Premier Issue Fall 2019

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Message from the Dean



ver the past decade, China has not only established itself as an economic powerhouse, but also a rising force in higher education. As one of the country's flagship universities, Peking University (PKU) has gained much momentum, as has its newest business school, Peking University HSBC Business School (PHBS).

Founded in Shenzhen in 2004, PHBS is a showcase of entrepreneurial achievement, combining Peking University's profound heritage and Shenzhen's innovative vitality. It brings PKU's historical presence and first-tier business education programs to the country's south and benefits from the dynamic and pioneering spirit of the thriving city.

For those interested in learning about the events and developments that have shaped China over the last 40 years, our school presents an exceptional opportunity to benefit from both modern Asian cultural immersion and internationalization. The country's first Special Economic Zone, Shenzhen provides the setting to gain insights into the region that is emerging as one of the world's economic and financial centers.

Our brand influence and presence is growing.

PHBS continues to set its sights on worldwide recognition, now holding AACSB and AMBA accreditations. In 2018, we launched our UK campus in Oxfordshire, England, marking a milestone for PKU. As today's China has much more to offer than merely kung fu, pandas, and diverse regional cuisines, our overseas campus serves to connect China to the world, and the world to China.

We are a global community proud of our achievements, never bound by them, yet always driven by the world's latest trends. As technology shapes the business landscape, PHBS has incorporated cutting edge subjects such as fintech and machine learning into our curriculum. Moreover, our school is on track to lead the way with our research, programs, faculty and alumni, leveraging our location in Shenzhen, China's front-runner in tech innovation.

This premier issue of the PHBS Magazine has been long in the making, sharing only a small selection of stories about the many inspiring faculty, students and alumni whose talent defines our school. It also highlights a variety of special PHBS events and initiatives, as well as our faculty's research and insights into trending topics.

We invite you to get to know us and join our journey, as PHBS embraces future opportunities and rises to meet the challenges of today's ever-changing world.

Sincerely,

Hai Wen PHBS Founding Dean

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PHBS MAGAZINE

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NEWS BRIEFINGS

PHBS EMBA Alumnus Pu Aimin Completes the "777"Challenge, Breaking the Asian Record



Pu Aiming (right) brings PHBS flag to Antarctica

EMBA alumnus Pu Aimin completed this year's World Marathon Challenge, popularly known as the "777," ranking 8th in overall score (28 hours, 24 mins, 26 secs), the best result for an Asian participant in the February event. Competitors ran 42.2 km for each region, starting in Novo (Antarctica), followed by Cape Town (Africa), Perth (Australia), Dubai (Asia), Madrid (Europe), Santiago (South America) and ending in Miami (North America), within 168 hours, or seven days. Fewer than 200 people have finished a 777-style marathon challenge since it was first completed in 2003.

Distinguished Speakers Featured at PHBS Innovation and Entrepreneurship Center

HRH The Duke of York and Dame Barbara Woodward, British Ambassador to China, helped to celebrate the grand opening of the PHBS Center for Innovation and Entrepreneurship on November 1, 2018. The center aims to further develop PHBS's research capabilities in innovation and entrepreneurship and to inspire and educate the next generation of innovators and entrepreneurs. Since its inception, more than 300 attendees have packed the lecture hall each time for a number of talks by prominent business leaders, entrepreneurs and scholars from around the world. Speakers have included Wang Shi, founder of Vanke, a major Chinese real estate developer (ranked 332nd in the 2018 Fortune Global 500), and Brett Gorvy, co-founder of Lévy Gorvy, a renowned art gallery with spaces in London, New York and Hong Kong, and a devotee to innovation and connoisseurship in the fields of modern, postwar and contemporary art.

PHBS Finance Students Win Regional CFA Institute Research Challenge

The trio representing PHBS at the 2019 CFA Institute Research Challenge in Shenzhen came out the winners of its South China Local Final. Team members Nian Yasong, Yao Huanchen and Yu Chenfeng, all finance students, cited PHBS Assistant Professor Daniel Kim for his supervision leading up to the competition. The CFA Institute Research Challenge is an annual global competition focused on equity research that provides students hands-on experience with close mentoring and training in financial analysis. Teams of three to five are presented with actual cases for which they act as research analysts to value stocks, write a report, and present their recommendations to a panel of experts.

PHBSers Win Multiple Awards in Gobi and Desert Challenges



PHBS MBA Team in the Tengger Desert

PHBS Executive MBA (EMBA) competitors won seven awards in the 14th Xuan Zang Road International Business School Gobi Challenge, receiving the Excellence Award, the Shackleton Award and five other prizes. The annual event, with participants covering 117 km on foot, is held over four days and draws thousands of competitors from 62 business schools. Meanwhile, the PHBS MBA team competed in the 8th Asia-Pacific Business School Desert Challenge and won the Sand Gull Award for the fourth consecutive year, the competition's highest group honor. The event takes place in the Tengger Desert across three days, with participants covering over 70 km. This year, nearly 3000 participants entered the competition from among 109 business schools. Executive Development Progam (EDP) students defended their title in the 5th Industrial and Commercial Avenue Gobi Desert Expedition, winning a total of 92 gold, 39 silver and 7 bronze medals.

PHBS Financial Media Students Win Gold Medal in China DataViz Competition

In the first China DataViz Competition, themed "Macro and Micro World in Data," the work "Way Back into Shanghai" of three PHBS financial media students, Lan Xingyu, Liang Yinyan and Ye Xiaoqi, stood out from 622 submissions to win the Best Data News Award. The students' award-winning project shows the process of Shanghai's road network expansion, the history of Shanghai's development, and the spatial transfer of urban functional areas. To communicate information clearly and effectively, data visualization uses statistical graphics, plots, information graphics and other tools.

> 最佳数据新闻 Best Data News 金奖 Gold Award

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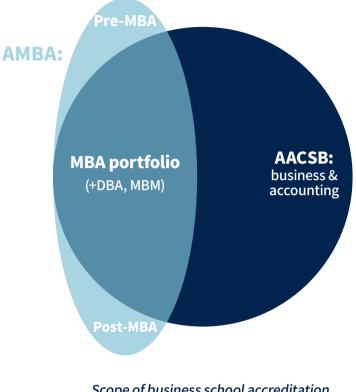
中国数据可视化创作大赛 China DataViz Competition

Accreditations Support the PHBS Vision for World-Wide Recognition

By Annie Jin







Scope of business school accreditation for AACSB and AMBA

he hub of higher education in China has long been recognized as located in Zhong Guancun, Beijing within the one-and-ahalf-mile stretch between Peking University and Tsinghua University. But now there is competition that could locate that center a bit farther south.

Though a young institution, Peking University HSBC Business School (PHBS) has set its sights on world-wide recognition, now holding AMBA and AACSB, granted by the two largest and most influential business school accreditation organizations:

AMBA - The Association of MBAs (United Kingdom)

AACSB - The Association to Advance Collegiate Schools of Business (United States) University accreditation is important, serving as a quality indicator for prospective students and employers. Holding multiple accreditations, then, speaks volumes about the institution's standards and practices.

AMBA

In May 2019, the school was accredited by AMBA and is among only 2% of business schools in over 70 countries to hold this distinction. Founded in 1967, AMBA describes itself as "the impartial authority on postgraduate management education" and accredits only the MBA portfolio within a business school. Among its requirements is that MBA ap"

With its accreditation, PHBS joins a group of the world's leading business schools as AMBA continues to grow across Asia and Oceania, building a network of the highest-quality business schools across the region.

Chief Executive of AMBA & the Business Graduates Association

plicants must have at least three years of full-time work experience.

The AMBA team said they were impressed by the school's rapid development and extensive achievements. Among the number of quality indicators the team recognized were the school's high-quality facilities and faculty, a strong commitment to internationalization, the rigorous assessment in courses and theses, strict admission for MBA and EMBA, and entrepreneurial spirit and culture. They further noted the school's internationalization activities, including faculty recruitment and the establishment of the UK campus.

PHBS has strong connections with the corporate world and provides students with practical cases that relate management theories to students' work experience. According to the feedback from the peer review team, "This is reflected in the learning experience in the different courses: students were very positive about the current business awareness of faculty members."

To provide in-depth Chinese educational experiences with a global perspective, PHBS has fostered strategic partnerships with the world's reputable universities and business schools, including Zicklin School of Business (ZSB) at Baruch College, the City University of New York.



The two schools signed an agreement in 2016 to offer the MBA-MSF (Master of Business Administration–Master of Science in Finance) dual degree program. Students admitted into the program complete their MBA courses at PHBS in their first year and then study for the MSF degree at ZSB in their second year.

Now, as an AMBA-accredited school, students and alumni can also have access to a range of networking opportunities across all continents with corporate partners, as well as access to a database for career advice and knowledge and an MBA jobs portal.

AACSB

PHBS earned endorsement from AACSB in August 2018. Another of the world's leading business school accreditation organizations, it has the broadest scope and grants university-wide accreditation. PHBS is among less than 5% of over 16,000 business schools and colleges in the world to hold the accreditation.

As AACSB accreditation is regarded as the hall-

This achievement recognizes the efforts of all stakeholders, including our faculty, staff, students, alumni, corporate partners, and university administrators. We will continue to build up a top international business school."

PHBS Founding Dean Hai Wen

mark of excellence in business education and represents the highest standard of achievement for business schools worldwide, earning this accreditation confirms PHBS's commitment to quality and continuous improvement through an arduous and comprehensive peer review process.

Over the past year, PHBS faculty have published papers in top-tier international academic journals,

AACSB rigorous quality standards

High-quality teaching environment





Cutting-edge

research

Commitment to continuous improvement



Curricula responsive to the needs of business



Highly competitive graduates in the employment market



"

AACSB accreditation recognizes institutions that have demonstrated a focus on excellence in all areas, including teaching, research, curricula development, and student learning.

Executive Vice President and Chief Accreditation Officer of AACSB International

such as *The Journal of Financial Economics, Management Science, Strategic Management Journal,* and *Journal of Monetary Economics.*

The school has established several high-level think tanks, including the Sargent Institute of Quantitative Economics and Finance. In addition, it has signed an agreement with Ping An Technology to jointly establish a high-level research platform for macroeconomics and finance by incorporating AI technology and big data.

By the end of July 2018, there were only 22 AACSB-accredited business schools on mainland China. AACSB-accredited schools are recognized worldwide by top employers and other universities, so the designation is beneficial for PHBS students and its future students when preparing for a career in business or applying for further education.

"Today's students are tomorrow's business leaders, and the addition of the Peking University HSBC Business School to the network of AACSB-accredited business schools will have a lasting positive impact for their institution, both locally and globally," Bryant said.



PHBS Dean Hai (second from right) introduces the development of the UK campus to the AACSB peer review team at the PKU history exhibition held on the Shenzhen campus



EPAS 2011

The first endorsement that PHBS received was from the European Foundation for Management Development (EFMD) in 2011 when the organization conferred EPAS accreditation on the PHBS Master of Economics program. In fact, PHBS was the first higher education institution on mainland China to earn this accreditation.

CFA 2015

In addition to the coveted university accreditations, PHBS earned another important designation in recent years. The school's Master of Finance program passed the CFA (Chartered Financial Analyst) University Certification Program in 2015. **GARP** 2016

> Subsequently, the school established an academic partnership with the Global Association of Risk Professionals (GARP), indicating that the curricula of two PHBS graduate programs, the MSc in Finance and the MSc in Quantitative Finance, align well with industry-recognized standards.



Nobel Laureate Heads Chinese Institute on Economics

By Annie Jin

s the world's economy undergoes profound changes, how do we understand complex issues and seek solutions? In the 21st century, it is largely through mathematics and statistics.

"Our institute strives to put mathematics



and statistics at the service of quantitative analysis of questions about economics, finance, and government policy," remarked Professor Thomas Sargent, the 2011 Nobel laureate in economics, who joined PHBS in 2017 as the founding director of the Sargent Institute of Quantitative Economics and Finance (SIQEF).

A self-described "positivist," Sargent explained that SIQEF "crunches" extensive sets of data and does theoretical and empirical research to glean insights into the real world. "We provide a platform for developing computational economics and finance based on user-friendly and powerful open source languages, especially Python and Julia."

Sargent is in residence at PHBS two months each year leading a team of top researchers from PHBS and overseas universities, such as the University of Chicago, New York University, and the Australian National University. The institute has also provided talented students nationwide with opportunities to take part in its annual winter camp and launched a specialized doctoral program.

Candy Store

Of the eight Nobel laureates who have set up research institutes in Shenzhen, Sargent is the only one with an outstanding reputation in the social science of macroeconomics.

"What I hope to do is join my colleagues here to help shed some light on economic theories as well as empirical studies," said Sargent, who is among a new breed of professors using Julia and Python both for teaching and cutting-edge research.

Noting that faculty members here are

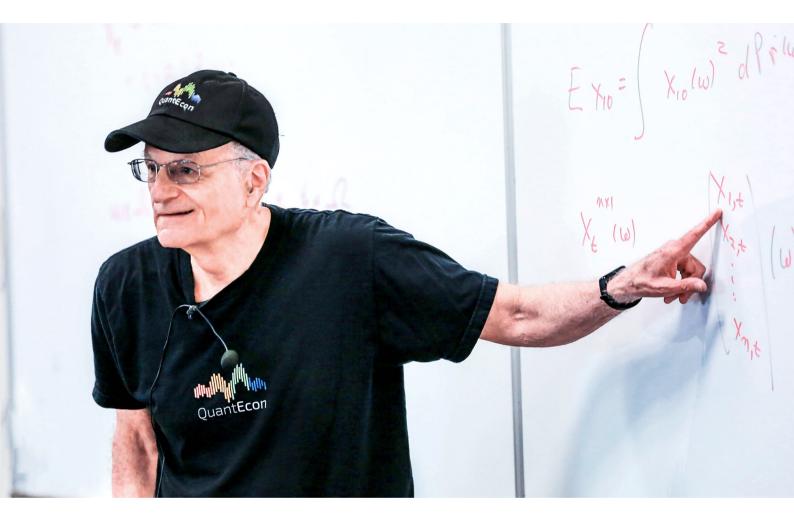
"very young, ambitious and smart and work really hard," he admitted he could benefit from keeping his ears open and listening. Sargent has enjoyed their seminars on various economics and finance topics.

"They're bringing new things to an old person like me," Sargent mused, adding the metaphor that "economics or almost any academic discipline is kind like a sport, the most productive players are always young." Each time a new topic was raised, he would ask presenters to send him related papers.

So it's a great environment, for me. It's like a candy store."

Sargent, along with the SIQEF team, has also made efforts to valorize young PHBS researchers' findings by translating this knowledge into solutions. For example, SIQEF has been working with Ping An Technology to develop a Nowcasting platform since signing a joint strategic research agreement in 2017 for macroeconomics and finance.

"This project aims to set up a warning system based on big data to monitor China's macroeconomic conditions in real time," said Shi Jiao, the SIQEF vice director and PHBS assistant professor. Rather than predicting the distant future, Nowcasting uses ideas from forecasting to measure the current state of the world and has been applied in many institutions worldwide, in particular the central banks.



Sargent teaches advanced macroeconomics for PHBS students

In addition, the institute provides practical advice for government departments by developing policy analysis models. Shi further pointed out, "Based on the most advanced findings in macroeconomics, we aim to make improvements and adaptations to our research to better conduct macroeconomic analysis in China." "In the future, we can do more and more as technology advances," Sargent said, referring to China's various resources and its leading role in machine learning, as the institute will probe into the frontiers of quantitative economics and finance using programming languages and models.

Training Camp

When Python meets economics, what's next? Going beyond its academic undertakings, SIQEF also provides opportunities for students to get involved and figure out the answer through its annual winter camp, a two-week intensive training in Python programming and its applications in economics.

"I have realized that mathematics and programming are so useful and powerful," said Huang Xinrui, a student in applied mathematics at Sun Yat-sen University. He attended the 2019 winter camp, along with 31 other students from China's key universities including Nankai, Peking, Renmin, Tsinghua, and Xiamen.

In the first five days, students take a set of courses ranging from basic syntax and packages in Python, as well as tools for various applications. After that, instructors teach them how to apply these tools to economics-related topics, such as inequality, exchange rate models, monetary policy and shadow banking.

"The tools we deliver are to empower students," emphasized Shi. She said she encourages students to enjoy the training rather than see the extremely challenging courses as "torture."

Coursework is provided by several instructors from universities and institutes worldwide, including New York University, the Federal Reserve Bank of Atlanta, Hong Kong University of Science and Technology, PHBS, and QuantEcon, a nonprofit international organization dedicated to improving economic modeling led by renowned economists.

A sampling of tools taught at the winter camp includes regression and maximum likelihood, Bayesian inference, finite Markov chains, and linear algebra with Python, among others. Stating that "Python can do a lot of favors for economics research," Sargent teaches during the winter camp, guiding stu-



Vinter camp students take a course in the PHBS financial lab

The lab includes a live broadcasting system, diverse software and databases, 12 Bloomberg terminals, Wind terminals, among others. An LED stock ticker is arranged in the center of the ceiling to provide a real-time data feed from major stock exchanges worldwide.

dents in programming and using Python to express ideas in an accessible way.

He regards interacting with students as a "very fun and rewarding" experience, adding "Every time I'm lecturing, it's active. It's active in a sense that the students are teaching me as much as I'm teaching them."

The winter camp also held a Nobel laureate seminar, where students could enjoy discourse with Sargent. Topics ranged from exploring economic tools, reconciling academic disputes, and career advice.

To enhance classroom learning, students also worked in the financial lab. They assessed both real-time and historical data about financial markets around the world through Bloomberg terminals and used the tools and modeling techniques they learned to analyze data. They also visited leading companies in Shenzhen, such as Ping An Technology, where they gained a better understanding about fintech, deep learning and artificial intelligence, as well as how to apply models to real-life scenarios.

Talent Powerhouse

"I enjoy the full devotion to academics and study here, though the courses are quite intensive," said He Hemin, a first-year doctoral student who also attended the winter camp before enrolling in the Ph.D. program in quantitative economics. Initiated by SIQEF, this program, launched in fall 2018, is designed to focus on fundamental training as well as applications of modern research tools.

"By presenting these tools to students in a patient and one-step-at-a-time way, we intend to empower them and make them confident in understanding and creating economic theories," remarked Sargent, who teaches advanced macroeconomics for doctoral students.

According to SIQEF, the program combines and improves aspects of the most successful programs worldwide, and Ph.D. students are required to study math, economics, econometrics, and even programming in a series of courses. These were designed by Sargent in which he selected chapters from various textbooks and condensed them into a coherent and comprehensive curriculum.

"Students will be tooled up and empowered, so they will be able to participate in applied research quickly," Sargent said. He also noted that students are in a good position to take related courses as the program has ambitious and technically proficient faculty members who do applied research in a variety of fields.

Yet another learning opportunity is open to full-time master's degree students at PHBS in the honorary "Elite Master's Program" where they can take core Ph.D. courses. Said Shi Jiao, "Master students who are interested

Did You Know?

Sargent was awarded the Nobel Prize in Economics in 2011 along with Christopher Sims "for their empirical research on cause and effect in macroeconomics." 2

He is one of the leaders of the "rational expectations revolution" and has ranked among the most cited economists in the world.

J

SIQEF plays three roles: "candy store," training camp, and talent powerhouse.



Sargent at the PHBS 2019 Commencement

in pursuing an academic career in the future, as well as those who intend to employ stateof-the-art tools in future work, can benefit from the opportunity to enroll in the Ph.D. curriculum."

"The Elite Master Program should open doors to ambitious students by providing them with tools and understandings and empowering them intellectually," Sargent said, noting that tech firms are eager to bring an economist's toolkit into more parts of the business.

"Today there are good jobs for outstanding graduates at central banks, various governments, financial institutions and private profit-making institutions," he pointed out, saying that some outstanding Ph.D. economists also do excellent research work for Alibaba and Amazon, "where wonderful hardware and software research facilities and support are provided."



2019 China International Conference in Macroeconomics Held at PHBS

By Annie Jin

he Second China International Conference in Macroeconomics (CICM) was held at Peking University HSBC Business School, Shenzhen, June 21-23 and jointly sponsored and organized by Peking University HSBC Business School (PHBS), Tsinghua University PBC School of Finance (PBCSF), and China Forum of Macroeconomic Research (CFMR).

This year, the annual event featured three keynote speeches, 14 parallel academic sessions and a policy panel. Over 150 scholars, policymakers and practitioners worldwide converged to present papers and discuss topics related to macroeconomics, including Nobel laureates Thomas Sargent (2011) and Lars Peter Hansen (2013). This year's acceptance rate from open submissions was 10.4%, out of



Wei Shangjin N.T. Wang Professor of Chinese Business and Economy, Columbia University



Lars Peter Hansen 2013 Nobel Laureate in Economics



Mikhail Golosov Homer J. Livingston Professor of Economics, University of Chicago

2 Nobel Laureates
Over 150 scholars worldwide
319 submitted papers
10.4% acceptance rate

319 high-quality papers.

Professor Wei Shangjin probed monetary policy based on global value chains and proposed a structural explanation for divergence between PPI (Producer Price Index) and CPI (Consumer Price Index) measures. PPI reflects upstream sector inflation while CPI focuses more on final goods inflation. He pointed out that if only aggregate price indices can be chosen in the monetary policy making process, then targeting PPI instead of only targeting CPI improves welfare.

In his keynote speech, Professor Lars Peter Hansen provided insights into the relationship between carbon emissions, climate change, and price uncertainty. He used social rather than private valuation and took climate change and the subsequent societal damage induced by economic activity as the "cash flow" to be valued. The results of the model show that when the global temperature rise exceeds the carbon budget (i.e., exceeds expectations), adverse effects of global warming on economic growth rate and the uncertainty of its impact will also increase rapidly.

Professor Mikhail Golosov provided a keynote address on "Inequality, Business Cycles and Monetary-Fiscal Policy." His study examined optimal monetary and fiscal policy in a model with heterogeneous agents, incomplete markets, and nominal rigidities. In this context, agents differ in wages, exposures to aggregate shocks, holdings of financial assets, and abilities to trade assets, while incomplete financial markets prevent agents from fully insuring risks. He pointed out that the presence of trading frictions increases the importance of fiscal instruments.

In the policy panel, scholars, policy experts and practitioners from China International Capital Corporation, Deutsche Bank AG Hong Kong Branch and J.P. Morgan, presented views on local and global economic issues. In addition, parallel academic sessions covered the main fields of China's economic development, asset pricing, bank credit, monetary policy, and the labor market, among other topics.

The paper "Endogenous Price War Risks" earned



the CICM Best Paper Award, coauthored by Winston Dou, the Wharton School, University of Pennsylvania; Ji Yan, Hong Kong University of Science & Technology (HKUST); and

Wu Wei, Texas A&M University. It proved that in industries with higher capacity for radical innovation, firms' incentive for price undercutting is more immune to price war risks and long-run growth shocks.

This year's CICM Best Junior Scholar Paper



Sargent and scholars listen to the keynote speeches



Award was granted to "Disruption of Long Term Bank Credit" by Jonathan Payne, Princeton University. The paper studied the disruption of bank business credit during a

financial crisis in a model with optimal long-term contracting under agency frictions and a directed search market for bank funding.

Interview with 2013 Nobel Laureate in Economics

As a leading expert in economic dynamics, Lars Peter Hansen works at the forefront of economic thinking and modeling, drawing approaches from macroeconomics, finance, and statistics. His recent work focuses on uncertainty and its relationship to long-run risks in the macroeconomy. In an interview after his keynote speech, Hansen shared his insights into interdisciplinary work, education and uncertainties.

Q: As interdisciplinary research has gained much momentum, bio-economics, information economics and behavioral economics are emerging. What do you think about this trend in economics?

Hansen: I think there are lots of potentially valuable interactions across different disciplines. That depends a lot on what type of problems you want to work on. At least part of my interests have been related to climate economics. You can't really get anywhere without at least getting some connections to people doing climate science from a scientific perspective. I'm no expert in geophysics, and therefore, I have to rely on others to try to figure out how to use insights from that field, to bring them inside economics. Because I don't see how we can do economics and climate change without understanding them. I've often found value in looking at statistics in general. There are lots of statistical tools and methods, all the way from decision theory to more statistical inferential questions that I get lots of benefit from.

Environments are highly complex, so we're putting individuals in a complex set of circumstances. They have to try to figure out guesses and figure out what's going on. So, different ideas from information theory and different ideas from statistics help us think about environmental complexity. Psychology interacting with that can also be of interest.

PHBS reporter Annie Jin interviews Nobel Laureate Hansen in the PHBS Future Media Lab, which is equipped with an advanced video studio, and provides a professional platform for financial news teaching, research and practice



However, interdisciplinary work is very hard, because you have to at least work with people in other areas. Different fields have different priorities, and different conventions, so really doing this in a serious way is not easy.

I think when it's done well, it can be very, very valuable. But often it's done in very superficial ways that I think are not so helpful. So the real challenge is how to do this well. And when it's done well, new insights can really emerge.

Q: You once quoted Mark Twain, "Education: the path from cocky ignorance to miserable uncertainty." What role can our education system play in face of uncertainties today?

Hansen: I guess the challenge here is to make the uncertainty in some sense less miserable. We have to live with uncertainty. Uncertainty is there. It is inescapable. I think we're better off acknowledging it, and figuring out sensible ways to confront it, rather than pretending it doesn't exist.

For instance, in the country that I come from, the politicians are very concerned about what the public thinks. They oftentimes pretend to have more knowledge than they really do to try to impress people. Sometimes economic advisors are going to say, "Here's what you should do," with great confidence. And it's kind of false confidence often. It's not really based on fundamental knowledge. So understanding the incompleteness of our knowledge, but more importantly how to address it in ways that are constructive, is an important challenge.

Part of that is educating the public itself to have more realistic expectations. And there are still constructive things we can do even in an environment with limited knowledge. Education is very important to make people think about this in less superficial ways. Courses from probability to decision making to statistics, all of those, can help to contribute to this.



Beijing, Shenzhen, Boars Hill: Century Leaping at PKU

Original article by Annie Jin Update by Priscilla Young

hen Peking University (PKU) was founded in 1898, few could have imagined its status over 100 years later or that the school would establish a branch campus elsewhere in China. That somewhere else, now called Shenzhen, was little known outside the Pearl River Delta area of Southern Guangdong Province.

Further, few could have projected that by the early 21st century Peking University would purchase a small, bucolic campus overseas. Yet, during Peking University's 120th anniversary year, its Shenzhen counterpart, the Peking University HSBC Business School (PHBS) welcomed its first students and visitors to the UK campus in Boars Hill, Oxfordshire,



England.

Originally known as the Imperial University of Peking before it adopted its present name in 1912, Peking University was the first national institution of higher learning covering comprehensive disciplines in China. For over 120 years, PKU has been recognized as the nation's leading institution of higher education. According to *Times Higher Education*, PKU ranked 31st in the publication's 2019 World University Rankings. According to QS World University Rankings, PKU was ranked 9th for employer reputation in its Top Business Schools with Employers Ranking in 2018.

In 2001, the university opened a graduate school

campus in the burgeoning city of Shenzhen, the Special Economic Zone designated by Deng Xiaoping during China's opening up and reform. Among the several science-based programs of study offered at the PKU Shenzhen Graduate School, two were completely different: the business school and transnational law school.

Setting itself apart from other business schools in China and to promote its international purview, classes in the school's full-time master's degree are conducted in English. In 2008, the business school received significant support from an international bank and was renamed the Peking University HSBC Business School (known on campus as PHBS). In 2019, the In a recent interview with *Times Higher Education*, PHBS Dean Hai Wen remarked:

"We will do our best to learn from the UK system [and] teach our world-leading practices, but also we want to make a contribution to the cooperation with and development of this community we have entered into. We appreciate how the UK education system is so open...China should learn [from this] how to open up [its] education to the world."

school will celebrate its 15th anniversary in October.

PKU Overseas

PKU leadership began to consider an overseas campus after learning that a small campus was available for purchase in Oxfordshire, England. Given international interest in modern China's rapid development and future business and economic prospects, exporting knowledge could ultimately support international business collaboration, create a pipeline for international educational exchange and further cultural understanding in today's complex world.

Indeed, higher education in today's globalized world has become highly competitive. Universities in Asia and the West continue to create global cross-degree and campus partnerships. For example, the EU and Great Britain have become more competitive in their desire to enhance their relationship with China, creating favorable opportunities for the global presence of China's higher education institutions. Since the University of Nottingham established its campus in Ningbo in 2004 as the first western university to open a campus in China, more western universities have partnered with Chinese universities to establish research partnerships, dual-degree programs and educational exchanges. In fact, PHBS shares a number of student exchanges with universities around the world, as well as dual-degree programs for both master's and MBA degree programs.

Shenzhen and Boars Hill Programs

As the initiator of the UK campus, PHBS is responsible for its main administrative duties. PHBS was founded in 2004 to advance PKU's involvement in economics, finance, and management research. Located in Shenzhen (just north of Hong Kong),



PHBS brings Peking University's first-tier business education programs to the country's south and has a unique opportunity to leverage its location in the Guangdong-Hong Kong-Macao Greater Bay Area, which comprises the two special administrative regions of Hong Kong and Macao, and the nine municipalities in Guangdong province. PHBS in Shenzhen provides programs of study leading to a master's degree in either finance, management, financial media or economics, whereas the UK campus focuses on professional knowledge of China's economy, financial market and corporate management. Students admitted into the UK program will study one year on the Boars Hill campus and another year on the PHBS Shenzhen campus. Conversely, international and Chinese students admitted to the Shenzhen campus have the option to take a portion of

their courses at the Boars Hill campus.

In addition to degree studies, the UK campus is offering short-term courses for corporate and business practitioners to learn about or update their knowledge of China's economic development and policies. For example, several PHBS MBA students, as well as a number of business professionals involved in the PHBS Executive MBA program and the school's Executive Development Program have taken short-term courses at Boars Hill.

PHBS CAMPUS



The first group of cross-border students bid farewell to the UK Campus. From left to right, Giovanni Tuccari, Nick Ruck, Roman Xia, Cheok Kim (above), Sydney Chu, Robert Bulava

Combining Educational Adventures and Crossing Cultures

A PKU-UK Student Shares Experiences in the New PHBS UK Campus Master's Program

By Robert Bulava

n September 2018, Oxfordshire became the campus home to the first group of students enrolled in Peking University HSBC Business School's UK-China cross-border program. I was among the group of seven, all master's stu-

dents who study during their first year at the Boars Hill, Oxfordshire campus then move to the school's main campus in Shenzhen, China for the final year of the two-year program. Currently in Shenzhen, I am reflecting on the UK experience while in the



An overview of the PHBS UK Campus, which has 15 acres (about 60 thousand square meters) of land and 3.6 thousand square meters of floor areas

midst of what will become China memories. So, for the benefit of others who might like to try such a cross-cultural opportunity, here I share some of our experiences. in the main hall and scent of the beeswax used to polish the furniture, it's easy to believe that we travelled back in time.

UK Campus

When we first arrived in Boars Hill we were astounded by its aesthetic appeal. Located in the suburb of Oxford, about 5 km from the city center, the campus sits on the verge of a leafy woodland with a view of hilly meadows that provide fresh pastures for sheep and cattle. From the northeastern part of the campus, careful observers can spot the sharp spires of Oxford monuments in the distance. A footpath in the southwestern part of the campus leads to a lake offering a peaceful place to relax after classes.

Even with recent renovations, the campus buildings have mostly preserved their original spirit of a Victorian upper-class mansion. During the winter, sunlight cuts into the main hall at sharp angles, illuminating rich, wood wall paneling. Fine dust glitters as the warm light filters through the antique windows. With freshly cut flowers always present

Visiting Students and Teaching

Every nine weeks, we were joined by a new group of 20 to 30 students who study at PHBS in Shenzhen. Taking the same subjects and going on trips together allowed us to make many friends. Then after our arrival in Shenzhen, our Chinese friends in turn helped us to feel welcomed in China.

The quality of teaching is as high as at the PHBS Shenzhen Campus. At Boars Hill, we were lucky to be taught by experts in their fields. Most of the professors either graduated from or lectured at the University of Oxford, like Guy Liu, head of the UK campus. Some, like John Hoffmire, are also accomplished business professionals with years of experience in the private sector. In addition, two PHBS professors were in residence, Domenico Tarzia and Hursit Selcuk Celil. One of the benefits of our small class size was ample opportunity for in-class discussions.



Debate

In early November, six of our PKU-UK students formed a group to face an ultimate academic challenge—debating Oxford University students. Comprised of Liu Ziwei (finance), Roman Xia (management), Giovanni Tuccari (finance), Lei Jiayuan (quantitative finance), Li Haixin (finance), and Robert Bulava (finance), the team worked over three weeks to prepare the best arguments, supported by visiting professors and language specialists. The topic was, "This House Believes China Is the Best Model for Developing Countries." Our speakers, arguing in favor of the proposition, based their reasoning on the successes of China's economic reforms, special economic zones, and poverty reduction programs. The opposition counter-argued

Oxford University student Harry Webster counter-argues that the China model cannot be replicated in any country

that the China model is heavily dependent on the government, as well as history and geography of the country, and thus cannot be replicated in developing countries. Afterward, everyone gathered in the Union's bar for a pint of beer and conversation.

Life in Boars Hill, Oxfordshire

Most of the cross-border program students stayed in the center of Oxford. However, some of

my friends lived at Ripon Lodge, a beautiful villa located only a few steps away from the Boars Hill Campus. In our free time, we visited the numerous colleges of Oxford University and enjoyed the beauty of their historical buildings, gardens, and general atmosphere. Oxford has so much to offer, from lectures, evensong performances by student choirs, museums, and several parks and footpaths.

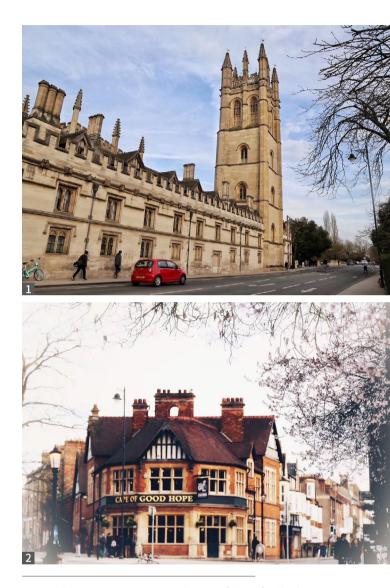
Oxford is also renowned for the best teams in the world of probably the most "British" water sport of all—rowing. The bank of the River Thames is lined with rowing clubs of Oxford University colleges. On my walks to the city center, I often saw teams preparing for competitions. I realized that a few decades ago, a young Steven Hawking would have been seen training here during his undergraduate studies.

Outings

We had the chance to take some great outings during each trimester. The first trip was to Stonehenge and the city of Winchester, a former royal capital. During the second trip, we visited Stratford-upon-Avon, the birthplace of William Shakespeare, and nearby Warwick Castle. We toured Brighton on the south coast of England during our third outing, where we enjoyed its distinctive architecture, especially Brighton Pier, and the astounding beaches.

Visiting students usually spent their free time travelling to other UK destinations, and London was on the "must see" list for most everyone. Another popular site was Scotland's capital, Edinburgh. Most of our Chinese peers also travelled to continental Europe, visiting France, Switzerland, Germany, or Austria. A few of students plucked up the courage to go to Iceland.

My Chinese friends described their stay as an amazing opportunity to experience genuine British culture and high-quality education, as well as an



1. Magdalen Tower, an important element of the Oxford skyline 2. A street view of Oxford

opportunity to travel and unwind for a few weeks. For me, studying at the UK Campus was one of the best experiences in my life. It was a great opportunity to begin our cross-border program journey to China by starting in the UK.

PHBS 2019 Commencement Best Wishes to Graduates!



J une is the time when graduates don caps and gowns to bid farewell to their universities before they embark on a new life journey. This year, about over 500 graduates, including 306 master students, 123 MBA students, and 107 EMBA students, celebrated the 2019 PHBS commencement with their friends and families.

Guest speaker Gao Ming, chief commander of the China Manned Space Program shared her experience over two-plus decades in China's space industry. She stressed the importance of hard work, perseverance and love for the nation. She said that graduate students should adopt a pragmatic approach to life, aspire to achieve a great goal, and share the same spirit of progress inherited from Peking University.

At each year's commencement, PHBS Dean Hai Wen gives graduates a copy of one of his original artworks. This year, the image of magnificent rolling mountains was accompanied by his calligraphy bearing the message, "Aim for the highest goal; stay resilient during ups and downs." Upon offering the gift to students Dean Hai remarked, "With vision and grit, you will achieve success!"

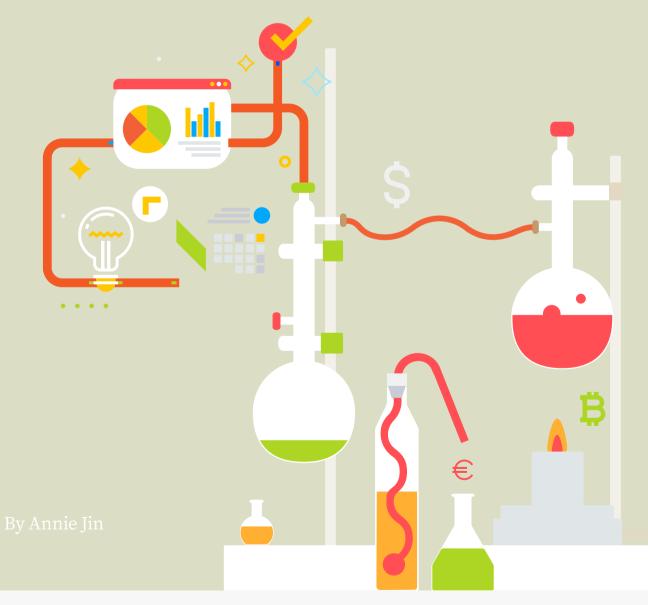
In 2018, Dean Hai wrote, "Lofty aspiration with modesty and integrity" to express his expectations of graduates: to be modest, righteous, with lofty aspiration, like bamboo. In Chinese culture, bamboo is a symbol of virtue. Its deep roots denote resoluteness; its tall, straight stem represents honor and interior modesty.

In 2017, the Dean wrote, "Care nothing, but spare no efforts," with the image of the Chinese mythological Monkey King. "Care nothing" means that one should not be constrained by tradition, doesn't mind any gains or losses, and has the courage to challenge authority.



茶頂北京なな大都でたいいなるとなせ 溶風電

Jaehyuk Choi Find the Chemical Bonding between Tech and Finance



he financial industry has become flush with a vitality that has accompanied significant technological momentum. As fintech moves from an upstart movement into the mainstream, preparing students for the future of finance is vital. Universities worldwide have begun to incorporate fintech into their curricula, while PHBS is on the same track.

"It's a natural step to set up a fintech program" said Jaehyuk Choi, explaining why PHBS has launched a program in this field. He pointed out that PHBS is a leading business school located in Shenzhen, a hub for innovation and entrepreneurship, "so fintech is an important intersection between PHBS and Shenzhen."

Choi made a career shift leaving his "quant" job at Goldman Sachs and joined PHBS in 2017 as an assistant professor. Now, he teaches blockchain and machine learning courses for the school's fintech program and is devoted to research on quantitative finance and machine learning. To prepare for the new and ever-changing field, he has "reviewed tons of related materials" and also finished a paper on Bitcoin.*

"Fintech is where finance meets technology," he explained. "For a fintech program to truly succeed, it needs 'chemical bonding' between the two areas." In this recent interview, Choi shared his insights on our fintech program and China's fintech story, as well as

Fintech is an important intersection between PHBS and Shenzhen."

views on business schools' role in this trend.

Q: Financial technology, more commonly referred to as fintech, is expected to reshape the financial sector in the coming years. What are the reasons for its rapid growth?

Choi: Mainly it's about efficiency and affordability. So, fintech is where finance meets technology, and here's an example. Robo advisers are being used now. They are automated online platforms that can provide cost-effective financial advice. After clients fill out a personal profile, the robo advisor algorithm makes portfolio selections and manages them. This is a lot more affordable to a greater number of people than standard, human advising and portfolio management.

Q: China is emerging as the world's fintech market leader. Can China's fintech story be replicated elsewhere but tailored to the local context?

Choi: China is unique in many ways and already has successful fintech, especially in online payment. One reason for its success is that people in China don't use credit cards very much because many people didn't have access to banking in previous years. But now with the mobile phone, anyone can access the Internet, so China kind of skipped credit cards and went directly to online payment. Alibaba and Tencent are good examples. They have been central to encouraging other companies and when startups are successful, they will buy them. So, China has a good system for encouraging further fintech development in the example of online payment for it because of the chain of success.

In other countries, such innovation may be

🖹 Profile

Ph.D. in applied nathematics at MIT

Quantitative Analyst, BNP Paribas, New York

Quantitative Analyst Goldman Sachs, New York and Hong Kong

PHBS Assistant Professor

He teaches blockchain, stochastic processes, and machine learning courses; and is devoted to research on quantitative finance and machine learning in finance slower because existing credit card technology, for example, continuously improves and competes with fintech. Still, the success of China fintech is important for other countries because it leaves footprints to follow.

Q: What are the challenges and downside of fintech?

Choi: There are many promising aspects in fintech, but it's not going to be the cure for all. For any fintech to succeed, it has to compete with existing technology, which is continuously and rapidly being innovated. I don't think fintech will win in all fields of finance.

The downside is privacy and jobs. Personal information is very important for fintech companies because they create value from data. However, privacy should be protected and we have to ensure that personal data is used properly. Many jobs will be removed by AI [artificial intelligence], and we need to prepare for that trend. So students need to understand this long before graduation.

Q: Last year, PHBS launched a new master's program focusing on fintech. Can you give me a full picture of this program?

Choi: We are China's leading business school in Shenzhen, and with Shenzhen being a hub for entrepreneurship and startups, we want to create synergy between the two. So, it's a natural step to set up a fintech program. We offered the first courses for the new program this year [academic year 2018-2019], are improving the curriculum, and are looking to hire more faculty who specialize in this area.

It is important, however, to stress that as a business school, we want our students to have fundamental knowledge in management, finance and economics before they merge it with technology. That philosophy is reflected in our curriculum design.

Our courses focusing on fintech include blockchain, AI, cyber security, and information security. Although we stress the fundamentals, our students are expected to do a lot of hands-on work in terms of programming. AI and machine learning involve a lot of coding, as students in the software engineering course learned.

However, fintech is an emerging field and approaches to teaching it are still developing. For example, looking at our curriculum and those at other schools, so far it's a mix of courses in technology and finance. Some business schools teach fintech as related to finance, whereas there are engineering schools teaching from the perspective of machine learning. That's so-called "physical bonding." For a fintech program to truly succeed, it needs "chemical bonding" between the two areas. When teaching fintech and finance, technological aspects should also be addressed. When tech people talk about machine learning, they should teach some applications in finance. That's the direction all fintech programs eventually should aim, but it's quite difficult.

Fintech offers a lot of opportunities but it's hard for finance and technology to mix up and bond chemically. That's the main challenge."

> I'll tell you an interesting story about one of my friends, an accountant at Google – not a software engineer. One day, he told his boss that he needed to purchase new accounting

software. His boss asked, "Why do you need to buy software? Google is the best software company, and we have lots of good engineers. Ask one of our programmers to make our own accounting software." The problem is that Google programmers are not good at accounting. Eventually my friend left Google.

I worked for Goldman Sachs, and though the company often talked a lot about fintech, I found financial companies could be conservative in trying new things, a little bit too slow to adopt the technology. Fintech offers a lot of opportunities but it's hard for finance and technology to mix up and bond chemically. That's the main challenge. So, going back to our fintech program at PHBS, we need to achieve that kind of curriculum goal.

A quick, final story on the challenges of developing fintech coursework. I taught blockchain and digital currency. I thought I knew how currency works, how bitcoin works, but I had to learn more and studied a lot to prepare for the course. For example, it is common to search for ideas from other schools' courses, yet I couldn't find anything on blockchain. Developing the course was a painful but great learning experience for me. The students and I learned together, and the students gave me helpful feedback to improve the course.

Q: Do students solve practical cases or do empirical work in fintech?

Choi: We don't really do textbook-oriented things. Fintech is new, and there are no textbooks. So, basically, they work on practical applications. For example, in the AI and machine learning course they used real data, applied the machine learning algorithm, and searched for any patterns in the data. In the software engineering course they created a program to

suggest portfolio management. It's a practical real-world example. My course didn't involve much programming. The subject for their final project was surveying real industry, how block chain is used. Looking at what's taught in school and what's done in real life, there is not much difference.

Q: Are there any other universities offering fintech master's programs and are they similar to ours?

Choi: Hong Kong is a financial hub but is being challenged by Shenzhen and Shanghai, so I think its government is concerned about maintaining Hong Kong's status. Thus, schools and government in Hong Kong are working together to set up fintech programs. For example, CUHK [Chinese University of Hong Kong] created a fintech undergraduate course, and HKUST [Hong Kong University of Science and Technology] created a one-year fintech master's program. In these cases, the driving force is the engineering schools, although they cooperate with business schools. Therefore, perhaps they emphasize technology.

I think that one of the things that sets PHBS apart from other schools is fostering students' leadership skills. We see our graduates as future business leaders, and that includes in fintech, whether they work for a fintech company or start their own. So, as they take on leadership positions, we'd like them to have a strong perspective not only on technology but also on company management and determining the firm's technology needs.

those online courses?

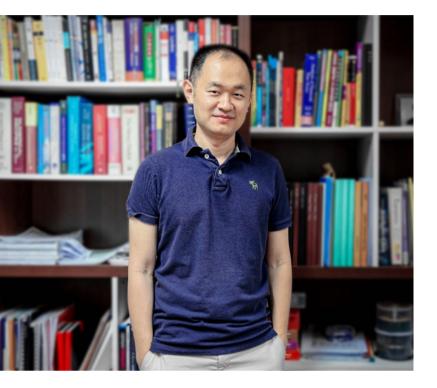
Choi: My guess is that these online courses are targeted to people already in the industry, either in technology or in finance. When designing our courses, I searched for some information on the web. But these are paid programs, so I couldn't look into much detail. However, the online programs only provide a certificate. These are not degree programs. So, comparing our program to online programs is not an equal comparison. Yet, these online programs' existence tells you the popularity of fintech because people want to use it in their careers. It also reflects an emerging trend in academia too.

Fintech is where finance meets technology."

Q: While tech giants like Baidu, Alibaba and Tencent have largely fueled the growth of fintech in China, smaller players have emerged in recent years, especially in Shenzhen. Do you think Shenzhen is on track to become a front-runner in this regard? What role can universities and business schools like PHBS play in this trend?

Choi: Yes, Shenzhen is on track. Tencent is definitely the leading company in this field, while Alibaba is headquartered in Hangzhou. Tencent and Alibaba are sharing the market in mobile payment. Shenzhen has a more favorable environment for small startups, too. I'm always surprised at how China quickly adapts to new things. I think the role model for PHBS

Q: There are a number of online fintech courses, including courses offered by MIT and Oxford. What do you think about



and Shenzhen should be the relationship between Stanford University and Silicon Valley: Stanford provides talented students, and industry gives them feedback, so they can grow together. So I think we can follow that model.

The only problem is that we are a business school, not an engineering school. Because of that, fintech is important for PHBS. While we can't help with hardware or electronic startups, we can help with fintech startups. Fintech is an important intersection between PHBS and startups in Shenzhen. I hope PHBS will have more interaction with startups in Shenzhen to get feedback on better educating and training students in ways to benefit startups.

One example is that Britain's Duke of York has visited our school twice to promote his venture Pitch@Palace.* We should develop similar initiatives. PHBS has set up the Center for InChoi stands in front of his bookshelf, saying he needs to read tons of related materials to get well prepared for the new and ever-changing field

novation and Entrepreneurship, which aims to promote innovation and entrepreneurship in the Greater Bay Area, and cultivate innovative and entrepreneurial talent with global vision. Yet, it would be good for PHBS to get involved in the startup ecosystem. We could first start by incubating our alumni's startups and then connect to angel investors who are also our alumni. We can start to take small steps to connect investors together. I hope that these things happen in the future.

[*Editor's note: Just before this magazine went to press, Choi's paper "BitMEX Bitcoin Derivatives: Price Discovery, Informational Efficiency and Hedging Effectiveness" was accepted for publication by The Journal of Futures Markets.

Pitch@Palace, founded by HRH The Duke of York, is a platform that supports entrepreneurs to accelerate and amplify their ideas. During his visits, HRH acknowledged PHBS's engagement in Sino-UK educational communication and collaboration, as well as entrepreneurship.]

PHBS|FEATURES

David Hall I Want to Get Involved in Technolog



avid Hall descended the stairs wearing a light grey suit and white shirt. My first impression was of someone confident and polite, in line with my perception of MBA students. Then it dawned on me that perhaps his being somewhat formal-except for the lack of a tie-would lead to an unenthusiastic meeting. He proved me wrong.

From Connecticut, USA, Hall is one of the first international students to have gone through the MBA program at PHBS (class of 2017). He graduated from Brigham Young University with a degree in business management, then later led a team at Goldman Sachs in the U.S. for three years, before making the jump to mainland China. As for the big change in his career path, Hall said that he felt that he was not utilizing his Chinese language skill as much as he would like and he wanted to broaden his network.

A few years ago, Hall lived in Taiwan, where he became fluent in Mandarin. Then, because his father worked at Huawei in Shenzhen for nine years, Hall took the opportunity to come to the city where he interned for a Chinese securities firm and a recruiting agency. In the latter, he recruited foreign pilots to tackle China's domestic pilot shortage. Yet, he said that beyond his personal connection to the city, he returned to Shenzhen because it is a hub of opportunities where the technology to drive real change in business exists.

"I wanted to get involved in technology and being in Shenzhen allowed me to have opportunities to see it first-hand. Technology in China, especially in Shenzhen, is unbelievable," Hall said.

One of those opportunities is the internship that he completed with Walmart China, facilitated by networking through the PHBS MBA



In the 2018 New Year celebration event, PHBSers could pick a card with best wishes from other students and in return share their thoughts and best wishes for the coming year. From left to right: David Hall, MBA student Lay Shan (Malaysia) and Frank Choy (U.K.)

I feel very fortunate to have been able to see technology from this aspect of the company."

> program. During his internship, Hall created the Technology Finance Team where he explored Walmart's technology initiatives and how these can be applied to running stores more efficiently for a better customer experience. He said, "I feel very fortunate to have been able to see technology from this aspect of the company."

But Hall's journey at Walmart didn't end

there. After graduation Hall entered a twoyear rotational program at Walmart headquarter. The retailer is ranked number one among the Fortune 500. In 2019, this highly competitive program accepted 10 students from the United States' top management schools (such as Chicago Booth and MIT Sloan, among others) and makes David the first graduate from a Chinese university to be invited into the program. Trainees rotate every six months and are exposed to different leading finance roles. "One of the biggest things is to learn from the extraordinarily talented people who work at Walmart and take in as much as I can," said Hall. "I am extremely grateful for the opportunity, as this is one of the things I wanted after my MBA, to get into a rotational program. This is something that would have not happened had I not been in Shenzhen. It was a great decision to come here and I wouldn't change a thing."

Hall said that being in the MBA program meant that he had the option to conduct a case study rather than produce an empirical paper as in the master's program. Under adviser Associate Professor Ren Ting, who earned his Ph.D. in human resources and industrial relations from the University of Minnesota. Hall began his research months in advance, earlier than most students. He said that it was a good student/advisor match because he was interested in exploring how hiring foreign talent is managed and how employer and employee expectations play a role in job performance. He said that his father's experience at Huawei and professionals he met through his dad influenced his thinking about how to smooth the way for a more direct hiring process of international candidates.

Some advice that Hall passes along to students about preparing the thesis is not to procrastinate and, instead, to be active as early as possible. "The natural tendency is to procrastinate, but it is important to set small realistic goals, such as writing a page or two a day to get you going." He also said that he attributes his success in completing the case study to his advisor, from whom he learned much by constantly meeting with him.

Hall said that he feels grateful for the opportunities that came out of his experience at PHBS, yet he still is learning. "I don't need a pat on the back for things that I'm doing right. Instead I want to know where I can improve and take things up a level."



In the 2019 Commencement, David Hall spoke on behalf of MBA graduates, sharing his three most important lessons learned at PHBS :

- First, he encouraged students to believe that they can do difficult things.
- Second, he said that staying positive can help us to go the extra mile and win us many friends.
- Finally, he emphasized that helping fellow human beings and embracing their imperfections will never be forgotten by those in need.



Shi Jiao's Love of Magical Realism, Real Economics and Really Dynamic Shenzhen

By Daniel Bonfil

First year, international master's student in economics Daniel Bonfil (Mexico) met with Assistant Professor Shi Jiao, Ph.D. to learn what led to her academic career in economics, her advice for students, and experience serving as vice director of the Sargent Institute of Quantitative Economics and Finance. As he relates in the introduction to his story, the conversation didn't start out as Bonfil expected.

arrived early to meet with Professor Shi Jiao expecting to start the conversation about her field of specialization and had just double-checked my figures on Chinese foreign direct investment (FDI). I certainly wanted to be sure I had the numbers right. Yet, before I could ask my first question, Shi started "interviewing" me. She was interested in why an economics student had volunteered to write a feature article. Was writing my hobby? Did I like to read? What kind of books did I enjoy? To my amazement, we discovered a mutual interest in one of my favorite magical realism novelists, Haruki Murakami. Shi talked about Murakami, relating, for example, that he is a runner, and then she recommended one of his best-known books *Norwegian Wood*. I promised I would read it. Then finally, it was my turn to start asking the questions.

It seemed that a new direction for her was forming."

Divergent Pathways

Well known for its hot, spicy cuisine, pandas, mahjong, and easy-going lifestyle, Chengdu, Sichuan Province, was home to Shi. The only child of a middle-class family, Shi said that like most young Chinese she studied hard and focused on doing well enough on national college entrance examination (gaokao) to attend a top-tier Chinese university. However, unlike most, she went to a boarding school as a teenager, which provided her first experience developing peer relationships. She said that as a child she mostly kept close to her parents and supposed that leaving for the boarding school was similar to what most students experience when leaving for college. However, her pathway to higher education took an early, radical turn. Encouraged by her father, Shi made early application to the University of Wisconsin-Madison, and to her surprise and delight she was accepted into the bachelor's program. This meant she could by-pass the dreaded gaokao.

Seeing the 'Big Picture'

When asked what was the greatest challenge during her overseas college experience, Shi replied that it was during her Ph.D. program. "I realized that there were people better trained to face that level of studies. That was the first time in my life I felt the lack of knowledge, not knowing what my peers knew already. It was very stressful."

She said she thinks it is similar to what international students face here. "Students at PHBS are top students from some of the best universities and with the best scores. So, it is inevitable that many find themselves under heavy pressure," she said. "The reason is precisely that all students at PHBS are top students in their fields, so how to deal with this situation?"

Her advice for students: "You need to be strong and allow yourself to see the big picture. Being with very competitive peers and trying to be the best in all the fields will disable you from performing well."

Shi said that people have different backgrounds and different career perspectives which means that each individual will absorb the part of the education that is more suitable for him or herself. "If you have a strong belief to be the best, that helps to motivate action, regardless if you feel the situation is positive or negative," she said. "If you consciously anchor the situation and think about your current strengths and weaknesses, then you realize that your educational outcome depends on how you exploit that knowledge on a personal level, how you interpret the situation."

On the notion of competitiveness, Shi said, "Students should not see each other as competitors, which is stressful, but rather see each other as colleagues. Make what could be stress into an experience to motivate yourself and others."

The Road to Shenzhen

With her international education, Shi could have made a variety of choices about her next move. What brought her to Shenzhen?

Shi said that she wanted to be close to her parents again and that it would have been too difficult for them to be in the US. Then, there was the opportunity that PHBS offered what she saw as unique and highly motivational.

"I was inspired by Dean Hai Wen and his contemporaries," Shi explained. "Back in the 1990s they were pioneers in this field and had to struggle with uncertainty because their aim was to formally create modern economics education in China. Furthermore, they earned a salary equivalent to a tiny fraction of what they could in a research position in the US." Shi said that she was lucky to be able to return to China to work in an institution that could provide an existing international research environment.

"Finally, it all appeared to be happening in Shenzhen, the most dynamic and innovative city in China," Shi said. "There is a kind of energy you can only get in a place like this, where you can witness first-hand the unfolding of modern China and how people live with a dynamic and entrepreneurial mindset."

'You Can Learn So Much by Knowing an Excellent Person'

Part of her faculty responsibilities at PHBS include serving as vice director of the Sargent Institute of Quantitative Economics and Finance (SIQEF), and Shi said it has been a bonus regardless of the workload. (Please see the related story on Thomas Sargent and SIQEF, page 10-15).

Said Shi, "Professor Sargent told me, 'I hope you're being well paid!' What he did not know is that I would be willing to pay for this job! He is someone that everyone in the economics department looks up to. Yet when you get to know the person, you are able to see a kind, humble man who cares enormously about his students, their personal development and understanding of the subjects."

According to Shi, Sargent has an easy-going approach toward the most basic and most challenging concepts, and she finds this truly inspiring. "It is humbling to see him take time to explain small details with an enthusiastic smile. It is a contrast worth learning from. Here is a Nobel Prize winner willing to take his time to make sure his teaching prevails. Because of this, I would like to continue learning from Professor Sargent."

In the coming years, Shi said that she wishes to help the institute become stronger both in teaching and in research by developing projects with such PHBS partners as Ping An Technology. She also wants to contribute to the Ph.D. program whose rigorous training she equates with that in the US.

Foreign Direct Investment

At last, I got to check my understanding of foreign direct investment in China with Shi,



Shi Jiao teaches international finance

who explained the goals of Chinese FDI and clarified why it has a resource-oriented outlook. She surprised me again when talking about special economic zones and her knowledge of the Mexican maquiladoras (factories that operate under special tariff arrangements between Mexico and the U.S.), one of the first such projects implemented by the government in the 1980s.

As it turned out, the FDI side of the interview on which I had planned to start the interview was, indeed, interesting but not the headline. Through this experience I learned that it is easy to perceive professors as only be-

Profile

Ph.D. in economics at University of Wisconsin-Madison

PHBS Assistant Professor

Vice Director of Sargent Institute of Quantitative Economics and Finance

Fields: international macroeconomics, foreign direct investment, macroeconomics

ing driven by the subject they teach. However, without the context of their personal stories, struggles and wisdom we lose out on gaining new perspectives. Now, to follow Shi's advice: it's time for me to read Norwegian Wood. PHBS team at the final in Hong Kong. From left to right: Raphael Thomas, Gianni De Bruyn, Ann Tseng and Seohee Choi



A China-Focused Plan for Investing in the Planet's Future

Sustainability and Development Converge in the Team's Investment Plan Targeting a City in China's Inner Mongolia

By Nathan Faber

In February 2019, while the rest of PKU students were enjoying the Spring Festival holiday, a team of PHBS students was hard at work developing a proposal for the Kellogg-Morgan Stanley Sustainable Investing Challenge held in Hong Kong. The PHBS team, composed of international students Raphael Thomas (USA), Gianni De Bruyn (Belgium), Ann Tseng (USA), and Seohee Choi (South Korea), were putting together a proposal that detailed a tax equity fund to support a cyclical economy and investment in biomass plants in Bayannur, a city in western Inner Mongolia.

Each year, over 100 teams from the world's top uni-

versities conceive of an innovative investment instrument that would drive profits and sustainable development. Only 12 of the proposals are selected in the end. These finalists then present their investment vehicle to the judges in person for a chance to win the top honors.

The PHBS team's idea targeted multi-national companies with especially high revenue which could be treated as taxable income. The team proposed a tax equity fund set up by the city of Bayannur. If an individual or corporation invested in this fund they would receive multiple tax benefits, lowering their taxable income while also providing future returns. Through the investments, the city would get the added funds they need to build carbon-reducing biomass plants.

A tax equity fund was so innovative it had not been done in China before. De Bruyn explained, "We took that (tax equity) concept and modified it to fit the Chinese market. We used Chinese tax credits, the Chinese legal system, as well as changing some of the provisions in the contracts."

The research required a massive time investment in both translating and interpreting mainland China's tax laws and precisely detailing implementation in the local context of Bayannur. But if the research was accurate and the idea feasible they calculated huge potential impacts.

Kellogg-Morgan Stanley Sustainable Investing Challenge

THE PLAN

Would reduce CO2 emissions by **50,000** tons/year The equivalent of over **11,000** cars being taken off the road Target returns for the investment at **7%**



Spark of Inspiration

In January, PHBS held the Conference on Sustainable Finance. The international event gathered leaders of the finance industry, distinguished researchers, and policymakers together for a series of keynote speeches and discussion panels.

The team was eager to understand recent innovations in sustainable finance and knew this was a golden opportunity. There was one guest in particular who seemed to speak directly to them. De Bruyn recounted, "One of the speakers was the mayor of Bayannur in Inner Mongolia. He was promoting his city and what they are doing in regards to sustainable finance." After hearing about the city's desire to make sustainable infrastructure and industry advancements, along with their need for additional financial resources, the team decided that this was what they were looking for. Despite only one member of the team having high Chinese fluency, they introduced themselves and their idea to the Inner Mongolia contingent.

The mayor and the rest of the officials were extremely enthusiastic about working with the group of students from PHBS. The next step was working together to draft the specific proposal for the city. So, while their peers were enjoying the extended annual national holiday, the PHBS team traveled to Bayannur where they met with the mayor, city planners, and municipal officials. The interest and cooperation they received amazed them. "I thought we would be lucky for a 20-minute conversation," said De Bruyn. "But the mayor spent more than two hours with us." He expressed great appreciation for the opportunity, saying, "We got to see how negotiations happen. We got to know the Chinese business model a lot better. It is valuable knowledge." The details and understanding of the local context they received from the trip went into refining their prospectus for the final round of the competition in April.

The team was proud to be selected as finalists in April. However, their trip to Hong Kong to compete for the top prize did not end in triumph. Even so, the team is confident they created a viable idea and had the opportunity to present it to many experts in the industry who validated it. De Bruyn did not rule out that someone may implement the tax equity fund they outlined in the near future. "What we've learned through this competition in regards to finance in China, I don't think we could have gotten it from a textbook," he said. "What we learned in the classroom, we were able to apply that."



Arbitrage Involvement and Security Prices



Xu Wei

PHBS Associate Professor, research fields include asset pricing, short-selling, corporate finance and investment s hedge funds have a significant market influence and are a benchmark for the investment market, investors often discuss their dynamics and fluctuations. So, how does a hedge fund affect the capital market or influence the price of securities?

Research by PHBS Associate Professor Xu Wei and co-authors investigated how the emergence of shortable securities affects hedge funds' purchase on underpriced stocks and how hedge funds' increased involvement in these stocks helps to correct underpricing.

In "Arbitrage Involvement and Security Prices" published by the international academic journal *Management Science*, Associate Professor Xu and co-authors Liu Baixiao, associate professor, Florida State University, and Byoung-Hyoun Hwang, associate professor, Cornell University take two publicly traded banks in Hong Kong as examples: HSBC Holdings (HSBC) and Chong Hing Bank (CHB). In Hong Kong only stocks added to a special list can be shorted. HSBC

By Annie Jin

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The addition of HSBC to the short-sale list encouraged hedge funds to more aggressively buy shares of CHB and led to a permanent rise in CHB's stock price."

was added to the short-sale list in 1994 and became the first publicly traded bank whose shares could be shorted, while CHB had a substantially lower MB (market-to-book ratio) than its industry peers and appeared undervalued. They argue that the addition of HSBC to the short-sale list produced substantial improvements in the ability to hedge industry risk which will encourage hedge funds to more aggressively buy shares of CHB and lead to a permanent rise in CHB's stock price.

Xu and colleagues tested their theory using all trading data from the Hong Kong market. Their first-stage analysis used hedge fund holdings data to show that the emergence of shortable securities, indeed, caused hedge funds to more aggressively buy seemingly underpriced stocks. Their second-stage analysis presented evidence that hedge funds' increased involvement in these stocks helped correct underpricing and moved prices in the direction of fundamentals. However, in industries which already have many shortable securities, the impact caused by the addition of one more security to the short-sale list should not be as strong.

Xu, Liu, and Hwang's study contributes to the literature on what determines hedge fund activity and how hedge fund involvement affects financial markets. The way in which short-selling affects the capital market has been one of the financial community's long-standing concerns. However, previous research focused on how short selling could improve market efficiency through correcting overpricing. Xu and colleagues' research shows that short selling can improve price efficiency by alleviating underpricing as well, and that imposing short-sale constraints can actually cause stock prices to go down or remain at depressed levels.

PHBS | RESEARCH



Sword of Damocles: Job Security and Earnings Management

PHBS Assistant Professor and Co-authors Win Best Paper Award



Li Di

PHBS Assistant Professor, research fields include corporate finance, corporate governance, mergers and acquisitions, structural estimation o navigate the chaos of the financial world, it is crucial to have high-quality information. Yet managers often have incentives to influence reported earnings, undermining the quality of a firm's financial information. Why do they choose to manipulate it? PHBS Assistant Professor Li Di and coauthors wanted to know, and their research landed them the Best Paper prize by Wharton Research Data Services (WRDS) during its first Advanced Research Scholar Program.

As the world's leading business intelligence, data analytics and research platform, WRDS launched the program in 2018 for international scholars to gain an in-depth understanding of empirical research practices and insights into the latest innovations in academic research. The inaugural program's participants were selected following paper submissions from 22 leading academic insti-

By Annie Jin



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This opportunistic effect may happen when the CEO faces an extreme situation where he must demonstrate a quick improvement, at least on the book, to postpone the imminent job termination."

tutions in China.

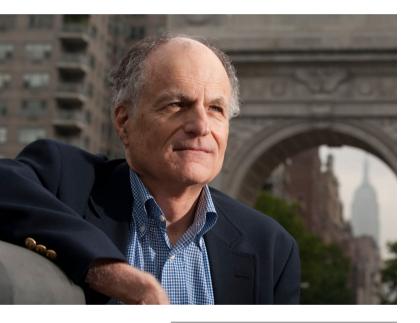
Li, along with Cai Chen, assistant professor, Cleveland State University, and Fang Xiaohua, assistant professor, Florida Atlantic University, examined a large sample of U.S. public firms to study the relationship between CEO dismissal hazard and earnings management, following up prior studies showing that a potential reason for "earnings management" is a manager's concern about job security. However, according to Li and colleagues, the empirical evidence is mixed.

According to their paper "Job Security and Earnings Management," when a change in CEO job security does not immediately cause a turnover, CEOs in such situations face a variety of options: take action to improve real firm performance (being disciplined) or distort earnings information (opportunism). Li's study shows that the "disciplinary effect of CEO job security is dominant, especially for income-inflating manipulation. In contrast, the opportunistic effect exists, only when the dismissal risk is extremely high." In short, Li remarked, "The hanging sword of Damocles can make CEOs work diligently and properly, though sometimes they may react opportunistically when they perceive the 'sword' is too close."

Their findings contribute to the emerging literature about the effect of CEO job security on corporate policies and deepen the understanding about the channel of the disciplinary effect by studying certain real corporate decisions. Further, the study provides evidence to support the view that forced turnover is an effective corporate governance measure that motivates CEOs to undertake rightful actions.

What Economic Researchers Do

By Thomas J. Sargent



2011 Nobel Laureate in Economics Honorary Professor of Peking University Director of Sargent Institute of Quantitative Economics and Finance

F conomics is a tool for recognizing patterns in data and interpreting them in ways that distinguish cause from coincidence. To explain research in physics, Richard Feynman used a chess metaphor. An astrophysicist is in the position of someone who does not know a game called chess and who observes people who happen to be playing chess. From incomplete observations of the players' activities, the observer's job is to discover the players' purposes and the rules of chess. For Feynman, "rules of the game of chess" stand in for laws of physics.

Feynman's metaphor is a literal description of what scientific economists do. Like astrophysicists, we acquire non-experimental data generated by processes we want to understand.

John von Neumann defined a game as :

1 A list of players

2 A list of actions available to each player

③ A list of how payoffs accruing to each player depend on the actions of all players

A timing protocol that tells who chooses what when

A strategy is a rule that tells you what to do in different situations that you might face. John Nash gave us a powerful definition: a collection of strategies, one for each player, is an equilibrium of a game if no player wants to change his strategy.

Like Feynman's metaphorical physicist, our task as economists is to infer a "game" from observed data. But then we want to do something that physicists don't: to think about how different "games" might produce improved outcomes.

In physics, according to Marquis de Laplace, the past causes the future.

"We may regard the present state of the universe as the effect of its past and the cause of its future."

Things are different in economics.

What we expect other people to do later causes what we do now.

We typically have personal theories about what other people want that we use to forecast what they do. When we have good personal "models of other people," then what other people are likely to do will determine what we expect them to do. This line of reasoning delivers a sense in which "the future causes the present" in economic systems. An arrow of time points backwards in economics.

Here are some examples:

•Bank runs: I will run on a bank if I expect that other people want to run and vice versa. Without deposit insurance, depositors have incentives to avoid banks vulnerable to runs. With deposit insurance, depositors don't care and won't run.

•Deposit insurance: if governments insure bank deposits, their owners want banks to become as big as possible and as risky as possible, while depositors don't care.

•Unemployment and disability insurance: There are tradeoffs between insuring people against bad luck and providing adverse incentives for them to provide for themselves.

•Central government bailouts of subordinate governments: Insurance versus adverse incentives.

•Reputation of public and private actors: My reputation is what others expect me to do. I face choices about whether to confirm or disappoint their expectations. Those choices have consequences. Janet Yellen and other central bankers think a lot about that.

How we learn :

Like physicists, we use models and data to learn. We don't learn new things until we appreciate that our old models were defective.

This explains how we have learned so many things from past depressions and financial crises and are learning more from current ones, by constructing new models in light of how old ones have failed.

I want to close by sharing with you some quotes about science that I like.

"I hope it will not shock experimental physicists too much if I say that we do not accept their observations unless they are confirmed by theory."

Sir Arthur Eddington Sept. 1933

"The course of a scientific discipline gets shaped in different ways depending on whether theories lead data or data lead theories. A theory tells what to look for, and you either find it or you don't. If you find it, you move on to the next open question. If you have no theory, you'll start collecting as much data as you can and hope that patterns emerge. But until you arrive at an overview, you're mostly poking around in the dark."

"It's the best possible time to be alive, when almost everything you knew is wrong."

"No progress without paradox."

"The universe cannot be read until we have learned the language and become familiar with the characters in which it is written, which is a mathematical language...Without these, one is wandering in a dark labyrinth." Neil de Grasse Tyson Death by Black Hole

Tom Stoppard Arcadia Act I, scene 4

John Wheeler

Galileo Alice Hoffman's *The Marriage of Opposites,* p. 112.

Hainan and the Greater Bay Area: Key to China's Opening

By Matthew Harrison and Xiao Geng

A s China and the U.S. are struggling to get a deal on their tough trade negotiation, the stakes are getting higher and higher for both sides on the issue of China's opening. Will the two countries make a historical trade deal with further opening of China or head for conflict, casualties, impasse?

It is clear that China's leaders accept that something needs to be done, including institutional reform, the prioritisation of market forces, and further opening of its economy but all needs to be carried out in the environment of economic, social, and political stability, a lesson China learnt bitterly from its past hundred years.

Instead of radical nationwide reforms, China has chosen experimentation in selected localities, such as Free Trade Zones (FTZs) launched across the country and most recently in the entire island of Hainan. The FTZs were to attract foreign trade and investment and generate administrative innovations that could be promulgated nationwide. Some of these experiments, like the more independent court system and intellectual property court in the Shanghai FTZ, appear useful. Progress has also been made on trade.

Nonetheless, the zonal approach-so successful in the 1980s and 1990s-cannot meet the needs of today's more complex China. The FTZs are too small to attract foreign investors. They are too unrepresentative to serve as institutional models for the nation. And they suffer from inconsistent regulation.

Hainan offers a ray of hope. An entire province of 9 million people, Hainan has potential in natural resources, agriculture, and services like tourism. Yet the vagueness of the official guidance so far, and the tone–a free trade port "with Chinese characteristics"–make the ray of hope still faint indeed.

Hainan was supposed to meet international demands for market opening. But, too little too late, it barely reached the front page of the international media and has since been overshadowed by the trade war on the international scene.

However, the thinking behind Hainan should be encouraged. It is China's best hope of progress in the coming decades.

Consider what is at stake. The trade war may be painful for China now, but it is not fundamental. The trade war is painful for the US too, and sooner or later Washington, and particularly Trump, will stop and declare victory. More important for China is the longer-term challenge of development and opening.

China has achieved miracles lifting swathes of its population out of poverty, but these miracles pale beside those that will be needed in the years ahead. Indebtedness, population ageing, and climate change are burdens enough but will be further complicated by the inefficiency of the traditional state-dominated industries, institutional rigidity, and insularity. To deliver the goods, services and life-quality its citizens will expect, China will need the



Xiao Geng

Director of PHBS Research Institute of Maritime Silk-Road (RIMS), a high-end think tank related to One Belt and One Road

help of market forces and foreign businesses, technology, and talent.

How can this happen-while yet maintaining China's political, social and economic stability? We believe that the zonal approach can work again, just as it did 40 years ago in Shenzhen. But today the zones have to be bigger, better and bolder than 40 years ago.

First, bigger. Hainan is much bigger in terms of population, trade, and GDP than the other FTZs, but it is still less than one percent of China on all three counts. It is not enough to move the needle.

What would be enough? Less than three hundred miles from Hainan lies Guangdong

Province's part of the Greater Bay Area (GBA), which comprises nine municipalities including the high-tech and light manufacturing centres of Shenzhen and Dongguan. The "GBA Nine" plus Hainan together account for five percent of China's population and eight percent of China's GDP. That would be big enough.

We are suggesting that Hainan and the GBA Nine move together, with mutual access and a compatible reform schedule. To this critical mass should be added most of the other FTZs scattered across the mainland to aid the diffusion of services, models, and ideas in the whole country.

Secondly, better. The reforms within the limited (but still sufficient) area of Hainanplus-the-nine have to be profound, instead of piecemeal. Large strides must be made on freer movement of goods, services, people, capital and information.

The changes however can be evolutionary. Caps and quotas can limit risk; phasing can enable orderly adjustment. But overall there must be rapid progress on importation of goods, foreign investment in services, visa-free business travel, access to international internet, and free capital flow.

Thirdly, bolder. To affect real change, something really new must be done. But what new factor can be brought to bear?

Our answer is, Hong Kong. As China's existing free port, and the world's freest economy, Hong Kong has the institutions, regulations, practice and experience to support reform in Hainan and the GBA Nine. Hong Kong can be the model for the new institutions and regulations that will be required. The institutions can even be staffed by Hong Kong personnel -including in respect of the new business courts, foreign judges, etc.

We are proposing the establishment of a

distributed China Offshore Region, a trade and investment ecosystem fully integrated into the global economy. Hong Kong, already established in this role, flies ahead, followed by Hainan and the GBA Nine, with the other FTZs close behind. This China Offshore Region would provide a new engine of growth for China and the global economy and particularly for new momentum for reform in China. The international community would benefit from new markets and fresh development space. In the context of the trade war and rising nationalism, the opening of China's Offshore Region would send an important signal. Dare we say, a step for world peace and prosperity?

Matthew Harrison and Xiao Geng are both members of the Hong Kong Institution for International Finance

Micah Weinberg: Greater Bay Area Is Not a Replica of Silicon Valley

By Shi Shengyuan

Every innovation system is unique. It's not a zero sum game. China's Greater Bay Area doesn't need to be like Silicon Valley," said Micah Weinberg, president of the Bay Area Council Economic Institute at the November 2018 Peking University Global Finance Forum. The institute describes itself as "the leading think tank focused on the economic and policy issues facing the San Francisco/Silicon Valley Bay Area."

China's Greater Bay Area has been com-

pared with economic areas in San Francisco, New York and Tokyo. Chinese authorities unveiled the Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area in February 2019. The initiative aims to merge Hong Kong, Macao and nine mainland cities in Guangdong Province, including Shenzhen and Guangzhou, into an innovation hub and economic powerhouse.

In his speech at the 2018 Peking University Global Finance Forum in Guangzhou, Wein-





berg shared key factors of Silicon Valley's continuing economic growth with Chinese financial industry practitioners and policymakers. He emphasized the importance of talent, capital, industrial diversification, and openness to the world.

Weinberg noted that although the Silicon Valley model is built on an open, global model with little or no government leadership or planning, China doesn't need to replicate that example. In China's Greater Bay Area, the cities and systems to be integrated and resources to be optimized are far more diverse and complex. In an interview with this PHBS financial media student, Weinberg pointed out that some central planning can help to reallocate resources and combine the strengths of each city.

What Can China Learn from Silicon Valley?

There are some lessons China may learn from

its American counterpart, the nine-county San Francisco Bay Area. According to Weinberg, the first widely acknowledged "law" is that education and research institutions are primary assets in all innovation economies, providing a highly-educated labor force for regional high-tech companies. Government should make the foundational investment in higher education and research centers in the area—not only the universities like Stanford and Berkeley, for example, but also university-affiliated, independent, and corporate innovation centers which then pay dividends over time.

Apart from government investment and human capital, venture capital is of equal importance. According to a report published on the website of the Bay Area Council Economic Institute, in addition to the "titans"—Alphabet, Apple, and Facebook—startups also prosper in the San Francisco Bay Area. Venture capital enables startup companies like Uber and Airbnb to flourish and expand.

Low barriers to the movement of people and



information also contribute greatly to the instant waves of innovation. Weinberg noted that California doesn't recognize non-compete agreements, which prohibit employees from going to work for their employer's competitors or setting up a competing business themselves. That enables the labor force to move fluently in the ecosystem of innovation. "Silicon Valley minimizes institutional barriers to collaboration and advocates openness to sharing," said Weinberg.

Difference May Also Work to the Area's Advantage

Challenges do exist in fulfilling the ambition of China's Greater Bay Area. Political, jurisdictional, and economic systems differ greatly in the nine cities of the Pearl River Delta and the special administrative regions of Hong Kong and Macao. China needs to consider how to lower the cost of people, capital and information circulation among different regions.

However, Weinberg viewed the difference as diversity, which he terms an asset instead of a drawback or strength rather than weakness. "Because you can do more or less central planning of those three different economies to optimize it," Weinberg said.

"Each city in the Greater Bay Area has its own strengths," Weinberg continued, "Hong Kong, as an international financial center, has better engagement with foreign companies and investment. Macao is hub of entertainment and tourism, with more connection in the Portuguese-speaking countries. Like Silicon Valley, Shenzhen is the base for technology giants. It has Tencent, Huawei and DJI." Further, Guangzhou is a transportation junction to other major cities in China, and other cities—Foshan, Zhaoqing, Jiangmen, Zhuhai and Huizhou are well-known for their manufacturing industries.

The San Francisco Bay Area, despite being strongly identified with technology, actually has strong industry diversification across its top-performing companies compared to other economic centers. Companies in the Bay Area also thrive in energy, financial service, media, biochemistry, consumer goods, and other sectors. Weinberg regarded the diversification as a chance for the economy to reinvent itself over time.

'It's Not a Zero-Sum Game'

"A lot of people would like to think of economics in zero-sum terms, that if China does well, the United States can't be well. If London is a more innovative economy, then it will come at the expense of the Silicon Valley. Nothing could be further from the truth," Weinberg said.

On the contrary, the collaboration between the San Francisco Bay Area and other international gateway cities contributes to its continuing economic growth. Silicon Valley is never disconnected from the rest of the global economy. "At a very basic level, there are more companies using products that our companies create—international collaboration creates a larger market than domestic collaboration," he explained. Although competition is unavoidable, Weinberg insists there are plenty of opportunities for places to exploit their comparative advantages.

He believes China's Greater Bay Area is never going to be a replica of Silicon Valley. "It's not only that China and the United States are very different, but also there are things that China does extraordinarily well that we don't do well at all, and vice versa," he added.

What China and the United States should both be cautious about is the steep rise in the cost of living in the bay areas. "A high cost of living has created a significant barrier to moving into the Bay Area from other regions," the report published by Bay Area Council Economic Institute says. Weinberg admitted that figuring out how to manage the cost of living, especially in a capitalistic country like the United States, is a huge challenge, and the population in the San Francisco Bay Area just stops growing. "But Shenzhen is growing very quickly," he continued. "If you're going to have economic growth, you need to make sure that it has a social safety net, like guaranteeing universal access to quality health care and affordable housing."

Weinberg also made some suggestions for China's Greater Bay Area project. He pointed out that manufacturing bases in cities like Foshan and Huizhou will not create plentiful employment in the future, as most of the production will be automated. "The rest of these cities should stop thinking of themselves just as the back office of the Greater Bay Area, and really regard themselves as a part of the innovation hub."

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GG PHBS combines PKU's profound heritage and Shenzhen's innovative vitality."

— Dean Hai Wen

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