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Recent Co-Movement between the Korean Won and the Chinese Yuan

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1. The recent rise in global trade protectionism has increased uncertainty regarding the future path of the Chinese yuan (CNY), thereby drawing greater attention to the effects of CNY movements on the Korean won (KRW). Against this backdrop, this paper investigates the background and stylized facts of the synchronization between the KRW and the CNY. Based on empirical analysis, it documents the key characteristics of this co-movement across countries, over time, and under different exchange rate regimes, and derives relevant implications.

2. The KRW and CNY have exhibited a consistently high degree of co-movement, although the strength of this correlation has fluctuated over time. The correlation coefficient rose markedly during several key periods: the U.S.-China trade tensions under the first Trump administration (April 2018-September 2019), the Federal Reserve's rate hike cycle (February 2022-April 2023), and the period following Trump's second election victory in October 2024. This pronounced synchronization appears to be driven by structural factors, including the dominant role of the U.S. dollar (USD), Korea's close economic linkages with China, and prevailing practices in the foreign exchange market.

3. On a cross-country basis, the KRW records the highest co-movement coefficient with CNY among 33 currencies. This strong association reflects Korea's intensive trade and financial linkages with China, suggesting that the pronounced synchronization largely driven by the close economic ties between the two countries.

4. On a cross-period basis, the co-movement between the KRW and the CNY has weakened structurally since 2020. This decline appears to have been driven by reduced trade between Korea and China, stemming from the U.S.-China trade tensions of 2018-2019 and the reconfiguration of global supply chains following the COVID-19 pandemic in 2020. The co-movement coefficient has remained below its long-term average since 2024, but has recently begun to rise toward that level. This rebound may reflect the effects of heightened trade protectionism under Trump's second term, which amplified trade shocks affecting both Korea and China given their heavy export dependence on the U.S.

5. On a cross-regime basis, the KRW exhibits asymmetric co-movement with the CNY, displaying stronger synchronization during depreciation regimes and weaker synchronization during appreciation regimes. This asymmetry is mainly attributable to the simultaneous weakening of both currencies against the USD, competition between Korea and China in global export markets, and Korea's floating exchange rate system. Moreover, coupling regimes have tended to persist longer than decoupling regimes, with the period since December 2023 identified as a synchronized phase.

6. Considering the key characteristics of KRW-CNY synchronization examined in this paper and the increased uncertainty surrounding the outlook for CNY, KRW is likely to be influenced by movements in CNY. In light of these considerations, it is necessary to continuously monitor the trajectory of CNY while paying close attention to developments in the U.S.-China trade tensions.

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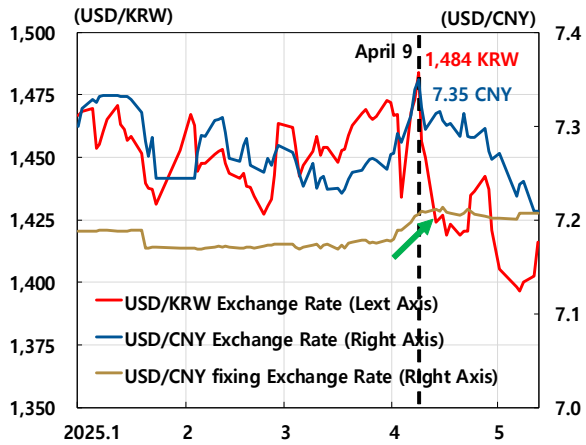
Ⅰ. Introduction

In response to the U.S. announcement on April 2 (local time) of reciprocal tariffs on Chinese imports, China announced retaliatory tariffs on April 4. Subsequently, both countries raised their tariff rates in rapid succession (April 8, 9, and 10)[1]. On April 9, the effective date of the U.S. reciprocal tariffs, the U.S. also announced a 90-day suspension of tariffs on imports from countries other than China. As a result, the broader trend of rising global trade protectionism evolved into a bilateral trade conflict between the U.S. and China.

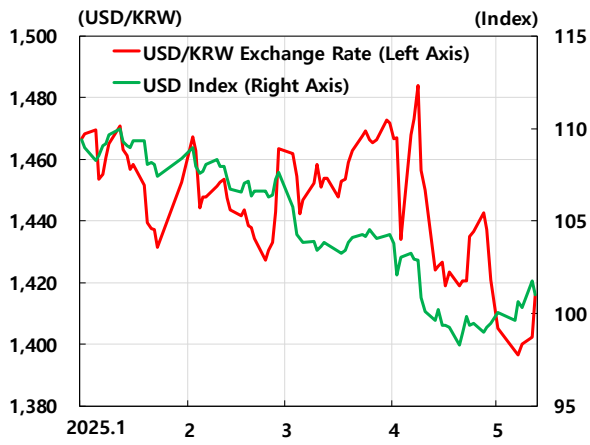
Against this backdrop, China set the onshore Chinese yuan (CNY) exchange rate above the 7.20 level – widely regarded as a psychological threshold in the market – rising from 7.1980 on April 7 to 7.2038 on April 8[2]. Consequently, the offshore yuan (CNH) weakened sharply, with the USD/CNH rate reaching 7.35 on April 9 (a 0.9% depreciation between April 4 and 9), its highest level since the global financial crisis (7.35 on December 24, 2007)[3]. Although the U.S. dollar index remained broadly stable (0.1% depreciation) during the same period, the USD/KRW exchange rate moved in tandem with the CNY, depreciating by 3.4% from April 4 to reach a new high of 1,484.1 KRW on April 9.

[Figure 1] Trends in KRW and CNY Exchange Rates[1]



Note: 1) USD/KRW is based on 3:30 p.m. KST; USD/CNY is based on 8:00 p.m. JST.
Source: BOK, Bloomberg

[Figure 2] USD/KRW Exchange Rate and the U.S. Dollar index



Source: BOK, Bloomberg

1) On April 4, China announced an additional 34% tariff on all U.S. imports, in response to the U.S. decision on April 2 to impose an additional 54% tariff on Chinese goods. The U.S. then raised its tariff rates in rapid succession – from 104% on April 8 to 125% on April 9, and further to 145% on April 10 – prompting China to respond with its own increases from 84% on April 9 to 125% on April 10.

2) China operates a managed floating exchange rate system. The People's Bank of China (PBoC) announces a daily central parity rate, which is based on the CNY exchange rate index calculated by the China Foreign Exchange Trade System (CFETS) and reflects the trade weights of China's major trading partners.

3) The CNY market is divided into two segments: onshore and offshore. The onshore CNY is allowed to fluctuate within a ±2% band around the announced central parity rate, while the offshore CNH trades more freely, driven by global supply and demand conditions.

As such, the KRW weakened in tandem with CNY amid developments in U.S.-China trade negotiations. Despite the decline in the dollar index, market participants expressed concern that future movements in the CNY could heighten volatility in the KRW. Following the release of the joint statement on U.S.-China economic and trade negotiations on May 12, trade tensions between the two countries temporarily eased. Nevertheless, uncertainty surrounding the course of negotiations during the 90-day grace period still remains a risk.

Against this backdrop, this paper investigates the underlying factors and evolution of the KRW-CNY co-movement. Based on empirical analysis, it documents the main characteristics of this synchronization across countries, over time, and under different regimes[4].

II. Trends and Background of KRW-CNY Co-Movement

1. Recent Trends in KRW-CNY Co-Movement

The co-movement between the KRW and the CNY has remained strong, fluctuating across periods in response to major global events. As a starting point, this paper examines KRW-CNY co-movement since 2018 using correlation coefficients. The average coefficient over the entire period is relatively high at around 0.6, although both strengthening and weakening phases are observed over time. In particular, stronger synchronization was evident during three key episodes.

The first period, from April 2018 to September 2019, corresponds to the U.S.-China trade tensions under the first Trump administration, as indicated by ① in Figure 3. Rising uncertainty over global trade policy during this period fueled risk-off sentiment, strengthening the USD and weakening Asian currencies, including the KRW and CNY. In addition, China depreciated the central parity rate of the CNY by approximately 11% over the same period to mitigate tariff shocks[5] from the United States. These shocks heightened concerns that slowing Chinese demand and the reconfiguration of global supply chains would negatively affect Korea's exports, thereby reinforcing the co-movement between the KRW and CNY.

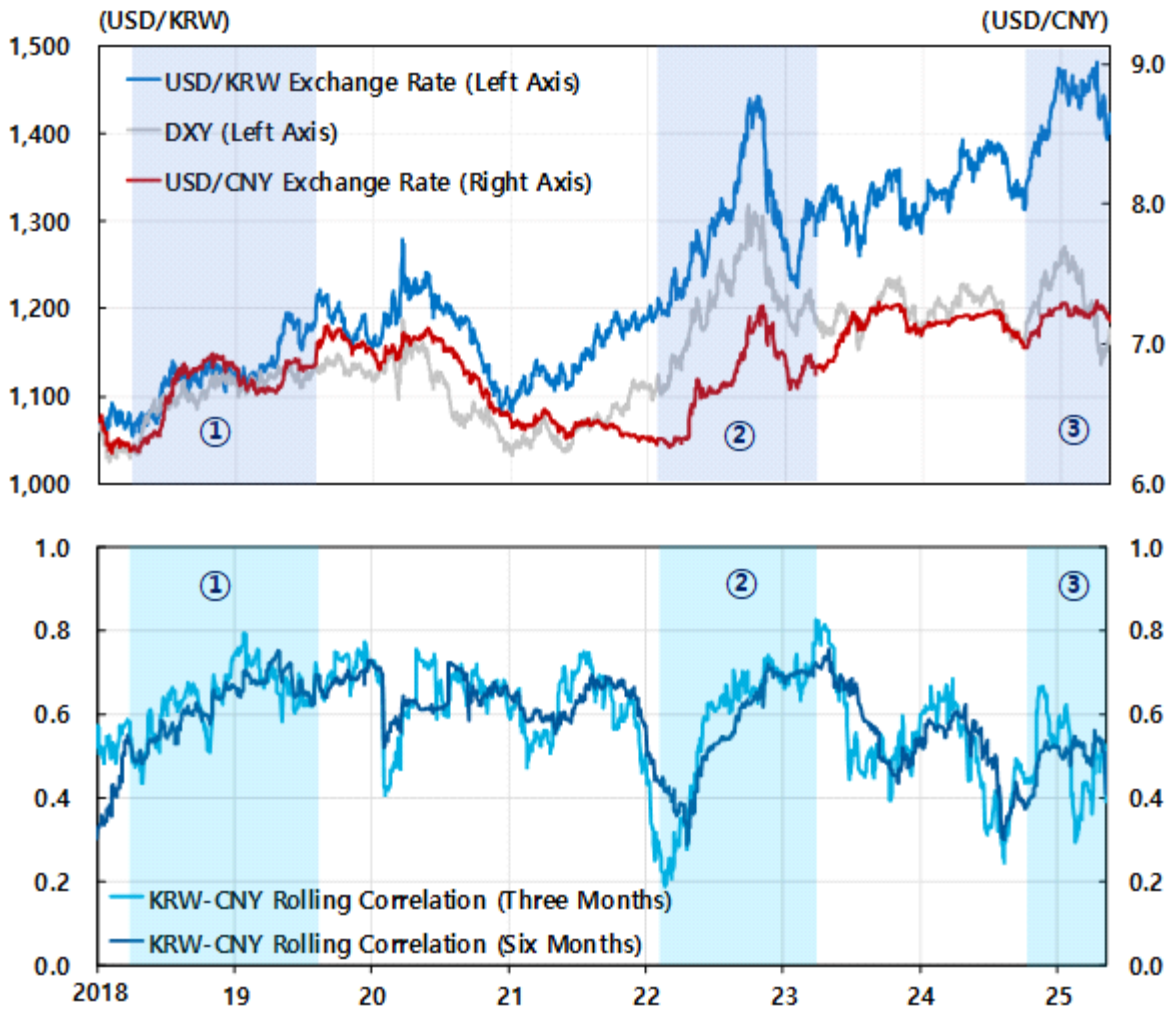
The second period corresponds to the Fed's rate hike cycle from February 2022 to April 2023, as shown in ② in Figure 3. In response to elevated inflation, the Fed raised its policy rate from 0.25% in March 2022 to 5.5% in July 2023, maintaining a firm tightening stance. As a result, the USD remained strong with the DXY rising from 98.5 in March 2022 to 112.0 in October 2022, leading to a sharp depreciation of both the KRW and the CNY and reinforcing their co-movement. The Chinese economy, in particular, came under downward pressure due to its zero-COVID policy and persistent foreign capital outflows. The CNY weakened further in

4) The analysis in this paper is based on the onshore CNY rate, which reflects the exchange rate policy stance of the Chinese authorities. The results remained highly consistent when the offshore CNH rate is used instead.

5) The United States imposed a 10% tariff on 200 billion USD's worth of Chinese imports in September 2018. It later raised the tariff rate on the same goods from 10% to 25% in May 2019, and additionally imposed a 10% tariff on another 300 billion USD's worth of Chinese products in August 2019.

reflection of both domestic and external conditions, which in turn deepened the synchronization between the KRW and the CNY.

[Figure 3] USD/KRW, USD/CNY, and DXY[1] with KRW-CNY[2] Rolling Correlation[3]



Notes: 1) The DXY is adjusted to be comparable in scale with the USD/KRW exchange rate level
2) KRW NDF and CNY data are based on 8:00 p.m. JST
3) Calculated as day-on-day rate of change using daily data
Source: Bloomberg

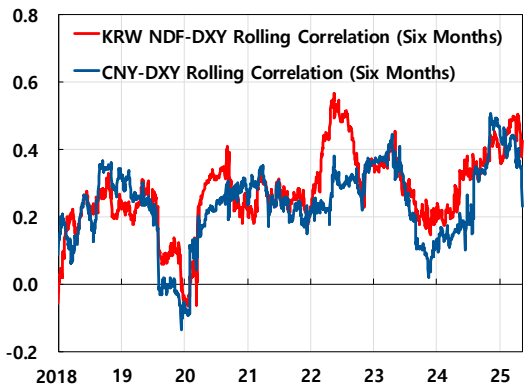
The third period, after October 2024 around the U.S. presidential election, as shown in ③ in Figure 3, was marked by stronger KRW-CNY synchronization. Since then, both currencies have depreciated in tandem, driven by a stronger USD under the so-called "Trump Trade" effect. As market expectations grew that the re-elected Trump administration would impose tougher tariffs on China, investors priced in concerns over both a slowdown in the Chinese economy and a potential decline in Korea's exports. Moreover, with protectionist measures intensifying and trade policy uncertainty rising under the second Trump administration, the KRW and CNY were heavily affected given their high dependence on the U.S. market, resulting in a higher correlation between the two currencies.

2. Background of the KRW-CNY Co-Movement

First, the high degree of synchronization between the KRW and the CNY is largely attributable to their simultaneous susceptibility to movements in the USD, which reflect global macroeconomic conditions. For instance, the sharp appreciation of the USD following the U.S. interest rate hikes since 2022 has been a major driver in international financial markets. More recently, the USD has also fluctuated in response to U.S. tariff policies, exerting significant effects on major currencies including the KRW and the CNY. Although currencies respond differently to shifts in USD, these movements have operated as a common factor underpinning their co-movement.

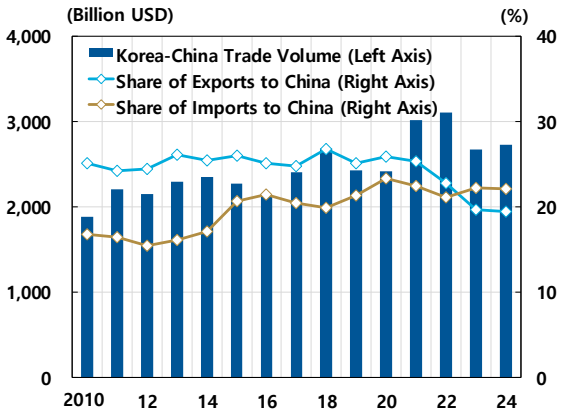
Second, Korea's high trade dependence on China contributes to the strong co-movement between the two currencies. As of 2024, China accounted for 19.5% of Korea's exports and 22.1% of its imports, underscoring the continued depth of bilateral economic interdependence. An appreciation of the CNY raises China's purchasing power, expands Korea's trade surplus, and exerts upward pressure on the KRW. Conversely, a depreciation of the CNY intensifies competition between Korean products and lower-cost Chinese goods, weighing on Korea's exports and increasing downward pressure on the KRW. This high degree of trade linkage thus reinforces the co-movement between the two currencies.

[Figure 4] KRW-DXY & CNY-DXY Rolling Correlation[1)2)]



Notes: 1) KRW NDF and CNY are based on 8:00 p.m. JST; DXY is based on 5:00 p.m. EST
2) Calculated as a day-on-day rate of change using daily data
Source: Bloomberg

[Figure 5] Korea-China Trade Volume and Export/Import Shares



Source: Korea International Trade Association (KITA)

Third, the co-movement between KRW and CNY is also influenced by the trading practices and the structure of the foreign exchange market, as well as by proxy trading among similar currencies. In global FX markets, currencies from geographically close economies with similar structures are often traded as a group. The KRW, categorized as an emerging Asian currency, is thus perceived to move in tandem with the CNY and the Taiwan dollar (TWD). FX dealers

often engage in relative-value and pair trades when one currency in the group diverges excessively from the others, seeking to capitalize on perceived mispricings. Moreover, macro funds that trade on medium-term fundamentals frequently exploit the KRW's relatively high volatility to take speculative positions on the global manufacturing outlook, including that of China.

Ⅲ. Empirical Analysis of KRW-CNY Co-Movement

This paper conducts empirical analyses of currency co-movement across countries, time periods, and regimes to document the stylized facts of KRW–CNY co-movement from multiple perspectives.

1. Cross-Country Comparison of Currency Co-Movement with the CNY

To compare the co-movement of various currencies with the CNY across countries, this section employs a regression model widely used in the literature (Frankel and Wei, 1994; Frankel and Xie, 2010; Kawai and Pontines, 2016; McCauley and Shu, 2018; Park and An, 2020). Excluding countries that issue major reserve currencies, the sample covers 33 currencies over the period from August 2015 to April 2025. The model estimates the extent[6] to which fluctuations in each of these exchange rates[7] can be explained by movements in key international currencies: CNY, USD, EUR, JPY, among others.

The estimates indicate that the co-movement coefficient of the KRW with the CNY is 0.31, the highest among the currencies included in the analysis[8]. This implies that the CNY accounts for 31% of the notional currency basket of major international currencies to which the KRW is presumed to be linked, underscoring the CNY's role as a significant anchor currency. These results are broadly consistent with previous empirical studies documenting strong co-movement between the CNY and other Asian currencies[9]

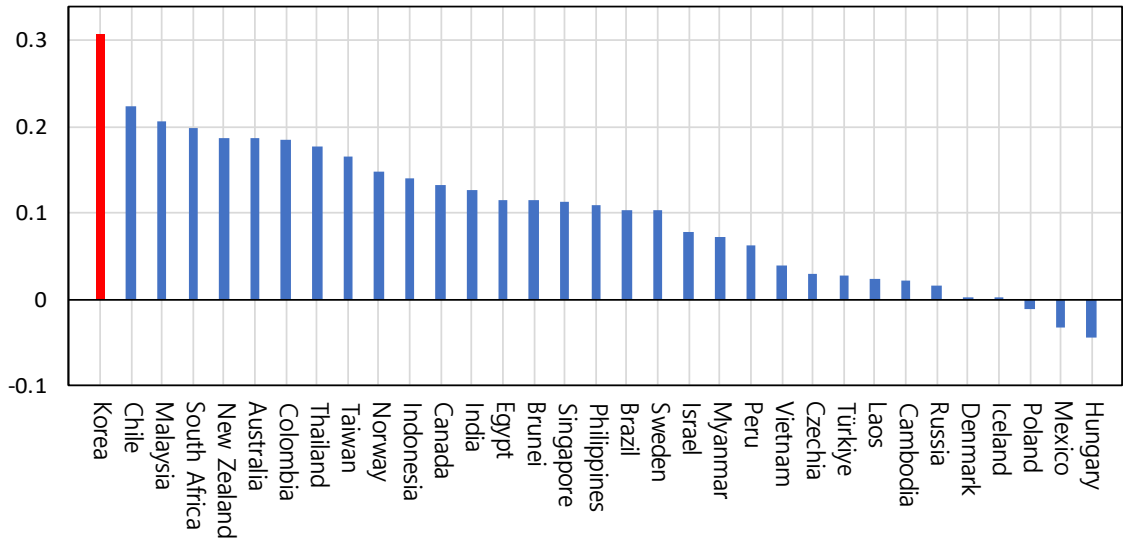
6) Previous studies on currency co-movement with the CNY (Kawai and Pontines, 2016; McCauley and Shu, 2018; Park and An, 2020, among others) build on the model developed by Frankel and Wei (1994), which estimates the implicit weight of the JPY in the exchange rate determination basket of Asian currencies. Details of the model employed in this paper are provided in Appendix 1.

7) The analysis period begins in August 2015, coinciding with the reform of the CNY exchange rate regime.

8) The estimated co-movement coefficient of the KRW with the USD is 0.73.

9) Kawai and Pontines (2016) analyzed daily exchange rate data for 13 Asian economies from 2000 to 2013 and found that the KRW-CNY co-movement was the strongest among them, with a coefficient of 0.22, becoming statistically significant after November 2008. McCauley and Shu (2018), using data on 11 emerging market economies from 2014 to 2017, reported that currency co-movement with the CNY strengthened following China's 2015 exchange rate regime reform (fixing reform), with the KRW-CNY coefficient rising from 0.53 to 1.26 - the highest among Asian currencies. Park and An (2020) examined 34 countries between 2005 and 2008 and found that the KRW-CNY co-movement was insignificant prior to the global financial crisis but increased sharply afterward, reaching 0.74, the largest increase among the countries studied.

[Figure 6] Co-Movement Coefficients with the CNY across Countries[1)]



Note: 1) Estimated share of the CNY in a notional currency basket composed of USD, EUR, JPY, and CNY, based on regression estimates of exchange rate fluctuations across countries.
Source: Bloomberg, Authors' estimates

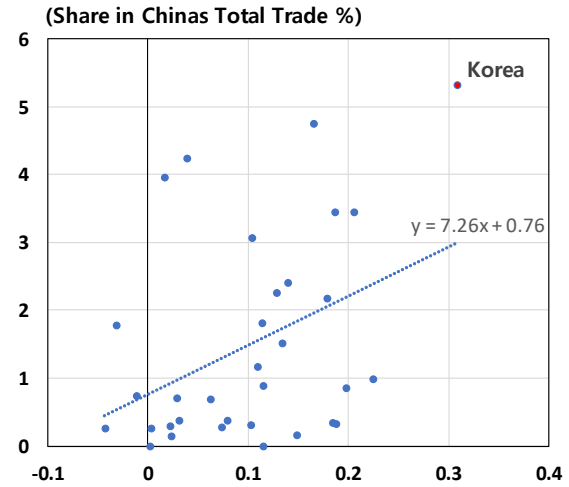
The high degree of KRW-CNY co-movement is closely related to Korea's trade and financial linkages with China, and appears to be particularly proportional to trade linkages. Park and An (2020) attribute the strong co-movement of the KRW–CNY exchange rate to Korea's close trade relationship and financial interconnectedness with China, as well as its free-floating exchange rate system. Consistent with this view, our analysis shows a clear positive linear relationship between the estimated co-movement coefficients with the CNY for the 33 countries in our sample and their respective trade and financial linkages with China (Figures 7 and 8).

In 2024, Korea accounted for 5.3% of China's total trade (exports and imports), ranking second after the U.S. (11.2%) and ahead of Hong Kong (5.0%), Japan (5.0%), and Taiwan (4.8%), underscoring Korea's strong trade linkage with China. [10)] In terms of financial linkages, Korea's share in China's overseas portfolio investment (stocks and bonds) was 1.03% in 2023, the third-highest among Asian countries after Hong Kong (38.1%) and Japan (1.8%).[11)] These close in both the real economy and financial markets appear to be the primary drivers of the strong co-movement between the KRW and the CNY.

10) However, with the U.S. excluded from the regression analysis, Korea exhibits the strongest trade linkage with China among the 33 countries analyzed.

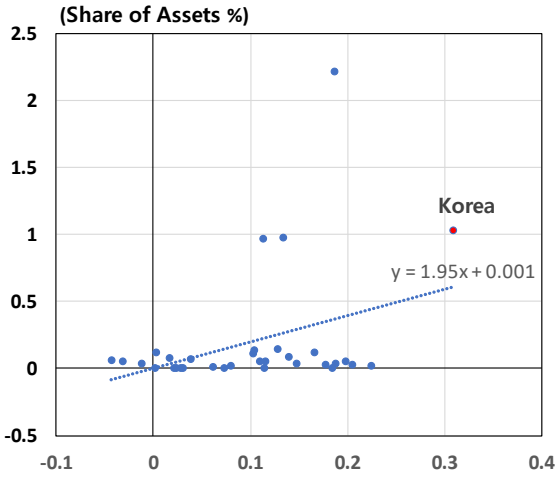
11) In contrast to trade linkages, financial linkage indicators for most of the countries analyzed are clustered near zero. This largely reflects the concentration of China's overseas portfolio investments in a few advanced economies, notably Hong Kong (38.1%), the U.S. (23.4%), and the U.K. (3.3%). Among the sample countries, Australia (2.2%), Canada (0.97%), and Singapore (0.97%), and Korea stand out with relatively higher levels of financial linkage with China.

[Figure 7] Currency Co-Movement with the CNY and Trade Linkages with China[1)]



Note: 1) The X-axis shows the co-movement coefficient with CNY across countries (2015 to 2025) and the Y-axis indicates each country's share in China's total trade (2024).
Source: Korea Trade Statistics Promotion Institute

[Figure 8] Currency Co-Movement with the CNY and Financial Linkages with China[1)]



Note: 1) The X-axis shows the co-movement coefficient with CNY across countries (2015 to 2025) and the Y-axis represents each country's share in China's overseas portfolio investment (2023).
Source: IMF CPIS

2. KRW-CNY Co-Movement over Time

Next, this section examines the evolution of the KRW-CNY co-movement over time. To this end, we estimate rolling regressions with one-year windows across the analysis period to track changes in the co-movement coefficient between the two currencies[12)]. The results reveal noticeable fluctuations in the coefficient over time, with three notable features standing out.

First, a structural decline in the degree of KRW-CNY co-movement has been evident since 2020. [13)] Around August of that year, the long-term average of the co-movement coefficient fell from 0.36 to 0.21, indicating a structural break. This change is largely attributable to the weakening of Korea's trade linkages with China: Korea's export dependence on China declined from a peak of 26.8% in 2018 to 19.5% in 2024. The downward reflects several structural factors, including U.S.-China trade tensions in 2018- 2019, China's shifts toward a domestic demand–oriented growth model, and the reorganization of global supply chains in the aftermath of the COVID-19 pandemic.

Second, since 2024 the co-movement coefficients have remained below the long-term

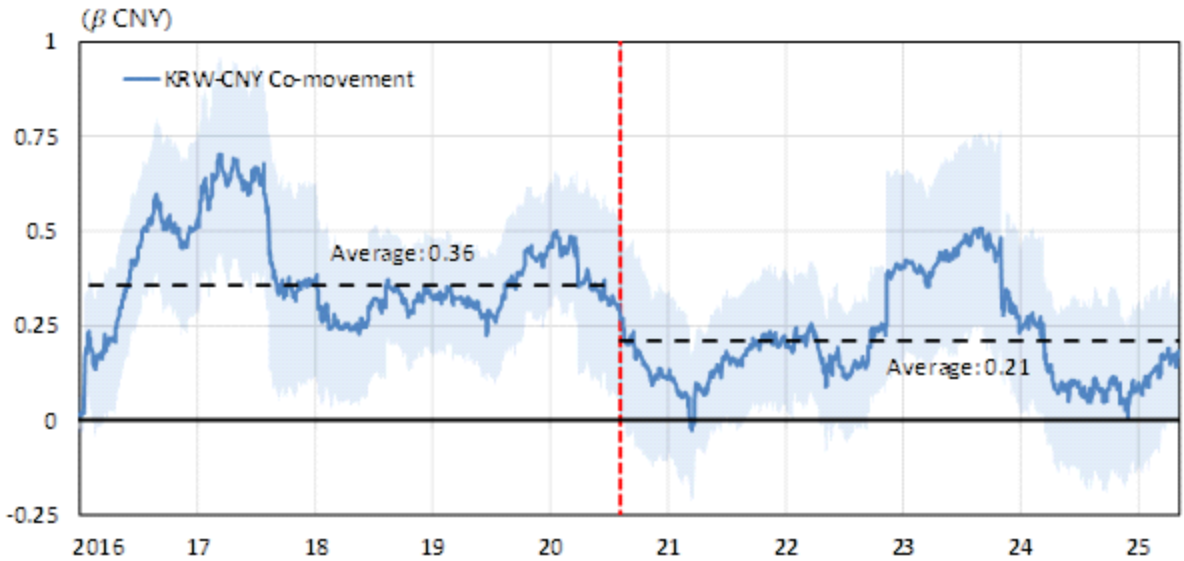
12) The estimated trajectory of the co-movement coefficients differs from the fluctuations in the simple correlation coefficients between the KRW and the CNY, as shown in Figure 3. This is because, unlike simple correlations, the co-movement coefficients are derived from regressions that measure the extent to which movements in the CNY explain fluctuations in the KRW exchange rate, after controlling for the influence of the USD, EUR, and JPY.

13) A structural break – marked by a shift in the period-average of the time series – was identified in mid-August 2020, based on estimates from a structural change model.

average of 0.21. The coefficient began to decline in late 2023, fell below the average in early 2024, and stayed at a notably low level through the end of the year. It has continued to remain below the long-term average, indicating a sustained weakening in the degree of co-movement.

Third, in contrast, the co-movement coefficient has gradually increased alongside the growing certainty of Donald Trump's victory in the U.S. presidential election in late 2024. After remaining at a notably low level throughout most of 2024, the coefficient began to rise toward the end of the year and has since approached the long-term average of 0.21. This rebound appears to reflect the impact of renewed trade protectionism under the second Trump administration, which has adversely affected both the Korean and Chinese economies. The degree of export dependence on the U.S. – 18.7% for Korea (its second-largest trading partner) and 14.6% for China (its largest trading partner) – underscores their vulnerability to U.S. trade policy. Accordingly, heightened protectionism and increase uncertainty over U.S. trade measures are likely to have simultaneously influenced the KRW and CNY, thereby strengthening their co-movement.

[Figure 9] Changes in the KRW-CNY Co-Movement Coefficient[1)]



Note: 1) The blue line plots the estimated co-movement coefficient with the CNY. The shaded area denotes the 95% confidence interval. The red vertical line marks the point of structural change, while the horizontal dotted lines represent the period averages before and after the break.
Source: Bloomberg, Authors' estimates

3. KRW-CNY Co-movement across Regimes

As discussed earlier, the degree of KRW-CNY co-movement has varied over time. Keddad (2019) finds that the co-movement between the CNY and other Asian currencies is asymmetric, depending on the respective exchange rate regimes. In particular, the study suggests that KRW-CNY co-movement strengthens during periods of KRW depreciation.[14] Building on this insight, the present analysis applies a Markov regime-switching model to monthly data from August 2015 to April 2025 in order to examine the regime-dependent characteristics of KRW–CNY co-movement.[15]

The analysis reveals an asymmetry in KRW-CNY co-movement: it strengthens during depreciation regimes and weakens during appreciation regimes. Specifically, in a KRW depreciation regime, a 1% change in the CNY is associated with a 0.66% change in the KRW, whereas no statistically significant relationship is observed during appreciation regimes. These findings are consistent with Keddad (2019), who analyzed the period from July 2005 to May 2016, and they underscore that a similar asymmetry has persisted in the data from 2015 through the most recent period.

[Table 1] Estimation Results from the Regime-Switching Model[1)2)]

	$\triangle KRW_t$	
	Regime 1 (Depreciation)	Regime 2 (Appreciation)
$Constant_t$	0.005 (0.107)	-0.021 (0.222)
$\triangle CNY_t$	**0.663** *** (0.003)	**0.143** (0.107)
$\triangle USD_t$	0.075 (0.103)	0.075 (0.103)
$\triangle EUR_t$	0.143 ** (0.061)	0.143 ** (0.061)
$\triangle JPY_t$	0.098 *** (0.001)	0.098 *** (0.001)
LR stat[3)]	17.3	
p-value	0.00	

Notes: 1) ***, ** denote statistical significance at the 1% and 5% levels, respectively.
2) Exchange rates are expressed relative to the Swiss franc (CHF).
3) The likelihood ratio test rejects the null hypothesis of no regime-dependent difference in the CNY coefficient at the 1% significance level.

14) Keddad (2019) examined whether currency movements exhibit asymmetry across two regimes (Regime 1 and Regime 2) by estimating a Markov regime-switching model, in which the regimes are determined endogenously. In this framework, a regime with a positive (+) constant term – representing the mean rate of change in the dependent variable (the KRW exchange rate) – is classified as a depreciation regime, whereas a regime with a negative (–) constant term is classified as an appreciation regime.

15) See [Box 2] for further details on the regime-switching model and data.

The underlying causes of the observed asymmetry – where co-movement strengthens during depreciation regimes – can be summarized as follows. First, both the KRW and the CNY exhibited a sustained joint depreciation trend against the USD over much of the sample period (August 2015 to April 2025), which may explain why co-movement is more pronounced during depreciation. In addition, Keddad (2019) argues that co-movement tends to intensify during depreciation regimes in economies such as Korea, which compete with China in global export markets and operate under a floating exchange rate system with free capital mobility. Given the high degree of export dependence in both economies, a depreciation shock to the CNY is likely to be perceived by international investors as eroding Korea's relative export competitiveness. This perception increases the incentive to sell the KRW or withdraw capital, thereby reinforcing the tendency for the KRW to depreciate alongside the CNY.

The regime-switching results indicate that the coupling regime tends to persist for longer durations, whereas the decoupling regime is relatively short-lived. The estimated transition probabilities show that when the two currencies are in the coupling regime at time t, the probability of remaining in the same regime at time t + 1 is 88.7%, compared with an 11.2% probability of switching to the decoupling regime. By contrast, when the two currencies are in the decoupling regime at time t, the probabilities of transitioning to the coupling regime at time t+1 59.5%, while the probability of remaining in the decoupling regime is only 40.4%. These results suggest that persistence is much stronger in the coupling regime than in the decoupling regime, and that transitioning are more likely to occur from decoupling back to coupling than vice versa.

[Table 2] Regime Transition Probabilities (%)

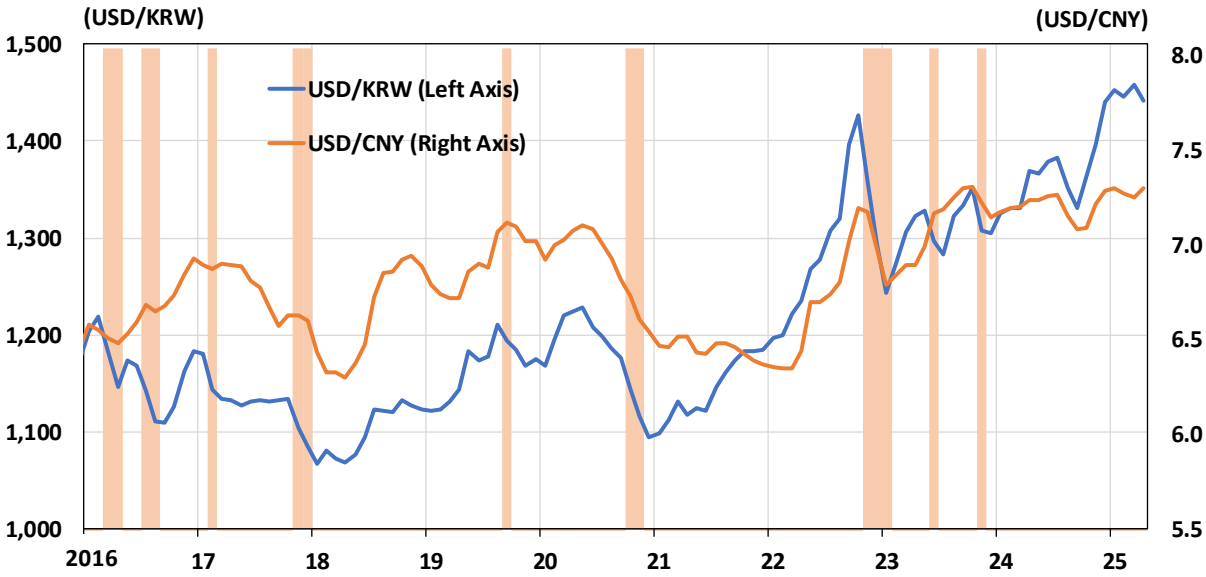
		Time $t+1$	
		Regime 1 (coupling)	Regime 2 (decoupling)
Time t	Regime 1 (coupling)	88.7	11.2
	Regime 2 (decoupling)	59.5	40.4

On an actual-time basis, the expected duration of the coupling regime is approximately nine months, compared with only 1.5 months for the decoupling regime. This indicates that KRW-CNY co-movement persists for most of the sample period, with episodes of decoupling occurring only temporarily.

Figure 10 illustrates the regimes identified by the regime-switching model. The coupling regime generally prevails for extended periods, while the decoupling regime is brief and short-lived. Notable sustained coupling episodes lasting more than one year since 2016 include January 2018-August 2019, December 2020- November 2022, and December 2023-April 2025. The most recent regime, beginning in late 2023, also corresponds to a

continued period of coupling, suggesting that KRW-CNY co-movement has remained persistent in the latest data.

[Figure 10] Trends in KRW and CNY under Coupling and Decoupling Regimes[1)]



Note: 1) Orange vertically-shaded areas indicate periods of decoupling regimes.
Source: Bloomberg, Authors' estimates

IV. Conclusion and Implications

Amid heightened uncertainty over the trajectory of the CNY driven by the recent rise in global protectionism, this report examines the trends and underlying factors of KRW-CNY co-movement, providing empirical analyses of its characteristics across country, period, and regimes. The analyses find that, while KRW and CNY have generally exhibited a high degree of correlation, the strength of this relationship has fluctuated over time. In particular, the correlation intensified during specific periods, including the U.S.-China trade tensions under the first Trump administration, the Federal Reserve's rate hike cycle, and the period following the confirmation of Trump's second presidential election victory. This persistence of KRW-CNY co-movement reflects structural factors such as the common influence of the USD on both currencies, the close economic linkages between Korea and China, and prevailing institutional and market practices in the foreign exchange market.

A cross-country comparison shows that KRW-CNY co-movement is stronger than that observed for other currencies. Moreover, countries with closer trade and financial linkages to China tend to exhibit higher degrees of co-movement with the CNY. Accordingly, Korea's robust trade and financial ties with China help explain the relatively high degree of KRW-CNY co-movement.

An analysis of period-specific changes in KRW-CNY co-movement indicates that coupling

has structurally weakened since 2020. This weakening is linked to Korea's declining trade share with China, driven by the U.S.-China trade tensions of 2018-2019, the onset of the COVID-19 pandemic in 2020, and the subsequent reconfiguration of global supply chains. More recently, the co-movement coefficient has remained below its long-term average but is trending back toward that level. The renewed increase in coupling likely reflects intensified trade shocks affecting both Korea and China – economies with a high proportion of exports to the U.S. – amid a resurgence of protectionist measures under the second Trump administration.

Analysis of regime-specific coupling reveals an asymmetry where the KRW-CNY coupling strengthens during depreciation regimes. In addition, the KRW-CNY coupling regime persists longer than the decoupling regime, which appears to be temporary and short-lived. The most recent period has also been identified as a coupling regime between the two currencies. These findings suggest that KRW is likely to remain influenced by the trajectory of CNY in the foreseeable future.

Through April 2025, U.S.-China protectionist retaliatory measures heightened concerns over a potential depreciation of the CNY in response. Since May, however, the likelihood of CNY appreciation has also increased, partly following the release of a joint statement by the two countries. Despite these developments, uncertainty surrounding global trade conditions linked to protectionist measures remains exceptionally high, contributing to substantial ambiguity over the future trajectory of CNY. In this context, close monitoring of CNY dynamics is imperative, particularly given the characteristics of KRW-CNY coupling.

Box 1 Cross-Country Comparison Regression Model and Variables

Frankel and Wei (1994; hereafter the F-W model) introduced a regression framework to estimate the extent to which exchange rate fluctuations of Asian currencies are linked to a basket of international currencies (e.g., USD and JPY), thereby assessing their roles as anchor currencies in East Asia. This framework has since become a standard tool for empirical analysis of currency co-movement. Subsequent studies on co-movement with the CNY have extended the F-W model by incorporating the CNY as an additional explanatory variable (e.g., McCauley and Shu, 2018; Park and An, 2020). However, because strong multicollinearity between the CNY and the USD can bias the estimates, the present analysis adopts the two-stage model proposed by Kawai and Pontines (2016), which introduces a currency basket weight constraint to mitigate multicollinearity.

$$\Delta \log CNY_t = \alpha + \phi_1 \Delta \log USD_t + \phi_2 \Delta \log EUR_t + \phi_3 \Delta \log JPY_t + \phi_4 \Delta \log GBP_t + \omega_t \quad (1)$$

where CNY_t, USD_t, EUR_t, JPY_t, and GBP_t denote the nominal exchange rates of the CNY, USD, EUR, JPY, and GBP, respectively, all expressed against the CHF at time t. Daily log differences ($\Delta \log$) were used to construct the daily log return series for each exchange rate.

$$\Delta \log x_t = \alpha + \beta_1 \Delta \log USD_t + \beta_2 \Delta \log EUR_t + \beta_3 \Delta \log JPY_t + \beta_4 \Delta \log GBP_t + \beta_5 \hat{\omega}_t + \epsilon_t \quad (2)$$

where x_t denotes the nominal exchange rate of country i against the CHF at time t, and $\hat{\omega}_t$ is the residual term from the regression in Equation (1), included on the right-hand side of Equation (2) as a proxy for the actual CNY variation. To ensure that the weights of the international currency basket sum to one, the constraint $\gamma_5 = 1 - \gamma_1 - \gamma_2 - \gamma_3 - \gamma_4$ was imposed. By subtracting the residual term from both sides, Equation (3) was estimated to obtain the implied coefficient of CNY coupling ($\hat{\gamma_5}$).

$$\begin{aligned} \Delta \log x_t - \hat{\omega}_t = \gamma_0 &+ \gamma_1 \left[\Delta \log USD_t - \hat{\omega}_t \right] + \gamma_2 \left[\Delta \log EUR_t - \hat{\omega}_t \right] \\ &+ \gamma_3 \left[\Delta \log JPY_t - \hat{\omega}_t \right] + \gamma_4 \left[\Delta \log GBP_t - \hat{\omega}_t \right] + \epsilon_t \end{aligned} \quad (3)$$

Daily exchange rate data for 33 countries were obtained from Bloomberg. The sample covers the period from August 11, 2015, when China reformed its foreign exchange system, to April 30, 2025.

[Table 1] Countries analyzed

Korea, South Africa, Norway, New Zealand, Taiwan, Denmark, Laos, Russia, Malaysia, Mexico, Myanmar, Vietnam, Brazil, Brunei, Sweden, Singapore, Iceland, Israel, Egypt, India, Indonesia, Czech Republic, Chile, Canada, Cambodia, Colombia, Thailand, Türkiye, Peru, Poland, Philippines, Hungary, and Australia

Box 2 Regime-Switching Model

Building on the framework of Keddad (2019), which analyzed the asymmetric nature of co-movement between East Asian currencies and the CNY across regimes, this report examines KRW-CNY co-movement using a Markov regime-switching model.

Regime 1: $\Delta e_t^i = \mu_{s_t=1} + \beta_{s_t=1}^{CNY} \Delta e_t^{CNY} + \beta^{USD} \Delta e_t^{USD} + \beta^{EUR} \Delta e_t^{EUR} + \beta^{JPY} \Delta e_t^{JPY} + \sigma\epsilon_t$

Regime 2: $\Delta e_t^i = \mu_{s_t=2} + \beta_{s_t=2}^{CNY} \Delta e_t^{CNY} + \beta^{USD} \Delta e_t^{USD} + \beta^{EUR} \Delta e_t^{EUR} + \beta^{JPY} \Delta e_t^{JPY} + \sigma\epsilon_t$ (1)

where Δe_t^i, Δe_t^{CNY}, Δe_t^{USD}, Δe_t^{EUR}, and Δe_t^{JPY} denote the log changes in the nominal exchange rates of country i's currency, the CNY, USD, EUR, and JPY, respectively, all expressed against the CHF at time t. The endogenous variable Δe_t^i switches between two states $s_t \in \{1,2\}$ following a first-order Markov chain with the transition probabilities:

$$P_{ij} = P(s_t = i \mid s_{t-1} = j), \sum_{i=1}^{2} P_{ij} = 1, \; i,j \in \{1,2\} \quad (2)$$

Prior to estimation, a likelihood ratio test was conducted to determine whether a linear specification (with no regime-dependent differences) or a nonlinerar (with regime-specific coefficients) was more appropriate. The test results indicated that the regime-dependent difference in the CNY coefficient was statistically the most significant. Accordingly, a nonlinear regmin-switching model was adopted for the CNY coupling coefficient.

Estimating the above equations yields regime-specific estimates for the CNY coefficient ($\beta_{s_t}^{CNY}$) and the constant term (μ_{s_t}). The CNY coefficient, $\beta_{s_t}^{CNY}$, varies across regimes, while the coefficients for the USD, EUR, and JPY (β^{USD}, β^{EUR}, β^{JPY}) remain constant across regimes. The constant term μ_{s_t} provides an estimate of the mean change in the KRW exchange rate in each regime, where a positive (+) value indicates a depreciation regime and a negative (–) value an appreciation regime.

The analysis utilizes daily exchange rate data obtained from Bloomberg, which were converted into monthly average for each country to construct the estimation sample.

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