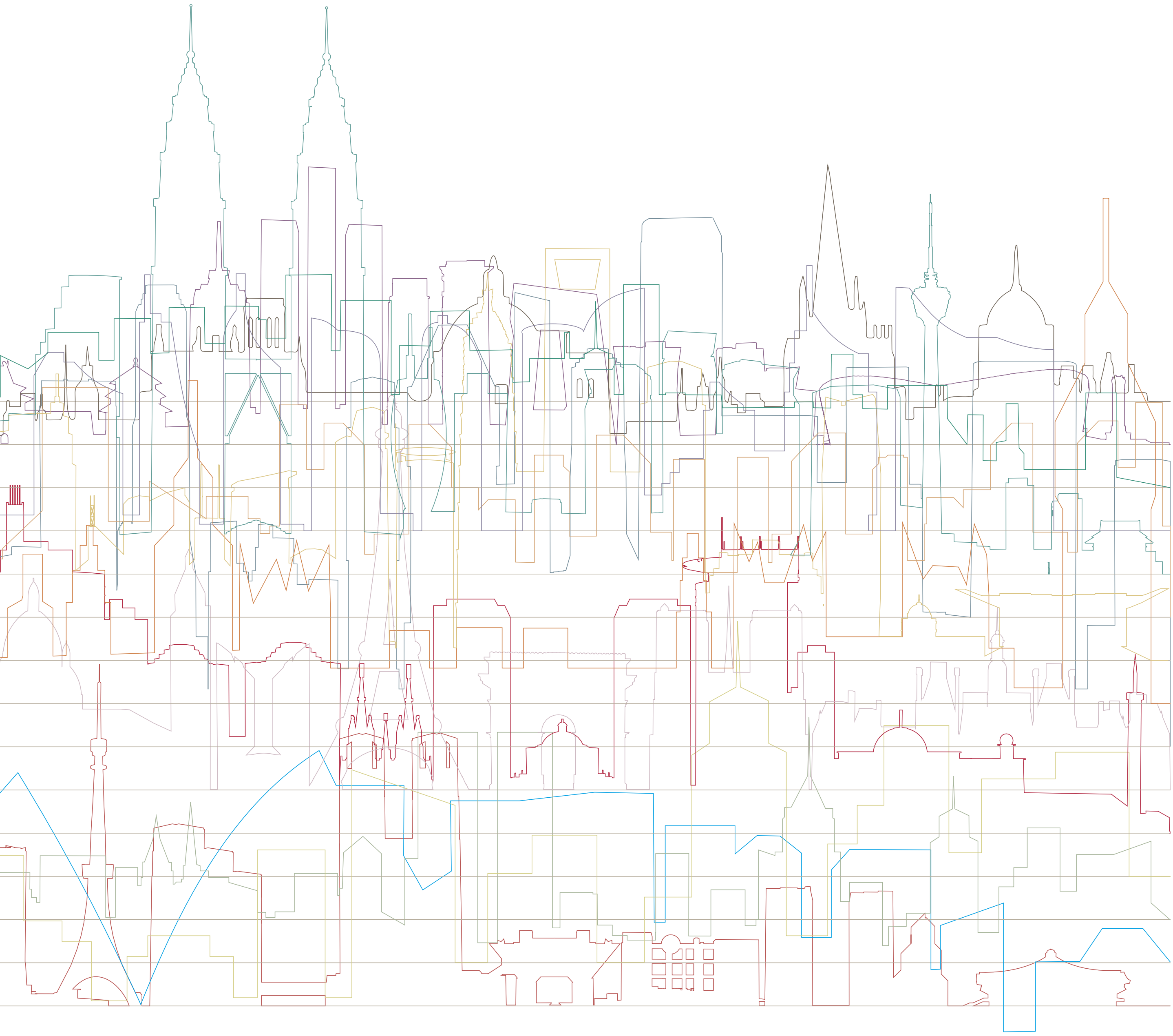
THE OXFORD METRICA REVIEW

UNLOCKING THE OTC MARKETS POTENTIAL FOR KOREAN FIRMS



OTC Markets

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We are delighted to present our latest version of The Oxford Metrica Review with the support of the OTC Markets Group. The current review focuses on the Korean Equity markets and explores the causes and consequences of the frictions in these markets and provides some suggestions which would allow Korean firms to more effectively access the US capital markets.

The Korean paradox

In a recent Oxford Metrica Review we set out some of the key characteristics of the Korean equity markets. The three main features identified are; (1) an extremely high degree of concentration in value, whereby the top 100 firms constitute over 80% of the market capitalisation of the market, (2) an unusually low degree of foreign ownership of Korean equities and this is largely restricted to the top 100 firms and (3) Korean firms outside of the top 100 have severely restricted access to capital and in the case of foreign capital on average for every $1 invested in Korean equities by capital less than 5 cents trickle down to firms outside the top 100. We argue that the features highlighted in these questions are seriously restricting the flow of capital to Korean firms, which is likely to impose a high cost on the Korean economy and inhibit the next phase of growth to which the country aspires. The paradox arises from the fact that the Korean economy has performed a miracle. Last year the Republic of Korea celebrated its 70th anniversary as a nation, and it rightly deserves the epithet *The Miracle on the River Han*. Korea has expanded its annual GDP per capita from US$67 in 1953 to the current US$35,000 which has propelled it to the 10th rank in the world by aggregate GDP. Its capital market has played no small role in this development. However, the following six questions need to be examined to understand the paradox.

THE KOREAN EQUITY MARKETS IN AGGREGATE TRADE BELOW BOOK VALUE

Why is the Korean market so undervalued?
Why is the Korean market classified as an emerging market?
Why is the foreign ownership of Korean equities the lowest of OECD countries?
Why are Korean firms signally absent from the major international equity markets?
Why are there no Korean cross-listings?
Why are no Korean firms quoted on the OTC Markets?

The magnitude of these deviations from the normal practice in other major economies is significant, and we argue the consequences are detrimental, particularly to the smaller Korean enterprises, which are currently burdened with an avoidably high cost of capital. We suggest that certain micro-regulatory practices are causing the strictures, and minor adjustments to policy implementation would have significant benefits for the Korean market in terms of liquidity and higher valuations.

MICRO REGULATORY PRACTICES ARE INHIBITING AN IMPORTANT OPPORTUNITY

The causes & consequences

The Korean equity market is the only major market that trades at an aggregate price to book below 1. Given the relatively conservative nature of Korean accounting practices, this metric is all the more concerning. This severe undervaluation is the consequence of the interaction of several features of the market. The various observable features contrive to isolate the Korean equity market from the international pool of capital. In essence, this means that the market values the firm relative to the Korean market rather than the world market and consequently, diversifiable risk is priced into the local cost of equity capital. The publishers of the MSCI Emerging Markets Index recently confirmed that Korea would remain in this classification. Consequently, the larger firms in Korea that are included in the index attract the attention of foreign investors. The rest are left somewhat isolated. It is not straightforward to invest in Korean stocks as a foreigner. There are relatively few Korean firms with international cross-listings and depositary receipts programmes, consequently most of the international holdings are in the larger Kospi firms. In addition, there are limitations on foreign ownership, coupled with other regulations and exchange control, which means that many highly innovative Korean firms are starved of capital. For these reasons, Korea is considered less attractive to outside investors. It seems that there is a highly valuable opportunity for Korean regulators to consider the possible impediments for Korean firms to present themselves to international investors through cross-listings and depositary receipt programmes which are so glaringly absent.

The scale of the problem

The scale of the problem is illustrated by examining the number of programmes from other countries, the growth in the number of programmes over the last decade and the levels of trading volumes in these securities. These data are reported in Figures 1 through 3. Figure 1 reports the number of ADRs from the top 8 country markets traded on the US OTC Markets. Korea is conspicuous in its absence, reporting only 12 all of which are restricted. The average is in excess of 200 and in total there are currently 1,217 ADRs. Notice that Japan has 317 active programmes followed by Hong Kong with 294. Thus, Korea in its absence significantly lags behind the major Asian markets. The European markets have in aggregate 594 securities trading on the OTC Markets. Figure 2 reports the number of ADRs by market over the last decade which illustrates the popularity among these corporations to gain access to US investors. The OTC market for ADRs has enjoyed continuous growth for the last decade. Again Korea is the outlier and this represents a lost opportunity, particularly for Korean-listed companies outside of the top 100 by market capitalisation. Figure 3 reports the strength of trading volumes to illustrate the importance of the US interest in these instruments.

KOREAN EQUITIES ARE ALMOST COMPLETELY ABSENT FROM INTERNATIONAL MARKETS

The empirical evidence of the benefits of OTC participation

One key consideration for international companies is the impact that choosing to join OTCQX will have on their shareholder base, liquidity and value to the shareholders. This paper highlights the key findings from Oxford Metrica's research as follows. In summary, liquidity in the issuer's home market increased by 26% while liquidity on the US market increased by 67%. It is reported that 128 basis points of value was created for shareholders in the issuer's home market and US Ownership more than doubled after joining OTCQX. Oxford Metrica analysed all international companies, that have joined or upgraded to OTCQX. Price and volume data were collected for each issuer one year prior to joining and up to three years after. In addition, US ownership data was collected one year prior and five years after. The three variables that were analysed to measure the impact of joining OTCQX were: Liquidity, shareholder value and US ownership.

AN OTC MARKET QUOTATION INCREASES LIQUIDITY BY 26%

1. Increased Home Market Liquidity. The primary liquidity benefit from joining OTCQX was measured through the impact on trading volumes. Trading volume reflects how rapidly and effectively information about the issuer, is disseminated, absorbed and reacted to by investors. Increases in the trading volume of a security reflect a higher quality of disclosure, improved information flow, operational efficiency in the market and greater shareholder engagement. The trading volume metric used is the Trading Volume Multiplier™ (TVM), defined as the daily trading volume, after joining OTCQX, expressed as a multiple of the one-year average daily trading volume prior to joining. Therefore, a TVM of greater than 1 indicates evidence of higher liquidity. Figure 4 indicates that after joining OTCQX there is a positive liquidity impact in the issuing company's home market. The home market is defined as the location of the international issuer's primary listing outside the United States. On average there is an increase of 26% in an issuer's daily trading volume on their home market exchange 180 trading days post-joining. This indicates the positive impact that is created by joining OTCQX and provides evidence that allowing shares to trade on a market in the US creates additional home market benefits. This finding provides contradictory evidence to a common concern of home market exchanges that trading in the US alongside a home market can drain liquidity from the home market. In fact, the home market enjoys an improvement in trading volume due to increased interest among investors. The increase is sustained throughout the study period. Furthermore, we find evidence that there is also a positive trading volume impact observed on the US market after joining OTCQX. On average the TVM is 1.67, indicating a 67% increase in daily trading volumes. Therefore, liquidity increases are observed in both the home and US markets, benefiting issuing companies, investors and third parties such as home market exchanges.

UP TO 128 BPS IN ALPHA ARE ADDED ON JOINING THE OTCQX

2. Positive Impact on Shareholder Value. Secondly, the impact on shareholder value was analysed, and the value reaction to the event of joining OTCQX was isolated. The Value Reaction Metric™ captures the company-specific impact on shareholder value while controlling for market-wide effects, risk and currency. The dates at which the individual companies joined OTCQX have been aligned, again helping to control for idiosyncratic factors, so that day 0 in Figure 5 below is the common event of joining OTCQX. Figure 5 presents the average value reaction within the respective issuer's home market after joining OTCQX. On average, it is evident that there is a positive value reaction after the company chooses to join OTCQX, with 128 basis points of incremental value being created 180 trading days post-joining. The value added measured is alpha, which of value added represents the risk-adjusted return over and above the general market movements. We hypothesise that due to the increased transparency, disclosure requirements and corporate governance practices required by OTCQX, a positive signalling effect is generated in the issuer's home market, translating to a reduced cost of capital and increased shareholder value.

US OWNERSHIP DOUBLES WHEN JOINING THE OTCQX

3. Growth in US Ownership. Lastly, the impact on US ownership of issuers deciding to join OTCQX was analysed. Figure 6 presents clear evidence that there is a significant increase in US ownership, as a percentage of total shares in issue, one year post the event date of joining OTCQX. The graph depicts the index change of US ownership from one year prior to joining OTCQX to five years post-joining. The index base is set to 100 one year prior to joining the OTCQX Market. It is clearly evident one year post-joining international issuers on average more than doubled their US ownership. In absolute terms, the US ownership percentage increased from 3.05% one year prior to 6.73% one year post. Furthermore, the increase in ownership continues to rise after the first year and maintains an average US ownership of over 8.6% over the subsequent years, providing a stable US investment base in the international issuers' shares. This finding is highly significant to an international company seeking to trade in the United States, as it will allow a diversification of its shareholder base and an increase in investment from US shareholders. The US shareholding is a key driver of the liquidity and value benefits reported above.

Capturing the benefits for Korea

A HUGE OPPORTUNITY FOR KOREAN LISTED COMPANIES

Many Korean companies are seeking to expand the export of their products and services into the US markets. In addition to the tangible benefits of accessing the largest pool of capital in the world, as outlined above, they will also enjoy an enhanced brand awareness and reputation in the US. With the current changes in geopolitics with the attendant trade frictions, Korea has a considerable competitive advantage versus other Asian economies to develop closer ties with the US. Facilitating a bridge to the OTC Markets would be highly beneficial. The process is remarkably easy without any further reporting burdens as the OTC Markets recognise the regulation of the Korean exchanges under the Securities and Exchange Commission (SEC) Rule 15c2-11. There exists a valuable opportunity for Korean companies to increase liquidity and valuation without giving up control in their home market. It is a question of information and an adaptation on the part of the regulators to facilitate this currently lost opportunity. Furthermore, the process results in a capital flow into Korea.

FIGURE 1. Number of OTC ADR programmes by market at Q3 2024

SOURCE: OTC Markets.

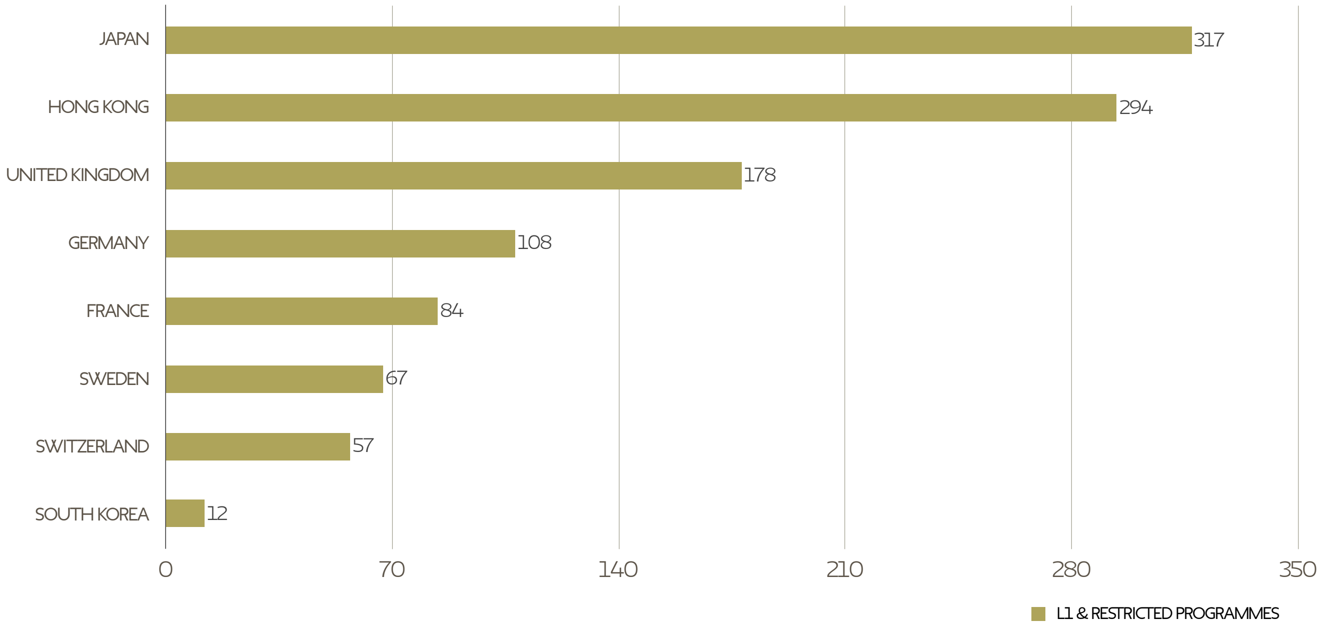


FIGURE 2. The growth in OTC ADR programmes

SOURCE: OTC Markets.

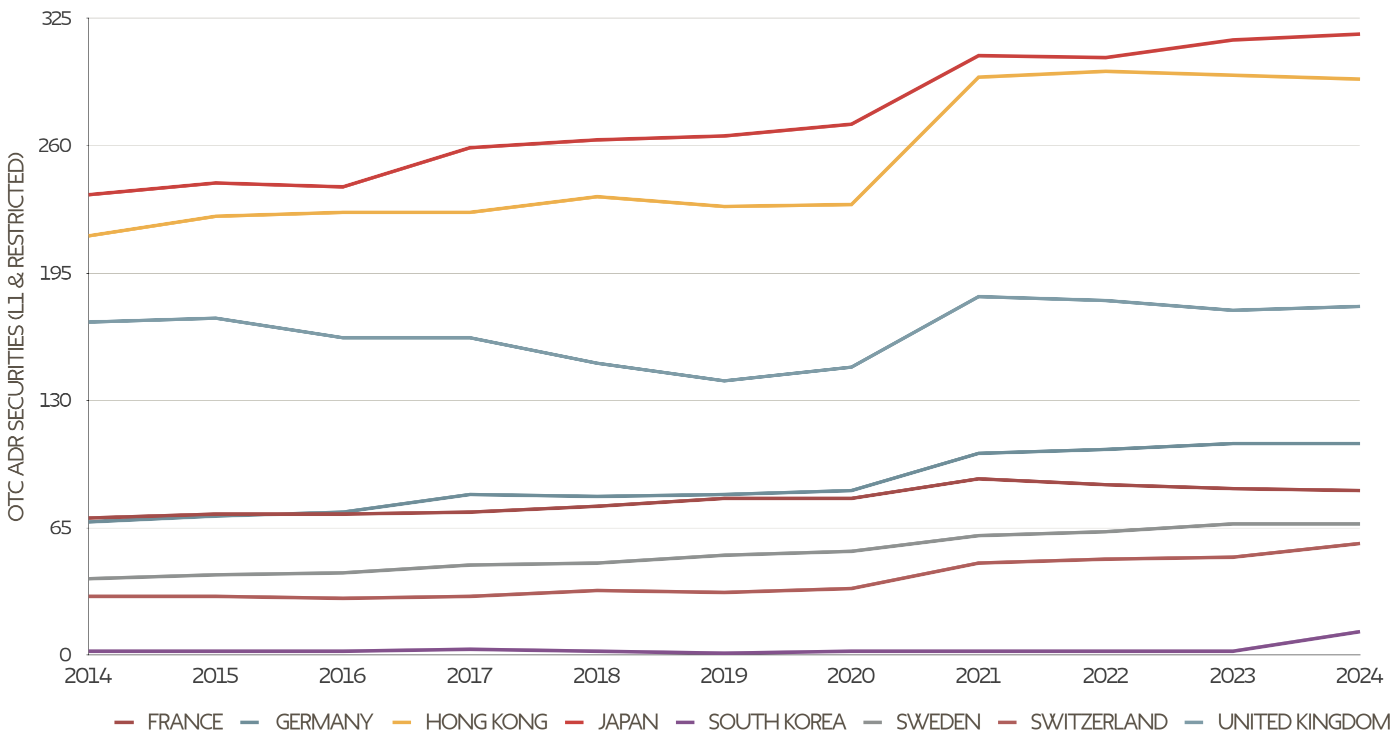


FIGURE 3. OTC ADR trading volume $bn for Q3 2024 SOURCE: OTC Markets.

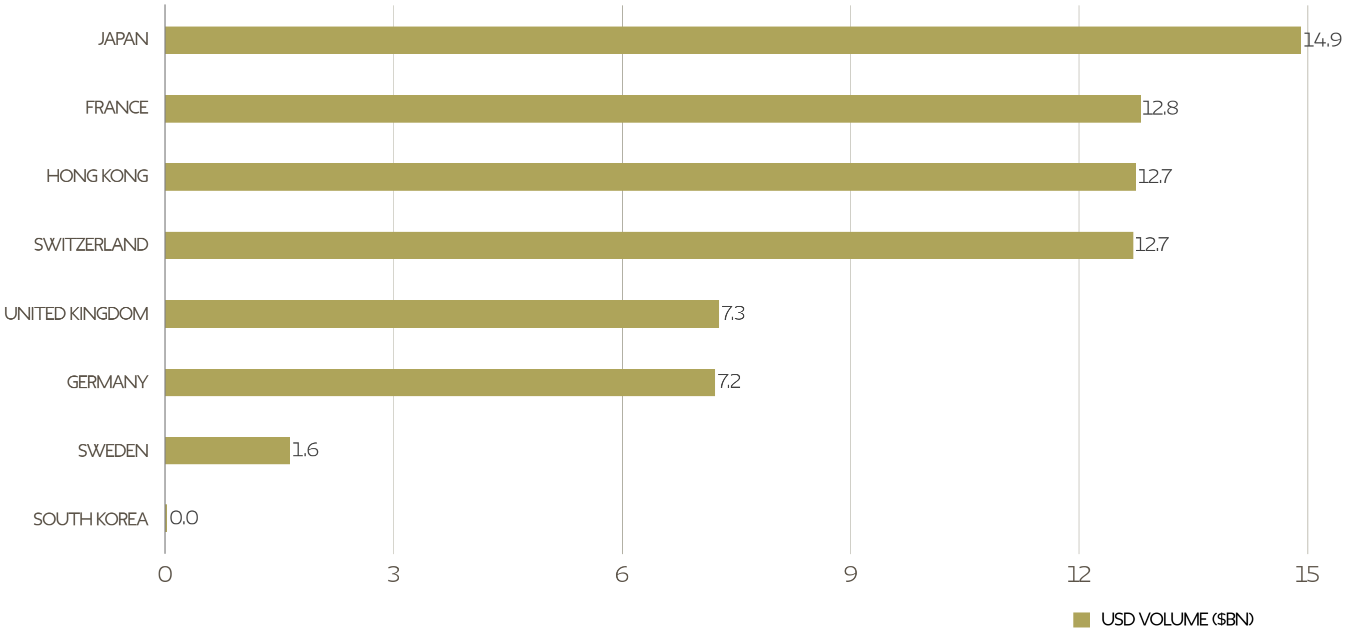


FIGURE 4. The rise in the Trading Volume Multiplier™ on the US Market after joining OTCQX SOURCE: Oxford Metrica.

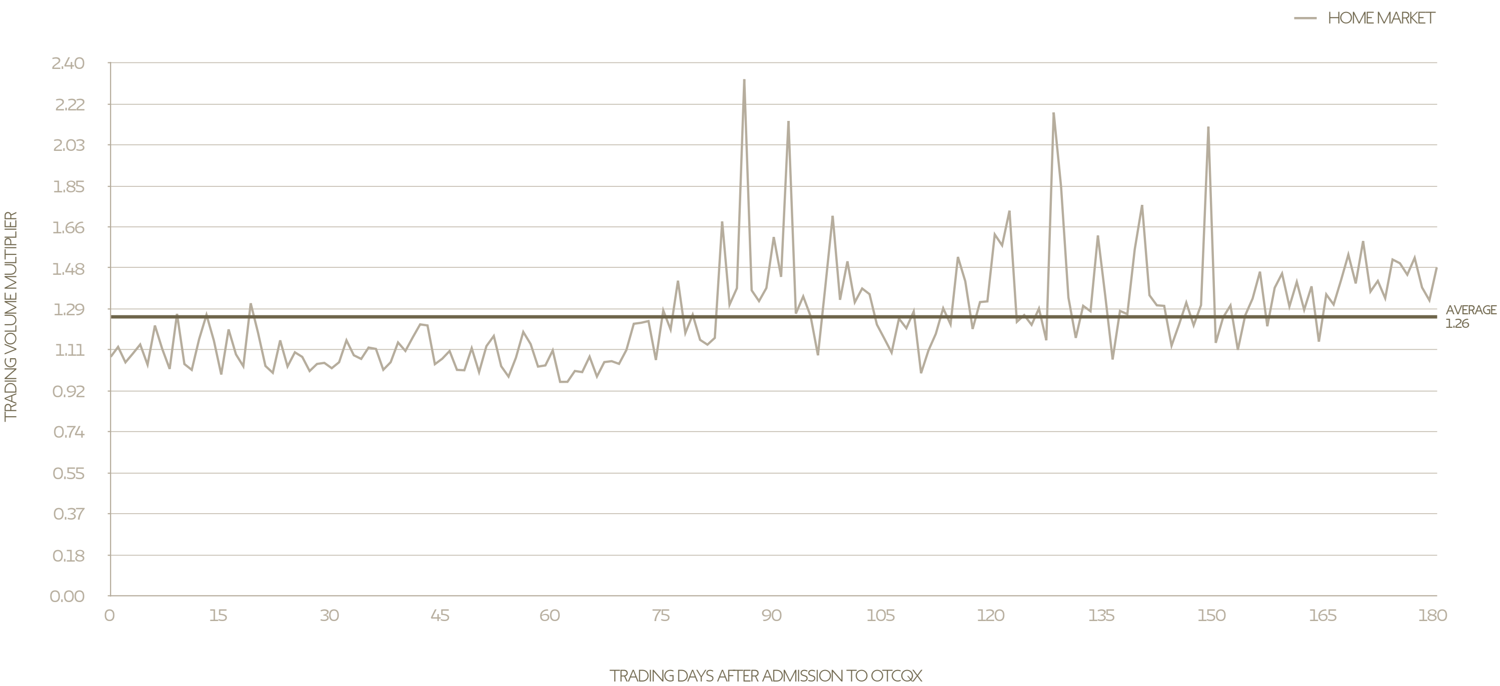
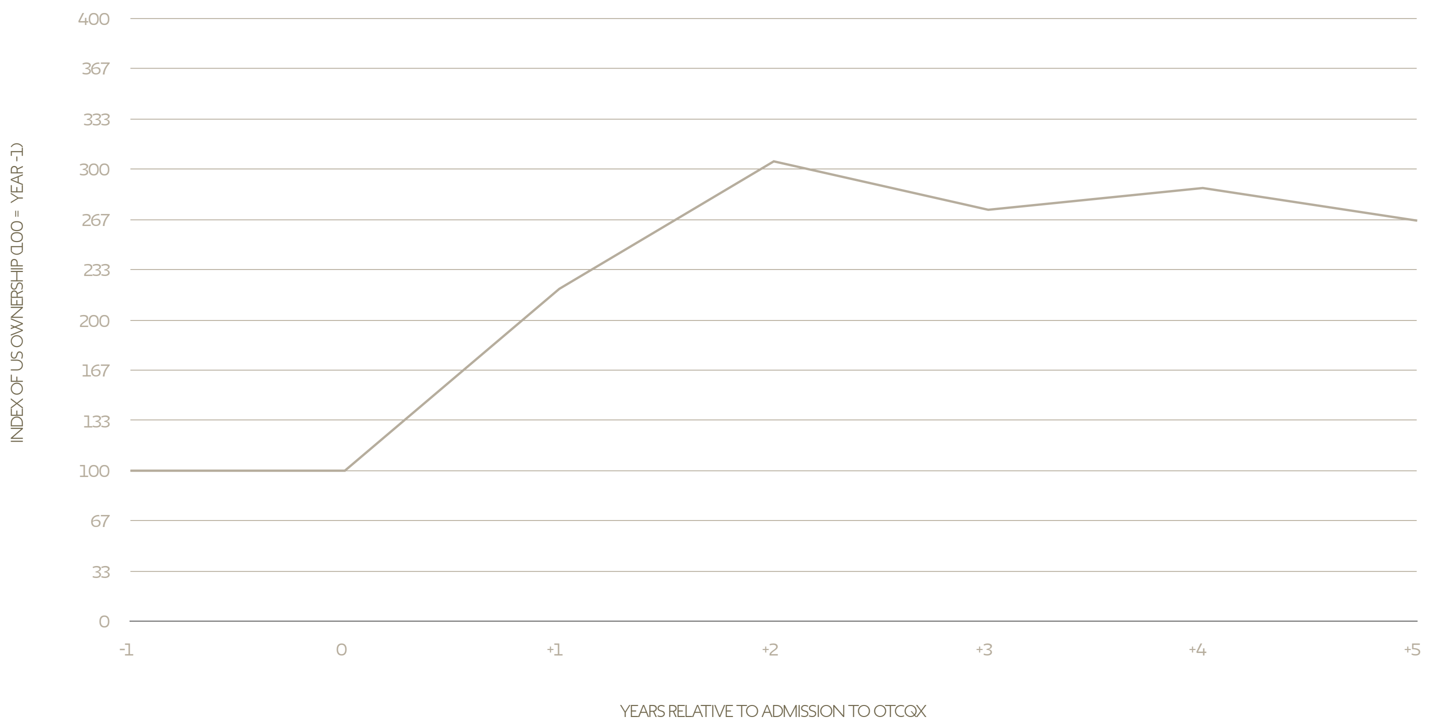


FIGURE 5. The increase in shareholder value in the home market after joining OTCQX

SOURCE: Oxford Metrica.

FIGURE 6. The rising index level of standardised US ownership after joining OTCQX

SOURCE: Oxford Metrica.



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Dr Rory Knight, is Chairman of Oxford Metrica and a member of the Board of the Templeton Foundations. He was formerly Dean of Templeton, Oxford University's business college. Prior to that Dr Knight was the vize-direktor at the Schweizerische Nationalbank (SNB) the Swiss central bank.

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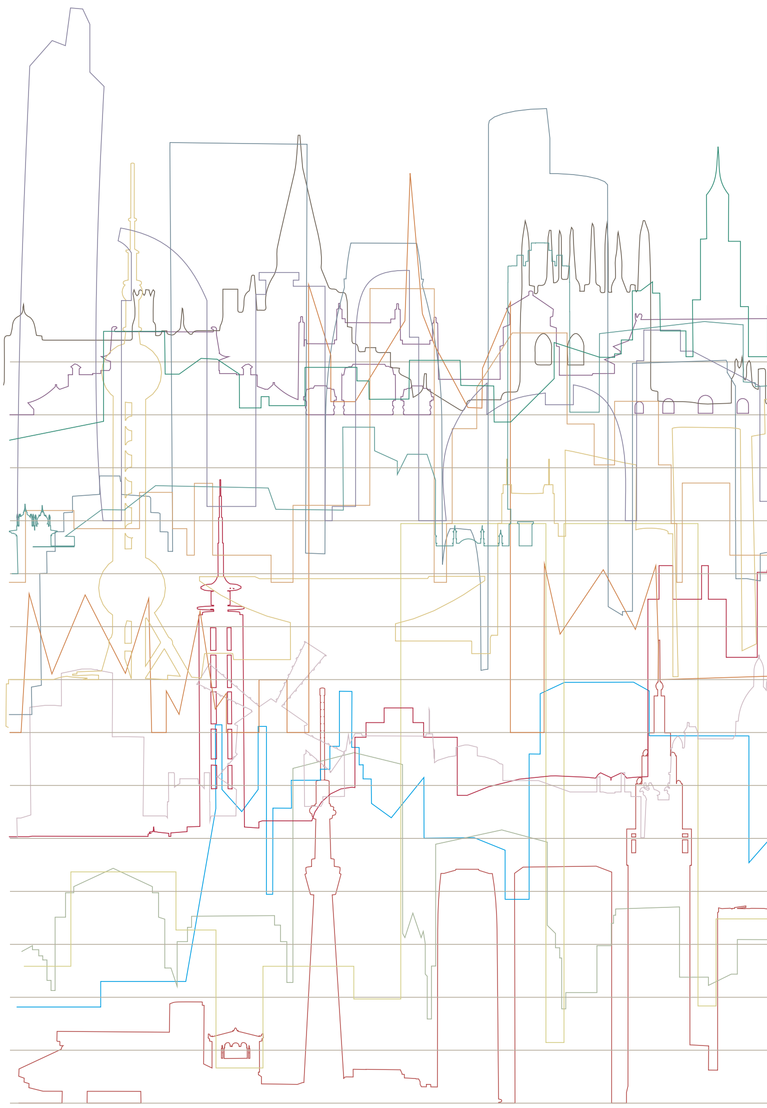

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