

Morgan Stanley & Co. LLC

Betsy L. Graseck, CFA
Betsy.Graseck@morganstanley.com
+1 212 761 8473

Michael J. Cyprys, CFA, CPA
+1 212 761 7619

Morgan Stanley & Co. International
plc+

Huw Van Steenis
+44 (0)20 7425 9747

Chris Manners, ACA
+44 (0)20 7425 3917

Hubert Lam

Thibault A Nardin

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Industry View
In-Line

Banking - Large Cap LIBOR Risk Sizing

LIBOR risk has 3 parts: 1) regulatory fines (we est median 7-12% hit to '12 EPS; 2) litigation risk (7% EPS hit over 2 yrs); and 3) less certainty on forward earnings as regulators/politicians demand LIBOR changes and renew debate on industry structure while investors demand more trade transparency.

We estimate LIBOR regulatory fines off of Barclays settlement. Our bull case: a 2-9% hit to 2012e EPS as banks settle with regulators for the same amount as Barclays. Our base case: a 4-13% hit to 2012e EPS as, apart from UBS, banks do not receive the discount that Barclays got for being early and cooperative. Our bear case, 5-17% hit to 2012e EPS: a 30% premium to base case fines to reflect the possibility that the UK Serious Fraud Office layers on new fines once its LIBOR investigation (started July 6) is completed.

LIBOR litigation risk is harder to quantify, but we take a stab. We assume every 1bp of LIBOR understatement every day for 4 years represents a \$6 billion hit to the LIBOR panel of banks. If the 16 banks listed in the class action lawsuits shared equally, we estimate this would be a ~\$400 million hit per bank. We use a bottoms-up approach to assess impact on our EPS estimates that is proportional to each bank's derivative book; we estimate the hit would range from \$60 million to \$1.1 billion. See page 4 inside for our long list of assumptions in arriving at this estimate. We run both estimated LIBOR fines and litigation charges through our US LC Bank EPS estimates.

LIBOR setting changes, debate over industry structure and investor demands for more trade transparency all reduce certainty on forward estimates. Changing LIBOR could shift market share or drive one-off valuation adjustments. Renewed debate in the UK on Vickers/banking separation could resonate elsewhere. More trade transparency could thin margins and shift share further to efficient participants.

LIBOR Regulatory Fine and Litigation Settlement Estimates As % of BVPS

	Regulatory Penalty Est	Litigation Cost Est	
	% of 2012 BVPS	% of 2013 BVPS	% of 2014 BVPS
BAC	0.2%	0.1%	0.1%
C	0.2%	0.1%	0.1%
JPM	0.2%	0.2%	0.2%
CS	1.4%	0.6%	0.5%
UBS	1.0%	0.4%	0.4%
DBK	0.6%	0.5%	0.4%
SG	0.9%	0.2%	0.2%
RBS	0.5%	0.4%	0.4%
HSBC	0.3%	0.1%	0.1%
LLOY	0.7%	0.0%	0.0%
BARC	0.4%*	0.4%	0.4%
<i>Median</i>	<i>0.5%</i>	<i>0.2%</i>	<i>0.2%</i>

Source: Morgan Stanley Research estimates
*BARC regulatory penalty reflects impact of settlement announced June 27.
Note: We are reducing EPS est in this note for BAC, C, JPM to reflect both estimated LIBOR fines and litigation charges.

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Investment Case

LIBOR Regulatory Penalties

Base case: median impact of 0.5% of BVPS and 9% of 2012e EPS. If other US and UK LIBOR banks were ultimately required to pay a non-discounted penalty to regulators, we estimate the median impact would be 0.5% of BVPS and 9% of 2012e EPS. This is our base case.

We assume banks pay a premium to Barclays settlement. Barclays' settlement included a 30% discount from the FSA because the firm was early and cooperative with regulators. We apply a discount to UBS as it, too, has been early and has been granted "conditional leniency" from the DOJ. For other firms under our coverage, we apply a premium to the DOJ and CFTC fines as well in this base case given the extent of Barclays' cooperation. If we gross-up Barclays' settlement for the 30% discount from the FSA and assume an implicit 30% discount from the DOJ/CFTC, we calculate an implied base penalty of \$650 million (i.e., equivalent to a 43% premium to the \$450 million Barclays paid).

Our bull case is that the banks are assessed a discounted fine in-line with Barclays (i.e., ~30% below our base case).

Our bear case is that the banks are assessed a fine 30% higher than our base case to reflect possibility that the UK Serious Fraud Office layers on new fines once its LIBOR investigation (started July 6) is completed.

Company commentary related to LIBOR matters:

- C states in its SEC filings that it has received requests for information from regulators related to LIBOR matters.
- JPM states that it has received requests for documents and in some cases interviews and requests for subpoenas from various regulators.
- BAC does not have any discussion of LIBOR matters in its SEC filings.

Base case EPS implications: The companies response to questions on LIBOR are in line with what is in the SEC documents. While we do not know if BAC, C, or JPM will be fined, we conservatively assume that all three will be fined our base case assumption of \$651 million each. We assume that this fine is reserved for over 2Q-4Q12.

This lowers 2012e EPS by 6% for BAC, by 4% for C, and by 2% for JPM.

UBS's Conditional Leniency and Immunity

For UBS we currently model in a SFr250 million fine in our base case (~40bps of TNAV post-tax) as we think it will be granted leniency for being an early confessor in the LIBOR probe and cooperating with the investigations. We believe the settlement will be lower than that of BARC. UBS' CFO recently suggested that the fine would not be "material" to their accounts. We think this is supported by wording in UBS's financials that it has received "conditional leniency or conditional immunity" from authorities in certain jurisdictions, including the Antitrust Division of the DOJ and WEKO (Swiss Competition Commission). However, this free pass agreement is with the DOJ's antitrust division, not the fraud section which settled with Barclays. Also, we still believe, like the other banks, UBS will still be subject to civil lawsuits from the public, which is the main risk here. Note we strip out the fine from our underlying Modelware EPS as we consider this a one-off event.

Barclays Settlement

Barclays settled with US and UK regulators for \$450 million on June 27 to settle accusations that it manipulated LIBOR rates between 2005 and 2007 and occasionally through 2009. The US settlement is with the Department of Justice's (DOJ) fraud section and the CFTC's enforcement division. The UK settlement is with the FSA.

Exhibit 1

Barclays \$450m Settlement w/ US & UK Regulators

6/27/12

(\$ millions)

DOJ	160.0
CFTC	200.0
FSA	95.8
Total	455.8

Source: Company Data, Morgan Stanley Research

Potential LIBOR Regulatory Penalties

Exhibit 2

Sizing the LIBOR Regulatory Penalties (\$ millions)

	Methodology	Penalty Est
Bull	In-Line with BARC Penalty	456
Base	Implied BARC Penalty with No Discount	651
Bear	30% Premium to Base	847

Source: Company Data, Morgan Stanley Research

Exhibit 3

Sizing Potential Regulatory Settlement by Bank

(millions, local currency)

		Bull	Base	Bear
		Implied BARC		
		In-Line with BARC Penalty	Penalty with No Discount	30% Premium to Base
BAC	USD	456	651	847
C	USD	456	651	847
JPM	USD	456	651	847
CS	SFr	446	636	827
UBS	SFr	446	636	827
DBK	EUR	371	530	689
SG	EUR	371	530	689
RBS	GBP	294	420	546
HSBC	USD	456	651	847
LLOY	GBP	294	420	546

Source: Company Data, Morgan Stanley Research

Exhibit 4

% Impact to BVPS

	Bull	Base	Bear
	Implied BARC		
	In-Line with BARC Penalty	Penalty with No Discount	30% Premium to Base
BAC	0.1%	0.2%	0.3%
C	0.2%	0.2%	0.3%
JPM	0.2%	0.2%	0.3%
CS	1.0%	1.4%	1.8%
UBS	0.7%	1.0%	1.2%
DBK	0.4%	0.6%	0.8%
SG	0.7%	0.9%	1.2%
RBS	0.3%	0.5%	0.6%
HSBC	0.2%	0.3%	0.4%
LLOY	0.5%	0.7%	0.9%
<i>Median</i>	<i>0.4%</i>	<i>0.5%</i>	<i>0.7%</i>

Source: Company Data, Morgan Stanley Research

Exhibit 5

% Impact to 2012 EPS

	Bull	Base	Bear
	Implied BARC		
	In-Line with BARC Penalty	Penalty with No Discount	30% Premium to Base
BAC	4.5%	6.4%	8.4%
C	2.5%	3.6%	4.7%
JPM	1.8%	2.4%	3.3%
CS	9.4%	13.4%	17.4%
UBS	8.1%	11.5%	15.0%
DBK	5.0%	7.2%	9.4%
SG	10.0%	14.3%	18.6%
RBS	9.8%	14.0%	18.1%
HSBC	2.2%	3.1%	4.1%
LLOY	17.7%	25.3%	32.9%
<i>Median</i>	<i>6.6%</i>	<i>9.4%</i>	<i>12.2%</i>

Source: Company Data, Morgan Stanley Research

LIBOR Litigation Risk

We analyze two approaches to assessing potential LIBOR litigation risk for our coverage group. Our approaches show a sensitivity analysis to a 1 bp suppression of LIBOR, daily, over a 4 year period. We caveat our point estimates with the warning that they are the result of significant assumptions, but we hope to at least provide a framework for how to assess the LIBOR litigation risk. We welcome your feedback. We run estimates on a top-down and bottoms-up basis below:

- *Top-down industry approach suggests \$6b of potential industry risk (\$0.4b per company) per one basis point of LIBOR suppression (assuming LIBOR suppressed daily over a 4-year period). This equates to \$0.4b per company for every 1bp of LIBOR suppression, if we divide the industry estimate by 16 companies potentially implicated (there were 16 banks listed in the class-action lawsuits). Our starting point is industry-wide notional outstanding that is linked to LIBOR.*

- *Bottom-up company approach suggests potential risk varies from \$60m to \$1.1b. At the high end are companies with relatively larger rate derivative books. Impact to book value ranges from 0.1% to 1.3%. Our starting point is each bank's rate derivative book as rate derivatives are linked to LIBOR.*

Key assumptions in both approaches:

- *% of derivatives that are dealer-to-client /corporate; based on BIS data, about 76% of derivatives are dealer-to-dealer and we assume the banks will not sue each other and exacerbate negative headlines for the overall industry.*
- *% of notional adversely impacted from LIBOR suppression; assume 50% of investors did not benefit from LIBOR suppression and 50% of investors were adversely impacted*
- *Duration of LIBOR suppression; assume 4 yrs; 2007-2011 (dates of Schwab litigation claims)*

Industry: Top-Down Approach

Our starting point is the \$350 trillion of derivative notional outstanding that are linked to LIBOR (per British Bankers Association: BBA). Key assumptions specific to the top-down approach:

- *Express cost risk on 1 bp of LIBOR suppression daily*

- *Probability of mounting a successful claim against the banks: we estimate this at 36%. We look to a PWC securities litigation study which shows that of the financial crisis lawsuits completed to date, 36% settled and 64% were dismissed.*

Exhibit 6

36% of Completed Class-Action Lawsuits Related to the Financial Crisis Were Settled to Date, 64% Dismissed...We're 62% of the Way Thru Current Pipeline of Financial Crisis Lawsuits...of Course More Are Likely to Be Filed

	Number of Cases	As % of Completed Cases	As % of Total Cases
Settled	49	36%	22%
Dismissed	88	64%	40%
subtotal (completed cases)	137	100%	62%
Remain in Pipeline	83		38%
Total	220		100%

Source: PWC's Securities Litigation Study, 2011, Morgan Stanley Research

Exhibit 7

Estimate Potential Cost to Industry at \$6b, or \$0.4b per Bank, for Every 1 bp that LIBOR Was Suppressed Daily Over 4 years to Globally Settle LIBOR-Related Litigation

LIBOR Litigation Estimates (\$ billions)	
Notional Amount of Products linked to LIBOR	
Derivatives	350,000
% Dealer-to-Dealer	76%
% Dealer-to-Client or Corporate	24%
Derivatives (Client/Corporate trades)	85,531
% Adversely impacted from suppression of LIBOR	50%
Notional amount adversely impacted	42,766
Amount LIBOR understated (bp annualized cost)	1 bp
Est cost to industry, per year LIBOR understated	4.3
# of years	4
total cost to industry (cumulative)	17.1
probability of successful claim	36%
loss est for industry	6.2
# of banks impacted	16
cost per bank	0.4

Source: Company Data, Morgan Stanley Research

Exhibit 8

Stressing Probability of Success and Number of Basis Points of LIBOR Suppression

Cost to Industry (\$B)

Probability of Success	Basis Points of LIBOR Suppression			
	1 bp	2 bp	3 bp	4 bp
25%	4	9	13	17
36%	6	12	18	25
40%	7	14	21	27
50%	9	17	26	34

Source: Company Data, Morgan Stanley Research

Exhibit 9

Stressing Probability of Success and Number of Basis Points of LIBOR Suppression

Cost Per Banks (\$B) (Assumes 16 Banks)

Probability of Success	Basis Points of LIBOR Suppression			
	1 bp	2 bp	3 bp	4 bp
25%	0.3	0.5	0.8	1.1
36%	0.4	0.8	1.2	1.5
40%	0.4	0.9	1.3	1.7
50%	0.5	1.1	1.6	2.1

Source: Company Data, Morgan Stanley Research

Bottoms-Up Approach

Our estimates for litigation risk reflect our bottoms up approach which starts with the size of each bank's rate derivative book. We triangulate to the following assumptions vis-à-vis the Schwab case:

- Assume that over the 4 years in Schwab Case (2007-2011), a stress environment existed 16% of the time
- Assume that any one bank had a 6% chance of impacting LIBOR rate during that stress time (given 16 banks listed in the class action lawsuits)
- Assume an average suppression of 35bp (mid point of Schwab claim suggesting LIBOR suppression of 30-40 bp).
- We take this settlement hit over 2 years (2013 and 2014) in our US LC Bank estimates to reflect a view that it will take time for these LIBOR litigation cases to come to conclusion.

Exhibit 10

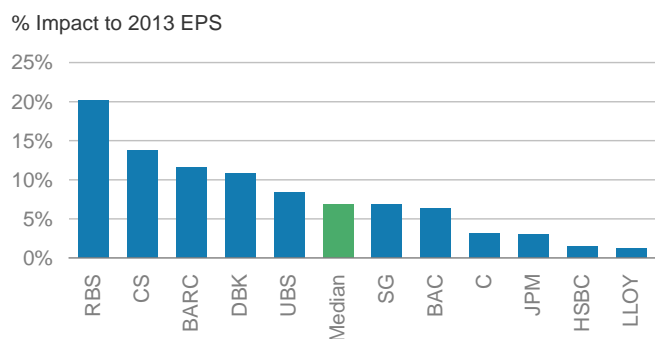
Estimate Potential Cost Per Bank Based on Size of Rate Derivative Book, 35 bp of LIBOR Suppression Over 4 Years and 1% Probability of Payout

Rate Derivative Notional (USD trillions)	% Dealer-to-Corporate	% Adversely impacted from suppression of LIBOR	Notional amount adversely impacted (USD trillions)	Amount LIBOR understated (bp annualized cost)	probability of successful claim	loss est per 1 bp LIBOR understated (\$ millions)	
BAC	56.5	24%	50%	6.9	35 bp	1%	994
C	39.9	24%	50%	4.9	35 bp	1%	702
JPM	55.4	24%	50%	6.8	35 bp	1%	975
CS	42.2	24%	50%	5.2	35 bp	1%	742
UBS	33.3	24%	50%	4.1	35 bp	1%	585
DBK	59.1	24%	50%	7.2	35 bp	1%	1,041
SG	18.7	24%	50%	2.3	35 bp	1%	329
RBS	60.0	24%	50%	7.3	35 bp	1%	1,057
HSBC	19.8	24%	50%	2.4	35 bp	1%	348
LLOY	3.3	24%	50%	0.4	35 bp	1%	59
BARC	55.1	24%	50%	6.7	35 bp	1%	970
Total	443.2			54.2			7,802

Source: Company Data, Morgan Stanley Research estimate

Exhibit 11

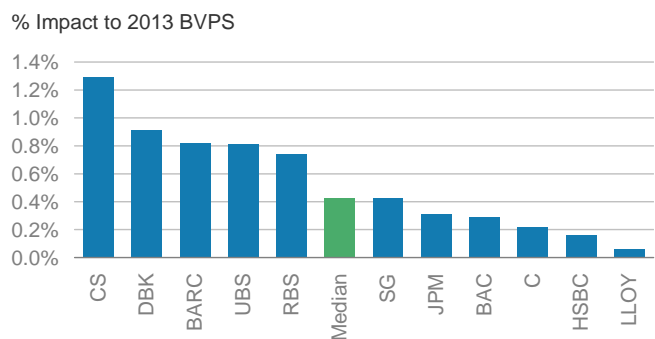
Median 6.8% Potential Hit to 2013 EPS If Fully Taken in 1-Year



Source: Morgan Stanley Research estimate

Exhibit 12

Median 0.4% Potential Hit to BVPS if Fully Taken in 1-Year



Source: Morgan Stanley Research estimate

Exhibit 13

If We Assume Settlement Hit Over 2 Years, 2013-14

(\$ millions)

	Est Total Litigation Settlement	% Impact to 2013 EPS	% Impact to 2014 EPS	% BVPS Impact : 2013	% BVPS Impact : 2014
BAC	994	3%	2%	0.1%	0.1%
C	702	2%	1%	0.1%	0.1%
JPM	975	2%	1%	0.2%	0.2%
CS	742	6%	6%	0.6%	0.5%
UBS	585	4%	4%	0.4%	0.4%
DBK	1,041	5%	5%	0.5%	0.4%
SG	329	3%	3%	0.2%	0.2%
RBS	1,057	10%	7%	0.4%	0.4%
HSBC	348	1%	1%	0.1%	0.1%
LLOY	59	1%	0%	0.0%	0.0%
BARC	970	6%	5%	0.4%	0.4%
<i>Median</i>		<i>3.4%</i>	<i>2.9%</i>	<i>0.2%</i>	<i>0.2%</i>

Source: Company Data, Morgan Stanley Research

Caveats to our Analysis

Clearly this analysis is highly speculative and leads to very wide book ends. A few caveats to our crude methodology, include:

- Whilst the Schwab case suggests 4 years, the FSA enquiry into LIBOR found at least 257 different cases of improper activity from January 2005 through June 2009 or roughly 22% of business days. For our bottoms-up analysis we are assuming a stress environment occurred 16% of the time. While our assumption is lower, it is possible that the FSA findings of improper activity could have been on the same day. Additionally, FSA found improper activities in \$ Libor and Euribor (not all currencies). The scope of our estimates therefore could be too high.
- Improper activity may not have led to material moves in Libor rates. The FSA report does not make clear, nor would Barclays tell us when we asked, in how many of the cases was Libor actually moved (as sometimes rates submitted would be excluded from the Libor calculation and deemed outliers).
- Our analysis is conservatively picking the mid-point of the range of the class action lawsuit charge that LIBOR was understated by 30-40bp. However, the basis of some of these claims is to compare LIBOR vs. CDS despite the fact that the subordination and tenor of these rates differ significantly.
- Companies also point to the difficulty in assessing that someone actually had losses on a given day in a given currency in a given tenor and that the banks submission

actually influenced the actual Libor rate given the trimming methodology used to calculate LIBOR.

LIBOR-Setting Changes/Investor Demands

LIBOR setting changes, debate over industry structure and investor demands for more trade transparency all reduce certainty on forward estimates. Changing LIBOR could shift market share or drive one-off valuation adjustments. Renewed debate in the UK on Vickers/banking separation could resonate elsewhere. More trade transparency could thin margins and shift share further to efficient participants.

LIBOR setting changes are hard to quantify as we don't have a final framework for how these changes would be made. Various suggestions have been already mooted in the media, at the UK Treasury Select Committee and by industry bodies. These typically include modifying the exiting arrangements such as widening the panel, more banks in different jurisdictions doing their own currencies, more use of transactions than quotes and greater regulatory oversight. A change in the LIBOR system is likely to inject uncertainty into investor outlook on bank earnings until we get clarity on the changes.

Further, the first round of reports should come from the UK Parliament where Members of Parliament are set to take evidence under oath from people involved in the scandal. This inquiry panel is expected to report back to Parliament by the end of 2012, so relatively quickly. This could lead to renewed discussion on separating banking business models. Talk of breaking up banks drives uncertainty on bank earnings as investors are left to wonder about the sustainability of revenue streams, efficiency and returns in a disaggregated model.

Additionally, the LIBOR fixing broadens investor support for more transparency in fixed income trading in addition to fixed income clearing. The threat of thinner margins is another investor concern. Counterparties with the most transparent trading and clearing platforms ultimately win, speaks to a need for strong electronic trading backbone in FICC, as well as size/scale as we highlighted in our [Decision Time for Wholesale Banks Blue Paper](#) in March 2012.

The BBA website explains the LIBOR basics: <http://www.bbalibor.com/bbalibor-explained/the-basics> .

Implications for UK Banks

We see the LIBOR issue as particularly contentious for the UK banks as LIBOR rate is overseen by the British Bankers Association (whose chairman has stepped down) and Barclays was the first bank to settle the claims. The political climate in the UK appears more hostile to perceived bank wrongdoing than in a number of other jurisdictions, though we note in the case of Barclays the regulator (FSA) had already expressed concerns about a “cumulative impression created by a pattern of behaviours” on regulatory matters according to the April 10 letter released to the Treasury Select Committee.

UK authorities have already announced two responses:

- In-depth parliamentary inquiry is to be launched in the UK, where members of Parliament are set to take evidence under oath from the people involved in the scandal, this inquiry should be reporting back by year-end 2012.
- The Serious Fraud Office decided to accept the LIBOR matter for investigation on July 6 (this government department is responsible for investigating and prosecuting serious and complex fraud; it can recommend criminal sanctions).

For the other major UK banks, we run through a number of specific considerations:

- *Lloyds*: We expect Lloyds may be less likely to settle for wrongdoing in the trader manipulation case as the scope of its investment banking operations is much smaller than peers'. That said, there may be a greater risk at HBOS (which was acquired by Lloyds) of wrongdoing for inappropriate submissions to avoid negative media/market perceptions.
- *RBS*: Media reports suggests that the fine for RBS could be £150m (*The Times*, June 29, 2012); if accurate, that could indicate a lower level of wrongdoing than Barclays (whose fine was £290m and was discounted). We would expect RBS, as a state-controlled bank undergoing significant change, to try to settle early and draw a line under the issue.
- *HSBC*: In common with many peers, HSBC has significant interest rate trading operations. However, given the low funding cost versus peers, and defensive liquidity profile of HSBC, we could see less likelihood that it would have the necessity to “lowball” LIBOR submissions, though there is little information about the exact circumstances and we were surprised by the information revealed in the Barclays settlement.

Implications for US Banks

We are lowering EPS estimates for US banks to reflect our:

- base case estimates for a \$651m regulatory fine taken over 2Q-4Q 2012
- bottoms-up estimates for litigation risk taken over 2013 and 2014 (\$500m for BAC, \$490m for JPM and \$350m for Citi in each 2013-14)
- Given that the inquiries are on-going and litigation has just started, these estimates are rough. That said, we prefer to bake in an estimate that we can adjust as new information comes to light over the coming quarters.

The resultant impact to JPM, C, and BAC EPS is:

Exhibit 14

Median 3% Hit to 2012 EPS and 2% Hit to 2013-14 EPS Estimates

	2Q12E			2012E		
	Old	New	% Change	Old	New	% Change
BAC	0.06 e	0.04	-24%	0.61 e	0.57	-6.7%
C	0.87 e	0.82	-5%	4.03 e	3.89	-3.5%
JPM	0.84 e	0.81	-3%	4.35 e	4.26	-2.0%
	2013E			2014E		
	Old	New	% Change	Old	New	% Change
BAC	0.94 e	0.91	-3.4%	1.38 e	1.35	-2.0%
C	4.81 e	4.74	-1.6%	5.58 e	5.50	-1.4%
JPM	5.54 e	5.46	-1.4%	6.47 e	6.35	-1.8%

Source: Morgan Stanley Research estimates

Litigation Details

In April 2012, four LIBOR-related lawsuits against the banks were consolidated into the following class action lawsuit:

In re: LIBOR-Based Financial Instruments Antitrust Litigation, [11-MD-2262](#), Southern District of New York (Manhattan).

On June 30 the banks filed motions to dismiss the cases, citing technical reasons and essentially arguing that the plaintiffs claim inadequate pleadings and failed to show that the banks acted jointly to restrain competition. The banks' memo in support of the motion to dismiss the Schwab case argues in addition to other things:

- the Schwab claims are boiler plate, don't establish specific actions of wrongdoing throughout
- can't apply RICO outside the US and LIBOR setting is outside the US
- RICO not allowed under securities fraud
- even without above, no establishment of RICO behavior
- plaintiff never explain benefits the defendants received
- failed to allege substance of any misrepresentations
- unjust enrichment claims inadequately pleaded

The underlying cases in the class action lawsuit are:

1. MAYOR AND CITY COUNCIL OF BALTIMORE, ET AL., v. BANK OF AMERICA CORPORATION, ET AL., (case against BAC and 15 other banks)
2. METZLER INVESTMENT GMBH, ET AL., v. CREDIT SUISSE GROUP AG, ET AL.,
3. GELBOIM, ET AL., v. CREDIT SUISSE GROUP AG, ET AL., v. BANK OF AMERICA CORPORATION, ET AL. (case against BAC and 14 other banks)
4. Charles Schwab, 3 cases:
 - CHARLES SCHWAB BANK, N.A., ET AL., v. BANK OF AMERICA CORPORATION, ET AL., (case against BAC and 15 other banks)
 - SCHWAB MONEY MARKET FUND, ET AL., v. BANK OF AMERICA CORPORATION, ET AL., (case against BAC and 15 other banks)
 - SCHWAB SHORT-TERM BOND MARKET FUND, ET AL., v. BANK OF AMERICA CORPORATION, ET AL., (case against BAC and 15 other banks)

Baltimore Case

Claims the banks manipulated and suppressed LIBOR rates such that the City of Baltimore earned a lower rate of interest on investments than it otherwise would have received absent the banks alleged misconduct. Baltimore alleges the banks were incented to suppress LIBOR to "manage" the market's assessment of risk associated with that bank and to pay a lower rate of interest on to investors.

Metzler Investment Case

Metzler, a German fund manager is suing on behalf of parties that bought and sold Eurodollar futures and options (that are priced against LIBOR). The case seeks to demonstrate that banks "conspired to suppress LIBOR" and had "financial incentives" do so. The case quotes a Citi research analyst as saying: that because LIBOR posts are public, any bank that posts a high LIBOR level runs risk of being perceived as needing funding, and with fragile markets in 2007, such perception could have dangerous consequences.

Gelboim Case

Claims the banks "perpetrated a scheme to depress LIBOR" to reduce the interest rate that banks pay on debt, which is viewed as the market's assessment of risk, and portray themselves as economically healthier than reality, and pay a lower rate of interest to the defendants.

Charles Schwab Cases

Schwab case alleges the banks set LIBOR artificially.

- widest gaps to LIBOR at Citi, West LB, HBOS, JPM, UBS
- example of diff of LIBOR and CP rates... UBS paid 2.85% for 3 month paper but on April 16 2008 reported borrowing cost of 2.73% (so 12 bp diff)
- WSJ est LIBOR underreported by \$45 billion (LIBOR vs. contemporaneous CDS)
- Citi rates analyst est LIBOR suppressed by 30 bp, mid-april 2008
- C.S. analyst suggests 40bp suppression
- other analysis in the note says eurodollar bid vs. LIBOR is understated by 30-40 bp
- claim this is a RICO, so Schwab is seeking treble damages.

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Bank 1Q12 Disclosure on LIBOR-Related Investigation and Litigation

Citi:

Interbank Offered Rates-Related Litigation and Other Matters

In connection with the various investigations and inquiries by government agencies regarding submissions made by panel banks to bodies that publish various interbank offered rates, certain Citigroup subsidiaries recently received requests for information and documents from the Swiss Competition Commission.

On February 9, 2012, an additional putative class action was filed against certain of the banks that served on the LIBOR panel, including a Citigroup subsidiary. That action has been consolidated into the multidistrict litigation proceeding before Judge Buchwald in the Southern District of New York, which includes other purported class actions and private civil suits asserting various federal and state law claims related to the setting of LIBOR. Additional information relating to these actions is publicly available in court filings under docket number 1:11-md-2262 (S.D.N.Y.) (Buchwald, J.).

JPM:

LIBOR Investigations and Litigation.

JPMorgan Chase has received various subpoenas and requests for documents and, in some cases, interviews, from the United States Department of Justice, United States Commodity Futures Trading Commission, United States Securities and Exchange Commission, European Commission, United Kingdom Financial Services Authority, Canadian Competition Bureau and Swiss Competition Commission. The documents and information sought all relate to the process by which rates were submitted to the British Bankers Association ("BBA") in connection with the setting of the BBA's London

Interbank Offered Rate ("LIBOR"), principally in 2007 and 2008. The inquiries from some of the regulators also relate to similar processes by which EURIBOR rates are submitted to the European Banking Federation and TIBOR rates are submitted to the Japanese Bankers' Association during similar time periods. The Firm is cooperating with these inquiries.

In addition, the Firm has been named as a defendant along with other banks in a series of individual and class actions filed in various U.S. federal courts alleging that since 2006 the defendants either individually suppressed the LIBOR rate artificially or colluded in submitting rates for LIBOR that were artificially low. Plaintiffs allege that they transacted in U.S. dollar LIBOR-based derivatives or other financial instruments whose values are impacted by changes in U.S. dollar LIBOR, and assert a variety of claims including antitrust claims seeking treble damages. All cases have been consolidated for pre-trial purposes in the United States District Court for the Southern District of New York. In November 2011, the District Court entered an Order appointing interim lead counsel for the two proposed classes: (i) plaintiffs who allegedly purchased U.S. dollar LIBOR-based financial instruments directly from the defendants in the over-the-counter market, and (ii) plaintiffs who allegedly purchased U.S. dollar LIBOR-based financial instruments on an exchange. In March 2012, the District Court also accepted the transfer of a related action which seeks to bring claims on behalf of a new proposed class: plaintiffs who purchased U.S. dollar LIBOR-based debt issued by Fortune 500 companies underwritten by the defendants.

BAC:

No LIBOR-related litigation/regulatory investigation disclosure.

Credit Suisse:

LIBOR-related matters

Regulatory authorities in a number of jurisdictions, including the US, UK, EU and Switzerland, have opened investigations into the setting of LIBOR and other reference rates with respect to a number of currencies, as well as the pricing of certain related derivatives. These investigations have included a review of the activities of various financial institutions, including the Group. The Group has been a member of the rate-setting panels for US Dollar LIBOR, Swiss Franc LIBOR and Euro LIBOR, but not any other LIBOR panels or other reference rate panels, including Euribor or Tibor panels. The Group is cooperating fully with these investigations.

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Deutsche Bank:

Interbank Offered Rates Matters. Deutsche Bank AG has received various subpoenas and requests for information from certain regulators and governmental entities in the United States and Europe, including the U.S. Department of Justice, the U.S. Commodity Futures Trading Commission, the U.S. Securities and Exchange Commission, and the European Commission, in connection with setting interbank offered rates for various currencies. These inquiries relate to various periods between 2005 and 2011. Deutsche Bank is cooperating with these investigations. In addition, a number of civil actions, including putative class actions, have been filed in federal courts in the United States against Deutsche Bank AG, an affiliate and numerous other banks on behalf of certain parties who allege that they transacted in LIBOR-based financial instruments and that the defendants manipulated, through various means, the U.S. dollar LIBOR rate and prices of U.S. dollar LIBOR-based derivatives in various markets. Claims for damages are asserted under various legal theories, including violations of the Commodity Exchange Act and the antitrust laws. The civil actions have been consolidated for pre-trial purposes in the United States District Court for the Southern District of New York. The litigations are in their early stages.

UBS:

Several government agencies, including the SEC, the US Commodity Futures Trading Commission, the DOJ and the FSA, are conducting investigations regarding submissions with respect to British Bankers' Association LIBOR rates. We understand that the investigations focus on whether there were improper attempts by UBS (among others), either acting on our own or together with others, to manipulate LIBOR rates at certain times. In addition, the Swiss Competition Commission (WEKO) has commenced an investigation of numerous banks and financial intermediaries concerning possible collusion relating to LIBOR and TIBOR reference rates and certain derivatives transactions. UBS has been granted conditional leniency or conditional immunity from authorities in certain jurisdictions, including the Antitrust Division of the DOJ and WEKO, in connection with potential antitrust or competition law violations related to submissions for Yen LIBOR and Euroyen TIBOR. WEKO has also granted UBS conditional immunity in connection with potential competition law violations related to submissions for Swiss franc LIBOR and certain transactions related to Swiss franc LIBOR. The Canadian Competition Bureau has granted UBS conditional immunity in connection with potential competition law violations related to submissions for Yen LIBOR. As a result of these conditional grants, we will

not be subject to prosecutions, fines or other sanctions for antitrust or competition law violations in the jurisdictions where we have conditional immunity or leniency in connection with the matters we reported to those authorities, subject to our continuing cooperation.

However, the conditional leniency and conditional immunity grants we have received do not bar government agencies from asserting other claims against us. In addition, as a result of the conditional leniency agreement with the DOJ, we are eligible for a limit on liability to actual rather than treble damages were damages to be awarded in any civil antitrust action under US law based on conduct covered by the agreement and for relief from potential joint-and-several liability in connection with such civil antitrust action, subject to our satisfying the DOJ and the court presiding over the civil litigation of our cooperation. The conditional leniency and conditional immunity grants do not otherwise affect the ability of private parties to assert civil claims against us. On 16 December 2011, the Japan Financial Services Agency (JFSA) commenced an administrative action against UBS Securities Japan Ltd (UBS Securities Japan) based on findings by the Japan Securities and Exchange Surveillance Commission (SESC) that (i) a trader of UBS Securities Japan engaged in inappropriate conduct relating to Euroyen TIBOR (Tokyo Interbank Offered Rate) and Yen LIBOR, including approaching UBS AG, Tokyo Branch, and other banks to ask them to submit TIBOR rates taking into account requests from the trader for the purpose of benefiting trading positions; and (ii) serious problems in the internal controls of UBS Securities Japan resulted in its failure to detect this conduct. Based on the findings, the JFSA issued a Business Suspension Order requiring UBS Securities Japan to suspend trading in derivatives transactions related to Yen LIBOR and Euroyen TIBOR from 10 January to 16 January 2012 (excluding transactions required to perform existing contracts). The JFSA also issued a Business Improvement Order that requires UBS Securities Japan to (i) develop a plan to ensure compliance with its legal and regulatory obligations and to establish a control framework that is designed to prevent recurrences of the conduct identified in the JFSA's administrative action, and (ii) provide periodic written reports to the JFSA regarding the company's implementation of the measures required by the order. On the same day the JFSA also commenced an administrative action against UBS AG, Tokyo Branch, based on a finding that an employee of the Tokyo branch "continuously received approaches" from an employee of UBS Securities Japan regarding Euroyen TIBOR rate submissions, which was determined to be an inappropriate practice that was not reported to the branch's management. Pursuant to this administrative action, the JFSA issued an order under the Japan Banking Act which imposes

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requirements similar to those imposed under the Business Improvement Order directed to UBS Securities Japan.

A number of putative class actions and other actions are pending in federal court in Manhattan against UBS and numerous other banks on behalf of certain parties who transacted in LIBOR-based derivatives. The complaints allege manipulation, through various means, of the US dollar LIBOR rate and prices of US dollar LIBOR-based derivatives in various markets. Claims for damages are asserted under various legal theories, including violations of the US Commodity Exchange Act and antitrust laws. Plaintiffs are required to file a consolidated amended complaint by 30 April 2012.

HSBC:

Private parties have filed case for Fixing USD Libor

Investigations into the setting of London interbank offered rates and European interbank offered rates

Various regulators and competition and enforcement authorities around the world including in the UK, the US and the EU, are conducting investigations related to certain past submissions made by panel banks in connection with the setting of London interbank offered rates ('LIBOR') and European interbank offered rates. As certain HSBC entities are members of such panels, HSBC and/or its subsidiaries have been the subject of regulatory demands for information and are cooperating with their investigations. In addition, HSBC and other panel banks have been named in putative class action lawsuits filed by private parties in the US with respect to the setting of US dollar LIBOR.

Based on the facts currently known, it is not practicable at this time for HSBC to predict the resolution of these regulatory investigations or putative class action lawsuits, including the timing and potential impact, if any, on

Lloyds:

Interbank offered rate setting investigations

Several government agencies in the UK, US and overseas, including the US Commodity Futures Trading Commission, the US SEC, the US Department of Justice and the FSA as well as the European Commission, are conducting investigations into submissions made by panel members to the bodies that set various interbank offered rates. The Group, and/or its subsidiaries, were (at the relevant time) and remain members of various panels that submit data to these bodies. The Group has received requests from some government agencies for information and is co-operating with their investigations. In addition, recently the Group has been named in private lawsuits, including purported class action suits in the US with regard to the setting of London interbank offered rates (LIBOR). It is currently not possible to predict the scope and ultimate outcome of the various regulatory investigations or private lawsuits, including the timing and scale of the potential impact of any investigations and private lawsuits on the Group.

RBS:

London Interbank Offered Rate (LIBOR)

Certain members of the Group have been named as defendants in a number of class actions and individual claims filed in the US with respect to the setting of LIBOR. The complaints are substantially similar and allege that certain members of the Group and other panel banks individually and collectively violated US commodities and antitrust laws and state common law by manipulating LIBOR and prices of LIBOR-based derivatives in various markets through various means. The Group considers that it has substantial and credible legal and factual defences to these and prospective claims.

SocGen:

SocGen said they fully cooperate with the authorities and do not expect LIBOR litigation to have a "major" impact on the Group. Specifically, they've commented in their 2011 annual report:

Societe Generale, along with other financial institutions, has received formal requests for information from several regulators in Europe and the United States, in connection with investigations regarding submissions to the British Bankers Association for setting certain London Interbank Offered Rates ("LIBOR") and submissions to the European Banking Federation for setting EURIBOR, as well as trading in

derivatives indexed to the same benchmarks. Societe Generale is cooperating fully with the investigating authorities. Societe Generale, along with other financial institutions, has been named as a defendant in a putative class action in the United States alleging violations of, among other laws, United States antitrust laws and the United States Commodity Exchange Act in connection with its involvement in the setting of US dollar LIBOR rates and trading in derivatives indexed to LIBOR. The case is now pending before the US District Court in Manhattan.

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Equal-weight/Hold	1252	42%	478	43%	38%
Not-Rated/Hold	108	4%	33	3%	31%
Underweight/Sell	458	15%	119	11%	26%
Total	2,957		1104		

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The Americas

1585 Broadway
New York, NY 10036-8293
United States
Tel: +1 (1) 212 761 4000

Europe

20 Bank Street, Canary Wharf
London E14 4AD
United Kingdom
Tel: +44 (0) 20 7 425 8000

Japan

4-20-3 Ebisu, Shibuya-ku
Tokyo 150-6008
Japan
Tel: +81 (0) 3 5424 5000

Asia/Pacific

1 Austin Road West
Kowloon
Hong Kong
Tel: +852 2848 5200

Industry Coverage: Banking - Large Cap Banks

Company (Ticker)	Rating (as of)	Price* (07/11/2012)
Betsy L. Graseck, CFA		
American Express Company (AXP.N)	E (11/28/2011)	\$58.08
BB&T Corporation (BBT.N)	O (11/28/2011)	\$31
Bank of America (BAC.N)	E (10/27/2011)	\$7.63
Bank of New York Mellon Corp (BK.N)	U (11/28/2011)	\$21.31
Capital One Financial Corporation (COF.N)	O (10/10/2011)	\$54.04
Citigroup Inc. (C.N)	E (11/28/2011)	\$25.87
Discover Financial Services (DFS.N)	E (03/05/2010)	\$34.65
Goldman Sachs Group Inc (GS.N)	E (09/13/2011)	\$95.13
J.P.Morgan Chase & Co. (JPM.N)	O (12/11/2006)	\$34.59
Northern Trust Corp. (NTRS.O)	U (11/28/2011)	\$46.66
PNC Financial Services (PNC.N)	O (10/31/2005)	\$61.41
Regions Financial Corp (RF.N)	U (11/21/2008)	\$6.56
State Street Corporation (STT.N)	U (11/28/2011)	\$43.2
SunTrust (STI.N)	O (07/02/2012)	\$24.21
U.S. Bancorp (USB.N)	O (11/28/2011)	\$32.28
Wells Fargo & Co. (WFC.N)	O (10/16/2008)	\$33.27

Stock Ratings are subject to change. Please see latest research for each company.
* Historical prices are not split adjusted.