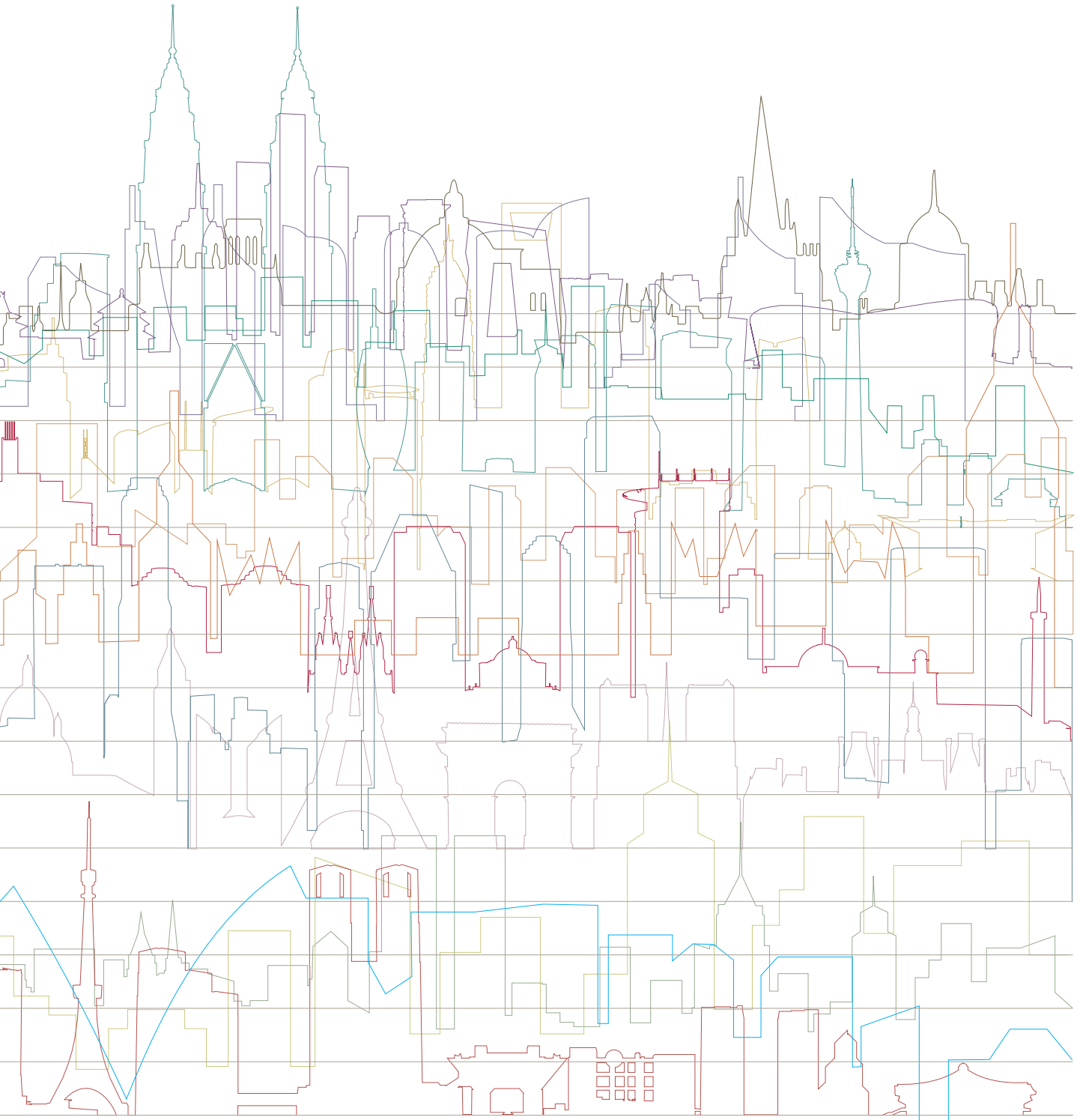




POSITIVE MARKET REACTION TO SEC RULE CHANGE



The key results

As we approach the one year mark since the implementation of SEC Rule 15c2-11, this paper reports findings which show a change in the behaviour of companies, brokers and investors.

The new rule has codified the standards OTC Markets Group has developed and strengthened over the past 15 years, including best practice disclosure standards for the premium OTCQX and OTCQB Markets and baseline disclosure standards for the Pink tiers. The core focus of this paper is to identify the response to changes in market status of issuers, provoked by the rule. The paper reveals that upgrading from the Pink Market to the OTCQX or OTCQB Markets improved value in the period post the rule implementation. Downgrading from Pink Current to Pink Limited destroyed value over the same period. Furthermore, there were similar liquidity effects associated with these changes.

Key findings in the 140-trading day period after the enactment date of SEC Rule 15c2-11:

- 16.7% gain in value for OTCQX and OTCQB issuers compared to 1.0% gain for Pink issuers (Figure 1).
- 21% gain in value for upgrades from Pink to OTCQX and OTCQB tiers compared to a 2.7% loss for downgrading from Pink Current to Pink Limited. (Figure 2).
- A massive 23.7% approximate average value gap between the upgrades to premium tiers (OTCQX and OTCQB) and downgrades from Pink Current to Pink Limited.
- An almost threefold average decrease in relative trading volumes of the issuers that downgraded from Pink Current to Pink Limited (Figure 3).
- Spreads widened by 6% for downgrades from Pink Current to Pink Limited (Figure 4).
- Spreads tightened by 3% for upgrades from the Pink to OTCQX and OTCQB tiers (Figure 5).

The impact of the amendment to SEC Rule 15c2-11

On 28th September 2021 (enactment date) an amendment to SEC Rule 15c2-11 (the rule) came into force with significant implications for the 12,000+ securities trading on the OTC Markets. The amendment increased the minimum disclosure requirements for issuers trading on the OTC Markets and prohibits broker-dealers from publicly quoting securities that are non-compliant. The strengthened regulation requires firms to continuously maintain a new higher standard of reporting to investors.

The data analysis reported in this paper suggests that investors and brokers have internalized the rule change and have modified their behaviour and the effects have been amplified during 2022.

The premium tiers of the OTC Markets, OTCQX and OTCQB, are experiencing an expansion of value in comparison to the Pink tiers of the market. The gap in performance between the premium tiers (OTCQX & OTCQB) and the Pink tiers is widening as a result of the superior reporting by the former, now amplified by the new rule. OTC Markets Group plays a significant role as the market operator which is entrusted to distribute information disclosures to the US investment community. The evidence here reported indicates that the OTC Markets are strengthened under the new disclosure regime. There is now a further considerable incentive for Pink traded securities to migrate to the OTCQX and OTCQB tiers.

VALUE CREATED
FOR OTCQX &
OTCQB ISSUERS

Although the rule applies to all securities trading on the OTC Markets, standards for the OTCQX and OTCQB Markets have long set best practices which were recognized by the rule. Securities traded on these markets were already compliant. However, many securities that traded on the Pink tiers were not compliant and therefore they faced a decision to either improve their disclosure to maintain their quotability or cease to be publicly quoted by broker-dealers in the market.

The implementation of the amendment has impacted those issuers trading on the Pink tiers of the OTC Markets, where disclosure requirements are less rigorous. The significant advantage is to those issuers that already trade or upgraded to the OTCQX or OTCQB tiers. OTCQX is designed for established, investor-focused international companies. Companies joining OTCQX have found their trading volumes and US ownership increase in part because issuers trading on the OTCQX Market are required to meet high financial standards, follow best practice corporate governance, adhere to regulatory and compliance laws and appoint an independent third-party sponsor. As a consequence, the gap between the premium and Pink tiers has been shown to demonstrably widen.

The value benefits

There are a number of qualitative advantages for issuers that choose to trade on the OTCQX and OTCQB platform. Firstly, OTCQX and OTCQB offer less burdensome market standards relative to a listing on a national exchange. Companies may leverage reporting standards that are more in-line with their needs. In lieu of full SEC registration, companies can utilize their Bank Reporting (US Banks), ARS (Alternative Reporting Standard) and International Reporting (in line with SEC Rule 12g32-b) disclosure standards. In addition, OTCQX and OTCQB offers a cost-effective way for issuers to communicate with shareholders. The high transparency and disclosure requirements of OTCQX and OTCQB allow US investors and market makers to easily access market and financial information on the international company. Furthermore, the host of corporate services offerings, including virtual investor conferences, allow companies to easily address a large number of US investors. Therefore, OTCQX and OTCQB issuers are in an advantageous position following the implementation of the change and as a result actually created value for shareholders in the period subsequent to the enactment date. The impact on shareholder value was analyzed and the value reaction to the event was measured



during the subsequent 140 trading days, for firms trading on OTCQX and OTCQB. Figure 1 presents the positive impact that the change in the SEC rules had on OTCQX and OTCQB issuers in comparison to the Pink tiers.

The Value Reaction™ metric captures the impact on shareholder value, while controlling for market movements and idiosyncratic risk, thus it is a measure of risk-adjusted return associated with the regulatory event. The figure shows that on average over 16.7% of value was generated for OTCQX and OTCQB issuers compared to only 1% for the Pink tiers. As the market digests the new regulation the value gap between the two groups widened significantly to a cumulative risk-adjusted return of 15.7% for the study period, illustrating the demand for OTCQX and OTCQB issuers.

Figure 2 illustrates the stark contrast in market response to issuers that upgraded from Pink tiers to OTCQX and OTCQB tiers, and those that migrated from the Pink Current to the Limited immediately after the change in rules. The former enjoyed an increase in risk-adjusted return of 21% compared to a reduction of 2.7% for the latter group. Clearly, the market finds the changes valuable. Furthermore, the significant benefit offered by OTCQX /OTCQB tiers is robust when controlling for issuer domicile.

23.7% VALUE GAP BETWEEN PINK & OTCQX & OTCQB

Liquidity enhancements - Trading Volume

In addition to the valuation benefits that accrued to OTCQX and OTCQB issuers there were found to be a number of liquidity benefits including trading volume, bid-ask spread and number of market makers. Figure 3 reports evidence that issuers that downgraded from the Pink Current tier to the Pink Limited tier experienced a three-fold decrease in trading volumes in both dollar and share volume terms relative to the OTC Markets as a whole.

The trading volume metric used is the Trading Volume Multiplier™ (TVM), defined as the daily trading volume, after the enactment, expressed as a multiple of the 3-month average daily trading volume prior. Therefore, a TVM of greater than 1 indicates evidence of higher liquidity. The market as a whole showed a healthy increase in volume and although the downgrades to Pink Limited had a slight increase in volumes, it was approximately only one third of the market average. Furthermore, this was supported by further analysis of trading volumes in dollar terms which showed a similar relative difference. Increases in trading volumes in both dollar and share volume terms of a security reflect quality of disclosure, improved information flow, operational efficiency in the market and greater shareholder engagement. Clearly, the market values the new rule.

3X RELATIVE VOLUME DECREASE FOR PINK CURRENT TO LIMITED DOWNGRADES

Liquidity enhancements - Bid-Ask Spreads

Bid-ask spreads provide an alternative measure of liquidity with tighter spreads reflective of enhanced liquidity and increased demand to buy or sell. Figure 4 presents the impact on spreads for the set of issuers that downgraded

from Pink Current to Pink Limited following the change in disclosure requirements. The spread ratio is defined as the bid-ask spread, after changes to the rule were enforced, expressed as a multiple of the 3-month average bid-ask spread prior. Therefore, a spread ratio of greater than 1 indicates evidence of lower liquidity reflected in the wider spread. The figure shows that on average spreads widened by 6% in the 140 trading day interval after the enactment date. This illustrates the market preference for greater transparency and more frequent disclosures. Figure 5, in contrast reports the effect on spreads for the set of issuers that upgraded from the Pink tiers to OTCQX and OTCQB. Spreads tightened by 3% for the upgraders confirming the markets preference for the greater transparency associated with the change in status.

TIGHTER SPREADS FOR UPGRADES TO OTCQX AND OTCQB

Interpretation of the results

The results provide strong evidence that the increased transparency and disclosure that attends graduating to OTCQX and OTCQB in the OTC Markets attracts investor interest, visibility and liquidity. Companies should aspire to trade on the highest market for which they qualify. Progressing through the tiers from Pink Limited through Pink Current to OTCQX/OTCQB adds value at each step. Companies should see the process of moving through the tiers as a maturing process to be a publicly owned company.

OTC Markets serving investors and companies

The new regulation recognizes the progress that OTC Markets Group has made in building transparency in the market over the past 15 years. Market tiers, first introduced in 2007, have set standards for quality of disclosure and helped make information easily accessible for investors. Initiatives to increase transparency and provide better data to the market have since been continuously introduced, including stronger market standards, dissemination of compliance data to financial institutions, and the acquisition of Blue Sky Data Corp. The markets today are distinctly different and the implementation of the rule codifies the standards and discipline that OTC Markets Group created.

OTC MARKETS GROUP BUILDING MARKETS FOR 15 YEARS

Conclusion

Companies that moved from Pink Current to Pink Limited, experienced a detrimental impact on both value and volume. The enactment of the amendment to SEC Rule 15c2-11 allows the OTC Markets to better fulfil their role as a market operator entrusted with the delivery of the best quality information disclosures to the US investment community. The paper reports strong evidence that investors and brokers have adapted positively and the price formation process in these markets has improved as reflected in value increases and enhanced liquidity. The value and liquidity gap between the OTCQX & OTCQB and the Pink tiers has increased. Pink issuers should upgrade to a premium tier.

ISSUERS ON PINK SHOULD UPGRADE

FIGURE 1: The increase in shareholder value for Pink and OTCQX and OTCQB

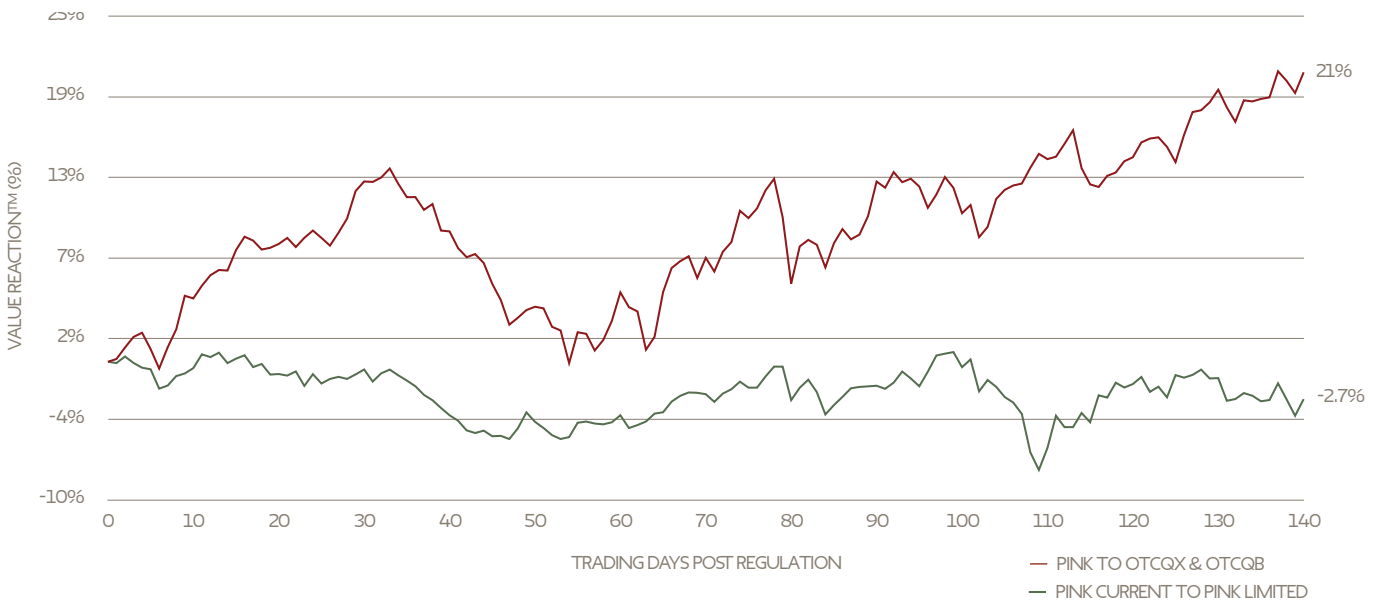
SOURCE: Oxford Metrica



16.7% OF VALUE CREATED FOR OTCQX AND OTCQB ISSUERS
1% OF VALUE CREATED FOR PINK ISSUERS

FIGURE 2: The impact on shareholder value of moving tiers

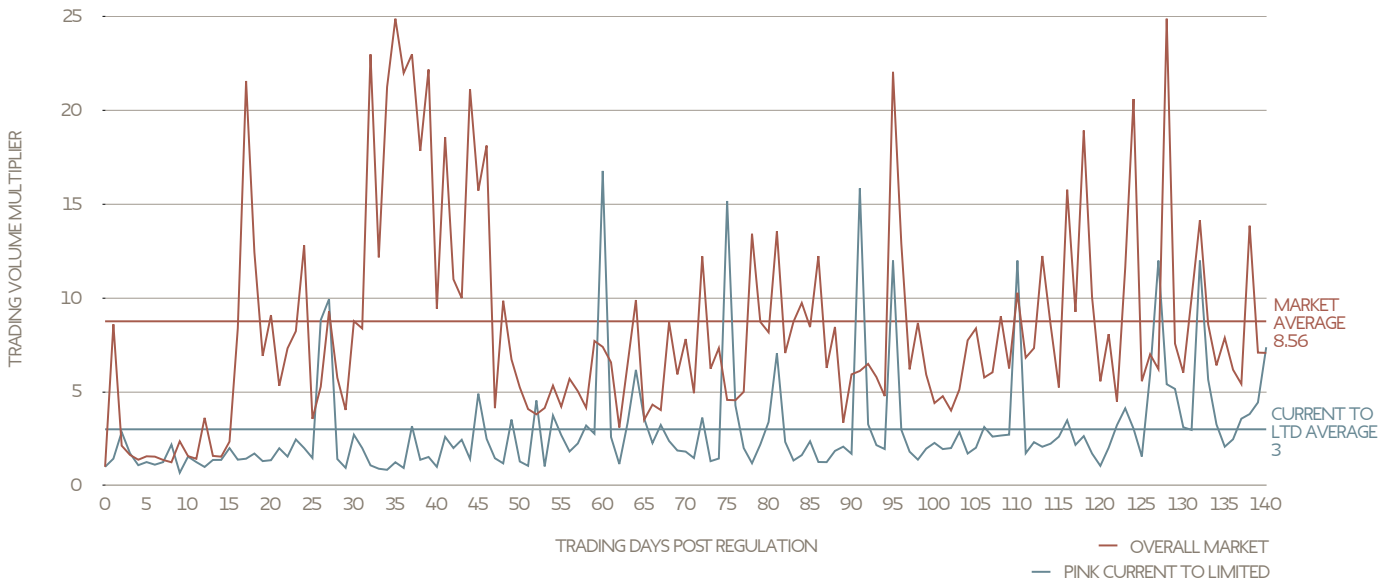
SOURCE: Oxford Metrica



23.7% VALUE GAP BETWEEN UPGRADES TO OTCQX & OTCQB AND DOWNGRADES FROM PINK CURRENT TO PINK LIMITED

FIGURE 3: Decrease in trading volume for downgrades from Pink Current to Pink Limited

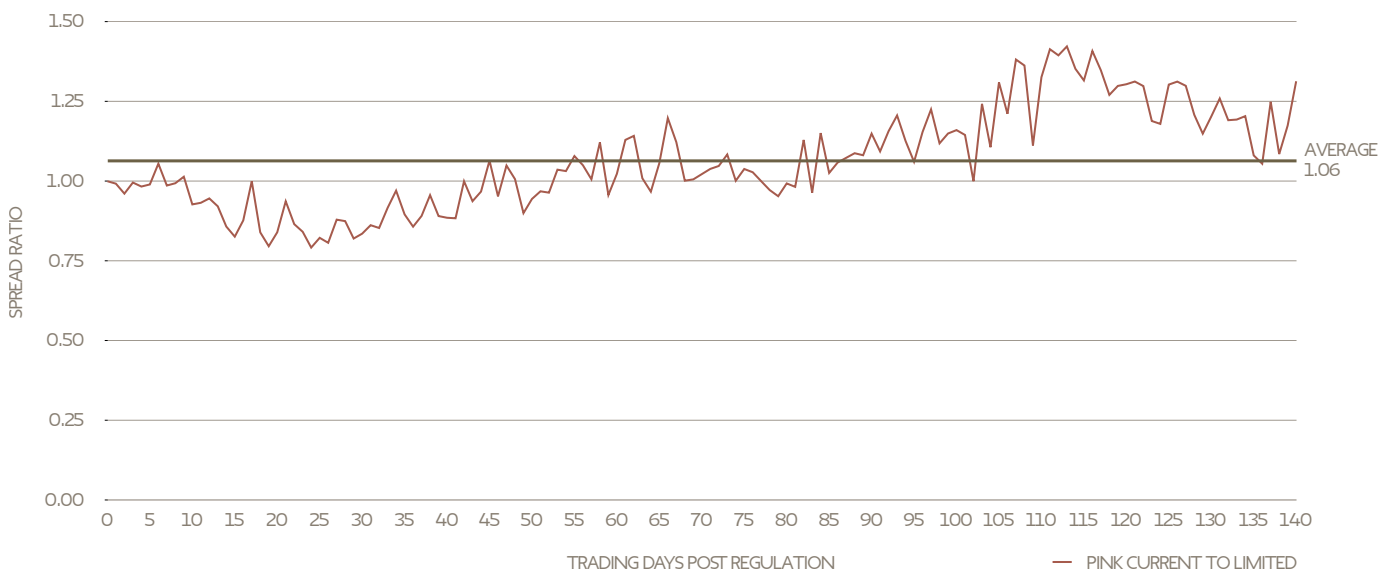
SOURCE: Oxford Metrica



THE OTC MARKETS AS A WHOLE ENJOY A THREE FOLD INCREASE IN VOLUME VERSUS DOWNGRADES FROM PINK CURRENT TO PINK LIMITED

FIGURE 4: The widening of Spread Ratio associated with downgrades from Pink Current to Pink Limited

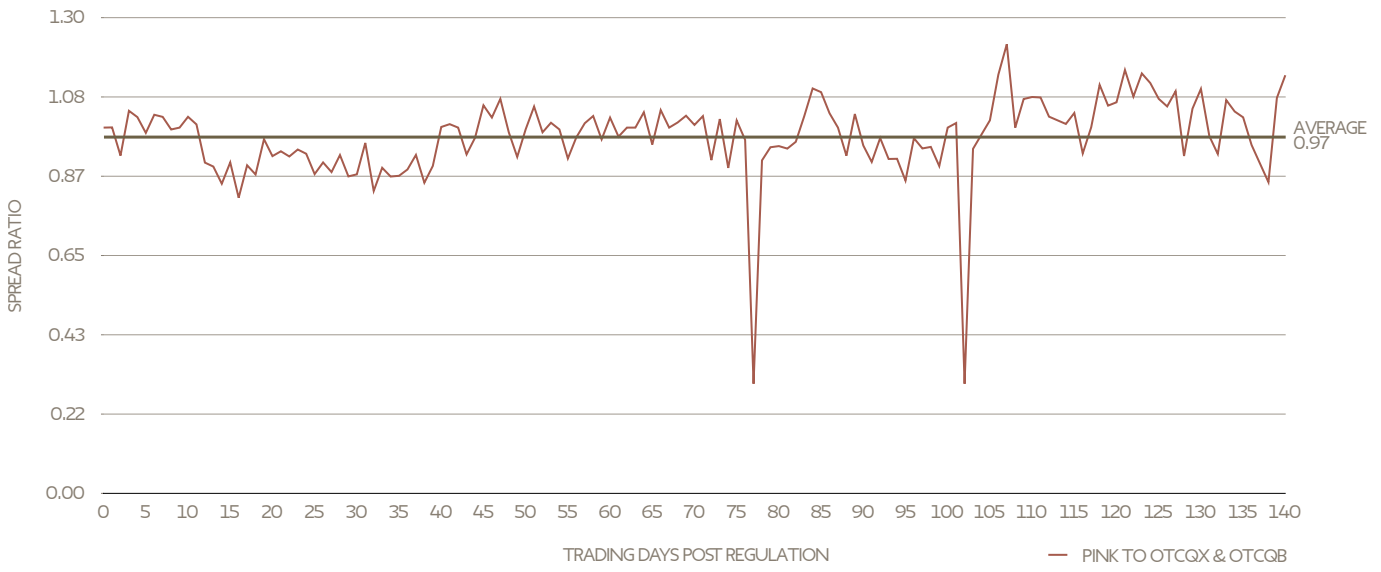
SOURCE: Oxford Metrica



AVERAGE SPREADS FOR DOWNGRADES FROM PINK CURRENT TO PINK LIMITED WIDENED BY 6%

FIGURE 5: The tightening in Spread Ratio associated with upgrades from Pink to OTCQX and OTCQB

SOURCE: Oxford Metrics



AVERAGE SPREADS FOR UPGRADES FROM PINK TO OTCQX & OTCQB TIGHTENED BY 3%

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OTC Markets

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