Based on the Convergence and Re-Differentiation of the Premium of Hong Kong Stocks in the HSAHP

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Abstract:

This article uses the Hang Seng Shanghai-Hong Kong Stock Connect A/H Premium Index (HSAHP) as a uniform standard to study the data from 2016 to 2025. On this basis, key mechanisms such as liquidity, investor structure, discounting system, and institutional channels are mapped to market performance, and an analysis framework of mechanism - criterion - stage is constructed. The results show that during the formation and expansion stage of the connectivity mechanism, the closeness of the index around 100 improves, and the fluctuation range narrows, reflecting the improvement of accessibility and market depth. After the index inclusion and the strengthening of passive fund allocation, the probability of convergence of the cross-market discounting system increases. During the normal operation period, the increase in the ratio of A/H trading volume within a short window is often accompanied by the widening of the cross-sectional premium. Based on these observations, this paper provides a practical monitoring approach. That is, by tracking the interrelated changes in Amihud Illiquidity Measure, bid-ask spreads, and trading volume depth to identify convergence conditions, combining the changes in passive funds and the weights of overseas institutions to determine the direction of the discount difference, and increasing vigilance for the re-differentiation of bid-ask spreads during periods of significantly increasing trading volume ratios. This framework provides a clear entry point for subsequent rolling tests and bandwidth sensitivity analyses conducted using a unified approach.

Keywords: A/H premium; HSAHP; Interconnection; MSCI inclusion; Liquidity; Local preference

1. Introduction

The A/H premium refers to the relative pricing difference between the A shares (denominated in RMB) and the H shares (denominated in Hong Kong dollars) of the same company in the two markets of the Chinese mainland and Hong Kong. It is usually obtained by comparing the H share price after converting it into the local currency and the current price of A shares. A reading above 100 indicates that A-shares have a relative premium, while a reading below 100 suggests that A-shares have a relative discount. A reading approximately equal to 100 indicates that the pricing of the two markets is roughly the same. This indicator can be used to observe the segmentation and interconnection status of China's capital market.

To obtain a unified and reproducible factual benchmark, this paper adopts HSAHP as the market-level anchor point, and the measurement standard is based on the Shanghai Stock Exchange A/H Spread Index. In terms of presentation, this article uses the HSAHP curves from 2016 to the present as the time axis. Key milestones such as the expansion of cross-border connectivity and the inclusion of A-shares in MSCI are marked in the text, and the convergence and re-differentiation in different stages are observed.

Based on this timeline, this article organizes the existing studies into three mechanisms: liquidity/transaction costs (ILLiq, bid-ask spreads, depth, etc.) and premium levels/dynamics [1]. The investor structure and discounting system (China bias) provides an explanation for the long-term pricing difference and has onshore evidence of local preferences [2, 3]; segmentation alleviates the institutional channels from cross-border connectivity and index inclusion [4, 5]. The Chinese literature provides supplementary background on the correlation between accounting standard convergence and time-varying factors [6, 7]. This article is positioned as a structured evidence review: instead of adding new measurement indicators, it maps the "sample window - mechanism - direction" onto a unified timeline to form a criterion-based key point for investment and policy evaluation.

2. Measurement and Facts (Figure 1: HSAHP 2016 - Present)

Figure 1 serves as a factual timeline, only used to locate the institutional stages and to align with the directional conclusions of the existing studies; the research conducted before 2016 is cited in the main text as the "pre-history baseline" and is not shown in Fig. 1.

Fig. 1 HSAHP 2016 - Present [6]

Caption: The meaning of the HSAHP reading is: <100 represents a discount, =100 indicates equivalence, >100 represents an increase. The historical data of this index can be traced back to 2006 and 2007 when it was officially launched; due to display limitations, this graph only shows the trend since 2016 [7].

This article divides the period from 2016 to the present into 11 stages based on the system and trading mechanism (Table 1).

Table 1. Key policy phases in the mainland–Hong Kong stock connect and related market events

S1	2016.12-2017.12	The Shenzhen-Hong Kong Stock Connect has been launched, and the total quota has been abolished.
S2	2018.01-2018.04	Preparatory Steps for Expanding Daily Quota
S3	2018.05-2018.08	MSCI first includes (in two steps to 5%)
S4	2018.09-2018.12	Rebalancing period after inclusion in the MSCI index
S5	2019.05	MSCI's weighting has been increased to 10%.
S6	2019.08	MSCI's weighting has been increased to .15%
S7	2019.11	MSCI increases weighting to 20% and expands coverage
S8	2020.01-2021.12	Normalization of operation after inclusion in the MSCI index
S9	2022.07-2023.07	The launch and operation of the ETF interconnection
S10	2023.08-2023.12	Downward adjustment of stamp duty in the mainland / Hong Kong
S11	2024.01 - Present	The market has entered a stable stage after the policy adjustments.

The above stage is merely used to align the subsequent literature with the facts onto the same timeline, serving as a factual background rather than a basis for causal identification.
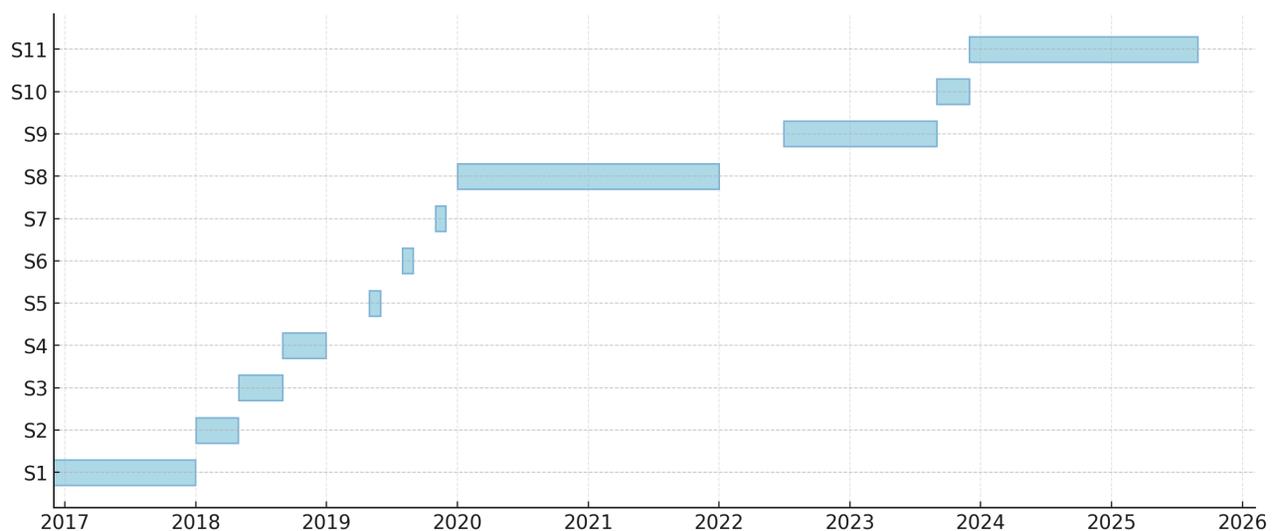
Fig. 2 Timeline of stages S1-S11 (Photo/Picture credit: Original)

3. Pre-History Baseline and Institutional Environment

Before the full implementation of the interconnection mechanism in 2016, two institutional changes - the convergence of accounting standards and the implementation of the "Shanghai-Hong Kong Stock Connect" to enhance market linkage - had already laid the foundation for the integration of the A/H market [8]. The first was the implementation of the new "Enterprise Accounting Standards" in 2006-2007 and its substantial convergence with IFRS, which unified the financial information. Secondly, the cross-border capital settlement and settlement channels have been gradually connected, enhancing the linkage between the two markets. Since the enforcement strength of the standards and the institutional environment can exert certain constraints on the preparers of reports, ensuring that they can truly and appropriately use the shortcut methods, China has since 2007 mandated that all domestic enterprises should adopt the new standards for convergence with international accounting standards, effectively ensuring the enforcement strength of the convergence of the standards. Since the higher the degree of investor protection, the smaller the possibility and space for the preparers of the reports to act independently, the stronger the consistency of the preparers' motives will be, and the

higher the comparability of the financial reports will be. The research results confirm that after the convergence of the standards, the comparability between A-shares and H-shares of Hong Kong stocks has significantly improved, and the improvement in comparability between A-shares and H-shares is even greater. Second, in regions with a lower degree of investor protection, the improvement in comparability is more obvious after the convergence of the standards. The third, the improvement in comparability, has not significantly increased the investment of overseas institutions in A-shares. This indicates that merely relying on the convergence of standards is not sufficient to promote cross-border capital flows. After the implementation of the new enterprise accounting standards in 2007, the comparability of financial reports between A-shares, H-shares, and Hong Kong stocks was significantly enhanced, especially between A-shares and Hong Kong stocks. Although this study did not find that the improvement in comparability directly led to the inflow of foreign capital, it improved the comparability of cross-border financial information, creating a more transparent information environment for subsequent capital flows.

Li, Hong, and Wang found that compared with the A-share market, the volatility spillover effect of the US stock market on Hong Kong was obvious and stable after 1994. However, with the increasingly close relationship between the Chinese mainland and Hong Kong and the improvement of the financial market trading system, since 2007, the correlation between the A-share and Hong Kong stock markets has significantly strengthened and tended to stabilize. Among them, the closing yield rates are highly synchronized, reflecting that the integration of the two markets in terms of economic foundation, capital flow, and information transmission has long begun. Therefore, it is believed that the correlation between the markets has permanently changed.

These pre-2016 historical baselines indicate that the convergence of A/H premiums was not solely driven by the enhancement of connectivity or the inclusion of M, but was based on the long-term trends of accounting system convergence and increased market interactivity.

4. Mechanism 1: Liquidity and Transaction Costs

Whether the relative pricing deviation of A/H can be promptly corrected depends on the trading friction and liquidity quality of the two markets. The lower the friction and the higher the depth, the more efficient the price discovery will be, and the less likely the deviation will persist. This mechanism is consistent in direction with

the phased convergence phenomenon observed in S1–S2 (2016-12 - 2018-04) of this paper. In terms of measurement, the literature typically employs indicators such as the Amihud Non-Liquidity Index (ILLIQ), turnover rate, bid-ask spread, and order book depth. Cross-market comparisons require uniform currency and frequency (such as weekly/monthly), and in necessary cases, the persistence of the spread should be controlled (such as by including an AR term or using an error correction term). The difference in liquidity between the two markets can explain the level and time dynamics of the A/H premium: When ILLIQ decreases, bid-ask spreads narrow, and depth increases, relative pricing becomes more convergent. The adjacent company-level evidence indicates that during the normalization period of S5-S8 (2019-05 - 2020-05), the ratio of A/H trading volume increased and was accompanied by higher cross-sectional A/H premiums (with deeper H-end discounts), while the ratio of A/H outstanding shares was not significant [9]. This suggests that when short-window trading heat rises, the bid-ask spreads may widen temporarily, constituting a boundary situation of the liquidity mechanism. Therefore, in practice, two criteria can be used for monitoring and verification: Firstly, when the accessibility is improved and transaction friction decreases (ILLIQ decreases, bid-ask spread decreases), the fluctuation range of HSAHP narrows; Secondly, when the ratio of A/H transaction volume shows a significant upward trend in weekly/monthly periods, it is more necessary to be vigilant about the risk of widening cross-sectional spreads. In terms of implementation, it is recommended to incorporate ILLIQ, bid-ask spread, trading depth, and the ratio of A/H transaction volume into a panel and conduct a positioning comparison with the S stage in Fig. 1.

5. Mechanism 2: Investor Structure and Discounting System

The A/H premium is not only due to the difference in cash flow expectations, but also includes the difference in discounting systems and the difference in investor structure. International and local funds have systematic differences in terms of benchmark constraints, risk compensation, and information environment, which result in applying different discount rates and linkage elasticity to the same cash flow sequence. This point was emphasized by Carpenter, Whitelaw, and Zou. The derived proposition is that when market accessibility and benchmark constraints increase, the difference in discounting systems is more likely to converge. When local preferences and short-term trading enthusiasm prevail, the discounting difference may widen. Corresponding local evidence indicates that under the

HomeBias index, which is based on funds from the Hong Kong Stock Connect, the allocation weight of funds flowing south to Chinese stocks is higher than their market capitalization proportion in the target pool. Moreover, it shows a directional correlation with the price fluctuations of A-shares/Chinese stocks and the Hong Kong market. Further, the multi-bullish and multi-bearish portfolios constructed based on the proportion of capital flows reveal that significant excess returns can be achieved in Chinese stocks, while no significant or negative returns are observed in non-Chinese stocks [7]. These results indicate that local preferences are not purely emotional; rather, they are more likely to be a rational allocation under the influence of information advantage and benchmark constraints. This makes investor heterogeneity a key variable affecting the relative pricing and discounting system of A/H. When mapped onto a unified timeline, the following can be identified: In S1-S2, the increase in the proportion of international institutions and the improvement of the investor identification mechanism help to reduce noise components and enhance linkage, which contrasts with the phased convergence shown in Fig. 2.In S3 (and S5–S7), the inclusion of indices and the introduction of enhanced passive funds and benchmark tracking enhance the consistency of the discounting constraints; while in S5–S8, if the local preference/short-window trading intensity increases, a wider price gap is more likely to reappear at the company level and on the short-term dimension. Practically, based on this, two monitoring criteria can be formed: when the proportion of foreign institutions/passive funds and the upward trend of benchmark constraints occur, the probability of convergence in discounting differences increases; when HomeBias and trading intensity increase, the risk of widening rises. The corresponding high-frequency proxies include the proportion and net flow of south/north funds, holdings by foreign institutions, changes in ETF/index fund shares, the HomeBias index, etc [3]. In summary, the differences in investor structure lead to constraints on the funding benchmark, different risk preferences, and the differentiation of discount rates and elasticity caused by the discounting system, all of which jointly drive the formation and fluctuation of the A/H premium. This influence will show dynamic changes such as convergence or widening as the market accessibility, benchmarking constraints, and trading intensity change.

6. Mechanism 3: Segmentation Relief (Interconnection/Inclusion in Index)

Interconnectedness achieves this through institutionalized cross-border transaction channels and quota arrangements, reducing the barriers for domestic and foreign investors to participate in each other's markets, enhancing the accessibility across markets and the depth of counterpart trading, and further reducing the fragmentation of the two markets. According to the empirical evidence and institutional background analysis, after the launch of the interconnection, the price linkage between the two regions has been enhanced, and the efficiency of information transmission has improved [5]. The liquidity at the transaction level and the market depth have also improved, which may provide a smoother path for the correction of relative pricing errors. At the same time, the structure of participants is also crucial: overseas institutions representing genuine overseas investors are more sensitive to global shocks (monetary policy, exchange rate, market performance in overseas markets), and arrangements such as investor identification codes for cross-border transactions (such as customer identification codes) help reduce the diversion of foreign capital and improve the purity of cross-border transmission.

Within the S1–S2 window (from December 2016 to April 2018, when the channel was formed or expanded), apart from the actual implementation and stable operation of the channel itself, the supporting processes such as the execution and settlement of cross-border orders, information disclosure and investor identification, as well as the efficiency of the quota operation, are also being gradually improved. Together, these measures aim to lower the threshold for cross-border participation and enhance the efficiency of the transmission of funds and information. Compared with Fig. 1, it can be observed that in the S1–S2 period, there is a phenomenon that is closer to the benchmark and the fluctuations converge; this phenomenon is consistent with the mechanism revealed of "improvement in accessibility/interaction/deepness → making the market more complete" [5].

The synchronicity of "localized foreign capital" is more in line with the A-share itself. Considering the institutional environment of S1-S2, it can be argued that when the proportion of internationalized funds and the effectiveness of the identification mechanism increase simultaneously, the noise components in cross-market relative pricing can be conditionally reduced. This provides a mechanism explanation for the observed phenomenon of convergence within this window. Beyond the S2 stage, other institutional and market factors are involved.

With the inclusion by MSCI (S3; S5–S7), the inclusion process was carried out in two steps in 2018 to reach 5%, and then in three steps in 2019 to increase the weighting to 20% and expand the coverage. This process introduced the need for passive funds and benchmark tracking, mar-

ginally altering the structure of holders and the constraints on rebalancing. In terms of direction, it was conducive to narrowing the differences in discounting systems between the two regions and the phased convergence of relative pricing.

7. Conclusion

This article uses the HSAHP (from 2016 to the present) as the unified reference system. After mapping the phased performance of A/H premium and the three mechanisms, it can be summarized as follows: From 2016-12 to 2018-04, the index's proximity to 100 increased, the price fluctuation range narrowed, presenting a phased convergence, and the direction was consistent with the evidence of the mechanism that enhances connectivity to improve accessibility, price linkage and market depth; In 2018-2019, the MSCI's initial inclusion and upgrade brought passive funds and benchmark constraints, serving as a institutional anchor to support the convergence of the discount in the discount system; In the company-level window from 2019-05 to 2020-05, the increase in A/H trading volume ratio was accompanied by a higher cross-sectional premium, and the ratio of outstanding shares was not significant, indicating that in the normal stage, short-window trading heat and local preferences would drive the price difference to widen periodically. Overall, liquidity and transaction costs will affect the speed of price correction. The differences in investor structure and discounting system constitute the core source of pricing divergence, which, when corroborated with evidence of local preference behavior, further enriches the representation of market heterogeneity. Thus, in practice, the following three criteria can be used for operation: When ILLIQ decreases / bid-ask spread narrows / depth increases and occurs in the same direction as the channel smoothly, convergence is more likely to occur. When index review and rights adjustment are approaching, it is necessary to track rebalancing and passive capital net flow to seize the opportunity for convergence. When the ratio of A/H trading volume rises in the short term, it is necessary to be more vigilant about the widening of the cross-section; at the same time, given the heterogeneity in exchange rate conversion, dividend tax treatment, and persistence control among different studies,

in the future, rolling tests and bandwidth analysis can be conducted around propositions such as improving accessibility, the influence of passive funds, and changes in trading behavior to deepen the understanding of the dynamic nature of A/H premiums.

Authors Contribution

All the authors contributed equally and their names were listed in alphabetical order.

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