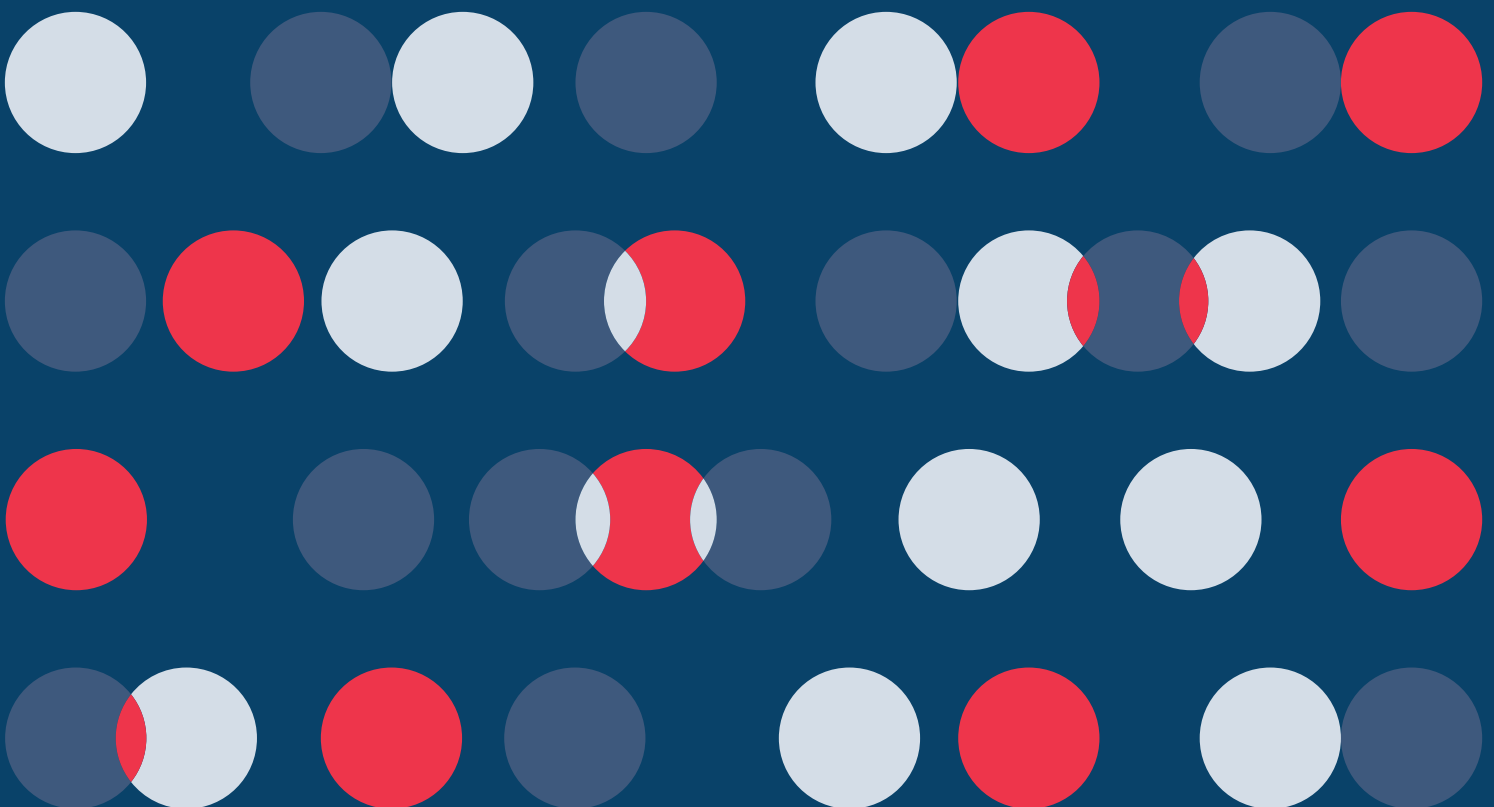


February 2017

RESEARCH REPORT

CES CHINA 120 FUTURES —  
A USEFUL OFFSHORE HEDGING TOOL FOR  
CROSS-BORDER INVESTMENT



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## SUMMARY

Cross-border stock investment in the Mainland and Hong Kong markets achieved a new page upon the launch of the Shanghai-Hong Kong Stock Connect (Shanghai Connect) in November 2014. A breakthrough was made when the aggregate quota for the pilot programme was abolished immediately on the announcement of the Shenzhen-Hong Kong Stock Connect (Shenzhen Connect) on 16 August 2016 and further with the subsequent launch of Shenzhen Connect on 5 December 2016. The Shanghai Connect and Shenzhen Connect are collectively referred to as the “Stock Connect” scheme. By then, a Mutual Market platform across Shanghai, Shenzhen and Hong Kong is basically formed. This undoubtedly will facilitate and promote cross-border stock investment, along with which there will be increasing demand for risk management of cross-border stock portfolios.

However, relevant risk management tools such as index futures and options that make reference to Mainland A shares or cross-border stocks in the Mutual Market are scarce in global markets. Among China-related indices with derivatives (futures/options) traded on overseas exchanges outside Mainland China, the CES China 120 Index (CES 120) is the only index based on both Mainland A shares and Chinese stocks listed in Hong Kong. Other traded indices are either based on Mainland A shares alone (the FTSE China A50 Index) or overseas-listed (mostly Hong Kong) Chinese stocks (including FTSE China 50 Index and MSCI China Free Index). In comparison, the CES 120 has a distribution of constituents across the three exchanges (Hong Kong, Shanghai and Shenzhen) in the Mutual Market and a good coverage by exchange, stock type and industry sector of eligible stocks under Stock Connect. In addition, the index is highly correlated with the A-share indices. It had outperformed other traded indices in terms of return and volatility in 2016 and had a dividend yield comparable to the Mainland blue-chip index, SSE 50 Index.

Given the characteristics of the CES 120 Index, CES 120 Futures traded on the HKEX derivatives market can be an effective risk management tool for investors to hedge their stock investment or to gain investment exposure in Mainland A shares and the Mutual Market. Furthermore, compared to FTSE China A50 Futures traded on the Singapore Exchange (SGX), CES 120 Futures has a lower exchange fee per contract notional value, a smaller tick size relative to index level and a higher position limit. In consideration of all these, CES 120 Futures can be considered to be a convenient and cost efficient offshore market tool for A shares and Mutual Market investment. Referencing the success story of EURO STOXX 50 Index and its derivatives and structured products in serving the mutual European market, CES 120 Index and its derivatives and structured products can serve the same need for the Mainland-Hong Kong Mutual Market.

## 1. THE NEED FOR CROSS-BORDER INVESTMENT RISK MANAGEMENT

### 1.1 Increasing cross-border stock investment facilitated by Stock Connect

A brand new official channel for overseas investors to invest in the Mainland stock market and for Mainland investors to invest in the Hong Kong stock market was opened in November 2014 when the **Shanghai-Hong Kong Stock Connect (“Shanghai Connect”)** was launched as the first initiative under the Mutual Market Access pilot programme (the **“Pilot Programme”**) between Mainland China and Hong Kong. Prior to this, foreign participation channels in the Mainland stock market had been limited mainly to the Qualified Foreign Institutional Investor (QFII) scheme and the Renminbi Qualified Foreign Institutional Investor (RQFII) scheme and foreign retail investors could only participate through investment funds offered by QFIIs and RQFIIs<sup>1</sup>. In the opposite direction, the Qualified Domestic Institutional Investor (QDII) scheme and the Renminbi Qualified Domestic Institutional Investor (RQDII) scheme had been the only national official channels of Mainland participation in overseas stock markets<sup>2</sup>.

The extended initiative of the Pilot Programme — the **Shenzhen-Hong Kong Stock Connect (“Shenzhen Connect”)**, with an expanded scope of eligible securities was launched on 5 December 2016. The Shanghai Connect and Shenzhen Connect are collectively referred to as the “Stock Connect” scheme. The key breakthrough in the Stock Connect scheme is the abolition of the aggregate quota immediately upon the joint announcement made on 16 August 2016 by the China Securities Regulatory Commission (CSRC) and the Hong Kong Securities and Futures Commission (SFC) on the establishment of Shenzhen Connect. Effectively with the launch of Shenzhen Connect, the **“Mutual Market”** model across Shanghai, Shenzhen and Hong Kong is basically formed, under which the suites of financial products offered in the three markets, where permitted by regulation, could be traded by both Mainland and global investors across the border. This is effected through Mainland investors’ “Southbound trading” of eligible products listed in Hong Kong by placing orders via the trading platforms of the Shanghai Stock Exchange (SSE) and Shenzhen Stock Exchange (SZSE); and through global investors’ “Northbound trading” of eligible products listed on the SSE and SZSE by placing orders via the trading platform of the Stock Exchange of Hong Kong (SEHK). **Without an aggregate quota, this Mutual Market will enable investors to conduct asset allocation across the Mainland and Hong Kong markets with a long-term investment perspective.**

Under Shanghai Connect and Shenzhen Connect, Northbound eligible stocks comprise constituents of the SSE 180 Index and SSE 380 Index; constituent stocks of the SZSE Component Index and of the SZSE Small/Mid Cap Innovation Index which have a market capitalisation of RMB 6 billion or above; and all SSE or SZSE-listed A shares with H shares listed on SEHK<sup>3</sup>. In the opposite direction, Southbound eligible securities comprise the constituents of Hang Seng Composite LargeCap Index (HSLI) and Hang Seng Composite MidCap Index (HSMI); constituents of Hang Seng Composite SmallCap Index (HSSI) with a market capitalisation of HK\$5 billion or above; and all H shares with A shares listed in the Mainland market, whether on SSE or SZSE<sup>4</sup>. HSLI and HSMI already cover up to 95% of the total market capitalisation of the Hang Seng Composite Index (HSCI), which in turn covers the

<sup>1</sup> The B-share market (traded in foreign currency and separated from the A-share market) on the Shanghai and Shenzhen Stock Exchanges, which was launched in 1992 as the Mainland’s first attempt of stock market opening to foreign investors, has become inactive in the new wave of market opening.

<sup>2</sup> There are special pilot schemes launched by local governments, e.g. the Qualified Domestic Limited Partnership (QDLP) programme in Shanghai and the Qualified Domestic Investment Enterprise (QDIE) in Shenzhen Qianhai. However, these are limited to mainly privately offered funds or investment vehicles not widely accessible by general investors as these target mainly the institutional investors and high-net-worth individuals, compared to QDII products which target general investors.

<sup>3</sup> Except those which are not traded in RMB and those under risk alert treatment by the SSE or SZSE (including shares of “ST companies” and “\*ST companies” and shares subject to the delisting process).

<sup>4</sup> Except those which are not traded in HKD and H shares which have the corresponding A shares put under risk alert.

top 95% of the total market capitalisation of the Hong Kong market<sup>5</sup>. As of the launch date of Shenzhen Connect (5 December 2016), Southbound eligible securities constituted 87% of the total market capitalisation of listed stocks on the SEHK Main Board while Shanghai Connect Northbound eligible securities constituted 81% of the total market capitalisation of listed A shares on the SSE and Shenzhen Connect Northbound eligible securities constituted 71% of the total market capitalisation of listed A shares on the SZSE markets (Main Board, SME Board and ChiNext)<sup>6</sup>.

Albeit the scope of eligible securities is currently confined to a specified set under Shanghai Connect and Shenzhen Connect, the Pilot Programme potentially opens up a **Mainland-Hong Kong mutual stock market** of a combined equity market value of US\$10,986 billion (as of end-November 2016) and an average daily equity turnover of about US\$85 billion (2016 up to November), **ranking 2<sup>nd</sup> by market value (following New York Stock Exchange) and 2<sup>nd</sup> by equity market turnover among world exchanges**<sup>7</sup>.

## 1.2 Risk management for cross-border stock investment

With the Mutual Market platform established, increasing cross-border trading activities are expected and along with that risk management for cross-border stock portfolios will become increasingly important. Risk management instruments commonly used to hedge portfolio investment risks include futures and options on listed stocks and/or related market indices. However, these hedging tools for Mainland investors in trading Hong Kong stocks are not readily available — there are currently no Hong Kong index/stock futures and options offered on any Mainland exchanges. Similarly in Hong Kong, there is also a lack of A-share hedging tools like A-share index futures and options. While derivatives may be included in the Mutual Market model in the future, investors may consider using proxy instruments in their home markets in the meantime.

For global investors trading Mainland A shares from Hong Kong, proxy index futures may be used for hedging purposes. Under Stock Connect where asset allocation can be made across both Hong Kong and Mainland (Shanghai and Shenzhen) markets, an index with constituent stocks listed on the three markets may serve as a good proxy. The CES China 120 Index developed by China Exchanges Services Company Ltd (CESC), a joint venture of HKEX, SSE and SZSE, is such a cross-border index with futures contracts traded on HKEX. In fact, the CES China 120 Index Futures (CES 120 Futures) is the only futures contract among global exchanges which is based on an underlying index that tracks both Mainland A shares and Chinese stocks listed in Hong Kong. The other China-related index futures available on global exchanges are either based on Mainland A shares alone or overseas-listed (mostly Hong Kong) Chinese stocks.

Section 2 below gives an overview of these indices and their derivative products, and Section 3 examines the CES China 120 Index and its futures in comparison with other Mainland-related stock indices.

<sup>5</sup> Source: Hang Seng Indexes Co Ltd website. The Hong Kong market universe of the HSCI refers to all stocks and real estate investment trusts ("REITs") that have their primary listings on the SEHK, excluding securities that are secondary listings, foreign companies, preference shares, debt securities, mutual funds and other derivatives.

<sup>6</sup> Source: Based on data obtained from Thomson Reuters and the respective exchanges' websites and eligible stock lists obtained from the exchanges' websites.

<sup>7</sup> World Federation of Exchanges (WFE) statistics, from WFE website, 22 December 2016. Average daily turnover was calculated from the combined shares turnover value for 2016 up to November from WFE statistics using the total number of trading days (225 days) for the Hong Kong market. Ranking was based on the year-to-month combined trading value.

## 2. CHINA STOCK INDICES AND THEIR DERIVATIVES

FTSE Russell and MSCI are the two main index providers in the global market. Each of the two institutions compile some 20 China indices, some on domestic A shares alone, some on non-domestic overseas-listed Chinese stocks and some on both domestic and non-domestic listed Chinese stocks. However, only a few indices have futures (and options) products offered by exchanges outside Mainland China.

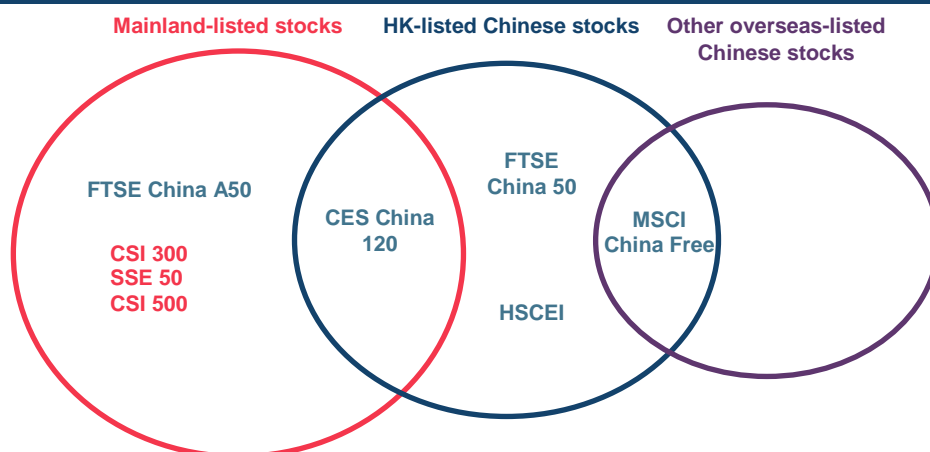
In the Mainland, the China Securities Index Co., Ltd (CSI), jointly established by the SSE and the SZSE, is the major index provider, producing single-market (SSE or SZSE) indices and cross-market (SSE and SZSE) indices. Of these, only three indices have futures products traded on the China Financial Futures Exchange (CFFEX). The major China stock indices with exchange-traded derivatives identified (referred to as “traded indices” hereinafter) are summarised in Table 1 below.

Table 1. Major China stock indices with exchange-traded derivatives				
Index	Short name	Constituents	Derivative products	Listed exchange <sup>^</sup>
<b>On Mainland-listed stocks</b>				
FTSE China A50 Index	FTSE A50	50 largest A share companies listed on SSE and SZSE	FTSE China A50 Index Futures	SGX
CSI 300 Index	CSI 300	300 largest and most liquid A shares listed on SSE and SZSE	CSI 300 Index Futures	CFFEX
CSI 500 Index	CSI 500	500 small to medium sized A shares listed on SSE and SZSE	CSI 500 Index Futures	CFFEX
SSE 50 Index	SSE 50	50 largest and most liquid A shares listed on SSE	SSE 50 Index Futures	CFFEX
<b>On Hong Kong-listed Chinese stocks</b>				
Hang Seng China Enterprises Index	HSCEI	H shares listed on SEHK	H-Shares Index Futures and Options	HKEX
FTSE China 50 Index	FTSE China 50	50 of the largest, most liquid Chinese stocks (H shares, red chips, P chips*) listed and traded on SEHK	E-Mini FTSE China 50 Index Futures	CME
			FTSE China 50 Index Futures	JPX
<b>On Hong Kong and overseas-listed Chinese stocks</b>				
MSCI China Free Index	MSCI China Free	Large and mid-cap Chinese companies listed outside Mainland China, including H shares, red chips, P chips* listed on SEHK and foreign listed shares	MSCI China Index Futures and Options	SGX
			MSCI China Free Index Futures	Eurex
<b>On Mainland and Hong Kong-listed Chinese stocks</b>				
CES China 120 Index	CES 120	80 most liquid and largest A shares listed on SSE and SZSE and 40 most liquid and largest Mainland companies (H shares, red chips and P chips*) listed on SEHK	CES China 120 Index Futures	HKEX
<b>Notes</b>				
* H shares are issued by companies incorporated in Mainland China and are listed on HKEX; red chips are shares issued by companies listed in Hong Kong that are incorporated outside Mainland China and that are controlled by Mainland government entities through direct or indirect shareholding and/or representation on the company's board; P chips are shares issued by companies listed in Hong Kong that are incorporated outside Mainland China and that have operations in Mainland China run by private sector individuals in Mainland China.				
<sup>^</sup> Abbreviations of exchanges: CME — CME Group; JPX — Japan Exchange; SGX — Singapore Exchange				
Source: Websites of FTSE Russell, MSCI, CESC, CSI and the respective exchanges				

Five major indices based on Chinese stocks are found to have futures products traded on major global exchanges outside Mainland China (referred to as “overseas traded indices”).

Among them, one is based solely on Mainland-listed A shares — FTSE China A50 Index (FTSE A50), with futures (FTSE A50 Futures) traded on Singapore Exchange (SGX); three are based on Hong Kong-listed Chinese stocks — FTSE China 50 Index and Hang Seng China Enterprises Index (HSCEI), or including other foreign listed stocks — MSCI China Free Index; and **only one — the CES China 120 Index (CES 120) — is based on both Mainland-listed A shares and Chinese stocks listed in Hong Kong.** Figure 1 below gives a diagrammatic presentation of the China stock indices with exchange-traded derivatives by constituent types.

**Figure 1. China stock indices with exchange-traded derivatives by constituent type**



Note: Indices in **blue** color have futures products traded in Hong Kong or overseas exchanges; indices in **red** color have futures products traded on CFFEX in the Mainland.

### 3. CES CHINA 120 INDEX AND INDEX FUTURES

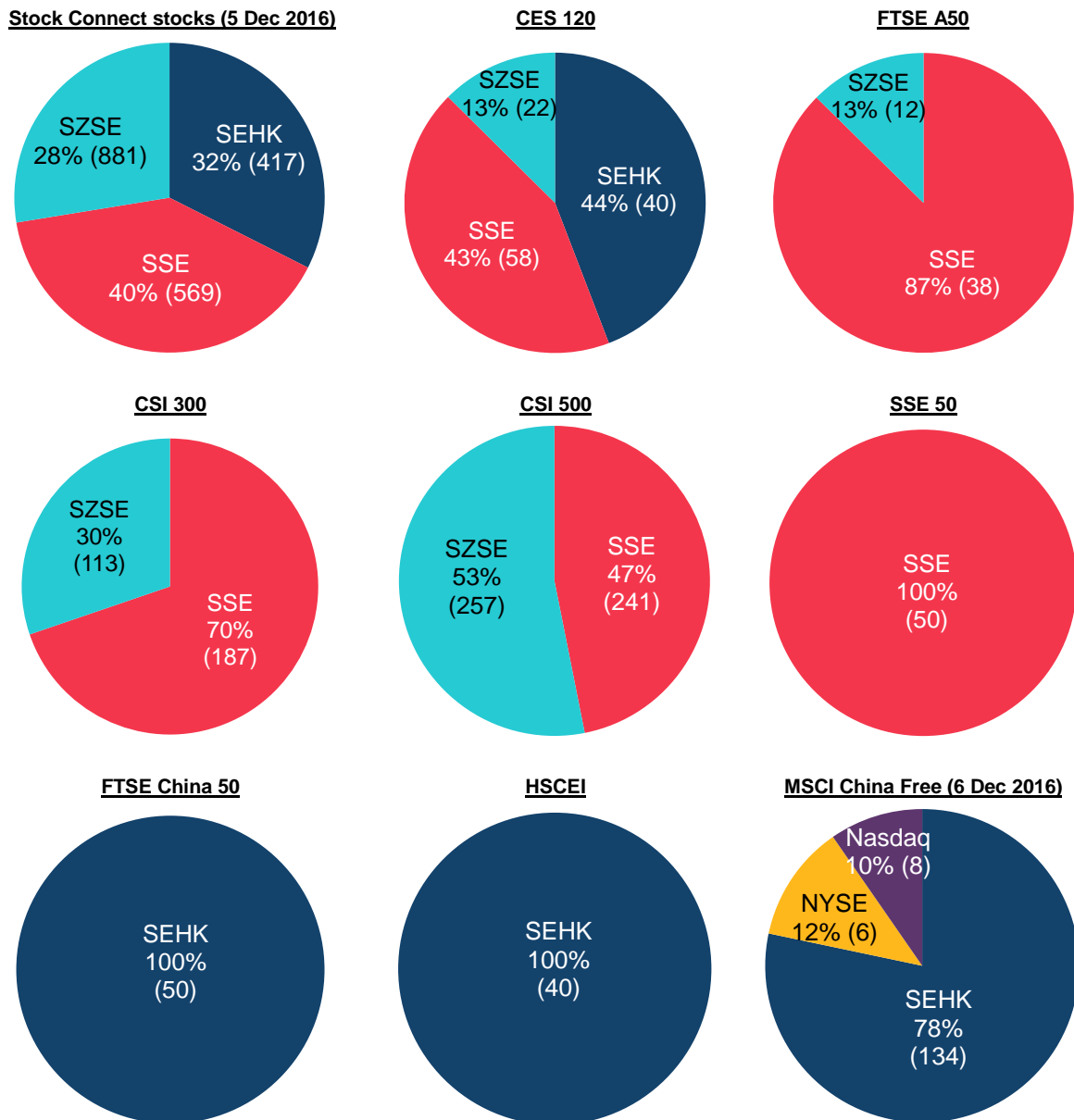
This section firstly examines the composition of listed stocks across the border by the traded indices (indices with derivatives traded on the Mainland or overseas derivatives exchanges) in terms of market capitalisation (MC) and industry sectors. A comparison is made of the composition across the indices and against the eligible stocks under Stock Connect and, where applicable, with the key market indices in Shanghai — SSE A-Shares Index (SSE A), Shenzhen — SZSE A-Shares Index (SZSE A) and Hong Kong — Hang Seng Index (HSI). Correlations between the indices are also examined and a brief comparison of their performance is made.

This is followed by an overview of the CES China 120 Futures as a risk management tool for cross-border investment.

#### 3.1 CES China 120 Index — An A-shares and Mutual Market index proxy

**In terms of weighting of constituents** from the three markets — SEHK, SSE and SZSE — on the Mutual Market platform, CES 120 had almost equal weightings on SEHK and SSE stocks, with relatively less weighting on SZSE stocks as of 30 November 2016 (44%, 43% and 13% respectively). This is relatively more representative of the Mutual Market than the currently tradable indices on Chinese stocks — compared to A-shares indices, CES 120 had an equal weighting on SZSE stocks as FTSE A50 and a similar sharing of SSE and SZSE A shares (77:23) as the Shanghai and Shenzhen cross-market big-cap CSI 300. Other overseas-traded indices on Chinese stocks covers only Chinese stocks listed on SEHK (e.g. FTSE China 50 and HSCEI); or including those listed in the US (e.g. MSCI China Free). **The weighting composition of CES 120 by listing exchange is also the closest to the corresponding composition of the eligible stocks under Stock Connect.** (See Figure 2.)

**Figure 2. Weighting by listing exchange of CES 120 constituents and other traded indices on Chinese stocks, compared to Stock Connect eligible stocks (as of 30 Nov 2016, unless otherwise stated)**



Note: Excluding constituents where the market capitalisation or weighting is not available. Number of stocks in brackets.

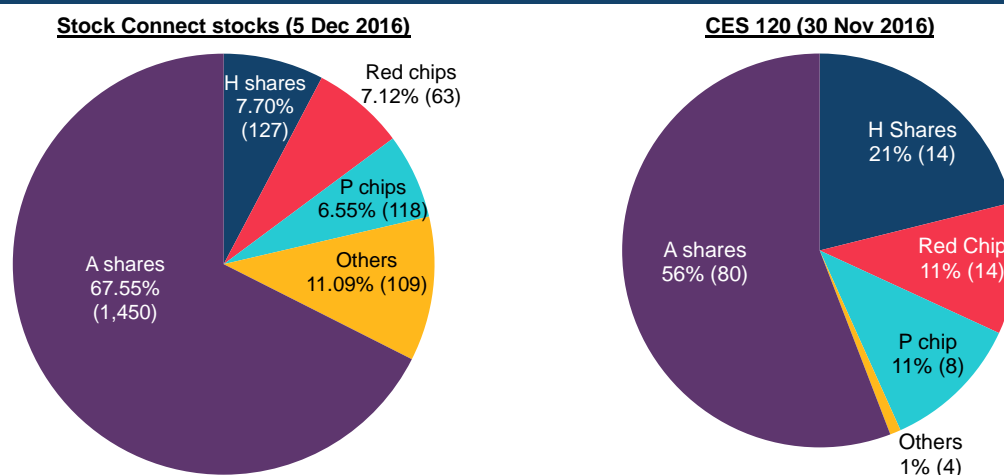
Source: HKEX, SSE and SZSE websites for Stock Connect eligible stock lists, with market capitalisation data from HKEX and Thomson Reuters; CESC website for CES 120 weightings; Bloomberg for MSCI China Free weightings; Thomson Reuters for others.

In addition, the **SEHK-listed constituents of the CES 120 comprise H shares, red chips and non-H share Mainland private enterprises (P chips)**<sup>8</sup>, with weightings by stock type comparable to that for Stock Connect eligible stocks (see Figure 3).

<sup>8</sup> See note in Table 1 for definitions of each of these stock types.



**Figure 3. Weighting by stock type of CES 120 constituents compared to Stock Connect eligible stocks**



Note: Number of stocks in brackets.

Source: HKEX, SSE and SZSE websites for Stock Connect eligible stock lists, with market capitalisation data from HKEX and Thomson Reuters; CESC website for CES 120 weightings; Bloomberg for MSCI China Free weightings; Thomson Reuters for others.

Looking more closely at each of these indices in respect of their **coverage of eligible stocks under Stock Connect**, the CES 120 has the largest coverage in terms of market capitalisation as of the launch date of Shenzhen Connect (5 December 2016). By market capitalisation, the CES 120 covers 41.3% of Stock Connect eligible stocks, compared to 22% for FTSE A50, the highest among other overseas-traded indices and 40.6% for CSI 300, the highest among Mainland-traded indices. In terms of number of stocks, CES 120 represents 6.4% of Stock Connect eligible stocks which, albeit not high per se, is the highest among overseas-traded indices, except MSCI China Free which have coverage of SEHK-listed stocks only. For coverage of Stock Connect stocks by listing exchange, other overseas-traded indices cover either Mainland A shares only, or SEHK-listed stocks only and not both. On the contrary, **CES 120 has stocks spread over the three exchanges of SEHK, SSE and SZSE.** (See Figure 4.)

In terms of **index composition by industry sector in comparison with Stock Connect stocks**, CES 120 has a heavier weighting on Financials (47% as of 30 November 2016 vs 25% for Stock Connect stocks) but a similarly balanced distribution of weighting on the other sectors like Stock Connect stocks. The sector distribution of the CES 120 also resembles CSI 300, the Shanghai-Shenzhen cross-market blue-chip index. On the contrary, some other overseas-traded indices have a much higher concentration on a single sector (68% and 71% on Financials for FTSE A50 and HSCEI respectively, 72% on Real Estate for FTSE China 50). In particular, **CES 120 is more balanced on stocks from Information Technology (IT) sector (12%) and Telecommunication Services sector (6%)** compared to FTSE A50 — which has no stocks from Telecommunication Services and low weighting on IT (1%), and compared to HSCEI — which has no stocks from IT and low weighting on Telecommunication stocks (2%). (See Figure 5.)

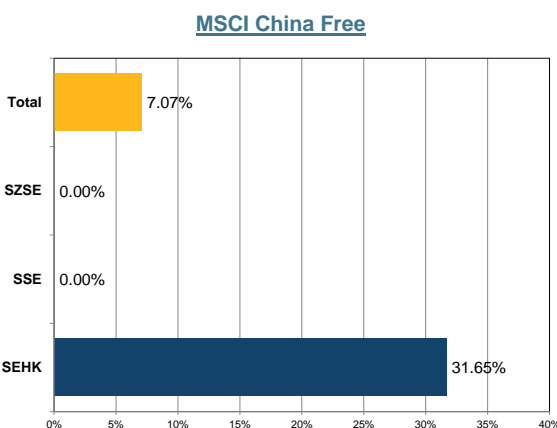
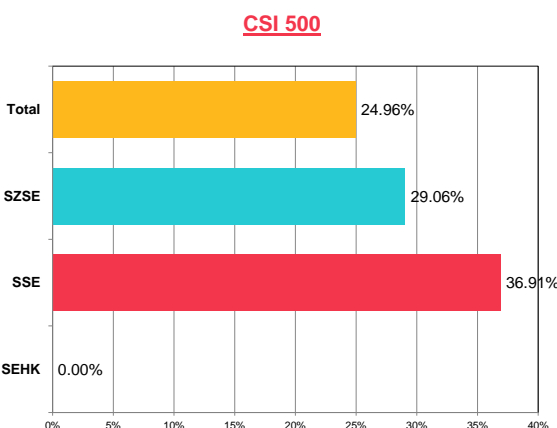
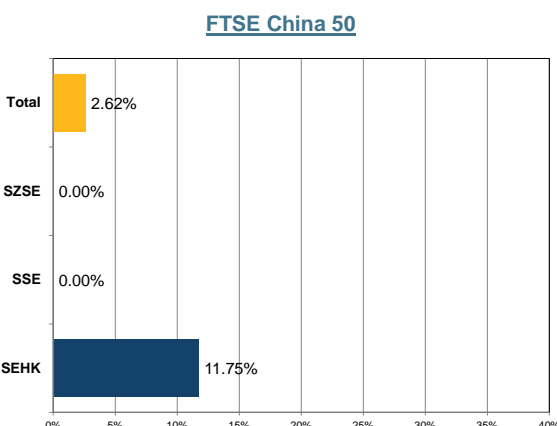
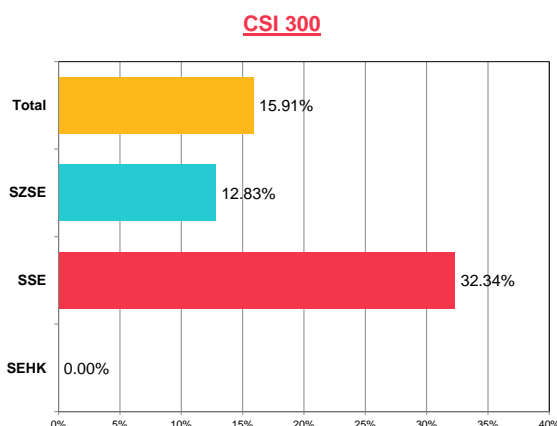
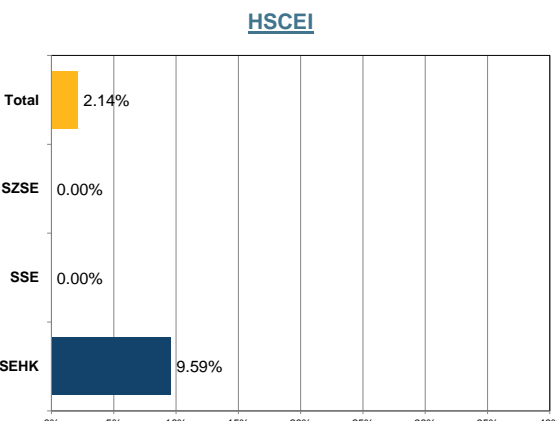
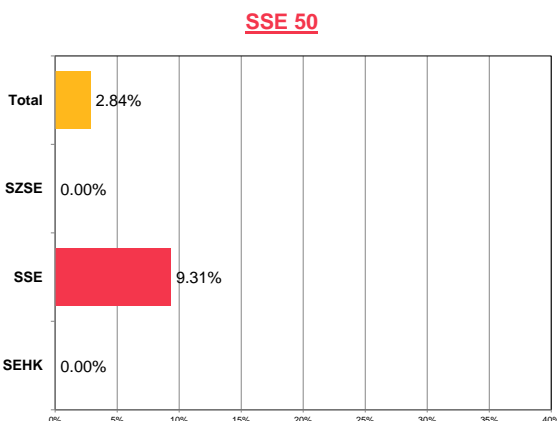
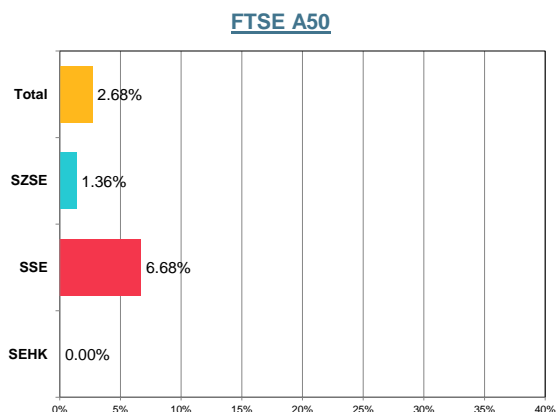
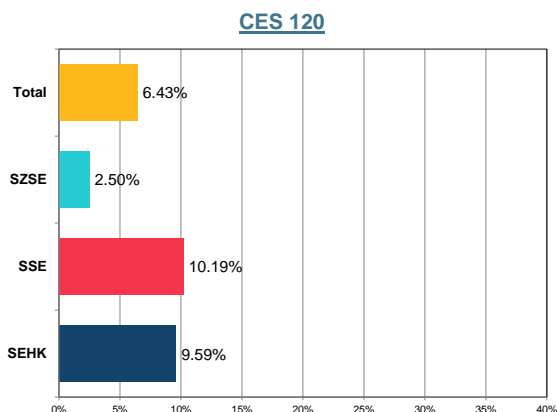
While SSE A shares and SZSE A shares have rather different industry compositions, **CES 120 has an industry composition closer to the Mainland cross-market index CSI 300** owing to the inclusion of both SSE and SZSE stocks. For the same reason, **it has a broader industry coverage than HSI of the Hong Kong market.** (See Figure 5.)

**Figure 4. Coverage of Stock Connect eligible stocks by CES China 120 Index and other traded indices on Chinese stocks (as of 5 Dec 2016)**

(a) In terms of market capitalisation



**(b) In terms of number of stocks**

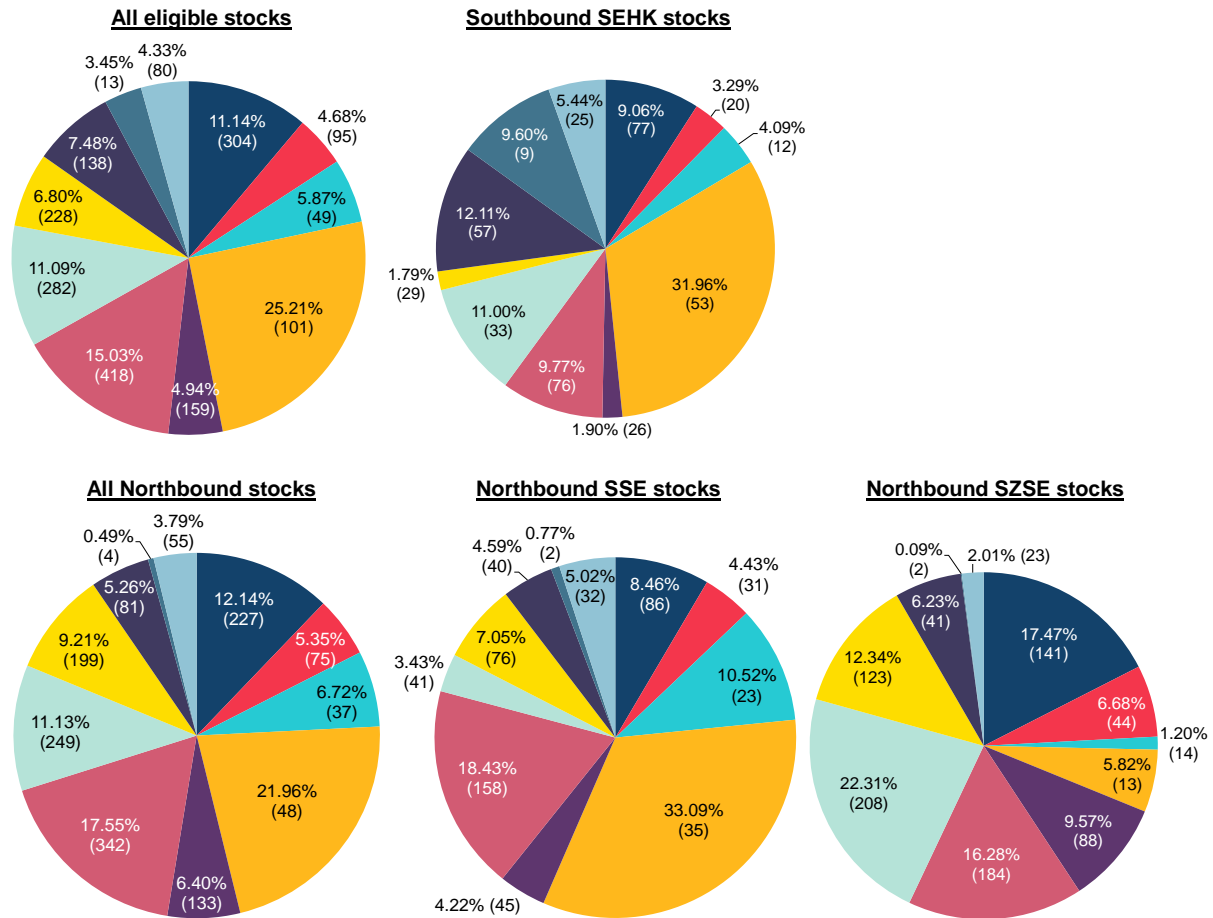


Note: Titles are in blue for overseas-traded indices and in red for Mainland-traded indices.

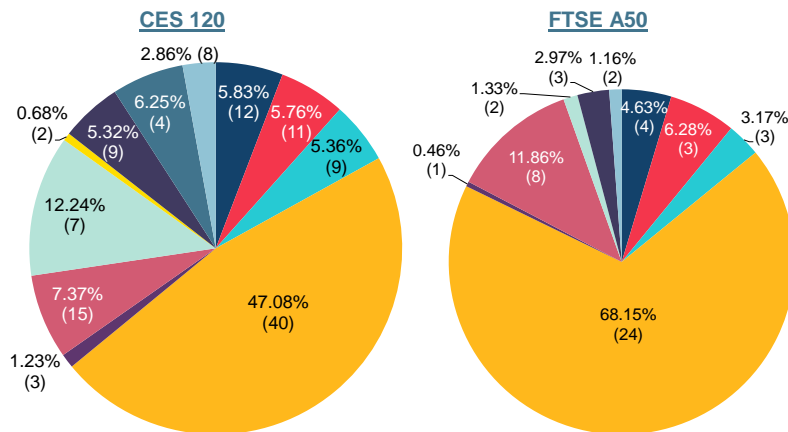
Source: HKEX, SSE and SZSE websites for Stock Connect eligible stock lists; index constituent stock lists are from CESC website, Thomson Reuters and Bloomberg; market capitalisation data are from HKEX and Thomson Reuters.

**Figure 5. Weighting by industry sector of CES 120 constituents and other traded indices on Chinese stocks, compared to Stock Connect eligible stocks and Mainland and Hong Kong key market indices**

**(a) Stock Connect stocks (5 Dec 2016)**

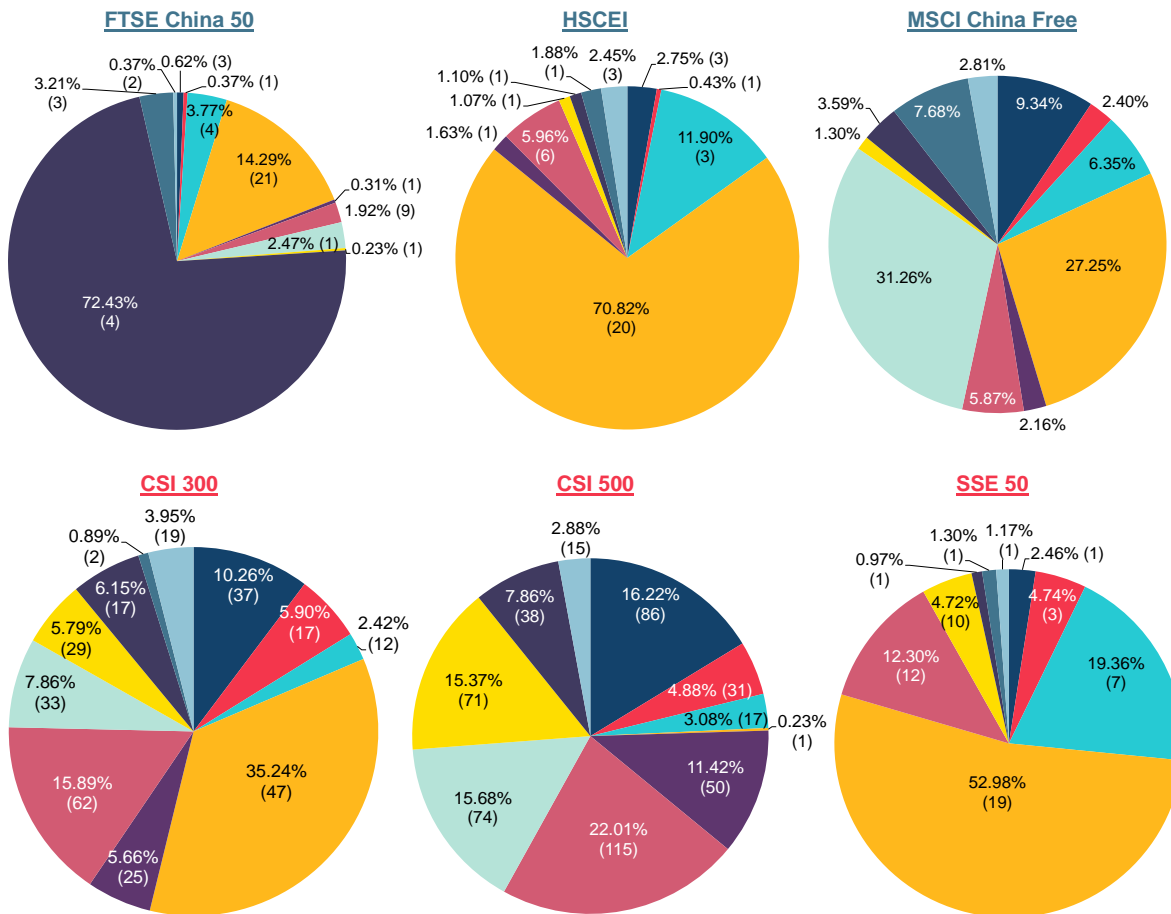


**(b) Traded indices (as of 30 Nov 2016)**

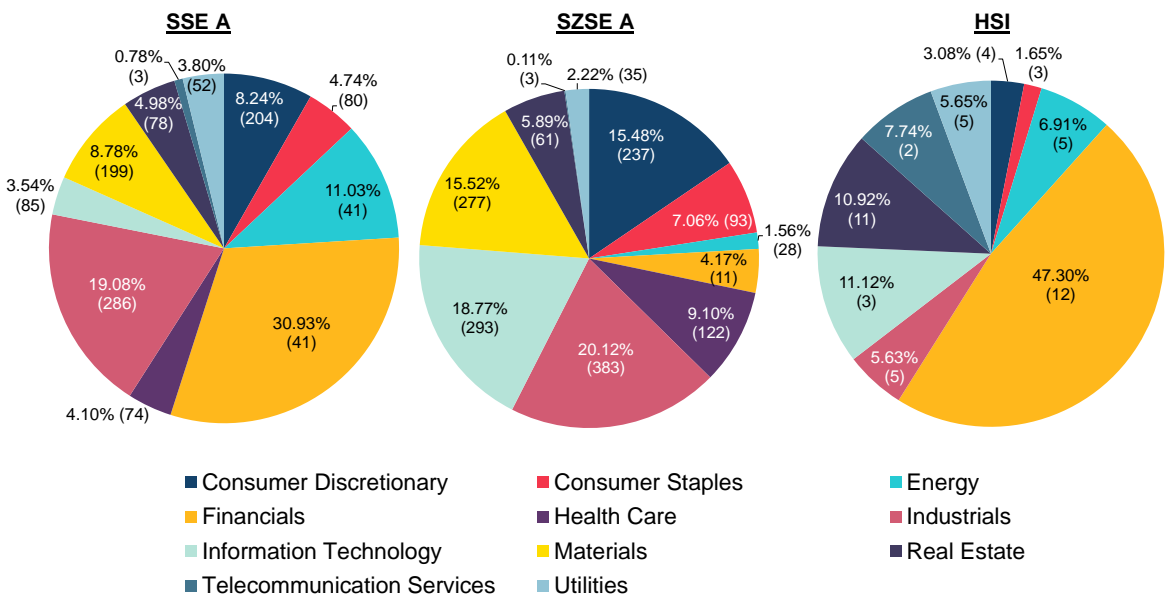


- Consumer Discretionary
- Consumer Staples
- Energy
- Financials
- Health Care
- Industrials
- Information Technology
- Materials
- Real Estate
- Telecommunication Services
- Utilities

**(b) Traded indices (as of 30 Nov 2016)**



**(c) Mainland and Hong Kong key market indices**



- Consumer Discretionary
- Consumer Staples
- Energy
- Financials
- Health Care
- Industrials
- Information Technology
- Materials
- Real Estate
- Telecommunication Services
- Utilities

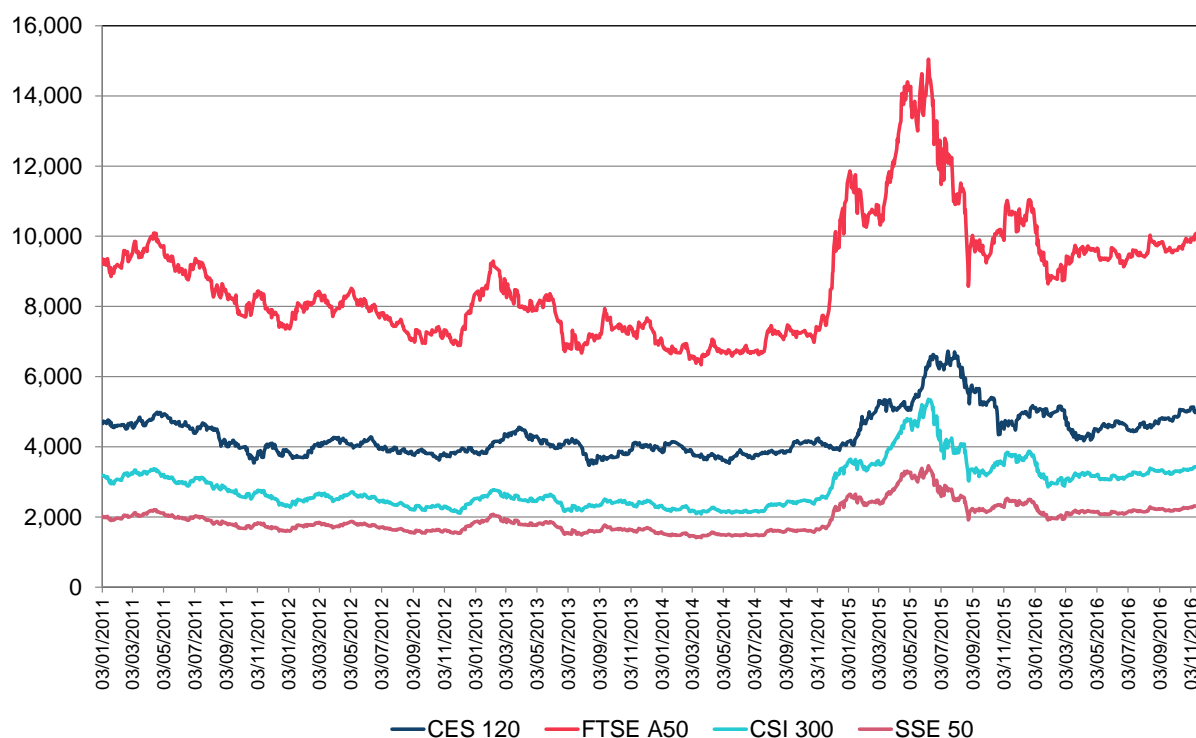
Notes: Excluding constituents where the market capitalisation or weighting is not available. Number of stocks in brackets. Titles are in blue for overseas-traded indices and in red for Mainland-traded indices. Percentages may not add up to 100% due to rounding.

Source: HKEX, SSE and SZSE websites for Stock Connect eligible stock lists; CESC website for CES 120 constituent list; MSCI website for MSCI China Free industry composition; HKEX and Thomson Reuters for others.

Having a good representation of Mainland A shares in the index, the CES 120 would be a good tracker of the A shares market. As shown in Figure 6, the daily movement of CES 120 followed closely the trend of SSE 50 and CSI 300. Further examination found that **CES 120 is highly correlated with the A-share indices**. For the period from January 2011 to November 2016, the daily returns of CES 120 had a correlation coefficient of about 0.9 with those of FTSE A50 (coefficient: 0.904), SSE 50 (coefficient: 0.905) and CSI 300 (coefficient: 0.887), and a comparably high correlation coefficient (0.869) with that of SSE A, albeit a much lower correlation with that of SZSE A (coefficient: 0.671). Daily returns of the other overseas-traded indices on Chinese stocks (FTSE China 50, HSCEI and MSCI China Free), for which all or most of the constituents are Hong Kong listed stocks, were more highly correlated with each other and with HSI of the Hong Kong market (correlation coefficients of 0.944 or above during the period) than with the A-share indices (coefficients: about 0.6 or less). The patterns are similar across each year during the period.

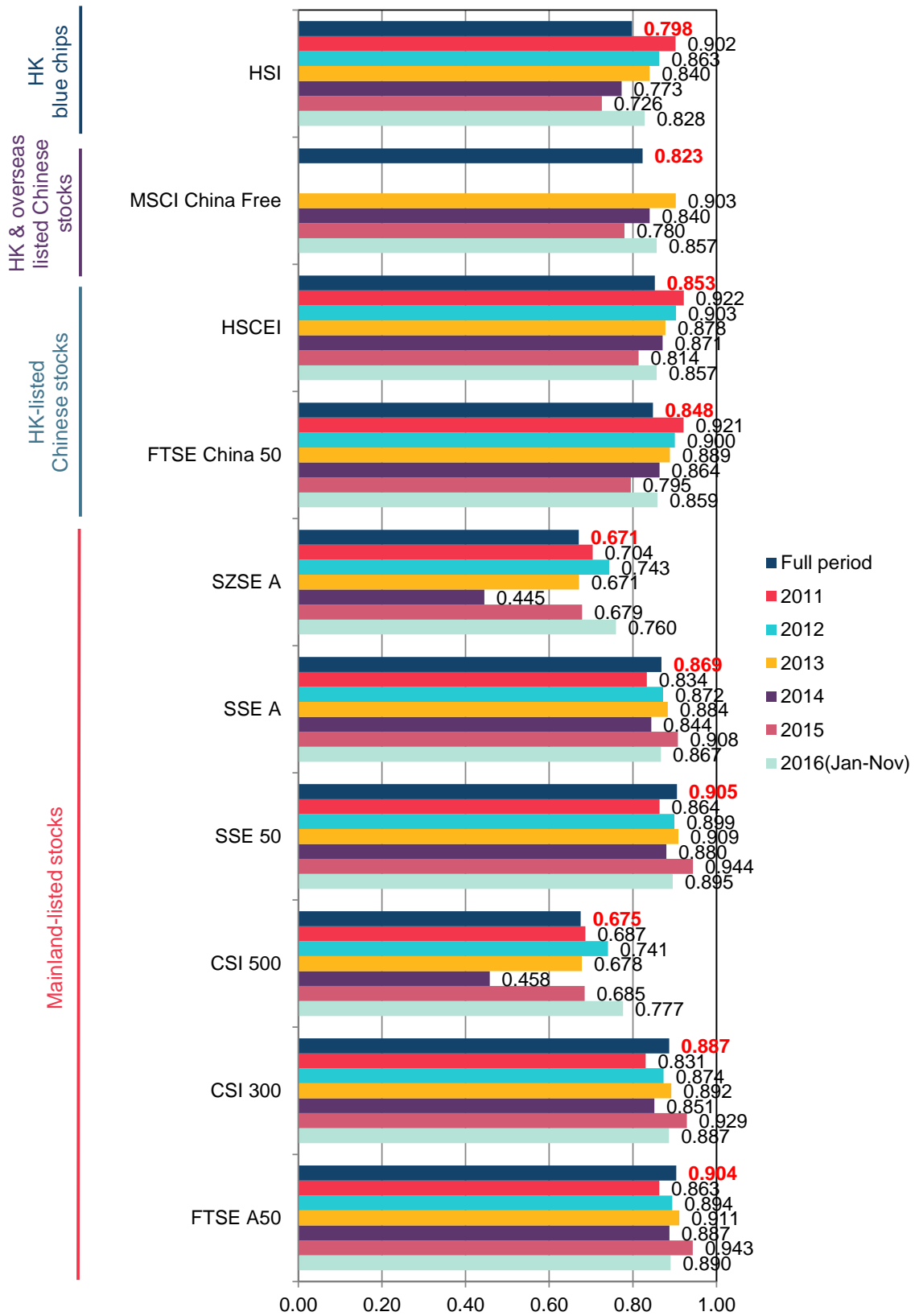
(See Figure 7 for correlation of CES 120 with the indices and Appendix 1 for that of each index pair.)

**Figure 6. Daily closings of CES 120 Index and selected A-share indices (Jan 2011 – Nov 2016)**



Source: Thomson Reuters.

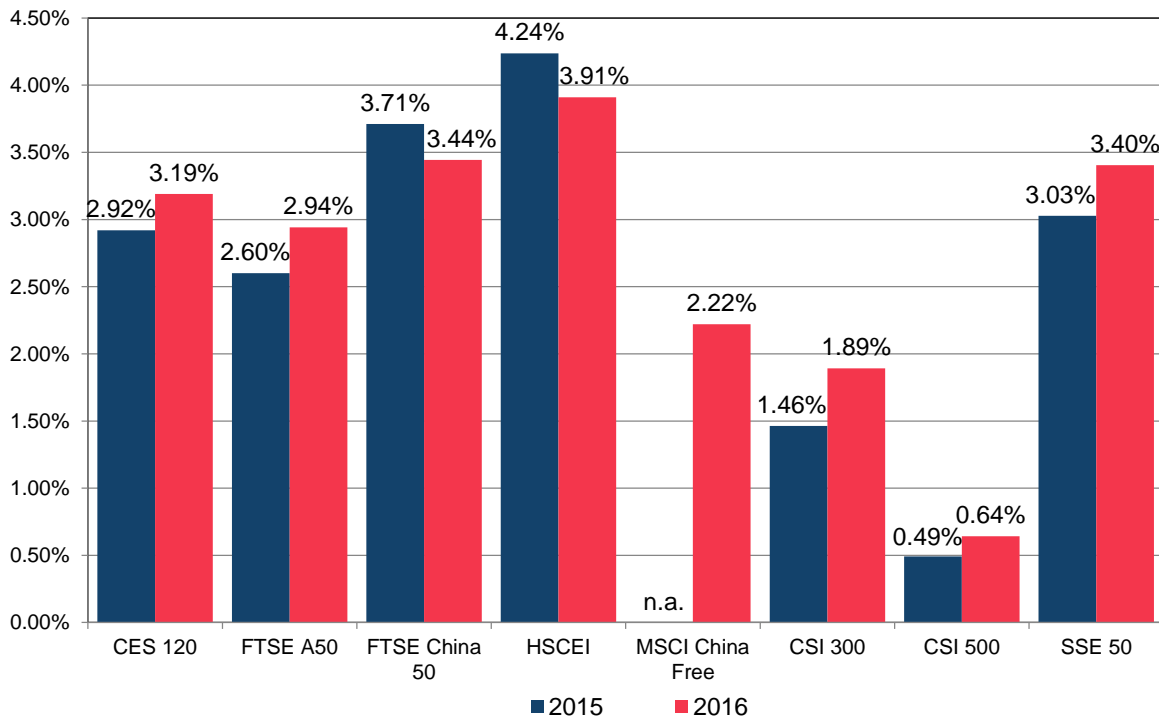
**Figure 7. Correlation coefficients of daily returns of CES 120 Index with selected indices (Jan 2011 – Nov 2016)**



Source: Analysis based on daily index closings from Thomson Reuters.

While being a good tracker of the A shares market, CES 120 had a dividend yield comparable to SSE 50 and higher than those of CSI 300, CSI 500 and FTSE A50 in 2015 and 2016 (see Figure 8). In addition, it performed in the mid-stream in terms of return and volatility in comparison with the traded indices in 2015 — a low negative return (-2.66%) and a volatility in between those of the other indices; and outperformed all these indices in 2016 — a positive, albeit low, return (0.17%) compared to negative returns of all other indices and the lowest volatility among all the indices (see Figure 9).

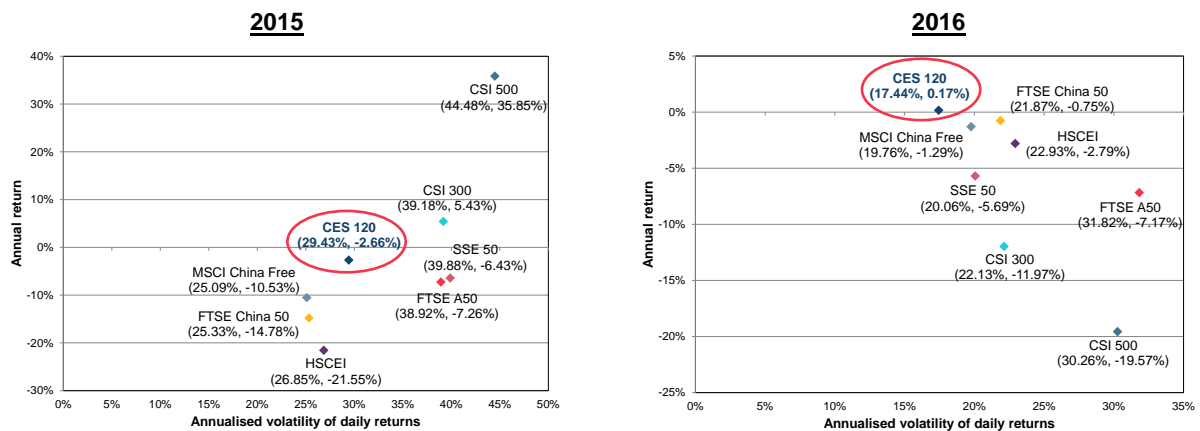
**Figure 8. Dividend yields of CES 120 and other traded indices (2015 & 2016)**



Note: Dividend yield of CES 120 for 2016 is as at 30 Sep 2016 (instead of as at year-end) from CESC website. Dividend yield of MSCI China Free Index for 2015 is not available.

Source: Thomson Reuters, CESC website, MSCI website.

**Figure 9. Annual return and annualised volatility of daily returns of CES 120 Index and other traded indices (2015 & 2016)**



Note: Returns are calculated as natural logarithm returns.

Source: Calculation based on daily index closings from Thomson Reuters.



**In summary**, the analysis findings above reveal that CES 120 is an index which:

- Has a weighting composition by listing exchange closest to the corresponding composition of the eligible stocks under Stock Connect than other overseas traded indices;
- Comprises A shares and SEHK-listed stocks by stock type (H shares, red chips, P chips) comparable to that of Stock Connect eligible stocks;
- Has an inclusion, and a broad coverage, of constituents over the three exchanges of SEHK, SSE and SZSE among all Mainland and overseas traded indices;
- Has an industry composition closer to the Mainland cross-market big-cap index CSI 300 and a broader industry coverage than HSI of the Hong Kong market;
- Is highly correlated with the A-share indices; and
- Had outperformed other traded indices in terms of return and volatility in 2016 and a dividend yield comparable to the Mainland blue-chip index, SSE 50.

**As a blue-chip Mutual Market index, the CES 120 may serve as the underlying of investment products offering exposure or risk management to stock investment in the Mainland-Hong Kong Mutual Market.** Like the EURO STOXX 50 Index, Europe's leading cross-market blue-chip index for the Eurozone (see below), the CES 120 can become the leading cross-market blue chip index for the Mainland-Hong Kong Mutual Market.

The EURO STOXX 50 Index was introduced on 26 February 1998 by the index provider STOXX owned by Deutsche Börse (DB) to meet the birth of the Eurozone with the official launch of the euro on 1 January 1999. The goal of the index is “to provide a blue-chip representation of Supersector leaders in the Eurozone”. It is made up of the 50 largest companies among the 19 supersectors in terms of free-float market capitalisation in 11 Eurozone countries — Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal and Spain, which are the initial eleven member states of the European Union admitted into the Eurozone in 1999. The index captures about 60% of the free-float market capitalisation of the EURO STOXX Total Market Index (TMI), which in turn covers about 95% of the free-float market capitalisation of the represented countries<sup>9</sup>.

EURO STOXX 50 Index is licensed to financial institutions to serve as underlying for a range of investment products such as Exchange Traded Funds (ETFs), futures and options, and structured products worldwide. Eurex, an electronic marketplace operated by DB, introduced EURO STOXX 50 Index futures in June 1998. The futures contract is said to be the most liquid derivatives instrument in Europe, registering a yearly total turnover of 374 million contracts or an average daily volume of 1.46 million contracts on Eurex in 2016<sup>10</sup>.

Referencing the EURO STOXX 50 Index and its derivatives and structured products in serving the mutual European market, CES 120 Index and its derivatives and structured products can serve the same need for the Mainland-Hong Kong Mutual Market.

### 3.2 CES China 120 Index Futures — A useful tool for investment in A-shares and Mutual Market

The CES China 120 Index Futures (CES 120 Futures) contract was launched on 12 August 2013 on the Hong Kong Futures Exchange (HKFE), the HKEX's derivatives market. **It is the only futures contract in global markets based on an underlying index that tracks both A shares listed in the Mainland and Chinese stocks listed in Hong Kong.** Other China-related index futures traded outside Mainland China are based either on A shares only or

<sup>9</sup> Source: Eurex website and Wikipedia.

<sup>10</sup> Source: EURO STOXX 50 Index Quanto Futures, March 2016, Eurex website; Eurex Monthly Short Statistics, Dec 2016, Eurex website.

overseas-listed Chinese stocks (mostly stocks in Hong Kong) (see Table 1 in section 2). Among the other index futures, only SGX's FTSE A50 Futures contract offers exposure to Mainland A shares. Table 2 below gives a brief comparison of CES 120 Futures with SGX's FTSE A50 Futures.

Table 2. Comparison of HKEX's CES 120 Futures and SGX's FTSE A50 Futures		
Index	CES 120 Futures	FTSE A 50 Futures
<b>Underlying</b>	Mainland A shares and Chinese stocks listed on SEHK (including H shares, red chips and P chips)	Mainland A shares
<b>Contract size</b>	HK\$50 per index point (~HK\$263,844 or US\$34,014 as of 30 Nov 2016)	US\$1 per index point (~US\$10,500 as of 30 Nov 2016)
<b>Contract months</b>	Spot, the next calendar month and the next two calendar quarter months	2 nearest serial months and Mar, Jun, Sep and Dec months on 1-year cycle
<b>Block trade</b>	Minimum 100 contracts	Minimum 50 lots
<b>Position limit</b>	300,000 contracts	15,000 contracts
<b>Minimum tick (price fluctuation)</b>	0.5 index point (HK\$25 or ~US\$3)	2.5 index point (US\$2.50)
<b>Minimum tick to index</b>	0.0095%	0.0237%
<b>Margins</b>	(Effective from 1 Dec 2016) Initial: HK\$16,450 (~US\$2,121) Maintenance: HK\$13,170 (~US\$1,698)	(As of 4 Nov 2016) Initial: US\$495 Maintenance: US\$450
<b>Margin to notional value (%)</b>	Initial: 6.23% Maintenance: 4.99% Total: 11.22%	Initial: 4.7% Maintenance: 4.3% Total: 9%
<b>Exchange fee</b>	HK\$10 (discounted to HK\$5 until 31 Dec 2017) (~US\$1.3, discounted to US\$0.6)	US\$0.80 (Clearing fee)
<b>Exchange fee to notional value (%)</b>	0.0038% (0.0019% at discounted fee)	0.0076%
<p>Note: Calculations are based on index closings on 30 November 2016 — 5276.87 for CES 120 and 10537.38 for FTSE A50. Exchange rate used is US\$1 = HK\$7.757 as at end of November 2016 from Hong Kong Monetary Authority (HKMA) website.</p> <p>Source: HKEX and SGX websites</p>		

As analysed in section 3.1 above, the CES 120 Index has a composition that represents Mainland A shares and Hong Kong-listed Chinese stocks on the cross-border Mutual Market platform and has a performance highly correlated with the A shares market. With these characteristics, the CES 120 Futures can be **an effective risk management tool for investors to hedge their positions in the Mainland A shares market, including exchange traded funds (ETFs) based on the A-share indices of FTSE A50 and CSI 300, and in the Mutual Market through Stock Connect.** It would also serve as a trading tool to offer investors simultaneous exposure to the Mainland and Hong Kong stock markets.

As an A-share hedging or exposure tool, CES 120 Futures would incur **a lower exchange fee** in trading than FTSE A50 Futures per contract notional value (see Table 2 above), albeit at somewhat higher margin costs. Given the higher position limit and the smaller tick size relative to the underlying index level in comparison with FTSE A50 Futures, CES 120 Futures can offer alternative cost-effective trading opportunities to gain investment exposure.

Moreover, CES 120 Futures would be a convenient and cost efficient offshore market tool for risk management of portfolio investment in the Mutual Market across Mainland and Hong Kong. Investors with simultaneous exposure to Mainland A shares and Chinese stocks in Hong Kong may consider using CES 120 Futures to hedge their Mutual Market positions based on the relevance of the CES 120 to their portfolio holdings.

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**Risks of trading futures**

Futures involve a high degree of risk. Losses from futures trading can exceed your initial margin funds and you may be required to pay additional margin funds on short notice. Failure to do so may result in your position being liquidated and you being liable for any resulting deficit. You must therefore understand the risks of trading in futures and should assess whether they are right for you. You are encouraged to consult a broker or financial advisers on your suitability for futures trading in light of your financial positions and investment objectives before trading.

## Appendix 1. Correlation of daily returns of CES120 Index and selected indices (Jan 2016 – Nov 2016)

Note: Statistics are computed for indices with data from the first available date in the given period.  
Daily return = LN (current day closing index / previous day closing index)

Index	First date of daily return
CES 120	03/01/2011
FTSE A50	04/01/2011
CSI 300	04/01/2011
CSI 500	04/01/2011
SSE 50	04/01/2011
SSE A	04/01/2011
SZSE A	04/01/2011
FTSE China 50	03/01/2011
HSCEI	03/01/2011
MSCI China Free	11/01/2013
HSI	03/01/2011

### Pearson correlation coefficients (all coefficients are statistically significant at 0.1% level)

(Number of cases)

Period	Index	Mainland-listed stocks						HK-listed Chinese Stocks		HK & overseas-listed Chinese stocks	HK key index
		FTSE A50	CSI 300	CSI 500	SSE 50	SSE A	SZSE A	FTSE China 50	HSCEI	MSCI China Free	HSI
Full period	CES 120	0.904 (1,438)	0.887 (1,436)	0.675 (1,436)	0.905 (1,436)	0.869 (1,436)	0.671 (1,436)	0.848 (1,427)	0.853 (1,423)	0.823 (952)	0.798 (1,423)
	FTSE A50		0.939 (1,436)	0.663 (1,436)	0.993 (1,436)	0.910 (1,436)	0.658 (1,436)	0.590 (1,401)	0.613 (1,397)	0.588 (946)	0.519 (1,397)
	CSI 300			0.863 (1,436)	0.948 (1,436)	0.984 (1,436)	0.856 (1,436)	0.586 (1,398)	0.605 (1,394)	0.608 (943)	0.522 (1,394)
	CSI 500				0.682 (1,436)	0.885 (1,436)	0.988 (1,436)	0.470 (1,398)	0.480 (1,394)	0.507 (943)	0.428 (1,394)
	SSE 50					0.921 (1,436)	0.676 (1,436)	0.593 (1,398)	0.615 (1,394)	0.590 (943)	0.523 (1,394)
	SSE A						0.872 (1,436)	0.580 (1,398)	0.598 (1,394)	0.602 (943)	0.518 (1,394)
	SZSE A							0.468 (1,398)	0.476 (1,394)	0.501 (943)	0.427 (1,394)
	FTSE China 50								0.986 (1,456)	0.982 (958)	0.963 (1,456)
	HSCEI									0.962 (955)	0.944 (1,456)
	MSCI China Free										0.957 (955)

## Appendix 1. Correlation of daily returns of CES120 Index and selected indices (Jan 2016 – Nov 2016) (cont'd)

Pearson correlation coefficients (all coefficients are statistically significant at 0.1% level)

(Number of cases)

Period	Index	Mainland-listed stocks						HK-listed Chinese Stocks		HK & overseas-listed Chinese stocks	HK key index
		FTSE A50	CSI 300	CSI 500	SSE 50	SSE A	SZSE A	FTSE China 50	HSCEI	MSCI China Free	HSI
2011	CES 120	0.863 (244)	0.831 (244)	0.687 (244)	0.864 (244)	0.834 (244)	0.704 (244)	0.921 (247)	0.922 (246)	. (0)	0.902 (246)
	FTSE A50		0.963 (244)	0.800 (244)	0.995 (244)	0.955 (244)	0.825 (244)	0.622 (237)	0.629 (236)	. (0)	0.598 (236)
	CSI 300			0.916 (244)	0.965 (244)	0.990 (244)	0.934 (244)	0.579 (237)	0.587 (236)	. (0)	0.559 (236)
	CSI 500				0.803 (244)	0.922 (244)	0.990 (244)	0.460 (237)	0.470 (236)	. (0)	0.445 (236)
	SSE 50					0.957 (244)	0.825 (244)	0.624 (237)	0.631 (236)	. (0)	0.602 (236)
	SSE A						0.931 (244)	0.592 (237)	0.598 (236)	. (0)	0.573 (236)
	SZSE A							0.471 (237)	0.481 (236)	. (0)	0.454 (236)
	FTSE China 50								0.993 (246)	. (0)	0.974 (246)
	HSCEI									. (0)	0.970 (246)
	MSCI China Free										. (0)
2012	CES 120	0.894 (243)	0.874 (243)	0.741 (243)	0.899 (243)	0.872 (243)	0.743 (243)	0.900 (247)	0.903 (247)	. (0)	0.863 (247)
	FTSE A50		0.968 (243)	0.827 (243)	0.991 (243)	0.962 (243)	0.833 (243)	0.642 (237)	0.660 (237)	. (0)	0.588 (237)
	CSI 300			0.925 (243)	0.975 (243)	0.990 (243)	0.930 (243)	0.606 (237)	0.624 (237)	. (0)	0.550 (237)
	CSI 500				0.841 (243)	0.928 (243)	0.991 (243)	0.486 (237)	0.502 (237)	. (0)	0.432 (237)
	SSE 50					0.973 (243)	0.842 (243)	0.649 (237)	0.668 (237)	. (0)	0.594 (237)
	SSE A						0.924 (243)	0.614 (237)	0.631 (237)	. (0)	0.557 (237)
	SZSE A							0.487 (237)	0.500 (237)	. (0)	0.436 (237)
	FTSE China 50								0.987 (247)	. (0)	0.962 (247)
	HSCEI									. (0)	0.951 (247)
	MSCI China Free										. (0)

## Appendix 1. Correlation of daily returns of CES120 Index and selected indices (Jan 2016 – Nov 2016) (cont'd)

Pearson correlation coefficients (all coefficients are statistically significant at 0.1% level)

(Number of cases)

Period	Index	Mainland-listed stocks						HK-listed Chinese Stocks		HK & overseas-listed Chinese stocks	HK key index
		FTSE A50	CSI 300	CSI 500	SSE 50	SSE A	SZSE A	FTSE China 50	HSCEI	MSCI China Free	HSI
2013	CES 120	0.911 (238)	0.892 (238)	0.678 (238)	0.909 (238)	0.884 (238)	0.671 (238)	0.889 (233)	0.878 (232)	0.903 (234)	0.840 (232)
	FTSE A50		0.958 (238)	0.691 (238)	0.995 (238)	0.941 (238)	0.680 (238)	0.683 (231)	0.682 (230)	0.683 (232)	0.611 (230)
	CSI 300			0.853 (238)	0.963 (238)	0.986 (238)	0.842 (238)	0.668 (231)	0.668 (230)	0.680 (232)	0.609 (230)
	CSI 500				0.705 (238)	0.862 (238)	0.986 (238)	0.513 (231)	0.516 (230)	0.546 (232)	0.485 (230)
	SSE 50					0.946 (238)	0.692 (238)	0.681 (231)	0.680 (230)	0.681 (232)	0.611 (230)
	SSE A						0.840 (238)	0.665 (231)	0.667 (230)	0.677 (232)	0.610 (230)
	SZSE A							0.512 (231)	0.513 (230)	0.543 (232)	0.485 (230)
	FTSE China 50								0.988 (244)	0.986 (237)	0.960 (244)
	HSCEI									0.977 (236)	0.946 (244)
	MSCI China Free										0.964 (236)
2014	CES 120	0.887 (245)	0.851 (245)	0.458 (245)	0.880 (245)	0.844 (245)	0.445 (245)	0.864 (238)	0.871 (238)	0.840 (245)	0.773 (238)
	FTSE A50		0.938 (245)	0.454 (245)	0.993 (245)	0.911 (245)	0.454 (245)	0.580 (238)	0.628 (238)	0.539 (245)	0.462 (238)
	CSI 300			0.707 (245)	0.947 (245)	0.973 (245)	0.700 (245)	0.563 (238)	0.599 (238)	0.533 (245)	0.446 (238)
	CSI 500				0.479 (245)	0.725 (245)	0.981 (245)	0.337 (238)	0.323 (238)	0.346 (245)	0.278 (238)
	SSE 50					0.918 (245)	0.476 (245)	0.573 (238)	0.619 (238)	0.530 (245)	0.448 (238)
	SSE A						0.707 (245)	0.585 (238)	0.619 (238)	0.557 (245)	0.474 (238)
	SZSE A							0.316 (238)	0.304 (238)	0.330 (245)	0.260 (238)
	FTSE China 50								0.969 (247)	0.980 (247)	0.928 (247)
	HSCEI									0.942 (247)	0.871 (247)
	MSCI China Free										0.954 (247)

## Appendix 1. Correlation of daily returns of CES120 Index and selected indices (Jan 2016 – Nov 2016) (cont'd)

Pearson correlation coefficients (all coefficients are statistically significant at 0.1% level)

(Number of cases)

Period	Index	Mainland-listed stocks						HK-listed Chinese Stocks		HK & overseas-listed Chinese stocks	HK key index
		FTSE A50	CSI 300	CSI 500	SSE 50	SSE A	SZSE A	FTSE China 50	HSCEI	MSCI China Free	HSI
2015	CES 120	0.943 (244)	0.929 (244)	0.685 (244)	0.944 (244)	0.908 (244)	0.679 (244)	0.795 (237)	0.814 (237)	0.780 (244)	0.726 (237)
	FTSE A50		0.928 (244)	0.614 (244)	0.994 (244)	0.902 (244)	0.606 (244)	0.609 (237)	0.646 (237)	0.587 (244)	0.517 (237)
	CSI 300			0.848 (244)	0.936 (244)	0.986 (244)	0.838 (244)	0.635 (237)	0.667 (237)	0.627 (244)	0.553 (237)
	CSI 500				0.632 (244)	0.880 (244)	0.988 (244)	0.532 (237)	0.554 (237)	0.544 (244)	0.479 (237)
	SSE 50					0.909 (244)	0.624 (244)	0.612 (237)	0.650 (237)	0.591 (244)	0.522 (237)
	SSE A						0.865 (244)	0.632 (237)	0.663 (237)	0.625 (244)	0.549 (237)
	SZSE A							0.534 (237)	0.553 (237)	0.545 (244)	0.484 (237)
	FTSE China 50								0.982 (247)	0.990 (247)	0.960 (247)
	HSCEI									0.967 (247)	0.922 (247)
	MSCI China Free										0.959 (247)
2016 Jan - Nov	CES 120	0.890 (224)	0.887 (222)	0.777 (222)	0.895 (222)	0.867 (222)	0.760 (222)	0.859 (225)	0.857 (223)	0.857 (229)	0.828 (223)
	FTSE A50		0.946 (222)	0.792 (222)	0.988 (222)	0.920 (222)	0.773 (222)	0.574 (221)	0.592 (219)	0.587 (225)	0.525 (219)
	CSI 300			0.933 (222)	0.957 (222)	0.991 (222)	0.920 (222)	0.573 (218)	0.585 (216)	0.589 (222)	0.516 (216)
	CSI 500				0.804 (222)	0.959 (222)	0.994 (222)	0.515 (218)	0.517 (216)	0.530 (222)	0.456 (216)
	SSE 50					0.932 (222)	0.785 (222)	0.573 (218)	0.591 (216)	0.585 (222)	0.525 (216)
	SSE A						0.945 (222)	0.564 (218)	0.573 (216)	0.577 (222)	0.505 (216)
	SZSE A							0.500 (218)	0.502 (216)	0.514 (222)	0.443 (216)
	FTSE China 50								0.991 (225)	0.973 (227)	0.979 (225)
	HSCEI									0.960 (225)	0.965 (225)
	MSCI China Free										0.956 (225)

**Appendix 2. List of constituents of CES China 120 Index (as of 30 Nov 2016)**

No.	Constituent code	Constituent name	Listing exchange	Stock type	Weight (%)
1	135	Kunlun Energy Company Limited	SEHK	Red Chip	0.16
2	144	China Merchants Port Holdings Company Limited	SEHK	Red Chip	0.22
3	151	Want Want China Holdings Limited	SEHK	Others	0.34
4	267	CITIC Limited	SEHK	Red Chip	0.62
5	270	Guangdong Investment Limited	SEHK	Red Chip	0.30
6	322	Tingyi (Cayman Islands) Holding Corp.	SEHK	Others	0.18
7	384	China Gas Holdings Limited	SEHK	P chip	0.18
8	386	China Petroleum & Chemical Corp	SEHK	H Shares	1.23
9	392	Beijing Enterprises Holdings Limited	SEHK	Red Chip	0.16
10	656	Fosun International Limited	SEHK	P chip	0.26
11	688	China Overseas Land & Investment Limited	SEHK	Red Chip	0.87
12	700	Tencent Holdings Limited	SEHK	P chip	9.72
13	728	China Telecom Corporation Limited	SEHK	H Shares	0.46
14	762	China Unicom (Hong Kong) Limited	SEHK	Red Chip	0.60
15	836	China Resources Power Holdings Co. Limited	SEHK	Red Chip	0.22
16	857	PetroChina Company Limited	SEHK	H Shares	0.99
17	883	CNOOC Limited	SEHK	Red Chip	1.55
18	939	China Construction Bank Corporation	SEHK	H Shares	4.94
19	941	China Mobile Limited	SEHK	Red Chip	4.62
20	960	Longfor Properties Co. Limited	SEHK	P chip	0.15
21	966	China Taiping Insurance Hldgs Co Limited	SEHK	Red Chip	0.28
22	992	Lenovo Group Limited	SEHK	Red Chip	0.33
23	998	China CITIC Bank Corporation Limited	SEHK	H Shares	0.40
24	1044	Hengan International Group Co. Limited	SEHK	P chip	0.47
25	1109	China Resources Land Limited	SEHK	Red Chip	0.46
26	1288	Agricultural Bank Of China Limited	SEHK	H Shares	0.71
27	1398	Industrial and Comercial Bank of China Limited	SEHK	H Shares	3.66
28	1880	Belle International Holdings Limited	SEHK	Others	0.20
29	2007	Country Garden Holdings Company Limited	SEHK	P chip	0.35
30	2318	Ping An Insurance (Group) Co of China Limited.	SEHK	H Shares	1.99
31	2319	China Mengniu Dairy Company Limited	SEHK	Red Chip	0.39
32	2328	PICC Property & Casualty Co., Limited	SEHK	H Shares	0.53
33	2601	China Pacific Insurance (Group) Co., Limited	SEHK	H Shares	0.74
34	2628	China Life Insurance Company Limited	SEHK	H Shares	1.49
35	3328	Bank of Communications Co., Limited	SEHK	H Shares	0.56
36	3333	China Evergrande Group	SEHK	P chip	0.19
37	3799	Dali Foods Group Company Limited	SEHK	P chip	0.08
38	3968	China Merchants Bank Co., Limited	SEHK	H Shares	0.78
39	3988	Bank of China	SEHK	H Shares	2.62
40	6808	Sun Art Retail Group Limited	SEHK	Others	0.17
41	600000	Shanghai Pudong Development Bank Co Ltd	SSE	A shares	1.49
42	600011	Huaneng Power International Inc	SSE	A shares	0.32



No.	Constituent code	Constituent name	Listing exchange	Stock type	Weight (%)
43	600015	Hua Xia Bank Co Ltd	SSE	A shares	0.62
44	600016	China Minsheng Banking Corp Ltd	SSE	A shares	2.25
45	600018	Shanghai International Port (Group) Co Ltd	SSE	A shares	0.17
46	600019	Baoshan Iron &Steel Co Ltd	SSE	A shares	0.32
47	600023	Zhejiang Zheneng Electric Power Co., Ltd.	SSE	A shares	0.23
48	600028	China Petroleum & Chemical Corporation	SSE	A shares	0.54
49	600030	CITIC Securities Co Ltd	SSE	A shares	1.40
50	600036	China Merchants Bank Co Ltd	SSE	A shares	1.92
51	600048	Poly Real Estate Group Co Ltd	SSE	A shares	0.70
52	600050	China United Network Communications Co Ltd	SSE	A shares	0.57
53	600104	SAIC Motor Co Ltd	SSE	A shares	0.84
54	600276	Jiangsu Hengrui Medicine Co Ltd	SSE	A shares	0.66
55	600485	Beijing Xinwei Telecom Technology Group Co., Ltd.	SSE	A shares	0.20
56	600519	Kweichow Moutai Co Ltd	SSE	A shares	1.60
57	600585	Anhui Conch Cement Co Ltd	SSE	A shares	0.36
58	600606	Greenland Holdings Corporation Limited	SSE	A shares	0.04
59	600637	Shanghai Oriental Pearl Media Co., Ltd.	SSE	A shares	0.33
60	600690	Qingdao Haier Co Ltd	SSE	A shares	0.33
61	600795	GD Power Development Co Ltd	SSE	A shares	0.39
62	600837	Haitong Securities Company Limited	SSE	A shares	1.36
63	600871	Sinopec Oilfield Service Corporation	SSE	A shares	0.07
64	600887	Inner Mongolia Yili Industrial Group Co Ltd	SSE	A shares	1.20
65	600893	Avic Aviation Engine Corporation Plc.	SSE	A shares	0.27
66	600900	China Yangtze Power Co Ltd	SSE	A shares	0.88
67	600958	Orient Securities Company Limited	SSE	A shares	0.45
68	600999	China Merchants Securities Co Ltd	SSE	A shares	0.55
69	601006	Daqin Railway Co Ltd	SSE	A shares	0.44
70	601088	China Shenhua Energy Co Ltd	SSE	A shares	0.34
71	601166	Industrial Bank	SSE	A shares	2.25
72	601169	Bank of Beijing Co Ltd	SSE	A shares	1.23
73	601186	China Railway Construction Co Ltd	SSE	A shares	0.43
74	601211	Guotai Junan Securities Co., Ltd.	SSE	A shares	0.30
75	601288	Agricultural Bank of China Co Ltd	SSE	A shares	1.23
76	601318	Ping An Insurance (Group) Company of China Ltd	SSE	A shares	3.94
77	601328	Bank of Communications Co LTD	SSE	A shares	1.61
78	601336	New China Life Insurance Co Ltd	SSE	A shares	0.39
79	601390	China Railway Group Limited	SSE	A shares	0.55
80	601398	Industrial and Commercial Bank of China Ltd	SSE	A shares	1.10
81	601601	China Pacific Insurance (Group) Co Ltd	SSE	A shares	0.95
82	601628	China Life Insurance Company Limited	SSE	A shares	0.43
83	601633	Great Wall Motor Co Ltd	SSE	A shares	0.13
84	601668	China State Construction Engineering Co Ltd	SSE	A shares	1.65
85	601669	Power Construction Corporation of China,Ltd	SSE	A shares	0.33

No.	Constituent code	Constituent name	Listing exchange	Stock type	Weight (%)
86	601688	Huatai Securities Co Ltd	SSE	A shares	0.65
87	601727	Shanghai Electric Group Co Ltd	SSE	A shares	0.26
88	601766	CRRC Corporation Limited	SSE	A shares	1.10
89	601788	Everbright Securities Co Ltd	SSE	A shares	0.21
90	601800	China Communications Construction Company Limited	SSE	A shares	0.25
91	601818	China Everbright Bank Co Ltd	SSE	A shares	0.65
92	601857	PetroChina Co Ltd	SSE	A shares	0.37
93	601898	China Coal Energy Co Ltd	SSE	A shares	0.11
94	601901	Founder Securities Co Ltd	SSE	A shares	0.35
95	601985	China National Nuclear Power Co.,Ltd.	SSE	A shares	0.34
96	601988	Bank of China Ltd	SSE	A shares	0.74
97	601989	China Shipbuilding Industry Co Ltd	SSE	A shares	0.66
98	601998	China Citic Bank Corporation Limited	SSE	A shares	0.21
99	1	Ping An Bank Co., Ltd.	SZSE	A shares	0.66
100	2	China Vanke Co Ltd	SZSE	A shares	2.10
101	69	Shenzhen Overseas Chinese Town Co Ltd	SZSE	A shares	0.24
102	166	Shenwan Hongyuan Group CO., LTD	SZSE	A shares	0.42
103	333	Midea Group CO., LTD	SZSE	A shares	0.97
104	538	Yunnan Baiyao Group Co., Ltd.	SZSE	A shares	0.36
105	625	Chongqing Changan Automobile Co Ltd	SZSE	A shares	0.37
106	651	Gree Electric Appliances, Inc. of Zhuhai	SZSE	A shares	1.37
107	725	BOE Technology Group Co Ltd	SZSE	A shares	0.69
108	776	GF Securities Co., Ltd.	SZSE	A shares	0.58
109	858	Wuliangye Yibin Co Ltd	SZSE	A shares	0.68
110	895	Henan Shuanghui Investment & Development Co Ltd	SZSE	A shares	0.22
111	1979	China Merchants Shekou Industrial Zone Holdings Co.,Ltd	SZSE	A shares	0.46
112	2024	Suning Commerce Group Co., Ltd.	SZSE	A shares	0.44
113	2252	Shanghai RAAS Blood Products Co Ltd	SZSE	A shares	0.21
114	2304	Jiangsu Yanghe Brewery Joint-Stock Co Ltd	SZSE	A shares	0.43
115	2415	Hangzhou Hikvision Digital Technology Co Ltd	SZSE	A shares	0.46
116	2594	BYD Co Ltd	SZSE	A shares	0.30
117	2736	Guosen Securities Co., Ltd.	SZSE	A shares	0.44
118	2739	Wanda Cinema Line Co., Ltd	SZSE	A shares	0.31
119	300059	East Money Information Co Ltd	SZSE	A shares	0.46
120	300104	Leshi Internet Information & Technology Corp Beijing	SZSE	A shares	0.38

Note: H shares are issued by companies incorporated in Mainland China and are listed on HKEX; red chips are shares issued by Mainland enterprises incorporated outside Mainland China and controlled by Mainland government entities through direct or indirect shareholding and/or representation on the company's board and are listed on HKEX; P chips are shares issued by privately controlled Mainland enterprises incorporated outside Mainland China and are listed on HKEX.

Source: CESC website

