

OPINION

Geun-hyuk Jang

The Need for Loss Netting in the Education Tax Base: Focusing on Market Makers and Liquidity Providers

Market makers (MMs) and ETF liquidity providers (LPs) in the stock market inherently engage in both trading and hedging transactions as part of their liquidity provision activities. Accordingly, the net profit or loss resulting from the netting of gains and losses on these transactions represents their actual earnings, which is economically analogous to brokerage commissions. Under the current Education Tax framework, however, loss netting is not recognized, and only gains on securities transactions are included in the tax base. The transactions of MMs and LPs are fundamentally distinct from purely investment-driven securities trading or the deposit-and-lending structure of banks, and are more comparable in nature to foreign exchange and derivatives transactions conducted by banks in the foreign exchange market, where loss netting is already permitted.

Since the second half of 2025, a combination of a buoyant stock market, rapid growth in the ETF market, and increased market volatility has led to a significant expansion in the scale of MM and LP liquidity provision transactions and securities trading gains. This increase in trading gains reflects not merely a superficial expansion in scale, but a broader growth in the liquidity provision role within the capital markets. Nevertheless, as the gap between the Education Tax base — calculated solely on trading gains — and actual net profit or loss continues to widen, the introduction of a new top-rate tax bracket of 1% may place additional burdens on the ability of MMs and LPs to fulfill their liquidity provision roles.

Given that MMs and LPs support the smooth functioning of markets for retail investors through enhanced market liquidity and improved price discovery, there is a need to consider introducing loss netting into the Education Tax base applicable to their transactions. A phased approach could be considered, starting with the

* 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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application of loss netting to securities transactions, and gradually extending the scope to include related derivatives transactions over the medium to long term, while taking into account the impact on tax revenues.

The Education Tax levied on financial institutions uses revenue amounts as the tax base (Article 5, Paragraph 3 of the Education Tax Act), with only gains included in the tax base on a per-revenue-item basis and losses not permitted to offset gains. Among these items, net profits from foreign exchange and “derivatives, etc.” transactions are subject to tax after loss netting,¹⁾ whereas for securities transactions, only trading gains are included in the tax base, and the inability to offset trading losses has been a persistent concern.²⁾ Against this backdrop, the newly enacted Article 4-2 of the Enforcement Decree (February 2026) stipulates that, for government bonds only, net profits after loss netting shall be used as the revenue amount. This is understood to reflect concerns that a contraction in securities firms’ government bond trading could lead to reduced liquidity and rising interest rates in the government bond market,³⁾ as well as the importance of ensuring stable liquidity supply in the government bond market following Korea’s inclusion in the World Government Bond Index (WGBI).⁴⁾

Meanwhile, as domestic stock market gains continued from the second half of 2025, the absolute scale of securities trading gains and losses arising from the liquidity provision activities of stock market makers (hereinafter “MMs”) and ETF liquidity providers (hereinafter “LPs”) increased rapidly. As trading gains directly translate into a higher Education Tax base in

1) Under Article 4, Paragraph 1, Item 5 of the Enforcement Decree of the Education Tax Act, loss netting is applied to net profits, which include gains and losses on transactions involving “derivatives, etc. (including derivative-linked securities and derivatives),” foreign exchange trading gains and losses, and valuation gains and losses on monetary foreign-currency assets and liabilities.

2) For a detailed discussion of the structure of the Education Tax base for financial institutions and the issue of loss netting, see: Jang Geun-hyeok, 2025, “The Education Tax Base for Financial Institutions and the Need for Loss Netting,” Capital Market Focus, Vol. 2025-20, Korea Capital Market Institute (hereinafter “Jang, 2025”); Lee Young-han, Moon Sung-hoon, Park Hoon, and Cho Hyung-tae, 2025, “A Study on the Reform of the Education Tax on Financial and Insurance Businesses,” Tax Accounting Research, Vol. 42(1) (hereinafter “Lee et al., 2025”); Lee Ye-ji, 2023, Issues and Improvement Tasks in the Education Tax Base for Financial and Insurance Businesses, Research Report, National Assembly Research Service (hereinafter “Lee, 2023”).

3) Jang, 2025; Kim Pil-gyu and Jeong Hwa-young, 2023, Current Status and Liquidity Analysis of Korea’s Government Bond Secondary Market, Research Report 23-10, Korea Capital Market Institute.

4) Market liquidity conditions are a key criterion for WGBI inclusion (FTSE Russell, 2022, FTSE Fixed Income Country Classification Process).

the absence of loss netting for securities transactions, the introduction of a new top-rate tax bracket of 1%⁵⁾ may place additional burdens on the liquidity provision activities of MMs and LPs. This paper discusses the need to introduce loss netting for the transactions of MMs and LPs, in light of their liquidity provision characteristics.

Roles and Transaction Structures of Market Makers (MMs) and Liquidity Providers (LPs)

Securities firms serve as MMs or LPs in the stock and ETF markets, facilitating smooth trading for investors through liquidity provision and enhancing the price discovery function.⁶⁾ While the two schemes differ in certain respects — such as the types of eligible securities and contractual arrangements — they are functionally equivalent in that both are obligated to submit two-sided bid and ask quotes to activate trading.⁷⁾

(Stock Market MMs)

Stock market MMs enter into market-making agreements with the exchange and are obligated to continuously submit two-sided bid and ask quotes for low-liquidity securities (see Figure 1). Unlike ordinary investors who seek capital gains, MMs execute buy or sell transactions in response to their submitted quotes, and the revenue generated from the bid-ask spread is economically analogous to brokerage commissions.

To illustrate with the simplest market-making example, assume that in Figure 1, a MM purchases 10 shares at KRW 10,000 and subsequently sells 10 shares at KRW 10,100 (①). In this case, a securities trading gain of KRW 1,000 (KRW 100 × 10 shares) is included in the Education Tax base, and as this gain is comparable in nature to a brokerage commission of KRW 100 per share,⁸⁾ there is no issue with including only the trading gain in the tax base. In some

5) Prior to the amendment of the Education Tax Act in December 2025, a flat rate of 0.5% applied; following the amendment, a rate of 1% applies to the portion of the tax base exceeding KRW 1 trillion.

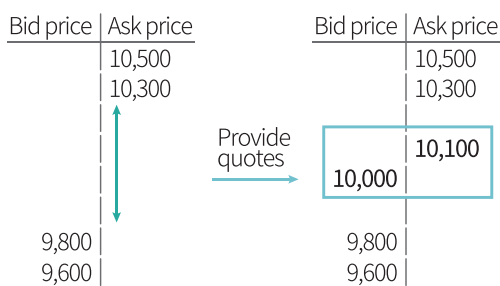
6) Lee Woo-baek, 2022, “An Analysis of the Effectiveness of Market Makers in Improving Stock Market Liquidity,” Korean Journal of Financial Studies, Vol. 51(1); Lee Woo-baek, 2022, “Performance Analysis of Liquidity Providers (LPs) in the Korean Stock Market,” Journal of Finance and Accounting, Vol. 39(4).

7) MMs enter into agreements between the exchange and securities firms, whereas LPs enter into agreements between the listed company and securities firms. Both schemes are subject to obligations under the Korea Exchange Securities Market Business Regulations (Articles 20-2 through 20-11).

8) While brokerage commissions are received as consideration for connecting buyers and sellers when their prices match, MMs and LPs differ in that they become the direct counterparty to buyers or sellers through the submission of quotes. Nevertheless, the two are economically similar in that both represent compensation for a service that facilitates trade execution in the market.

cases, however, positions may accumulate unilaterally during the course of liquidity provision. When this occurs, the MM maintains a neutral position through hedging transactions using futures or similar instruments. For example, suppose that in a declining market, only buy quotes are executed, resulting in the purchase of 10 shares at KRW 10,000, after which prices fluctuate and the shares are eventually sold — 5 shares at KRW 9,600 and 5 shares at KRW 10,600 (②). While the average selling price of the 10 shares comes to KRW 10,100, resulting in a net profit of KRW 1,000 from the liquidity provision activity (see Table 1), the securities trading gain of KRW 3,000 is applied as the Education Tax base. When price volatility is zero, as in scenario ①, the net profit and the trading gain coincide; however, the greater the price volatility, the wider the gap between the net profit and the Education Tax base may become, as illustrated in scenario ②.

Figure 1. Liquidity Provision Example



Source: Jang (2025)

Table 1. Education Tax Base Example

(Unit: KRW)		
Price (Shares)	Gain	Loss
9,600 (5sh)		2,000
10,600 (5sh)	3,000	
Education Tax Base	3,000	

Note: After purchasing 10 shares at KRW 10,000 and subsequently selling them, the net profit or loss is KRW 1,000 (= KRW 3,000 – KRW 2,000); however, trading gains of KRW 3,000 are applied as the Education Tax base.

(ETF LPs)

Like MMs, ETF LPs are obligated to submit two-sided mandatory quotes when the bid-ask spread of an ETF exceeds a certain threshold,⁹⁾ and are additionally required to manage the tracking difference so that the ETF's trading price converges to its net asset value (NAV).¹⁰⁾ In other words, ETF LPs perform not only liquidity provision but also the role of maintaining appropriate ETF pricing for the protection of investors.

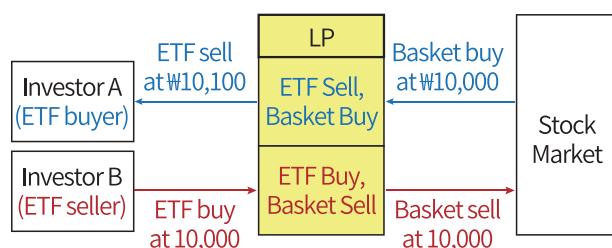
9) When the bid-ask spread of a security covered under a liquidity provision agreement exceeds a certain intraday threshold (within 2% for ETFs tracking domestic underlying assets), the ETF LP must submit mandatory two-sided quotes of at least five times the minimum trading unit within five minutes (Korea Exchange Securities Market Business Regulations, Article 20-4, Paragraph 1).

10) The LP bears the obligation to submit liquidity provision quotes so that the tracking difference does not exceed 3% (or 6% for ETFs tracking overseas underlying assets), ensuring that the ETF price converges to the per-unit net asset value (NAV) (Korea Exchange Securities Market Business Regulations, Article 20-4, Paragraph 2).

As with MMs, trading gains and losses are structurally intermingled in ETF LP transactions due to the hedging activities that accompany ETF spot trading. To hedge against price movement risk arising from ETF trading, ETF LPs maintain a neutral position by directly trading the basket of individual stocks underlying the ETF. For example, when buy demand increases for a KOSPI200-tracking ETF, an LP selling the ETF to investors will purchase the constituent KOSPI200 stock basket as a hedge. The acquired stock basket is then utilized to supply additional ETF units,¹¹⁾ and through this process of responding to ETF supply and demand, the LP simultaneously provides liquidity and manages the ETF's tracking difference.

Figure 2 illustrates this hedging structure. Suppose that an LP sells an ETF to Investor A at KRW 10,100 and purchases a stock basket at KRW 10,000 as a hedge. If share prices remain unchanged after the transaction, the LP purchases the ETF at KRW 10,000 from Investor B, who wishes to sell, and sells the stock basket at the original purchase price of KRW 10,000 through a hedging transaction (③). In this case, the trading gain on the stock basket is zero, and the ETF bid-ask spread of KRW 100 constitutes the ETF trading gain — which is comparable in nature to a brokerage commission — and there is no issue with including only the trading gain in the tax base. However, when share prices change, both trading gains and trading losses arise on the ETF and stock basket. For example, suppose the KOSPI index declines such that the ETF price falls to KRW 9,500, and the LP purchases the ETF from Investor B and sells the stock basket at KRW 9,500 (④). Table 2 summarizes the trading gains and losses in this scenario: while the net profit is KRW 100, the same as in scenario ③, the combined ETF and stock basket trading gain of KRW 1,100 is applied as the Education Tax base. As with the MM example, when price volatility is zero as in scenario ③, the net profit and the trading gain coincide; however, the greater the price volatility, the wider the gap between the net profit and the Education Tax base may become, as illustrated in scenario ④.

11) Under the ETF creation and redemption mechanism, an LP that delivers a stock basket to an asset management company can receive additional ETF units in return, thereby adjusting the supply of ETFs and reducing the tracking difference.

Figure 2. Hedging Transaction Structure of ETF LPs

Note: Arrows indicate the flow of ETFs and stocks from the LP's perspective.

Table 2. Example of Education Tax Base Calculation

(Unit: KRW)

Transaction	Gain	Loss
ETF buy at 9,500 ETF sell at 10,100	600	
Hedging trade Stock basket ¹⁾	500	1,000
Education Tax Base ²⁾	1,100	

Note: 1) As the stock basket contains both appreciating and depreciating stocks, trading gains and losses may arise simultaneously (assumed to be KRW 500 and KRW 1,000, respectively).

2) While the net profit or loss is KRW 100 (= KRW 600 + KRW 500 – KRW 1,000), trading gains of KRW 1,100 constitute the Education Tax base.

The Need for Loss Netting in MM and ETF LP Transactions

As discussed above, the transactions carried out by MMs and ETF LPs constitute bundled transactions, and the net profit after loss netting represents their actual earnings.¹²⁾ This is analogous to the way in which brokerage commissions charged by securities firms themselves constitute the tax base. By contrast, purely investment-driven securities trading — such as investment in collective investment vehicles like real estate funds — is fundamentally different in nature, and is more comparable to the structure whereby banks deploy deposit-funded capital into loans to earn interest income. Ultimately, the transactions of stock MMs and ETF LPs are fundamentally distinct from purely investment-driven trading or bank lending, in that they involve acting as the counterparty to other investors' transactions to supply liquidity. Table 3 summarizes a comparison of transaction types by category.

12) This analysis assumes the case in which loss netting results in a net profit. If a net loss arises, the tax base would be zero if loss netting were recognized.

Table 3. Comparison of Education Tax Base Calculation Methods by Transaction Type

Category	Primary Industry	Nature of Transaction	P&L Structure	Tax Base	Loss Netting
Brokerage commissions	Securities firms	Trade intermediation	Commission income	Commission	N/A
MM, LP transactions	Securities firms	Liquidity provision	Trading gains and losses mixed	Trading gains	Required but not recognized
FX and derivatives	Banks	Liquidity provision	Trading gains and losses mixed	Net profit	Already netted
Pure securities investment	Securities firms	Pursuit of trading gains	Trading gains generated	Trading gains	N/A
Loans	Banks	Pursuit of interest income	Interest income only	Interest income	N/A

As shown in Table 3, net profits after loss netting are already recognized as the tax base for foreign exchange and “derivatives, etc.” transactions (Article 4, Paragraph 1, Item 5 of the Enforcement Decree). This can be understood as reflecting the recognition that trading gains and losses are structurally intermingled in the course of banks providing foreign exchange and currency hedging services to customers in the foreign exchange market. The liquidity provision role that securities firms perform in the stock and ETF markets is comparable in nature to the role that banks perform in the foreign exchange market, and accordingly, net profits after loss netting should also be recognized as the tax base for the securities transactions of MMs and ETF LPs.

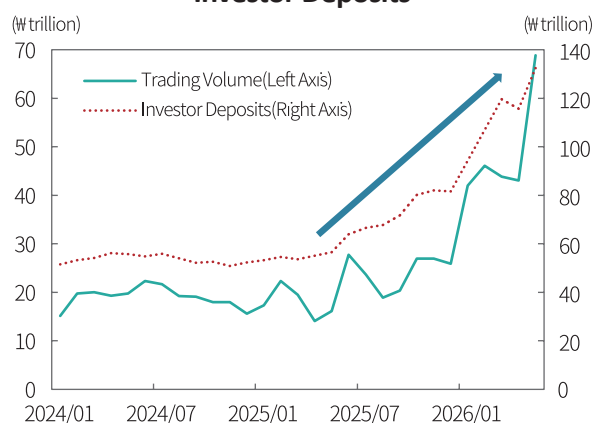
As illustrated in Tables 1 and 2, a gap exists between the net profit or loss and the Education Tax base in MM and ETF LP transactions, and this gap may widen further as share price volatility increases. Even when a net loss is incurred, Education Tax may still be levied as long as trading gains exist; and even when a net profit is recorded, the Education Tax assessed on the full amount of trading gains may exceed the net profit, resulting in an after-tax loss. In particular, during periods of sharp share price fluctuations — such as when a sidecar is triggered — the liquidity provision and price discovery functions of MMs and LPs become increasingly critical to market stability. Nevertheless, the current method of calculating the Education Tax base may place a burden on the liquidity provision and ETF product supply roles of MMs and ETF LPs, and if such a burden persists, it could lead to a decline in market liquidity and a weakening of the price discovery function, with adverse implications for investor protection as well.

Current Market Conditions and the Timeliness of the Discussion

As discussed above, the burden on MMs and LPs arising from the current Education Tax framework has been further compounded by a combination of rising share price indices, increased market volatility, and rapid growth in the ETF market. The following section examines these market conditions in detail.

Since the second half of 2025, a sustained bull market in domestic equities has broadened the investor base and led to a rapid increase in trading volumes (Figure 3). As share price levels have risen alongside the index, the absolute scale of securities trading gains and losses arising from MM and LP trading activities has expanded correspondingly. Market volatility has also increased (Figure 4), and as discussed above, greater price fluctuations raise the likelihood of one-sided order execution for MMs and LPs, causing both trading gains and losses to grow and potentially widening the gap between net profit or loss and trading gains (the Education Tax base).

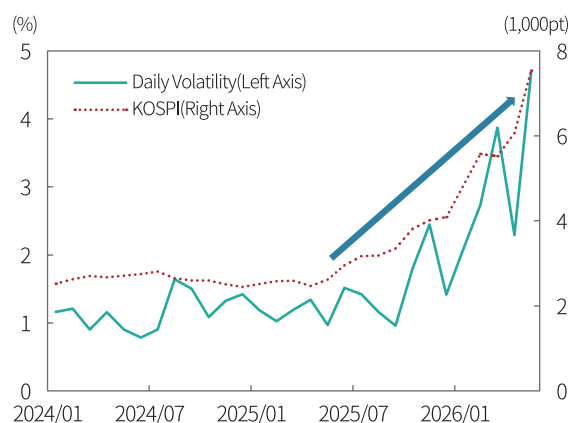
Figure 3. Stock Market Trading Volume and Investor Deposits



Note: Combined KOSPI and KOSDAQ markets, monthly daily average.

Source: DataGuide

Figure 4. KOSPI¹⁾ & Volatility²⁾



Note: 1) Monthly average of index closing prices.

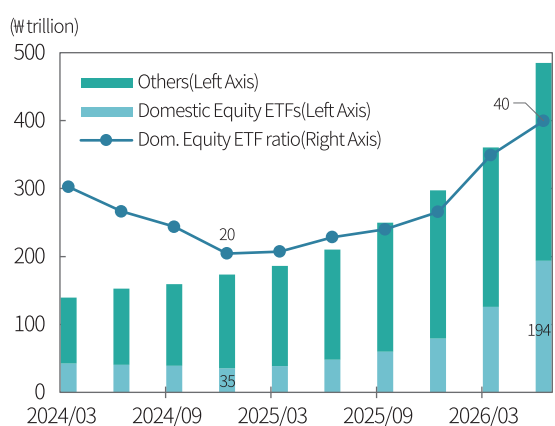
2) Monthly average of intraday index range '(High - Low) / Low'.

Source: DataGuide

It is also worth noting the rapid growth of the ETF market, driven in particular by domestic equity ETFs. The net assets of domestic equity ETFs increased 5.5-fold from KRW 35 trillion at end-2024 to KRW 194 trillion as of May 2026, with their share of total ETF net assets rising sharply from 20% to 40% over the same period (Figure 5). ETFs enable investors to gain exposure to a broad range of securities with relatively small amounts of capital, reducing risk

through diversification compared to investing in individual stocks. ETFs have therefore played a role in improving retail investor access to the stock market and promoting a culture of diversified investing as part of the broader effort to invigorate the equity market, while ETF LPs perform an important function in supporting the price stability and liquidity of these ETFs.

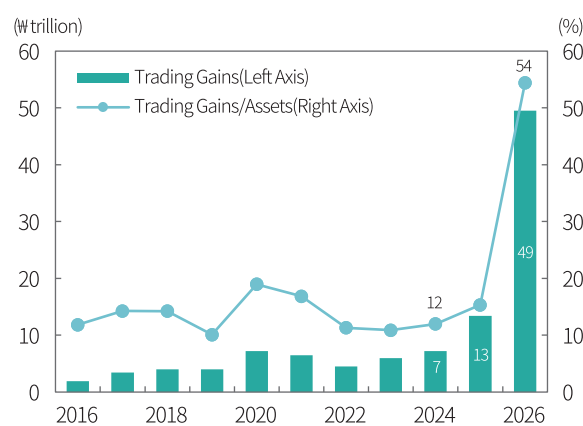
Figure 5. ETF Net Asset Trends



Note: Domestic equity includes equity funds and balanced equity funds; others include overseas equity funds, bond funds, etc. Q2 2026 data is as of May 22.

Source: Korea Financial Investment Association

Figure 6. Trading Gains on Stocks and Collective Investment Securities



Note: Aggregate of top 10 securities firms by equity capital. 2026 trading gains are estimated as four times the Q1 figure; assets (stocks and collective investment securities) are based on end-of-Q1 values.

Source: Business reports of individual firms

Against the backdrop of these market developments, the scale of MM and LP liquidity provision activities has also expanded. To examine changes in trading gains as reflected in the Education Tax base, this paper uses trading gains on stocks and collective investment securities (disposal gains) as reported in income statements.¹³⁾¹⁴⁾ Among the top 10 securities firms by equity capital, the relevant trading gains increased approximately sevenfold, from KRW 7.2 trillion in 2024 to KRW 49.5 trillion in 2026. The ratio of trading gains to assets, which averaged around 13% during 2016–2024, began rising from 2025 and surged to 54% in 2026 (Figure 6).¹⁵⁾

13) Trading gains on securities under the Education Tax base are calculated as the sale price less the acquisition cost (purchase price plus incidental costs) (Article 5, Paragraph 3 of the Education Tax Act), while disposal gains in financial statements are calculated by deducting book value; accordingly, the two figures may differ. However, as Lee et al. (2025) estimated the effects of loss netting on securities transactions using income statement data (while noting the need for caution in interpretation), this paper adopts the same approach (see Jang, 2025; Lee et al., 2025).

14) Trading gains on securities transactions conducted by stock MMs and ETF LPs are included in trading gains on stocks and collective investment securities.

15) Trading gains and assets cover stocks and collective investment securities only, while net profit includes all items. The 2026

The ratio of trading gains to net profit also rose from an average of 130% over the same period to 175% in 2025, and increased sharply to 364% in 2026. This reflects a situation in which the rapid expansion of MM and LP liquidity provision activities — driven by the bull market and increased market volatility — has significantly raised the share of trading gains relative to asset size and total net profit compared to historical levels. Rather than viewing this simply as a superficial expansion in scale, it should be understood as an expansion in the liquidity provision role, analogous to the role that banks play in the foreign exchange market.

Conclusion

This paper has examined the distinctive characteristics of MM and ETF LP transactions in the stock market and discussed the need to introduce loss netting between trading gains and losses on securities transactions for the purposes of calculating the Education Tax base. As MM and LP transactions structurally entail both trading and hedging activities in the course of liquidity provision, the net profit or loss after netting represents their actual earnings, which is comparable in nature to brokerage commissions. Meanwhile, since the second half of 2025, a combination of a buoyant stock market, rapid ETF market growth, and increased market volatility has led to a significant expansion in the scale of MM and LP liquidity provision transactions, widening the gap between the Education Tax base — which includes only trading gains — and actual net profit or loss. The introduction of a new top-rate tax bracket of 1% may place additional burdens on the liquidity provision roles of MMs and LPs.

MMs and LPs play an important role in supporting smooth trading for retail investors through enhanced market liquidity and improved price discovery. In light of this, there is a need to consider introducing loss netting into the Education Tax base applicable to MM and LP transactions at a time when the stock and ETF markets continue to grow. A phased approach could be considered, starting with the introduction of loss netting for securities transactions, and gradually extending the scope to cover related derivatives transactions over the medium to long term, while taking into account the impact on tax revenues.¹⁶⁾

asset figure is based on end-of-first-quarter values, and trading gains are annualized by multiplying the first-quarter figure by four.

16) As noted by Jang (2025), given that the majority of securities transactions by securities firms arise in the course of supplying various financial products to customers — such as repurchase agreements (RPs) and equity-linked securities (ELS) — there may also be a need to consider, over the longer term, extending loss netting to securities and derivatives transactions more broadly.