The Foreign Exchange Committee
The Financial Markets Lawyers Group

33 Liberty St., 7th Floor
New York, NY 10045

Commodity Exchange Act § 4s
Commission Regulation 23.431(a)(3)

November 16, 2012

Gary Barnett
Director, Division of Swap Dealer and Intermediary Oversight
Commodity Futures Trading Commission
Three Lafayette Centre
1155 21st Street, NW
Washington, DC 20581

Re: The Foreign Exchange Committee and Financial Markets Lawyers Group – Request for Interpretative Relief Regarding Obligation to Provide Pre-Trade Mid-Market Quote

Dear Mr. Barnett:

The Foreign Exchange Committee (the "**FXC**") is an industry group that has been providing guidance and leadership to the global foreign exchange market since 1978. The Committee includes representatives of major financial and non-financial institutions engaged in foreign currency trading in the United States.[1] The Financial Markets Lawyers Group ("**FMLG**") is composed of lawyers who support foreign exchange and other financial markets trading in leading worldwide financial institutions.[2] Both the FXC and the FMLG are sponsored by the Federal Reserve Bank of New York.[3]

I. Introduction

Beginning January 1, 2013, registered swap dealers and major swap participants, including FXC and FMLG member financial institutions, will be required to comply with the external business conduct standards (the "**Business Conduct Standards**")[4] with respect to foreign exchange or currency transactions they enter into or offer to enter into ("**FX Transactions**"). FX Transactions include transactions that reference currencies and are defined as swaps in Section 1a(47) of the Commodity Exchange Act (the "**Act**") and in Commodity Futures Trading Commission ("**Commission**") Regulation

[1] The FXC includes members from the sell-side and buy-side. The FXC firms signing on to this letter are: Citigroup; Fischer Francis Trees & Watts; Deutsche Bank; State Street Global Markets; Barclays; The Royal Bank of Scotland plc, Credit Agricole CIB; Mellon Capital; Goldman Sachs & Co.; Wells Fargo; Bank of America Merrill Lynch; Banco Itau BBA; Standard Chartered; TD Securities; Microsoft Corporation; EBS; UBS; JP Morgan Chase; HSBC; FX Concepts; BlackRock; and FXall.

[2] The FMLG includes members from the following institutions signing on to this letter: Bank of America, NA; BNP Paribas; Citigroup Global Markets Inc.; Deutsche Bank; Goldman Sachs & Co.; HSBC Securities (USA) Inc.; JP Morgan Chase & Co.; Morgan Stanley; Royal Bank of Canada; State Street Bank and Trust Company; The Bank of New York Mellon; UBS AG; U.S. Bank National Association; and Wells Fargo.

[3] Although the FXC and the FMLG are sponsored by the Federal Reserve Bank of New York, this interpretative letter request is not endorsed by the Federal Reserve Bank of New York or the Federal Reserve System.

[4] 17 C.F.R. §§ 23.400—23.451. *See also* Business Conduct Standards for Swap Dealers and Major Swap Participants With Counterparties, 77 Fed. Reg. 9734 (Feb. 17, 2012) (the "**Business Conduct Release**").

1.3(xxx), as well as physically-settled foreign exchange forwards and physically-settled foreign exchange swaps, which may, in the future, be exempted from the definition of "swap" by the Department of the Treasury.[5] The Business Conduct Standards require swap dealers, among other things, to provide each counterparty or potential counterparty with whom the swap dealer intends to enter into an FX Transaction in the over-the-counter market: "[a]t a reasonably sufficient time prior to entering into [the FX Transaction]… the price of the [FX Transaction]… and the mid-market mark of the [FX Transaction]…." (the "**Pre-Trade Mid-Market Mark Requirement**").[6]

The FXC and FMLG believe that the Pre-Trade Mid-Market Mark Requirement should not apply to swap dealers and major swap participants ("**FX Dealers**") in connection with: (i) foreign exchange forwards or swaps that, by their terms are physically settled, where each currency is one included among the top 13 deliverable currencies (by volume) described in the Bank for International Settlements, Triennial Central Bank Survey, Report on global foreign exchange market activity in 2010 ("**BIS 13 Currencies**")[7] and the transaction has a stated maturity of one year or less and (ii) vanilla, foreign exchange options that, by their terms are physically settled, where each currency is one included among the BIS 13 Currencies and the option has a stated maturity of six months or less (together, "**Covered FX Transactions**").

II. Request for Interpretative Letter

The FXC and FMLG hereby request that the Commission's Division of Swap Dealer and Intermediary Oversight ("**DSIO**") issue an interpretative letter stating that swap dealers and major swap participants are not required to comply with the Pre-Trade Mid-Market Mark Requirement in Commission Regulation 23.431(a)(3) for Covered FX Transactions.

III. The Pre-Trade Mid-Market Mark Requirement Is Not Material for Covered FX Transactions and Should Not Be Required.

Covered FX Transactions involve highly-liquid currencies, exhibit narrow bid-ask spreads and are widely quoted by FX Dealers in the marketplace through electronic quotation screens, telephonically and otherwise. In the experience of the FXC and FMLG, prices for these Covered FX Transactions are widely available to market participants and quotes provided by FX Dealers are closely correlated to the publicly available pricing information. In light of the ready availability of reliable pricing information in the market, the transparency of the pricing information, the competitiveness and tightness of spreads and ongoing liquidity of these Covered FX Transactions, compliance with the Pre-Trade Mid-Market Mark Requirement does not provide any significant informational value. The FXC's buy-side institutions believe that a mid-price for Covered FX Transactions is not material and, thus, should not be required as it does not reflect a tradeable price. They are primarily interested in where they can best transact, which

[5] The U.S. Department of the Treasury has proposed, pursuant to authority granted in Section 1a(47)(E) of the Act, to exempt physically-settled currency forwards and physically-settled currency swaps from the definition of "swap" (the "**Treasury Exemption**"). *See* Determination of Foreign Exchange Swaps and Foreign Exchange Forwards under the Commodity Exchange Act, 76 Fed. Reg. 25774 (May 5, 2011).

[6] 17 C.F.R. §23.431(a)(3). The Pre-Trade Mid-Market Mark Requirement is not specifically required by the Act but was adopted by the Commission pursuant to Section 4s(h)(3)(B)(ii) of the Act. That provision requires a swap dealer and major swap participant to disclose "any material incentives or conflicts of interest that the swap dealer or major swap participant may have in connection with the swap." *See* Business Conduct Release at 9765.

[7] These are composed of the following: US dollar; Euro; Japanese yen; Pound sterling; Australian dollar; Swiss franc; Canadian dollar; Hong Kong dollar; Swedish krona; New Zealand dollar; Singapore dollar; Norwegian krone; and Mexican peso. The Korean won is a restricted currency. *See* www.bis.org/publ/rpfxf10t.pdf.

is at the best bid or ask. Before trading, the buy-side participants evaluate quoted bids and asks against broader bid and ask pricing obtained either via multiple dealers, execution venues or other sources, which are viewed as widely available. In this context, a mid-price does not add useful information.

In the view of the FXC and the FMLG, the Pre-Trade Mid-Market Mark Requirement will not provide a benefit to counterparties or potential counterparties, will potentially increase costs to all market participants given the need to develop associated processes and will delay the timing of trading in rapidly moving markets thus compromising clients' ability to manage risk and transact efficiently and at the best price. For these and all of the reasons outlined in Exhibit A to this letter, the FXC and FMLG believe that the relief required does not diminish the protections provided by the Business Conduct Standards but would reduce unnecessary and costly disclosures that do not provide useful information.

A. The Regulatory Goals of the Pre-Trade Mid-Market Mark Requirement are Achieved Already Through the Ready Availability of Pricing Information in the Marketplace

The stated goal of the Pre-Trade Mid-Market Mark Requirement is to "[provide] the counterparty with pricing information that facilitates negotiations and balances historical information asymmetry regarding swap pricing."[8] Real-time, tradable, bid and offer prices are widely available with respect to the Covered FX Transactions. As a result, the regulatory goals of the Pre-Trade Mid-Market Mark Requirement are already being achieved without requiring dissemination of the Pre-Trade Mid-Market Mark.

B. Sample Data Demonstrates that the Covered FX Transaction Prices are Transparent and Competitive

As reflected in the data attached as Exhibit B and Confidential Exhibit C, the differences in bid and offer prices provided by FX Dealers in respect of Covered FX Transactions are not material. In addition, the typical deviation from a publicly available mid (as provided by Bloomberg) in respect of Covered FX Transactions is not material and the bid-ask spreads with respect to Covered FX Transactions are extremely narrow. Counterparties are currently able to obtain the information they need in order to determine that the prices that they are receiving from an FX Dealer are reflective of the overall market without obtaining a Pre-Trade Mid-Market Mark.

C. A Pre-Trade Mid-Market Mark would be Costly to Implement and Would Delay the Delivery of Pricing Information

Provision of a Pre-Trade Mid-Market Mark would require FX Dealers to create a new price stream when quotes are provided electronically and would add additional operational requirements for dealers when quotes are conveyed by voice. Based on an initial analysis, this would add significant costs to a narrow spread environment. In addition, delivery of this pricing information may adversely affect counterparties by delaying the trade time, since delivery must be made "a reasonably sufficient time prior" to trading.

IV. Conclusion

For the reasons stated above and as described in more detail in the Exhibits, the FXC and FMLG respectfully request the Commission to issue an Interpretative Letter confirming that swap dealers and

[8] *See* Business Conduct Release at 9766.

major swap participants are not required to comply with the Pre-Trade Mid-Market Mark Requirement for Covered FX Transactions.

The Commission staff has not previously issued an exemptive, no-action or interpretative letter regarding the application of Commission Regulation 23.431 to swap dealers and major swap participants in connection with FX Transactions or Covered FX Transactions.

If DSIO denies this request for an Interpretative Letter, FXC and FMLG request that DSIO consider granting alternative relief or an alternative position to alleviate the cost and burden of complying with the Pre-Trade Mid-Market Mark Requirement for Covered FX Transactions. For example, DSIO could grant interpretative relief stating that the Pre-Trade Mid-Market Mark Requirement was deemed satisfied by the availability of public data and pricing information for the Covered FX Transactions.

Please do not hesitate to contact the FMLG's representative member, Jeff Lillien, of Deutsche Bank AG, at 212-250-2699 or jeff.lillien@db.com, should you have any questions regarding our request.

Sincerely,

The Foreign Exchange Committee

By: ______________________________
Jeff Feig, Committee Chair

By: ______________________________
Adnan Akant, Buy Side Chair

The Financial Markets Lawyers Group

By: ______________________________
Jeff Lillien

cc: Hon. Gary Gensler, Chairman
Hon. Jill E. Sommers, Commissioner
Hon. Bart Chilton, Commissioner
Hon. Scott D. O'Malia, Commissioner
Hon. Mark P. Wetjen, Commissioner
Commodity Futures Trading Commission
1155 21st Street NW
Washington, DC 20581

UNDERTAKING AND CERTIFICATION

I, the undersigned, a representative member of the FMLG who has been duly appointed to sign this Undertaking and Certification on behalf of the FMLG, hereby undertake that I will notify U.S. Commodity Futures Trading Commission staff promptly if any of the representations made in connection with or related to the FXC's and FMLG's Request for Interpretative Letter dated November 16, 2012 cease to be true or correct, or become incomplete or misleading.

I hereby certify that the material facts set forth in the attached letter dated November 16, 2012 are true and complete to the best of my knowledge.

Signed: ____________

Name: Jeff Lillien

Date: November 16, 2012

EXHIBIT A

Request for Relief Submitted to the Commission on November 16, 2012

Proposed Guidance Relating to Pre-Trade Mid-Market Quotation Requirement

Who we are: This Proposal is being submitted by the Financial Markets Lawyers Group ("**FMLG**")[9], a group which is sponsored by the Federal Reserve Bank of New York (the "**FRBNY**") and is composed of lawyers from major institutions that are active in the foreign exchange ("**FX**") market (and related financial markets). The FMLG's objectives include fostering efficiency in the FX market (and related financial markets) by creating a collective understanding of legal risks and, when possible, diminishing such risks. Since its formation in the late 1980s, the FMLG has worked to standardize FX trading documentation, provide a forum for discussion of legal issues, and publish FX-related market Best Practices, among other things. Consistent with this objective, the FMLG seeks guidance from the Commodity Futures Trading Commission (the "**CFTC**") in order to enable FX markets to continue to function in an effective and efficient manner consistent with regulatory obligations. ***The views expressed in this paper, however, are the views of FMLG members and are not endorsed by the FRBNY or the Federal Reserve System.***

Purpose: The purpose of this Proposal is to follow-up on a discussion held on July 31, 2012 with CFTC staff related to the obligation by FX Dealers to deliver a pre-trade mid-market price to counterparties.

FMLG Proposal: The FMLG would like to confirm with the CFTC that FX Dealers will not be required to provide a pre-trade mid-market price for a specific subset of FX transactions — those that involve highly-liquid currencies and exhibit narrow FX Dealer bid-ask spreads that are closely correlated to publicly available information. On Attachment 1, we have set out the specific subset of FX transactions (FX deliverable forwards/swaps and FX vanilla deliverable options involving certain currency pairs and tenors) for which sufficient public pricing information is available, such that a pre-trade mid-market quote should not be required.

Regulatory Requirement Compared: The stated goal of the regulatory requirement is to "[provide] the counterparty with pricing information that facilitates negotiations and balances historical information asymmetry regarding swap pricing."[10] For the products set forth in Attachment 1, FX Dealers provide real-time, tradable, bid-offer prices which enable counterparties to be aware of both sides of the market. This availability of information further allows counterparties to compare pricing within narrow ranges that are available on an ongoing basis across FX Dealers and through multiple public and proprietary sources. Market characteristics that demonstrate this result are outlined in Attachment 2. Thus, the method by which FX Dealers price their transactions, coupled with the information available from multiple sources, demonstrate that the regulatory goal is being achieved.

Data Demonstrates that Certain FX Product Prices are Transparent and Competitive: The FMLG has obtained sample data from major FX Dealers (see Exhibit B) that reflects pricing information available to counterparties on a real-time basis in liquid markets for selected FX products, currency pairs and tenors.[11] This data — which was selected as a set of examples (with the rationale discussed in Exhibit

[9] The member firms of the FMLG include: Bank of America, NA, The Bank of New York Mellon, BNP Paribas, Citigroup Global Markets Inc., Deutsche Bank, HSBC Securities (USA) Inc., Goldman Sachs & Co., JP Morgan Chase & Co., Morgan Stanley, Royal Bank of Canada, The Royal Bank of Scotland plc (affiliate member), State Street Bank and Trust Company, UBS AG and Wells Fargo.

[10] Business Conduct Release at 9766.

[11] In terms of Forward data, six dealers provided forward outright data but only four dealers provided forward points data (which yielded the statistics presented here). Seven FX dealers provided Options data.

B) and which can be extrapolated to additional currency pairs and tenors for relevant FX products (as listed in Attachment 1) – **demonstrates the transparency of pricing information, the competiveness and tightness of spreads and ongoing liquidity**. The data also demonstrates that the differences between the mid-market price provided by each FX Dealer are not material when compared to each other and when compared to publicly available data. **As a result, counterparties are easily able to obtain the information they need in order to determine that the prices that they are receiving from an FX Dealer are reflective of the overall market.**

For example, based on our data, collected from major FX Dealers and Bloomberg, the typical deviation from a publicly available mid (as provided by Bloomberg) is just $36 on a $1m notional EUR/USD forward deal, $77 on a $1m notional AUD/USD forward deal and $254 on a $1m notional USD/MXN forward deal. For the USD/MXN forwards, that represents 0.0254% of the notional amount. Even for USD/MXN options, which represent the outer bounds of our request, our data indicates that the typical deviation from a publicly available mid (as provided by Bloomberg) is $1,837 on a $1m notional USD/MXN vanilla option deal, or 0.1837% of the notional amount. (Please see Exhibit B for background and details on our data.)

The Benefits of this Approach: Tight bid-offer spreads provide more valuable information than mid-market quotes. If an FX Dealer were required to provide a mid-market quote for every trade (even in a fast-moving electronic trading environment), this adversely affects the ability of the counterparty to quickly receive a bid-offer from an FX Dealer in an environment where every moment counts. For FX markets, counterparties have sought pricing information as to both sides of the market, which can be more meaningful and also shows the tight spreads between bid and offered prices. Such information clearly shows where counterparties can achieve competitive prices and from whom. Where a highly liquid, transparent and tightly priced market exists, as is the case for certain currencies and products in the FX market, the provision of a mid-market price by each FX Dealer would be of inconsequential value to a counterparty but would, in turn, require each FX Dealer to create an additional price stream, adding significant costs to a narrow spread environment and certainly delaying the delivery of price information.

Attachment 1

- *Requested Guidance:* Pre-trade mid-market quotation should not be required for:
  - FX deliverable forwards and swaps with a maturity date of one year or less and that involve a currency pair where both currencies are one of the top 13 deliverable currencies (by volume) (the US dollar, Euro, Japanese yen, Pound sterling, Australian dollar, Swiss franc, Canadian dollar, Hong Kong dollar, Swedish krona, New Zealand dollar, Singapore dollar, Norwegian krone and Mexican peso) (the "BIS 13 Currencies") in the 2010 BIS Triennial Central Bank Survey (the "BIS Report") chart of global foreign exchange market turnover (see page 12 at http://www.bis.org/publ/rpfxf10t.pdf). The FMLG notes that the BIS 13 Currencies comprise the 13 most liquid currencies (excluding the Korean won, which is a restricted currency) of the set of 17 currencies settled on CLS.
  - Vanilla deliverable FX options with a maturity date of six months or less and that involve a currency pair where both currencies are one of the BIS 13 Currencies.

Attachment 2

- *General Observation:* As an asset class, foreign exchange (FX) markets have developed deep liquidity and readily observable price transparency for forwards, swaps and vanilla options.
- *Fundamentals for FX Forwards and Swaps:* As a result, for FX forwards and swaps, when an FX Dealer receives a request from a counterparty to provide a quotation as to a requested transaction:
  - the FX Dealer typically provides both bid and offered prices for the currency pair.
  - the bid and offered prices tend to be quoted within very narrow spreads (such that mid-market levels do not provide additional, material economic information to the counterparty).
  - the same holds true regardless of whether the transaction is to be executed electronically or by voice brokerage (although a large segment of the FX market is already electronic[12]).
- *Fundamentals for Vanilla FX Options:* Although the paper previously submitted by the FMLG focused on FX products expected to be exempt from the definition of "swap" under the Secretary of the Treasury's Proposed Determination, the fundamentals outlined above are also generally true for vanilla FX options. The FX Dealer provides both bid and offered prices, which are within a narrow spread. The primary difference is that options pricing information is expressed in terms of "volatility" (and, for vanilla options, market participants have universally accepted the use of the Black-Scholes model for price determination purposes).
- *Continuity of Price Information:* FX forward and swap markets have high transaction frequency, resulting in generally continuous availability of market pricing during normal trading hours.
  - The same tends to be true for vanilla FX options, with somewhat lower transaction frequency.

[12] According to the Federal Reserve Bank of New York's April 2012 FX Volume Survey (available at http://www.newyorkfed.org/FXC/volumesurvey/), 48% of Outright Forwards, 37% of FX Swaps and 15% of FX Options trades are conducted through Electronic Trading Systems and/or Electronic Brokering Systems.

EXHIBIT B

Non-Confidential Appendix to
Request for Relief Submitted to the Commission on November 16, 2012

PRE-TRADE MID-MARKET RESULTS

In support of the FMLG's proposal that FX Dealers should not be required to provide a pre-trade mid-market quote for a specific subset of FX transactions – those that involve highly-liquid currencies and exhibit narrow FX Dealer bid-ask spreads that are closely correlated to publicly available information, the FMLG collected a sampling of actual pricing data from a number of major FX Dealers.[13]

As the FMLG believes pre-trade mid-market quotes should not be required for FX forwards (up to one year), swaps (up to one year) and vanilla options (up to six months) trades that involve currency pairs, where both currencies are one of the BIS 13 Currencies (as defined in Attachment 1 as the US dollar (USD), Euro (EUR), Japanese yen, Pound sterling, Australian dollar (AUD), Swiss franc, Canadian dollar, Hong Kong dollar, Swedish krona, New Zealand dollar, Singapore dollar, Norwegian krone and Mexican peso (MXN)), the FMLG tested three different currency pairs that represent varying levels of liquidity:

- USD-EUR (highest level of liquidity)
- USD-AUD (liquid, but at the middle of the BIS 13 Currencies spectrum), and
- USD-MXN (also liquid, but the lowest volume level among the BIS 13 Currencies).

For each of these currency pairs, sample data was obtained for the period from March 15, 2012 through August 15, 2012 for the different product types in question: deliverable forwards (which, when traded as a pair, also comprise deliverable swaps) and vanilla (non-structured) options. For each forward, a sample tenor of one-year was selected, as it represented a commonly-traded maturity that extended substantially beyond the spot date. For the same reason, a sample tenor of six months was selected for each option.

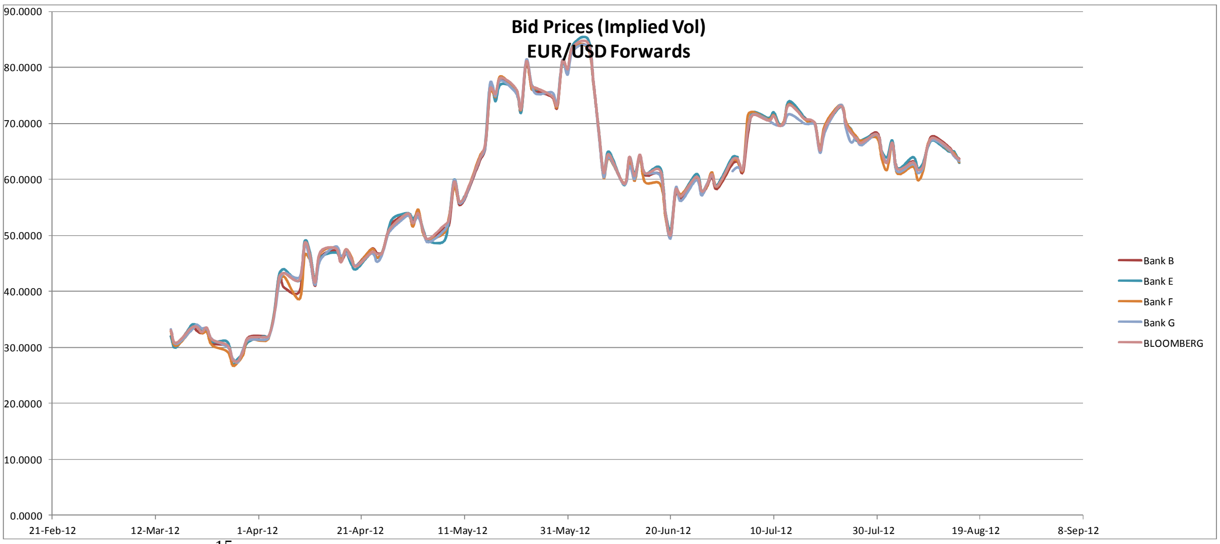
The FX Dealers that participated in the data collection were asked to provide "clean" (i.e. stripped of funding and credit adjustments) pricing data that could be executable with a customer, as of 11 a.m. New York time, assuming a notional of USD $10 mm. In some cases, it was not possible to obtain data at exactly 11 a.m. and some data is not completely "clean" but these discrepancies are not believed to materially affect the analysis presented here.[14] It is our understanding that the Bloomberg data collected represents a composite of data reported by dealers to Bloomberg. The calculations performed represent our best effort to present the data in a meaningful manner. All raw data and calculations are attached on the source spreadsheet so they can be verified and reviewed as needed. While provided in good faith, the graphs below are nonetheless presented for illustrative purposes only.

[13] In terms of Forward data, six major FX Dealers provided forward outright data, but only four FX Dealers provided forward points data, which was sought to eliminate the impact of the underlying spot price volatility on the data. Seven major FX Dealers provided Options data.

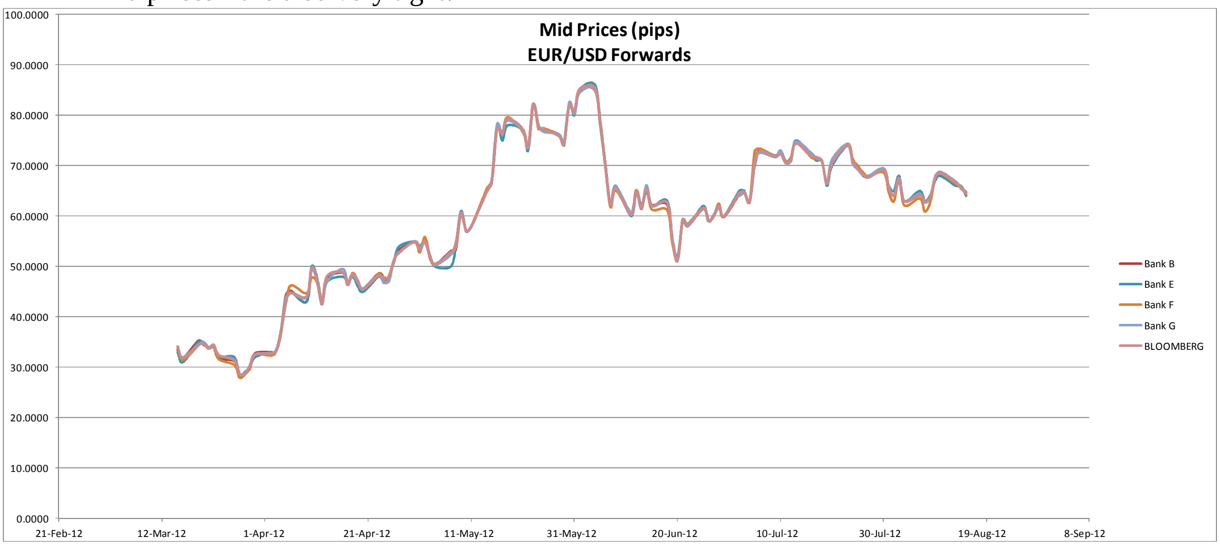
[14] Indeed, arguably, more exact and comparable data might have yielded tighter results.

An FX swap (quoted as "forward points") is a position that is long an outright forward, and short a spot transaction. This is the "forward piece" traded by Forwards desks. The Spot is traded by the Spot desks, and options based on possible future values of the Spot by the Options desks.

We find that the pricing data submissions are very similar. This is how a graph of the EUR/USD forward points bids looks:

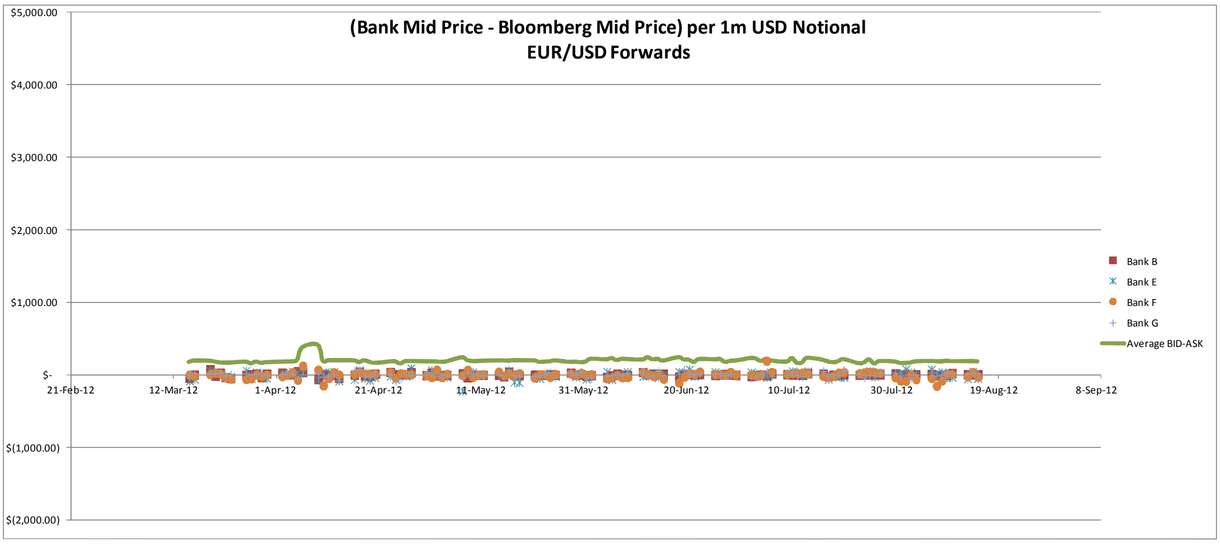


Mid prices[15] are also very tight:



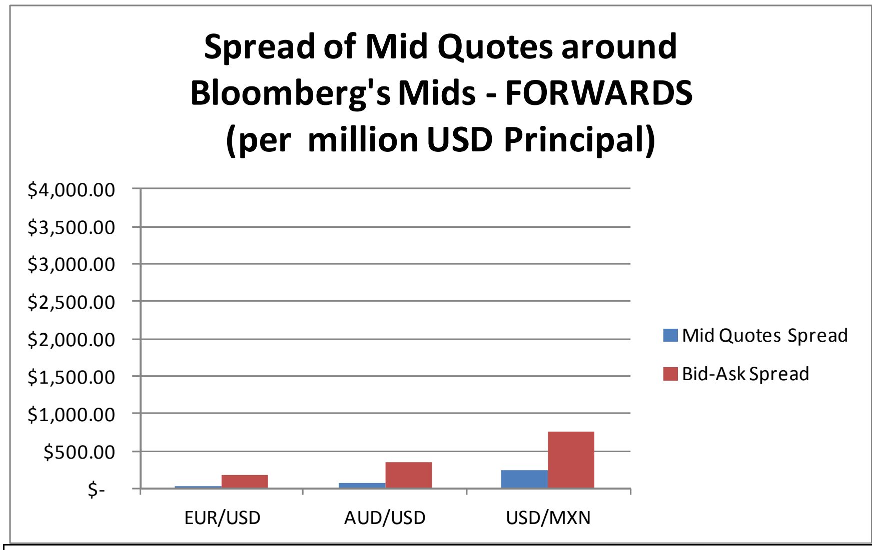
[15] The mid-market prices graphed are the arithmetic mean of bid and ask prices.

In order to make these differences more tangible, we take each FX Dealer's mid-market price (the arithmetic mean of the FX Dealer's bid and ask), and compare it with Bloomberg's mid-market price (the arithmetic mean of Bloomberg's bid and ask). The difference between the two mid-market prices is turned into a dollar amount (per million USD of traded notional) as described in the subsection below. We obtain:



Note that, as a reference (the solid green line), we show the average bid-ask spread for each day, also as a dollar amount per million USD.

In order to summarize this information, we compute the standard deviation of all these mid-market prices relative to Bloomberg, and the average bid-ask spread for each currency pair, to obtain:



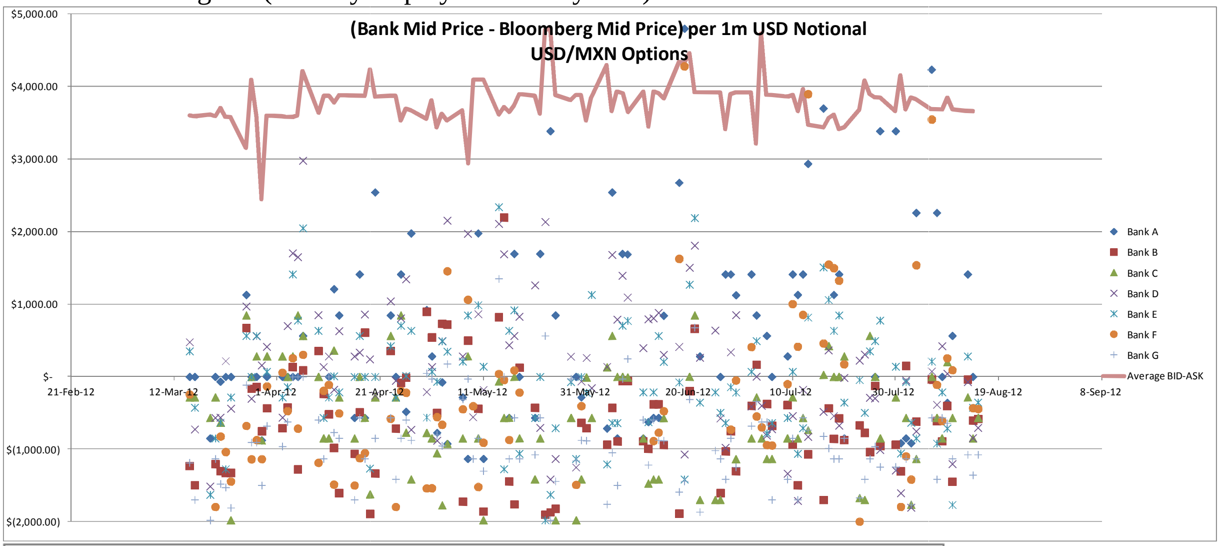
1Y FORWARDS	EUR/USD	AUD/USD	USD/MXN
Mid Quotes Spread	$ 36	$ 77	$ 254
Bid-Ask Spread	$ 194	$ 358	$ 769

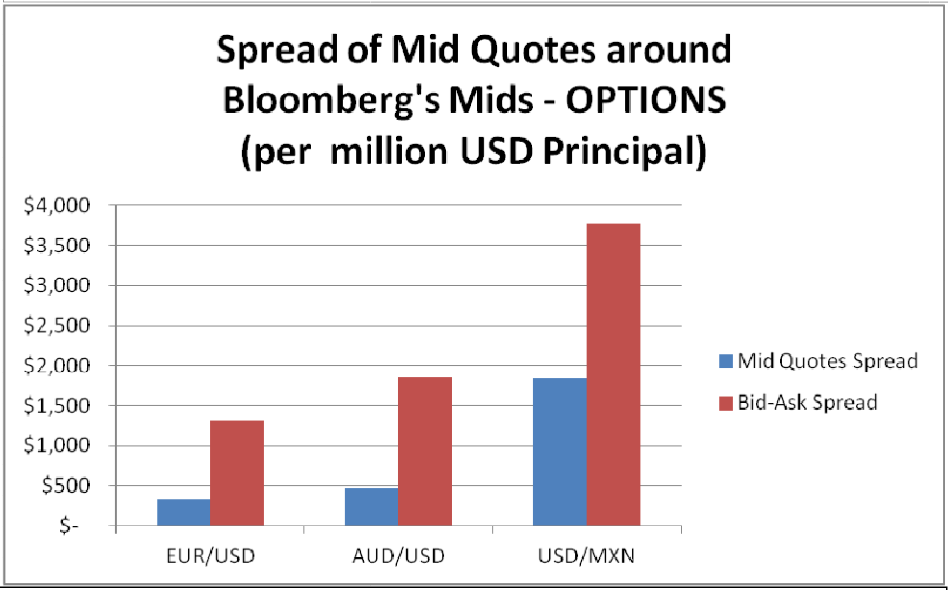
Note that, as expected, due to liquidity, EUR/USD is tighter than AUD/USD, and USD/MXN is the widest of the three. In all cases, the typical difference (or deviation) of mid values with respect to Bloomberg is very small in dollar terms, and small in comparison to the bid –ask spread. For example, the typical deviation from a publicly available mid (as provided by Bloomberg) range from just $36 on a $1m notional EUR/USD forward deal (this is 0.0036% of the notional), to $254 on a $1m notional USD/MXN forward deal, or 0.0254% of the notional amount. We present a complete set of plots for forwards and options data at the end of this document.

QUOTE TO PRICE CONVERSION FOR FORWARDS

We set the USD notional to 1mm. When USD is the base currency, as in USD/MXN, if one buys USD at $F_1$and sells immediately at $F2$, the mark to market (MTM) of the trade is $MTM = 1mm * (F_2 - F_1)$. This quantity is in MXN units, and we are not discounting to the present, for simplicity. We can translate the MTM to USD using the spot S: $MTM\ [USD] = 1mm * (F_2 - F_1)/S$. It is easy to see that the same MTM expression is valid when USD is the quote currency. We assume that we trade on a (EUR) notional of 1mm/S, and the USD denominated MTM is simply: $MTM\ [USD] = (1mm/S) * (F_2 - F_1)$.

For options, the market quotes volatilities. We turn quote differences into dollar values using vega (price sensitivity to volatility)(see below for details on the vega estimate). Typically, option quotes are wider than forward quotes for a given currency, USD/MXN being the widest end of the spectrum of data we collected (shown here on the same scale as the plot for EUR/USD forward points mids above, although some data is cut off on this scale. See below for the graph that shows all data.). Other currencies look tighter (we only display a summary here).

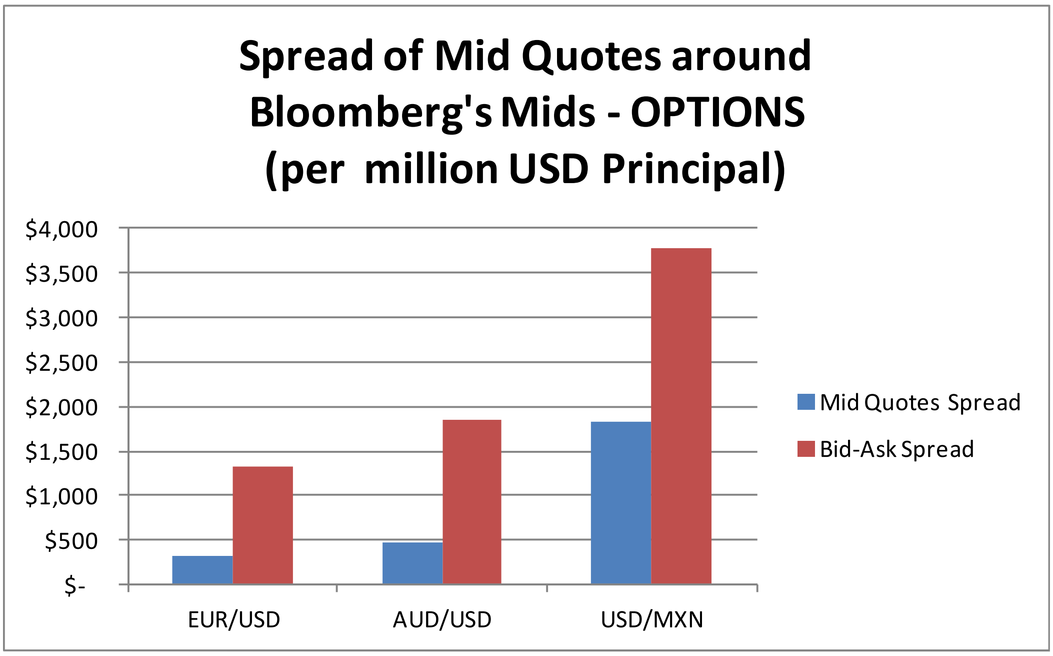


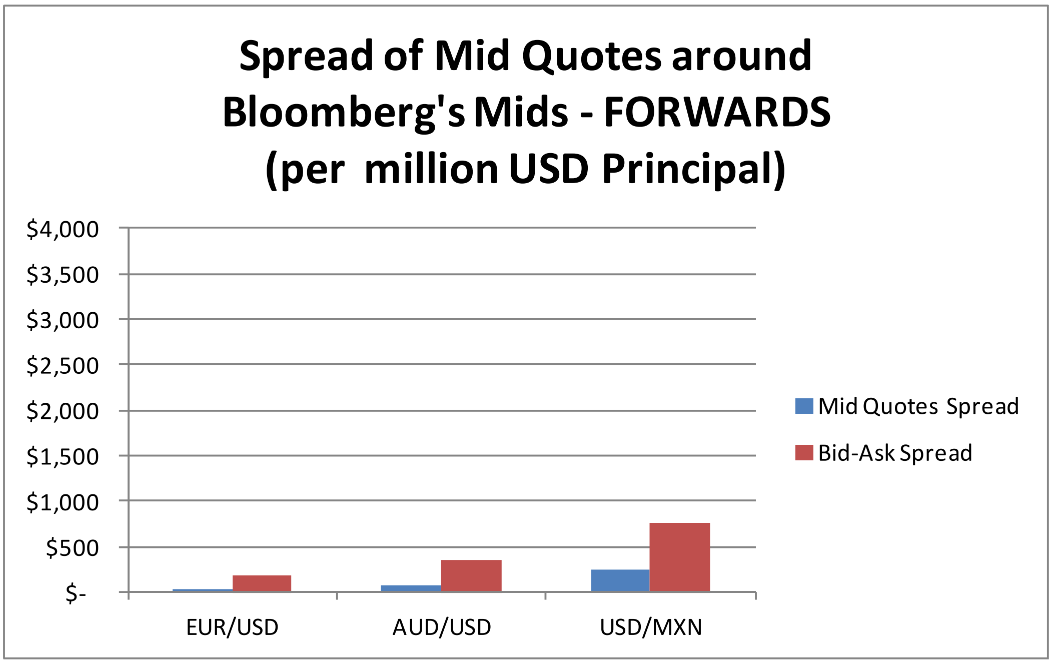


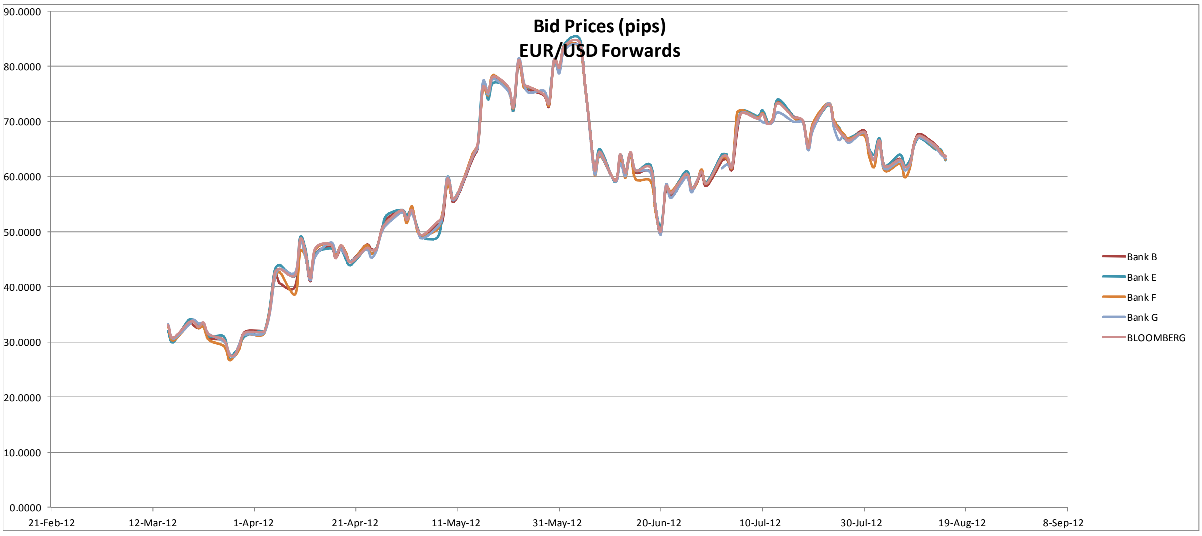
6M OPTIONS	EUR/USD	AUD/USD	USD/MXN
Mid Quotes Spread	$ 328	$ 464	$ 1,837
Bid-Ask Spread	$ 1,317	$ 1,852	$ 3,778

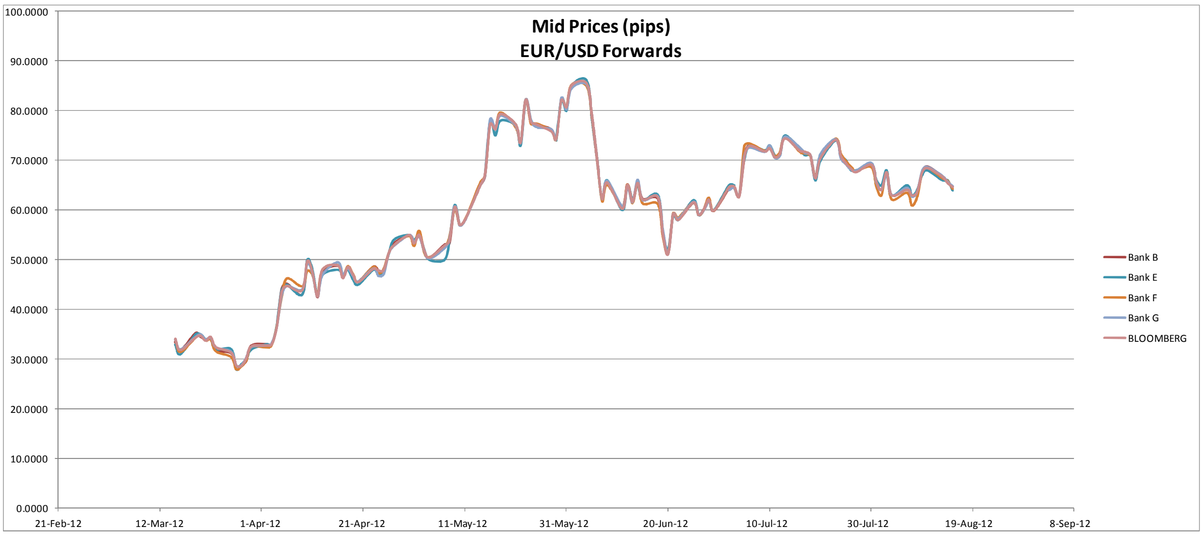
VEGA ESTIMATE

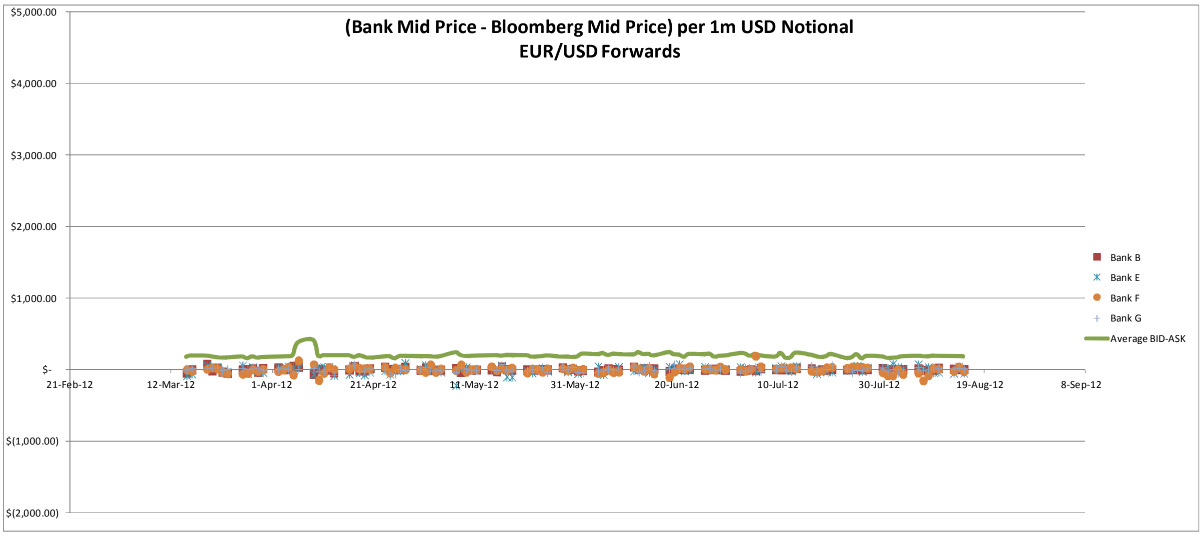
We assume a simple Black-Scholes model and that the call and the put in the Straddle are very close to ATMF, so we can use the well known approximation $vega \cong 2NS\sqrt{T/2\pi}$ where N is the Notional and S the Spot, and T is the annualized tenor. The factor 2 is due to the fact that both the Call and the Put contribute the same vega. Note that when USD is the quote currency, as in EUR/USD, the Notional is a EUR amount, say 1mm/S, so the Spot cancels out, and we get $vega \cong 2 * 1mm * \sqrt{T/2\pi}$. When USD is the base currency, as in USD/MXN, quantities are quoted in MXN terms, and we get $vega[MXN] \cong 2 * 1mm * S\sqrt{T/2\pi}$. We can flip this into a USD amount using the Spot, which once again cancels out, giving the same result as before, i.e. $vega \cong 2 * 1mm * \sqrt{T/2\pi}$. Note that we neglected any discount factors in the estimate.

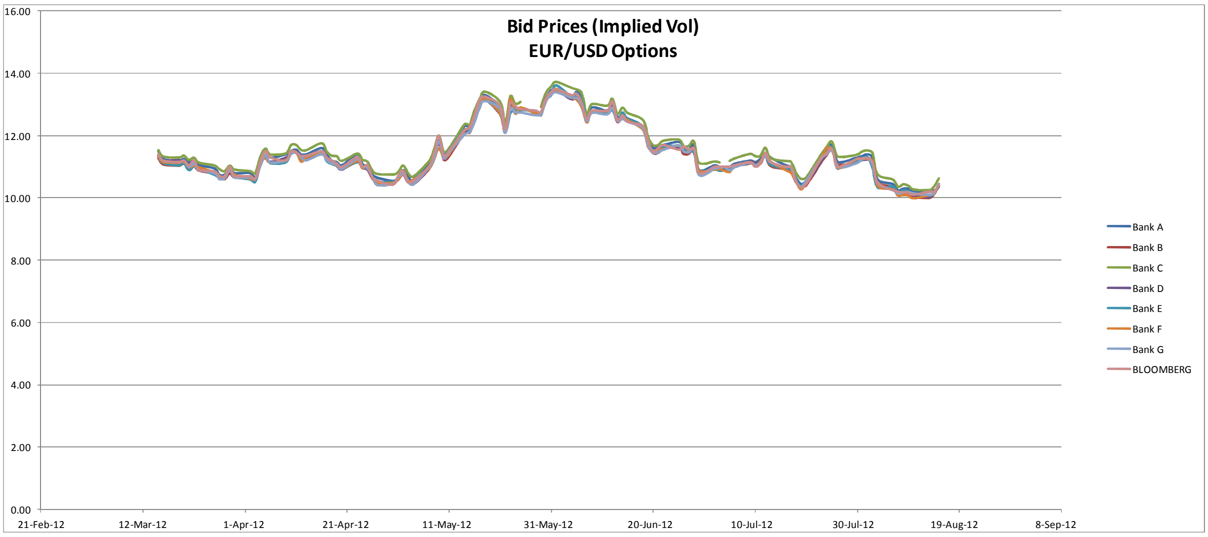

Spread of Mid Quotes around
Bloomberg's Mids - OPTIONS
(per million USD Principal)
$4,000
$3,500
$3,000
$2,500
$2,000
$1,500
$1,000
$500
$-
EUR/USD
AUD/USD
USD/MXN
Mid Quotes Spread
Bid-Ask Spread

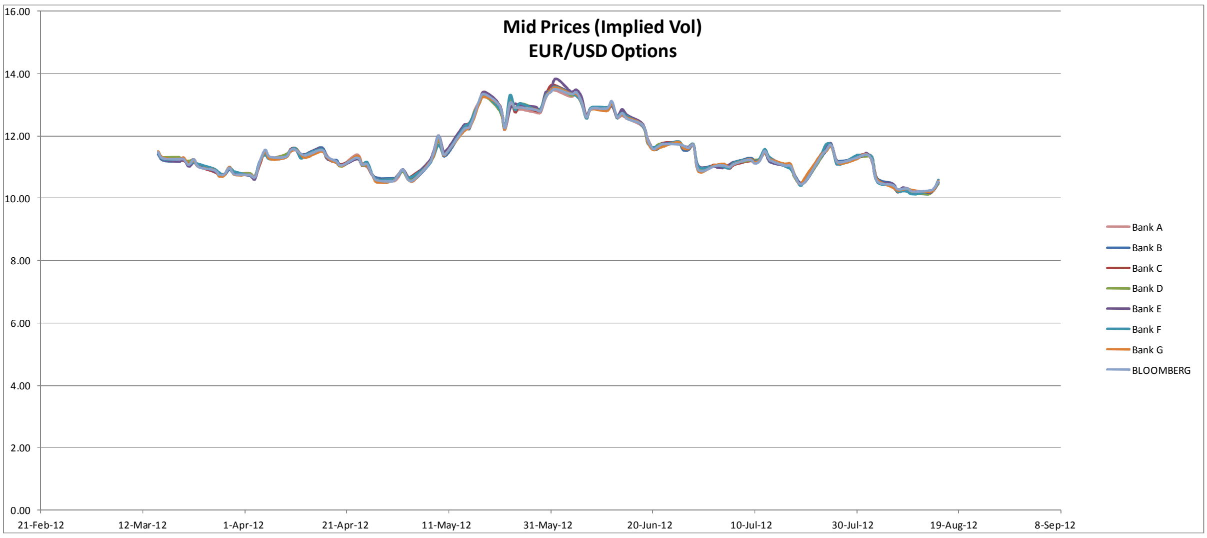

Spread of Mid Quotes around
Bloomberg's Mids - FORWARDS
(per million USD Principal)
$4,000
$3,500
$3,000
$2,500
$2,000
$1,500
$1,000
$500
$-
EUR/USD
AUD/USD
USD/MXN
Mid Quotes Spread
Bid-Ask Spread

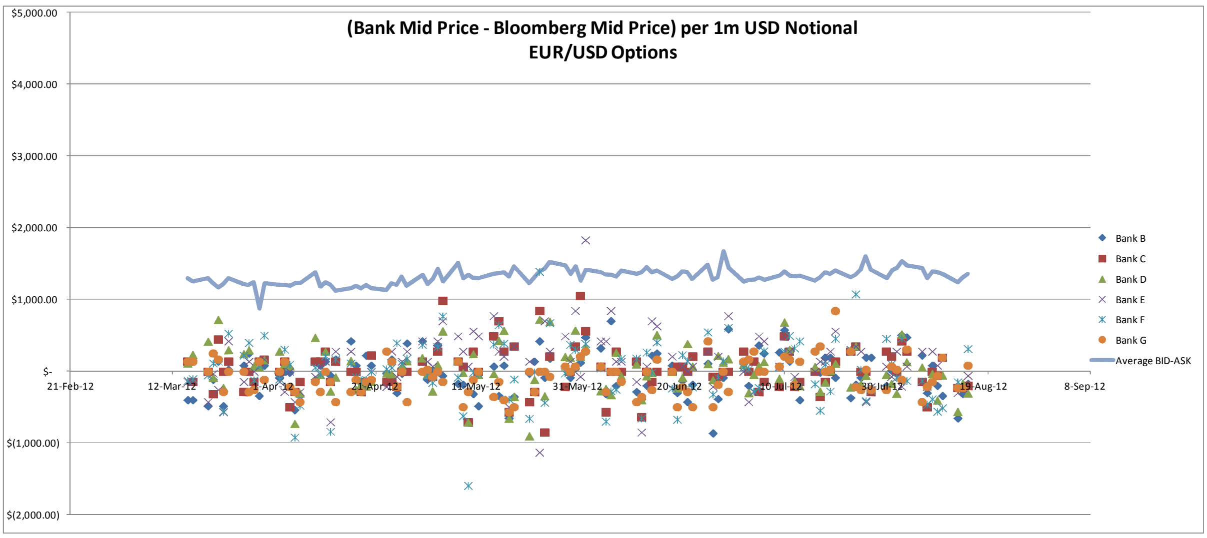

Bid Prices (pips)
EUR/USD Forwards
90.0000
80.0000
70.0000
60.0000
50.0000
40.0000
30.0000
20.0000
10.0000
0.0000
21-Feb-12
12-Mar-12
1-Apr-12
21-Apr-12
11-May-12
31-May-12
20-Jun-12
10-Jul-12
30-Jul-12
19-Aug-12
8-Sep-12
Bank B
Bank E
Bank F
Bank G
BLOOMBERG


Mid Prices (pips)
EUR/USD Forwards
100.0000
90.0000
80.0000
70.0000
60.0000
50.0000
40.0000
30.0000
20.0000
10.0000
0.0000
21-Feb-12
12-Mar-12
1-Apr-12
21-Apr-12
11-May-12
31-May-12
20-Jun-12
10-Jul-12
30-Jul-12
19-Aug-12
8-Sep-12
Bank B
Bank E
Bank F
Bank G
BLOOMBERG

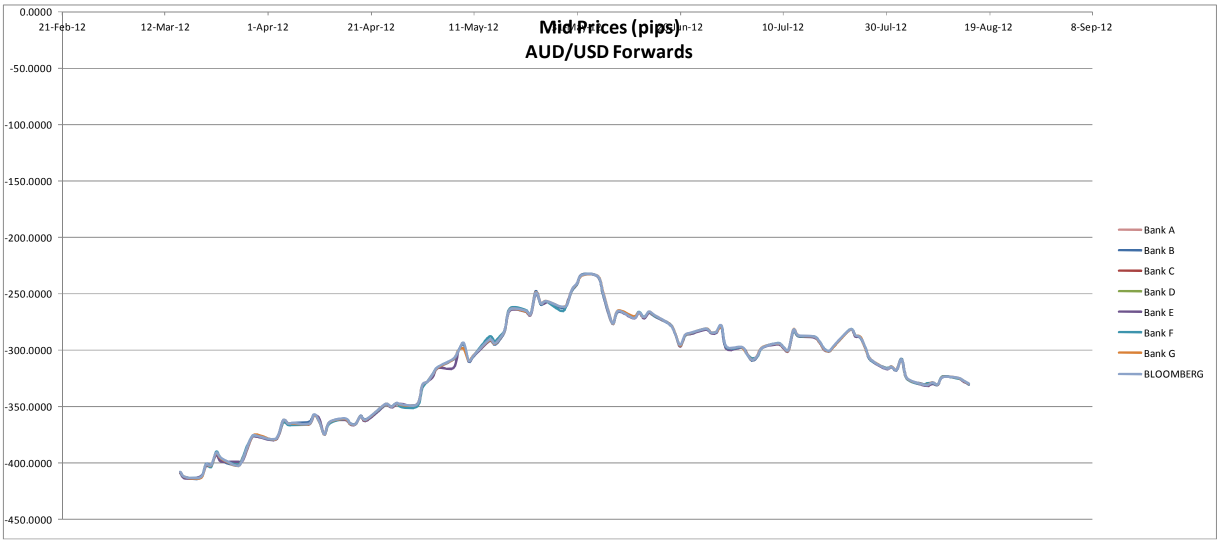

(Bank Mid Price - Bloomberg Mid Price) per 1m USD Notional
EUR/USD Forwards
$5,000.00
$4,000.00
$3,000.00
$2,000.00
$1,000.00
$-
$(1,000.00)
$(2,000.00)
21-Feb-12
12-Mar-12
1-Apr-12
21-Apr-12
11-May-12
31-May-12
20-Jun-12
10-Jul-12
30-Jul-12
19-Aug-12
8-Sep-12
Bank B
Bank E
Bank F
Bank G
Average BID-ASK

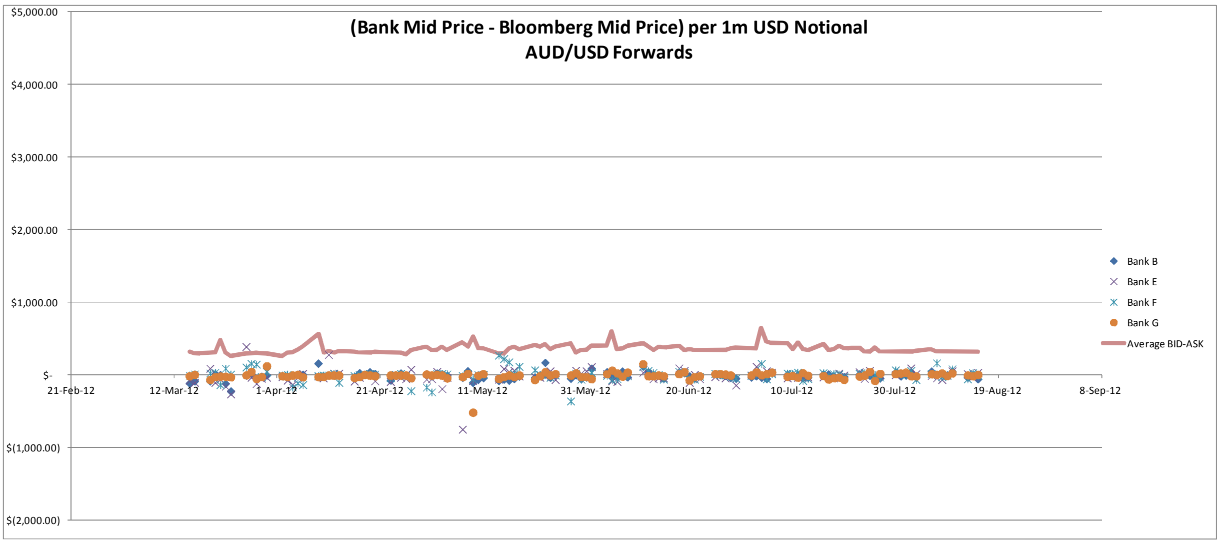

Bid Prices (Implied Vol)
EUR/USD Options
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
21-Feb-12
12-Mar-12
1-Apr-12
21-Apr-12
11-May-12
31-May-12
20-Jun-12
10-Jul-12
30-Jul-12
19-Aug-12
8-Sep-12
Bank A
Bank B
Bank C
Bank D
Bank E
Bank F
Bank G
BLOOMBERG

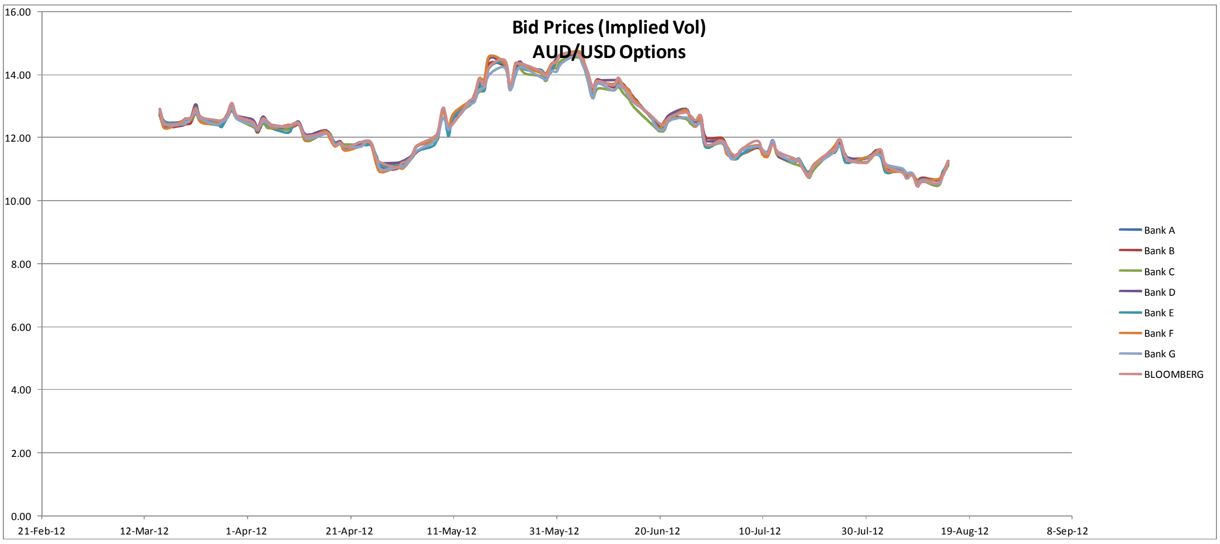

Mid Prices (Implied Vol)
EUR/USD Options
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
21-Feb-12
12-Mar-12
1-Apr-12
21-Apr-12
11-May-12
31-May-12
20-Jun-12
10-Jul-12
30-Jul-12
19-Aug-12
8-Sep-12
Bank A
Bank B
Bank C
Bank D
Bank E
Bank F
Bank G
BLOOMBERG

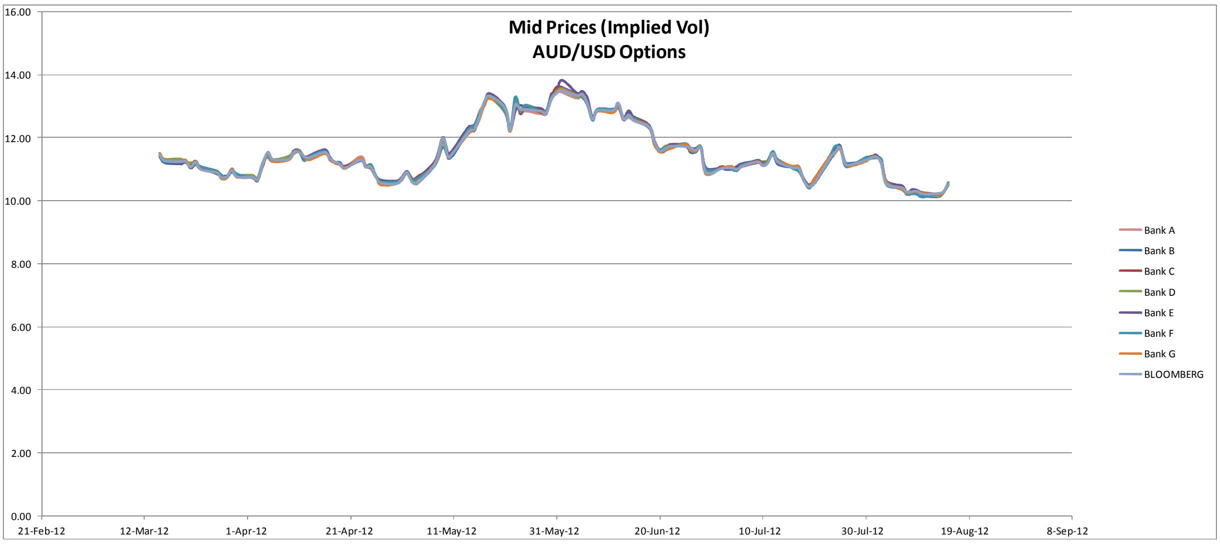

(Bank Mid Price - Bloomberg Mid Price) per 1m USD Notional
EUR/USD Options
$5,000.00
$4,000.00
$3,000.00
$2,000.00
$1,000.00
$-
$(1,000.00)
$(2,000.00)
21-Feb-12
12-Mar-12
1-Apr-12
21-Apr-12
11-May-12
31-May-12
20-Jun-12
10-Jul-12
30-Jul-12
19-Aug-12
8-Sep-12
Bank B
Bank C
Bank D
Bank E
Bank F
Bank G
Average BID-ASK


Bid Prices (pips)
AUD/USD Forwards
0.0000
-50.0000
-100.0000
-150.0000
-200.0000
-250.0000
-300.0000
-350.0000
-400.0000
-450.0000
21-Feb-12
12-Mar-12
1-Apr-12
21-Apr-12
11-May-12
10-Jul-12
30-Jul-12
19-Aug-12
8-Sep-12
Bank A
Bank B
Bank C
Bank D
Bank E
Bank F
Bank G
BLOOMBERG


Mid Prices (pips)
AUD/USD Forwards
0.0000
-50.0000
-100.0000
-150.0000
-200.0000
-250.0000
-300.0000
-350.0000
-400.0000
-450.0000
21-Feb-12
12-Mar-12
1-Apr-12
21-Apr-12
11-May-12
10-Jul-12
30-Jul-12
19-Aug-12
8-Sep-12
Bank A
Bank B
Bank C
Bank D
Bank E
Bank F
Bank G
BLOOMBERG


(Bank Mid Price - Bloomberg Mid Price) per 1m USD Notional
AUD/USD Forwards
$5,000.00
$4,000.00
$3,000.00
$2,000.00
$1,000.00
$-
$(1,000.00)
$(2,000.00)
21-Feb-12
12-Mar-12
1-Apr-12
21-Apr-12
11-May-12
31-May-12
20-Jun-12
10-Jul-12
30-Jul-12
19-Aug-12
8-Sep-12
Bank B
Bank E
Bank F
Bank G
Average BID-ASK


Bid Prices (Implied Vol)
AUD/USD Options
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
21-Feb-12
12-Mar-12
1-Apr-12
21-Apr-12
11-May-12
31-May-12
20-Jun-12
10-Jul-12
30-Jul-12
19-Aug-12
8-Sep-12
Bank A
Bank B
Bank C
Bank D
Bank E
Bank F
Bank G
BLOOMBERG


Mid Prices (Implied Vol)
AUD/USD Options
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
21-Feb-12
12-Mar-12
1-Apr-12
21-Apr-12
11-May-12
31-May-12
20-Jun-12
10-Jul-12
30-Jul-12
19-Aug-12
8-Sep-12
Bank A
Bank B
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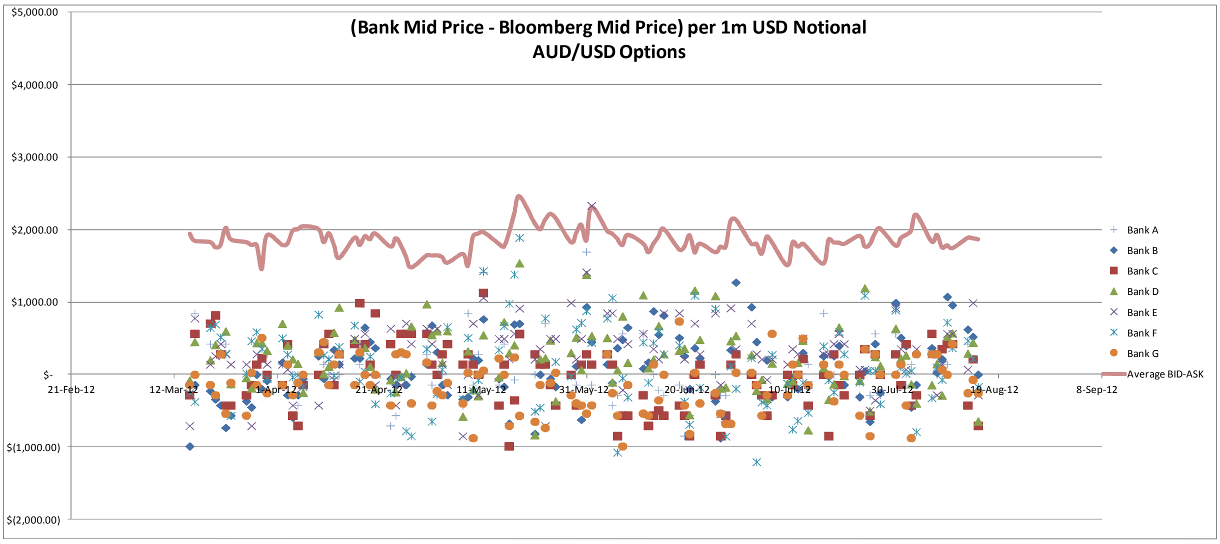
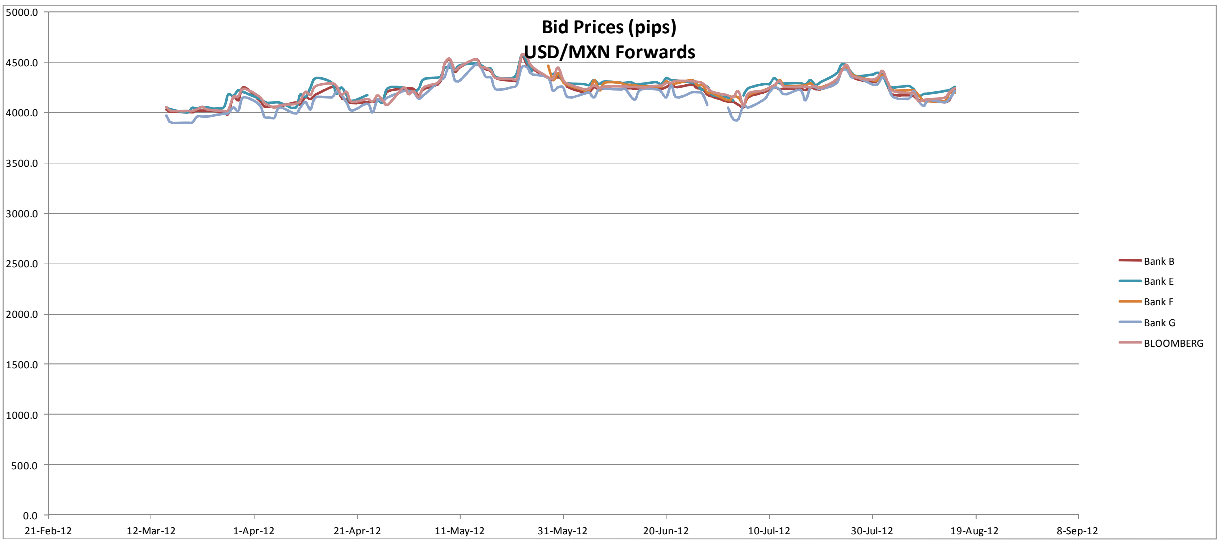
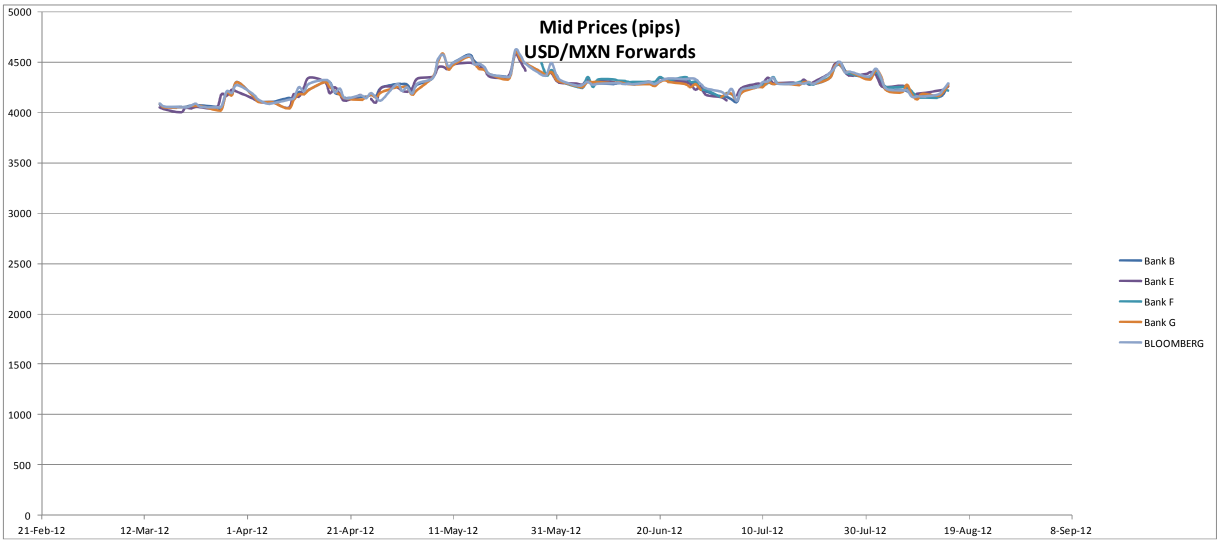
Bank E
Bank F
Bank G
BLOOMBERG


(Bank Mid Price - Bloomberg Mid Price) per 1m USD Notional
AUD/USD Options
$5,000.00
$4,000.00
$3,000.00
$2,000.00
$1,000.00
$-
$(1,000.00)
$(2,000.00)
21-Feb-12
12-Mar-12
1-Apr-12
21-Apr-12
11-May-12
31-May-12
20-Jun-12
10-Jul-12
30-Jul-12
19-Aug-12
8-Sep-12
Bank A
Bank B
Bank C
Bank D
Bank E
Bank F
Bank G
Average BID-ASK


Bid Prices (pips)
USD/MXN Forwards
5000.0
4500.0
4000.0
3500.0
3000.0
2500.0
2000.0
1500.0
1000.0
500.0
0.0
21-Feb-12
12-Mar-12
1-Apr-12
21-Apr-12
11-May-12
31-May-12
20-Jun-12
10-Jul-12
30-Jul-12
19-Aug-12
8-Sep-12
Bank B
Bank E
Bank F
Bank G
BLOOMBERG


Mid Prices (pips)
USD/MXN Forwards
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
21-Feb-12
12-Mar-12
1-Apr-12
21-Apr-12
11-May-12
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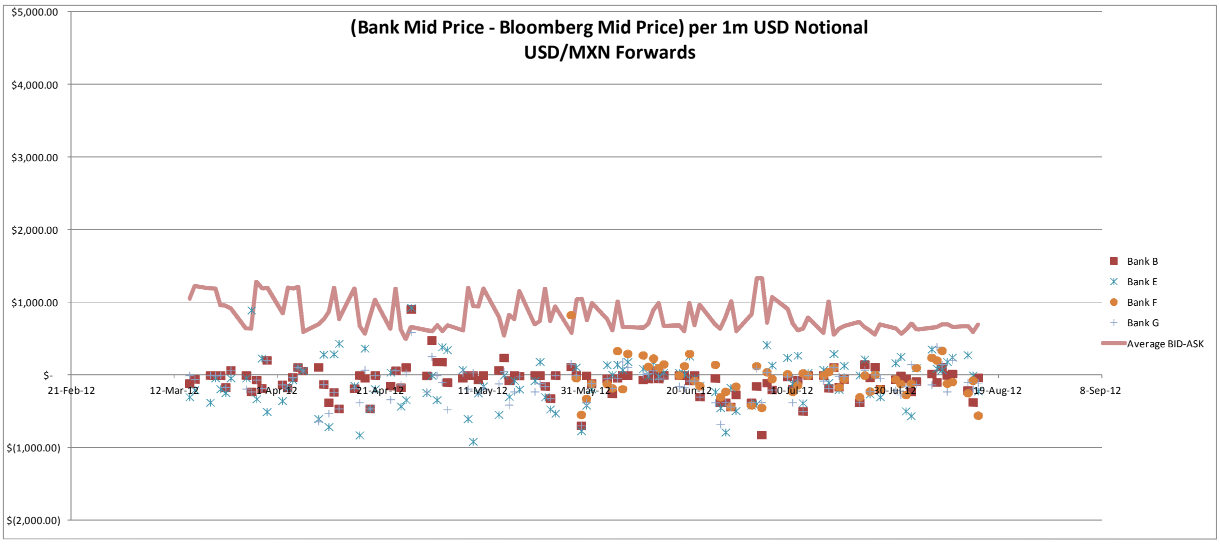
(Bank Mid Price - Bloomberg Mid Price) per 1m USD Notional
USD/MXN Forwards
$5,000.00
$4,000.00
$3,000.00
$2,000.00
$1,000.00
$-
$(1,000.00)
$(2,000.00)
21-Feb-12
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19-Aug-12
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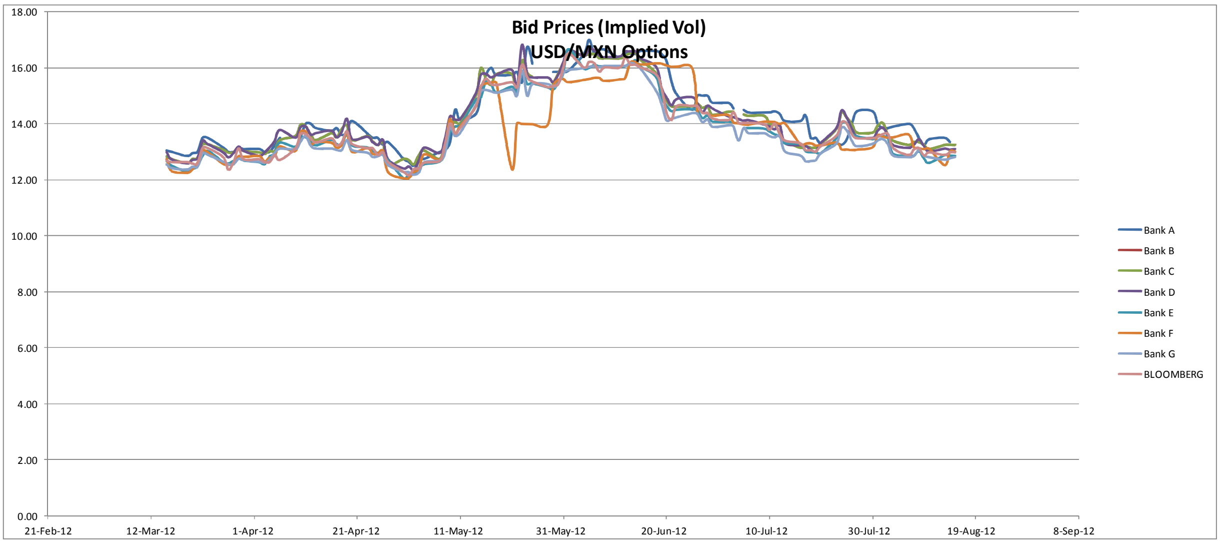
Average BID-ASK


Bid Prices (Implied Vol)
USD/MXN Options
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
21-Feb-12
12-Mar-12
1-Apr-12
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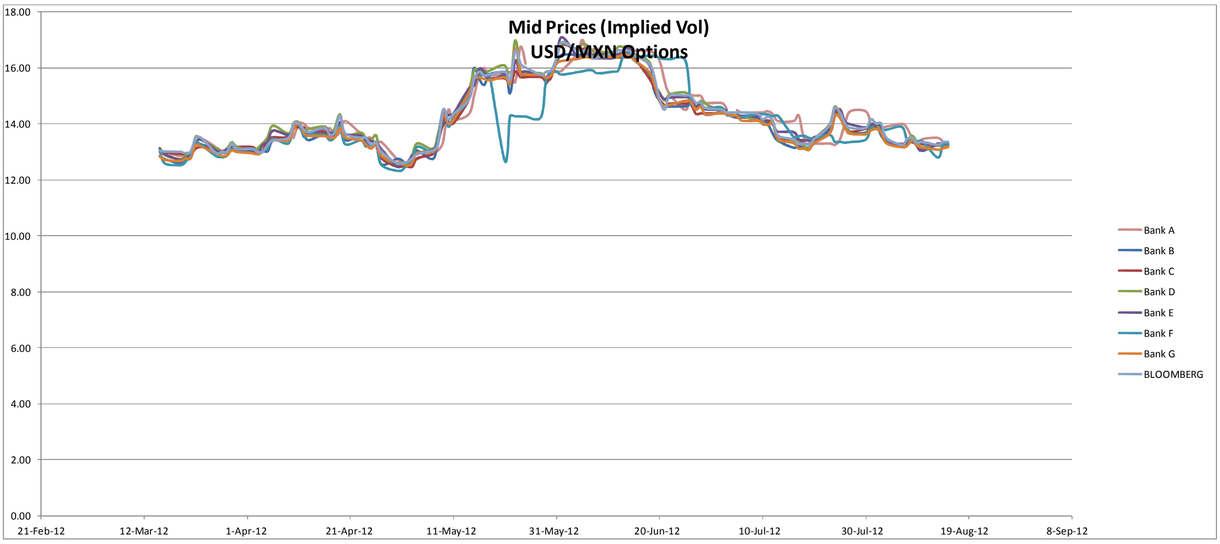
Mid Prices (Implied Vol)
USD/MXN Options
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
21-Feb-12
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Bank A
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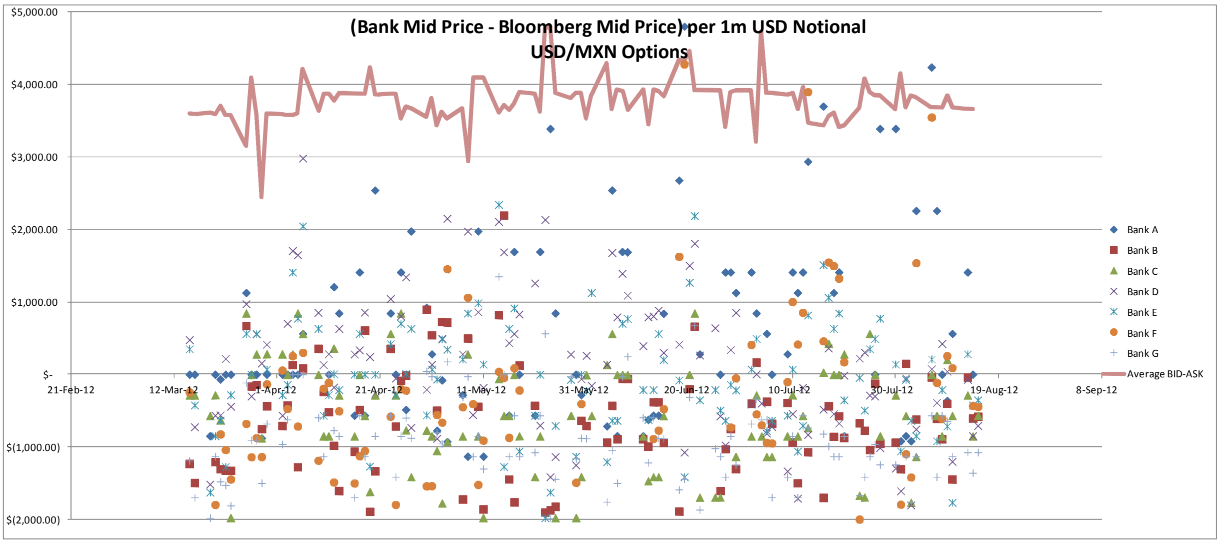
Bank F
Bank G
BLOOMBERG


(Bank Mid Price - Bloomberg Mid Price) per 1m USD Notional
USD/MXN Options
$5,000.00
$4,000.00
$3,000.00
$2,000.00
$1,000.00
$-
$(1,000.00)
$(2,000.00)
21-Feb-12
12-Mar-12
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20-Jun-12
10-Jul-12
30-Jul-12
19-Aug-12
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Bank A
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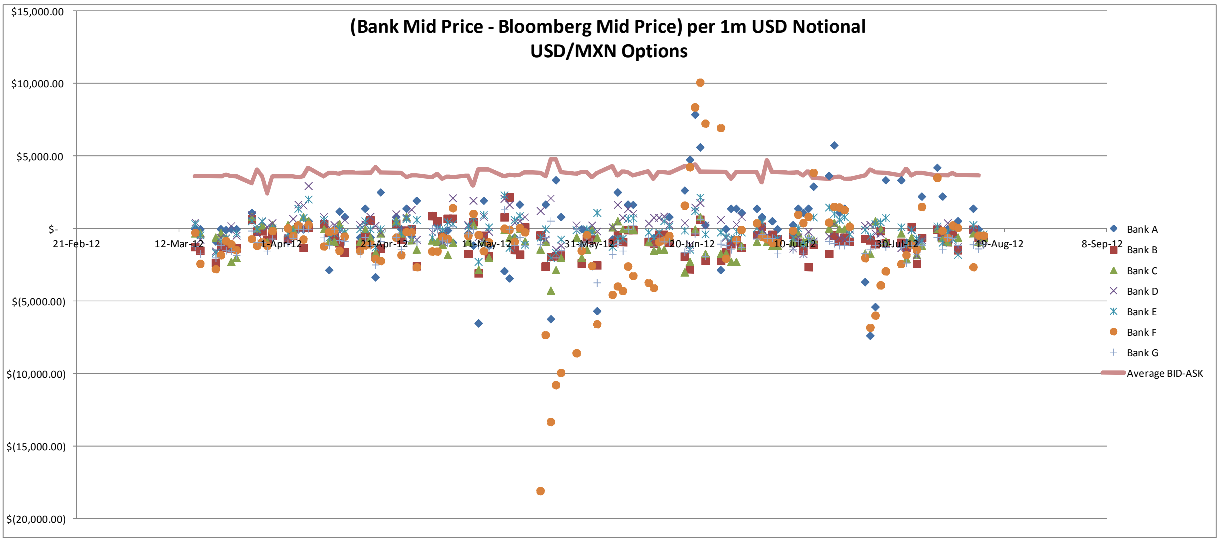
Average BID-ASK


(Bank Mid Price - Bloomberg Mid Price) per 1m USD Notional
USD/MXN Options
$15,000.00
$10,000.00
$5,000.00
$-
$(5,000.00)
$(10,000.00)
$(15,000.00)
$(20,000.00)
21-Feb-12
12-Mar-12
1-Apr-12
21-Apr-12
11-May-12
31-May-12
20-Jun-12
10-Jul-12
30-Jul-12
19-Aug-12
8-Sep-12
Bank A
Bank B
Bank C
Bank D
Bank E
Bank F
Bank G
Average BID-ASK

CONFIDENTIAL EXHIBIT C

PLEASE SEE CONFIDENTIAL ATTACHMENT PROVIDED UNDER SEPARATE COVER