



# Foreign Exchange

Leading drastic change at  
investment banks

# Contents

Foreword	3
Section 1	4
Enhancements investment banks have made to their foreign exchange control environment	
Section 2	10
Improvements to foreign exchange service offering by investment banks	
Section 3	11
Activities investment banks are focusing on to improve their foreign exchange control environment	
Section 4	12
The tough choices investment banks are facing	
How EY can help	13
Contacts	14

## Acknowledgements

We would like to thank the following individuals for their contribution:

- ▶ Adam Holder
- ▶ Christopher Kainz
- ▶ Krystyna Murphy
- ▶ Leila Khan Babar
- ▶ Mark Selvarajan
- ▶ Oliver Rockley
- ▶ Poorva Nangia
- ▶ Rick Mangassarian
- ▶ Rupal Thakrar
- ▶ Stuart Johnson

# Foreword



Since the 2007 financial crisis, and in spite of difficult economic and market conditions, investment banks have invested significantly in improving their control environment.

The market tremors from the Foreign Exchange (FX)-fixing scandal and subsequent probe - triggering a flurry of fines, litigation cases and prosecutions - have been a critical catalyst for such major changes.

We have collaborated with many investment banks on this topic and, although significant and drastic changes have been achieved, there is still some way to go.

Indeed, investment banks have already achieved a significant amount of change in the last five years across four main dimensions. They have:

- ▶ Changed their control approach to new types of risk (e.g., conflicts of interest).
- ▶ Clarified and defined their new expectations with regard to culture and conduct.
- ▶ Adapted their policies and procedures to new regulation and client expectations.
- ▶ Simplified their business model and control environment by increasing the level of trading automation.

But this transformation is not completed yet. We expect that investment banks will be focusing on five main topics:

1. Formalizing their progress by explicitly adopting the new FX Global Code
2. Enhancing efficiencies across their new control and risk management approach
3. Reinforcing the accountability of the front office and removing the unnecessary duplication across the three lines of defense
4. Ensuring that the new approach is implemented globally across all business units and principles are extended to asset classes (beyond FX)
5. Systematically leveraging the use of information to improve the detection of abnormal situations and behaviors

EY is appropriately positioned to support investment banks through their transformation. We have experience in working with more than 25 investment banks, ranging from backward-looking investigation work into misconduct and forward-looking remediation of front-office controls. This experience has allowed us to develop unique assets and approaches that can support the change. These include:

- ▶ EY Conflicts of interest register
- ▶ EY Control standards (based on industry practices, regulatory requirements and the FX Global Code)
- ▶ EY Surveillance service for FX: OdysseEY
- ▶ EY Traceability and control services
- ▶ EY Risk and control management framework

This has a cost both financially and emotionally; but it is the only way to fully restore the confidence of clients and shareholders, as well as gaining new market share.

**Pierre Pourquery**  
Partner, Ernst & Young LLP, London

# Section 1

In the last three years, mostly driven by regulators, investment banks have significantly improved their foreign exchange sales and trading control environment

## Investment banks have been focusing on implementing “low-hanging fruits” to show quick progress

### These changes include:

- ▶ New policies and procedures to manage risks related to benchmarks, order handling, communications, Personal Account (PA) dealing, FX barrier options, and other risks associated with aligning FX business activities with the new FX Global Code.<sup>1</sup>
- ▶ Updating governance frameworks to enable the clear documentation of management and supervisory responsibilities, and oversight of business risks and escalation channels
- ▶ Development of training across the entire front-office population (i.e., traders and salespeople) covering aspects of key policies, procedures and guidance related to business best practices
- ▶ Tactical surveillance to manage the most critical conduct risks (i.e., benchmark manipulation, stop loss orders and defending or triggering FX barrier options)
- ▶ Enhanced communication monitoring across electronic communication platforms (e.g., Bloomberg chat, emails and voice)

<sup>1</sup> Global Foreign Exchange Committee, FX Global Code, [https://www.globalfxc.org/fx\\_global\\_code.htm](https://www.globalfxc.org/fx_global_code.htm)

## Investment banks have made significant enhancements to their policies, procedures and guidance across the following five dimensions.

### Benchmarks

---

To manage the most critical conduct risks, investment banks have implemented detailed bank-wide policies and FX business guidance that cover the following aspects related to managing benchmark orders:

- ▶ Defined approach to trading during the fixing calculation window
- ▶ Prohibitions on the types of information that can be shared
- ▶ How netting of fixing orders should be conducted
- ▶ Execution method
- ▶ Thresholds for reporting and escalation

### Communications

---

All investment banks have either enhanced existing or implemented new policies and guidance on business expectations when communicating with clients and competitors, including the types of information and market color that can be shared both internally within the investment bank and externally to clients, counterparties and competitors, and the types of chat rooms that sales and trading can participate in.

### Orders and Pricing

---

Most investment banks have defined policies and procedures to enable fair markups to be applied to client orders. These are supported by detailed threshold criteria for escalation, evidencing management review for audit trail purposes and the need to be truthful to clients when asked about the amount of markup applied.

All investment banks have enhanced existing order handling policies and business guidance. Examples of enhancements include how FX sales and trading should handle client orders, the types of orders that will be accepted, the types of disclosures that can be made to clients (e.g., pre-hedging) and how to manage conflicts of interest (e.g., two of the same client orders, or managing internal and external stop loss orders).

### FX barrier options

---

Investment banks that trade in FX barrier options have enhanced their business guidance to include details on how to execute barrier-related orders, associated hedging activities, order thresholds for escalation and requirements for monitoring by the desk supervisor.

### PA Dealing

---

We have seen examples across a number of investment banks of existing personal account dealing frameworks being enhanced to provide sales and trading with further clarity on what they can and cannot trade and thresholds on the amount individuals can trade in FX per month.

### **Investment banks have been adapting their governance framework.**

---

A majority of investment banks have strengthened their existing governance and supervision frameworks in order to provide sufficient oversight of business risks and activities. Key governance improvements that have typically been implemented include:

- ▶ FX business forums for FX business management, desk supervisors and other infrastructure groups (e.g., legal and compliance) in which key FX business risks are reviewed and discussed, with follow-through actions documented.
- ▶ Defined supervisory processes, including procedures that outline supervisory expectations when providing desk oversight.
- ▶ Ensuring escalation channels are clearly defined, documented and communicated to the business (in some cases, these are supported by an online management tool to enable the routing of escalation to supervisors and evidence the steps taken to reach a resolution).

### **Investment banks have been focusing on improving culture and developing training across the entire front-office population.**

---

- ▶ Enhanced business training across the front office that includes a balanced mix between classroom- and online-based training.
- ▶ Delivery of business training by desk supervisors and senior business management.
- ▶ Specific scenario-based training on FX business activities that are considered to be “grey areas” to strengthen front-office awareness and understanding of expectations.
- ▶ Increasing focus on the supervisor in promoting conduct and identifying inappropriate behaviors in a timely manner (some investment banks have introduced training for supervisors on risk culture).
- ▶ Frameworks to build the understanding of culture and improve the monitoring of behavior.
- ▶ Evidenced examples of the impact of good and bad employee conduct on end-of-year performance ratings and, ultimately, the remuneration package

### **Most investment banks have been developing tactical surveillance solutions to manage the most critical conduct risks.**

---

- ▶ Implementation of tactical surveillance to manage manipulating FX benchmark fixes, which is the number one conflict for FX businesses and has contributed to an increase in surveillance budgets by 50%.
- ▶ In addition to the surveillance of FX benchmark fixes, investment banks are also focusing their surveillance investment on the following five FX business risks:
  - ▶ Layering and/or wash trades
  - ▶ Stop Loss
  - ▶ Front Running
  - ▶ Hard mark ups
  - ▶ FX barrier option monitoring
- ▶ To support their surveillance capabilities, they have hired former FX traders to provide specialist knowledge within their surveillance and control functions when conducting surveillance activities.

---

**All investment banks have implemented enhanced business training across their front office which includes a balanced mix between classroom based and online based training**

---

**Investment banks have enhanced communication monitoring across electronic communication platforms (e.g., Bloomberg chat, emails and voice):**

---

- ▶ Monitoring of written communication is well established, with more than half of investment banks monitoring more than 80% of their written communication.
- ▶ To support the implementation of new electronic communication policies and business guidance, most have undertaken the following activities:
  - ▶ Introduced procedures for monitoring and processes for the ongoing review of lexicon flags based on trigger events, e.g., FX industry focus
  - ▶ Implemented comprehensive first and second line of defense monitoring of communications
  - ▶ Review of control breaches and other issues in a monthly control forum
  - ▶ Introduced electronic communication steering or working groups to review the escalations from communication monitoring and refine monitoring parameters, e.g., validation of lexicons
- ▶ Challenges remain in the monitoring of voice channels. A number of investment banks have undertaken proof of concepts with third-party IT vendors that have not delivered desired standards and expectations.
- ▶ At this point, a majority of investment banks are undertaking a risk-based sample approach when it comes to monitoring voice channels, or reviewing voice channels as part of an overall suspicious transaction investigation.

**Investment banks have also changed their business models to mitigate and remove conflicts of interest within their FX business.**

---

- ▶ All investment banks have changed aspects of their business model in order to manage conflicts of interest that are inherent within their FX business.
- ▶ Our industry comparison has identified the following key changes:
  - ▶ More than 75% of investment banks have automated their fixing and non-fixing orders.
  - ▶ Slightly less than 50% have implemented a fee-based model for certain order types (e.g., fixing orders).
- ▶ One of the benefits of this trend is the reduction in some critical risks and conflicts of interest (e.g., by limiting discretion and access to sensitive order information) while potentially limiting the need for complex controls (e.g., reduced population of transactional activity subjected to surveillance and monitoring).

**All these changes have driven significant investment for investment banks.**

---

- ▶ We have observed significant investment from investment banks since 2010 (around US\$1b in total for the industry globally) across the following activities:
  - ▶ Implementation of a conflicts of interest framework by the front office
  - ▶ Enhanced business practices in response to FX settlements
  - ▶ Embedded controls delivered as part of business-as-usual activities
- ▶ From a recent survey conducted by EY, we estimate that investment banks have spent more than US\$500m over two years to assess and remediate front-office controls in response to FX settlements.

---

**Most investment banks have been developing tactical surveillance solutions to manage the most critical conduct risks**

---



This change has had some impact on the FX business, including a significant increase in the cost of conduct and controls, and the formalization of control and risk management:

- ▶ There has been a lot of pressure on the front office to conduct ongoing and regular assessments of business risks and controls.
  - ▶ A key regulatory driver for the formalization of control and risk management frameworks is the Senior Managers and Certification Regime in the United Kingdom, which requires most senior individuals in firms who hold key roles to have a statement of responsibilities setting out the areas for which they are personally accountable.
- ▶ Examples of regular activities we have observed across investment banks include:
    - ▶ Risk and control self-assessments: business risks are assessed and the adequacy of controls to mitigate risks are evaluated.
    - ▶ Conduct material risk assessments: forward-looking conduct risks and the financial impact on the business if materialized.
  - ▶ On average, we have observed that traders and desk supervisors are spending 30% to 50% of their time on these activities, which could instead be spent on building client relationships and generating business.

Below, we have outlined a typical phased approach adopted by a Tier 1 investment bank.

Steps	1. Conflict of interest	2. Front office remediation	3. Business as usual
<b>Objectives</b>	Establish a framework, including identifying and mitigating conflicts of interest.	Enhance controls across the front office through assessment and remediation delivery.	Embed controls and ensure ongoing controls are in line with short term and long term objectives.
<b>Activities</b>	<ul style="list-style-type: none"> <li>▶ Identifying scope of business activities (e.g., products, clients and services).</li> <li>▶ Identifying business scenarios.</li> <li>▶ Organizing workshops to engage and socialize with business stakeholders.</li> <li>▶ Developing a business conflicts register and framework for ongoing monitoring and review.</li> </ul>	<p><b>Control assessments</b></p> <ul style="list-style-type: none"> <li>▶ Assessment of business controls against a defined set of control standards</li> <li>▶ Identifying control gaps for remediation</li> </ul> <p><b>Remediation delivery</b></p> <ul style="list-style-type: none"> <li>▶ Design and deploy controls</li> <li>▶ Communication, training and embedding of controls</li> <li>▶ Validation and test</li> </ul>	<ul style="list-style-type: none"> <li>▶ Ongoing enhancement of business controls</li> <li>▶ Control testing and validation to identify gaps</li> <li>▶ Ongoing assessment of risks and conflicts identified in Phase 1 and 2</li> <li>▶ Ongoing business training</li> <li>▶ Business advisory support</li> </ul>
<b>Estimated duration</b>	<b>Four years</b>	<b>Four years</b>	<b>Ongoing</b>

We estimate that Investment Banks have spent over

us\$500m

over two years to assess and remediate front office controls in response to the FX settlements

## Section 2

Client pressure has also been a critical driver of change

Due to client demand, investment banks have been focusing on improving their service offerings:

- ▶ More than 60% have been enhancing their electronic trading offering to enable the full and accurate execution of trades. Examples that we have seen in the market include:
  - ▶ Automating execution of fixing and non-fixing orders (75%).
  - ▶ Investing in innovating new aggregators and algorithms (57%).
  - ▶ Offering agency execution capabilities (18%).
- ▶ An increasing number of client demands for electronic trading and agency execution is resulting in limited trader discretion and manual intervention - or none at all - thus reducing human error and conflicts of interest.
- ▶ More than half of investment banks are working on building transparency through the following activities:
  - ▶ Enhanced client disclosures in areas such as pre-hedging, determination of pricing components (e.g., trade execution charge, added value, markup and markdown) and how client orders are handled.
  - ▶ Moving trading activity away from voice execution desks and on to electronic trading platforms.

More than

# 60%

have been enhancing their electronic trading offering to enable the full and accurate execution of trades.

## Section 3

Investment banks are continuing their efforts and are now focusing on three main activities.

### Alignment with the FX Global Code.

- ▶ There has been a lot of effort at a global level to produce the FX Global Code, which represents a set of principles that are considered to be good practice in the wholesale foreign exchange market.
- ▶ The code is designed to promote a robust, fair, liquid and transparent market that helps investment banks build and maintain market confidence and, in turn, improve efficiency and functionality in the FX market.
- ▶ 74% have incorporated the FX Global Code into their control framework; the remaining 26% are working on it.
- ▶ Any gaps identified since the publication of the FX Global Code in May 2017 may be considered as incremental enhancements to the changes that have already been made by a majority of investment banks.

### Improvement of surveillance and monitoring capabilities.

- ▶ Establishment of such capabilities and responsibilities within the first line of defense (e.g., T+1 basis for material risks)
- ▶ Focus on identifying the most material risk related to conduct, conflicts of interest, and unauthorized trading
- ▶ Develop intelligent and new surveillance capabilities (incorporating structured and unstructured data and focusing on “join the dot”) to replace tactical surveillance for key risks
- ▶ Establishment of cross-line of defense governance to enable the identification and escalation of material surveillance issues to front-office management (e.g., monthly benchmark execution forums).

### Extending the FX control environment to the rest of the investment bank.

- ▶ Investment banks have applied lessons learnt from remediating their FX business across other business areas within their markets, including rates, rate options, commodities, credit derivatives, index-related businesses and electronic trading.
- ▶ The FX remediation activities identified a core set of control standards that need to be adopted across a markets business. Controls related to the following themes can typically be adopted and adapted by other business areas:
  - ▶ Communications
  - ▶ PA dealing
  - ▶ Order handling
  - ▶ Pricing frameworks
  - ▶ Training
  - ▶ Governance
- ▶ The benefit of lessons learnt is to create a single set of control standards across the front office.

## Section 4

While these specific changes to the control environment are crucial for investment banks in their quest to restore client and regulator confidence, they still have to make some tough choices around several dimensions.

### **Radically changing the three lines of defense to make the control environment more efficient and effective.**

---

- ▶ Investment banks have had to be reactive in enhancing and addressing gaps in controls; this has meant repetition, overlap and even confusion in ownership of control activity across the traditional lines of defense model.
- ▶ Investment banks are beginning to evaluate a “holistic activity-based approach” to control by defining key control activities required and the standard to which they are to be performed, and ensuring that activity is executed by an appropriate team, whether front office, compliance or operational risk.

### **Reducing the overall cost of control by 50% while improving effectiveness.**

---

- ▶ Spending on control has been driven by a “improve at any cost” approach to address gaps quickly.
- ▶ However, low returns, limited revenue growth and the resulting pressures on return on equity have brought control spend under the spotlight.
- ▶ To date, much of the focus has been on directive (procedures and guidance) and detective (e.g., surveillance and monitoring) controls, often supported by manual processes. While the control activity so far has been crucial, its effectiveness is still open to debate.

Now that a minimum standard has been achieved, the focus is on achieving greater value through increased automation, reduced repetition and prevention.

### **Increasing preventative controls to 50% of all controls.**

---

- ▶ So far, enhancements to preventative controls have taken the form of improvements to awareness, training, management information and, in some cases, considerations of behavior in remuneration and reward.
- ▶ However, regulators are actively encouraging investment banks to go further in addressing behavior and reward, and implement systems and controls to prevent rather than detect misconduct.
- ▶ Preventative system-based controls are likely to be more effective in addressing misconduct and also less costly to run (greater automation and limited manual intervention).
- ▶ However, improvements to control without adequate consideration of behavior may be expensive or ineffective, or even worse, both.

# How EY can help

## Risk and control assessments

- ▶ Risk and control prioritization
- ▶ Gap assessment governance and methodology
- ▶ Attestation and testing services

## EY 'FX code of conduct' adherence and attestation

- ▶ 250+ control standards
- ▶ FX global industry comparison with 25 banks
- ▶ FX remediation experiences

## First and second lines of defense reorganization

- ▶ EY first line of defense survey
- ▶ EY three lines of defense analysis tool
- ▶ EY cost reduction approach and target organizational model

## EY conflict of interest and operational risk registers

- ▶ Conflict of interest register
- ▶ Operational risk register

## Odyssey Surveillance service

- ▶ FX conflict of interest monitoring tool
- ▶ EY risk scenarios
- ▶ "Join the dots" service across risks and asset classes

## EY digital solution for control and compliance

- ▶ "Are We In Control" dashboard
- ▶ Senior Manager Regime dashboard
- ▶ Traceability and evidencing functionalities
- ▶ Automated control management

# Contacts

For further information, please contact:

## EMEIA

### Pierre Pourquery

---

Partner  
Ernst & Young LLP  
London  
+44 207 951 6750  
ppourquery@uk.ey.com

### Mark Selvarajan

---

Director  
Ernst & Young LLP  
London  
+44 207 951 3441  
mselvarajan@uk.ey.com

### Rick Mangassarian

---

Senior Manager  
Ernst & Young LLP  
London  
+44 207 951 9066  
rmangassarian@uk.ey.com

## Americas

### Tom Campanile

---

Partner  
Ernst & Young LLP  
New York  
+1 212 773 8461  
thomas.campanile@ey.com

### Michael Patterson

---

Partner  
Ernst & Young LLP  
New York  
+1 212 773 2824  
michael.patterson1@ey.com

### Mary Lou Peters

---

Executive Director  
Ernst & Young LLP  
New York  
+1 212 773 2941  
marylou.peters@ey.com

## APAC

### David Scott

---

Partner  
Ernst & Young Advisory Pte. Ltd  
Singapore  
+1 65 6309 8031  
david.scott@sg.ey.com

### Luke Shepherd

---

Senior Manager  
Ernst & Young Advisory Services Ltd  
Hong Kong  
+1 852 2849 9483  
luke.shepherd@hk.ey.com



**About EY**

EY is a global leader in assurance, tax, transaction and advisory services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over. We develop outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, we play a critical role in building a better working world for our people, for our clients and for our communities.

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. For more information about our organization, please visit [ey.com](http://ey.com).

**EY is a leader in serving the financial services industry**

We understand the importance of asking great questions. It's how you innovate, transform and achieve a better working world. One that benefits our clients, our people and our communities. Finance fuels our lives. No other sector can touch so many people or shape so many futures. That's why globally we employ 26,000 people who focus on financial services and nothing else. Our connected financial services teams are dedicated to providing assurance, tax, transaction and advisory services to the banking and capital markets, insurance, and wealth and asset management sectors. It's our global connectivity and local knowledge that ensures we deliver the insights and quality services to help build trust and confidence in the capital markets and in economies the world over. By connecting people with the right mix of knowledge and insight, we are able to ask great questions. The better the question. The better the answer. The better the world works.

© 2017 EYGM Limited.  
All Rights Reserved.

EYG no. 04834-174GBL  
ED None

This material has been prepared for general informational purposes only and is not intended to be relied upon as accounting, tax or other professional advice. Please refer to your advisors for specific advice.

The views of third parties set out in this publication are not necessarily the views of the global EY organization or its member firms. Moreover, they should be seen in the context of the time they were made.

**[ey.com](http://ey.com)**