CELENT

SHANGHAI-HONG KONG STOCK CONNECT

IT'S JUST THE BEGINNING

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June 2015

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BACKGROUND

This paper was commissioned by DTCC; however, the analysis and conclusions are Celent's alone, and DTCC had no editorial control over report contents.

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EXECUTIVE SUMMARY

Shanghai-Hong Kong Stock Connect, launched in November 2014, is a path-breaking initiative that for the first time provides international investors with direct access to China's domestic A shares market.

Stock Connect's initial aggregate quota of USD 90 billion is equivalent to 16% of the USD 548 billion of all offshore RMB (renminbi) assets as of 2014. The scheme is thus an important pillar of China's program to internationalize its currency.

As such, China's regulators want to see the initiative succeed. Stock Connect is hampered, though, by a number of idiosyncratic features that restrict trading strategies, create operational complexity, and introduce risk. These include:

- Hybrid settlement cycle
- No day trading and limited support for short selling
- Requirement to settle in RMB
- Asset fungibility issues
- Shareholder risk and reporting

Regulators are devising workarounds to these obstacles, as well as to a unique requirement to "predeliver" shares for sell orders. Such improvements will:

- Enable greater participation by institutional investors.
- Pave the way to including A shares in global equity benchmark indices such as MSCI within the next few years. This will in turn unleash substantial further investment in A shares.
- Ultimately open up the market to advanced trading strategies, including high frequency trading (HFT).

Celent estimates that these factors will drive international holdings of A shares to USD 428 billion by 2017. Committed to opening China's capital account, regulators can be expected to expand the quotas to meet investor demand.

The success of Shanghai-Hong Kong Stock Connect despite the challenges is inspiring a wave of cross-border exchange initiatives involving China, Asia and beyond. Already a Shenzhen-Hong Kong Stock Connect is slated to start within 2015.

Market observers debate the extent to which this will be followed by links between Shanghai or Shenzhen and Taiwan, Singapore, Tokyo, New York and London. Stock Connect has also inspired a number of proposals for links between Asian markets outside of China. Chinese and Asian cross-border links for derivatives, fixed income and commodities are also being discussed. What is clear is that the key factor driving demand for use of Shanghai Hong Kong Stock Connect is that it opens up a market previously difficult to access. Links providing access to other relatively new or untapped markets are likely to be the most successful.

Stock Connect is likely to trigger growth in Asia. Over the next few years, as cross-border trading increases within the region, market participants will need to ensure their post-trade systems and operations can scale to meet increased volumes and that best practice is employed to minimize operational risk.

SHANGHAI-HONG KONG STOCK CONNECT IN CONTEXT

China has emerged as one of the world's largest economies, with significant potential for continued, stable growth. Opportunities for international investors to participate in the China story, though, have been severely constrained by its strict controls on cross-border currency flows and on international participation in its capital markets.

China recognizes that more open markets are a key to maximizing its economic potential. To this end, China's regulators have been gradually loosening currency controls and enabling access to its markets through a series of carefully planned reforms over the past decade.

The latest step in this direction is the long-awaited opening of China's domestic equities market to direct participation by international investors, through the launch of Shanghai-Hong Kong Stock Connect (SHSC) in November 2014. SHSC is a trading link between the Hong Kong and Shanghai stock exchanges that enables institutional or retail foreign investors to trade on the Shanghai bourse, and investors in China to trade Hong Kong-listed issues. This paper focuses on northbound trading and the implications for institutional investors.

Although a limited program in its initial phase, Shanghai-Hong Kong Stock Connect provides an important conduit for international investors seeking access to China's market. Celent believes the program is only the first step in a gradual opening of China's capital markets to international trading. Increased trading quotas, extension to other asset classes and venues in China, harmonization of trading rules with international practice and, ultimately, enablement of low-latency advanced trading strategies are sure to follow.

At the same time, participation in the scheme presents a number of operational challenges to brokers, institutional investors, and custodians.

SHANGHAI-HONG KONG STOCK CONNECT: OVERVIEW

Shanghai-Hong Kong Stock Connect is a mutual market access service between the Hong Kong and Shanghai stock exchanges. From the first proposal a decade ago, such a trading link has been a long time coming and eagerly awaited by international investors seeking direct access to China's equities market.

Stock Connect is a new initiative and initially limits northbound holdings to a maximum total of RMB 300 billion (about USD 49 billion), the so-called "aggregate quota." SHSC enables trading in two directions:

- **Northbound**: Allows investors outside mainland China to trade selected equities on the Shanghai Stock Exchange (SSE), routed through Hong Kong brokers.
- **Southbound**: Allows investors in mainland China to trade selected equities on the Stock Exchange of Hong Kong (SEHK), through members of the SSE.

SHSC is especially significant for investors outside mainland China. For the first time, any international or Hong Kong investor can access China's domestic, RMB-denominated equities market, the A shares market. Previously, international access to A shares was only available to institutional investors licensed under China's QFII (Qualified Foreign Institutional Investor) and RQFII (RMB QFII) schemes.

Table 1: Framework of Shanghai-Hong Kong Stock Connect

	NORTHBOUND	SOUTHBOUND
ASSET CLASSES	Selected SSE A shares	Selected SEHK stocks
INVESTORS	International and Hong Kong institutional and retail investors	Domestic institutional investors and qualified retail investors
BROKERS	SEHK members who fulfill eligibility requirements	SSE members who fulfill eligibility requirements
CURRENCY	Traded and settled in offshore RMB	Traded in HKD and settled in RMB
TRADING VENUE	Shanghai Stock Exchange	Stock Exchange of Hong Kong
CLEARING HOUSE	ChinaClear	Hong Kong Securities Clearing Co.

Source: Hong Kong Exchanges and Clearing

As anticipated, the initial response from international investors was strong. Northbound trading on SHSC's first day attained 100% usage of the daily trading quota of RMB 13 billion (about USD 2 billion). The first months of operation saw less active daily trading but steady growth in positions. In terms of this new initiative's limited framework, then, the northbound track of Shanghai-Hong Kong Stock Connect is clearly a success.

RESTRICTIONS OF SHANGHAI-HONG KONG STOCK CONNECT

While succeeding on its own terms, the limitations of the Stock Connect scheme no doubt constrain potential demand for northbound trading. The structure and rules of Stock Connect differ markedly from other exchanges. These rules variously restrict trading strategies, create operational complexity, and introduce counterparty and other risks.

- **Restrictions on trading strategies**. SHSC does not allow day trading and does not fully support short selling. All trading must be done on the Shanghai exchange, which precludes brokers from internalizing trades (a mainstay of any large dealing operation). This restriction also means block trading (negotiated off-exchange trading, typically of large numbers of shares) is not possible for buy side firms.
- **Counterparty risk**. SHSC does not support delivery versus payment (DVP). The requirement to predeliver shares introduces additional risk (although a workaround to this is available since April 2015).
- **Operational complexity**. Trading must be done through a new, dedicated SHSC gateway. The settlement cycle is a fast T+0, and unusually complex. Accordingly, market participants need to adjust operational schedules and upgrade front and back office systems in order to trade on Stock Connect.

While international investors and their brokers may chafe at such limitations, it is important to note that a number of them are characteristic of China's market and apply to the SSE's domestic operations as well.

At the same time, some restrictions are intended to manage risk, regulate the extent of cross-border capital flows, and maintain an orderly market. So, for example, while international traders might welcome the opportunity to exploit price differentials between listed firms' A and H (Hong Kong-listed) shares, a restriction on share fungibility makes direct arbitrage impossible. In fact, A shares acquired through Stock Connect are not even fungible with A shares acquired through the QFII or RQFII schemes.

Fortunately, regulators and the Shanghai and Hong Kong exchanges see the need for harmonization with international practice, and have started to work on supporting short selling, day trading and DVP, and ameliorate risks.

A very strong motivator for China's regulators is that harmonization will lead to inclusion of A shares in the global benchmark indices maintained by MSCI and FTSE. Accordingly, further improvements to the Stock Connect model are likely to follow.

RESOLVING THE BARRIERS

Shanghai-Hong Kong Stock Connect has a number of unique rules that present challenges to investors and are therefore damping potential participation in the scheme. China's regulators are taking a positive stance to resolving these issues by modifying some of these rules, which should help drive more participation in Stock Connect.

Barriers for Institutional Investors

For institutional investors, the major barriers are the lack of legal ownership of shares and the requirement to predeliver shares before a sell trade.

Beneficial ownership. Under the SHSC scheme, investors are not the named owners of shares. Rather, shares are held by Hong Kong Exchanges and Clearing Limited. Although the exchange maintains that investors are the beneficial owners of these shares, with full shareholder and legal ownership rights, this ambiguous status is enough to keep pensions, sovereign wealth funds and other large institutional investors from participating in the scheme for internal compliance reasons. It has also been a stumbling block to obtaining regulatory approval in Europe of UCITS (Undertakings for the Collective Investment of Transferable Securities) that are based on Stock Connect A shares.

Because the Hong Kong exchange has focused on educating investors and overseas regulators about beneficial ownership rights, it does not appear the share ownership rules for SHSC will be modified anytime soon. Resolution of this issue will therefore come slowly, as institutional investors begin to accept the beneficial ownership concept — as Luxembourg's regulator has already done implicitly by approving Stock Connect A shares for UCITS.

Predelivery of shares. In its domestic market, the Shanghai Stock Exchange stipulates that investors can only sell shares already held in their trading accounts the previous day (T-1). Northbound trading on Stock Connect also follows this rule. If the securities are held by a custodian or by multiple brokers, which is often the case for buy sides, these must be transferred on T-1 to the broker through which the trade will be placed. The system is intended to prevent failed trades by enabling the exchange to check on a pre-trade basis that an investor holds the shares they intend to sell.

This means that sell orders must be planned a day in advance of the trade; and, due to the time zone difference, two days in advance for investment managers in North America. This predelivery requirement has proved to be a serious barrier to global investment managers as it restricts their ability to react quickly to changing market conditions.

Predelivery of shares to a broker also increases counterparty risk, since the broker holds the assets until the trade is made the following day. In addition to all this, handling both the T-1 predelivery and the T+0 settlement required by Stock Connect presents substantial challenges from an operations perspective.

In April 2015, Stock Connect implemented an investor ID system to resolve this barrier. Registered investors are given special accounts in Hong Kong Exchanges and Clearing's Central Clearing and Settlement System (CCASS) that allow the exchange to confirm their shareholdings. Buy sides with investor IDs can also use multiple custodians and brokers. By participating in this system, buy sides are able to meet the pre-trade checking requirement without predelivery of shares.

This workaround should attract more buy side participation, particularly as institutional investors and overseas regulators gain confidence in the beneficial ownership system.

However, even as the predelivery and ownership issues are resolved, the fundamental structure of Stock Connect, where trades are mediated by two distinct stock exchanges, still presents operational challenges and uncertainties around compliance and risk. As a result, large buy side participation in SHSC is likely to proceed not in leaps and bounds, but at a stately pace.

Barriers for Hedge Funds

Although hedge funds (and brokers) have been the main participants in Stock Connect, their trading strategies are severely limited by the scheme's ban on day trading and lack of support for short selling.

The Shanghai and Hong Kong exchanges have both indicated that day trading — buying and selling shares within one trading day — will be introduced on Stock Connect in 2015, perhaps initially with a limited universe of stocks.

Covered short selling was introduced in March 2015. Because only brokers that are exchange participants (EPs) are permitted to lend Stock Connect shares, however, short sellers cannot easily borrow shares to back their trades. As a result, there have been few takers for the new service. The limitations on share lending would have to be modified for a meaningful market in short selling to develop.

As resolution of these barriers is underway, albeit by fits and starts, Stock Connect will develop into a more attractive venue for hedge funds. Because hedge funds are typically heavy traders, this could drive significant growth in SHSC's trading volumes.

OPPORTUNITIES FOR MARKET PARTICIPANTS

Shanghai-Hong Kong Stock Connect presents a variety of immediate and long-term opportunities to market participants, including brokers, investors, custodians and clearing banks.

SELL SIDE OPPORTUNITIES

As the conduit for all northbound trades on Stock Connect, brokers are in a position to service the demand for A shares from multiple investor segments, from long-only buy sides to hedge funds to wealth managers. The demand profile will develop over time as more investors enter the market.

Initial trading in SHSC has been dominated by **hedge funds**, which do not have access to the licensed QFII and RQFII systems and so have been locked out of the A shares market until now. Securities firms with prime brokerage (PB) operations will capture most of the hedge fund activity in SHSC, and benefit from providing associated PB services such as financing, custody and clearing.

The opportunity for servicing **traditional institutional investors** has been muted due to many buy sides' reluctance to participate in the scheme because of its lack of ownership rights and complex operational requirements such as predelivery of shares.

As the operational barriers to buy side participation are removed, more institutional investors will enter the A shares market, creating a significant opportunity for brokers in the long term.

Brokers who are also general clearing participants (CPs) and custodian participants in the scheme benefit from the clearing and custody-related services associated with Stock Connect trades. Because only general clearing participants and custodian participants can provide investor IDs, which enable buy side investors to avoid the predelivery requirement for shares, they are also in a better position to attract institutional funds.

BUY SIDE OPPORTUNITIES

Because the Stock Connect scheme provides access to A shares to any overseas investor, it can potentially service the needs of a range of institutional investors.

Hedge funds. As noted above, hedge funds dominate buy side activity on Stock Connect, which for the first time gives them access to the A shares market. The scheme's ban on day trading and lack of meaningful support for short selling, however, limit the range of investment strategies available to hedge funds, and so constrain their trading activity. As these barriers are removed, hedge fund activity on Stock Connect will expand substantially.

Asset managers have been the most active among traditional buy sides in seeking to exploit the opportunities. In March 2015, Luxembourg approved a UCITS scheme to invest in A shares through Stock Connect, even though regulators in that jurisdiction were initially reticent to issue licenses due to the ownership issues surrounding shares obtained through Stock Connect.

Investment managers. Global investment managers stand to be major participants in the China A shares market. Stock Connect's unique rules, however, present operational and compliance challenges to investment managers which have constrained investment. Investor IDs and other improvements to the scheme should lead to increased participation by this sector. Resolving these issues is likely to smooth the way for the inclusion of the A shares market in global benchmark indices such as MSCI, which require their component markets to be readily accessible to international investors.

Trillions of dollars in passive investments by sovereign wealth funds, pensions and other institutional investors are pegged to the global indices, so adding A shares to these indices will unleash a sea change in investment levels in the market.

All investors. Unlike investment through the QFII and RQFII schemes, where reporting is required, under Stock Connect buy side investors do not have specific periodic reporting requirements.

OPERATIONAL CHALLENGES

Shanghai-Hong Kong Stock Connect runs on a unique, complex trade lifecycle that differs dramatically from trading on the Hong Kong exchange and presents a number of unique operational challenges to market participants.

Foremost among these are a hybrid T+0/ T+1 settlement cycle without DVP, a requirement to settle in RMB, asset fungibility issues, and shareholding reporting requirements. There are also a number of specific system requirements that SEHK member brokers must fulfill in order to trade on Stock Connect.

These complexities mean that brokers, investors and custodians need to enhance their operations and technology in order to enable efficient, compliant and risk controlled participation in the Stock Connect A shares market.

HYBRID SETTLEMENT CYCLE

Shanghai-Hong Kong Stock Connect uses a complex settlement cycle that presents a number of operational challenges to market participants. Settlement of shares and of cash is carried out in separate legs; there is no DVP delivery. In effect, the settlement cycle for northbound trading on SHSC can be characterized as T-1/ T+0/ T+1.

- Securities are settled on the trading day, T+0.
- Cash payment is settled the following day, T+1.
- For sell orders, the predelivery requirement for shares means, de facto, that the settlement cycle commences on T-1 (although the investor ID system provides a workaround to this requirement for buy sides who sign up to it).

The SHSC settlement cycle is not only complex, but also fast. An order executed at the end of the trading day, around 3:00 p.m., will generate a clearing statement one hour later, at 4:00 p.m., and the shares must be settled at the latest 3 hours after that, at 7:00 p.m. Non-delivery of securities by the 7:00 p.m. settlement run is subject to forced buy-in as well as fines for clearing participants.

The above timings are the deadlines for clearing participants, so middle office schedules at non-clearing member brokers, non-member brokers, custodians and buy side firms are even tighter.

RMB SETTLEMENT

Northbound trades through Stock Connect are denominated in RMB, and settled in RMB as well (through ChinaClear). Hong Kong Exchanges and Clearing provides a foreign exchange facility that allows overseas investors to trade RMB-denominated shares listed on SEHK. This facility, however, cannot be used for SHSC trading of Shanghai listed equities.

Investors, or their brokers, therefore need to maintain sufficient RMB deposits to fund their SHSC trades, or undertake foreign exchange transactions to obtain the needed funds to meet settlement deadlines. The RMB requirement introduces further operational complexity for brokers and their clients trading on Stock Connect.

Due to the liquidity characteristics of CNH (Hong Kong's RMB market, which trades separately from the domestic CNY market), funding costs may also be relatively higher for SHSC trades compared to buying H shares. Stock Connect's initial northbound quota of USD 49 billion is equivalent to 14% of the total estimated offshore RMB deposits of USD 351 billion as of 2014, underscoring just how tight liquidity in this market can be.

Fortunately, the RMB liquidity issue is likely to resolve itself quickly, as China's central bank has said that it intends to make the Chinese yuan freely convertible by the end of 2015. Even so, completing the necessary FX transactions to fund trades in time for Stock Connect's shorter settlement cycle will remain an operational challenge.

Asset Fungibility Issues

As mentioned above, A shares acquired through Stock Connect are not fungible with A shares acquired through the QFII and RQFII schemes. This presents a number of challenges. Stock Connect A shares must be managed separately from QFII/ RQFII A shares. This has prompted the London Stock Exchange to designate distinct SEDOL (Stock Exchange Daily Official List) identifiers for Stock Connect A shares; Bloomberg and Thomson Reuters have also issued new identifiers for Stock Connect shares. As all A shares use the same ISIN (International Securities Identification Number), back office systems will need to map the various Stock Connect identifiers with ISINs.

Non-fungibility also introduces the potential for valuations of Stock Connect A shares and QFII/ RQFII A shares to diverge, adding additional complexity from an operational and risk management perspective.

Shareholder Reporting

Regulations in China limit a single investor's position in a listed company to 10% of issued shares, and total international investment in a company to 30%. When either of these limits is breached, the relevant investors will be required to sell off the excess positions within five trading days. Investors' total holdings across the SHSC, QFII and RQFII schemes are used to calculate their positions.

In relation to these limits, when an investor's position in an SSE-listed company reaches 5% of the company's total issued shares, the investor must file reports with the China Securities Regulatory Commission as well as the SSE.

For active investors, these reporting requirements are a potentially onerous requirement, and will become only more so after the Stock Connect ban on day trading is lifted, fueling higher trading volumes.

At the same time, as noted above, Stock Connect has no periodic reporting requirements, unlike the QFII and RQFII schemes.

RISK MANAGEMENT CHALLENGES

Cross-border investment always carries some risk, such as foreign exchange risk, risks brought on by inadequate or insufficient timely information and market data, enhanced risk of failed trades, regulatory risk, and so on. While Shanghai-Hong Kong Stock Connect is subject to all of the above, institutional investors and brokers are used to managing these risks.

However, trading on SHSC involves additional specific risks which stem from the restrictions and limitations of the scheme.

- **Quota risk**. The SHSC program is limited by two quotas; a daily quota of net buy value on a given trading day, and an aggregate quota of total international holdings allowed. If the daily quota is reached, buying is halted for the rest of the trading day, although selling may continue. Furthermore, if total holdings approach the aggregate quota value, buying will be suspended on the next trading day.
- **Shareholding risk**. As described in the previous section, international positions in an SSE listed company are limited to a total 30%. To enforce these shareholding restrictions, when total international positions in a security reach 28%, northbound buy orders are halted. Whenever total positions reach 30%, the relevant investors must sell off any surplus shares.

Quota risk and shareholding risk thus involve market shutdowns when certain specified position thresholds are reached. These rules may constrain investors' ability to fulfill trading strategies.

- **Counterparty risk**. SHSC's lack of support for DVP means enhanced counterparty risk, particularly for sell orders. Counting from the predelivery requirement on T-1, investors in effect carry counterparty risk for two days, until cash settlement is made on T+1. Even under the investor ID system, investors carry the risk for one day.
- **Market risk**. In the standard SHSC settlement model, securities are bought on T and cash is settled on T+1; hence, securities can only be sold on T+2. To reduce the market risk introduced by this scheme, securities need to be pre-paid on T, so that they are eligible to be sold on T+1.
- **Beneficial ownership**. As described above, under the SHSC scheme, investors are not the registered owners of shares. Rather, shares are held by Hong Kong Exchanges and Clearing Limited in an omnibus account, with investors as beneficial owners. This ambiguity in ownership status is enough to keep some large buy sides from participating in the scheme.
- **Mainland Settlement Deposit (MSD) requirements**. More a cost of doing business than a risk, clearing participants in Stock Connect (most Stock Connect brokers) are required to post a deposit equivalent to 20% of their buy trading value. Only RMB cash deposits are accepted as collateral. Because brokers have complained that tying up capital in MSD reduces the attractiveness of participating in Stock Connect, regulators in China are considering reducing or even eliminating the deposit requirement.

REGULATORY GOALS

Shanghai-Hong Kong Stock Connect is regulated by the China Securities Regulatory Commission and Hong Kong's Securities and Futures Commission. The stated goals of the initiative are:

- For China, to provide investors with cross-border access to capital markets, with the aim of promoting internationalization of China's currency and the opening of China's capital account.
- For Hong Kong, to capture additional liquidity for its market and to support Hong Kong's offshore RMB business and its role as a financial gateway to China.

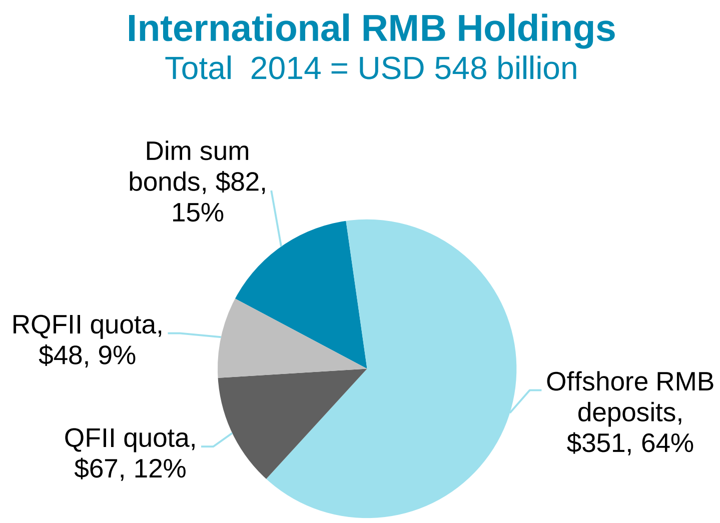
For China's regulators, then, Stock Connect is part of a long-term plan to loosen capital controls. Other regulatory programs in recent years also targeted at this goal include the QFII, RQFII, and QDII (Qualified Domestic Institutional Investor) programs, and the off-shore RMB deposits, renminbi bonds, and RMB cross-border settlement initiatives.

RMB internationalization is still in the early stages, largely due to the deliberate and methodical pace of China's regulators in their efforts to control the potential risks:

- The offshore renminbi bond market (dim sum bonds) totals an estimated USD 82 billion, compared to USD 4.5 trillion (according to S&P Dow Jones Indices) for China's onshore bond market.
- Offshore RMB deposits are estimated at USD 351 billion, about 2% of onshore deposits (USD 17.5 trillion, according to the China Banking Regulatory Commission).
- Quotas for the QFII and RQFII programs, before the launch of Stock Connect the only available channels for international investment in China's A shares, were USD 67 billion and USD 48 billion respectively in 2014, according to China's State Administration of Foreign Exchange.
- The aggregate quota (northbound) for SHSC was initially set at RMB 300 billion (USD 49 billion), roughly equivalent to the RQFII quota. The southbound aggregate quota was set at RMB 250 billion (USD 41 billion).

In other words, Stock Connect's initial total aggregate quota of USD 90 billion is equivalent to 16% of the USD 548 billion in international RMB holdings as of 2014. This makes Stock Connect an important pillar of China's program to internationalize its currency. Obviously, China's regulators want to see Shanghai-Hong Kong Stock Connect succeed.

Figure 1: The Offshore RMB Market



Source: Celent analysis based on industry sources

While for international investors SHSC suddenly opens up a new era of direct access to China's capital market, the carefully controlled pace of the country's capital account opening shows that for China's regulators the initiative is directed at sober, long-term goals.

SHANGHAI-HONG KONG STOCK CONNECT: IT'S JUST THE BEGINNING

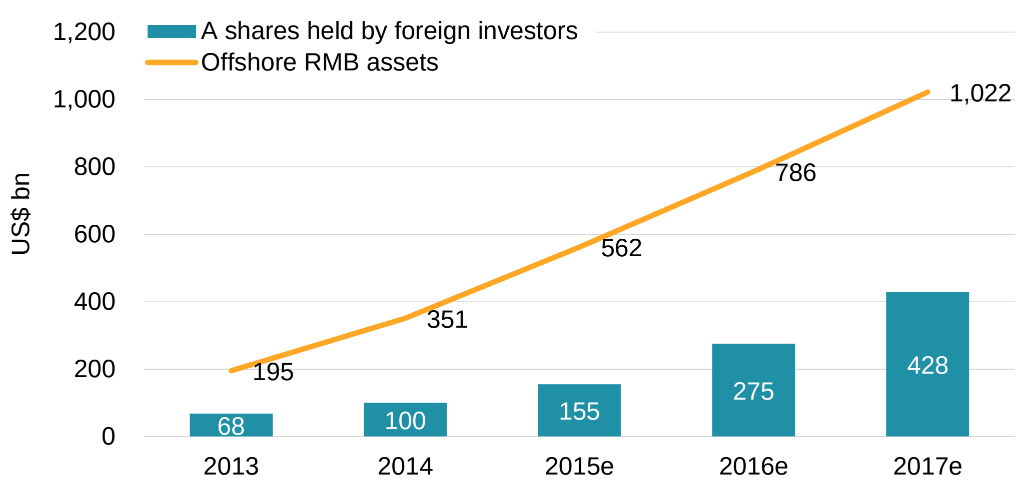
While limited in scope and encumbered by a variety of restrictions, Shanghai-Hong Kong Stock Connect is poised to trigger a significant increase in international investment in China's capital markets.

Regulators in China and Hong Kong and the exchanges are working to smooth out the kinks in the scheme, by enabling day trading, short selling, and no doubt other improvements to come.

Currently, China accounts for only 1.7% of global mutual fund assets, according to International Investment Funds Association data, much lower than the country's share of total global GDP. Hence international investment in China's capital markets is underweighted in comparison to China's position in the global economy. But closer harmonization of SHSC with international practice is expected to lead to inclusion of the A share market in the MSCI emerging markets index, which will trigger a flood of investment by traditional buy side institutions that benchmark to MSCI.

Given the potential demand, Celent estimates international holdings of A shares will expand to USD 428 billion by 2017.

Figure 2: Growth of International Positions in A Shares



Source: Hong Kong Monetary Authority, People's Bank of China, Celent estimates

This estimate assumes the continued deregulation of China's domestic equities market. Considering China's track record of slow-but-steady financial liberalization, there is every reason to expect regulators will stay the course.

Celent believes the future development of SHSC and related initiatives is likely to include:

Expanded quotas. The current northbound quota of USD 49 billion has been set by regulators in order to manage potential risk and disruption in the A shares market. This figure is less than 1% of the total A shares market (USD 6 trillion in 2014, according to the China Center for Market Value Management), and loosening of the quota in stages is likely.

Shenzhen-Hong Kong Stock Connect. It is thought that regulators did not include the Shenzhen Stock Exchange (SZSE) in the Stock Connect scheme due to concerns that it would trigger heavy southbound investment flows and weaken the Shenzhen market, which is dominated by emerging companies important to China's modernization. Reassured by the orderly rollout of SHSC, regulators and the SZSE are preparing to launch a similar program.

Other connections. The next phase of China's capital markets opening could involve stock connect programs to other international markets, such as between Shanghai/ Shenzhen and Taiwan, Singapore, Tokyo, New York and London. Outside China, proposals include a Singapore-Taiwan link and calls to rebuild the ASEAN Trading Link on the stock connect model.

Links to new or difficult to access markets are likely to be the most successful. As cross-border trading increases, market participants will need to ensure their post-trade systems and operations can scale to meet increased volumes and that best practice is employed to minimize operational and compliance risk when they trade in markets such as China which can have complex requirements.

Additional asset classes. International demand for derivatives to hedge risk, as well as for investment purposes, could lead regulators to open up China's domestic derivatives markets. Programs modeled on Stock Connect for fixed income and commodities are also likely and have already been mooted, in particular a Bond Connect to allow international investors access to China's onshore bond markets.

Algorithmic and high frequency trading. Algorithmic trading is already a fixture of domestic trading in the Shanghai market. The planned introduction of day trading will open up the potential for more advanced trading strategies, including high frequency trading (HFT). Although such developments will be carefully watched by regulators, a cardinal rule in electronic trading is that once the genie is out of the bottle it is too late to stopper it.

Technology and Operational Implications

By the time of its launch in November 2014, nearly 100 Hong Kong and international brokers had signed up as participants in Stock Connect northbound trading. While these firms meet the minimum requirements for trading, enhancement of technology and operational adjustments is ongoing.

This is particularly true of middle and back office operations, where ad hoc procedures are often relied on to meet the scheme's unique settlement cycles. Moreover, additional systems and operational enhancements will be required — on an ongoing basis — as covered short selling, day trading and — Celent believes — ultimately low latency trading capabilities are introduced to Shanghai-Hong Kong Stock Connect.

SHSC looks like an idiosyncratic exchange scheme now. But as other stock connect programs are implemented in China, Asia and the West, as well as for additional asset classes, the model will align with international best practices — and be improved upon. Accordingly, investments in operational and technology enhancements will be leveraged across multiple market programs. Brokers, investors and custodians should start preparing by getting up to speed on Shanghai-Hong Kong Stock Connect now.

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We provide services that help you refine your product and service offerings. Examples include:

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