

Corporate Factors affecting Liquidity in Frontier Markets
September 2025

Background

Established in 1961, the World Federation of Exchanges (WFE) is the global industry association for exchanges and central counterparties (CCPs). Headquartered in London, it represents over 250 market infrastructure providers, including standalone CCPs that are not part of exchange groups. Of our members, 37% are in Asia-Pacific, 44% in EMEA, and 19% in the Americas.

The WFE's 87 member CCPs and clearing services collectively ensure that risk takers post some \$1.3 trillion (equivalent) of resources to back their positions, in the form of initial margin and default fund requirements. WFE exchanges, together with other exchanges feeding into our database, are home to over 51,000 listed companies, and the market capitalisation of these entities is over \$110 trillion; around \$140 trillion (EOB) in trading annually passes through WFE members (at end 2024).

The WFE is the definitive source for exchange-traded statistics and publishes over 350 market data indicators. Its free statistics database stretches back 49 years and provides information and insight into developments on global exchanges. The WFE works with standard-setters, policy makers, regulators, and government organisations around the world to support and promote the development of fair, transparent, stable and efficient markets. The WFE shares regulatory authorities' goals of ensuring the safety and soundness of the global financial system.

With extensive experience of developing and enforcing high standards of conduct, the WFE and its members support an orderly, secure, fair, and transparent environment for investors; for companies that raise capital; and for all who deal with financial risk. We seek outcomes that maximise the common good, consumer confidence and economic growth. And we engage with policy makers and regulators in an open, collaborative way, reflecting the central, public role that exchanges and CCPs play in a globally integrated financial system.

Corporate Factors Affecting Liquidity in Frontier Markets

Constrained liquidity is a significant obstacle to the development of stock markets in frontier economies. Less-liquid exchanges face greater challenges in attracting both investors and new issuers, ultimately impacting trading volume due to the higher costs associated with limited liquidity. Implementing policies that enhance liquidity is therefore one of the most effective ways to deepen financial markets.

By introducing corporate factors that facilitate and reduce the costs of transactions, trading activity can be stimulated. This white paper will focus on four key corporate factors: corporate governance, ownership concentration, foreign investor participation, and direct trading costs—including securities trading taxes and exchange fees. It will first define the concept of liquidity and its measurement before providing an overview of liquidity conditions in WFE frontier markets. Given that frontier markets are particularly affected by liquidity constraints, this analysis will place special emphasis on them.

The study will examine two specific cases: the Muscat Stock Exchange and the Dhaka Stock Exchange. Additionally, WFE data will be analysed to assess liquidity patterns among WFE frontier market members over the past 25 years. In doing so, this white paper will complement previous research conducted by IOSCO and the WFE on liquidity in emerging markets.

What is Liquidity, How is it Measured, and How are Frontier Markets Different?

Defining Liquidity

Market liquidity is a key characteristic for the well-functioning of any stock market; it is, however, not a straightforward concept. A market is said to be liquid when it can absorb large trade volumes without causing major price swings in the securities being traded (IOSCO, 2007). This is possible when price discovery is efficient, transactions are completed quickly, and associated costs are low (Gabrielsen et al., 2011). Liquid markets are characterised by having:

- **Market depth:** A market is deep when it has sizable volumes of orders with a wide range of prices for a given asset. The higher the number of orders, the less impact each one will have on an asset's price.
- **Market breadth:** In a broad market, a large portion of the market's securities are actively traded, contributing to market movements. Low market breadth occurs when only a few securities drive these movements. This can signal lower liquidity, as fewer actively traded securities may lead to higher transaction costs and greater price volatility when adjusting positions.
- **Resilience:** A resilient market can adjust to shocks quickly if market participants continue to engage in transactions until reaching a new equilibrium. Conversely, in a market with low levels of liquidity, some market participants are more likely to halt trading, severely drying out liquidity, which can lead to price volatility for others (IMF, 2015).

Limited liquidity stifles stock market development because it deters prospective market participants from accessing the market (Oliver Wyman & WFE, 2016). Firstly, fewer investors are willing to participate in these markets due to uncertainty about whether their assets will be fairly-priced and if they will be able to enter or exit an investment at their convenience. The investor base will be small, and fewer prospective issuers will be inclined to access capital through the stock market, as investors will demand a premium for the limited liquidity, increasing the cost of capital. More issuers will opt for alternative sources of capital, lowering the number of assets available in the market. Thus, these markets have a restricted number of products. Finally, less-liquid markets are less resilient to shocks, deepening and prolonging episodes of market stress. These dynamics constrain the financial markets' intermediation role in the channelling of savings and investments, hurting economic growth.

Liquidity varies depending on the level of market development. A broad measure of liquidity is share turnover velocity, which is the total number of shares traded over a given period divided by the total number of shares outstanding. Among WFE member-developed markets, the median share turnover velocity stood at 44%, higher than in emerging markets at 37%, and significantly higher than in frontier markets, where it was much lower at 6% (WFE Data, 2025).

Measuring Liquidity

Given its multidimensionality, there is not a single measure of liquidity. Considering that each of its dimensions is measured differently and that there are multiple approaches of capturing each of them, different measures can reveal varying levels of liquidity in the same market. This should not necessarily mean that these measures are contradictory, but rather that different things are being measured (Garabedian & Inghelbrecht, 2020). The list of proposed liquidity measures in the literature is varied and longer than the one covered in this paper, as we will only focus on two that capture different effects of liquidity levels:

- **An adapted Amihud illiquidity measure:** based on Amihud (2002)¹, this price-impact proxy of liquidity measures the sensitivity of price changes to trading activity. It provides the change in price by dollar traded, capturing the effect of the volume of trades on an asset's absolute returns. A higher score in the illiquidity index means lower liquidity. Due to data constraints, we cannot calculate the standard Amihud illiquidity ratio, which requires daily stock-level data. Instead, we construct an adapted version using annual data from the WFE database, following the intuition that large price changes relative to low trading volumes indicate illiquidity. While not identical to the original methodology, we believe this adapted measure still captures a meaningful aspect of market illiquidity. To enhance interpretability, the illiquidity index values have been rescaled by a factor of 1000.
- The **bid-ask spread** is a price-based measure of liquidity. The market bid-ask spread is the difference between the lowest ask price—the lowest price at which a seller is willing to sell—and the highest bid price—the highest price a buyer is willing to pay—for a given asset². The difference between the two, the spread, is the transaction cost. This measure captures two elements of transaction costs. One of them is the inventory-holding costs of a trader. The other one is the perception of asymmetric information by investors, which translates in higher bids as investors will ask for a higher return motivated by their suspicion that dealers are better informed on the quality of the assets and might be charging them a higher than expected price (Gabrielsen et al., 2011). A limitation of this measure is that bid-ask spread data is scarce for the frontier market, and for the stock markets where it is available, it has only relatively recently started to be collected.

Liquidity in WFE Member Stock Markets

Among WFE Members that are qualified by MSCI as frontier markets, we can find the following stock exchanges (values for 2024, unless otherwise indicated) (Morgan Stanley Capital International, 2024):

- | | |
|--|---|
| <ul style="list-style-type: none"> • Bourse de Casablanca: <ul style="list-style-type: none"> ○ Market Capitalisation: 74,459 million USD ○ Value Traded EOB: 6,023 million USD | <ul style="list-style-type: none"> • Muscat Stock Exchange: <ul style="list-style-type: none"> ○ Market Capitalisation: 71,675 million USD ○ Value Traded EOB: 2,314 million USD |
|--|---|

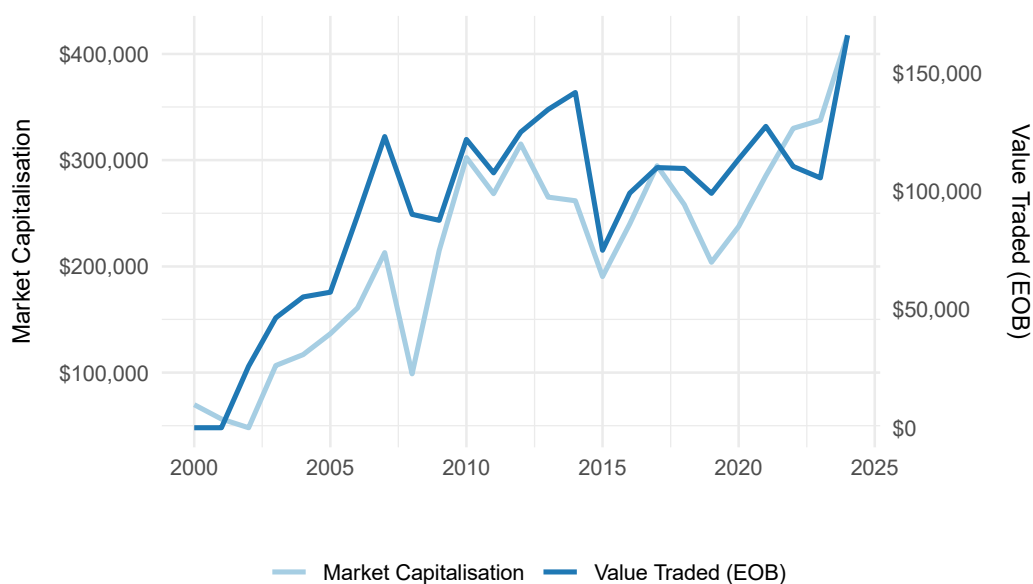
¹ The equation of this illiquidity measure is the following: $ILLIQ_T^i = \frac{1}{D_T} \sum_{t=1}^{D_T} \frac{|R_{t,T}^i|}{V_{t,T}^i}$, "in which where D_T is the number of days for which data are available, $R_{t,T}^i$ is the return on day t of year T , and $V_{t,T}^i$ is the daily volume. The day- t impact on the price of one currency unit of volume traded is given by the ratio $\frac{|R_{t,T}^i|}{V_{t,T}^i}$. The illiquidity measure is the average of the daily impacts over a given sample period." (l.26-29, p. 10, Gabrielsen et al., 2011). Usually computed with daily data, annual data from the WFE will be used to create the visualizations.

² The Bid-ask spread Will be gathered with the median simple spread, which will have the following formula:

$$\text{Median Simple Spread (MSS)} = \frac{\text{Best Ask Price} - \text{Best Bid Price}}{\frac{\text{Best Ask Price} + \text{Best Bid Price}}{2}} \times 10\,000 \text{ (WFE, 2024)}$$

- **Kazakhstan Stock Exchange:**
 - Market Capitalisation: 62,818 million USD
 - Value Traded EOB: 531 million USD
- **Chittagong Stock Exchange:**
 - Market Capitalisation: 58,209 million USD
 - Value Traded EOB: 565 million USD
- **Dhaka Stock Exchange:**
 - Market Capitalisation: 29,732 million USD
 - Value Traded EOB: 12,237 million USD
- **Amman Stock Exchange ³:**
 - Market Capitalisation: 24,902 million USD
 - Value Traded EOB: 1,509 million USD
- **Bahrain Bourse:**
 - Market Capitalisation: 20,407 million USD
 - Value Traded (EOB): 848 million USD
- **Colombo Stock Exchange:**
 - Market Capitalisation: 19,501 million USD
 - Value Traded (EOB): 1,493 million USD
- **BRVM:**
 - Market Capitalisation: 16,019 million USD
 - Value Traded (EOB): 269.9 million USD
- **Nairobi Securities Exchange:**
 - Market Capitalisation: 15,001 million USD
 - Value Traded (EOB): 819 million USD
- **Stock Exchange of Mauritius:**
 - Market Capitalisation: 9,124 million USD
 - Value Traded (EOB): 260 million USD
- **Tunis Stock Exchange:**
 - Market Capitalisation: 8,302 million USD
 - Value Traded (EOB): 549 million USD
- **Astana International Exchange ⁴:**
 - Market Capitalisation: 138 million USD
 - Traded (EOB): 495 million USD

Figure 1: Market Capitalisation and Total Value Traded (EOB) in WFE Frontier Markets⁵



Values are in million of US dollars

Source: WFE Database

Compared to emerging countries, frontier markets have lower market capitalisation and volume of trade. The median market capitalisation among WFE emerging market members in 2024 was equal to 315,394.8 million USD, whereas frontier markets were equal to 20,407 million USD. Similarly, the median value traded (EOB) was equal to 92,651 million USD for WFE emerging market members, while this was only 549 million USD for frontier markets. Therefore, median frontier markets' market capitalisation was equal to 6.4% of that of emerging markets in 2024, and trading volume was equal to 0.59% of that of emerging markets.

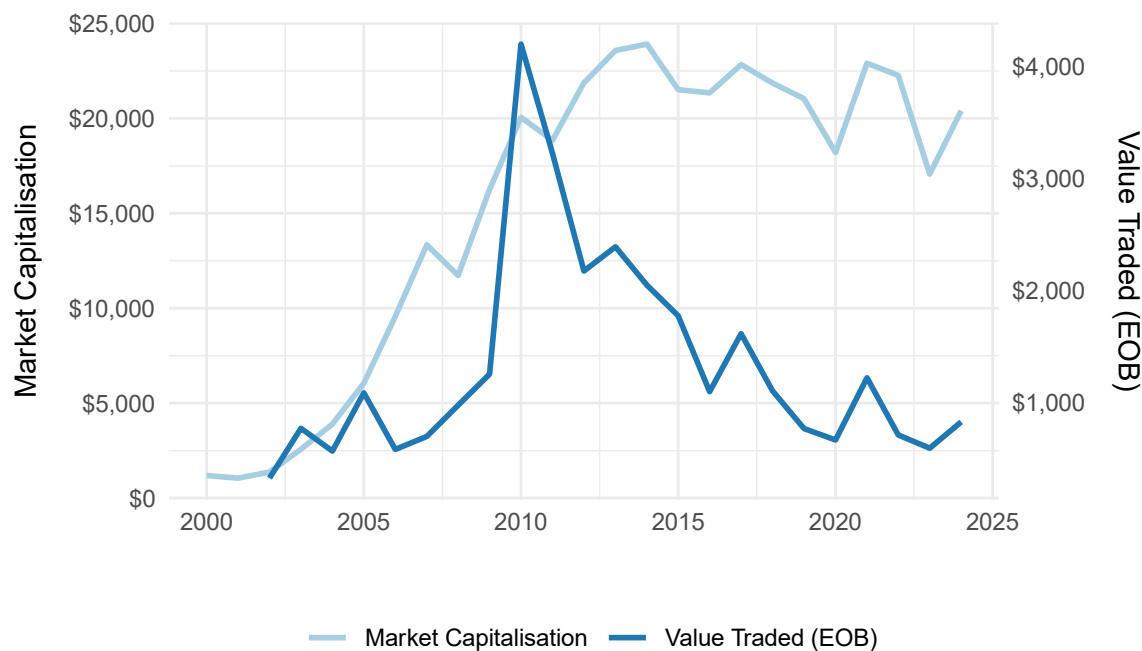
³ The most recent data available was from 2022.

⁴ The most recent data available was from 2023.

⁵ Refer to the Annex for a list of the exchanges labeled as the Emerging and Frontier Markets.

Moreover, frontier markets show signs of liquidity stagnation. Both market capitalisation and total value traded increased significantly in the first seven and ten years of the last century, respectively. However, the evolution of the median market capitalisation has barely increased and is in fact lower now than in 2007 (Figure 1). In comparison, over the same period, the median market capitalisation of emerging markets has grown by 150%, revealing investors' preference for emerging markets over frontier markets (WFE Data, 2025). Furthermore, it is striking that the median total value traded is now less than 25% of what it was in 2010, highlighting a significant decline in trading activity. In comparison, the median total value traded in emerging countries has increased over the same period (Figure 2).

Figure 2: Market Capitalisation and Total Value Traded (EOB) in WFE Emerging Markets



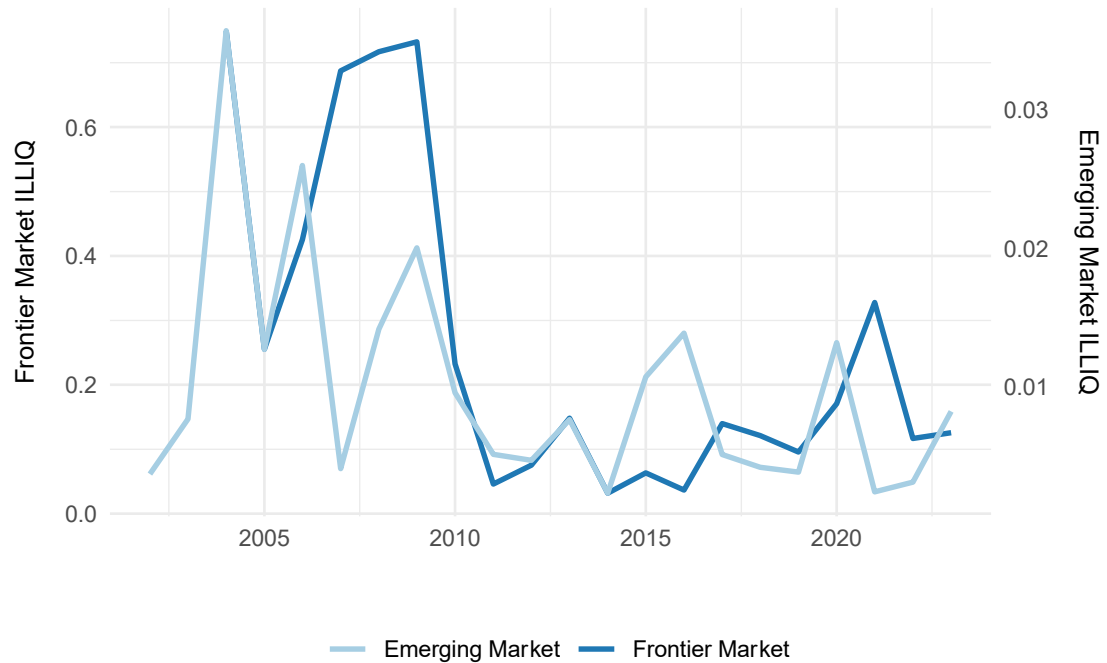
Values are in million of US dollars

Source: WFE Database

However, trends are more favourable when reviewing the evolution of liquidity in frontier markets. According to both our adapted Amihud illiquidity measure (ILLIQ) (Figure 3) and the median bid-ask spread for large-cap companies (considered the most liquid in the market) (Figure 4), liquidity conditions have improved in recent years. Although the ILLIQ index is ten times higher in frontier markets than in emerging markets, both exhibit a similar declining trend. Moreover, when examining the bid-ask spread, it is decreasing at a much faster rate in frontier markets than in emerging markets, although the latter still maintains a lower spread, thus, there is still progress to be made.

Figure 3: Liquidity in WFE Emerging and Frontier Markets.

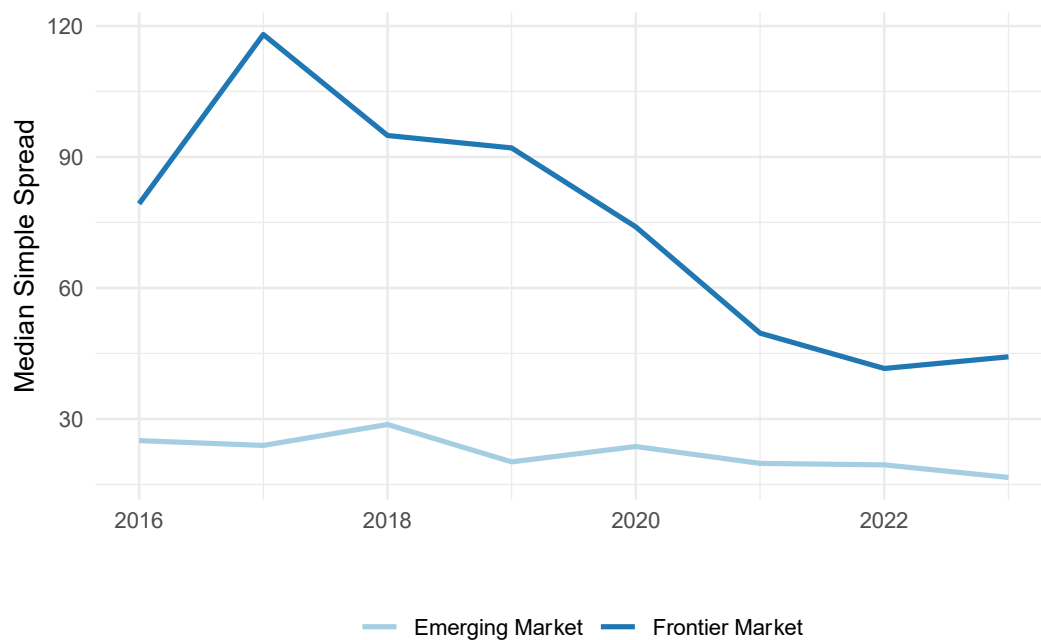
Liquidity is measured by an adapted Amihud illiquidity measure (ILLIQ) (2002).



Source: WFE Database

Figure 4: Liquidity in WFE Emerging and Frontier Markets

Liquidity measured with the Median Simple Spread (Large Cap Companies)



Source: WFE Database

Corporate Factors of Reduced Liquidity

This paper will focus on corporate factors that can affect liquidity. By corporate factors, we refer to specific aspects of a market's functioning, such as the presence of digital infrastructure and property rights protection laws. Specifically, it will cover the effect of corporate governance, ownership concentration, foreign investment, and direct trading costs on liquidity. It will not consider macrostructural factors, which can also have a significant impact on financial markets and liquidity, such as monetary policy and exchange rate regimes (Husnain et al., 2021; Ochenge et al., 2020)⁶.

Corporate Governance

Good corporate governance practices increase liquidity by increasing investors' confidence in the firm. This is achieved by decreasing information asymmetry on how the firm is faring and by ensuring investors that the company puts their interests first. As confidence in a firm increases, the more likely its stock will be traded. If good corporate governance practices spread throughout a market, it will lead to increased investor confidence in the market.

First, increasing disclosure requirements lessens information asymmetry. Firms should be obliged to share their predictions on the firm's prospects. For this to be effective, firms should follow the unbiased principle, according to which, information should not be biased neither towards shareholders nor towards future investors (Berglund, 2020). The perception that insider trading is occurring discourages many investors from accessing the market. Information asymmetry increases costs for uninformed traders, as it raises the likelihood that a better-informed counterparty will exploit their lack of knowledge, leading to unfair price distortions. To mitigate this risk, investors ask for a premium on the share price. Thus, improving transparency and disclosure practices leads to more accurate pricing of the assets and will reduce trading costs emerging from adverse selection (C. Lee et al., 2016; Easley & O'Hara, 2001). Besides, good governance mechanisms that safeguard shareholders' interests before the firm's also diminish the fear of asymmetric information. Shares from companies that restrained their management from engaging in fraudulent behaviours, such as enriching themselves at the expense of investors, and that take management decisions with the interests of shareholders at heart, are more liquid in the market (Berglund, 2020). Yet, a recurrent problem with corporate governance rules in emerging and frontier markets is that corporate governance rules are not as strictly implemented as in developed countries (Hunjra et al., 2020).

There are not a specific set of practices that are well-accepted everywhere as good corporate governance practices. For instance, there is mixed evidence on the effect of the size and composition of a board of directors, the body responsible for representing shareholders' interests before a firm's managers. It has been proven that the size of the board matters even in frontier markets, such as Bangladesh and Sri Lanka, where increasing the board's sizes has proved to have a positive effect on a firm's stock liquidity. The number of independent directors also seems to matter, with improved liquidity in both Sri Lanka and Bangladesh for firms with a larger number of independent directors (Abbassi et al., 2021). All things considered, it seems that legal tradition might impact it, as common law countries seem to have better corporate governance practices and more liquid markets than civil law ones, better practices increases a firm's liquidity independently from the legal tradition it operates in (Chung et al., 2012).

Ownership Concentration

Whether a firm's shares are owned by a few or by many investors can impact the frequency with which its shares are traded, as well as the influence shareholders have in monitoring the firm.

The ownership structure can be either dispersed or concentrated. Ownership is concentrated when a large part of the shares is held by a few stakeholders, allowing them to exert pressure on the company to protect their interests. Moreover, they are expected to

⁶ This is a non-comprehensive list of all the factors that could affect liquidity. Moreover, not all variables influencing these factors are included in this paper. Non-economic elements, such as political turmoil and conflict, can drastically impact liquidity. This is the case of the Palestine Stock Exchange, which was previously considered a Frontier Market. However, due to the war and its devastating consequences, it has since been re-designated as a standalone market—a category used for exchanges that do not meet the size and liquidity requirements to qualify as frontier markets.

have better access to information than minority shareholders, and that information asymmetry might lead to unreliable share pricings, decreasing liquidity (Hunjra et al., 2020). Conversely, with ownership dispersion, information differentials diminish. Ownership tends to be more concentrated in emerging and frontier markets, compared to markets such as the US and the UK, where the ownership is highly dispersed. Consequently, in emerging and frontier markets, the imbalance between majority and minority stockholders has more effects than the imbalance between managers and stockholders (Lei et al., 2013). Different effects have been registered, however, depending on whether ownership is concentrated in institutional investors or the corporation's managers.

There is mixed evidence regarding ownership concentration in institutional investors. First, ownership concentration among institutional investors such as mutual funds, pension funds, and insurance funds has been linked to lower levels of liquidity (IMF, 2015). However, some evidence suggests that institutional investors can have a positive effect on stock market liquidity in some emerging and frontier markets. First, investors with large positions have an incentive to get involved and closely monitor a firm's management, advocating for better corporate governance and helping to stabilise the price of their holdings (Hunjra et al., 2020). As they are expected to divert more time and effort to monitoring activities, they are also more expected to have better information than minority shareholders. This information will, however, be ultimately reflected in their quoted prices, serving as a signal to other market participants and facilitating price discovery. Empirical evidence shows that Institutional ownership has indeed been associated with increased liquidity in frontier markets such as Pakistan, but not in developed markets like Singapore (Hunjra et al., 2020). In Jordan, publicly traded companies primarily owned by another public company are more liquid than those of public companies predominantly owned by family members (Al- Sharif et al., 2015)

Conversely, there are no positive effects recorded with managerial concentration of ownership. Some argue that concentration of ownership among managers will jeopardise good governance practices, as it will give them incentives to keep to themselves privileged information that would alter share price (Faccio & Lang, 2000). The more shares they have, the more power they have, and the easier it is to pursue their interests at the expense of minority shareholders. In Sri Lanka, managerial ownership has a negative effect on stock liquidity, whereas in Bangladesh, it does not seem to affect it (Abbassi et al., 2021).

Foreign Participation

Attracting more foreign participation is key in the process of graduating into emerging market status. Yet, there are conflicting views on the effect of foreign investors on market liquidity in frontier markets.

On the one hand, some argue that foreign investors play a crucial role in developing liquidity. Foreign investors increase the number of market participants, allowing for increased market turnover and additional funds to be invested. Consequently, market openness to capital is considered a crucial factor in improving liquidity. Moreover, foreign investors also help to reduce shares' price volatility in developing economies (Thanatawee, 2021). Beyond the pure broadening of the market, they also tend to behave differently than domestic investors. For instance, they tend to invest less in family-owned companies (Abdullah, 2019).

On the other hand, others believe the presence of foreign investors to be detrimental for developing liquidity. Usually, foreign investors in developing stock exchanges are European or North American institutional investors. These investors tend to have high capacity and are well-informed. Some argue that they are better informed than domestic investors, as they often have connections with local governments and sit on the board of the companies in which they have a stake (Rhee & Wang, 2009). This exacerbates information asymmetry, leading to decreased liquidity. Moreover, if they adopt buy-and-hold strategies, their presence does not contribute to increased liquidity (Vo, 2016). Empirical evidence from Jordan, for instance, suggests that foreign ownership can have a negative effect on liquidity (Shubita & Shubita, 2019).

Another segment of the literature distinguishes between different types of foreign investors, highlighting that foreign direct investment (FDI) and portfolio investment have distinct impacts. Foreign direct investors, who hold both ownership stakes and managerial positions, have privileged access to information, which can influence the liquidity of their shares. In contrast, portfolio investors, who do not engage in the firm's management, do not benefit from the same level of insider information. By expanding the shareholder base, they can enhance liquidity, particularly for less liquid stocks (Ng et al., 2016). Furthermore, even if foreign investors are institutional investors that trade with additional information to domestic actors, they could still help to increase liquidity by enhancing participation in the price discovery process, thus decreasing trading costs (J. Lee & Chung, 2018).

Explicit Trading Costs: Securities Transaction Taxes

Securities transaction taxes (STTs), high brokerage commissions, and clearing and settlement fees are charges that increase the costs of trading for market participants. Some argue that securities transaction costs can reduce price volatility by discouraging speculative activities, thereby improving market quality and contributing positively to overall market development (Habermeier & Kirilenko, 2003). Moreover, they provide an additional source of tax revenues to the government and to the regulatory bodies levying these fees, allowing them to sustain operations. However, these STTs and exchange fees undoubtedly increase trading costs and decrease traded volume and, consequently, liquidity (Matheson, 2011). This relationship has been empirically demonstrated, although only in advanced and emerging economies. For instance, a one-third increase in the STT in China was linked to an equal decrease in traded volume (Baltagi et al., 2006). Furthermore, the introduction of an STT in France also led to decreased liquidity of about 10%, particularly affecting less liquid stocks and short-term trades, without improving market quality (European Central Bank., 2017).

In frontier economies, these charges are substantially higher than in developed and emerging economies. For instance, in Indonesia and Thailand, direct trading costs represent 0.68% and 0.57% of the traded value, respectively. Yet, in most African exchanges, for example, they represent well over 1%: in the Nairobi Stock exchange, they are around 1.46%, and in the Mauritius stock exchange, they reach as high as 2.5% (ECA, 2020; RisCura, 2018). These high trading costs can deter investors from engaging in short-term trading, thus negatively affecting liquidity. Furthermore, in the case of the Stock Market of Mauritius, there is no upper limit on transaction fees, which may discourage investors from conducting block trades. In contrast, some stock exchanges, such as Sri Lanka's, offer a tiered fee structure, where a lower rate applies once a certain trading threshold is reached to incentivise larger trades (JP Morgan, 2025).

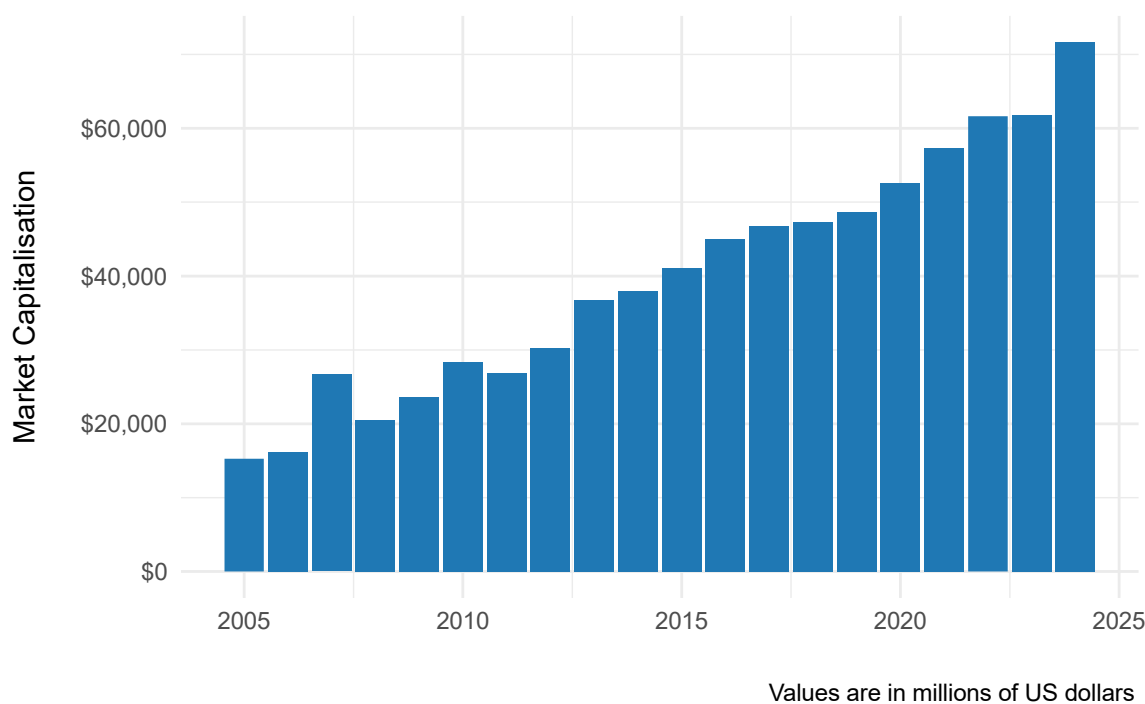
Case Studies

Muscat Stock Exchange

The Muscat Stock Exchange (MSX) has a substantially smaller market capitalisation than other Gulf countries. For instance, the market capitalisation of Qatar was 170,284 million USD in 2024, while the Abu Dhabi Securities Exchange was 816,385 million USD, compared to 71,675 at MSX (WFE Data; MSX 2025). MSX market capitalisation is, however, on an upward trend: it grew by 16% in 2024, notably due to the inclusion of new listings such as OQ Exploration & Production and OQ Basic Industries (MSX, 2025). Yet, its liquidity levels are not that low compared to those of other Middle East and North Africa (MENA) countries (Figure 4). The new listings in 2024 also helped to foster market activity, increasing total value traded by 11% (MSX, 2025).

Still, there are some barriers to liquidity that persist. One of them, for instance, is ownership concentration by the government, which owns a substantial portion of traded securities through its pension funds, which tend to adopt long-term holding positions, thereby limiting liquidity (Al Ani & Al Khatiri, 2019). Additionally, these pension funds are only permitted to invest 30% of their assets in “Class A” corporate securities, leaving some of the most liquid securities out of active market circulation (IMF, 2025).

Figure 5: Market Capitalisation of the Muscat Stock Exchange⁷



Source: MSX Annual Reports

Recently, authorities have made significant efforts to increase the liquidity and market capitalisation of MSX (IMF, 2025).

- To enhance the liquidity of SME securities, Oman is establishing a comprehensive credit bureau (Mala'a), which will serve as a tool to assess creditworthiness and reduce information asymmetry related to these securities.
- To expand its investor base, MSX has increasingly relied on foreign investors, who now account for 20% of total market participation as of 2023. Foreign investors benefit from strong investor protection regulations, low taxation, and unrestricted capital and profit transfers. Moreover, they have access to both the primary and secondary markets. However, persistent regulatory barriers for foreign investors—such as the requirement for a custodian to access the bond secondary market—will be addressed through the new partnership between Euroclear and Muscat Clearing and Depository. Furthermore, to

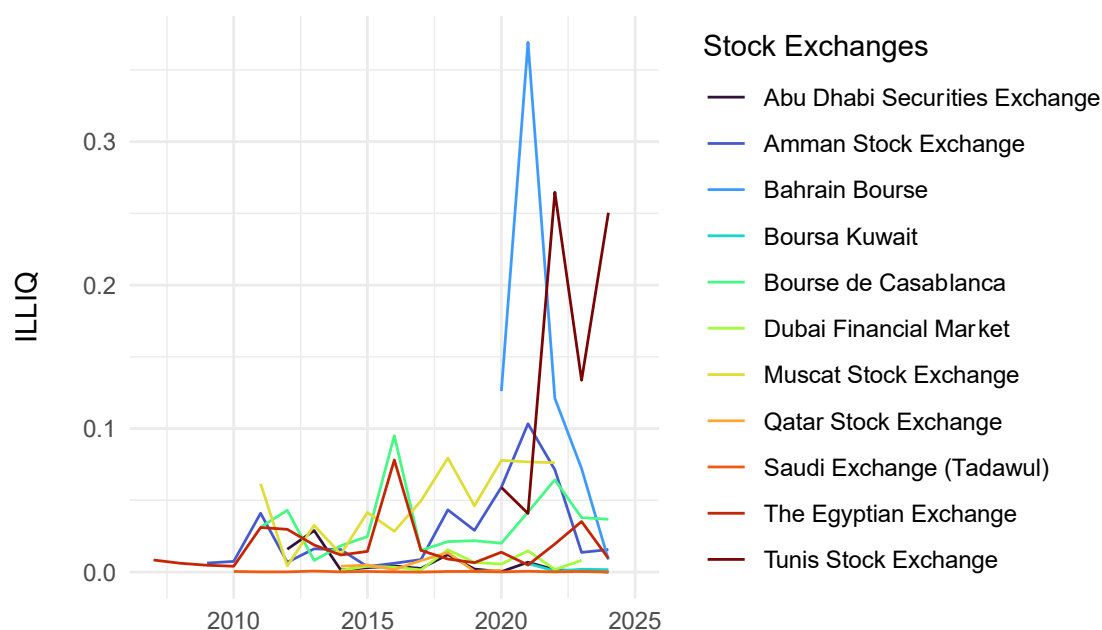
⁷ Only data from 2007 to 2023 was used to construct this graph, as data from earlier periods was unavailable.

increase the participation of foreign investors in other segments of the market, MSX also introduced regulations for the registration of foreign brokerage firms (MSX, 2025).

- To promote information sharing with investors, MSX launched an Investor Relations Best Practices Guide (MSX, 2025).
- In addition to these initiatives, authorities are working to lower entry costs for new public companies. For instance, newly listed companies will be exempt from transfer agent fees and IPO prospectus fees for three years, regardless of the market segment in which they choose to list.

Figure 6: Market Liquidity in WFE Emerging and Frontier Markets in the MENA Region

Liquidity measured by our adapted Amihud illiquidity measure (ILLIQ) (2002)⁸.



Source: WFE Database

Dhaka Stock Exchange

The Dhaka Stock Exchange (DSE) is one of two stock exchanges in Bangladesh, alongside the Chittagong Stock Exchange. Although both exchanges have similar levels of market capitalisation, most trading activity takes place on the DSE (Khan et al., 2021). However, compared to its regional peers, the DSE is smaller and less-liquid. As of 2024, the market capitalisation of the DSE stood at 29,732 million USD, much lower than that of the Taipei Stock Exchange, at 195,252 million USD, the Philippine Stock Exchange, at 251,828 million USD (WFE Data, 2025; Phillipine Stock Exchange, 2024). Furthermore, DSE market capitalisation appears to have declined significantly over the last four years, raising concerns about the state of the stock exchange (Figure 7). Yet, despite its smaller size, the DSE is not significantly more illiquid than its regional frontier and emerging market counterparts. It exhibits similar liquidity levels to the Philippine Stock Exchange. However, its liquidity levels have also been declining in recent years (Figure 8).

The DSE faces multiple challenges. One of the most pressing is its limited investor base. Foreign investors account for less than 1% of total investors, with 40% of them being foreign institutional investors (Dhaka Stock Exchange, 2024). Foreign participation has declined in recent years: although foreign institutional investors previously accounted for 6-8% of turnover, by 2024, foreign investors contributed only 0.88% of total turnover (Dhaka Stock Exchange, 2024; Khan et al., 2021). This is significantly lower than regional peers. For instance, in the Philippines, foreign investors were responsible for 46.2% of transactions in 2024 (Phillipine Stock Exchange, 2024). This decline is largely due to the high perceived risks associated with investing in the DSE, along with various barriers to entry for foreign investors. Moreover, retail investors dominate trading activity, while institutional investors remain reluctant to assume a

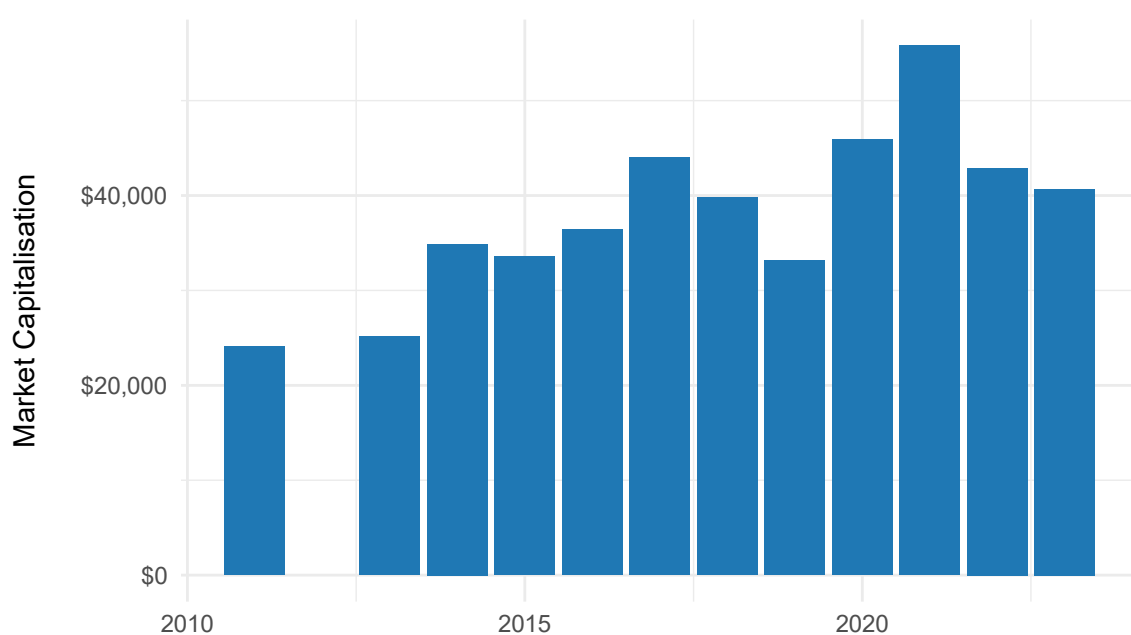
⁸ Only data from 2007 onwards was used to construct this graph, as data from earlier periods was unavailable

larger role. Additionally, the DSE is facing a confidence crisis. Following the change in Bangladesh's government in August 2024, scandals related to price manipulation and the weak enforcement of investor protection regulations by the Bangladesh Securities and Exchange Commission (BSEC) have led to the dismissal of several BSEC officials and the creation of a task force to formulate concrete reforms. These events have severely undermined confidence in the market's transparency. Finally, complex and inconsistent tax policies and complicated processes for trading further deter potential investors.

To attract investors and set a clear record, the DSE had framed clear reforms to strengthen the stock market.

- Strengthening corporate governance is a key objective of the task force, as past irregularities have been linked to weak governance practices among listed companies (Chowdhury, 2024). For instance, restrictions have been recommended on the use of margin loans for share purchases, limiting them to specific types of investors. This practice had previously been misused by some companies to artificially inflate profits and secure directorship positions. Furthermore, the BSEC has signaled a stricter stance on non-compliant issuers. In 2024, it downgraded 22 companies to the "Z" category due to their failure to comply with DSE regulations, including the non-declaration of dividends for two consecutive years (The Financial Express, 2024).
- To reduce transaction costs, the DSE is committed to implementing market-friendly tax reforms. The current task force has also proposed halving the capital gains tax, reducing it from a variable rate of 30% on sales exceeding Tk 50 lakh to a flat rate of 15% (New Age, 2025). Additionally, it is considering lowering the dividend tax, the turnover tax for brokerage firms, and tax obligations for listed companies (The Business Standard, 2025).

Figure 7: Market Capitalisation of the Dhaka Stock Exchange⁹



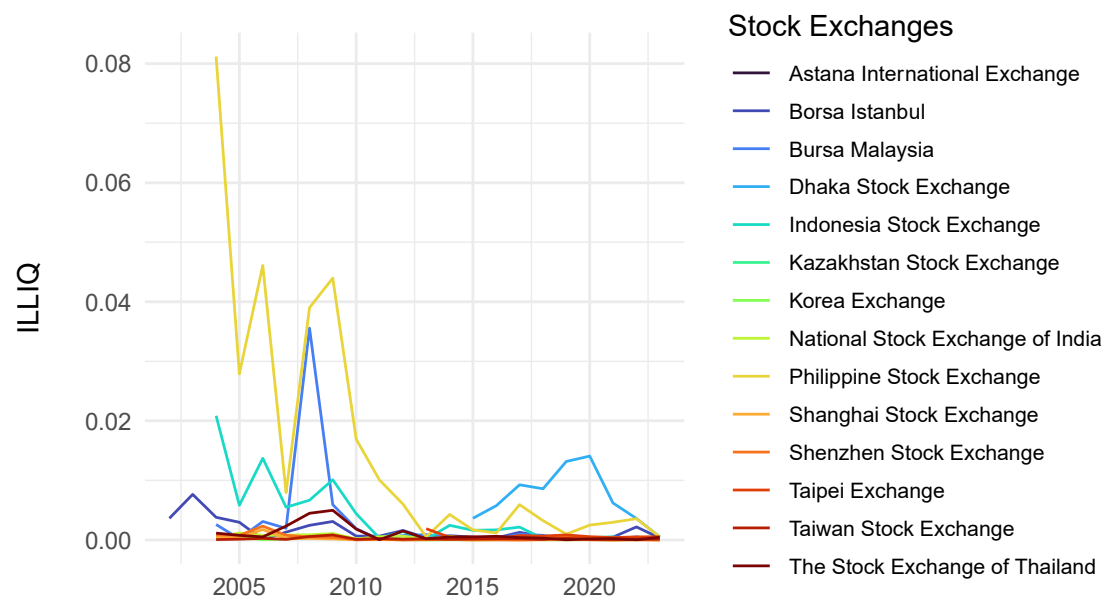
Values are in millions of US dollars

Source: WFE Database

⁹ Only data from 2011 to 2023 was used to construct this graph, as data from earlier periods was unavailable.

Figure 8: Market Liquidity in WFE Emerging and Frontier Markets in Asia

Liquidity is measured by our adapted Amihud illiquidity measure (ILLIQ) (2002)¹⁰.



Source: WFE Database

Note: The Colombo and Chittagong Stock Exchanges were removed due to extreme values.

¹⁰ Only data from 2002 to 2023 was used to construct this graph, as data from earlier periods was unavailable.

Policy Recommendations

To improve liquidity conditions, frontier markets could implement the following policies. As stock exchanges differ significantly from one another, these recommendations may not apply universally, but can still serve as a guiding framework for future policy actions:

Corporate Governance

- Short-Term: Establish a clear set of guidelines defining insider trading, with violations leading to delisting or penalties for share price manipulation.
- Short-Term: Strengthen the enforcement of insider trading regulations and other violations classified as criminal offenses.
- Short-Term: Enhance oversight of auditors to ensure corporate accountability.
- Short-Term: Create an accessible dispute resolution mechanism.
- Medium-Term: Introduce investor protection schemes, such as investor compensation funds.

Ownership Concentration

- Short-Term: Identify the key sources of ownership concentration in the market, such as government entities, family-owned businesses, or institutional investors.
- Short/Medium-Term: Expand the investor base to retail investors, to reduce the dominance of large shareholders.
 - Short-Term: Implement investor education programs.
 - Medium-Term: Incentivise institutional investors through the relaxation of regulatory barriers.

Foreign Investors

- Medium-Term: Promote financial liberalisation.
- Medium-Term: Relaxation of access barriers to foreign investors.

Direct Transaction Costs

- Medium-Term: When possible, remove transaction taxes and lower exchange fees.
- Medium-Term: Introduce competition in the brokerage sector to reduce broker commissions.
- Short-Term: Harmonise existing fees to prevent duplication of charges.

ANNEX – Classification of Emerging and Frontier Markets following the MSCI

Frontier Markets:

Europe:

- NASDAQ OMX Tallinn
- NASDAQ OMX Vilnius
- NASDAQ OMX Nordic Iceland
- NASDAQ OMX Riga

MENA:

- Amman Stock Exchange
- Bahrain Bourse
- Bourse de Casablanca
- Tunis Stock Exchange
- Muscat Stock Exchange

Asia:

- Dhaka Stock Exchange
- Astana International Exchange
- Kazakhstan Stock Exchange
- Colombo Stock Exchange
- Chittagong Stock Exchange

Sub-Saharan Africa:

- Stock Exchange of Mauritius
- Nairobi Securities Exchange
- BRMV

Emerging Markets

Europe:

- Warsaw Stock Exchange
- Athens Stock Exchange

Latin America:

- Rio de Janeiro Stock Exchange
- B3 - Brasil Bolsa Balcão
- Bolsa de Valores de Colombia
- Bolsa de Comercio de Santiago
- Bolsa de Valores de Lima
- Bolsa Electronica de Chile Bolsa Latinoamericana de Valores (Latinex)
- Bolsa Mexicana de Valores

Sub-Saharan Africa:

- Johannesburg Stock Exchange

Asia:

- Korea Exchange
- National Stock Exchange of India
- Taiwan Stock Exchange
- Taipei Exchange
- Shenzhen Stock Exchange
- Shanghai Stock Exchange
- The Stock Exchange of Thailand
- Philippine Stock Exchange
- Bursa Malaysia
- Indonesia Stock Exchange

MENA:

- Borsa Istanbul
- Saudi Exchange (Tadawul)
- Boursa Kuwait
- The Egyptian Exchange
- Qatar Stock Exchange
- Dubai Financial Market
- Abu Dhabi Securities Exchange

Developed Markets

Europe:

- BME Spanish Exchanges
- BME Spanish Exchanges Barcelona
- BME Spanish Exchanges Valencia
- BME Spanish Exchanges Bilbao
- BME Spanish Exchanges Madrid
- Stockholm Stock Exchange

- NASDAQ OMX Nordic Helsinki
- NASDAQ OMX Nordic Copenhagen
- NASDAQ OMX Nordic Stockholm
- SIX Swiss Exchange
- Deutsche Boerse AG
- Boerse Stuttgart Group
- Cboe Europe

Asia:

- Singapore Exchange
- Japan Exchange Group Tokyo
- Japan Exchange Group Osaka
- Japan Exchange Group
- Hong Kong Exchanges and Clearing

Pacific:

- ASX Australian Securities Exchange
- NZX Limited

North America:

- BATS Global Markets
- NYSE
- Nasdaq – US
- Cboe Global Markets
- CME Group
- Canadian Securities Exchange
- TMX Group Limited

References

- Abbassi, W., Hunjra, A. I., Alawi, S. M., & Mehmood, R. (2021). The Role of Ownership Structure and Board Characteristics in Stock Market Liquidity. *International Journal of Financial Studies*, 9(4), 74. <https://doi.org/10.3390/ijfs9040074>
- Abdullah, Z. (2019). *Corporate governance and foreign equity ownership in Malaysian companies*. <https://hdl.handle.net/2134/18430>.
- Al Ani, K., & Al Khatiri, M. (2019). Ownership concentration and firm performance: An empirical analysis in Oman. *The European Journal of Applied Economics*, 16(2), 79–94. <https://doi.org/10.5937/EJAE16-20239>
- Amihud, Y. (2002). Illiquidity and stock returns: Cross-section and time-series effects. *Journal of Financial Markets*.
- Baltagi, B. H., Li, D., & Li, Q. (2006). Transaction tax and stock market behavior: Evidence from an emerging market. *Empirical Economics*, 31(2), 393–408. <https://doi.org/10.1007/s00181-005-0022-9>
- Berglund, T. (2020). Liquidity and Corporate Governance. *Journal of Risk and Financial Management*, 13(3), 54. <https://doi.org/10.3390/jrfm13030054>
- Chowdhury, E. K. (2024). *Capital Market Governance in Bangladesh: A Cornerstone for Growth*. https://mpira.ub.uni-muenchen.de/121664/1/MPRA_paper_121664.pdf
- Chung, K. H., Kim, J.-S., Park, K., & Sung, T. (2012). Corporate Governance, Legal System, and Stock Market Liquidity: Evidence Around the World. *Asia-Pacific Journal of Financial Studies*, 41(6), 686–703. <https://doi.org/10.1111/ajfs.12002>
- Dhaka Stock Exchange. (2024). *2023-2024 Annual Report*.
- Easley, D., & O'Hara, M. (2001). Information and the Cost of Capital. *Cornell University*.
- ECA. (2020). *Innovative finance for private sector development in Africa*. Economic Commission for Africa.
- European Central Bank. (2017). *Financial transaction taxes, market composition, and liquidity.No 2030 / February 2017* . Publications Office. <https://data.europa.eu/doi/10.2866/820552>
- Faccio, M., & Lang, L. H. P. (2000). The Separation of Ownership and Control: An Analysis of Ultimate Ownership in Western European Corporations. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.222429>
- Gabrielsen, A., Marzo, M., & Zagaglia, P. (2011). *Measuring market liquidity: An introductory survey* (arXiv:1112.6169). arXiv. <https://doi.org/10.48550/arXiv.1112.6169>
- Garabedian, G., & Inghelbrecht, K. (2020). The Multiple Dimensions of Liquidity. *Central Bank of Ireland, Research Technical Paper*. [https://www.centralbank.ie/docs/default-source/publications/research-technical-papers/11rt20-the-multiple-dimensions-of-liquidity-\(garabedian-and-inghelbrecht\).pdf?sfvrsn=5](https://www.centralbank.ie/docs/default-source/publications/research-technical-papers/11rt20-the-multiple-dimensions-of-liquidity-(garabedian-and-inghelbrecht).pdf?sfvrsn=5)
- Habermeier, K., & Kirilenko, A. A. (2003). Securities Transaction Taxes and Financial Markets. *IMF Staff Papers*, 50.
- Hunjra, A. I., Perveen, U., Li, L., Chani, M. I., & Mehmood, R. (2020). Impact of ownership concentration, institutional ownership and earnings management on stock market liquidity. *Corporate Ownership and Control*, 17(2), 77–87. <https://doi.org/10.22495/cocv17i2art7>
- Husnain, M., Hashmi, A. M., & Ahmad, M. (2021). Determinants of Stock Market Liquidity: Auto Regressive Distributed Lag Based Evidence from the Emerging Equity Market. *Journal of Business and Social Review in Emerging Economies*, 7(3), Article 3. <https://doi.org/10.26710/jbsee.v7i3.1914>
- IMF. (2015). *Chapter 2: MARKET LIQUIDITY—RESILIENT OR FLEETING?* (Global Financial Stability Report: Vulnerabilities, Legacies, and

Policy Challenges: Risks Rotating to Emerging Markets). https://www.imf.org/External/Pubs/FT/GFSR/2015/02/pdf/c2_v2.pdf

IMF. (2025). *Fostering Capital Markets and Institutional Investor Development in Oman*.
<https://www.elibrary.imf.org/view/journals/002/2025/014/article-A001-en.xml>

IOSCO. (2007). *Factors Influencing Liquidity in Emerging Markets*.

JP Morgan. (2025). *Global Equities Market Charges Guide*.
<https://www.jpmorgan.com/content/dam/jpm/global/disclosures/us/mifidii-global-equities-charges-guide.pdf>

Khan, A., Ahsan, N., & Naoaj, M. S. (2021). Bangladesh. *CFA Institute Research Foundation*.
<https://rpc.cfainstitute.org/sites/default/files/-/media/documents/article/rf-brief/rfbr-apac-capital-markets-bangladesh.pdf>

Lee, C., Chung, K. H., & Yang, S. (2016). Corporate Governance and the Informational Efficiency of Prices. *Financial Management*, 45(1), 239–260.

Lee, J., & Chung, K. H. (2018). Foreign ownership and stock market liquidity. *International Review of Economics & Finance*, 54, 311–325. <https://doi.org/10.1016/j.iref.2017.10.007>

Lei, Q., Lin, B., & Wei, M. (2013). Types of agency cost, corporate governance and liquidity. *Journal of Accounting and Public Policy*, 32(3), 147–172. <https://doi.org/10.1016/j.jaccpubpol.2013.02.008>

Matheson, T. (2011). Taxing Financial Transactions: Issues and Evidence. *IMF Working Paper*.

Morgan Stanley Capital International. (2024). *Market Classification*. <https://www.msci.com/our-solutions/indexes/market-classification>

MSX. (2025). *2024 Annual Report*. <https://www.msx.om/downloads.aspx?b1=Publications&b2=MSX-Annual-Report&c=13&ti=MSX-Annual-Report>

MSX. (2021). *2020 Annual Report*. <https://www.msx.om/downloads.aspx?b1=Publications&b2=MSX-Annual-Report&c=13&ti=MSX-Annual-Report>

MSX. (2018). *2017 Annual Report*. <https://www.msx.om/downloads.aspx?b1=Publications&b2=MSX-Annual-Report&c=13&ti=MSX-Annual-Report>

MSX. (2016). *2015 Annual Report*. <https://www.msx.om/downloads.aspx?b1=Publications&b2=MSX-Annual-Report&c=13&ti=MSX-Annual-Report>

MSX. (2012). *2011 Annual Report*. <https://www.msx.om/downloads.aspx?b1=Publications&b2=MSX-Annual-Report&c=13&ti=MSX-Annual-Report>

MSX. (2010). *2009 Annual Report*. <https://www.msx.om/downloads.aspx?b1=Publications&b2=MSX-Annual-Report&c=13&ti=MSX-Annual-Report>

MSX. (2008). *2007 Annual Report*. <https://www.msx.om/downloads.aspx?b1=Publications&b2=MSX-Annual-Report&c=13&ti=MSX-Annual-Report>

MSX. (2006). *2005 Annual Report*. <https://www.msx.om/downloads.aspx?b1=Publications&b2=MSX-Annual-Report&c=13&ti=MSX-Annual-Report>

New Age. (2025, March 18). *NBR halves capital gains tax*. <https://www.newagebd.net/post/economy/249420/nbr-lowers-capital-gains-tax-on-share-sales-to-boost-stock-market-investment>

Ng, L., Wu, F., Yu, J., & Zhang, B. (2016). Foreign Investor Heterogeneity and Stock Liquidity around the World*. *Review of Finance*,

20(5), 1867–1910. <https://doi.org/10.1093/rof/rfv048>

Ochenge, R., Muriu, P., & Ngugi, R. (2020). Macroeconomic Conditions and Stock Market Liquidity in Kenya. *International Journal of Economics and Finance*, 12(12), 47. <https://doi.org/10.5539/ijef.v12n12p47>

Oliver Wyman, W. (2016). *Enhancing Liquidity In Emerging Market Exchanges*. https://www.world-exchanges.org/storage/app/media/research/Studies_Reports/liquidity-in-emerging-market-exchanges-wfe-amp-ow-report.pdf

Rhee, S. G., & Wang, J. (2009). *Foreign institutional ownership and stock market liquidity: Evidence from Indonesia*.

RisCura. (2018). Cost of trading. *Bright Africa*. <https://brightrafrica.riscura.com/listed-equity/cost-of-trading/>

Shubita, R., & Shubita, M. F. (2019). The impact of foreign ownership on corporate governance: Evidence from an emerging market. *Investment Management & Financial Innovations*, 16(2), 101–115. [https://doi.org/10.21511/imfi.16\(2\).2019.09](https://doi.org/10.21511/imfi.16(2).2019.09)

Thanatawee, Y. (2021). The Impact of Foreign Ownership on Stock Price Volatility: Evidence from Thailand. *The Journal of Asian Finance, Economics and Business*, 8(1), 7–14. <https://doi.org/10.13106/JAFEB.2021.VOL8.NO1.007>

The Business Standard. (2025, January 9). *DSE outlines major reforms, including tax rebate, exposure limits*. The Business Standard. <https://www.tbsnews.net/economy/stocks/dse-outlines-major-reforms-including-tax-rebate-exposure-limits-1039141>

The Financial Express. (2024). *27 listed cos downgraded to “Z” category*. <https://thefinancialexpress.com.bd/stock/bangladesh/27-listed-cos-downgraded-to-z-category>

The Phillipine Stock Exchange. (2024). *December 2024 Monthly Report*. https://documents.pse.com.ph/wp-content/uploads/sites/15/2025/02/12-2024_PSE-Monthly-Report_Preview.pdf

Vo, X. V. (2016). Foreign ownership and stock market liquidity—Evidence from Vietnam. *Afro-Asian J. of Finance and Accounting*, 6, 1. <https://doi.org/10.1504/AAJFA.2016.074540>

WFE. (2024). *Statistics Definitions Manual*. <https://focus.world-exchanges.org/storage/app/media/statistics/WFE%20Statistics%20Definitions%20Manual%202024%20May.pdf>

WFE Data. (2025). *WFE Statistics Portal*. <https://www.world-exchanges.org/our-work/statistics>