

RESEARCH PAPER

December 2022

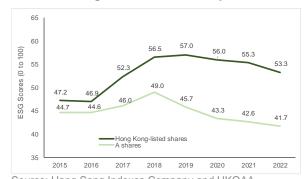
Hang Seng Indexes Company 2022 ESG Annual Review

ESG Score Dropped for 'Properties & Construction' and 'Environment' while ESG Investment Shows High Resilience and Outperformance against Benchmarks

The Hong Kong Quality Assurance Agency ('HKQAA') sustainability performance assessment released in 2022 reveals that the Hong Kong universe has continued to deliver a better ESG performance compared with the A-shares universe. With lower in difference in scores for "The Environment' and 'Community Involvement and Development' out of the seven core subjects, the overall gap between the two universes has narrowed. Both universes showed worse performance in 'The Environment' as a result of lack of awareness in incorporating climate management & disclosure or commitment of net zero short/medium-term goal which outweighed improvement in companies' environmental policy. Broken down by industry, rankings for most of the industries in 2022 were stable, however, 'Properties & Construction' recorded the largest decline in ESG scores for the two universes, mainly impacted by the sector-wide liquidity issues which raised concerns about corporate governance during the assessment year (Jan-Dec 2021).

For the Hang Seng Corporate Sustainability Index Series that have incorporated the ESG score rated by HKQAA, both the corporate sustainability tradable indexes for Hong Kong-listed companies (the Hang Seng Corporate Sustainability Index ('HSSUS')) and A-shares (the Hang Seng (China A) Corporate Sustainability Index ('HSCASUS')) have outperformed their benchmark indexes over the 3-year period. For the two ESG indexes (the HSI ESG Index ('HSIESG') and the HSCEI ESG Index ('HSCEESG')) that combine the ESG initiatives with the Hang Seng Index ('HSI') and the Hang Seng China Enterprises Index ('HSCEI'), they also delivered better performance with lower annualised volatility compared with those of the HSI and the HSCEI over the latest 3-year period.

Exhibit 1: ESG Scores** for Hong Konglisted and Eligible A-shares Companies



Source: Hang Seng Indexes Company and HKQAA

Date: August 2022

Exhibit 2: Return vs Volatility of Hang Seng Corporate Sustainability Index Series



Source: Hang Seng Indexes Company

Date: 5 December 2022

Remarks (**): Prior to the Assessment 2019, less than 300 A-shares companies were assessed. Starting from the Assessment 2019, it now covers all eligible A-shares companies for Northbound trading under the Stock Connect



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Executive Summary

Hong Kong-listed Shares Delivered Better ESG Performance

The Hong Kong Quality Assurance Agency ('HKQAA') sustainability performance assessment released in 2022 (assessment year: Jan-Dec 2021) covers 484 Hong Kong-listed constituents of the HSCI and 1,499 A-shares companies that are eligible for the Northbound trading under the Stock Connect Scheme. We note that the Hong Kong universe continued to deliver a better ESG performance ('BBB+' rating with 53.3 average score) compared with the A-shares universe ('BBB-' rating with 41.7 average score). Overall score gap has narrowed 1.1pt, driven by the narrowing in 'The Environment' (-3.4pt YoY) and 'Community Involvement and Development' (-3.0pt YoY).

HSCI Universe: Properties & Construction - Key Drag on ESG Score

The average ESG score for HSCI constituents dropped marginally by 2.0pt YoY to 53.3 and with a more symmetric distribution in 2022. Across all seven core subjects, 'The Environment' showed the largest YoY declines in performance (-5.2pt to 52.4), mainly due to newly added assessment criteria related to the aspects of climate change and carbon neutrality. By 12 industries, 'Properties & Construction' reported the largest decline in ESG score (-3.9pt to 54.4), mainly due to the sector-wide liquidity issues which raised concerns about corporate governance during the assessment year. The largest ranking slip was evident by both the 'Properties & Construction' and 'Energy', from 4th to 6th and 9th to 11th (-2.4pt to 51.1), respectively.

A-shares Universe - 'Environment' Still Ranked at Bottom

The average ESG score for A-shares companies dropped marginally by 0.9pt YoY to 41.7 and represented a 'BBB-' rating in 2022. We noted that the general improvement in companies' environmental policy (rise in score) was outweighed by the lack of awareness in incorporating climate management & disclosure or commitment of net zero short/medium-term goal (decline in score), resulting in a decline in the score of the 'Environment' core subject. Surprisingly, 'Environment' was at the bottom for two consecutive years.

ESG Investing Aids Outperformance Against Benchmarks

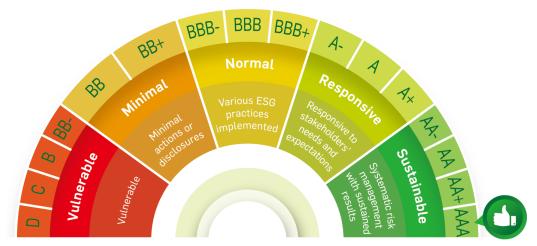
For the Hang Seng Corporate Sustainability Index Series that have incorporated the ESG score rated by HKQAA, the two corporate sustainability tradable indexes for the Hong Kong-listed companies and A-shares have delivered better performances compared with their benchmark indexes over the 3-year period. Moreover, for the two ESG indexes (HSIESG and HSCEESG) that incorporate ESG factors into the two Hang Seng flagship indexes, i.e., the HSI and the HSCEI, they also outperformed the benchmark indexes over the latest 3-year period with lower annualised volatility. In particular, for the universe that mainly included Hong Kong-listed companies, the Hang Seng ESG 50 Index ('HSESG50'), which tracks the performance of the top 50 ESG leaders with relatively high market capitalisation, has delivered better performance with lower annualised volatility compared with those of the ESG-tilted HSIESG and HSCEESG.



Hong Kong-listed Shares Delivered Better ESG Performance

The Hong Kong Quality Assurance Agency ('HKQAA') sustainability performance assessment released in 2022 (assessment year: Jan-Dec 2021) covers 484 Hong Kong-listed constituents of the HSCI and 1,499 A-shares companies that are eligible for the Northbound trading under the Stock Connect Scheme. Under the HKQAA's assessment rating scale on the seven core subjects (please refer to *Appendix A – HKQAA's Sustainability Performance Assessment Model* for details of the assessment model), the Hong Kong universe continued to deliver a better ESG performance ('BBB+' rating with 53.3 average score) compared with the A-shares universe ('BBB-' rating with 41.7 average score). Their overall score gap has narrowed 1.1pt, mainly driven by the narrowing in 'The Environment' (-3.4pt YoY) and 'Community Involvement and Development' (-3.0pt YoY).

Exhibit 3: HKQAA's Assessment Model: Rating Scale



Note: With reference to international standards such as ISO26000 and the Global Reporting Initiative

Source: HKQAA Date: August 2022

Expanding ESG Assessment Coverage on HK-listed Companies and A-shares

The HKQAA sustainability performance assessment released in 2022 (assessment year: Jan-Dec 2021), has covered 484 Hong Kong-listed constituents of the HSCI (vs 436 companies in 2021), and 1,499 A-shares companies (vs 1,396 companies in 2021) that are eligible for Northbound trading under the Stock Connect Scheme. For the Hong Kong universe, the number of companies included for ESG assessment increases by +80, but offset by the number of dropped companies (-32) in 2022. On the other hand, for the A-shares universe, the number of companies assessed increases by +242, offset by the ineligible A-shares for ESG assessment (-139) in 2022.



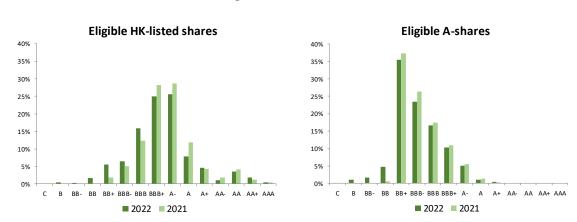
■ HK A-shares 2,000 **Number of Companies** 1,500 1,499 1,396 1,352 1.237 1,000 298 286 288 289 500 484 464 473 455 467 443 447 436 0 2015 2016 2017 2018 2019 2020 2021 2022 Year

Exhibit 4: Number of Companies Assessed

Source: Annual corporate sustainability assessment performed by Hang Seng Indexes Company and the HKQAA Note: Prior to Assessment 2019, less than 300 A-shares were assessed. Starting from the Assessment 2019, the assessment now covers all eligible A-shares companies for Northbound trading under the Stock Connect Date: August 2022

Exhibit 5 shows that the rating distributions for Hong Kong-listed companies and A-shares companies in 2022 vs 2021. The ESG rating distribution of HK-listed shares are more spread out and presented in a bell-shape compared to that for the A-shares companies.

Exhibit 5: Distribution of ESG Rating



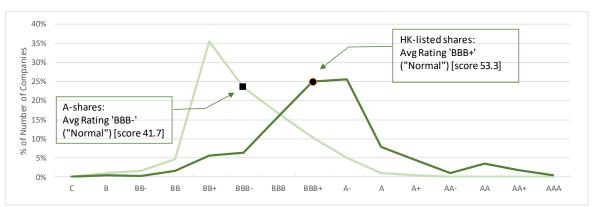
Source: Annual corporate sustainability assessment performed by Hang Seng Indexes Company and the HKQAA Date: August 2022

ESG Performance for the HSCI Universe Remains Superior vs A-shares Universe

Exhibit 6 compares the 2022 ESG rating distribution of the Hong Kong and A-shares universes. Same as last year, the Hong Kong-listed companies (represented by the HSCI constituents) delivered better ESG performance ('BBB+' Rating under the 'Normal' category, with an average ESG score of 53.3) on average compared with the A-shares companies ('BBB-' Rating under the 'Normal' category, with an average ESG score of 41.7) in 2022.



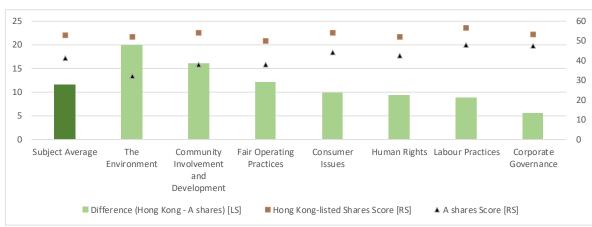
Exhibit 6: 2022 ESG Rating Distribution: Hong Kong-listed vs Eligible A-shares Companies



Source: Annual corporate sustainability assessment performed by Hang Seng Indexes Company and the HKQAA Date: August 2022

Exhibit 7 shows the abovementioned score gap according to the HKQAA seven core subjects. Overall, the average gap between the two universes has narrowed 1.1pt, mainly driven by the narrowing difference in scores for 'The Environment' (-3.4pt YoY) and 'Community Involvement and Development' (-3.0pt YoY). Among the seven core subjects, the largest gap of average score between the Hong Kong-listed companies and the A-shares companies was still 'The Environment' (20.0pt higher with 'BBB+' Rating for Hong Kong-listed companies vs 'BB' Rating for A-Shares companies) then followed by 'Community Involvement and Development' (16.1pt higher with 'A-' Rating for Hong Kong-listed companies vs 'BB+' Rating for A-Shares companies). On the other hand, the smallest performance gap between the two universes remains in 'Corporate Governance' (5.6pt higher with 'BBB+' Rating for Hong Kong-listed companies vs 'BBB' Rating for A-Shares companies).

Exhibit 7: ESG Seven Core Subjects Comparison in 2022 Review



Source: Annual corporate sustainability assessment performed by Hang Seng Indexes Company and the HKQAA Date: August 2022



HSCI Universe: Properties & Construction – Key Drag on ESG Score

The average ESG score for HSCI constituents dropped marginally by 2.0pt YoY to 53.3 and with a more symmetric distribution in 2022. Across all seven core subjects, 'The Environment' showed the largest YoY declines in performance (-5.2pt to 52.4), mainly due to new assessment criteria that related to the aspects of climate change and carbon neutrality were added. Among the 12 industries, 'Properties & Construction' reported the largest decline in ESG score (-3.9pt to 54.4), mainly due to the sector-wide liquidity issues which raised concerns about corporate governance during the assessment year. The largest ranking slip was evident by both the 'Properties & Construction' and 'Energy' (-2.4pt to 51.1), from 4th to 6th and 9th to 11th, respectively.

Hong Kong ESG Score Dropped Marginally with a Leftward Shift in Distribution

The average ESG score for HSCI constituents dropped by 2.0pt YoY to 53.3. We compare the two years' score distribution, with 5-point interval. Exhibit 8 shows that the portion of companies with ESG scores <50 and >50 was 33%/67% in 2022 assessment, compared with 23%/77% in 2021 and 17%/83% in 2020. This shows a leftward shift in distribution.

Exhibit 8: ESG Score Distribution for HSCI Constituents (2022 vs 2021)



Source: Annual corporate sustainability assessment performed by Hang Seng Indexes Company and the HKQAA Date: August 2022

Lower Scores for All Core Subjects, with Largest Drop in 'The Environment'

Overall, there are two improvements and one deterioration in ranking for the seven core subjects in 2022. The average ESG score for the HSCI universe declined YoY given all the seven core subjects reported lower ESG scores compared to last year's, among which the 'The Environment' (-5.2pt to 52.4) experiencing relatively larger drops in scores during 2022, mainly due to the new assessment criteria that related to climate change and carbon neutrality were added.



In 2022, we note that there are no material YoY changes in average weightings for the seven core subjects. The highest weightings were 0.16 for both the 'Consumer Issues' (0%pt YoY) and 'The Environment' (+0.1%pt YoY); whereas the lowest weightings were 0.13 for both the 'Community Involvement and Development' (0%pt YoY) and 'Human Rights' (-0.1%pt YoY).

Exhibit 9: 2022 vs 2021 Average Scores and Weightings for the Seven Core Subjects for HSCI Constituents

		2022		2021			
Core Subjects	Score	Ranking Avg Weighting		Score	Ranking	Avg Weighting	
Labour Practices	57.0	1	0.14	59.1	1	0.14	
Community Involvement and Development	54.4	2 个	0.13	57.1	3	0.13	
Consumer Issues	54.3	3 ↑	0.16	55.1	5	0.16	
Corporate Governance	53.5	4	0.14	55.3	4	0.14	
The Environment	52.4	5 ↓	0.16	57.5	2	0.15	
Human Rights	52.1	6	0.13	53.4	6	0.14	
Fair Operating Practices	50.4	7	0.15	51.8	7_	0.14	
		_	1.00		_	1.00	

Source: Annual corporate sustainability assessment performed by Hang Seng Indexes Company and the HKQAA Date: August 2022

Concern upon China Property Developers Reflected

Concerning the Industry, 'Telecommunications' improved the most to 64.3, up 2.4pt YoY, rising to the top from second place last year. Overall, the top three industries were quite stable and remained to be 'Telecommunications' (+2.4pt to 64.3), 'Conglomerates' (-1.7pt to 62.9), and 'Utilities' (+0.1pt to 58.9). In contrast, the 'Properties & Construction' reported the largest decline in ESG score (-3.9pt to 54.4), mainly due to the sector-wide liquidity issues which raised concerns about corporate governance in the assessment year.

Exhibit 10: Score Distribution by Industry Sector (HSCI)

Rank	ing		Average S	core	YoY Chg in
2022	2021	Industry	2022	2021	Avg. Score
1 1	2	Telecommunications	64.3	61.9	2.4
2 ↓	1	Conglomerates	62.9	64.6	-1.7
3	3	Utilities	58.9	58.8	0.1
4 个	5	Industrials	55.8	55.6	0.2
5 个	6	Consumer Staples	55.4	55.3	0.1
6 ↓	4	Properties & Construction	54.4	58.3	-3.9
7	7	Financials	54.1	55.1	-1.1
8 个	10	Consumer Discretionary	52.0	53.4	-1.5
9 ↓	8	Information Technology	51.7	54.6	-2.9
10 个	11	Materials	51.6	52.4	-0.8
11 ↓	9	Energy	51.1	53.5	-2.4
12	12	Healthcare	47.9	50.0	-2.1
		Average:	53.3	55.3	-2.0

Source: Annual corporate sustainability assessment performed by Hang Seng Indexes Company and the HKQAA Date: August 2022



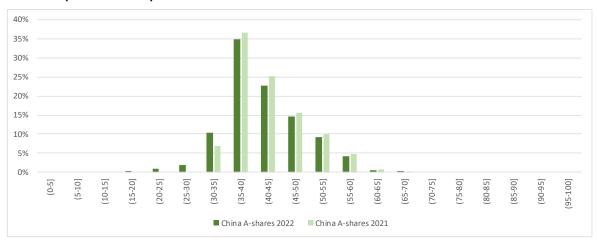
A-shares Universe - 'Environment' Still Ranked at Bottom

The average ESG score for A-shares companies dropped marginally by 0.9pt YoY to 41.7 and represented a 'BBB-' rating in 2022. We noted that the general improvement in companies' environmental policy (rise in score) was outweighed by the lack of awareness in incorporating climate management & disclosure or commitment of net zero short/medium-term goal (decline in score), resulting in a decline in the "Environment" core subject. Surprisingly, 'Environment' was at the bottom for two consecutive years.

No Material Change in ESG Score; Remained Positively Skewed

In 2022, the number of A-share companies under assessment rose to 1,499 (vs 1,396 companies in 2021). Without material adjustments in the weightings of the seven core subjects, the average ESG score for A-shares companies dropped marginally by 0.9pt YoY to 41.7. For the comparison of score distribution for 2022 and 2021, Exhibit 11 shows that the proportion of companies that obtained scores below 40 increased to 48% in 2022 from 43% in 2021, mostly reflecting declines in the proportion of companies that obtained scores in the range of 40-45 (23% in 2022 versus 25% in 2021) and scores above 45 (29% in 2022 versus 31% in 2021).

Exhibit 11: ESG Score Distribution for Eligible A-shares for Northbound Trading under Stock Connect (2022 vs 2021)



Source: Annual corporate sustainability assessment performed by Hang Seng Indexes Company and the HKQAA Date: August 2022



Lower Scores for Six Core Subjects with 'The Environment' Remained at Bottom

With a marginal decline in average ESG score for the A-shares universe in 2022, six out of seven core subjects' scores were down. Being the only subject with ESG score improvement, 'Community Involvement and Development' was up 0.3pt in ESG score to 38.3, moving up one position to the 5th in 2022. Other six core subjects reported lower ESG scores, among which 'Labour Practices' (-2.2pt to 48.1) experiencing the largest drop. Overall, rankings for the seven core subjects were relatively stable with 'Environment' was at the bottom for two consecutive years.

Since HKQAA has assigned different weightings to the seven core subjects based on industry nature in 2020, we calculated average weightings for the seven core subjects remained stable over the past two years, with the highest/lowest weighting were still 'The Environment'/'Community Involvement and Development'.

We note that despite the A-share companies have improved in the environmental management due to the environmental policies from the Chinese government, the overall score for the 'Environment' core subject was actually down by 1.8pt to 32.4, resulting from the mixed changes in the items under it. In brief, the general improvement in company's environmental policy (rise in score) was outweighed by the lack of awareness in incorporating climate management & disclosure or commitment of net zero short-term and medium-term goal strategies (decline in score).

Exhibit 12: 2022 vs 2021 Score of Eligible A-shares Companies for Northbound Trading under the Stock Connect

		2022			2021	
Core Subjects	Score	Ranking	Avg Weighting	Score	Ranking	Avg Weighting
Labour Practices	48.0	1	0.15	50.2	1	0.15
Corporate Governance	47.9	2	0.14	49.1	2	0.13
Consumer Issues	44.4	3	0.15	44.8	3	0.15
Human Rights	42.7	4	0.14	44.7	4	0.14
Community Involvement and Development	38.3	5 个	0.13	38.0	6	0.13
Fair Operating Practices	38.3	6↓	0.15	39.2	5	0.14
The Environment	32.4	7	0.17	34.2	7	0.16
		_	1.00		-	1.00

Source: Annual corporate sustainability assessment performed by Hang Seng Indexes Company and the HKQAA

Date: August 2022



Largest Drop in Score for 'Properties & Construction' Among the 12 Industries

Due to industry re-classification of three companies, the 'Conglomerates' recorded the most considerable improvement in both scores (+7.7pts to 51.0 from 43.3 in 2021) and rankings (lift to 1st in 2022 from 6th in 2021) in 2022 while the ESG scores of other industries went down in general. However, with only three companies classified in the 'Conglomerates', out of 1,499 companies in the A-share universe, we have omitted the 'Conglomerates' for a more comparable year-on-year cross-industry analysis. Overall, Exhibit 13 shows that rankings for most of the industries in 2022 were largely stable. On the other hand, 'Properties & Construction' recorded the largest decline in ESG score (-1.7pt to 42.7 with ranking dropped to 5th in 2022 from 4th in 2021) among all industries.

Exhibit 13: Score Distribution by Industry Sector (A-shares Companies)

Rank	ing		Average S	core	YoY Chg in
2022	2021	Industry	2022	2021	Avg. Score
1	1	Financials	48.2	48.3	-0.1
2	2	Energy	45.3	45.7	-0.4
3 ↑	5	Telecommunications	43.9	44.2	-0.3
4 ↓	3	Utilities	43.2	44.5	-1.2
5 ↓	4	Properties & Construction	42.7	44.3	-1.7
6 个	7	Materials	41.4	42.2	-0.8
7 ↓	6	Industrials	41.3	42.4	-1.1
8	8	Information Technology	41.1	41.9	-0.8
9 个	10	Healthcare	40.4	41.1	-0.7
10 ↓	9	Consumer Discretionary	40.3	41.2	-0.9
11	11	Consumer Staples	40.0	40.4	-0.4
		Average:	41.6	42.6	-0.9

Remarks: omitted 'Conglomerate' as its YoY change was mainly due to industry reclassification in 2022 Source: Annual corporate sustainability assessment performed by Hang Seng Indexes Company and the HKQAA Date: August 2022



ESG Investing Aids Outperformance Against Benchmarks

Riding on the HKQAA ESG assessment, we have constructed the Hang Seng Corporate Sustainability Index Series to capture the ESG investing theme. Particularly, it is designed to provide ESG embedded benchmark for sustainability investments given incorporating ESG factors in investment analysis and decisions can help investors better manage risk, which could, in turn, lead to improved returns from their investment portfolios. As shown in Exhibit 14, the two corporate sustainability tradable indexes for the Hong Kong-listed companies (HSSUS) and A-shares (HSCASUS) have delivered better performances compared with their benchmark indexes over the 3-year period. For the two ESG indexes (HSIESG and HSCEESG) that have combined the ESG initiatives with the HSI and the HSCEI, they also delivered better performance with lower annualized volatility compared with those of the HSI and the HSCEI over the latest 3-year period.

For the universe that mainly included Hong Kong-listed companies, the HSESG50, which tracks the performance of the top 50 ESG leaders with relatively high market capitalisation, has generated a better 1-year/3-year return (-16%/-17%) compared with those of the ESG-tilted HSIESG (-17%/-23%) and HSCEESG (-20%/-34%) as well as with a lower 3-year annualised volatility (25% vs HSIESG's 27% and HSCEESG's 35%).

Exhibit 14: Performance of Hang Seng Corporate Sustainability Index Series

Index		Market	Latest 1-yr %chg	Latest 3-yr %chg	3-yr annualised Return	3-yr annualised Volatility
Hang Seng (China A) Corporate Sustainability Index	HSCASUS	A-shares	-17%	22%	6.8%	22%
Hang Seng (China A) Corporate Sustainability Benchmark Index	HSCASUSB	A-shares	-17%	15%	4.9%	21%
Hang Seng Corporate Sustainability Index	HSSUS	HK-listed	-12%	-13%	-4.6%	20%
Hang Seng Corporate Sustainability Benchmark Index	HSSUSB	HK-listed	-16%	-15%	-5.3%	24%
HSI ESG Index	HSIESG	HK-listed	-17%	-23%	-8.2%	27%
Hang Seng Index	HSI	HK-listed	-16%	-26%	-9.3%	32%
HSCEI ESG Index	HSCEESG	HK-listed	-20%	-34%	-12.9%	35%
Hang Seng China Enterprises Index	HSCEI	HK-listed	-19%	-35%	-13.4%	37%
Hang Seng ESG 50 Index	HSESG50	HK-listed	-16%	-17%	-6.1%	25%



A-shares Universe: HSCASUS Outperformed its Benchmark by 6% in 3-year

In the A-shares universe, the Hang Seng China A Corporate Sustainability Benchmark Index ('HSCASUSB') is designed to track the performance of A-shares companies that are eligible for Northbound Trading under the Stock Connect Scheme and with top 10% sustainability score. To create a tradeable index using the universe of HSCASUSB constituents, we construct the Hang Seng China A Corporate Sustainability Index ('HSCASUS') mainly based on two criteria: i) the top 300 stocks in terms of 12-month average market value A-shares eligible for the Northbound Trading under the Stock Connect Scheme, and ii) the top 30 stocks in terms of sustainability performance scores.

Exhibit 14 and 15 illustrate that the HSCASUS has delivered a similar performance compared with that of the HSCASUSB over the past 12 months (HSCASUS -17% vs HSCASUSB -17%) and a better performance over the past 3 years (HSCASUS +22% vs HSCASUSB +15%). Although the HSCASUSB is more diversified with 149 constituents, its 3-year annualised volatility of 21% is only marginally lower than that for the HSCASUS (22%).

180 160 140 120 100 80 60 12/2019 06/2020 03/2020 09/2020 12/2022 03/2022 26/2022 **HSCASUSB** - HSCASUS

Exhibit 15: 3-year Performance of HSCASUS vs HSCASUSB



HSCI Universe: HSSUS Outperformed its Benchmark by 4%/2% in 1-year/3-year

We employ similar approach to construct a benchmark index for the HSCI universe, namely the Hang Seng Corporate Sustainability Benchmark Index ('HSSUSB'). Among the constituents of the HSCI (excluding foreign companies and stapled securities), the HSSUSB would select the top 20% ranked stocks in terms of sustainability score as constituents. As of 5 December 2022, HSSUSB has 96 constituents. To create a tradable index using the universe of HSSUSB constituents, we construct the Hang Seng Corporate Sustainability Index ('HSSUS') mainly based on two criteria: i) the top 150 securities in terms of 12-month average market value among securities listed in Hong Kong that are eligible for the HSCI, and ii) select the top 30 securities in terms of sustainability performance scores.

Exhibit 14 and 16 show the outperformance of the HSSUS compared with HSSUSB over the 1-year (HSSUS -12% vs HSSUSB -16%) and 3-year (HSSUS -13% vs HSSUSB -15%). Despite a more diversified constituents structure for the HSSUSB, its 3-year annualised volatility of 24% is still higher than that for the HSSUS (20%).



Exhibit 16: 3-year Performance of the HSSUS vs HSSUSB



HSIESG & HSCEESG: Better Performance Lower Volatility with ESG-tilted Weightings

With the quantifiable ESG scores from HKQAA, we factor the ESG consideration into the HSI and the HSCEI, by adjusting the weightings of constituents based on each of their sustainability score, i.e. upward/downward adjustment for stocks with a higher/lower ESG score, resulting in the ESGweightings-tilted HSI and HSCEI, which are respectively the HSIESG and the HSCEESG. Remarkably, both the HSIESG and the HSCEESG could achieve better performance compared with their underlying HSI and the HSCEI over the past 3-year period and with lower 3-year annualised volatility (shown in Exhibit 14).

Exhibits 17 and 18 show the rebased performance of the HSIESG and HSCEESG respectively. Compared with the respective benchmarks during the last 3 years, the HSIESG outperformed the HSI by 3%pt; the HSCEESG outperformed the HSCEI by 1%pt, indicating an improvement after tilting with the ESG scores.

130 120 110 100 90 80 70 60 50 06/2020 12/2019 03/2020 09/2020 12/2020 09/2021 36/2022 12/2022 03/2021 12/2021 39/2022 06/2021 3/202

Exhibit 17: 3-year Performance of the HSIESG vs HSI

Source: Hang Seng Indexes Company; Date: 5 December 2022

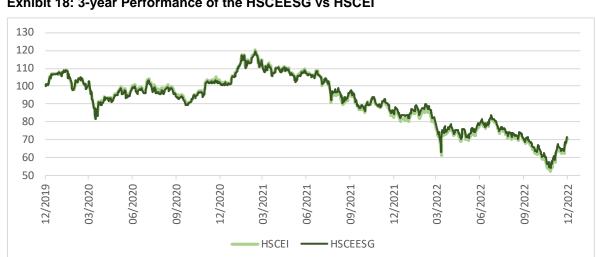


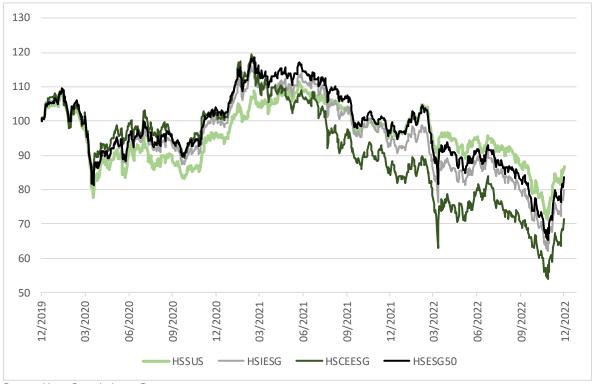
Exhibit 18: 3-year Performance of the HSCEESG vs HSCEI



HSESG50 Performed Slightly Better Than HSIESG and HSCEESG, except HSSUS

Different from the HSSUS which prioritises in ESG scores filtering prior to the market value consideration, we construct the Hang Seng ESG 50 Index (HSESG50) with eligibility criteria firstly based on the top 200 securities (excluding foreign companies and stapled securities) in terms of 12-month-average market value in the HSCI universe and then select the top 50 eligible securities with the highest ESG scores as the index constituents. Exhibits 14 and 19 show that in the past 3 years, the HSESG50 has performed (-17%) better than those of the HSIESG (-23%) and the HSCEESG (-34%), except that of the HSSUS (-13%).

Exhibit 19: 3-year Performance of the HSSUS, HSIESG, HSCEESG and HSESG50



Source: Hang Seng Indexes Company

Date: 5 December 2022



Appendix A – HKQAA's Sustainability Performance Assessment Model

Hang Seng Indexes Company launched the Hang Seng Corporate Sustainability Index Series in July 2010 to provide benchmarks for sustainability investment in companies listed in Hong Kong and mainland China. Beginning in 2014, Hang Seng Indexes Company has engaged a professional independent assessment organization, HKQAA, to conduct an annual evaluation of the ESG performance of listed companies in Hong Kong and mainland China. The sustainability performance assessment model used by the HKQAA makes reference to international guidelines such as ISO 26000 and the Global Reporting Initiative. In 2022, HKQAA assesses a company's sustainability rating (ranging from AAA ('Sustainable') to D ('Vulnerable'), with score on a scale of 0 to 100) based on seven core subjects: Corporate Governance, The Environment, Human Rights, Labour Practices, Fair Operating Practices, Consumer Issues, and Community Involvement and Development.

Exhibit 20: HKQAA's Assessment Model: Seven Core Subjects

Corporate Governance Business ethics, controversial, investments, and others Labour Practices Labour-management relations, employee health and safety, supply chainothild labour/ forced labour, and others Preedom of expression and censorship, human rights abuses, and others Pricedom of expression and censorship, human rights abuses, and others Pricedom of expression and censorship, human rights abuses, and others Pricedom of expression and others Consumer Issues Marketing and advertising, production quality and safety, customer relations, and others and others Adverse impact on production quality and safety, customer relations, and others

Note: With reference to international standards such as ISO26000 and the Global Reporting Initiative

Source: HKQAA Date: August 2022



Exhibit 21: HKQAA's Assessment Model: Rating Scale



Note: With reference to international standards such as ISO26000 and the Global Reporting Initiative

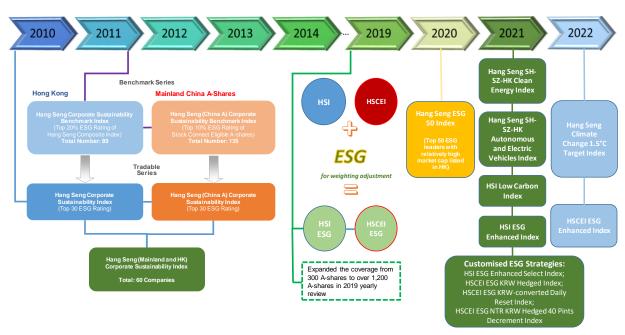
Source: HKQAA Date: August 2022

In the assessment process, the HKQAA will first conduct a web-based research through various channels, including: 1) the company's public domain website, 2) the company's annual report and sustainability reports, and 3) company news from media sources. Upon completion of the preliminary assessment, the HKQAA will send out pre-filled questionnaires to individual companies for review, comment and confirmation. The final results will be based on the preliminary assessment results, feedback from companies, accountability rating, subjects rating among the industry, country and industry risk ratings and media monitoring (an ongoing mechanism to identity media commentaries and other publicly available information that may have an impact on the companies' reputation and core business).



Appendix B – Hang Seng Corporate Sustainability Index Series

Exhibit 22: Hang Seng Indexes Company's Sustainability / ESG Indexes Development



Remarks: SH /SZ /HK refers to Shanghai /Shenzhen /Hong Kong

Source: Hang Seng Indexes Company

Date: 28 October 2022



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