Agenda

- Historical Perspective
- Current Status of the FX Prime Brokerage Market
- FXPB post 2008
- Future trends
**FX Prime Brokerage – Historical Perspective**

- Originally, very much a niche business with few participants operating a highly manual workflow with a small number of clients.
- The client base was exclusively hedge funds.
- Some argument as to who did the first PB trade – AIG Trading Group and Deutsche Bank were definitely the early participants.
- Fees were high and volumes were low.
- Non scalable people intensive business.
- Relatively primitive risk management controls, although arguably adequate for the volume of business at the time.
- There was no e-commerce, no ECN connectivity and certainly no anonymity.
- The division between buy-side and sell-side was still very strong.
Current Status of the FX Prime Brokerage Market

- A vibrant mainstream business
- As an indication of the dimensions of the FXPB business, PB accounts for approximately 50% of all FX turnover by ticket numbers at Citi
- All major FX banks have some degree of FX Prime Brokerage presence
- FX Prime Brokerage is now a highly automated high volume business utilising some of the most advanced technology both on the bank and client side available in the FX market
- The types of clients using PB represent all aspects of the FX Market, Hedge Funds, Proprietary Trading groups, Investors, Banks, even a small number of corporations
- E-commerce and prime brokerage combined have opened up a wide array of trading venues and played an significant role in the blurring of the traditional buy-side/sell-side rolls.
- The fragmented nature of the FX markets with its proliferation of trading venues essentially requires an efficient Prime Brokerage capability. Arguable one could not have developed without the other
- The FXPB market whilst being fiercely competitive does cooperate well for the best interests of the market and the clients. A good example of this being the development of the Harmony give up network which revolutionised operational efficiency in the FXPB market
- With reference to the previous presentation it can be seen that a significant component (approx 40%) of liquidity in core inter bank markets is now provided by non bank trading groups using FXPB facilities
FX Prime Brokerage post 2008

- Risk management focus
  - Broader concerns about risk in general focussed attention on the quality of risk management methodologies both from the client and the bank point of view
  - Operational risk has come increasingly into focus especially on days when the market is violent and volumes are extreme. Capacity planning is a first order priority across the FXPB industry

- Asset security
  - Custodial arrangements
  - Third party custody

- Proliferation of the multi-prime model
  - Pre 2008 consolidation of risk in one prime broker was the norm even for large hedge funds, particularly in FXPB. Post 2008 and Lehman, it is unusual even for small clients to rely on a single provider
  - Whilst multi PB presents operational inefficiencies especially with respect to collateral fragmentation the security and back up it provides is now regarded as essential by clients and more especially in the hedge fund space by their investors.
CitiFX Click

- Cash, NDF and options, real-time MTM
- Positions
  - By currency or pair
  - NPV
  - Cash ladder
  - Rolls
- Graphic filtering & quick filters
- Complete portfolio
  - Includes matched and unmatched trades
  - Unmatched trades highlighted
- Customizable screen, column drag/drop
- NDF fixings, option expiry
- Data export
  - Template design
  - PDF, CSV, HTML
  - FTP available
CitiFX Click

- Multiple Filters
- Dynamic Filtering
- Status Panel
- Credit Status
- Customisable
Credit - Real-Time FX

- Net open position (NOP) based margining
- Real-time calculations
- Delta equivalent for FX options
- Snapshot view and detailed calculation display
Future Trends

- Legislative impact
  - Unintended consequences and uncertainty

- Convergence of OTC and exchange models
  - Venue agnostic clearing, the requirement for a seamless service

- Increasing diversity of the user community

- Cross Asset Prime brokerage
  - True cross asset or virtual
  - Value of the product expert
  - Cross margining

- Capacity Planning

- Prime of Prime

- Retail FX
IRS Circular 230 Disclosure: Citigroup Inc. and its affiliates do not provide tax or legal advice. Any discussion of tax matters in these materials (i) is not intended or written to be used, and cannot be used or relied upon, by you for the purpose of avoiding any tax penalties and (ii) may have been written in connection with the “promotion or marketing” of any transaction contemplated hereby (“Transaction”). Accordingly, you should seek advice based on your particular circumstances from an independent tax advisor.

Any terms set forth herein are intended for discussion purposes only and are subject to the final terms as set forth in separate definitive written agreements. This presentation is not a commitment to lend, syndicate a financing, underwrite or purchase securities, or commit capital nor does it obligate us to enter into such a commitment. Nor are we acting in any other capacity as a fiduciary to you. By accepting this presentation, subject to applicable law or regulation, you agree to keep confidential the existence of and proposed terms for any Transaction.

Prior to entering into any Transaction, you should determine, without reliance upon us or our affiliates, the economic risks and merits (and independently determine that you are able to assume these risks) as well as the legal, tax and accounting characterizations and consequences of any such Transaction. In this regard, by accepting this presentation, you acknowledge that (a) we are not in the business of providing (and you are not relying upon us for) legal, tax or accounting advice, (b) there may be legal, tax or accounting risks associated with any Transaction, (c) you should receive (and rely on) separate and qualified legal, tax and accounting advice and (d) you should apprise senior management in your organization as to such legal, tax and accounting advice (and any risks associated with any Transaction) and our disclaimer as to these matters. By acceptance of these materials, you and we hereby agree that from the commencement of discussions with respect to any Transaction, and notwithstanding any other provision in this presentation, we hereby confirm that no participant in any Transaction shall be limited from disclosing the U.S. tax treatment or U.S. tax structure of such Transaction.

We are required to obtain, verify and record certain information that identifies each entity that enters into a formal business relationship with us. We will ask for your complete name, street address, and taxpayer ID number. We may also request corporate formation documents, or other forms of identification, to verify information provided.

Any prices or levels contained herein are preliminary and indicative only and do not represent bids or offers. These indications are provided solely for your information and consideration, are subject to change at any time without notice and are not intended as a solicitation with respect to the purchase or sale of any instrument. The information contained in this presentation may include results of analyses from a quantitative model which represent potential future events that may or may not be realized, and is not a complete analysis of every material fact representing any product. Any estimates included herein constitute our judgment as of the date hereof and are subject to change without any notice. We and/or our affiliates may make a market in these instruments for our customers and for our own account. Accordingly, we may have a position in any such instrument at any time.

Although this material may contain publicly available information about Citi corporate bond research, fixed income strategy or economic and market analysis, Citi policy (i) prohibits employees from offering, directly or indirectly, a favorable or negative research opinion or offering to change an opinion as consideration or inducement for the receipt of business or for compensation and (ii) prohibits analysts from being compensated for specific recommendations or views contained in research reports. So as to reduce the potential for conflicts of interest, as well as to reduce any appearance of conflicts of interest, Citi has enacted policies and procedures designed to limit communications between its investment banking and research personnel to specifically prescribed circumstances.

TRADEMARK SIGNOFF: add the appropriate signoff for the relevant legal vehicle

In January 2007, Citi released a Climate Change Position Statement, the first US financial institution to do so. As a sustainability leader in the financial sector, Citi has taken concrete steps to address this important issue of climate change by: (a) targeting $50 billion over 10 years to address global climate change: includes significant increases in investment and financing of alternative energy, clean technology, and other carbon-emission reduction activities; (b) committing to reduce GHG emissions of all Citi owned and leased properties around the world by 10% by 2011; (c) purchasing more than 52,000 MWh of green (carbon neutral) power for our operations in 2006; (d) creating Sustainable Development Investments (SDI) that makes private equity investments in renewable energy and clean technologies; (e) providing lending and investing services to clients for renewable energy development and projects; (f) producing equity research related to climate issues that helps to inform investors on risks and opportunities associated with the issue; and (g) engaging with a broad range of stakeholders on the issue of climate change to help advance understanding and solutions.

Citi works with its clients in greenhouse gas intensive industries to evaluate emerging risks from climate change and, where appropriate, to mitigate those risks.