Depositary Receipts
Three Decades of Value Creation

BNY MELLON

Oxford METRICA

CONTENTS

Depositary Receipts: Three Decades of Value Creation

FOREWORD

It is with great pleasure that we present our latest white paper on Depositary Receipts (DRs). It is almost a decade since we published our first comprehensive analysis of the benefits of these instruments for investors and corporations. Since that time, despite considerable volatility in world equity markets and substantial changes in regulation around the world, the DR market continues to flourish.

Our initial study of nearly a decade ago documented unambiguously that establishing a DR programme improved both market capitalisation and trading value. The current paper reports a comprehensive update and extension of the original study covering the universe of American and global DRs over the last three decades. The findings confirm three decades of value creation. Despite market changes and volatility, DRs continue to deliver value to investors.

The study includes 2,661 DR programmes established in the thirty year interval 1980 to 2010, from 72 countries. An average increase in value of over 10% is observed and much greater than that in the case of BRIC countries. A marked increase in domestic market liquidity is likewise reported and this too is particularly significant in the BRIC region. ADRs and GDRs continue to provide a convenient vehicle for international diversification and growth in a domestic package.

We present the core results along with some detailed analysis by region and market. I hope that, as an investor or potential investor in DRs, as an existing corporate DR issuer or as a corporation considering issuing a DR programme, you will find the results compelling and that they may serve to inform your decisions.

We gratefully acknowledge BNY Mellon, market leaders in the DR industry, in supporting this project.

Dr Rory Knight
Chairman

Dr Rory Knight is Chairman of Oxford Metrica. He was previously Dean of Templeton College, Oxford University's business college.

EXECUTIVE SUMMARY

The aim of this briefing is to provide a comprehensive and robust analysis of the value and liquidity effects of establishing a depositary receipt (DR) programme. The full universe of 2,661 US and European stock exchange-listed (Levels II/III) and all over-the-counter (Level I) DRs has been analysed for the period from 1980 to 2010, covering 72 countries.

Key value results

1. The establishment of a Level I, II or III DR programme adds on average 10% of value in the first year of trading; Figures 1 and 2.
2. The establishment of a US or European listed (Levels II/III) DR programme by companies in the BRIC countries adds on average 25% of value in the first year of trading; Figure 3.
3. The establishment of an OTC (Level I) DR programme by companies in the BRIC countries adds on average 40% of value in the first year of trading; Figure 4.
4. An upgrade from OTC (Level I) to listed (Levels II/III) status adds approximately 15% of value whereas the decision to delist from listed (Levels II/III) to OTC (Level I) status destroys approximately 20% of value; Figure 14.
5. Following the enactment of the Sarbanes-Oxley Act in 2002, the value increase for US-listed (Levels II/III) ADR programmes rose to 12%.

Key liquidity results

6. The establishment of a US or European listed (Levels II/III) DR programme improves liquidity in the home market by 35% on average; Figure 15.
7. The establishment of an OTC (Level I) DR programme improves liquidity in the home market by 25% on average; Figure 16.
8. The establishment of a US or European listed (Levels II/III) DR programme by companies in the BRIC countries improves home-market liquidity by 42%; Figure 17.
9. The establishment of an OTC (Level I) DR programme by companies in the BRIC countries improves home-market liquidity by 27% on average; Figure 18.

Key performance results

10. US$100 million invested in the BNYM Composite DR Index from its inception on 31 December 2001 to 31 July 2011 would be worth US$158 million. US$100 million invested in the S&P 500 Composite Index over the same period would be worth US$113 million; Figure 19.
11. The average annual return for the BNYM Composite DR Index over the period is 7.45%. The return for the S&P 500 Composite Index over the same period is 3.64%.
12. The volatility of returns over the period is 1.43% for the BNYM Composite DR Index and 1.33% for the S&P 500 Composite Index; Figure 20.

The evidence presented herein demonstrates that DRs provide value and liquidity advantages to the benefit of both issuers and investors.

INTRODUCTION

Depositary Receipts (DRs) remove the friction of international equity investment and thereby offer significant benefits to issuers, investors and traders.

- For issuers, DRs offer access to new sources of equity capital and a more diversified shareholder base.
- For investors, DRs offer portfolio diversification and access to an expanded universe of securities.
- For traders, DRs offer reduced transaction costs and the elimination of custodial charges, currency fluctuations and language barriers.

In addition to these market benefits, the empirical evidence indicates that there are substantial value and liquidity advantages to be gained. The greater transparency associated with a DR programme reduces the asymmetry of information between managers and shareholders. This reduction of uncertainty for investors enables them to be more confident in their estimates of future cash flow; cost of capital goes down and value is created. The voluntary willingness by managers to adhere to more stringent regulatory standards, particularly in the case of a US or European stock exchange-listed DR, sends a powerful signal to the capital markets of managers confident in their corporate governance. Reputation is enhanced and a virtuous cycle between reputation and value is generated. Through diligent investor relations efforts, this cycle is sustained.

The greater transparency reduces the asymmetry of information between managers and shareholders.

Exhibited in this briefing are the research results from a study of all 2,661 DRs across 72 countries for the period 1980 to 2010. First, evidence is presented on the effects on shareholder value of establishing a US or European listed (Levels II/III) or OTC (Level I) DR programme. Second, the value impact of either upgrading a DR (from OTC to listed status) or delisting a DR (from listed to OTC status) is measured. This isolates and highlights the specific effect on value of greater financial disclosure. Third, the impact of establishing a new DR programme on home-market liquidity is evaluated. Finally, risk and return dimensions of DR performance are analysed and compared with those of the S&P 500 Composite Index.

THE GLOBAL EVIDENCE ON VALUE CREATION

Presented in this section is evidence on the value added to shareholders from companies choosing to establish a depositary receipt programme. The full universe of stock exchange-listed and over-the-counter DRs is analysed for the three decades from 1980 to 2010. The universe currently includes 772 US or European listed (Levels II/III) programmes and 1,889 programmes traded on the OTC/OTCQX markets (Level I DRs).

Figures 1 and 2 illustrate the average value creation by firms which have established a US or European listed (Levels II/III) or OTC (Level I) programme, respectively. The Value Reaction™ metric captures the firm-specific impact on shareholder value with all market-wide factors stripped out and returns risk-adjusted. The dates on which the DR programmes started trading have been aligned such that Event Day 0 is the initial trading day for all programmes. The graphs reveal the value creation from one month prior to initial trading to one calendar year subsequently. The robustness of the methodology is strengthened by the multiple market cycles present in the period of analysis and by analysing the full universe of DRs rather than sampling.

Value Reaction™ captures the firm-specific impact on shareholder value.

Figure 1: The value added from listed (Levels II/III) DRs

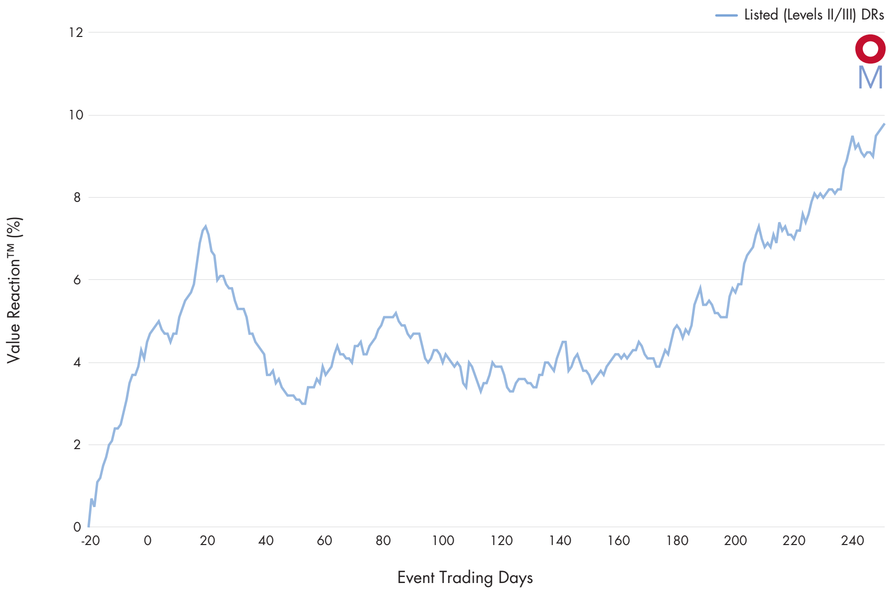


Figure 2: The value added from OTC (Level I) DRs

In the cases of both listed (Levels II/III) and OTC (Level I) DRs, the average value created over the first year of trading is approximately 10%.

The significance of the 'information leakage' to the market is greater for the listed programmes which start to see value added in the month prior to the first day of trading. The establishment of an OTC DR can be a step towards a full listing. Investors clearly welcome the voluntary establishment of a DR programme of either status as they look towards the higher standards of disclosure and reporting which accompany a listed programme.

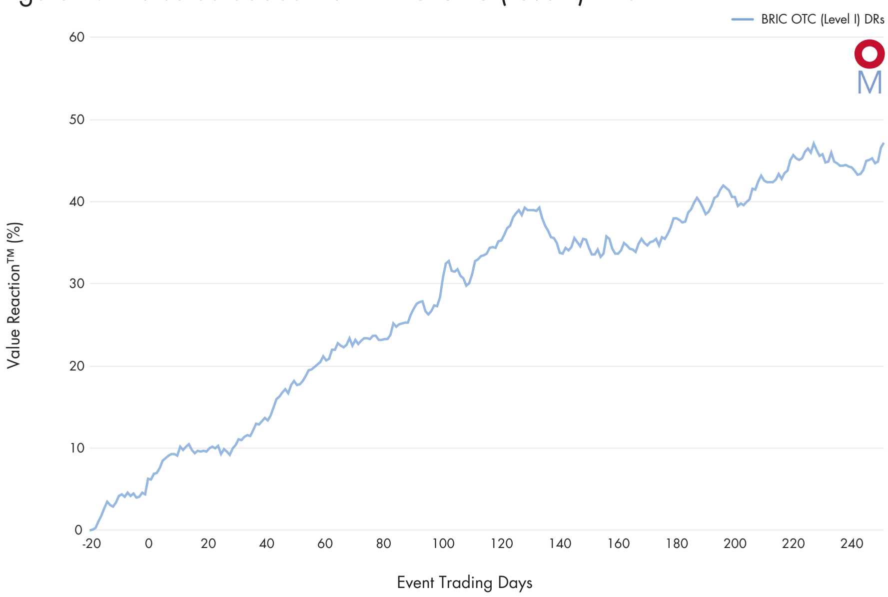
Investors welcome the higher standards of disclosure and reporting which accompany a listed programme.

For US-listed ADRs, the exacting demands of the Sarbanes-Oxley Act - enacted on 30 July 2002 in the wake of the corporate and accounting scandals of Enron, Tyco, WorldCom and others - heighten the reputation signal from firms which volunteer through a US listing to be exposed to greater regulatory scrutiny. Indeed, in the six years preceding the Act, the average value-added was 10% for US-listed ADR programmes, whereas in the six years following the Act, the value-added was over 12%[1].

The reputation signal emitted from an issuer by raising voluntarily its standards of governance is especially powerful when coming from emerging, less regulated markets. Figures 3 and 4 show the combined average impact on value for issuers from the BRIC countries of Brazil, Russia, India and mainland China.

Figure 3: The value added from BRIC listed (Levels II/III) DRs

Figure 4: The value added from BRIC OTC (Level I) DRs



[1] A period of six years either side of the enactment date was selected as the maximum period possible before the financial crisis of 2008 emerged to disrupt potentially the data.

Approximately 25% of value is added on average for investors in BRIC issuers from the establishment of new listed (Levels II/III) US or European DR programmes, while over 40% of value is added from the establishment of new OTC (Level I) DRs by issuers across the four BRIC countries. There are currently 378 listed DRs from issuers in BRIC; India (182), China (118), Russia (43) and Brazil (35). There are 236 DRs traded in the over-the-counter market from issuers in BRIC; China (136), Brazil (54), Russia (42) and India (4).

Regional results

Illustrated in Figures 5 to 13 are results on value creation for nine regions: Australia and New Zealand, Central and Eastern Europe, Continental Europe, Latin America, the Middle East/North Africa/the Gulf, North Asia, South Asia, Sub-Saharan Africa, and the United Kingdom and Ireland[2].

Figure 5: Value creation in Australia & New Zealand

Figure 6: Value creation across Central & Eastern Europe

[2] For distributions of listed and OTC DRs by region, see Appendix.

Figure 7: Value creation in Continental Europe

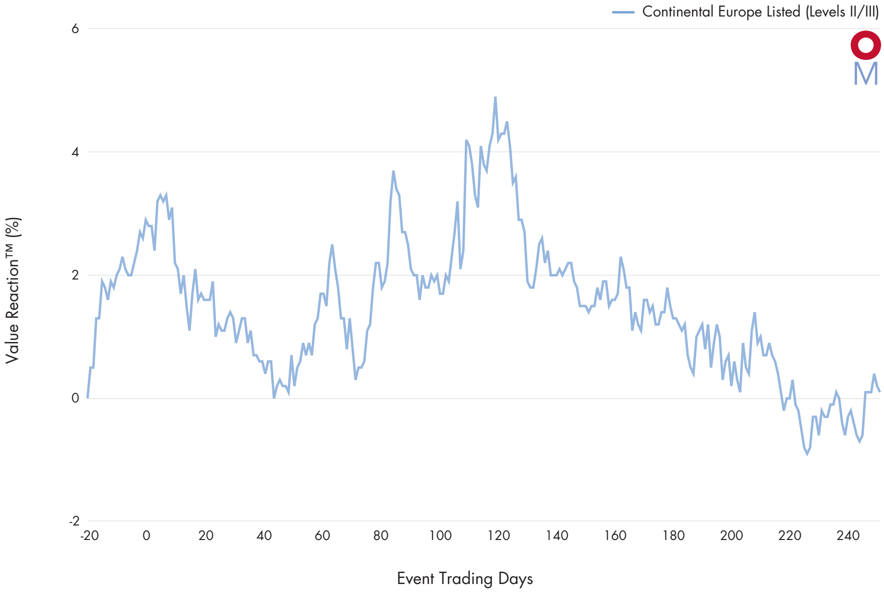


Figure 8: Value creation in Latin America

Figure 9: Value creation across the Middle East/North Africa/the Gulf

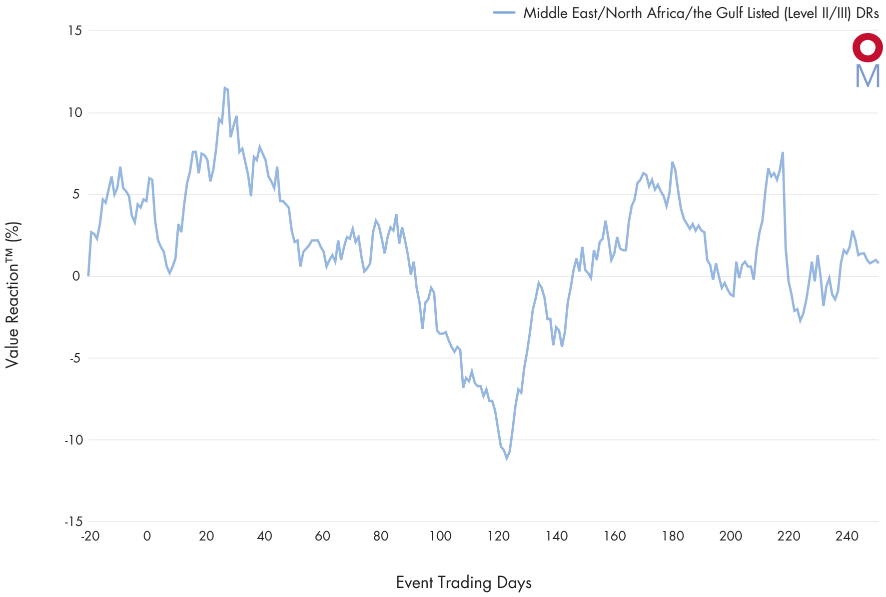


Figure 10: Value creation in North Asia

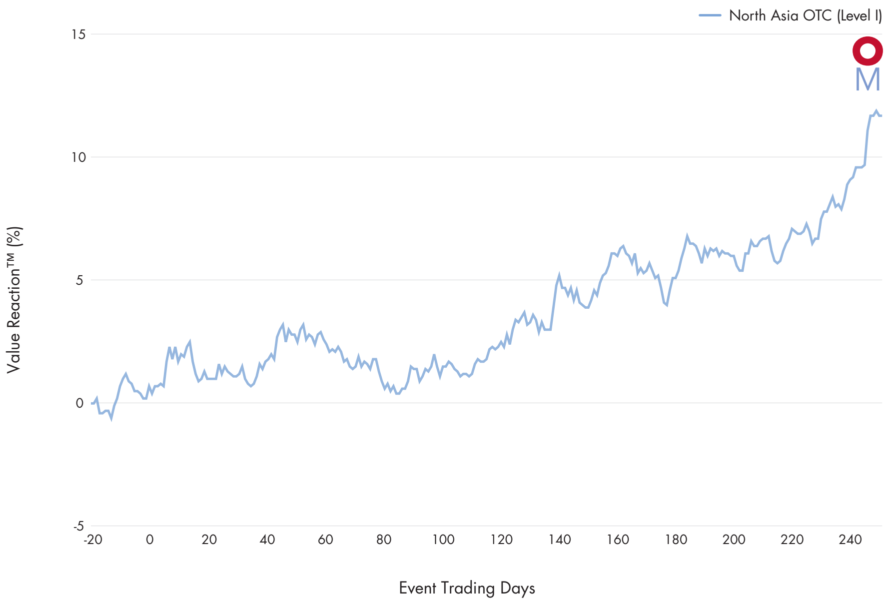


Figure 11: Value creation in South Asia

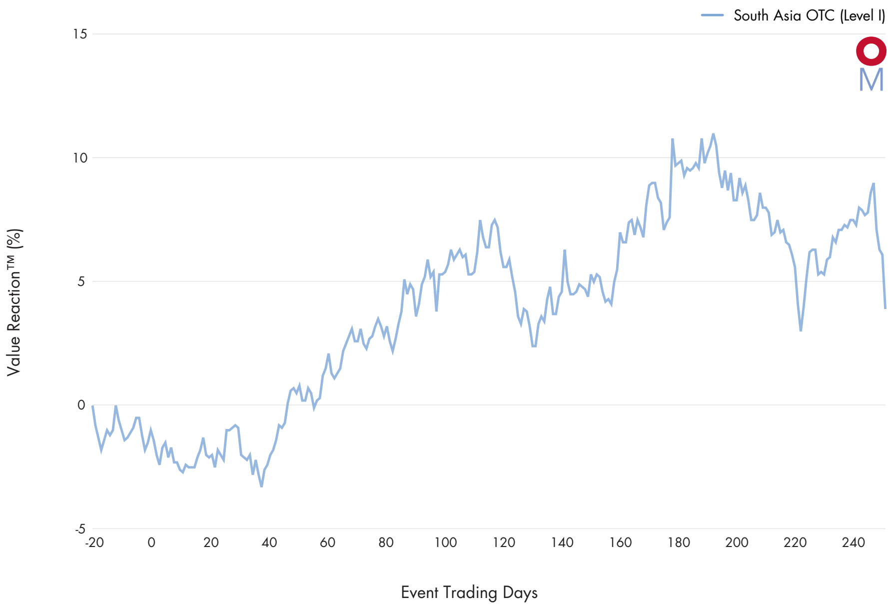


Figure 12: Value creation in Sub-Saharan Africa

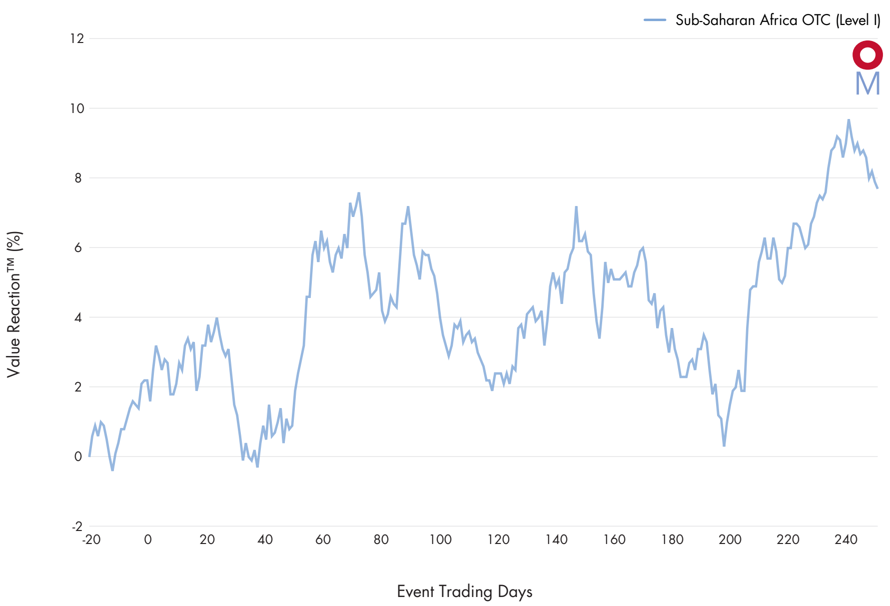
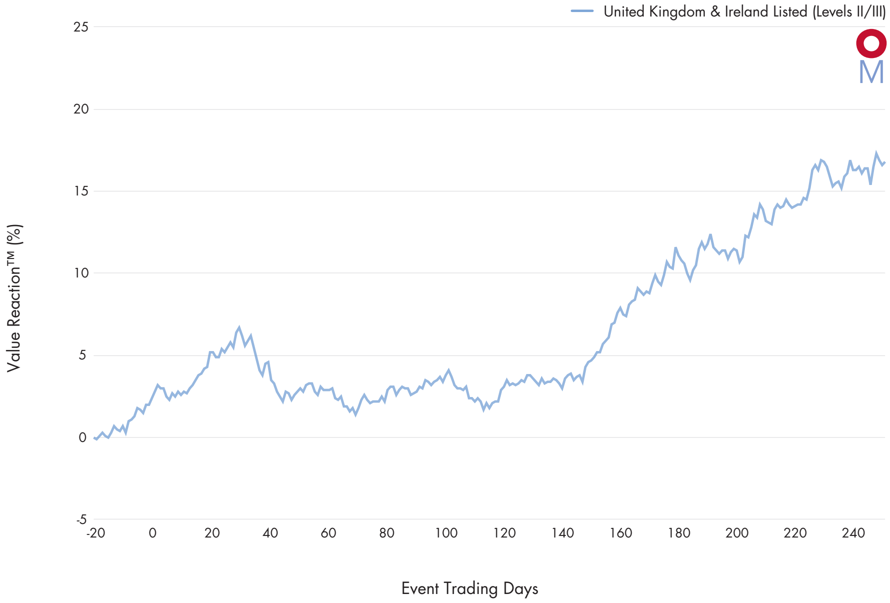


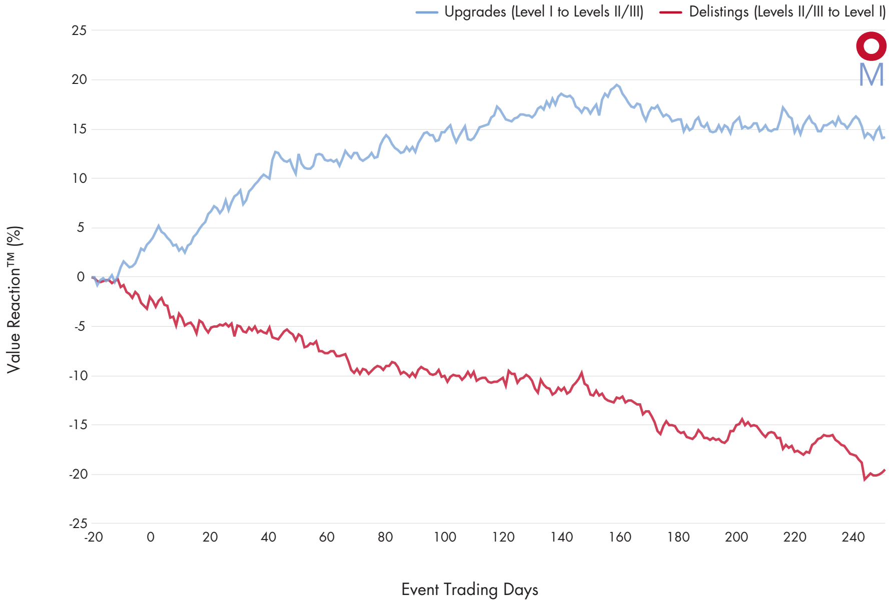
Figure 13: Value creation in the United Kingdom & Ireland



The evidence on value creation presented in this section demonstrates clearly the opportunity for Boards to enhance their corporate reputation by welcoming transparency, and being unafraid of the costs and standards of stricter reporting. The next section of this report will focus on the specific value impact of greater financial disclosure.

Issuers with OTC (Level I) DRs can elect to upgrade their programme to stock exchange-listed (Levels II/III) status. In these cases, the value impact of the higher reporting standards associated with a US or European listing can be isolated and measured. Equally, issuers with US or European listed programmes may choose to delist their DR programme to trade in the over-the-counter markets. In each case, the DR programme is retained. Shown in Figure 14 is the value impact of these courses of action.

Figure 14: The value impact of financial disclosure



By choosing to upgrade their OTC (Level I) DR programme to listed status, firms generate, on average, 15% of value for their shareholders. This is additional to the initial gain from establishing the original OTC programme. Equally, when firms choose to delist their listed (Levels II/III) DR programme to OTC (Level I) status, approximately 20% of value is destroyed over the subsequent year.

The decision by management to delist sends a strong message to investors that the issuer is no longer willing, for whatever reason, to meet the strict reporting requirements and standards of disclosure necessary for a listing. Such a message raises doubt in the minds of investors, damaging their confidence in the firm's governance. The dynamic between reputation and value is sensitive, and should be handled with care.

The decision to delist raises doubt in the minds of investors, damaging their confidence in the firm's governance.

THE GLOBAL EVIDENCE ON LIQUIDITY IMPROVEMENT

In addition to the significant reputation advantage of establishing a DR programme, which translates directly into value for shareholders, a DR can improve trading in the issuer's ordinary shares in the home market. The establishment of a DR programme provides greater access to (and from) investors, and improves visibility by generating more profile and wider coverage from equity analysts.

In this section, evidence is presented which demonstrates that the establishment of a DR programme does indeed improve liquidity in issuers' local shares. Once again, the full universe of DRs is analysed; from 1980 to 2010.

The Trading Volume Multiplier metric is the multiple of the previous year's average daily trading volume in ordinary (local) shares. A Trading Volume Multiplier of one, therefore, indicates normal trading volumes and no significant effect on liquidity. Shown in Figures 15 and 16 is the impact on home-market liquidity from establishing a DR programme, for US or European stock exchange-listed (Levels II/III) and OTC (Level I) DRs, respectively.

The Trading Volume Multiplier demonstrates the impact on home-market liquidity.

Figure 15: The liquidity advantage of listed (Levels II/III) DRs

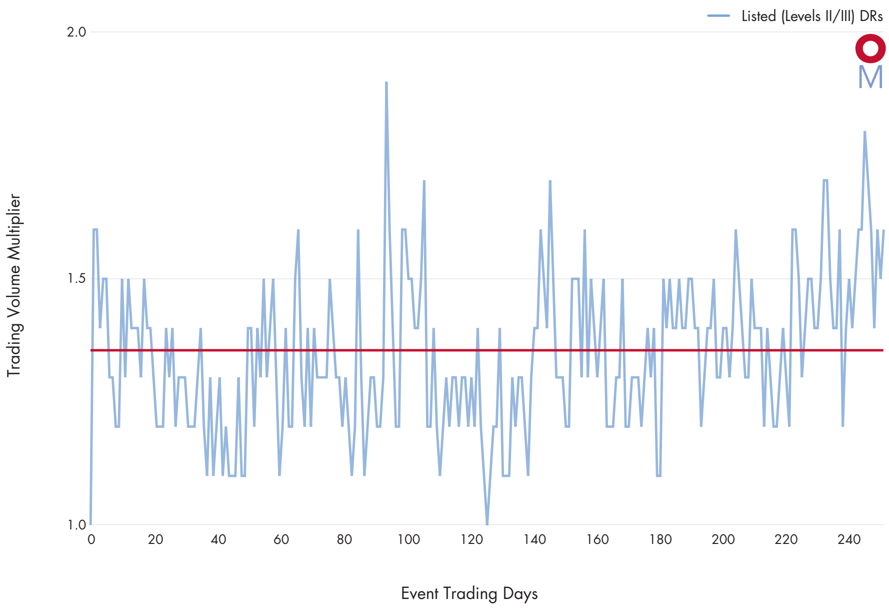
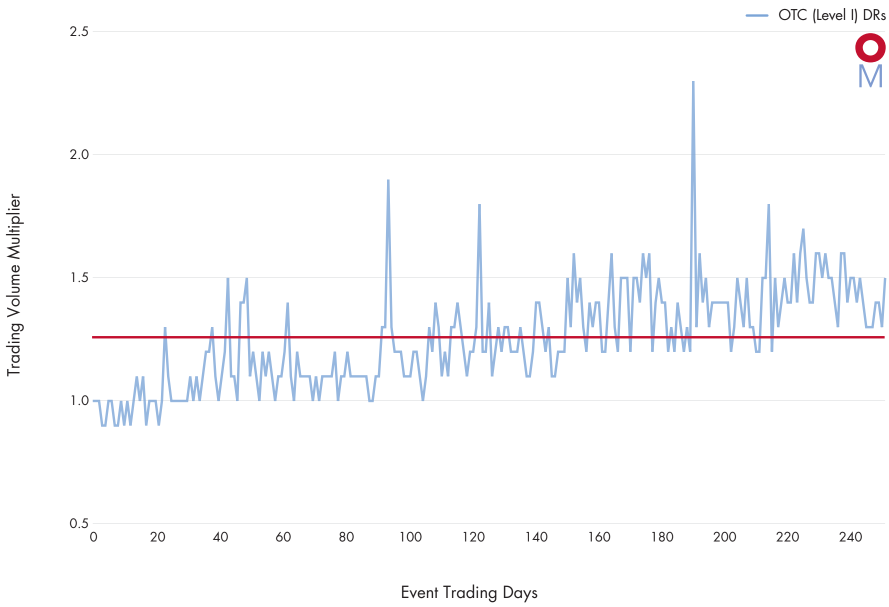


Figure 16: The liquidity advantage of OTC (Level I) DRs



The establishment of a US or European listed DR programme is shown to increase home-market liquidity by an average of 35% over the first year of trading[3]; thus improves home-market liquidity by over one-third. The establishment of an OTC (Level I) DR programme improves liquidity in ordinary share trading by approximately 25%.

Trading in the issuer's ordinary shares increases considerably following the establishment of a DR programme.

As with the research results on the value impact, the liquidity results for emerging, less regulated markets is even more striking. Figures 17 and 18 illustrate the impact on home-market liquidity for the BRIC group of countries.

Figure 17: The liquidity increase from BRIC listed (Levels II/III) DRs

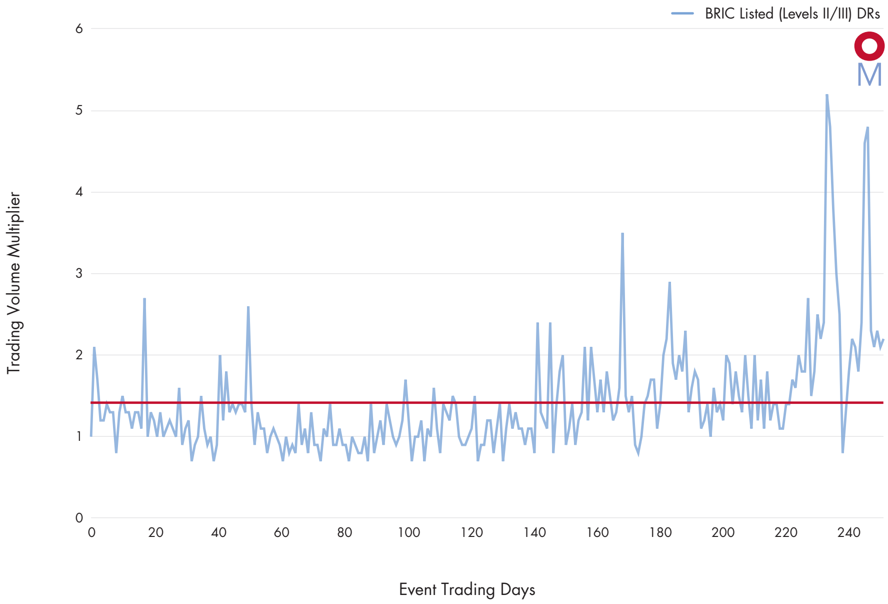
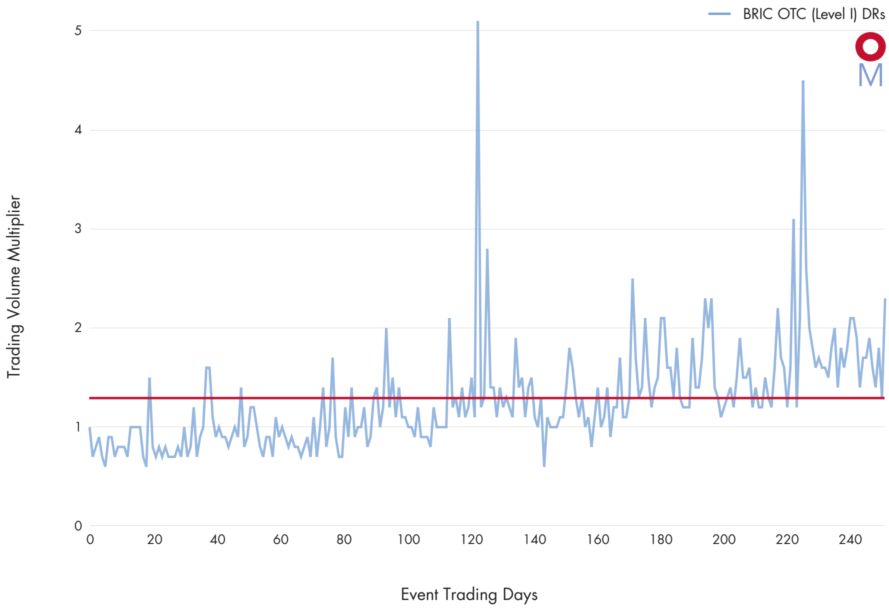


Figure 18: The liquidity increase from BRIC OTC (Level I) DRs



Following the establishment of a new listed (Levels II/III) US or European DR programme, trading in the ordinary shares of issuers from the BRIC countries increases by 42%. Home-market liquidity improves by 27% for issuers across the BRIC countries which choose to establish an OTC (Level I) DR programme.

It is clear that the establishment of either a US or European listed (Levels II/III), or an OTC (Level I) DR programme improves trading volumes in the home market for the issuers. The greater visibility and access to new markets of investors increases liquidity and generates additional demand for the shares. This may help to reduce the issuer's cost of capital, providing further benefits.

[3] The large number of Indian issuers with small market capitalisation has a distorting effect on the data and so have been removed from the analysis. Their inclusion only strengthened the results but inordinately so.

THE PERFORMANCE OF DRs

This section provides evidence on the risk and return performance of depositary receipts compared with the performance of US equities.

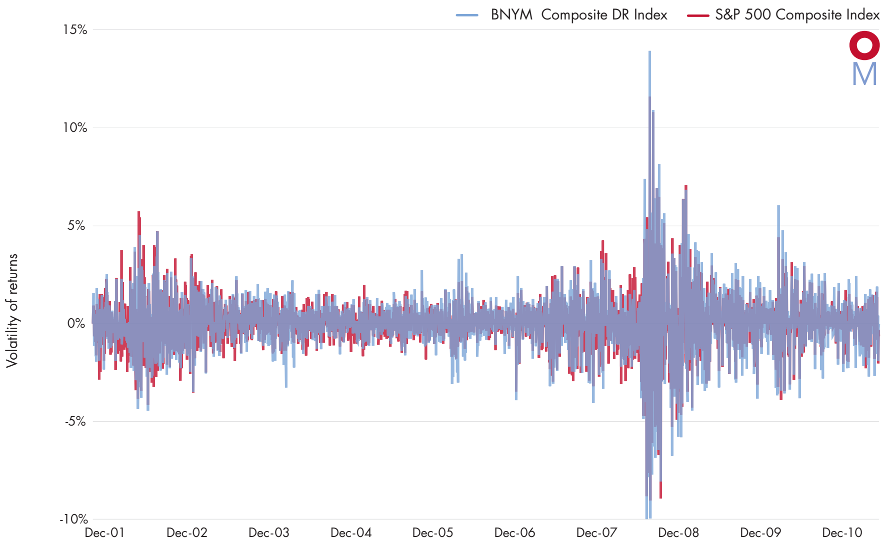
Specifically, Figure 19 illustrates the higher returns for DRs over the last decade. The graph shows that US$100 million invested in the BNYM Composite DR Index (since inception of the index on 31 December 2001 to 31 July 2011) would now be worth US$158 million. This compares with $100 million invested in the S&P 500 Composite Index at the same time which would now be worth US$113 million. The annualised average daily return for the BNYM Composite DR Index is 7.45%, approximately double that for the S&P 500 Composite Index which is 3.64%.

DRs have enjoyed higher returns over the last decade than have US equities.

Figure 19: Higher returns for DRs

These higher returns for DRs are accompanied by higher volatility; Figure 20. Based on daily prices, the standard deviation of returns over the period is 1.43% for the BNYM Composite DR Index and 1.33% for the S&P 500 Composite Index.

Figure 20: Accompanied by higher volatility



The data show that, in US dollar terms, DRs have outperformed US equities over the last decade, albeit with slightly higher volatility.

SUMMARY AND CONCLUSIONS

The research results presented in this briefing provide substantial evidence on the value and liquidity advantages of establishing a depositary receipt programme.

Approximately 10% of value is added to companies which choose to establish either a US or European stock exchange-listed (Levels II/III), or an OTC (Level I) DR programme. An additional 15% of value is added on average to firms which upgrade their OTC programme to listed status, as investors welcome the greater transparency a listing brings. Boards of issuers with listed programmes considering a delisting, however, beware; on average, 20% of value is destroyed by the decision to delist, as investors are wary as to why the additional disclosure to which they have become accustomed is withdrawn.

Beyond the positive impact of a DR programme on shareholder value, there are shown to be considerable liquidity advantages. Trading volumes in the issuer's ordinary shares in the home market increase respectively by 35% and 25% with the establishment of a US or European listed (Levels II/III), or an OTC (Level I) DR programme. The increase in home-market liquidity is driven by the greater visibility of the firm, wider coverage by analysts of its shares and simply increased access to its shares by new markets of investors.

Higher returns for DRs are accompanied by higher volatility. Over the last decade, the average annual return for the BNYM Composite DR Index was 7.4% whereas that for the S&P 500 Composite Index was 3.6%. The average volatility of the BNYM Composite DR Index was 1.43% over the period whereas that for the S&P 500 Composite Index was 1.33%.

The evidence presented in this briefing points clearly to the net positive impact of establishing a DR programme. By no means costless, compliance with higher standards of governance is rewarded in the markets to the benefit of issuers and investors. With effective investor relations, a virtuous cycle can be generated between reputation equity and shareholder value. It is readily apparent why the growth in DR programmes continues apace around the world: three decades of value creation.

With effective investor relations, a DR programme generates a virtuous cycle between reputation and value.

GLOSSARY OF TERMS

Delisting/Deregistration	The downgrading of a DR programme from listed (Levels II/III) status to OTC (Level I) status.
Depositary Receipts	Depositary Receipts (DRs) are negotiable US securities, denominated in US dollars, that represent shares of companies listed outside the United States. DRs are issued by a depositary bank to evidence that the underlying shares have been deposited with a custodian in the local market.
Listed (Levels II/III) DRs	American Depositary Receipts (ADRs) are listed on a US exchange (NYSE or NASDAQ) and require, therefore, full SEC registration, reconciliation with US GAAP and annual reporting with a Form 20F filing. Level III DRs additionally raise capital. Global Depositary Receipts (GDRs) are the same as ADRs but typically are not registered with the SEC on Form F-6.
OTC (Level I) DRs	Depositary receipts that trade in the "over-the-counter" OTC market and are exempt from US reporting requirements and from complying with US GAAP.
OTCQX (Level I) DRs	Depositary receipts that trade in OTC Markets' over-the-counter market, designed to enhance visibility for foreign issuers with Level 1 programmes.
Securities and Exchange Commission (SEC)	The US Securities and Exchange Commission (SEC) is an independent regulatory agency in the United States created to regulate the securities industry in the United States and enforce federal securities laws.
Termination	The cessation of a DR programme such that only the local shares in the issuer's home market are traded.
Upgrade	The development of a DR programme from OTC (Level I) status to listed (Levels II/III) status - for which additional requirements must be met.

The full universe of 2,661 depositary receipts has been analysed for this research. The following diagrams illustrate the global distribution by industry, by exchange-listed or OTC/OTCQX status, by BRIC country and by region.

Table A1: DRs by industry

Industry sector	Number of DRs	% of total
Banks	185	7.0%
Financial Services	119	4.5%
Pharmaceuticals & Biotechnology	119	4.5%
Oil & Gas Producers	118	4.4%
General Retailers	117	4.4%
Construction & Materials	111	4.2%
Real Estate Investment & Services	105	3.9%
Mining	101	3.8%
Industrial Metals & Mining	95	3.6%
Software & Computer Services	95	3.6%
Technology Hardware & Equipment	95	3.6%
Food Producers	93	3.5%
Media	86	3.2%
Industrial Transportation	80	3.0%
Fixed Line Telecommunications	78	2.9%
Support Services	77	2.9%
Industrial Engineering	76	2.9%
Electricity	75	2.8%
Electronics & Electrical Equipment	75	2.8%
Travel & Leisure	75	2.8%
Chemicals	66	2.5%
General Industrials	64	2.4%
Automobiles & Parts	63	2.4%
Mobile Telecommunications	62	2.3%
Health Care Equipment & Services	51	1.9%
Beverages	40	1.5%
Leisure Goods	39	1.5%
Personal Goods	39	1.5%
Household Goods & Home Construction	35	1.3%
Food & Drug Retailers	33	1.2%
Gas, Water & Multiutility	33	1.2%
Alternative Energy	29	1.1%
Forestry & Paper	28	1.1%
Oil Equipment, Services & Distribution	25	0.9%
Life Insurance	24	0.9%
Non-life Insurance	21	0.8%
Aerospace & Defence	20	0.8%
Equity Investment Instruments	7	0.3%
Tobacco	4	0.2%
Real Estate Investment Trusts	3	0.1%
	2,661	100.0%

Figure A1: Global DRs by status

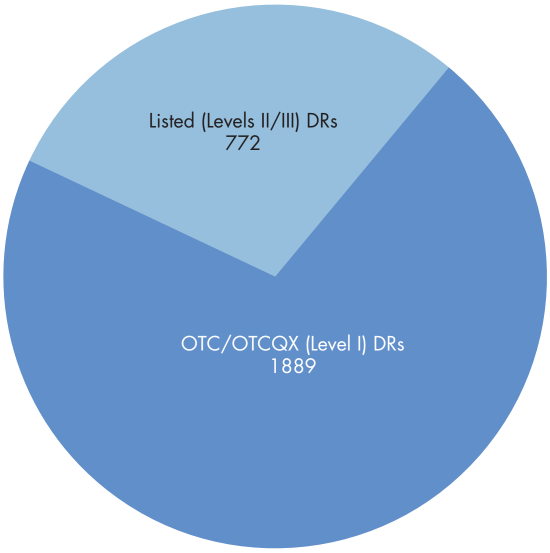


Figure A2: BRIC listed (Levels II/III) DRs by country

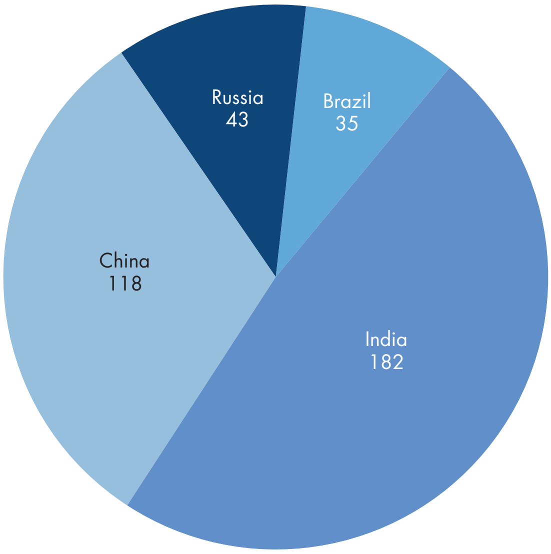


Figure A3: BRIC OTC (Level I) DRs by country

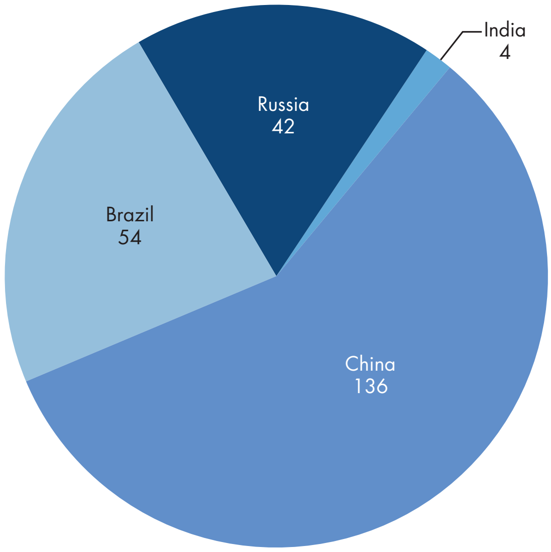


Figure A4: Listed (Levels II/III) DRs by region

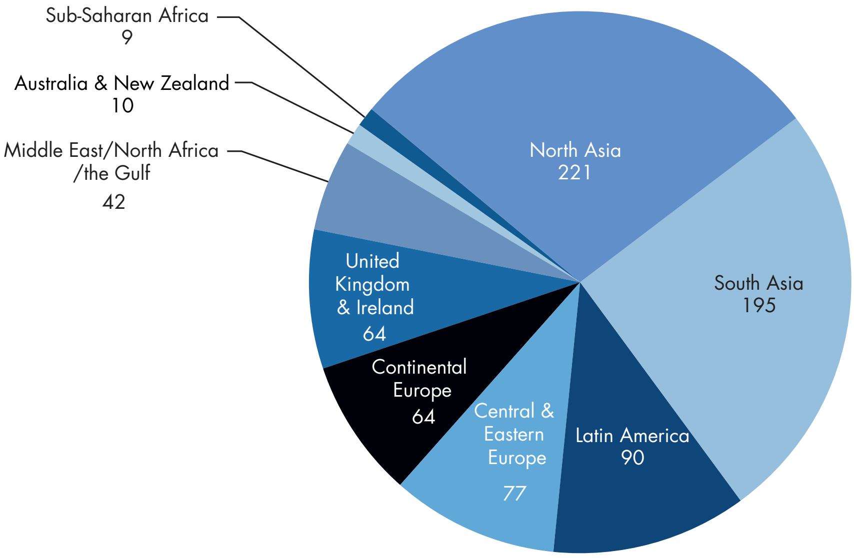
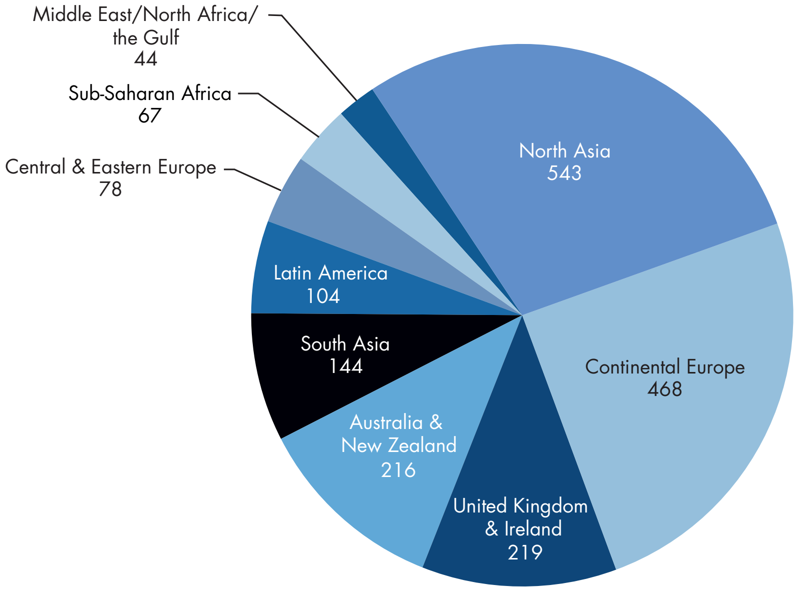


Figure A5: OTC (Level I) DRs by region



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They are:

1. Counselling Chief Communications Officers concerned with corporate reputation.
2. Advising companies on all aspects of Depositary Receipts.
3. Supporting Foundations and Fund Managers, particularly with respect to emerging markets.