Research Assessment Exercise 2020
Impact Case Study

University: The Hong Kong University of Science and Technology
Unit of Assessment (UoA): 20-Accountancy
Title of case study: Improving equity investment practice in China's financial sector and regulation of US financial disclosure

(1) Summary of the impact

China Investment Corporation (CIC) is China's sovereign wealth fund and the world's second largest of its kind, with over US$940 billion assets under management as of December 2017. Haifeng You's application of his and his co-authors' equity valuation and investment research during a 2015-17 consultancy with the fund led directly to a new quantitative system to manage its equity portfolios involving several billions of assets. The on-going system has resulted in economic benefits for the corporation and China overall through returns that added significant value to the country's foreign exchange holdings. His training of financial research professionals to implement his strategy, and earlier consultancy with a major Chinese mutual fund, led to a pool of practitioners who rose to senior positions in China's financial sector during the audit period. You's research on financial information complexity and investor reactions also informed a financial regulation amendment by the US Securities and Exchange Commission, which simplifies corporate information reporting and assists investors in their evaluation of a firm's investment potential. Dissemination through industry publications, corporate talks, and the media further widened the reach of You's research among international finance professionals and general investors.

(2) Underpinning research

You's consultancy at CIC, training of financial sector professionals, and contribution to the Securities and Exchange Commission financial reporting regulatory amendment drew on his investigations on pricing and investment implications of financial information, which he conducted with international co-authors. His research has informed both academia and real-world applications.

The primary goal of equity investment is to obtain higher stock returns. Research by You (joined HKUST 2009) has focused on the role of financial information in equity valuation and role of financial analysts as an information intermediary in stock markets. These studies are particularly useful for investors to achieve better investment outcomes by helping them understand the drivers of stock price movement, the behavior of various capital market participants, as well as the mispricing opportunities on the capital market.

On equity valuation, his 2012 paper, co-authored with Scott Richardson (AQR) and Richard Sloan (University of Southern California) **[R1]**, showed that in contrast to the traditional theory that only systematic risk matters for expected returns, investor recognition was also an important determinant of expected returns, and changes in such recognition were among the most significant drivers of stock price moves. In his 2014 paper **[R2]**, You examined a sample of approximately 200,000 business segments reported by US firms during years 1998-2007. He found that investors tend to use a sum-of-the-parts (SOTP) approach to value conglomerates, providing incentives for managers to transfer profits from segments with relatively low valuation to those with relatively high valuations. He further showed that failure to adjust for such valuation-driven profit transfer led to overestimation errors in equity valuation, highlighting the need for investors to adjust for such earnings' manipulation.

In further research with Sloan **[R3]**, You suggested companies tend to issue or repurchase stocks when they are overvalued or undervalued respectively. This leads to wealth transfer from transacting to on-going shareholders, with such wealth transfer of the same significance as value creation from operating activities and an important determinant of firm value.

In looking at financial analysts' role in the capital market, together with Kevin Li (UC Irvine) **[R4**], You examined three potential ways for analysts to create value for the firms they covered. They found little evidence that analysts improved firms' value through monitoring managers or producing information for investors. Instead, they found analysts played an important role in enhancing investor recognition of stocks covered (i.e. the extent to which a stock is known by investors). In an earlier paper with Patricia Dechow (University of Southern California) **[R5]**, the researchers showed analysts do not always exert their best effort in developing earnings forecasts. Analysts rationally exerted low effort in forecasting earnings for certain firms, leading to rounding in their forecasts, which is not only less accurate but also more optimistically biased. Furthermore, investors appeared to overvalue firms with more rounded forecasts. These studies suggest investors should be skeptical about analysts' forecasts and recommendations. By carefully analyzing analysts' incentives, investors can better use analyst forecasts in their investment decision making.

Earlier, investigations with co-author Xiao-Jun Zhang (UC Berkeley) explored how the complexity of US corporate annual reports (i.e. 10-K filings) affected investors' reaction to the reports. Corporate annual reports are one of the most important sources of information for investors to evaluate the investment potential of a firm. Yet the authors showed how the voluminous amounts of information in 10-K filings discouraged investors from processing the content, leading to mispricing of 10-K information and the researchers' call for "making 10-K information more intelligible to the average investor" [**R6**].

This would save information-processing costs for tens of millions of investors, who rely on such filings for decision-making, and facilitate the efficient pricing of financial information on the capital market. The researchers' findings also had significant investment implications, suggesting that stock prices for 10-K filings with good news tended to be too low while prices for 10-K filings with bad news tended to be too high. Savvy investors could thus form investment strategies exploiting such mispricing opportunities and help to restore the efficient pricing of such information.

Collectively, the studies significantly enhanced understanding of equity valuation, through pointing up new issues for investors to consider when valuing stocks. This, together with findings on investors' mis-valuing of financial information in 10-K filings and analysts' reports, supported You's consultancy work at major financial institutions such as CIC and Bosera.

(3) References to the research

[R1] Richardson S, Sloan R, **You HF**. (2012). "What Makes Stock Prices Move? Fundamentals vs. Investor Recognition", *Financial Analyst Journal*, 68 (2): 30-50.

[R2] You HF. (2014). "Valuation-driven Profit Transfer among Corporate Segments", *Review of Accounting Studies* 19 (2): 805-838.

[R3] Sloan R and **You HF**. (2015). "Wealth Transfers via Equity Transactions", *Journal of Financial Economics* 118(1): 93-112.

[R4] Li K and **You HF**. (2015). "What is the Value of Sell-side Analysts? Evidence from Coverage Initiations and Terminations", *Journal of Accounting and Economics*, 60(2-3): 141-160.

[R5] Dechow P and **You HF**. (2012). "Analysts' Motives for Rounding EPS Forecasts", *The Accounting Review*, 87 (6): 1939-1966.

[R6] You HF and Zhang XJ. (2009). "Financial Reporting Complexity and Investor Underreaction to 10-K Information", *Review of Accounting Studies*, 14: 559-586.

(4) Details of the impact

You and his co-authors' research on i) equity valuation and investment and ii) the effect of financial reporting complexity has had ***economic impact*** on firms and the Chinese economy through strategies to improve business performance of China Investment Corporation and several other companies; ***impact on practitioners*** through implementation of new practices; ***impact on public policy*** by informing policy debate and decisions around financial information reporting; and ***societal impact*** through generating greater public awareness of the importance of research-led investment decisions. The main beneficiaries include financial sector companies and national and international finance professionals, the Chinese government and its citizens, US regulators and investors, and the general public.

Changing equity investment practice in leading firms in China's financial sector

After You was approached for consultancy by China Investment Corporation (CIC), China's sovereign wealth fund, he developed and implemented quantitative investment strategies that have had significant impact on corporate policy, practice, and economic outcomes. From 2015-17, he served as the corporation's Director of Quantitative Research and Senior Consultant, building the research team and quantitative trading system to manage global quantitative equity portfolios. The system and training of a team of six to implement it were based largely on his research **[R1-R6]**. By deploying capital to arbitrage, his strategies also assisted in correcting mispricing opportunities, which indirectly contributed to improved resource allocation efficiency in capital markets

The cutting-edge system and strategies helped the firm fruitfully manage several billions of US dollar assets, generating significant returns and contributing to advancing the fund's overall objective to maximize returns on China's foreign exchange holdings. Such achievements are corroborated in a letter from Sherry Zhang, current Head of Quantitative Strategies at CIC, who stated: "*With his expertise in accounting and valuation research, Professor You was able to make significant contributions to the development and implementation of our quantitative investment strategies. He did a major overhaul of our investment strategies just several months after joining the team, which led to a considerable improvement in strategy performance. Up until now, our global equity investment funds are still largely managed by using the strategies that Professor You and his team has developed. The strategies have generated significant returns over the past few years. And the fund performance has significantly exceeded similar strategies managed by other world-leading financial institutions.*" [**S1]**

His contribution to strengthening capacity for China's finance industry is also evident from his earlier consultancy for Bosera Asset Management Co Ltd (2009-12), where he played a key role in building one of the first quantitative investment teams in the country, paving the way for Bosera's continued growth, with funds under its management more than doubling between 2014 and 2018 [**S2**]. Wang Deying, its deputy chief executive officer, affirmed You's work "*provided a very strong foundation from which to shape the operations of our firm … playing a significant part in the company's current success*". This was also an "*important contribution to the development of China's financial sector through the sharing of his cutting-edge knowledge and the human resource development*". This is evident from the fact that several analysts he trained went on to become senior portfolio managers managing billion-dollar assets for their clients. Jim Zheng Wang, former General Manager of the Equity Department, Bosera, and now CEO of a leading fintech company in China, attested: "*Thanks to Professor You's training and guidance, many of our research analysts at that time have since rapidly risen to become senior quantitative investment professionals*" at Bosera, hedge funds, or after starting their own financial business, *"and have become the new role models for many other quantitative investors in China"*. **[S3]** His own business has benefited from the implementation of quantitative strategies that he initially developed and implemented as a result of You's research and consultancy, with the company growing to over 500 people and an audited asset value of over RMB1 billion by the end of July 2019.

Contributing to US regulatory reform on financial reporting

You's work has had impact on public policy by informing debate and policy decisions when the US Securities and Exchange Commission (SEC) acted to give registrants the option to simplify Form 10-K reporting information. In a federal securities law amendment included under Section 72001 of the Fixing America's Surface Transportation ("FAST") Act, the commission cited You's research as the "*academic literature that has examined the readability of Form 10 Ks and suggested that concisely written documents are more likely to be read, and their information more effectively incorporated into stock prices, compared to longer Form 10-Ks"* to promote the new regulation [**S4**, citation 29]. The amendment allows registrants to include a summary in their Form 10-K. As the agency stated: "*By presenting an overview of the information contained in Form 10-K, a summary with hyperlinks could make disclosure more effective by enhancing the ability of investors and other users to process relevant information and/or by reducing their processing time and search costs*" [**S4**]. Effective June, 2016, the change applied to all 7,844 registrants required to file annual reports on Form 10-K (in calendar year

2015), i.e., all companies with more than US$10 million in assets and a class of equity securities held by over 2,000 owners.

<u>Informing industry and individual investors' thinking and practice</u>

From 2014-18, You was invited by JP Morgan, Deutsche Bank, Bank of America Merrill Lynch, and Macquarie, among others with operations in Hong Kong, to present his research, on the effect of wealth transfer on equity valuation **[R3]** and other papers. Hundreds of investing professionals as well as senior executives attended around 10 such events, with some participants following up with questions/comments on site or via emails. This research was also used by Credit Suisse in a global financial strategy paper for its clients **[S5]**. In 2015, his study on valuation-driven profit transfer **[R2]** was featured in *The AAII Journal* [**S6**], distributed to members (around 150,000) of the American Association of Individual Investors, a non-profit organization to educate individuals on stock market portfolios and financial planning.

(5) Sources to corroborate the impact (indicative maximum of 10 references)

[S1] Letter, Sherry Zhang, Head of Quantitative Strategies, China Investment Corporation. [On file]

[S2] Letter, Wang Deying, Deputy General Manager, Bosera Funds. [On file]

[S3] Letter, Jim Wang, former General Manager, Equity Department, Bosera. [On file]

[S4] Securities Exchange Commission. Federal Register – The Daily Journal of the United States Government. Form 10K Summary [citation 29, p37136]. https://www.federalregister.gov/documents/ 2016/06/09/2016-13328/form-10-k-summary#citation-29-p37136

[S5] Credit Suisse. "The Incredible Shrinking Universe of Stocks". Global Financial Strategies [citation 36, p17]. https://www.cmgwealth.com/wpcontent/uploads /2017/03/document _1072753661.pdf

[**S6]** "Value of Analyst Research Is in Investor Recognition**",** AAII Journal. October 2015. http://www.aaii.com/journal/article/value-of-analyst-research-is-in-investor-recognition.touch