

# The Future of Integrity and Data Analytics in Foreign Exchange

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# BANKS ACCUSED OF OVERCHARGING SMALL CUSTOMERS FOR FX SERVICES

*Financial Times*, June 16, 2019

Dr. Harald Hau, a professor at the University of Geneva, published a paper in which he discussed the Discriminatory Pricing of OTC Derivatives. His research was based on the following hypotheses:

1. More sophisticated Clients incur lower transaction costs
2. Trades on Risk Quantifier platforms incur lower transaction costs.  
The effect is stronger for less sophisticated clients.

*“Dealers systematically and consistently overcharge clients who don’t have currency trading expertise...”*

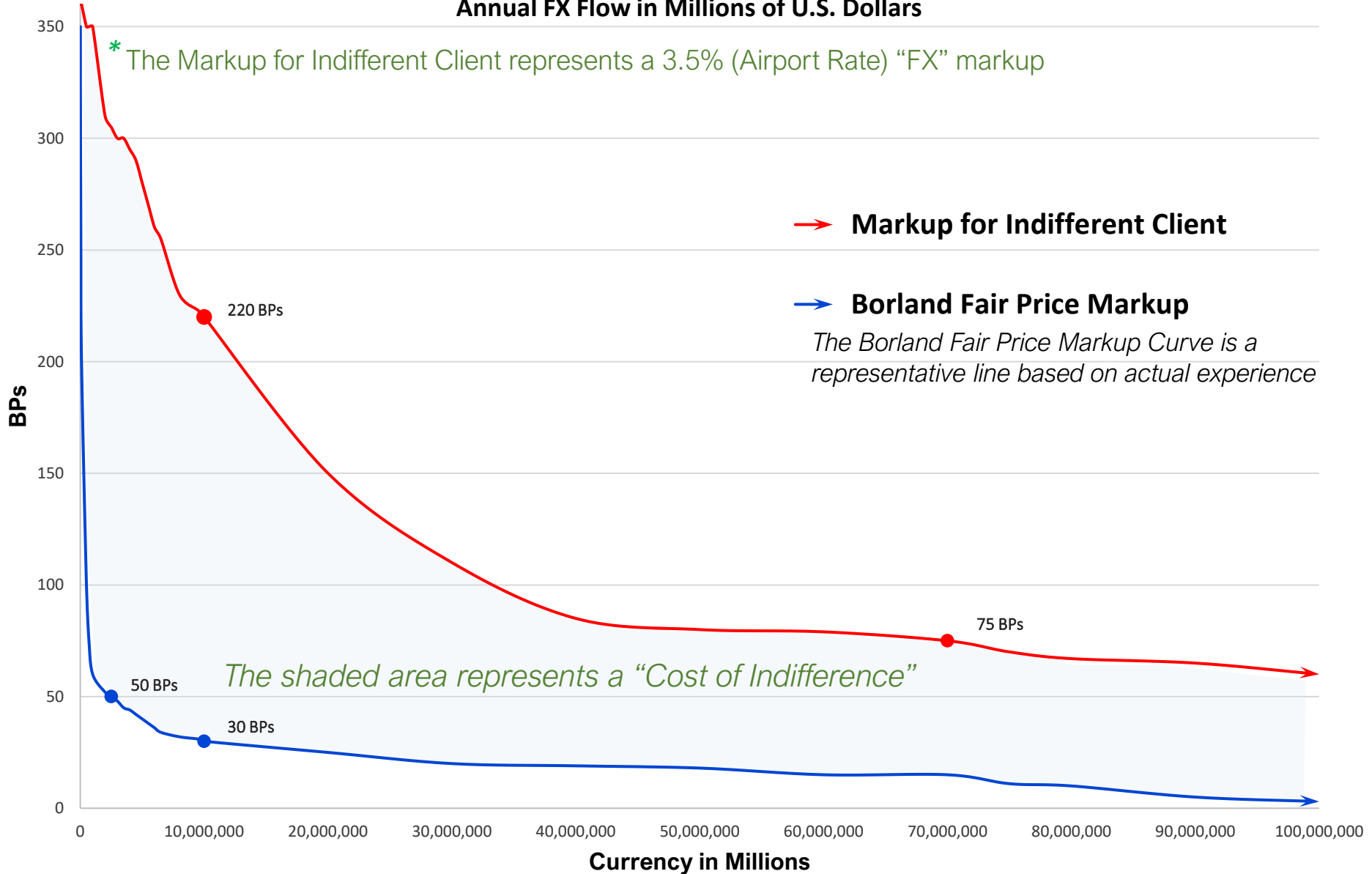
Harald Hau,  
University of Geneva School of Economics

*“Rates can be 25 times higher [for smaller corporate clients] than for bigger, more sophisticated customers.”*

Eva Szalay,  
*Financial Times*

# BORLAND CURVE

Annual FX Flow in Millions of U.S. Dollars



# How are FX Markups Determined?



## Size of Transaction

Smaller transactions are more likely to have high markups

Larger transactions tend to have lower markups



## Method of Trade Execution

Client/Bank communication via phone can sometimes result in higher markups and take more time than via an online platform



## Currencies Involved

Developed market currencies are more likely to have lower markups

Exotic and emerging market currencies tend to have higher markups



## Client Sophistication

The level of experience, or “sophistication”, of a client can be a factor in their FX markup agreement



## Market Transparency

As the market becomes more transparent, it is projected FX markups will come down

# Who can benefit from an FX Rate Review?



**Multi-bank  
competitive bid structure**



**Client Indifference**



**Global Subsidiaries**



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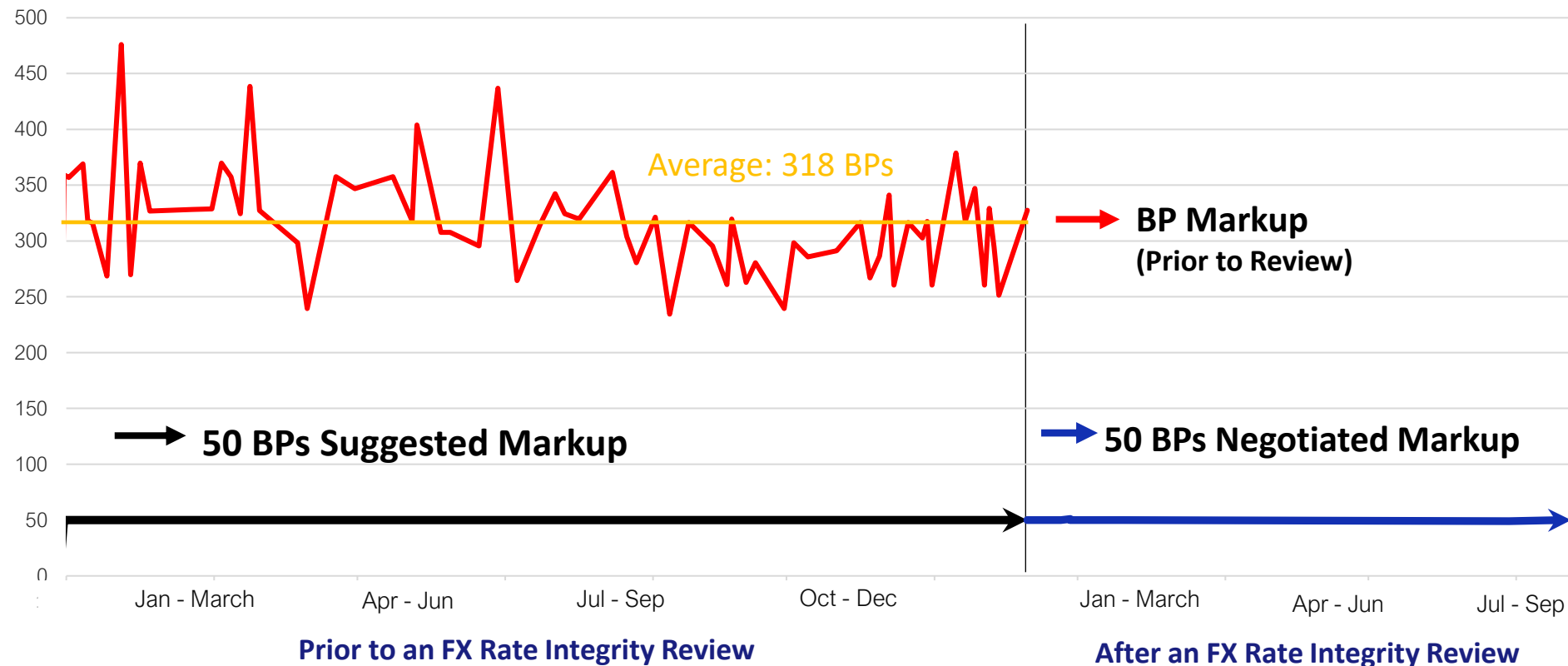
# ***The Importance of Knowing Your FX Markups and Costs:***

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## *Case Studies*

# Case 1A: Lower FX Markups - Middle Market

- A Middle Market Client was unknowingly paying an Excessive FX Markup along with modest FX fees. It is typical for Middle Market companies to be subject to excessively high markups. As in this case, Middle Market companies can pay markups as high as 476 BPs—this case proved a more appropriate markup is around 50 BPs.



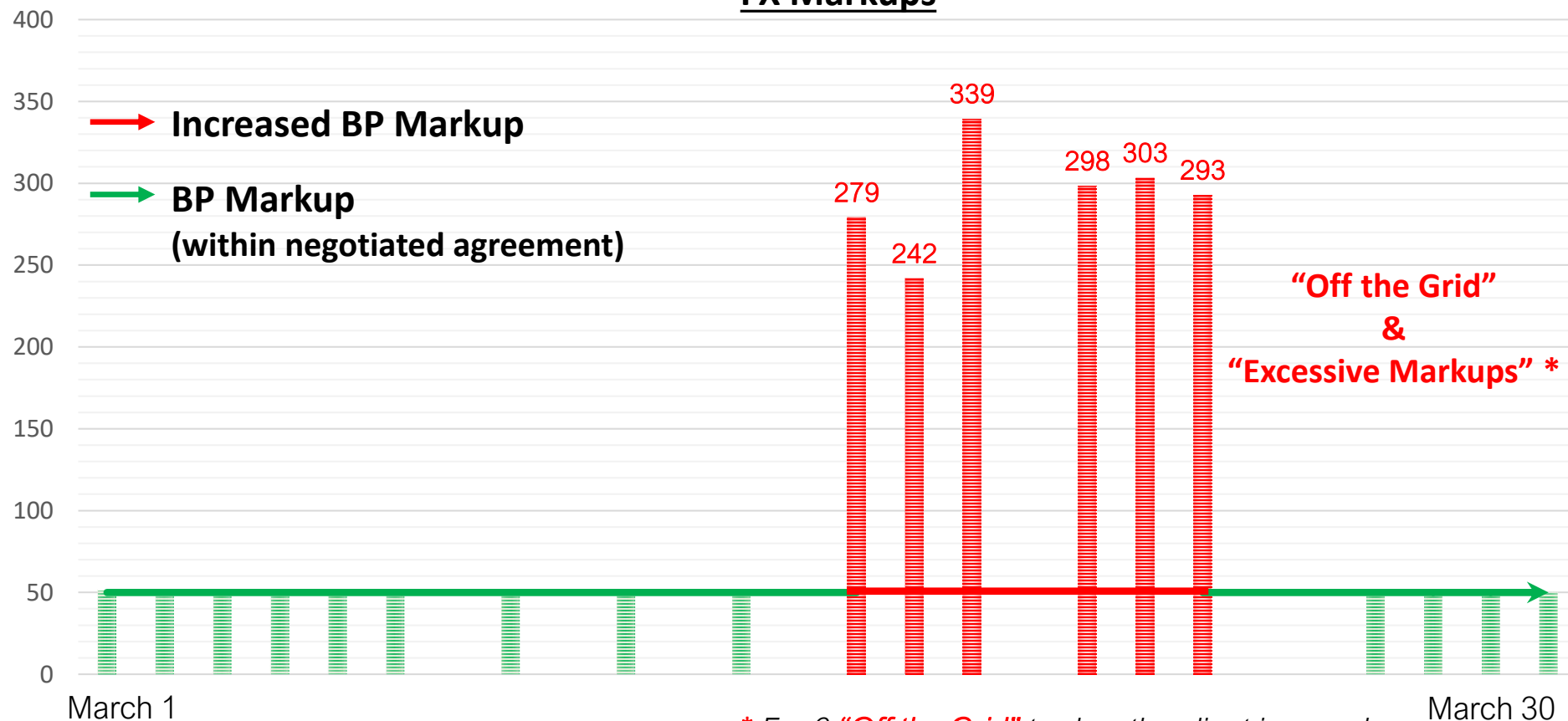
## FOOTNOTES:

- An FX Rate Integrity Review found markups at 318 BPs and excess FX costs of more than \$54,000/year.
- Data Analytics and Coaching led to a lower markup agreement at 50 BP.
- Given this new agreement, the Middle Market Company's FX costs reduced to approximately \$10,000/year on a \$2,000,000 annual FX flow.

# Case 1B: FX Markup Mistake– An Algorithm Issue

- The middle market client was subject to the bank going off the “grid” and back to high markups from over 300 BPs, the client again incurred “Excessive FX Costs” as a result of an error, by the bank, in their FX pricing algorithm. This error went “unnoticed” for over a month until an external FX Rate Review highlighted the mistake. The bank then revised the client’s pricing algorithm and went back to 50 BPs.

## FX Markups



*\* For 6 “Off the Grid” trades, the client incurred “Excessive FX Markup Costs” of approximately \$7,000*



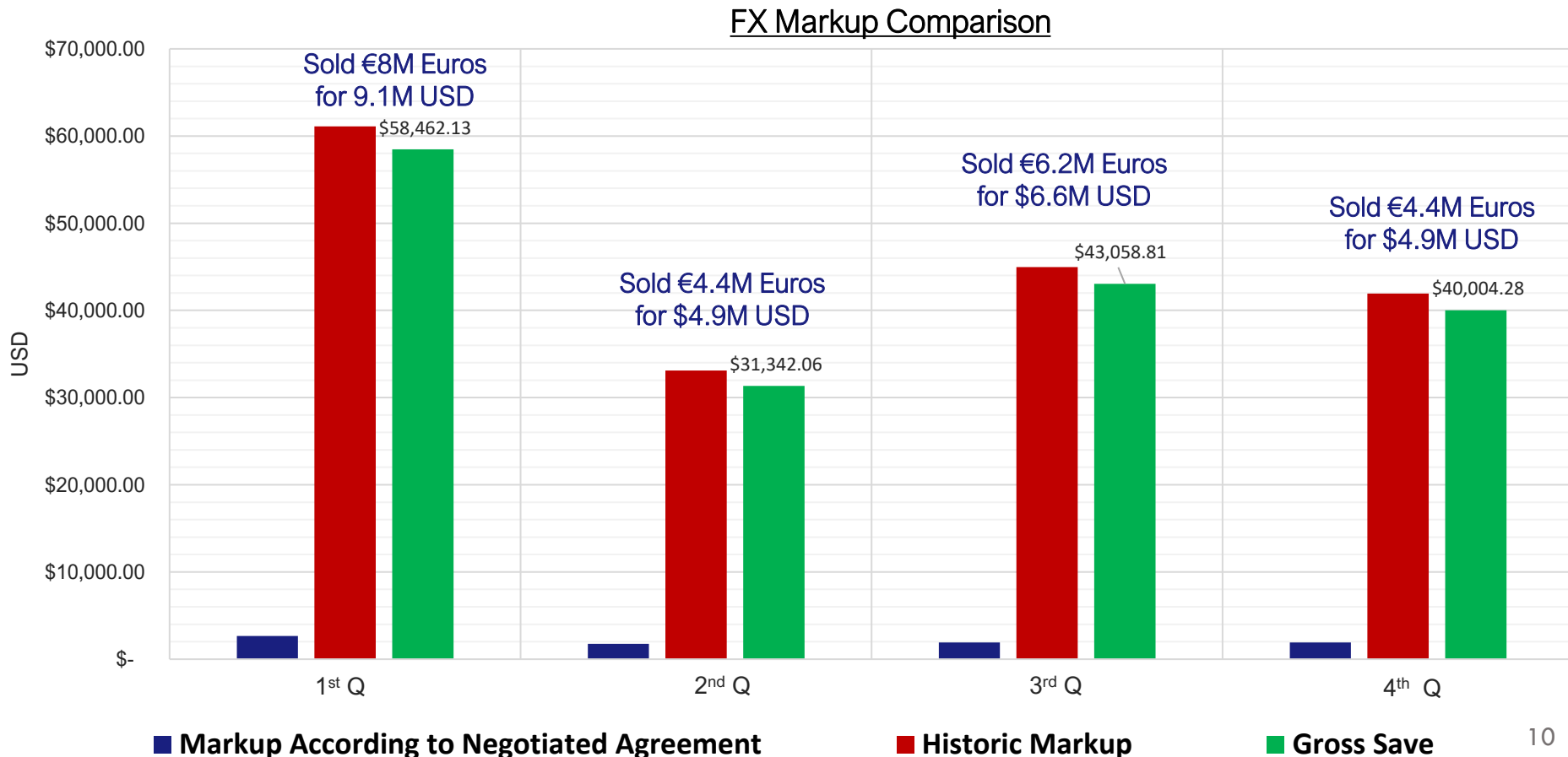
# Case 2: A 95% FX Markup Cost Savings



- An initial FX Rate Integrity Review showed the client would benefit from a competitive "grid pricing" model. A structured grid is appropriate for larger FX Flows with both large and smaller FX transactions.
- Based on a competitive Request For Proposals, one of the relationship banks won the FX Flow at a much lower cost.
- The grid was "structured" such that FX trades up to \$1 million only had markups of 20 BPs and it dropped to only 3 BPs for transactions over \$1 million.
- It was one of the client's Regional Banks that was hungry for ancillary business that bid at only 3 BPs compared to where they had been paying on average 67 BPs.
- The new FX arrangement reflects a 95% cost reduction.

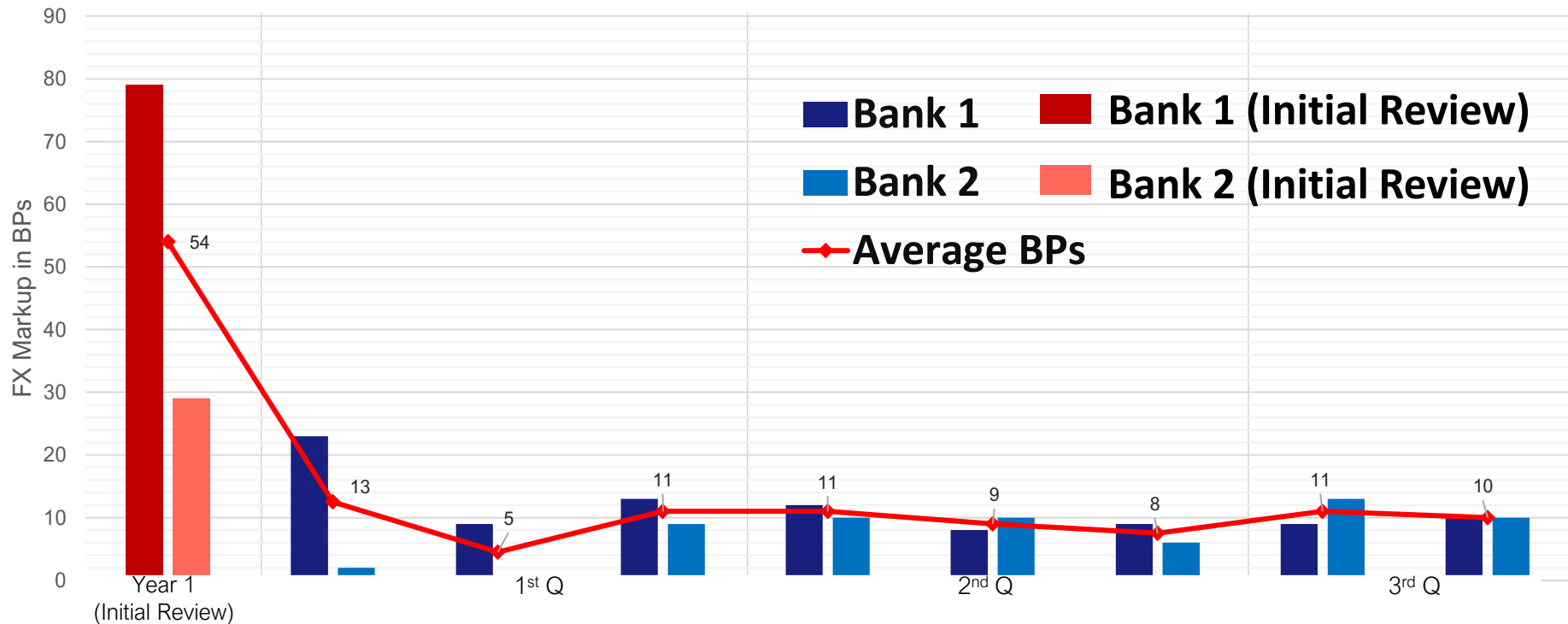
# Case 2: A 95% FX Markup Cost Savings

- The chart reflects a Corporate Client receiving a regular flow of Euros and doing FX window forwards to hedge them in US Dollars.
- The graph, which we call the “Christmas Tree Chart”, demonstrates the results of the newly negotiated FX Markups.
  - The small **Blue Bar** is the cost of the new FX Markup (3 BPs), while the **Red Bar** reflects what the prior 67 BPs Markup would have cost for each quarter. The **Green Bar** reflects the large savings for each quarter.
- This is the “Christmas Tree Chart” due to the heavy Red and Green, and because it was like a Christmas gift to the client!



# Case 3: Two Significant FX Bank Arrangements

- Global Company was able to get a 69 BP reduction and an 18 BP reduction, resulting in two new FX Bank Arrangements with their existing banks at 10 BPs each. The combined annual flow (across all their subsidiaries) was over \$60M, with a total save of approximately \$700,000.
- It is notable that the Global Company was able to negotiate this fair FX Markup Agreement across all their subsidiaries.



## FOOTNOTES:

- It is notable that in the second month of the 1<sup>st</sup> quarter review, "Bank 2" charged 0 BPs for FX transactions, while Bank 2 similarly maintained the agreement to remain below 10 BPs.
- The "Average BPs" trendline represents the average BP markup across both banks.

# Case 3b: Bank Error and Refund

## W/ Sample FX Rate Integrity Review Worksheet

- Although the Global Company had achieved a new, fair and greatly improved FX Markup Agreement, their FX Rate Review found a spike in markups just one month after the new agreement. This resulted in excessive FX Costs not consistent with the agreed upon markup.
- The spike, experienced in April 2019, was the result of an input error on the bank's behalf. Once notified, the bank quickly apologized for the mistake and fixed the problem and issued a refund well over \$40,000 to the Global Company. The refund was within \$33 of what the FX Rate Integrity Review indicated, highlighting the power of data analytics.

<u>Credit Amount</u>	<u>Debit Amount</u>	<u>Rate</u>	<u>Market Rate</u>	<u>Debit at Market Rate</u>	<u>USD Markup</u>	<u>BP Markup</u>	
GBP 18,408	\$24,053	1.3066	1.3054	\$24,031	\$22	10	
CAD 42,437	\$31,819	1.3337	1.3342	\$31,831	\$11	10	
CAD 52,608	\$39,427	1.343	1.333	\$39,465	\$38	10	
CAD 83,009	\$63,701	1.3031	1.3482	\$61,570	\$2,130.95	346	"Off the Grid" Rates
AUD 241,093	\$178,143	.7389	.717	\$172,863	\$5,279	305	
CAD 133,131	\$102,835	1.2946	1.3436	\$99,092	\$3,742	378	
GBP 158,947	\$211,749	1.3322	1.3031	\$3,877	\$85.97	222	
CAD 47,922	\$36,741	1.3043	1.343	\$35,682	\$1,058	297	
USD 15,340	\$17,696	1.1536	1.1206	\$17,190	\$506.22	294	
USD 143,059	\$192,028	1.3423	1.3027	\$186,363	\$5,665.14	304	
USD 143,059	\$192,028	1.3423	1.3044	\$186,606	\$5,421.94	291	
USD 16,656	\$22,480	1.3497	1.3044	\$21,726	\$754.52	347	

<sup>1</sup> All debit amounts in USD.

\* Please note that this chart only contains a sample set of rates

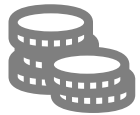
# What Information is Needed to Complete an FX Rate Review?

Date	Time	Time zone	Currency Sold	Amount Sold	Bought Currency	Amount Bought	Exchange Rate
10/15/17	2:57:01 PM	CST	USD	500,000	EUR	435,767.82	1.1474



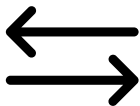
## The “Time Stamp:

Includes the date and time a transaction was completed. It is important to clarify the time zone as well.



## The Currency Sold and Amount Sold

## The Currency Bought and Amount Bought



## \*The Exchange Rate:

While it is nice to provide the exchange rate information, it is not necessary as it can be calculated using the Amount Sold and Amount Bought.

NOTE: No Account Numbers, Names, or Proprietary Information is wanted or needed.

**K.I.S.S.: Keep it Short & Simple!**

# Defining a “Time Stamp”

A **Time Stamp** is client data. It is a “stamp” of the exact date and time an FX deal was done. Banks should provide this information or make it readily available—if a bank is resistant to making this data available, it is a **Red Flag**.

*Ex: Time Stamp Sample data from a client’s internet banking system.*

Time Stamp		SAMPLE			
Deal Date	Pay CCY	Bank Sell (Client Buy)	Recv CCY	Bank Buy (Client Sell)	All In Spot Rate
Mar 13, 2012 10:51 AM	GBP	2,635.20	USD	4,160.82	1.578900000
Mar 21, 2012 11:01 AM	GBP	17,078.39	USD	27,147.52	1.589600000
Mar 28, 2012 3:36 PM	EUR	918.00	USD	1,226.65	1.336200000
Jan 6, 2012 12:40 PM	JPY	1,635,200.00	USD	21,287.68	76.820000000
Apr 23, 2012 9:21 AM	MXN	658,863.90	USD	50,000.00	13.180700000
Apr 13, 2012 10:04 AM	GBP	350.00	USD	557.70	1.593400000
Jun 1, 2012 11:15 AM	EUR	475.00	USD	591.53	1.245300000
Jun 7, 2012 3:17 PM	EUR	1,304.00	USD	1,643.92	1.260700000
Jan 9, 2012 5:48 PM	MXN	2,600.00	USD	190.53	13.648400000

## FX Payments - Foreign Exchange Contract Reference

Status: Confirm Completed

Ticket Number:

Contract #:

Deal Date: June 19, 2015

09:27:33 AM  
Deal Time: CDT

Deal Type: Priced Payment

Acronym:

Alias:

Name:

Value Date: June 19, 2015

Currency

Amount

Sell (Client Buy): EUR 155.00

Buy (Client Sell): USD 176.72

Price: 1.1401270000

Pays EUR Balance: 0.00

JPM Pays: 155.00

Type: SWIFT

Settlement #: S00000009

Swift Reference ID:

Beneficiary

Intermediary Bank

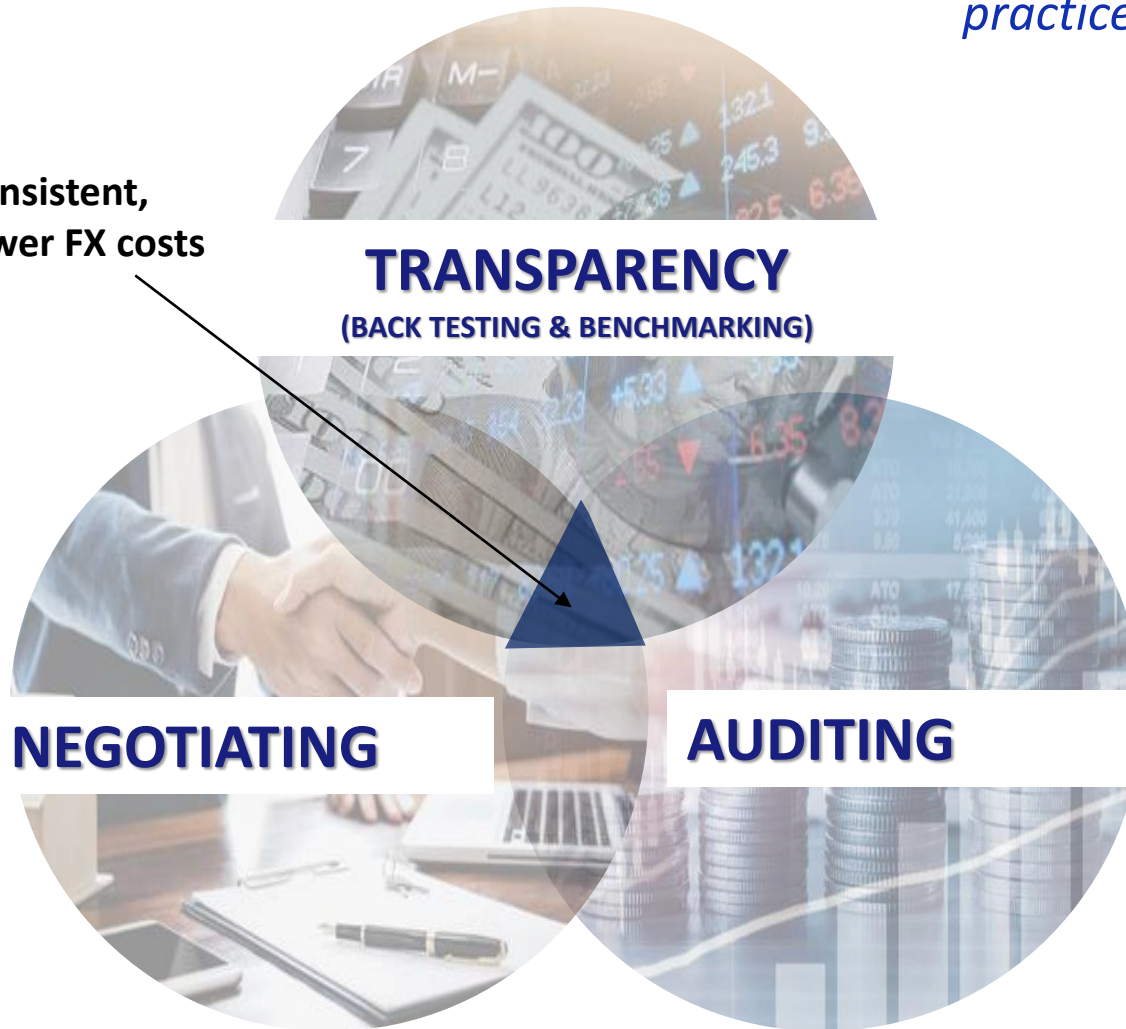
By Order Of

*Ex: One page confirm of trades.*



# Best Practices

*How do we know our company is using best practices to get rate integrity?*



**1**

Transparency of the market and financial institutions

**2**

Bank negotiations and agreements

**3**

Auditing



# Bank Negotiations and Agreements

- Back testing data analytics is the key to being prepared and sufficiently briefed in order to do more sophisticated negotiating for new FX Markup Agreement.
- Be confident that you can and should negotiate a Fair Markup Agreement with your bank.
- In challenging times, banks want FX flows and should be willing to give their clients competitive FX arrangements.
- When negotiations are done, be sure to get your new FX Markup Agreement in writing. There are various ways to codify, by an email exchange, the importance of your improved FX Arrangements.

# Auditing

- In order to maintain your FX Agreement and ensure a consistent Fair BP Markup, corporates should routinely monitor their FX costs and be aware of any changes.
- It is suggested you closely monitor your New FX Arrangements for 6 months to a year to maintain Rate Integrity. Following the 1-year mark, it is beneficial for a company to continue routinely Auditing their FX Costs.

# In Conclusion...

- We see FX Markups going lower, influenced by the following factors:
  1. Technology
  2. Data Analytics
  3. Robotic Process Automation
  4. Competition for FX Flows
- It won't be overnight but, with further Technology and Competition, the trends will continue to drive down FX Costs. We still see an inefficient FX market for both Corporate and Commercial clients.