Agenda Item: D5

Joint Meeting of the Retirement Boards
Meeting Date: January 24, 2018

NEPC, LLC

To: City of Fresno Retirement Systems (CFRS) Joint Board

From: Don Stracke, CFA, CAIA, Michael Miranda

Date: January 24, 2018

Subject: China A Shares

Background

China A Shares represent securities of companies incorporated in mainland China and listed on the Shanghai or Shenzhen stock exchange and traded in the Renminbi. In June 2018, MSCI will include China A Shares in the MSCI Emerging Markets and MSCI ACWI Index. MSCI plans to add 222 China A Large Cap stocks, which as of June 2017, represented approximately 0.73% of the weight of the MSCI Emerging Markets Index on a pro forma basis. Currently, Chinese stocks listed outside of mainland China and accessible to international investors are approximately 30% of the MSCI Emerging Markets Index and 3% of the MSCI ACWI Index.

It is important to note that the total market capitalization of the China A Shares market is approximately $1.52 trillion with small capitalization stocks representing approximately $416.49 billion (as of December 31, 2017). Based on World Bank data, as of December 31, 2016, China's GDP was approximately $11.2 billion with recent estimates of GDP growth for 2017 of 6.8%. China is currently the second largest economy in the world after the United States, which as of December 31, 2017, reported a total GDP of $23.9 billion while the third largest economy in the world, Japan, reported total GDP of approximately $4.9 billion.

Recommendation

NEPC supports the managers' request to invest in China A Shares pursuant to their investment guidelines. A number of recent developments have positively impacted the ability for foreign investors to access the China A Shares including enhanced regulation from Chinese authorities on trading suspensions and the relaxation of QFII regulations which restricted foreign investments in China. These positive changes have led to the decision to include these shares in MSCI indices moving forward.

We support the requests for the following reasons:

- It is consistent with the flexibility we have provided other managers to invest in "out of benchmark" securities with the appropriate limitations. For instance, Loomis Sayles has the flexibility to invest assets in emerging market debt securities but is benchmarked against a US high yield index.
- We believe that the retained managers are better positioned to evaluate the relative attractiveness of China A Shares than the Joint Boards.

- We have historically seen significant tail-winds to the performance of securities when they are included in benchmarks as passive investors will need to begin purchasing these securities when they are added to the benchmark.
- We believe that the benchmarks for managers should in general be investable. Following that argument to its logical conclusion, it is a timing issue, due to the inclusion of China A shares in June of this year.

Source:

1. *MSCI.June, 20, 2017. Results of MSCI 2017 Market Classification Review. https://www.msci.com/eqb/pressreleases/archive/2017_Market_Classification_Announcement_Press_Release_FINAL.pdf*
2. *MSCI. September 21, 2016. The Changing Landscape of China Investment Opportunities.*

November 17, 2017

FROM: ROBERT T. THELLER, Retirement Administrator

BY: KATHLEEN RILEY BROWN, Assistant Retirement Administrator

SUBJECT: REVIEW, DISCUSS AND CONSIDER EMERGING MARKETS EQUITY MANAGERS REQUEST FOR EARLY ACCESS TO PURCHASE CHINA A-SHARES

BACKGROUND

There has been discussion surrounding the plan to add shares of China A-large cap stocks to standard indices of the Emerging Markets Equity index for the past two years or so. MSCI was the first to confirm their plans to add 222 China A large cap stocks; and current plans are split into two stages to allow for Hong Kong/Shanghai Connect liquidity concerns. The first inclusion step coincides with the May 2018 Semi-Annual Index Review, followed by the second step which would occur as part of the August 2018 Quarterly Index Review. However, provided liquidity issues are resolved the two steps could potentially occur simultaneously in May 2018.

The MSCI addition process is only a starting point and it is expected that much more will come over the next few years such as the addition of mid-cap shares and an increased weighting. Upon initial inclusion, China A share will represent less than 1% of the index compared to 7% for US Chinese listings and over 20% for H Shares which are currently freely tradable in Hong Kong.

The Systems' dedicated emerging markets managers Acadian and Axiom have both requested authorization to permit early entry to purchase China A-shares. Each manager has written requesting permission providing reasons for their request. In addition, each manager has contacted Northern Trust requesting the establishment of SPSA [segregated accounts] account set-up.

Northern Trust reached out to confirm the Systems' desire to accommodate early access to China A-shares. The attached Investor Information document entitled MSCI CHINA A SHARE INCLUSION details the operational, trading, settlement and account set-up considerations surrounding investments in China A-shares. Ensuring managers are ready to trade and settle in China will not be a simple nor quick process.

China A-shares are listed on both the Shanghai and Shenzen exchanges and are traded through local brokers licensed to operate on each exchange. Among the Systems' emerging market managers, including ACWIexUS managers, a collective maximum of 20 local brokers may be utilized to execute China A-share orders. The Stock Connect system provides a way to access the A-Shares market in addition to the Qualified Foreign Institutional Investor (QFII) program. Northern Trust notes that the Stock Connect systems have vastly increased liquidity for foreign investors but are still subject to some liquidity issues.

China A-shares are traded in broad lots of 100 shares on both the Shenzhen and Shanghai markets. Northern Trust advises that even small funds should be able to invest at these levels and not suffer increased tracking error due to these round lot restrictions. There are also foreign ownership limits which will need to be monitored. A single foreign investor's shareholding in a listed company is not allowed to exceed 10% of the company's total issued shares, while all foreign investors' shareholding in the A shares of a listed company is not allowed to exceed 30% of its total issued shares.

Northern Trust's overall perspective on account set up considerations for China A-shares are outlined in the document they provided and the Boards are encouraged to read that document thoroughly. One key recommendation, regardless of when the Boards decide to permit the addition of China A-shares to the Systems' emerging markets equity portfolios, is to start the SPSA account set-up process as soon as possible. From Northern Trust's standpoint these accounts provide the cleanest access to the Connect system and are free to open and leave dormant.

ISSUE

Should the Boards authorize the Systems' emerging markets equity managers, including ACWIexUS managers, to start the process to implement SPSA segregated accounts and set up access to the Connect system through Northern Trust prior to the MSCI China A-shares inclusion in May 2018?

RECOMMENDATION

Staff and the Boards' investment consultant recommend that the Boards review, discuss and consider authorizing emerging markets equity managers including ACWIex US managers to proceed with early implementation of access to purchase China A-shares through Northern Trust and local brokers via the Stock Connect systems.

INVESTOR INFORMATION

MSCI CHINA A SHARE INCLUSION

WHAT IS HAPPENING AND WHEN?

The addition of China A-shares to global Emerging Market indices has been a point of discussion, excitement and contention for the last few years. All of the major index providers have conducted consultations into adding the world's largest local emerging market into their standard indices. FTSE have an index series which runs parallel to the standard index, but MSCI were the first to confirm that they will add China A shares to their mainline indices. Here we will look at the announcement and the details of the underlying market which will soon be an emerging market index component.

- MSCI plans to add 222 China A Large Cap stocks, representing on a pro forma basis approximately 0.73% of the weight of the MSCI Emerging Markets Index at a 5% partial Inclusion Factor[1]. There are some surprisingly small free floats amongst this list. This is a scaled back proposal from MSCI's initial 460+ name list and only includes the larger cap names.
- Currently plans are split into two stages to allow for Hong Kong/Shanghai Connect liquidity concerns. The first inclusion step would coincide with the May 2018 Semi-Annual Index Review, followed by the second step which would take place as part of the August 2018 Quarterly Index Review. Provided liquidity issues are resolved, both steps may potentially be implemented in May 2018.
- MSCI amended its original proposal to include China A Large Cap shares of companies that currently obtain H share equivalents in the MSCI China Index. This change to the original proposal brings the number of China A shares in the pro forma MSCI Emerging Markets Index from 169 to 222.

What is a Partial Inclusion Factor?

The partial inclusion factor is used as multiplier to determine market capitalization. Initially the A shares will be included at 5% of their market capitalization to minimize the initial impact of A Share inclusion. Similar factors were applied to South Korea and Taiwan when they were included.

WHAT HAPPENS NEXT?

The inclusion of China A shares into the emerging markets index may see market participants question; how quickly and by how much will MSCI increase the 5% initial Inclusion Factor, as well as when Mid Cap shares will be incorporated? Despite the initial excitement, the MSCI addition process is only a starting point with much more to come over the next few years.

There has been much anticipation regarding the addition of China A. Following the addition of the US listed Chinese names (A-share like exposure) in the middle of the consultation cycle; one would have expected the inclusion to have happened sooner. However since the announcement has been made, we are dealing with the most liquid names in the market, providing an exposure marginally larger than Qatar in the current index. Upon inclusion, China A share will comprise of less than 1% of the index, compared to 7% for US Chinese listings and over 20% for H Shares, which are freely tradable in Hong Kong[2].

The key considerations for asset managers amid the additions in both May and August 2018 respectively will be operationally focused. The test will be ensuring managers are ready to trade and settle in China; which undoubtedly with many EM countries is not simple.

OPERATIONAL CONSIDERATIONS: TRADING

STANDARD TRADING ON EXCHANGE

A shares are listed on both the Shanghai and Shenzen exchanges, and traded through local brokers, which are licensed to operate on each respective exchange.

Client Note – China A shares will require specialized brokers, many international organizations will need to use locals to execute their orders. This may clutter the process, given the limited liquidity on the Connect routing. It remains to be seen if there is enough capacity in the A share market for the increased trading, but MSCI took this into account when setting a 5% Inclusion Factor. Liquidity will have to increase and controls will have to be lifted before the Inclusion Factor is increased by MSCI.

CLIENT TRADING - STOCK CONNECT SYSTEMS GAIN POPULARITY OVER QFII QUOTAS

Market participants on both the Shanghai and Shenzhen Stock Exchanges can purchase A shares using the two Stock Connect systems (Hong Kong and Shenzen)[3]. The shares are quoted and settled in Chinese Yuan (CNY) on the Shenzhen and the Shanghai Stock Exchanges. For the most part, The Stock Connect system provides another way to access the A-Shares market in addition to the Qualified Foreign Institutional Investor (QFII) program. Due to its simplicity, the Stock Connect program could become a more popular way to access the A-Shares market than QFII.

Client Note – The Stock Connect systems have vastly increased liquidity for foreign investors but are still subject to some liquidity issues. CNY accounts will need to be set up in line with the equity accounts. This is sometimes forgotten but they will be separate on this occasion.

STANDARD LOT SIZE

A shares are traded in broad lots of 100 shares on the Shenzhen and Shanghai markets.

Client Note – Even small funds should be able to invest at these levels and not suffer increased tracking error due to these round lot restrictions.

FOREIGN OWNERSHIP LIMITS

A single foreign investor’s shareholding in a listed company is not allowed to exceed 10% of the company’s total issued shares, while all foreign investors’ shareholding in the A shares of a listed company is not allowed to exceed 30% of its total issued shares. Some stocks on the list of potential A share inclusion have relatively high foreign shareholding[4]. For example, Shanghai International Airport (600009 CH) has reached 26%[5].

Client Note – This will slot into our standard process for monitoring foreign ownership limits. Northern Trust and the index providers will have to be aware of any index replication issues occurring from foreign ownership limits becoming another liquidity flash point.

TRADED OTC

The shares of delisted companies are compulsorily moved to over-the-counter (OTC) market for trading. A new local stock code is issued for the delisted stock, however all the issued shares of the listed companies will continue to be safe-kept in China Securities Depository and Clearing Corporation (CSDCC) after being delisted. QFII/RQFII should refer to a designated broker to engage re-registration and trading of such shares on the OTC market.

Client Note – given the market concerns about stock suspensions and de-listings, the inclusion of an operational otc market is positive. We have utilised this in the past, limiting exposures to suspended securities.registration practice

The books of the CSDCC should reflect the clients' name. Shares are automatically registered in the buyer's name upon settlement.

Client Note – This is fully automated, which should not cause any issues and is not an extended period as it can be for some countries

OPERATIONAL CONSIDERATIONS: CUSTODY AND SETTLEMENT

A brief summary of the main custody and holding costs:

TYPE OF CHARGE	POTENTIAL COST	WHEN CHARGED	WHEN PASSED THROUGH TO NT	COST GENERALLY PASSED ONTO CLIENTS
Registration fee for A-shares in Shanghai market only (Transfer Fee for A-Shares only)	0.03% on face value, payable by both the buyer and seller	Settlement	Settlement	Yes
Non-trade transfer fee (caused by erroneous transaction	0.1% on face value of shares transferred (minimum CNY 10.00 in Shanghai; minimum CNY 5.00 in Shenzhen), payable by both the transferee and transferor	Monthly	Monthly	Yes
Non-trade transfer stamp duty (caused by erroneous transaction for QFII's or caused by inheritance and donation)	0.1% on transferred shares closing market value as of previous trading day, payable by transferor only.	Monthly	Monthly	Yes
Account opening fee	This fee is payable to both CSDCC Shanghai and Shenzhen branches when accounts are opened, the total fee is RMB400. If only need to open one-sided account, the fee is RMB200	Application (one off payment)	Monthly	Yes
CCDC and SCH Account Opening Fee:	CCDC bond account: RMB500 SCH bond account: RMB500	Application (one off payment)	Monthly	Yes

SETTLEMENT CYCLE

A shares are settled on Trade Date (T+0) with cash settlement on T+1. The CSDCC acts as the central counterparty, which guarantees securities and cash settlement.

Client Note – This will affect funding trades. However given the current size of China A in the index, it will only affect accounts with very low cash balances or large flows as a percentage of the fund.

SETTLEMENT PROCESS

Trades that fail to settle on contractual settlement date due to lack of funding or insufficient securities generally may have repercussions in the form of market imposed costs, penalties and counterparty claims. Furthermore, the possibility of regulatory reporting and scrutiny is present, which may transpire into trading restrictions imposed by the relevant market regulators. It is imperative that in order for Northern Trust to avoid trade settlement delays, ensuing costs and regulatory breaches, sufficient funding must be available by the relevant deadlines for buy orders or sufficient securities prior to placing sell orders.

Client Note – this is can be a greater concern, especially if the a shares weight increases rapidly. A t+0 cycle will require pre-funding in the same way Taiwan used to be fully pre-funded. Unfortunately this means that clients cannot currently use auto-fx in china to fund their orders. We will continue to monitor the situation to see if there is a change in structure which allows for simplification of this process.Failed trade practices and buy-in procedures

Failed trades are not permitted. The obligation to settle is created as soon as the trade is executed. In the case of an incorrect execution/settlement, the custodian must first allow the trade to be settled and then seek rectification on a post-facto basis. In the event of an erroneous trade where shares have been over-purchased, and is not resolved within the stipulated timeframe, CSDCC could impose penalties including freezing of assets and force selling of assets.

Client Note – We anticipate that this will operate much like Korea and Taiwan, where brokers ensure that there is no “fail” by using inventory to settle the stock. This will be more complex and expensive in the smaller securities which could follow into the index.

TURNAROUND TRADES POSSIBLE

No. Turnaround is prohibited by law.

Client Note – Clients will *not* be allowed to buy and sell stocks on the same day in the same A share account, as this could cause issues for omnibus accounts. It will also prevent crossing engines to operate efficiently in A-Shares.

FREE MOVEMENT OF SECURITIES

Yes. Applicable for error trade rectification purposes ***only*** and subject to relevant authorities' approval.

Client Note – This will limit the use of in-specie transitions for these securities.

INVESTOR NEXT STEPS

Though the addition of China A shares has received much coverage recently, the initial inclusion has been slimmed to such a degree that a properly planned transition to the new index series should produce a relatively smooth trade. There are still issues to be covered by clients concerning account set up, which will ensure that there is no delay of investment and that all clients with separately managed accounts are satisfied that they obtain enough market information to be invested. Here are a few of the main considerations in the lead up to May 2018.

- **Risk Assessment –** Key first step for all investors.

- Are you satisfied with the, albeit currently small, increased risk of adding China A to your Emerging Markets investments, or do you want to hold it as a standalone exposure?
- How will you invest if you already own China A shares, the stocks are currently not transferable, making in-species movements impossible, so your options are either to retain your initial exposure, or liquidate and start again with combined MSCI emerging markets exposure.
- There will be a 20% increase in the number of names in the Emerging Markets index for a 0.73% market weight. Is the extra exposure and potential monitoring cost something you require?
- Currently, MSCI are expected to offer a series of MSCI Emerging Markets indices without the China A exposure to make this choice easier for investors. This will also offer a way to avoid investment if you have decided you do not want the exposure or if you prefer to wait and see what happens with the first investments by large scale institutional index (and active) accounts.

- **Account Set Up –** This has generally been very easy for local investors.
    - However, there is likelihood that foreign investors will have a more circuitous route for the account set up to take place. Typically with emerging markets, when a new market opens to non-local investment, it will be less simple than everyone including experts anticipates.
    - Either the local custodians (for example when MSCI added Pakistan) or local broker network (for example UAE/Qatar) struggle to cope with the number of enquiries and account set up processes which have been initiated.
    - While the process may be smooth and efficient, we recommend that you are prepared and undertake the account operating process as soon as possible.
    - According to our experience as a global custodian, the average opening time for accounts are as follows: –
        - RQFII – 3 to 4 months
        - SPSA (segregated accounts) - 2-3 weeks
        - Single broker accounts- 72 hours.
    - **Recommendation:** For Connect trading, we recommend all clients start the SPSA process as soon as possible. These accounts provide the cleanest access to the Connect system and are free to open and leave dormant. RQFII accounts are useful as they are not affected by the daily quota system, except the client’s own, but are also far harder to manage and maintain.

- **Exclusion Lists** – Assess the influence of incoming stocks on your exclusion lists if appropriate.
    - Much will depend on your specific level of exclusions for exposure related to environmental, social, and governance considerations or on the basis of Sharia terms Asset managers may be able to identify and assess the impact on the incoming China A shares. At these initial levels the changes will be small, but as the A share weighting increases, the influence of restrictions will potentially become more material and add tracking error relative to the index.

Footnotes:

1 MSCI, "Results of MSCI 2017 Market Classification Review", June 20th, 2017 Press Release

2 Based on index data as of June 2017

3 The Stock Connect program is a link between China's mainland markets and the Hong Kong stock exchanges. It allows foreigners to trade China A shares in a less restrictive manner.

4 http://www.hkex.com.hk/eng/market/sec_tradinfra/chinaconnect/Documents/Investor_Book_En.pdf (page 25)

5 Updated as of May 26. http://english.sse.com.cn/investors/qfii/information/

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Kathleen Riley
Assistant Retirement Administrator
City of Fresno Retirement System
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Dear Kathleen,

My apologies that our operations team reached out to Northern Trust before I had the opportunity to speak with you in person. As you noted, our investment team's recommendation is to begin the process of opening a Hong Kong Stock Connect account prior to inclusion in the MSCI index in mid-2018. We believe the China A share market is less efficiently priced than other EM markets, particularly given the historical lack of investment from foreign investors. While we fully expect the overall breadth of the opportunities in mainland China will continue to make it an attractive area for investment even after MSCI inclusion, we also believe there is potential to add additional return to your portfolio if we can invest there prior to MSCI adding it to their indexes.

For most countries included in the MSCI index, our guidelines allow the portfolio to take a +/- 5% weight relative to the index; however, we intend to be more conservative as we begin investing in China A shares, and we will likely constrain the portfolio weight to no more than 2-3%. Given that we manage a separate account for City of Fresno, we can adjust that constraint to whatever you are comfortable with.

We understand that clients may be concerned with the potential risks of investing in China A shares, and our investment and operations teams have spent a lot of time assessing these risks and deciding on what we believe to be the best course of action. Currently, our plan is to invest in China A shares via Hong Kong Stock Connect accounts (both in our separately managed accounts and pooled fund vehicles). There are several different types of Stock Connect accounts that can be opened, but Acadian's strong preference is to have clients open a Special Segregated Account (SPSA) for the reasons I've listed below:

- Allows for equity execution across multiple brokers.
- Eliminates the need to pre-deliver shares.
- Allows for delivery-versus-payment settlement.

While we have judged the Hong Kong Stock Connect SPSA model to mitigate the risks associated with investing in China A shares, as with any market, there are still some potential risks to be aware of. I've outlined what Acadian perceives to be the primary potential risks below:

- Possibility of restricted repatriation due to the imposition of net sell limits on brokers by regulators and trading suspensions or halt, developments that have occurred in the past during periods of market volatility or in proximity to politically sensitive events.
- Risks associated with the T+0 trade settlement cycle that applies to investing in A shares via Stock Connect.

In addition to those I noted above, below are some of what we view to be the benefits of gaining access to the China A share market.

- With the inclusion of China A shares in MSCI indices in 2018, the inability to access these securities in client portfolios could result in a structural underweight if market access isn't set up by the time of inclusion.

- Acadian's general preference is to seek the broadest possible opportunity set, and accessing A shares will expand the investible universe of client portfolios.
- Acadian's investment team views the A shares market as being less efficient than other markets, and as a result we believe it will likely present attractive mispricings to exploit.

Please don't hesitate to contact me if you have any additional questions. I would also be happy to set up a call with our member of our investment team if that would be helpful.

Best regards,

Julia Khan
Vice President, Associate Relationship Manager
Acadian Asset Management LLC

November 16, 2017

Kathleen Riley Brown
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Re: China A-shares

Dear Ms. Brown,

As per our recent discussions, Axiom Investors is requesting permission to purchase China A-share securities on behalf of the City of Fresno Retirement Systems. We believe access to the China A-share marketplace prior to its addition to the MSCI Emerging Markets Index could benefit CFRS in the following ways:

- Our experience has been that securities often rally in advance of being added to an index. Therefore, gaining exposure to select China A-shares prior to their index inclusion in May 2018 could be relatively beneficial.

- Access to the China A-share market will help to broaden the opportunity set of dynamic growth businesses; particularly in the consumer, industrial, and information technology sectors.

- Fundamentally, China A-shares currently offer attractive growth at reasonable valuations. The CSI 300 Index, which is a capitalization-weighted index comprised of 300 A-share listed securities, is trading on 13.9x forward earnings, with an estimated growth rate of 18% in the upcoming year.

The allocation to China A-shares in our model portfolio is approximately 6% today, and we expect the allocation to range from 0% to 10% over time, which is purely a function of our bottom-up, fundamental investment approach.

Please let us know if we can be helpful with additional information. Thank you for your consideration.

Best regards,

Steve Hanson
Vice President / Client Service & Marketing

Edward Azimi
Chief Operating Officer

Edward Azimi is authorized to bind the firm contractually

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