STAMPING IT OUT:

Understanding the impact of recent stamp duty changes on the Chinese equity market

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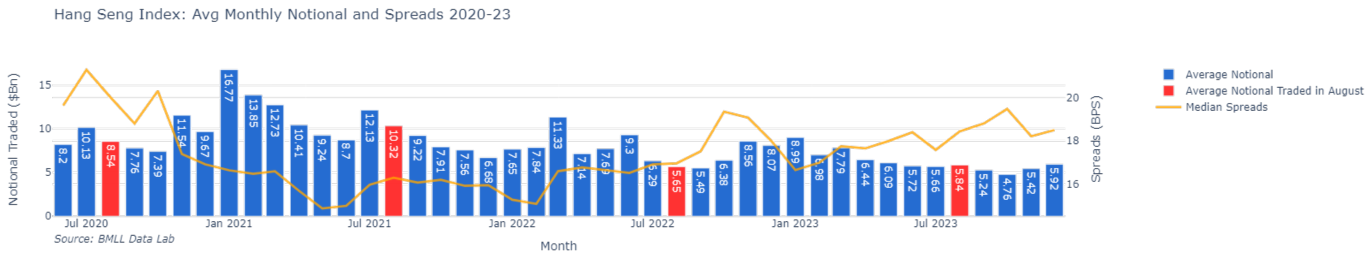
For equity portfolio management, controlling explicit costs such as taxes and levies is crucial to optimise the returns from investment decisions. However, investors have no direct control over these costs, so any policy to reduce them often contributes to increasing share trading activity. Additionally, such a policy can potentially raise market liquidity as it encourages systematic traders to take advantage of reduced transaction costs. But how do these policy decisions affect market microstructure?

The equity markets in China have been suffering from depressed market volume in recent years as Figure 1 shows. The market volume for both the Hang Seng Index and the Shenzhen Component Index have been declining, despite the long anticipated China reopening at the beginning of 2023. To respond to this, in August 2023, China moved to reduce stamp duty. Further action was then taken on 28th January 2024, when China announced a ban on short selling, another effort to control the stock market that has continued to decline.

In this article we use the recent stamp duty reduction in China as an example of how policy changes impacted market behaviour - in terms of intra-day volume profiles and see what lessons can be learnt by both policy makers and market participants.



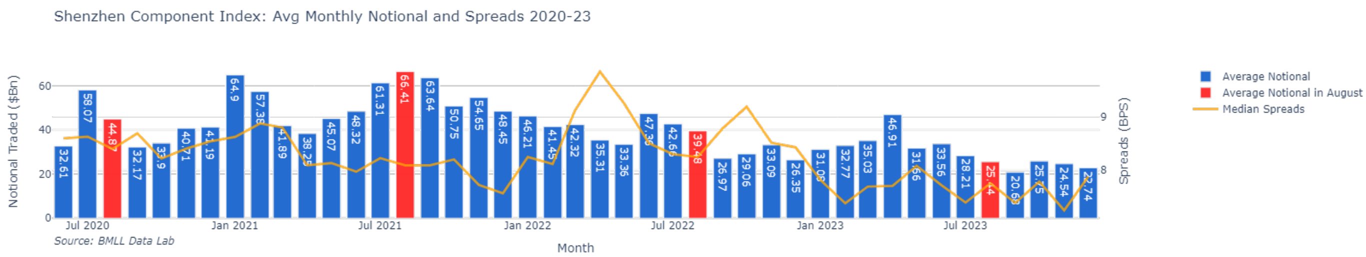


Figure 1. Trend in monthly notional volumes and spreads for the Hang Seng and Shenzhen index over the last 4 years

In August 2023, China halved its stamp duty on A-share stock trading from 0.1% to 0.05% with an aim to boost investor confidence and trading activity. This is the first change in China's stamp duty policy since 2008. At a quick glance there seems no immediate improvement in overall market volume as Figure 1 demonstrates. But what about more granular market dynamics? Do we see any immediate and lasting changes as a result of the stamp duty reduction? To answer this, we look at the intraday trading activities in both mainland China (on Shenzhen and Shanghai equity exchanges) and Hong Kong.

Intraday volume profiles

We start by looking at the trend in intraday liquidity before and after the announcement. For this, we study the three major indices of the region - Shenzhen Component, SSE 180 (Shanghai) and Hang Seng index.

Figure 2 shows the trend in the intraday liquidity profile in July and on 28 August 2023. Comparing the average liquidity trend in July 2023 with the one on the first trading day immediately after the stamp duty reduction announcement, we can see a clear change in the market behaviour. Notional volumes increased significantly during market open on 28 August and the notional traded value surpassed $20 million. However, the impact appears to be short lived, and by the end of the day there is no noticeable difference in volumes.

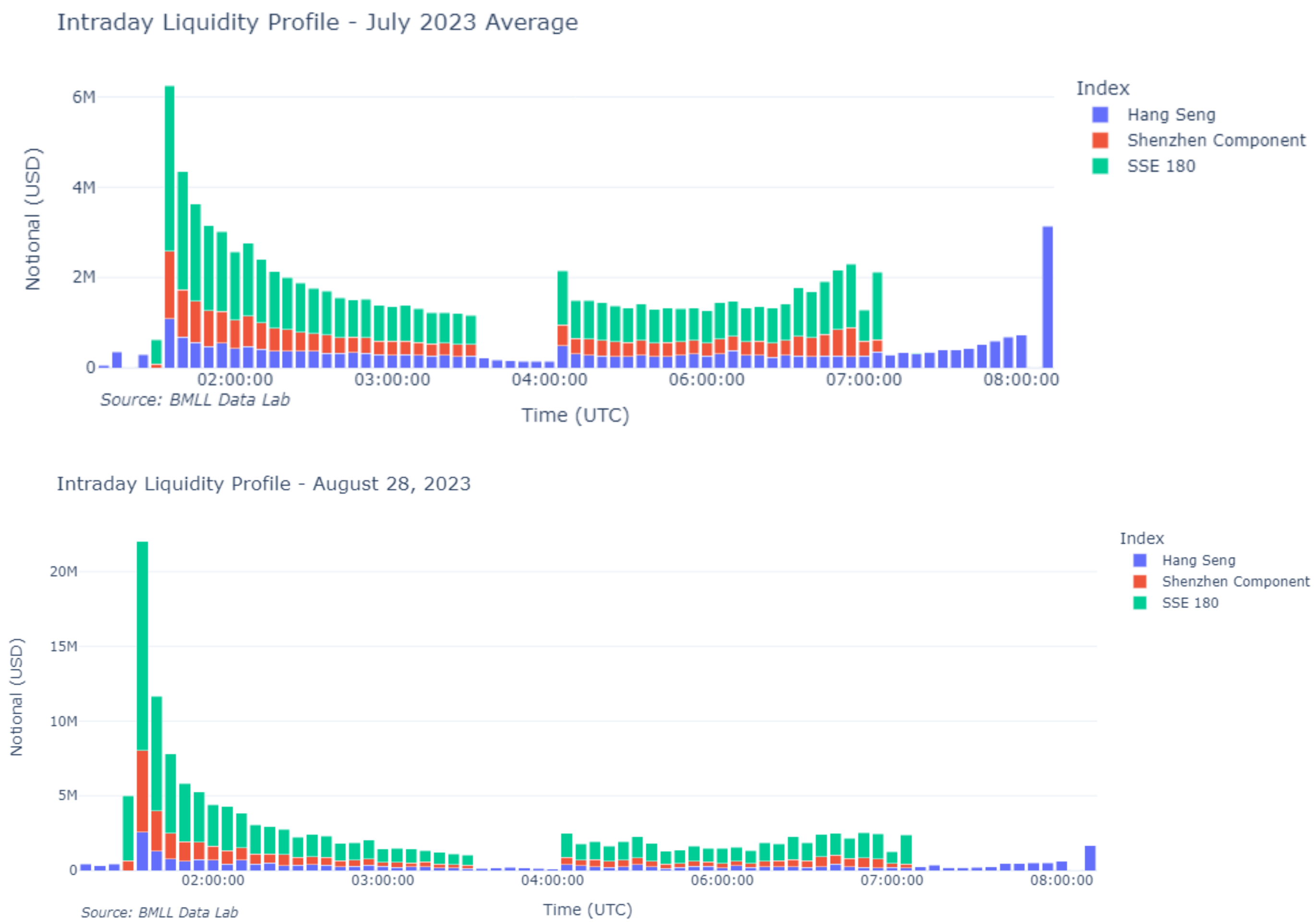
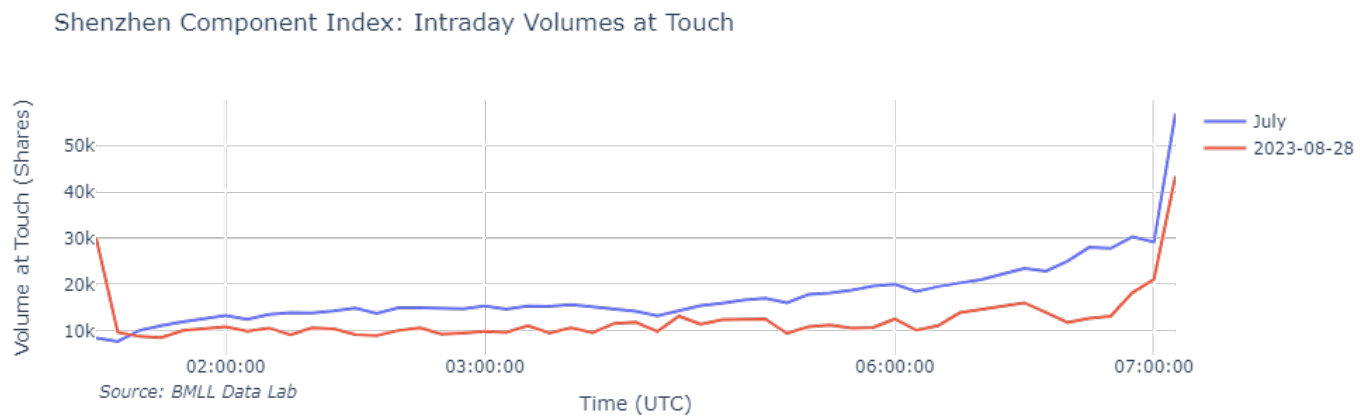


Figure 2. The sum notional volume of all indices has spiked to over $20Mn during the opening auction on the day of the announcement

Observing market quality metrics in China

Moving beyond trading volumes, we look at the impact of the stamp duty changes on market quality. In the following analysis, we focused on the trading pattern on Shenzhen, but similar results are seen for both Shanghai and Hong Kong. We looked at volume at touch and average spread over the day, as shown in Figure 3.

In line with the intraday liquidity profiles we examined earlier, we can see that the liquidity at touch spiked during the opening hour of trading on Shenzhen, before reverting back to a more normal pattern. Curiously, no such impact was seen on spreads which suggests that the stamp duty caused an evident increase in volumes, but trading prices and volatility remained consistent.



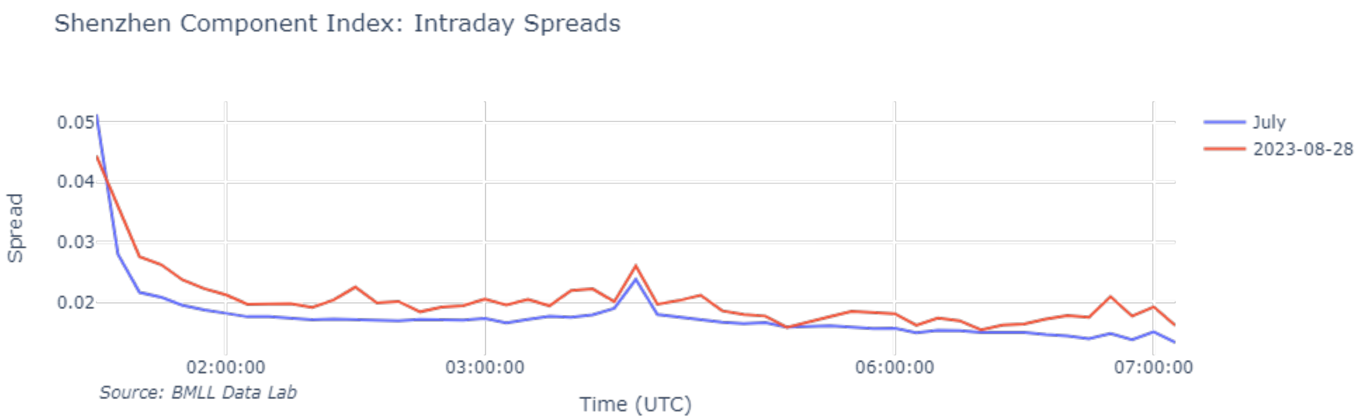
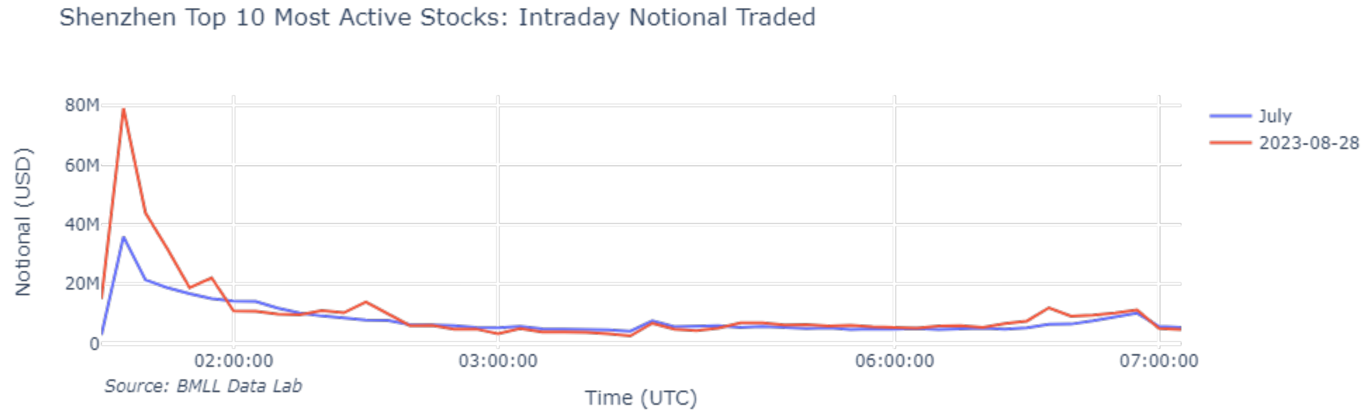


Figure 3. The intraday Top of Book volumes and spreads for a typical trading day vs the day of the announcement.

Next we looked at the 10 most and 10 least liquid stocks of the Shenzhen index. For the top 10 most liquid stocks the average traded notional value during the opening hour doubled on 28 August as indicated by Figure 4. The increase was more pronounced for the 10 least liquid stocks which recorded nearly 4 times the average traded volume in July. However, the uplift experienced by both brackets of stocks seemed temporary and the volume quickly stabilised to normal behaviour during the course of the day.



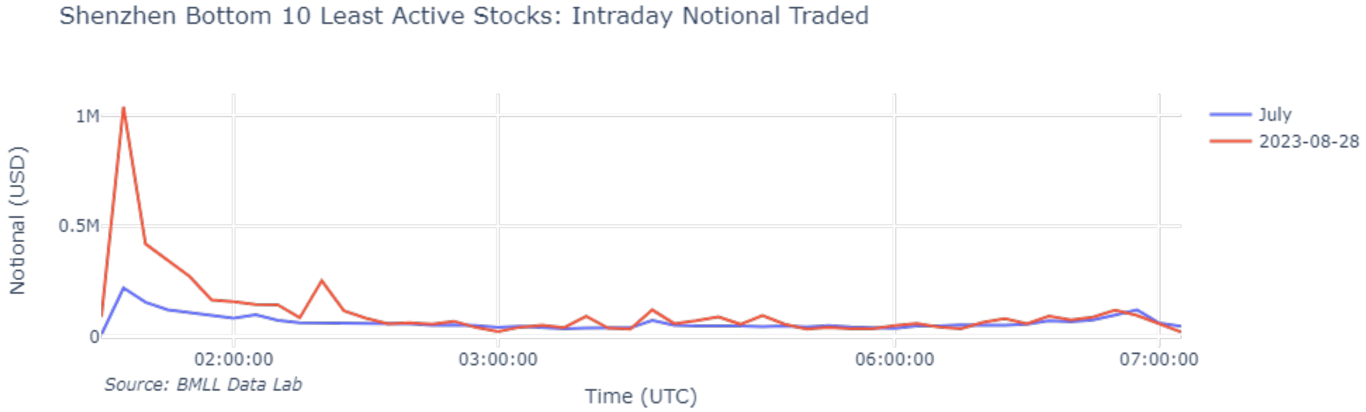


Figure 4. Average notional traded (in USD) for the topmost and least liquid stocks of Shenzhen Component Index in July vs day of rule change

Predicting the impact of future regulatory changes

For market participants looking to understand the impact of regulatory changes , access to consistent and normalised data across an entire region is essential. With the full depth of order book data, participants can rapidly evaluate the impact and adjust their trading strategies appropriately. And for regulators seeking to make policy changes, analysing a substantial period of detailed historical data is crucial to better predict the impact of such changes.

Although the stamp duty changes in China had a short term effect on trading, it appears that there was no permanent change in liquidity. This is a consistent picture across both the mainland exchanges and in Hong Kong.

However, to understand the longer term implications of this stamp duty reduction, it will be important to use Level 3 data to analyse order book behaviour, fill rates and queue dynamics, to have the most complete picture of the changing market microstructure. Given the recent announcement by China, we anticipate further policy changes in the Chinese equity market. Tracking how these metrics evolve will be critical, whether as a policy maker monitoring regulatory effects or a market participant looking to trade as effectively as possible.