Evaluating DRs
A Focus on Latin America

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EVALUATING THE VALUE AND LIQUIDITY EFFECTS OF DRs

A FOCUS ON LATIN AMERICA

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All data underlying this study are publicly available and were obtained from a variety of online sources including, but not limited to, the websites of the US Securities and Exchange Commission (SEC), stock exchanges NYSE, NASDAQ and AMEX, and the leading depositary banks. The raw data on local and US share prices, market indices, trading volumes, and exchange rates were obtained from *Thomson Financial Datastream* and *Bloomberg* financial databases.

FOREWORD

Oxford Metrica is pleased to provide its analysis of the value and home market liquidity effects of depositary receipt programmes established by Latin American firms. In recent months, a few firms in the region - particularly in Mexico and Chile - have elected to delist or terminate their programmes. The reason most commonly cited for such moves is the expectation that liquidity in the home market may be diminished by trading in the DR. Our analysis suggests that, on the contrary, trading in the local shares tends to be enhanced by the increased exposure to investors which emanates from greater visibility in the stock.

Debate has centred also on the Sarbanes-Oxley Act and the subsequent and substantial increase in costs of compliance. Our research demonstrates that the value premium associated with embracing such stringent governance requirements - voluntarily, as through a DR programme, for example - can be significant.

The analysis presented herein evaluates 325 Latin American DR programmes over the last twenty-five years at all stages of their lifecycle; establishment, upgrade, delisting and termination. The signalling power from management to investors of the willingness to embrace more stringent disclosure requirements is far from trivial. For boards and investors, we hope that this research serves as a helpful guide to the potential value impact of key decisions relating to a Latin American firm's DR programme. The region has much to offer investors.

We appreciate the support of The Bank of New York, a leading global custodian of depositary receipts, for underwriting the research.

Dr. Rory F. Knight
Chairman, Oxford Metrica

EXECUTIVE SUMMARY

The aim of this briefing is to provide an independent, rigorous value and home market liquidity analysis of Depositary Receipts (DRs) established by Latin American companies. The DR programmes of 325 firms were analysed, covering the period 1980-2005. The key conclusions from the research are outlined below.

KEY CONCLUSIONS

1 Listed (Levels II/III) DRs add (on average) approximately 30% of shareholder value to Latin American firms in their first year of trading as markets welcome the greater financial disclosure, transparency and signal of superior governance; Figures 4, 5 and 6.

2 OTC (Level I) DRs add approximately 40% of value on average to Latin American firms; Figures 7, 8 and 9.

3 Delisting or terminating a listed Latin American DR programme tends to destroy value as it becomes clear that the additional financial disclosure will be withdrawn; Figures 10 and 15.

4 Termination of a listed (Levels II/III) programme by Mexican firms prompts a fall in shareholder value of 30% approximately; Figure 11.

5 An upgrade by a Latin American firm to a listed (Levels II/III) programme adds on average a further 30% of value as markets welcome the greater financial disclosure, transparency and signal of superior governance; Figure 14.

6 Listed (Levels II/III) DRs of Latin American firms improve home market liquidity by 41% on average, as access to, and visibility in, the issuer's stock rises and is accompanied by greater and wider coverage by equity analysts. OTC (Level I) DRs of Latin American firms improve home market liquidity by 7% on average; Figures 16 and 17.

7 The Oxford Metrica DR Latin America index displays significantly stronger returns than the MSCI AC ex-USA index over the last decade; Figure 18.

Empirical evidence is presented that DR programmes add value and improve home market liquidity to the benefit both of issuers and investors. DRs additionally provide from issuers to the US capital markets a strong signal of willing disclosure, greater transparency and superior governance.

1 THE LANDSCAPE OF DRs

This section describes the landscape of Depositary Receipt (DR) programmes established by Latin American firms. Figure 1 illustrates the distribution of 277 current Latin American DRs across types of programme[1] .

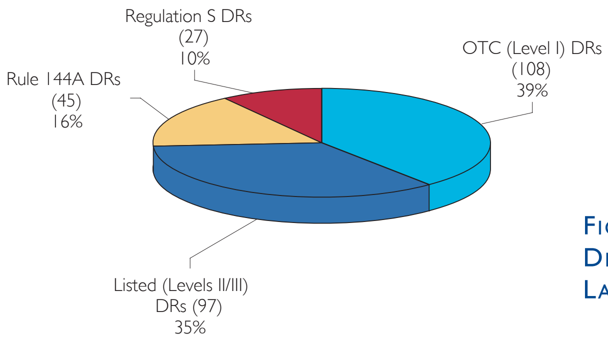


FIGURE 1: DISTRIBUTION OF LATIN AMERICAN DRs BY TYPE

The region's DRs are distributed very approximately in thirds across listed status (35%), over-the-counter programmes (39%), and offshore and private placements combined (26%).

Figures 2 and 3 provide the distribution by country of listed (Levels II/III) and OTC (Level I) DRs, respectively. For the purposes of this study, Latin American markets include those of Argentina, Bolivia, Brazil, Chile, Colombia, the Dominican Republic, Equador, Jamaica, Mexico, Panama, Peru, Uruguay and Venezuela.

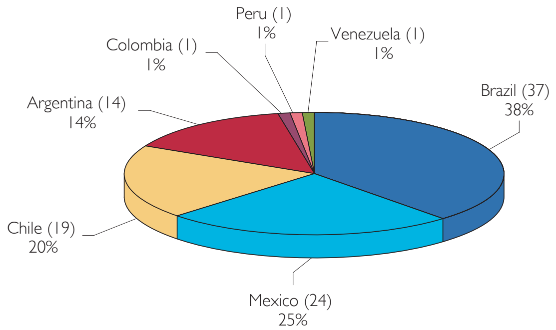


FIGURE 2: DISTRIBUTION OF LISTED (LEVELS II/III) DRs BY COUNTRY

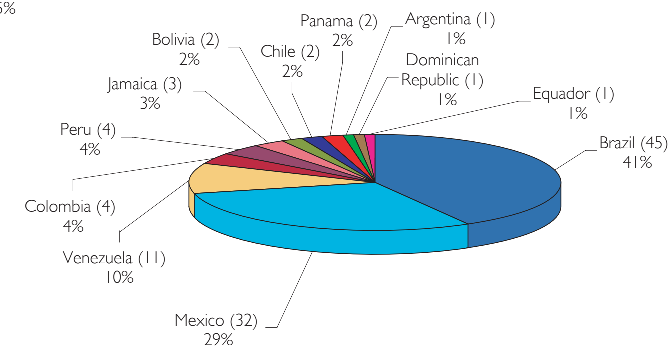


FIGURE 3: DISTRIBUTION OF OTC (LEVEL I) DRs BY COUNTRY

[1] For definitions of industry terminology, see A Glossary of Terms.

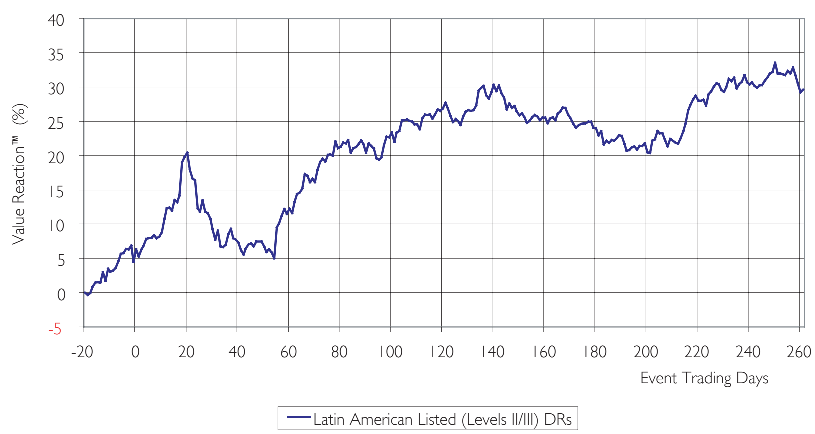
It is apparent immediately that Brazil and Mexico dominate the landscape in both listed (Levels II/III) and OTC (Level I) DR programmes with respective combined shares of 63% and 70% of DRs in the region. In Chile and Argentina, listed programmes are much more prevalent than OTC programmes, picking up a combined share of 34% of listed DRs across the region and only 3% of OTC DRs.

II EVIDENCE ON THE VALUE ADDED

Presented in this section is empirical evidence on the value to Latin American companies of establishing a Depositary Receipt (DR) programme. Both listed (Levels II/III) and over-the-counter (OTC) Level I DRs are analysed.

Figure 4 shows the local market reaction to the establishment of new listed DR programmes by Latin American firms. The graph shows a modelled share price reaction (using local share prices), where market-wide influences have been stripped out and the returns are risk-adjusted[2]. The dates on which the new DR programmes commenced and started trading have been aligned on event day 0; 261 trading days reflect one calendar year. The programmes represented cover a range of market cycles ensuring robust methodology.

FIGURE 4: STRONG VALUE ADDED FROM LATIN AMERICAN LISTED (LEVELS II/III) DRS



Some information leakage to the market is evident in the twenty trading days preceding the establishment of programmes; between trading days -20 and 0. As shown in Figure 4, approximately 30% of value is added to Latin American firms that choose to establish a listed (Levels II/III) DR programme[3]. In an equally-weighted

[2] Market-wide factors removed include all those which are found, statistically, to be influencing all stocks in that market or sector. They include, for example, macroeconomic changes such as interest rate movements and core economic trends, and key industry-wide events. All returns are presented on a risk-adjusted basis. That is, the returns are adjusted to take account of the stock's price sensitivity to the market as a whole; the firm's beta. The result of these modelling procedures is a daily impact of the establishment of the DR programme on a firm's local share price; ValueReaction™ . The metric captures a firm's shareholder value performance, relative to investors' expectations, in the domestic stock market. By making the necessary adjustments, ValueReaction™ captures a very clean measurement of impact; the firm-specific value response to establishment of the DR programme.

investment strategy, this is equivalent to US$28 billion of value being added to the portfolio by the end of the first year. The value premium partly reflects the greater information disclosure integral to full registration with the Securities and Exchange Commission (SEC), reconciliation with US GAAP and annual reporting that are required for listed programmes.

Figures 5 and 6 illustrate the shareholder value reactions to the establishment of listed programme respectively by Brazilian and Chilean firms[4]. Following establishment of a listed DR programme, the Brazilian firms rose by over 70% on average and the Chileans by over 20%, equivalent to portfolio value increases of US$23 billion and US$3 billion, respectively.

Figure 5: Value Added by Brazilian Listed (Levels II/III) DRs

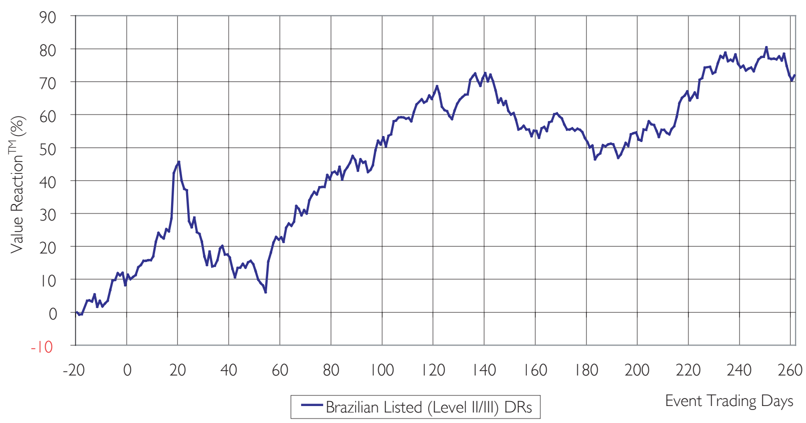
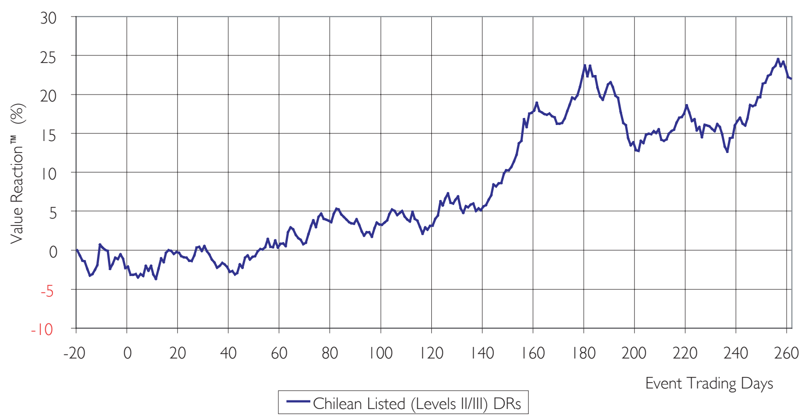


Figure 6: Value Added by Chilean Listed (Levels II/III) DRs



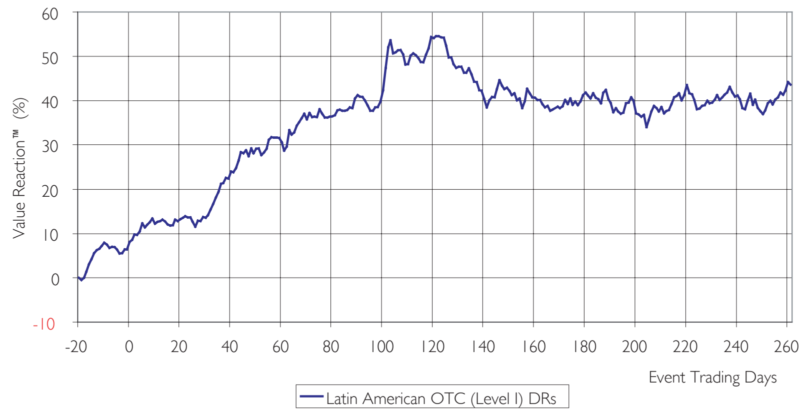
The decision by the firms in each market to embrace voluntarily the greater financial disclosure requirements from listing clearly is welcomed by the home markets.

[3] For DR programmes involving Initial Public Offerings (IPOs) where data is not available before the date of DR establishment, the average figures in the graph have been adjusted accordingly.

[4] Insufficient data availability precluded analysis of Argentinean and Mexican DRs despite there being several listed programmes established by firms in these countries.

Shown in Figure 7 is a similarly positive market reaction to the establishment by Latin American firms of new OTC (Level I) DR programmes. The average added value is approximately 40%, equivalent to an average portfolio increase of over US$16 billion in the first trading year.

Figure 7: Strong Value Added also from Latin American OTC (Level I) DRs



Figures 8 and 9 show the value reaction across Brazilian and Mexican firms, respectively.

Figure 8: Value Added by Brazilian OTC (Level I) DRs

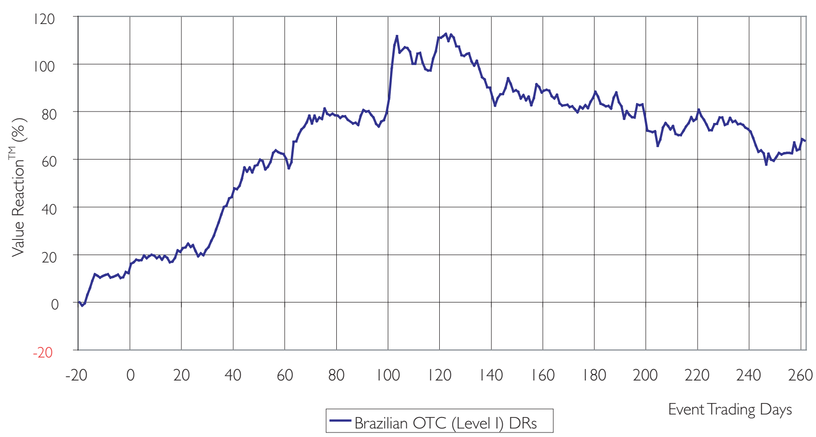
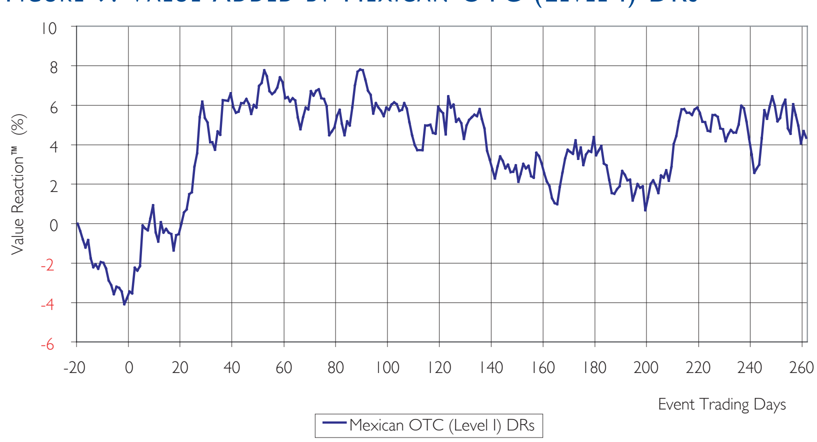


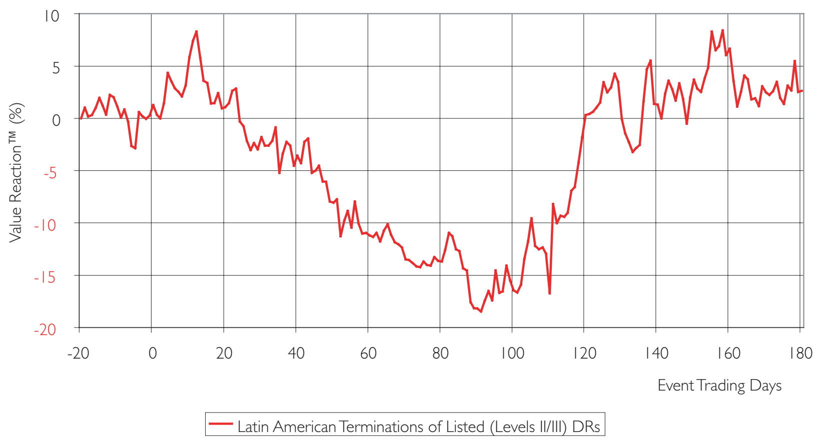
Figure 9: Value Added by Mexican OTC (Level I) DRs



The value premium for Mexican firms selecting to establish an OTC DR program, whilst averaging 6% is considerably less than for Brazilian firms, remains significant. These percentages translate into portfolio value increases of US$11 billion for the Brazilian firms and US$1 billion for the Mexican firms.

The value-added from listing compares with a tendency towards value destruction following termination by Latin American firms of their listed (Levels II/III) DR programmes[5], illustrated in Figure 10. In these cases, the DR programme is terminated completely.

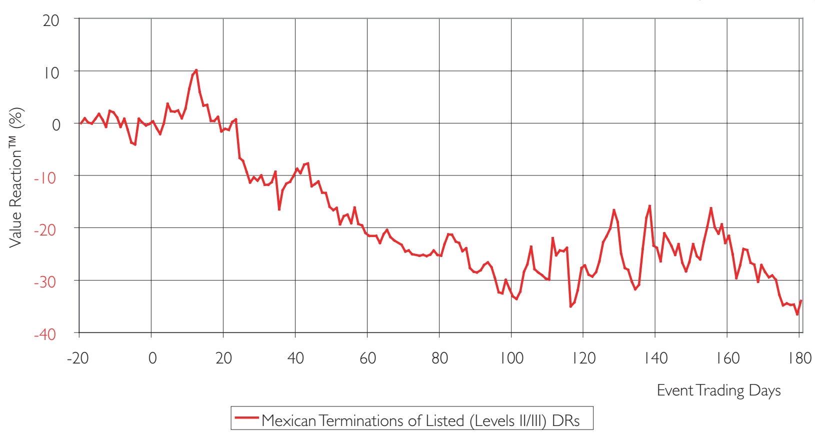
FIGURE 10: VALUE REACTION TO TERMINATION OF LISTED (LEVELS II/III) DRS



It is to be remembered that a ValueReaction™ of zero does not suggest that local prices have returned to previous levels. It indicates simply that investors have stopped revising downwards their cash flow expectations from the stock. The period of information digestion by the markets is over. Figure 10 shows that, on average, investors have substantially downgraded their performance expectations from firms that choose to terminate their listed (Levels II/III) DR programmes.

Mexican firms choosing to terminate their listed DR programme experience on average a drop in value of approximately 30%; shown in Figure 11.

FIGURE 11: VALUE REACTION TO TERMINATION OF MEXICAN LISTED (LEVELS II/III) DRS



[5] There is incomplete data to report a full year.

Whilst a number of different factors may prompt a firm to terminate its programme, the above results suggest that firms considering such a move would benefit from explicit consideration of the potentially negative and severe value impact in their home market.

The liberalisation of pension fund rules in Mexico earlier this year to allow funds to invest up to 15% in local equities has heightened the cross-listing debate in Mexican Boardrooms. Whilst the initial flow of AFOREs[6] (Mexican private pension funds) into Mexican equities has been somewhat tentative, it is likely that this will improve over time.

The Mexican pension reform was announced on 30 April 2004 and took effect on 17 January 2005. Figures 12 and 13 show the respective value impacts on the Mexican stock market[7].

Figure 12: Value Reaction to Announcement of Mexican Pension Reform

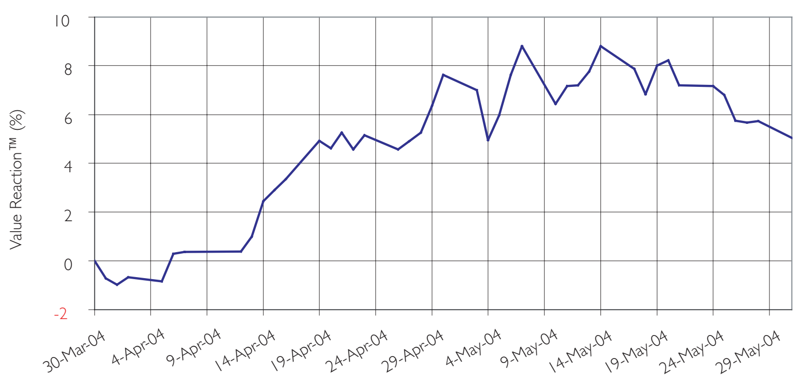
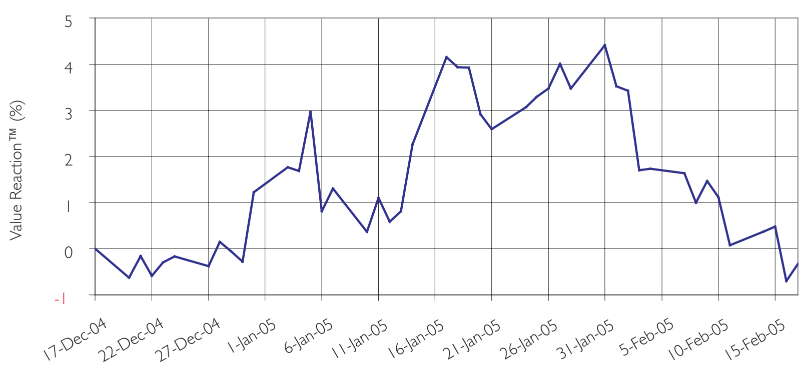


Figure 13: Value Reaction to Enactment of Mexican Pension Reform



Most of the value of the reform is recognised around the date of announcement (Figure 12), although investors respond positively in anticipation of both the announcement and the enactment of the pension reform. The terminal value of ValueReaction™ metric in Figure 13 at around zero reflects not that local prices have returned to previous levels but, rather, that investors have stopped revising upwards their cash flow expectations from Mexican firms in the wake of the reform. The information digestion period is over.

[6] Administradora de Fondos de Ahorro para el Retiro (AFORE) - a private investment firm with the sole purpose of administering workers' pension accounts.

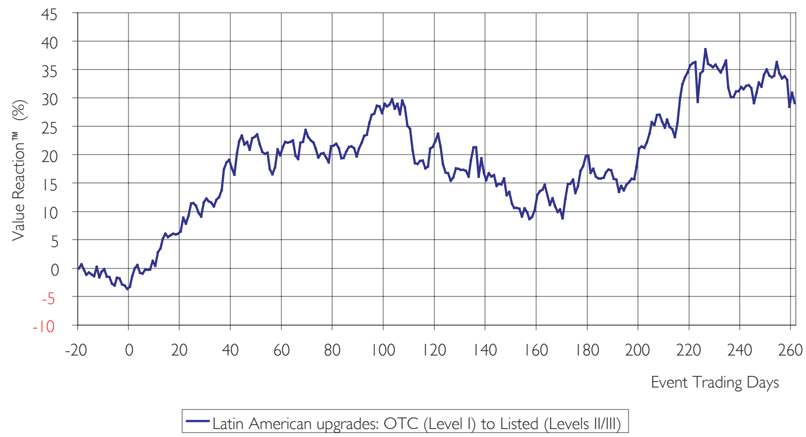
[7] Insufficient trading data precluded analysis of the liquidity impact of the pension reform.

III FOCUS ON FINANCIAL DISCLOSURE

When a company already has an OTC (Level I) DR programme and chooses to upgrade it to listed (Levels II/III) status, there is a unique opportunity to evaluate the shareholder benefits in the home markets of greater financial transparency. Upgrades reflect a 'pure play' on the value to US investors of additional information disclosure by Latin American firms. The so-called agency problem of asymmetric information between investors and managers is reduced.

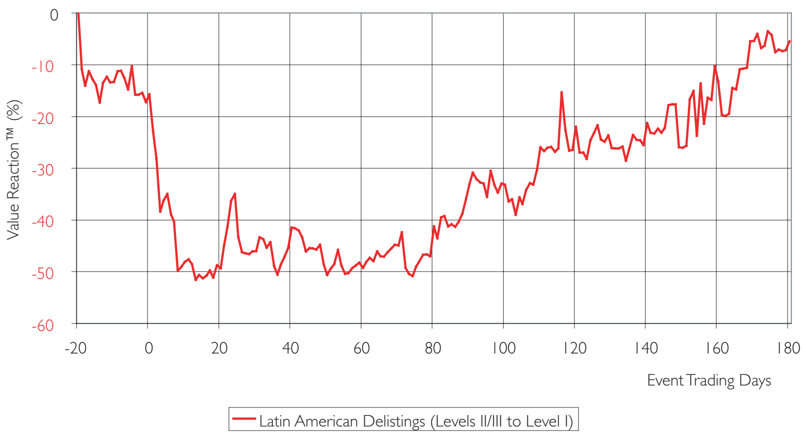
Figure 14 illustrates the substantial value-added to Latin American firms from upgrading from OTC (Level I) status to listed (Levels II/III) status; a further 30% of shareholder value approximately is generated on average.

FIGURE 14: VALUE REACTION TO LATIN AMERICAN UPGRADES



The message from the market is consistent as it responds negatively and severely to DR delistings by Latin American firms. At their worst, these modelled, local share prices are down by 50% in response to the move to delist; shown in Figure 15. The negative ValueReaction™ indicates that investors, throughout this post-delisting period, are continuing their downward revision of cash flow expectations.

FIGURE 15: VALUE REACTION TO LATIN AMERICAN DELISTINGS



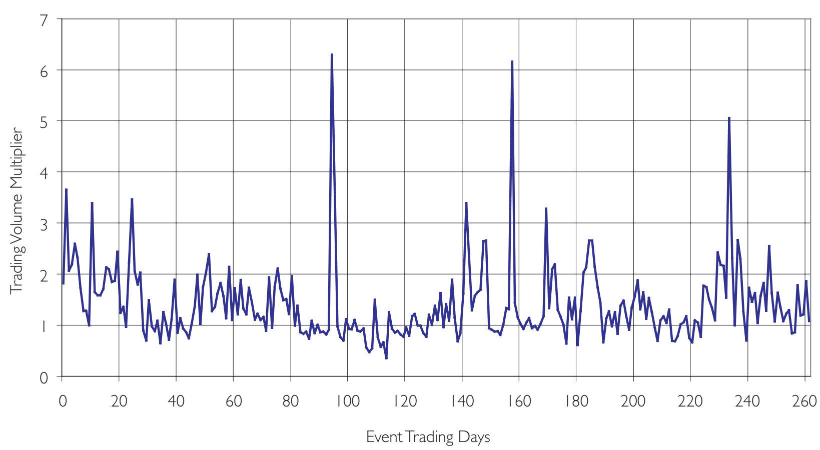
These DR programmes have downgraded from listed (Levels II/III) status to OTC (Level I) status. The move to delist sends a powerful signal to the US capital markets that corporate management has selected to withdraw from the disclosure requirements necessary for listed programmes. This decision holds implications for Latin American firms' reputations with investors as regards the voluntary standards of governance to which the firms are willing to adhere.

IV EVIDENCE ON LIQUIDITY IMPROVEMENT

In this section, the impact on home market liquidity of Latin American firms establishing a DR programme is evaluated. Trading volume activity reflects the speed and intensity with which information about a firm is disseminated, digested and acted upon by investors. In the context of DRs, an increase of liquidity in ordinary share trading would indicate that the firm is now more visible, with greater access to (and from) investors, and receiving more profile and wider coverage from equity analysts.

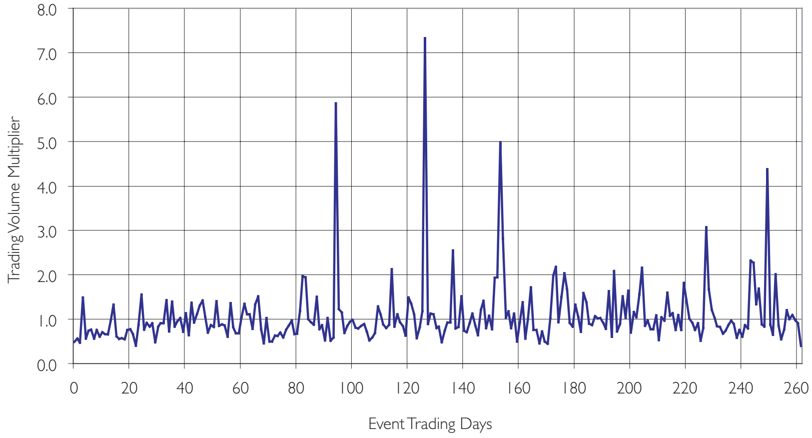
The Trading Volume Multiplier is defined as the multiple of the previous year's average daily trading volume in ordinary (local) shares. Thus a Trading Volume Multiplier of one indicates normal trading volumes and no significant impact on liquidity. Figures 16 and 17 illustrate the positive (above one) impact on home market liquidity from establishing a DR programme; listed (Levels II/III) and OTC (Level I) DRs, respectively.

FIGURE 16: LIQUIDITY IMPACT FROM LATIN AMERICAN LISTED (LEVELS II/III) DRs



The results are striking. A listed (Level II/III) DR programme is shown to increase the liquidity in ordinary shares of Latin American firms by an average of 41%. A Latin American OTC (Level I) programme improves home market liquidity by an average of 7%. Across Brazilian firms, the positive impact on liquidity is 37% and 23% respectively.

Figure 17: Liquidity Impact from Latin American OTC (Level I) DRs



One prominent reason cited for actual or potential delisting of a DR program is the widely perceived reduction in home market liquidity. In particular, the implications for investment decisions taken by private pension funds in Mexico have prompted greater discussion around the liquidity effects of holding a US listing. A common expectation is that, by concentrating all trading activity in the local market, liquidity in the security would increase.

However, the results reported herein suggest that such expectations usually are ill-founded and that liquidity in the local shares is enhanced significantly by a DR programme as the profile of the firm's stock rises.

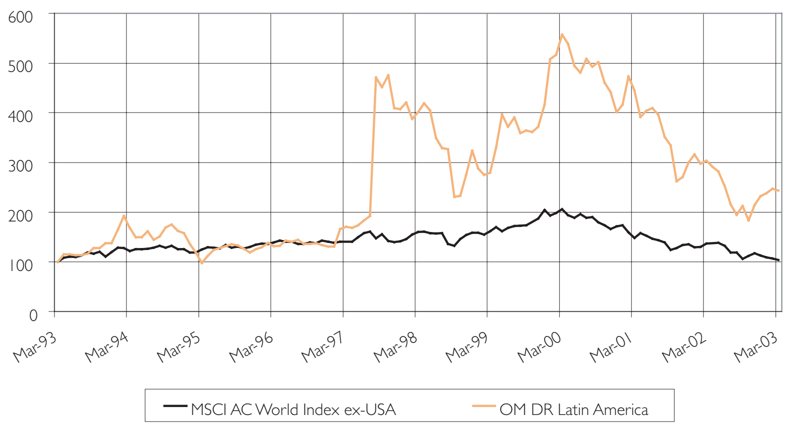
V PERFORMANCE OF DRs

Had one invested US$100 million in the Oxford Metrica DR Composite Index[8] ten years ago, the investment would now be worth US$661 million. The value of US$100 million portfolios invested fully in the MSCI AC World Index ex-USA, S&P500 and a 10 year US bond over the last ten years would now be worth US$104 million, US$189 million and US$109 million, respectively.

Figure 18 shows the DR performance for Latin American companies over the last ten years against the MSCI AC World Index ex-USA. An investment of US$100 million in the OM DR Latin America Index over the last ten years would now be worth US$244 million.

[8] The OM DR Composite Index and the OM DR Latin America Index have been computed from the raw price data on an equal-weighted basis.

Figure 18: DR Performance by Latin American Firms



These results demonstrate that the benefits of DR programmes to Latin American firms are sustained over the long-term. Investors welcome the governance advantages ensuing from improved information flow, disclosure and transparency.

The research results reported herein demonstrate that Latin American DR programmes, on average, add significant value and improve home market liquidity. Despite the substantial compliance costs imposed by Sarbanes-Oxley, it would appear that the value opportunity is significant for those firms willing to embrace the burden of regulation.

A GLOSSARY OF TERMS

Delisting	The downgrading of a DR programme from listed (Levels II/III) status to OTC (Level I) status.
Depositary Receipt (DR)	A negotiable receipt, denominated in US dollars and issued as a certificate, that represents some number of a non-US firm's publicly-traded shares in its home market and is sponsored by a US depositary bank.
Listed (Levels II/III) DRs	Depositary receipts that are listed on a US exchange (NYSE, NASDAQ or AMEX) and require, therefore, full SEC registration, reconciliation with US GAAP and annual reporting with a Form 20F filing. Level III DRs additionally raise capital.
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.
Regulation S DRs	Depositary receipts that provide for raising capital through the placement of DRs offshore to non-US investors in reliance on Regulation S, are exempt from US reporting requirements and from complying with US GAAP.
Rule 144A DRs	Depositary receipts that are privately placed and trade among Qualified Institutional Buyers (QIBs) in the PORTAL electronic trading system, are exempt from US reporting requirements and from complying with US GAAP.
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 one status to another for which additional requirements must be met. 'Pure' upgrades represent those DR programmes that are upgraded from OTC (Level I) status to listed (Levels II/III) status.

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Rory Knight has extensive experience of working and consulting in the financial and corporate sectors. For five years, he was Dean of Templeton College, University of Oxford, where he was responsible for Templeton's overall strategy and direction. Dr Knight is Dean Emeritus at Templeton and Fellow in Finance, and is co-author of *Financial Performance* (Butterworth-Heinemann, 2000). Previously a Deputy Director in the Swiss National Bank (SNB), his role included providing policy advice on international financial matters, and he retains significant links with central banks around the world.

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Deborah Pretty has worked for several years in finance and corporate risk management, establishing integrative frameworks and connections between risk and value for many global firms. For three years, she was Marsh Research Fellow at Templeton, University of Oxford, where she undertook extensive empirical research in strategic risk and finance. Dr Pretty is author of *Risk Financing Strategies - The Impact on Shareholder Value* (RIRG, 1999). Previously, she was an Assistant Director in Sedgwick Energy and a risk finance analyst with Tillinghast-Towers Perrin in London and the United States.

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BP	Hill & Knowlton	PricewaterhouseCoopers	The Bank of New York
Bristol Myers Squibb	Huhtamaki	Reed Elsevier	UBS
Cisco Systems	IBM	Reuters	Williams
Credit Suisse	ICN Telecom	Royal Dutch/Shell	Xilinx
De Beers	ING Group	Royal & SunAlliance	Zurich Financial Services
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