driving FX Volume Allocation

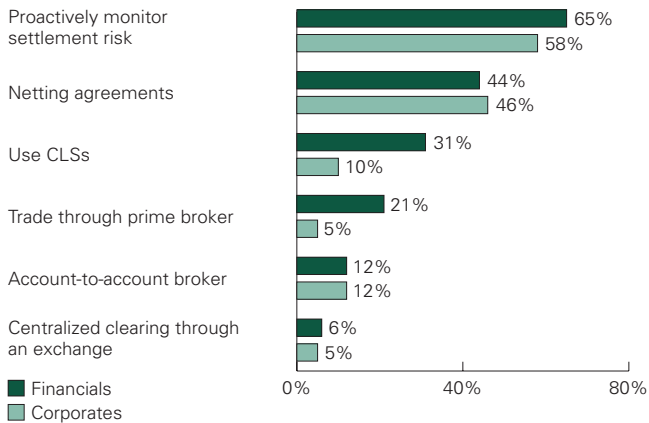


Note: Based on responses from 1,780 respondents in 2007, 1,437 in 2008, and 1,497 in 2009. Other factors not shown include Custodial Relationships, Prime Brokerage Relationships, Fixed Income and Equities Trading Relationships, M&A/Corporate Financing Transactions, and Financing Assistance. ¹FX service includes sales coverage, trading, research, back office, and electronic platform.
Source: 2010 Global Foreign Exchange Study

Another stark difference between corporate and financial FX users can be found in the process through which the two groups allocate their trading business to dealers. Financials allocate nearly three-quarters of their FX trading volume to dealers that provide the highest quality FX service. Although corporates allocate approximately half of their total trading volume based on quality of dealer FX service, another factor plays a major role in determining allocations: the need for credit. "Corporations allocate approximately 41% of their FX trading business to lenders — a share that has been climbing steadily since the start of the global credit crisis," explains Tim Sangston. "In 2007, these corporations were allocating only one-third of their FX trading volumes based on lending relationships, in 2008 that share rose to 37%."

Monitoring Settlement Risk

Methods Used to Mitigate/Reduce Settlement Risk



Note: Based on responses from 1,241 respondents.
Source: 2010 Global Foreign Exchange Study

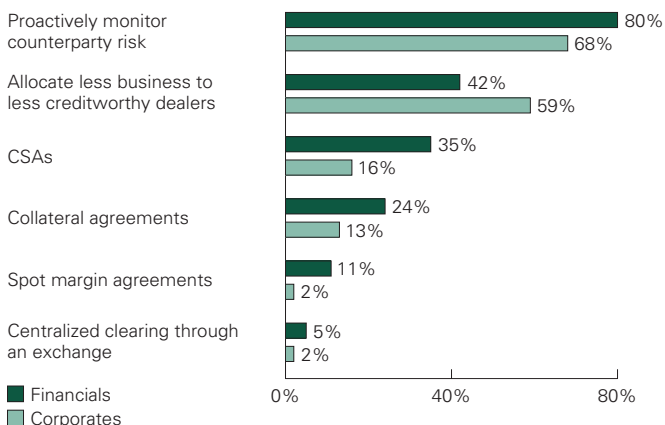
Finally, corporate and financial FX users differ in the level of concern they express about settlement risk and the steps they take to mitigate it. Almost two thirds of financial institutions say they proactively monitor settlement risk — including three quarters of banks — compared with 58% of corporates. A broader divide can be seen in the primary methods used to mitigate or reduce these risks: Approximately 30% of financials and 60% of banks use CLS (Continuous Linked Settlement) to mitigate settlement risk versus only one in 10 corporates.

Counterparty Risk: Monitoring and Mitigation

Both corporates and financials remain concerned about counterparty risk in foreign exchange transactions. Sixty-eight percent of corporates and 80% of financials proactively monitor counterparty risk. The two groups differ in the steps they take to manage that risk, however. Among corporates, the most common method of managing counterparty risk is to simply reduce the amount of business they do with dealers seen as the biggest risks.

Monitoring Counterparty Risk

Methods Used to Mitigate/Reduce Counterparty Risk



Note: Based on responses from 1,241 respondents.
Source: 2010 Global Foreign Exchange Study

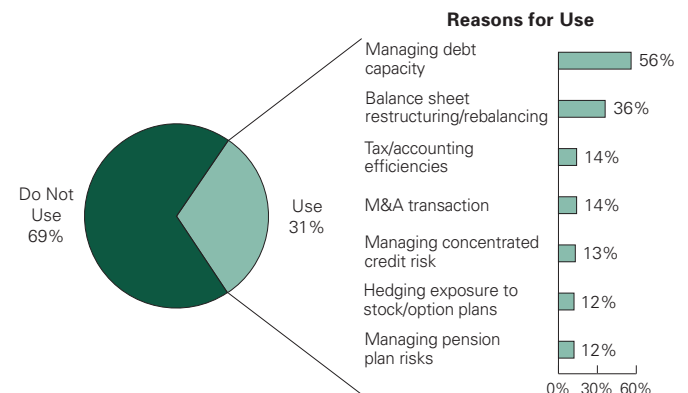
Fifty-nine percent of corporates in 2009 said they reduced the amount of trading volume allocated to dealers seen as less creditworthy than competitors. Only 42% of financials took this step, and only a third of banks. Instead, 43% of banks and 35% of financials overall used Credit Support Annexes (CSAs), compared with only 16% of corporates. Banks and other financials are also much more likely than corporates to employ collateral agreements as a means of mitigating counterparty risk.

Interest Rate Derivatives: Growth Returns in Flow Products, Users Spurn Non-Vanilla Trades

Notional trading volume among corporates, government agencies and finance companies in interest rate derivatives increased by almost 10% globally last year to more than \$1.8 trillion. After a year of flat volumes from 2007 to 2008, the past year's growth was driven largely by a pick-up in trading activity among European companies, which account for more than 60% of trading volume worldwide.

Volume was also up among companies in the United States as well as among Asian companies, which account for a much smaller share of the global business. Trading volumes declined among government agencies from 2008 to 2009.

Use of Strategic Derivatives

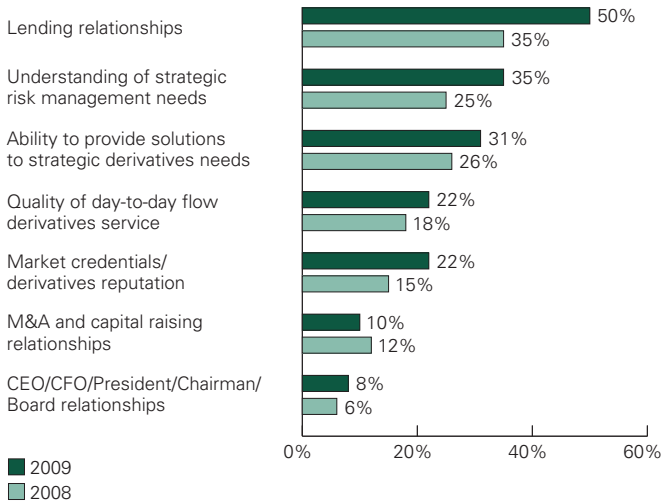


Note: Based on responses from 630 respondents in 2009. Source: 2010 Interest Rate Derivatives Study — Corporates

Around the world, the use of non-vanilla products declined in credit, equity and interest rate derivatives last year. Only 31% of interest rate derivatives users around the world employed strategic derivatives in 2009, down sharply from the 52% of market participants using them the prior year. Within the group that did use strategic derivatives, the most common reasons for employing them were as part of managing debt capacity and in balance sheet restructuring/rebalancing. Thirty-six percent of strategic derivatives users in 2009 said they employed the products in a balance sheet restructuring or rebalancing, up from 27% in 2008. Looking ahead, 42% of companies and government agencies that expect to use strategic derivatives in the coming year say they plan to use them for balance sheet restructuring or rebalancing. "However, only 4% of companies and government agencies that

regularly employ interest rate derivatives say they expect to use strategic derivatives in the next 12 months,” says Greenwich Associates consultant Andrew Awad.

Factors Impacting Dealer Selection



Note: Based on responses from 630 respondents in 2009 and 592 in 2008.
Source: 2010 Interest Rate Derivatives Study — Corporates

Lending Relationships Drive Dealer Selection

Half the companies that used strategic derivatives last year cite lending relationships as one of the key factors driving their selection of dealers for the transactions. That share is up significantly from the 35% of strategic derivatives users citing lending ties as a primary selection criterion for dealers in 2008.

Lending relationships also continue to drive companies' selection of dealers and allocation of volumes in flow interest rate derivatives trades. Companies allocated 42% of their total trading volumes to lenders last year, while allocating only 34% of their business strictly on the basis of derivatives service quality provided by individual dealers.

Companies use an average of 4.8 dealers for interest rate derivatives and allocate fully 80% of their trading volumes to their top three dealers. “Setting aside lending relationships, companies that use interest rate derivatives see competitive pricing as the main value driver for dealers,” says Greenwich Associates consultant Riccardo Cumerlato.

Addressing Counterparty Risk Concerns

Although companies see pricing as the most important factor in assessing dealers and the value they provide, companies are also paying much more attention to dealer

creditworthiness, which currently ranks as their number two selection factor overall. “A dealer’s creditworthiness is now considered more important by prospective clients than the quality of its sales team, quoting speed, relationships with senior corporate management or credit terms,” says Andrew Awad.

Although the share of companies expressing serious concerns about counterparty risk in their interest rate derivatives trades declined modestly from 2008 to 2009, 20% of product users say they reduced the amount of business done with individual dealers seen as posing significant levels of counterparty risk, and about a quarter of users employed credit support annexes to manage counterparty risk. Large derivatives users and highly rated companies were most likely to report taking either step.

A Greenwich Market Pulse study conducted in January 2010 revealed that 70% of corporations and financial institutions around the world think moving OTC derivatives trading to a system of centralized clearing would be an effective means of mitigating counterparty risk. “However, financials and corporates also have some serious concerns about the ongoing process of market structure reform,” notes Frank Feenstra. “Some of these concerns stem from the fact that market participants are uncertain about details of the proposals being considered. Other concerns involve more informed questions among users of OTC derivatives about how the switch to centralized clearing would impact overall market liquidity and costs, as well as corporates’ ability to effectively hedge risk positions.”

Greenwich Associates consultants Tim Sangston, Frank Feenstra, Peter D’Amario, Riccardo Cumerlato, Woody Canaday, and Peter Kane specialize in derivatives and foreign exchange.

Methodology

Greenwich Associates conducted in-person interviews with 1,497 top tier users of foreign exchange at large corporations and financial institutions and 630 interest rate derivatives users at large corporations, government agencies and finance companies on market trends and their relationships with their dealers. Interviews were conducted in North America, Latin America, Europe, Asia, and Japan between September and November 2009.

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