

## Five Key Considerations for Developing the KOSDAQ Market together with Nurturing Innovative Firms

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There are growing calls for Korea to nurture innovative firms and further develop the KOSDAQ as their exit market. This article presents five key points to ponder in this regard. Firstly, the achievements of the KOSDAQ market cannot be measured only by the KOSDAQ composite index. A holistic evaluation approach is needed to include the effects of firms' share listing transfer from the KOSDAQ to the KOSPI. Secondly, it should be noted that excessive policy support and interest towards the KOSDAQ are likely to cause some KOSPI stocks to be neglected. Thirdly, rebuilding trust is crucial for the KOSDAQ market, which is dominated by small-cap stocks and retail investors. Fourthly, policy support for innovative firms should not be limited only to quantitative approaches. Lastly, the development of the KOSDAQ should be viewed in light of fostering the qualitative growth of innovative firms, and reshaping infrastructure for capital market development.

Founded in July 1996, the KOSDAQ stock market has acted as the cradle of Korean innovative firms, being likened to the NASDAQ market in the US. Over the past 21 years, the number of companies trading on the KOSDAQ has increased from 343 at its inception to 1,263. Despite the recent rally, however, the KOSDAQ composite index remains 250 points below the base of 1000 points set upon the market launch. It appears to have performed poorly, compared to the NASDAQ index that recently made new highs and soared more than 34%, exceeding its previous peak during the dot-com boom in early 2000.

\* All opinions expressed in this paper represent the author's personal views and thus should not be interpreted as Korea Capital Market Institute's official position.

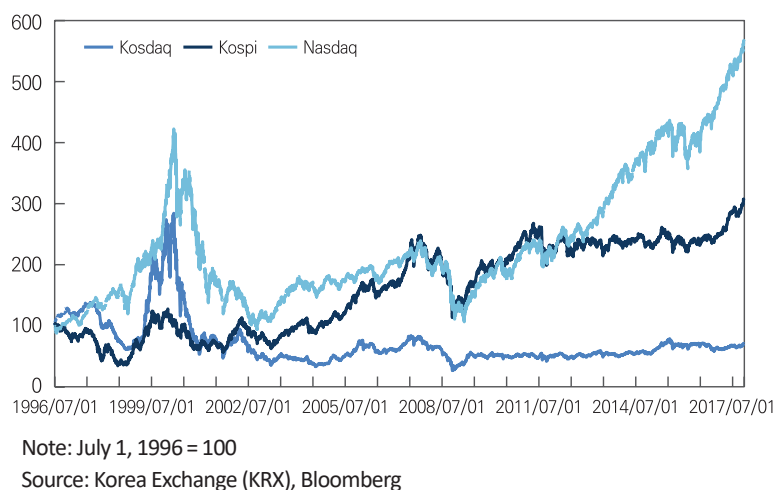
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This leads to mounting concerns over whether the KOSDAQ market functions well as the exit market for innovative firms. A call for stronger policy support is gaining strength. Against the backdrop, this article intends to present five key points to ponder when developing the KOSDAQ market together with nurturing innovation firms.

### Point 1: The KOSDAQ index does not show all of the KOSDAQ's achievements.

If we look at the very low KOSDAQ index compared to the NASDAQ index, we may conclude that the KOSDAQ market has structural problems and fails to function as the exit market for innovative companies. However, we should think long and hard about whether the KOSDAQ index accurately reflects the achievements of KOSDAQ-registered innovative firms.

**Figure 1. Historical Chart of KOSDAQ, KOSPI and NASDAQ Indices**



Unlike the NASDAQ, the KOSDAQ saw high-quality companies shift their listing to the KOSPI market. So far, 87 firms moved their shares from the KOSDAQ to the KOSPI. This number reaches 70 even after excluding 17 delisted firms. Among them, there are large-cap companies such as Naver (ranking 6<sup>th</sup> in the KOSPI market<sup>1)</sup>), NC Soft (33<sup>rd</sup>), Industrial Bank of Korea (36<sup>th</sup>), and Hyundai Heavy Industries (37<sup>th</sup>). 15 companies on the KOSPI's top 200 list moved from the KOSDAQ market. The aggregated market capitalization (market cap) of the firms that moved to the KOSPI represents 6.3% of the KOSPI's market cap, and 36.3% of the KOSDAQ's market cap.

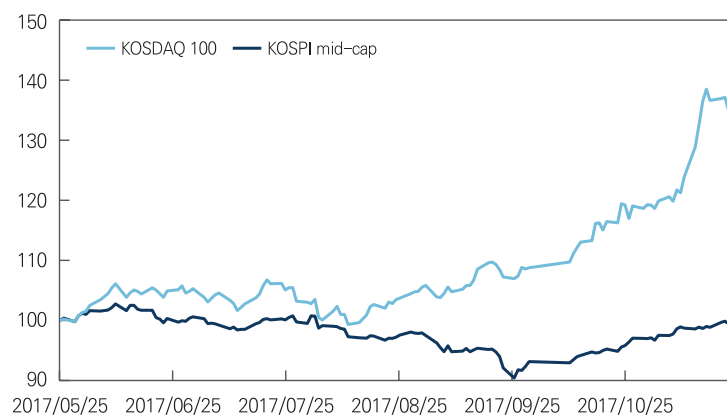
1) The aforementioned ranking is based on market capitalization as of December 5, 2017.

Given the companies that grew in the KOSDAQ and moved to the KOSPI, the accomplishments of KOSDAQ-registered companies should not necessarily be measured only by the KOSDAQ index, even though we cannot assume that the market cap of these firms would be the same if they had stayed in the KOSDAQ. The overall achievements of the KOSDAQ could be overly underestimated if the KOSDAQ index is used as a sole measure.

### Point 2: The likelihood of some KOSPI-listed firms being neglected should be noted.

The question can be raised about whether only KOSDAQ-registered firms are innovative. The KOSDAQ attracts and welcomes companies from the technology sector. And KOSDAQ-traded firms are smaller in size and have higher growth potential than KOSPI-listed firms. Nevertheless, it is very difficult to clearly distinguish the KOSDAQ and the KOSPI. By firm size, the average market cap of the KOSDAQ's top 100 stocks is very similar to that of the KOSPI's top 200 mid-cap stocks<sup>2)</sup>. But the two markets have been in stark contrast to each other in terms of index performance since September 2017.

**Figure 2. Movements of KOSDAQ 100 index and KOSPI mid-cap index**



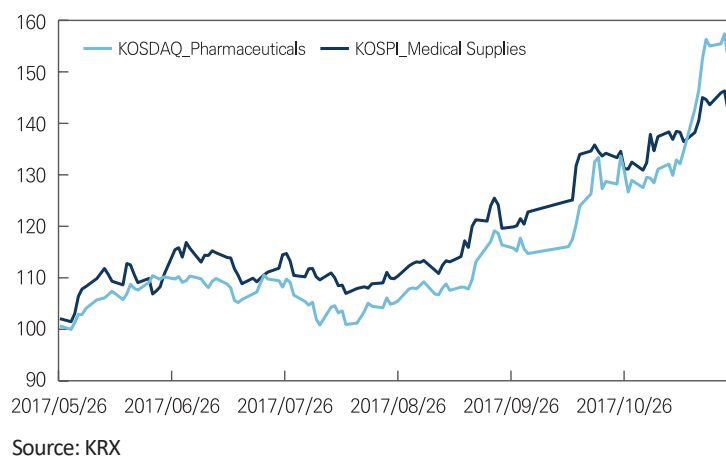
Source: KRX

Even if there is little difference in the market cap between the KOSPI and KOSDAQ stocks, returns may move in different directions depending on sector composition. However, marked stock price differences are recently observed between similar sector indices of the two markets.

2) For the period from November 28, 2016 to November 27, 2017, the average market cap of KOSPI mid-cap 200 stocks (101<sup>st</sup> to 300<sup>th</sup>) stands at KRW 880 billion. The market cap of KOSDAQ 100 stocks is averaged at KRW 861.5 billion.

When looking at price movements in the KOSDAQ Pharmaceuticals Index, which consists primarily of recently attention-grabbing biotech stocks, and the corresponding KOSPI Medical Supplies Index, the gap between the two sector indices has been widening since the KOSDAQ Pharmaceuticals Sector Index began to skyrocket in mid-November 2017. This implies that policy support for the KOSDAQ market should be in line with the nurturing of innovative firms, among other things.

**Figure 3: Recent trends in the KOSDAQ Pharmaceuticals Sector Index and the KOSPI Medical Supplies Index.**



### Point 3: Restoring trust is crucial for the flourishing KOSDAQ market.

The vast majority (85.5%) of traders in the KOSDAQ market are retail investors<sup>3)</sup>. The proportion of improper transactions is also high in the KOSDAQ, in addition to the dominance of individual investors. The Financial Supervisory Service (FSS), Korea's financial regulator, unveiled that out of 208 new unfair stock trading cases reported in 2016, 130 cases occurred in the KOSDAQ and 68 cases took place in the KOSPI. Improper transactions in the KOSDAQ almost doubled those in the KOSPI.<sup>4)</sup>

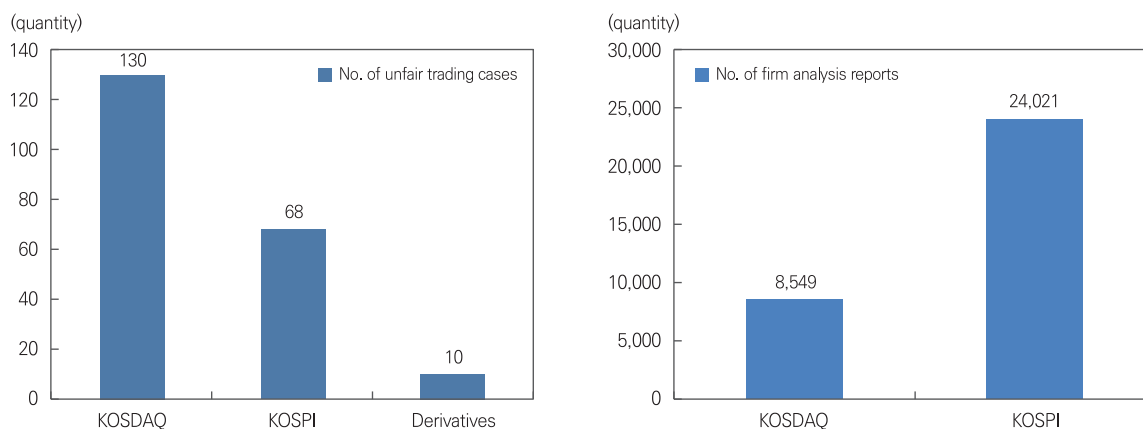
The large number of unfair trades in the KOSDAQ is due in part to the lack of transparency. For the whole year of 2016, analysts issued reports on 445 KOSPI-listed firms and 591 KOSDAQ-registered firms. In terms of the number of released reports, the KOSDAQ made up a 26.2% of the total whereas the KOSPI accounted for 73.8%.<sup>5)</sup>

3) This proportion is measured by average trading value for the latest six months (from May 22, 2017 to November 20, 2017).

4) FSS, January 25, 2017, *2016 Reported Improper Transactions in the Capital Markets and Investment Cautions*, Press Release.

5) Korea Investor Relations Service (KIRS), March 7, 2017, *Current State of Company Analysis Report Issuance*.

**Figure 4. 2016: No. of unfair trading cases (left) No. of firm analysis reports (right)**

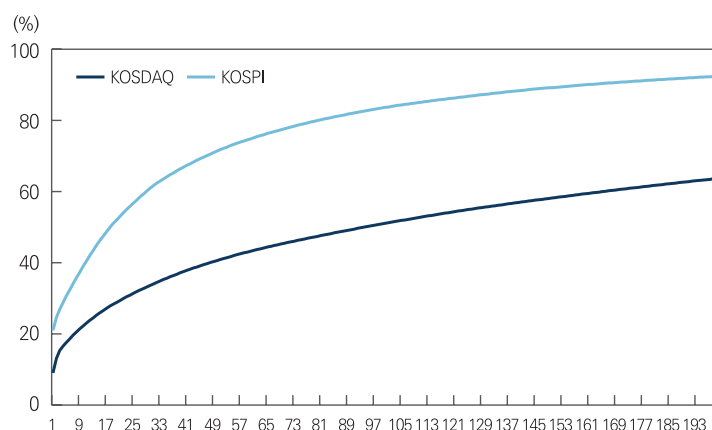


Source: FSS, KIRS

Furthermore, the KOSDAQ market exhibited a lower proportion of large-cap stocks than that in the KOSPI market. Consequently, even if the number of index constituents is the same, their market representation differs significantly. The top 200 stocks by market cap represent 92.2% of the entire market cap for the KOSPI but merely 63.6% for the KOSDAQ. That is, the KOSDAQ has a far greater number of smaller-cap companies than the KOSPI. This calls for caution even when investing in KOSDAQ index products. For that reason, concerns arise over sharply growing exchange-traded fund (ETF) trusts in the KOSDAQ market, catering to retail investors who are not familiar with online trading platforms, e.g., home trading system (HTS) and mobile trading system (MTS). That is because this type of instrument lacks advantages of ETF investing, such as low fees, and trading on the secondary market.<sup>6)</sup>

6) Mail Business News, November 29, 2017, *Not only banks but also pension funds are scrambling to bet on leveraged ETFs in the KOSDAQ market.*

**Figure 5. Cumulative market capitalization: KOSPI vs. KOSDAQ**



Note: The horizontal axis indicates the number of firms ranked by market cap.

Source: KRX

### **Point 4: Policy support for innovative firms should not be limited only to quantitative approaches.**

Despite many similarities between the nurturing of innovative firms and the development of the KOSDAQ market, we should note that these two may not be the same. The KOSDAQ plays a pivotal role as the exit market for innovative firms. However, a recent study of companies listed on the NASDAQ<sup>7)</sup> found that going public may slow down innovation. According to the study, the quality of innovation at companies, measured by patent citations, declined 40% after they went public. In addition, the IPO led to an exodus of key innovative employees and the repositioning of R&D investments towards conventional projects. Not only that, newly public firms acquired new technologies by taking over external innovative firms. These study findings, of course, neither reduce the significance of innovative firms going public or nor mean that going public would have the same effects on KOSDAQ-registered firms. Rather, they highlight the need for taking not only quantitative but also qualitative policy approaches to fostering the birth and growth of innovative firms.

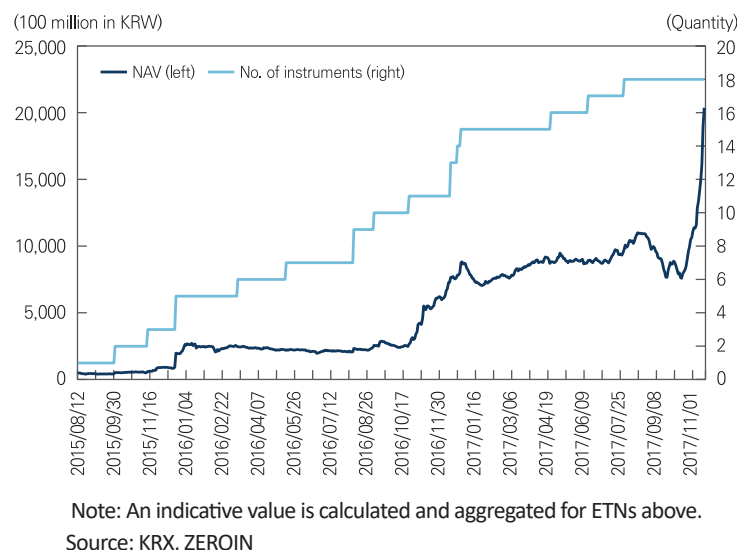
7) Bernstein, S., 2015, *Does going public affect innovation?* The Journal of Finance, 70(4), 1365-1403.

### Point 5: Developing the KOSDAQ market should be viewed in light of reshaping capital market infrastructure.

Nurturing innovative firms cannot be considered the same as developing the KOSDAQ market, but the KOSDAQ still remains important for innovative firms. Despite its role in enabling tech firms to access the capital markets at more favorable terms, the KOSDAQ was regarded less viable.

However, this stock market has gradually rebounded since the second half of 2016, not to mention the latest rally. The portion of individual investors in the market has declined slightly, following a rise in the trading volume of KOSDAQ 150 futures, and increases in the quantity and net asset value (NAV) of instruments including KOSDAQ index funds, ETFs, and exchanged traded notes (ETNs). If steady efforts can be made to cultivate expertise and satisfy the needs of market participants, underpinned by the stable allocation of talent and resources to the market, the outlook for the KOSDAQ will become much brighter. To this end, developing the KOSDAQ market should be designed to be aligned with nurturing high-quality innovative firms and at the same time should be viewed in light of reshaping infrastructure for capital market development<sup>8)</sup>.

**Figure 6. Quantity and NAV of instruments including KOSDAQ index funds, ETFs, and ETNs**



8) Gilnam Nam, 2017, *Trends and Main Drivers in the Global Exchange Industry*, KCMi Research Paper 17-01.