RGC Ref No. 16600517

RESEARCH GRANTS COUNCIL

Application for Allocation from
the General Research Fund for 2017/18
Application Form (GRF1)

- **Please read the Explanatory Notes GRF(2) (Aug 16) carefully before completing this form.**
- **To safeguard the interests of the researcher and the university, awardee university bears the primary responsibility for prevention, detection and investigation of research misconduct, including but not limiting to misusing of funds, data falsification, plagiarism and seeking duplicate funding for projects which the applicant has already completed partially or entirely. Concerning research grant applications, the university is strongly advised to use anti-plagiarism software before submitting the application to the RGC.**

PART I SUMMARY OF THE RESEARCH PROPOSAL

[To be completed by the applicant(s)]

1. Particulars of the Project

(a) (i) Name and Academic Affiliation of Principal Investigator:

Name	Post	Unit/ Department/ University
Prof Holz, Carsten A	Professor	Division of Social Science/The Hong Kong University of Science and Technology

(ii) Is the PI a new appointee within 2 years of full-time paid appointment to his/her first substantive position as an academic staff in a university at the time of submission of the proposal?

Yes ☐ **No** ☑

(iii) Title of Project: Spatial Price Differences in China

(iv) Nature of Application

New ☑ **Re-submission** ☐ **Continuation** ☐

(b) (i) Primary Field: Others – relating to Social and Behavioural Sciences (Development Economics) **& Code** 4195

RGC Ref No. 16600517

Secondary Field: Economics **& Code** 5102

(ii) A maximum of five keywords to characterise the work of your proposal (a maximum of 30 characters for each keyword)

1) Provincial price differences
2) Purchasing power parity
3) Measurement of prices
4) Comparable GDP levels

(iii) Project Duration: 24 Months*

*** for longer term projects, please explain in your research plan in Part II 2(b)(i) why the proposed research cannot be completed within the normal span of 36 months.**

(iv) Total Amount Requested: $ 561,877

(c) Abstract of Research comprehensible to a non-specialist (a maximum of one A4 page in standard RGC Format for attaching PDF documents or a maximum of 400 words for direct input in the text box):

Price indices such as the consumer price index (CPI) and the producer price index (PPI) measure the change in prices of a specific basket of goods and services over time. Such indices matter for a range of purposes from the calculation of growth in real gross domestic product (GDP) to the indexing of pension payments. Price indices are standard statistical indices compiled by statistical authorities around the world, including China's National Bureau of Statistics (NBS) and China's provincial statistics offices.

While price indices document the development of prices over time, they do not allow the comparison of absolute prices across localities. Thus, while the CPIs of two of China's provinces may grow at the same speed over time, prices in one province could be twice as high as in the other province. In economic research it is frequently absolute price levels that matter, whether for the measurement of inequality and poverty, the determination of economic size, a comparison of living standards, or the issue of convergence in living standards across provinces over time.

At the national level, the Penn World Tables and the World Bank's International Comparison Program provide data on absolute price levels across countries and make corresponding adjustments to a variety of national income accounts data to allow comparisons across countries. For China's provinces, however, no such absolute price data are available.

The purpose of this project is to construct GDP price levels across provinces based on the expenditure approach to the calculation of GDP. This means the construction of the

consumption price level in each province, the gross capital formation price level in each province, and the export and import price levels in each province. These are then aggregated to a GDP price level.

In a 2006 paper, Loren Brandt and the PI constructed consumption price levels across provinces. This paper has been widely cited (297 Google Scholar citations as of 21 September 2016), and we have repeatedly been asked if we have data on the GDP price level. This sequel fills the gap.

RGC Ref No. 16600517

(d) Special funding template (Applicants can select more than one box)

- ☐ **Clinical Research Fellowship Scheme (Please also complete an additional form (Enclosure I) and see (Enclosure II)) (only available for applications under Biology and Medicine Panel)**
- ☐ **Support for Individual Research (Time-off) (see Enclosure III) (only available for applications under Humanities and Social Sciences Panel and Business Studies Panel)**
- ☐ **Longer-term Research Grant (see Enclosure IV)**
- ☐ **Employment of Relief Teacher under Humanities and Social Sciences Panel (see Enclosure V) (only available for applications under Humanities and Social Sciences Panel)**
- ☐ **Provision of Research Experience for Undergraduate Student (see Enclosure VI)**
- ☐ **Support for Academic Research related to Public Policy Developments (see Enclosure VII)**

RGC Ref No. 16600517

PART II DETAILS OF THE RESEARCH PROPOSAL

[To be completed by the applicant(s)]

RESEARCH DETAILS

1. Impact and objectives

(a maximum of 800 words in total for the long-term impact and project objectives)

(a) Long-term impact:

Comparisons across localities that involve value data are not legitimate if they do not take price differences into consideration. One dollar (or yuan) may have very different purchasing power in one locality than in another. This has long been recognized in economics and has led to the establishment of the Penn World Tables (covering countries around the world) and the World Bank's International Comparison Program.

The issue is equally relevant at the sub-national level, especially in the case of China, a very large country with particularly large cross-provincial price differences (for example, Qinghai vs. Beijing). Thus, although the multitude of Chinese provincial data now available invites cross-provincial research, the value data cannot be readily compared across provinces, which limits the research questions that can be asked. This is likely to become an ever bigger handicap as research on China expands.

The inability to compare value data across Chinese provinces is a problem not only for China-specific research, but also increasingly for broader economic research as the availability of Chinese provincial data encourages researchers to use these data to answer standard economic questions. In cross-country analysis, a large number of control variables should be included to account for national differences, but this is often not possible, due to a degree of freedom problem (if one were to introduce one control variable per additional country included, one could draw no conclusions). Cross-provincial analysis within China offers the advantage that many of the economic distinctions between countries can be found within China, but without the need for a large number of control variables because all provinces are within one nation. This renders China an ideal testing ground for economic hypotheses. But, again, provincial values need to be comparable.

What is needed to be able to make full use of Chinese provincial data are the absolute price levels for provinces. This project covers the full scope of such absolute price levels by providing both the aggregate price level (GDP price level) and the component price levels.

(b) Objectives

[Please list the objectives in point form]

1. 1. Establish the absolute price levels of provincial gross regional product (regional GDP) in China, together with a breakdown into the expenditure approach components: consumption, gross capital formation, exports, and imports.

2. Background of research, research plan and methodology:

(a maximum of eight A4 pages in total in Standard RGC Format for items (a) and (b))

(a) Background of research

(b) (i) Research plan and methodology

Attached 4 pages(s) as follows

(a) Background of research

This project extends earlier research by the PI and Co-I. A decade ago, the PI and co-PI published a journal article on the consumption price levels of Chinese provinces from 1984 through 2004 ("Spatial Price Differences in China: Estimates and Implications." Economic Development and Cultural Change 55, no. 1 (October 2006): 43- 86.) Since then, the PI has twice extended these data on his website to cover further (more recent) years.

In that article, we make use of the exceptional availability of absolute price data for a number of consumer goods for each province in the late 1980s and early 1990s, with some additional data to distinguish between rural and urban areas. We establish absolute provincial consumption price levels for 1990 (province-wide, urban areas within a province, and rural areas within a province) and then use the official provincial CPIs (composite, urban, and rural) to extend the absolute price levels to other years. The background work of that project proved so much more complex, complicated, and time-consuming than expected, that after a year's work by the PI on the data we concluded the paper by limiting its scope to consumption only.

The absolute consumer prices that we have constructed are now widely used in research. As of 21 September 2016, according to Google Scholar, the paper has been cited 297 times (and authors are likely to actually use our absolute prices in their research rather than simply referring to them in a side note). Many researchers are using our provincial consumption price levels in place of provincial GDP price levels because the latter are not available.

(b) (i) Research plan and methodology

The task is to establish absolute provincial prices for gross capital formation, exports, and imports, for the years 1984 through today, and to aggregate them to provincial GDP price levels. With no further absolute provincial price data published on consumer goods, the project incorporates the absolute provincial price levels for consumption established in the earlier work (and updates them to the present).

(1) Gross capital formation comprises gross fixed capital formation (GFCF) and a very small item inventory investment. Although GFCF comprises capital formation in (i) structures, (ii) equipment, and (iii) a small residual "others," the NBS does not publish data on this breakdown.

A breakdown of GFCF by these three components can be derived from the fixed asset investment statistics, taking care to correct for the double-counting inherent in the fixed asset statistics as they include the purchase of existing capital goods (rather than only expenditures on capital goods newly produced in this period, the coverage of GFCF). Repeated statistical breaks in the investment statistics also have to be bridged.

Prices for structures, which consistently account for approximately 70 percent of investment, can be deduced from construction costs per area of construction. This component comes with the complication that the quality of the structures may change over time, and may change differently over time across provinces. The alternative (second approach) is to compile one's own construction price index based on material prices, such as labor costs and the prices of cement and steel, where quality is unlikely to change.

Price data for equipment are not available. This may not be a big issue as equipment likely carries a similar price nationwide, varying according to province perhaps mostly because of transportation costs. One indirect approach to obtaining at least a rough estimate of price differences across provinces is to examine the available absolute price data on "means of production" (mostly inputs into capital goods). One elaboration is to relate the available data on price changes in the industries likely to be producing equipment (such as the machinery industry) to price changes in the means of production, and if a stable relationship exists for price changes, to translate that into a relationship for absolute prices (which would then allow the derivation of absolute equipment prices from the absolute means of production prices).

The residual "others" typically accounts for just above 10 percent of investment in fixed assets. It captures "expenses arising during the construction or purchase of fixed assets other than those expenses on construction, installation and purchase of equipment and instruments" (Statistical Yearbook 2014 p. 323). As no detailed information on such expenses is available, one may have to ignore this category. Alternatively, based on related service prices (such as transport prices or legal service prices) one can construct provincial absolute price levels for any one year and then apply the "other" component of the investment in fixed asset price index to obtain the price levels for other years, which is possible for the years since 1991.

For inventory investment, the second component of gross capital formation besides GFCF, no price data whatsoever are available. For the years 1978–2002, what can be derived from the available nominal values on net additions to inventories and real growth rates is a deflator (though not for all years, because when nominal net additions turn from positive to negative or vice-versa, real growth rates cannot be calculated and are thus not available). It is questionable if these data are of any use in this project, but it is still worth checking. One would have to assume absolute provincial price levels for any one year and then apply the deflators to derive absolute price levels for other years (and this is possible only up to 2002). Inventory investment typically accounts for a lower single-digit share of gross capital formation.

In conclusion, regarding gross capital formation, price level data can be compiled for structures and equipment, together accounting for 90 percent of gross capital formation. What is different from the earlier work on consumption is that for gross capital formation it is possible (though requiring much effort) to calculate absolute prices for every single

year. In the earlier case of consumption, we calculated the absolute prices for one year (1990) and then applied the official CPI. Being able to calculate absolute prices for every year also allows a comparison with the official investment in fixed asset price index (available since 1991, but with a slightly different coverage from gross capital formation as it includes purchases of used goods), as well as with the implicit gross capital formation deflators available for the years 1978 through 2002. (These doublechecks on the official data constitute an output of the project that is of potential interest on its own.)

(2) Provincial exports and imports include exports to and imports from both other provinces and other countries.

Several years ago, based on the flow of funds tables, the PI constructed a still unpublished dataset with a breakdown of provincial exports (and imports) to (and from) other provinces vs. other countries. For exports it may not matter much to the prices of exports where one exports to, but in the case of imports the difference could matter. The PI's earlier dataset thus needs to be updated. The earlier creation of the dataset was elaborate and time-consuming work, and provincial flow of funds tables are no longer available in summary compendia. Some provincial flow of funds tables could possibly be found in provincial statistical yearbooks (though, as far as the PI remembers from an earlier search, this is unlikely to be fruitful); otherwise plausible assumptions have to be made to update the data.

China's international export and import prices of goods can be constructed from the value and volume data published, for example, in the Statistical Yearbook. For services, China's National Bureau of Statistics (NBS) itself uses the service sub-components of China's CPI (in the case of exports) and the U.S. CPI (in the case of imports), suggesting which absolute prices to use. Detailed documentation of how the NBS calculates international export and import prices is available in the regularly published NBS compendia on how it calculates GDP.

For the prices of exports and imports to and from other provinces, one may have to work with the provincial price level (which, however, is endogenous to these export-import prices). Approximations will likely be necessary, such as applying a combination of provincial consumption and gross capital formation price levels to a province's exports to other provinces, and applying an average of other provinces' such price levels in the case of imports from other provinces into this province. (These other provinces need to be individually weighted, and in the absence of a cross-provincial input-output table [only one regional input-output table was published for 1997], this requires some explorations followed by robustness checks.)

In conclusion, to obtain absolute price levels for net exports is exceedingly difficult. For provinces with low levels of exports and imports, this is unlikely to affect the absolute provincial (GDP) price level much, but for large exporters and importers the effect is

likely to matter, and different forms of approximations will need to be explored.

(3) With price levels for consumption, gross capital formation, and net exports in place, the price level of GDP easily follows by applying expenditure weights (with a choice of weighting procedure), and thereby completing this project.

After completion of the project, all constructed data will be made publicly available.

(b) (ii) A one-page Gantt Chart showing the research activities

Attached 1 pages(s) as follows

	Fall 2017	Spring 2018	Fall 2018	Spring 2019
Preparatory phase: PI and co-PI meet, rudimentary exploration of data sources and data manipulation				
RA: data collection, data inputting, data manipulation, writing up data work; RA interacts with PI; PI drafts passages of the paper; PI and co-PI consult				
Writing and revision phase: PI and co-PI finalize paper				

(c) A maximum of two non-text pages of attached diagrams, photos, charts and table etc, if any.

(d) Reference (a maximum of three pages for references is allowed for listing the publications cited in Section 1-2. All full references should be provided, including all authors of each reference.)

Brandt, Loren, and Carsten A. Holz. "Spatial Price Differences in China: Estimates and Implications." Economic Development and Cultural Change 55, no. 1 (October 2006): 43-86.

Statistical Yearbook. Zhongguo tongji nianjian (China Statsitical Yearbook). Beijing: Zhongguo tongji chubanshe, various years.

PROJECT FUNDING

3. Cost and justification

(a) Estimated cost and resource implications:

[Detailed justifications should be given in order to support the request for each item below]

(a maximum of 500 words for each box)

	Year 1 ($)	Year 2 ($)	Year 3 ($)	Year 4 ($)	Year 5 ($)	Total ($)
(A) One-line Vote Items						
(i) Supporting Staff Costs						
[please read Section 3(a)(A)(i) of the Explanatory Notes GRF2 carefully]						
Types						
Monthly salary x Nos. x Months						
Senior Research Assistant						$442,800
36,900 * 1 * 6	221,400					
36,900 * 1 * 6		221,400				

Justification:

The task of the senior research assistant is to conduct the collection of data, data inputting and organization, data manipulation in preparation for analysis, and writing up the data work and questions as they arise. The PI is aware of the relevant data sources (data availability is discussed in Part II of this proposal).

The experience of the PI is that such data work quickly expands, leading either to a quick dash for the finish line or the laborious reorganization of spreadsheets and their internal calculations in an attempt to keep the data and processes transparent to others who are then given access to the spreadsheets. The PI's past experience is also that data work done by postgraduate students is almost invariably too sloppy to be acceptable. Therefore, the request here is for a senior RA with sufficient experience and time, who can take full responsibility for organizing and re-organizing data and data work in a transparent fashion.

(ii) Equipment Expenses
[please itemize and provide quotations for each item costing over $200,000]

Justification:

Nil

Quotation Provided: **Yes** ☐ **No** ☑

(iii) Outsourcing Expenses of Research Work Outside Hong Kong
[please itemize your cost estimation with justification and provide quotations for work costing over $200,000]

Justification:

Nil

Quotation Provided: **Yes** ☐ **No** ☑

(iv) General Expenses
[please itemize and provide quotations for services/purchase costing over $200,000]

Miscellanea	10,000	10,000	0	0	0	20,000
Travel for PI and Co-PI to meet	30,900	28,177	0	0	0	59,077

Justification:

Miscellanea includes everything from the photocopying and scanning of relevant data by the RA in the library to the RA's travel expenses to the China library at CUHK (for data collection), journal submission costs, and any other expenses (such as the purchase of statistical material) that may become necessary.

Travel for PI and Co-I to meet:
Year 1: flight YYZ-HKG-YYZ $12,000, 7 days daily allowance HK ($2,700 per day).

Year 2: flight HKG-YYZ-HKG $12,000, 7 days daily allowance Toronto (CAD 393 per day x 7 days = HKD 16,177).

Quotation Provided: **Yes** ☐ **No** ☑

(v) Conference Expenses

One conference presentation in each year	20,000	20,000	0	0	0	40,000

Justification:

Conferences are possibly the most promising avenue to receive feedback and to discuss questions that arise during research and do not have a singular best answer. (In the PI's experience, preparing a conference presentation in itself helps to improve one's own thinking about the topic.) One alternative for garnering feedback, namely circulating the paper, in the PI's experience is rarely productive. Seminar presentations tend to be more promising (and at least for the PI, based in Hong Kong, will require travel funding, too).

Sub-total for (A) (One-line Vote Items): **$** 561,877

(B) Earmarked Items

(vi) Costs for Employment of Relief Teacher
[see Enclosure III for individual research and Enclosure V for relief support under Humanities and Social Scienecs Panel]

Rank

Monthly salary x Months

Justification:

Current Average Teaching Load: Total 0 classroom hours per academic year [please report UGC-funded programmes only]

(vii) Expenses of Research Experience for Undergraduate Student
(see Enclosure VI for Provision of Research Experience for Undergraduate Students)

Justification:

(viii) High-performance Computing Services Expenses

Justification:

Quotation Provided: **Yes** ☐ **No** ☑

(ix) Research-related Software Licence /Dataset
[Please itemize and provide quotations for each item]

Justification:

Sub-total for (B) (Earmarked Items):	**$**	0
(x) Total cost of the proposal (A) + (B)	**$**	561,877

(C) Deduction Items

Less :

(xi) University's funding for provision of research experience for undergraduate student	**$**	0
(xii) Other research funds secured from other sources	**$**	0
Sub-total for C (Deduction Items):	**$**	0
(xiii) Amount requested in this application : (A) + (B) - (C)	**$**	561,877

(D) Academic Research related to Public Policy Developments

(xiv) Percentage of the total cost of the proposal related to public policy

developments ((A) + (B)) 0%
[see Enclosure VII for Support for Academic Research relating to Public Policy Developments]

(b) Declaration on the Equipment Procurement:

☑ **(i) No procurement of equipment is required**

OR

☐ **(ii) I declare that the equipment indicated in 3(a)(A)(ii) above is not available in the university**

OR

☐ **(iii) I declare that all or some of the equipment (please provide details in the following text box) indicated in Section 3(a)(A)(ii) above is available in the university but cannot be used by me in view of the following reasons (a maximum of 500 words)**

Reasons : (a maximum of 500 words)

(c) Declaration on employment of relief teacher:

☑ **(i) No relief teacher is required**

OR

☐ **(ii) I declare that I currently do not hold any grant for employment of relief teacher of any on-going project under UGC/RGC funding schemes**

OR

☐ **(iii) I declare that I hold grant for employment of relief teacher of the following on-going project(s) under UGC/RGC funding schemes (excluding Humanities and Social Sciences Prestigious Fellowship Scheme (HSSPFS)) and undertake to submit the corresponding completion report(s) by 30 April 2017**

(d) Declaration on high-performance computing services:

☑ **(i) No procurement of high-performance computing services is required**

OR

☐ **(ii) I declare that the high-performance computing services indicated in Section 3(a)(B)(viii) above is not available in the university**

OR

☐ **(iii) I declare that all or some of the high-performance computing services (please provide details in the following text box) indicated in Section 3(a)(B)(viii) above is available in the university but cannot be used by me in view of the following reasons(a maximum of 500 words)**

Reasons : (a maximum of 500 words)

(e) Declaration on the research-related software licence / dataset:

☑ **(i) No procurement of research-related software licence / dataset is required**

OR

☐ **(ii) I declare that the research-related software licence / dataset indicated in Section 3(a)(B)(ix) above is not available in the university**

OR

☐ **(iii) I declare that all or some of the research-related software licence / dataset (please provide details in the following text box) indicated in Section 3(a)(B)(ix) above is available in the university but cannot be used by me in view of the following reasons (a maximum of 500 words)**

Reasons : (a maximum of 500 words)

4. Existing facilities and major equipment available for this research proposal: (a maximum of 400 words)

Nil

RGC Ref No. 16600517

5. Funds secured or to be secured

(a) Other research funds already secured for this research proposal:
[This amount will be deducted from the total cost of the project in Section 3 of Part II above.]

Source	Amount ($)

(b) Other research funds to be or are being sought for this research proposal.
[If funds under this item are secured, the amount of the GRF to be awarded may be reduced]:

Source	Amount ($)

6. Particulars of PI and Co-Is

(a) Investigator(s) information:
Name and Academic Affiliation of Applicant:

	Name	Post	Unit/ Department/ University	Current Member of RGC Council as at the application deadline (Yes or No)	Current Member of RGC Subject Panel as at the application deadline (Yes or No)	Name of RGC Subject Panel
PI	Prof Holz, Carsten A	Professor	Division of Social Science/The Hong Kong University of Science and Technology	No	No	
Co-I(s)	Prof Brandt, Loren	Professor	Economics/University of Toronto	No	No	

(b) Curriculum vitae (CV) of Applicant(s).
[For the PI and each Co-I, please attach a CV (a maximum of two A4 pages in standard RGC format for attaching PDF documents or a maximum of 800 words for direct input in the text box) per person in the following format.]

i) Name:
ii) Academic qualifications:
iii) Previous academic positions held(with dates):
iv) Present academic position:
v) Previous relevant research work:
vi) Publication records [Please refer to GRF 2 Part II Section 6 for the format required by the RGC]:
Section A - Five most representative publications in recent five years
Section B - Five representative publications beyond the recent five-year period with the latest publication entered first.
vii) Others (please specify):

(c) Plan(s) for collaboration in this application:
[Indicate the role and the specific task(s) the PI and each Co-I , if any, is responsible for.]
[Letter(s) of collaboration should be attached to section 12]

Joint design of research.

The PI organizes and supervises detailed work, makes operational decisions along the way to keep the project moving forward, and is the primary person responsible for the first draft of the paper.

The PI and co-PI consult on any major questions that may arise.

The PI and co-PI collaborate in writing the final version of the paper.
(d) Number of hours per week to be spent by the PI in the proposal: 10 hour(s)

CV of Prof Holz,Carsten A

(i) Carsten A HOLZ
(ii) PhD Cornell, Economics
(iii) At HKUST since 1995
2014 - 2015 Visiting Professor, Department of Economics, Harvard University;
2012 - 2013 Visiting Professor, Stanford Center for International Development, Stanford University;
2010 - 2012 Visiting Professor, Department of Economics, University of Southern California;
2007 - 2008 Visiting Research Scholar, Princeton Institute for International and Regional Studies, and Visiting Associate Professor, Department of Economics and Woodrow Wilson School, Princeton University;
2003 - 2004 Visiting Scholar, Asia-Pacific Research Center, Stanford University ;
1999 - 2000 Visiting Assistant Professor, Department of Economics, Cornell University.
(iv) Professor, Social Science Division, HKUST
(v) "Spatial Price Differences in China: Estimates and Implications." With Loren Brandt. Economic Development and Cultural Change 55, no. 1 (October 2006): 43-86.
(vi) A.
"Wage and Price Dynamics in China." With Aaron Mehrotra. The World Economy 39, no. 8 (Aug. 2016): 1109-27.

"The Quality of China's GDP Statistics." China Economic Review 30 (September 2014): 309-38.
"Understanding Money Demand in the Transition from a Centrally Planned to a Market Economy." With Anne-Laure Delatte and Julien Fouquau. Post-Communist Economies 26, no. 3 (September 2014): 376-400.
"Monthly Industrial Output in China 1980-2012." China Economic Review 28 (March 2014): 1-16.
"Chinese Statistics: Classification Systems and Data Sources." Eurasian Geography and Economics 54, no. 5/6 (2013): 532-71.
B.
"No Razor's Edge: Reexamining Alwyn Young's Evidence for Increasing Inter-Provincial Trade Barriers in China." The Review of Economics and Statistics 91, no. 3 (August 2009): 599-616.
"China's Economic Growth 1978-2025: What We Know Today about China's Economic Growth Tomorrow." World Development 36, no. 10 (October 2008): 1665-91.

“Revisions to China’s GDP Data Following the 2004 Economic Census: More Questions Than Answers?” The China Quarterly, no. 193 (March 2008): 150–63.
“New Capital Estimates for China.” China Economic Review 17, no. 2 (2006): 142–85.
“China’s Reform Period Economic Growth: How Reliable Are Angus Maddison’s Estimates?” Review of Income and Wealth 52, no. 1 (March 2006): 85–119.

CV of Prof Brandt,Loren

(i) Loren BRANDT
(ii) PhD University of Illinois, Economics
(iii) At University of Toronto since July 1, 1987
2011, Spring, Visiting Professor, University of Washington;
2009, Spring, Visiting Professor, Australian National University;
2008, Spring, Visiting Professor, Guanghua School of Management, Beijing University
1998- 2015, Full Professor, Department of Economics, University of Toronto
1990- 1998, Associate Professor of Economics, University of Toronto
1987- 1990, Assistant Professor of Economics, University of Toronto
1987, Fall, Visiting Professor, Stanford University
1986- 1987, Adjunct Lecturer, Leavy School of Business, Santa Clara University
1985- 1987, Visiting Scholar, Hoover Institution, Stanford University
1983- 1986, Assistant Professor, Department of Economics, St. Olaf College
(iv) Noranda Chair Professor in International Trade and Development, University of Toronto
(v)
"Spatial Price Differences in China: Estimates and Implications." With Carsten Holz. Economic Development and Cultural Change 55(1) (2006), 43- 86.
(vi) A

Loren Brandt, Aloysius Siow and Carl Vogel, "Large Shocks and Small Changes in the Marriage Market for Famine Born Cohorts in China". Forthcoming, Journal of the European Economic Association.
Loren Brandt, Aloysius Siow and Hui Wang, "Parental Investment in Children". Journal of Population Economics 28(2) (2015), 423- 62. (Winner of the 2016 Kuznet's Award)
Loren Brandt, Debin Ma and Thomas Rawski, "From Divergence to Convergence: The History Behinds China's Economic Growth". Journal of Economic Literature 52(1) (2014), 42- 123.
Loren Brandt, Trevor Tombe and Xiaodong Zhu, "Factor Market Distortions Across Time, Space and Sectors in China," Review of Economic Dynamics 16(1) (2013), 39- 58.
Loren Brandt, Johannes Van Biesebroeck, Yifan Zhang, "Creative Accounting or Creative Destruction: Firm Level Productivity Growth in Chinese Manufacturing", Journal of Development Economics 97 (2) (2012), 339 - 351.
(vi) B
Loren Brandt and Eric Thun, "The Fight f or the Middle: Upgrading,

Competition,and Industrial Development in China", World Development 38 (11) (2010), 1555－ 1574.
Loren Brandt and Thomas Rawski (eds.), China's Great Economic Transf ormation , Cambridge University Press, New York, 2008.
Dwayne Benjamin, Loren Brandt, John Giles, "The Evolution of Income Inequality in Rural China", Economic Development and Cultural Change 53 (4) (2005),

769－ 824.
Loren Brandt and Hongbin Li, "Bank Discrimination during Economic Transition：Incentives, Information or Ideology?", Journal of Comparative Economics 31 (2003), 387－ 413.
Loren Brandt and Xiaodong Zhu, "Redistribution in a Decentralized Economy：Growth and Inf lation in Ref orm China", Journal of Political Economy 108 (2000), 422－ 439.

RGC Ref No. 16600517

DECLARATION OF SIMILAR OR RELATED PROPOSALS & GRANT RECORD

[Please refer to GRF2 for information required and implications for non-disclosure of similar or related proposals]

7. Re-submission of a proposal not supported previously

(a) Is this proposal a re-submission or largely similar to a proposal that has been submitted to but not supported by the UGC/RGC or other funding agencies?

Yes ☐ **No** ☑

If yes, please state the funding agency(ies) and the funding programme(s):

Reference No(s). [for UGC/RGC projects only]:

Project title(s) [if different from Section 1(a) of Part I above]:

Date(month/year) of application:

Outcome:

(b) If this application is the same as or similar to the one(s) submitted but not supported previously, what were the main concerns / suggestions of the reviewers then?

(c) Please give a brief response to the points mentioned in Section 7(b) above, highlighting the major changes that have been incorporated in this application.

8. Grant Record of Investigator(s)

(a) PI - Details of research projects undertaken and proposals submitted by the PI (in a PI/PC or Co-I/Co-PI capacity) including (i) completed research projects funded from all sources (irrespective whether from UGC/RGC) in the past five years; and (ii) on-going research projects funded from all sources (irrespective whether from UGC/RGC); (iii) terminated projects funded by UGC/RGC in the past five years; (iv) unsuccessful proposals or withdrawn projects submitted to UGC/RGC in the past five years; and (v) proposals pending funding approval. If you have any research project(s) / proposal(s) (not limited to the past five years) which is/are similar or related to this application, please include in the table below and provide an explanation on the differences between

that/those project(s)/proposal(s) and this application (a maximum of 400 words). [If you have difficulty in making the declaration, please explain.] Please add a new table for each project/proposal.

Project/Proposal Ref No.	640413
Name of Investigator(s)	Prof Holz, Carsten A
Project Title	The Process of Economic Development in West Sichuan, China
Project Objective (not applicable for unsuccessful proposals or withdrawn projects)	1. Document and evaluate processes and levels of economic development in West Sichuan 2. Document government economic development policies in West Sichuan and evaluate their effectiveness 3. Document and evaluate the economic and social consequences of economic development in West Sichuan
Status	On-going
Capacity	PI
Funding Source(s) and Amount($)	GRF $ 780,000
UGC/RGC Funding (Yes or No)	
Start Date (if applicable)	01-01-2014
Estimated Completion Date (if applicable)	30-06-2017
Number of Hours Per Week Spent by the PI in	20

Each On-going Project*

Similar or related to the current application	NA
If yes, please explain the differences	

*** The PI is not required to report on the time spent in the capacity of Co-I in GRF / Joint Research Schemes projects.**

(b) Co-I(s) - Details of on-going research projects funded from all sources (irrespective whether from UGC/RGC) undertaken by each Co-I (in a PI/PC capacity) and proposals pending funding approval.

Name of Co-I(s) and Capacity	Prof Brandt, Loren (PI)
Project Title	China's Property Rights Arrangements, Non-Agricultural Employment and Rural Development
Project/Proposal Ref No.	
Status	On-going
Funding Source(s) and Amount($)	HK$ 800,000
Start Date	01-01-2016
Estimated Completion Date	31-12-2018
Similar or related to the current application	NA
If yes, please state the	

project objectives and explain the differences

ANCILLARY INFORMATION

9. Research Ethics/Safety Approval and Access to Government/ Official/ Private Data and Records

[Please refer to GRF2 Part II Section 9 for the responsibilities and implications]

(a) Research Ethics/Safety Approval

(i) I confirm that the research proposal ☐ **involves /** ☑ **does not involve human subjects.**

(ii) Please tick the appropriate boxes to confirm if approval for the respective ethics and/or safety issues is required and has been / is being obtained from the PI's university. PIs are encouraged to seek necessary approval (except for human research ethics (clinical)) before application deadline as far as possible

	Approval not required	Approval being sought	Approval obtained
(1) Animal research ethics	☑	☐	☐
(2) Biological safety	☑	☐	☐
(3) Ionizing radiation safety	☑	☐	☐
(4) Non-ionizing radiation safety	☑	☐	☐
(5) Chemical safety	☑	☐	☐
(6) Human research ethics (non clinical)	☑	☐	☐

	Approval not required	Approval being sought	Approval will be sought if funded
(7) Human research ethics (clinical)	☑	☐	☐

(iii) If approval is required by other authorities, please indicate *below* the names of the authorities and the prospects of obtaining such approval. If not applicable, please put down "N.A.".

Nil

(b) Access to Government/ Official/ Private Data and Records

(i) Is access to Government / official / private data and records critical to the research proposal?

☐ **Yes**

☑ **No**

If approval is required, please indicate below the names of the agency(ies) of obtaining such approval.

(ii) Please tick in the appropriate boxes to confirm if approval for access to the related data/records has been / is being obtained from the relevant agency(ies). If approval has been obtained, please provide evidence.

List of agency(ies)	Approval not required	Approval being sought	Approval obtained

[Note: PIs are encouraged to seek necessary approval before application deadline as far as possible.]

10. Proposed reviewers

(a) List of proposed reviewers:

PI assumes full responsibility for reporting all the relationship(s) between himself/herself as well as his/her Co-Is with each of nominated external reviewers. To avoid any possible or perceived conflict of interests, external reviewer(s) having any of the following relationship(s) with the PI or Co-I should not be nominated

(i) Is currently employed / was employed from 19 November 2014 to 18 November 2016 by the same university;

(ii) Holds adjunct, honorary or visiting position(s) in the same university;

(iii) Serves as consultant / advisor to a committee or department of the same university;

(iv) Submitted applications as Project Coordinator, Principal Investigator (PI), Co-PI, Co-Investigator or Collaborators in the same funding exercise;

(v) Has pre-reviewed the application;

(vi) Has advisor / advisee relationship (such as tutor and PhD student relationship);

(vii) Has co-authorship of patents;

(viii) Has close personal relationship (e.g. partner, spouse, immediate family member, long-term close friend);

(ix) Has co-authorship of paper or publications from 19 November 2013 to 18 November 2016;

(x) Is a collaborator (in the capacity of Co-PI or Co-I) in research projects or programmes from 19 November 2013 to 18 November 2016; or

(xi) Serves the same editorial board with an appointor-appointee relationship.

[Please refer to Part II Section 10 of GRF2 for responsibilities and implications. The PI should make the list of nominated reviewers available to the Co-Is for making declaration]

(b) Declaration of any past and present relationship between the investigator(s) i.e., PI and Co-Is, and the nominated reviewers [minimum one tick per reviewer]:

Nature of relationship (please elaborate)	Reviewer				
	(i)	(ii)	(iii)	(iv)	(v)
Has co-authorship of paper or publications in the period from 19 November 2009 to 18 November 2013	☐	☐	☐	☐	☐
Was a collaborator (in the capacity of Co-PI or Co-I) in research projects or programmes from 19 November 2009 to 18 November 2013	☐	☐	☐	☐	☐
Partnership / co-organisers of major events from 19 November 2009 to 18 November 2016	☐	☐	☐	☐	☐

Teacher at undergraduate studies	☐	☐	☐	☐	☐
Fellow members of the same editorial board	☐	☐	☐	☐	☐
Others (please specify)	☐	☐	☐	☐	☐
None	☐	☐	☐	☐	☐

(c) Indicate the name of PI/Co-Is and the nature of the relationship declared in (b) (e.g. when and where the relationship was / is developed, name / nature of project(s), publication(s) or event(s) involved):

11. Release of completion report, data archive possibilities and public access of publications resulting from research funded by the RGC

(a) Is the proposed project likely to generate data set(s) of retention value?

Yes ☑ **No** ☐

If yes, please describe the nature, quantity and potential use of the data set(s) in future.

China provincial absolute price levels. Time series data for the 1980s until 2014/today. Covers GDP with breakdown by expenditure category.

Quantity: 30 provinces x approx. 30 years * 5 variables = 4,500 data points.

Use in any value-based cross-provincial comparisons (such as comparisons of living standards).

(b) Are you willing to make the data set(s) available to others for reference twelve months after the publication of research results or the completion of this proposed project?

Yes ☑ **No** ☐

I/We understand that the RGC will release the completion report to the public and only considers data archiving requests after the completion of the RGC-funded project. The RGC has full discretion in funding the archiving requests. Data sets archived with RGC funds will require users to acknowledge the originator and the RGC. The originator will also be provided with copies of all publications derived from the use of the data.

I undertake to include in the project completion report the URL links to the university's repository or the publisher's websites so that the public could have quick and easy access to the manuscripts or journal articles. I will also consider to include in the research

completion report the data repository where research data of the project could be accessed and shared, where appropriate.

I undertake that upon acceptance of a paper for publication,

(i) I will check whether the publisher already allows (A) full open access to the publisher's version, or (B) my depositing a copy of the paper (either the publisher's version or the final accepted manuscript after peer-review) in the university's repository for open access;

(ii) if both (i) (A) and (B) are not allowed, I will request the publisher to allow me to place either version in my university's repository for restricted access immediately upon publication or after an embargo period of up to twelve months if required by the publisher; and

(iii) subject to the publisher's agreement on (i) or (ii) above, I will deposit a copy of the publication in my university's repository as early as possible but no later than six months after publication or the embargo period, if any.

12. Education Plan, Letters of Collaboration and Supporting Documents

(A maximum of 20 words for each box to caption each uploaded pdf documents)

Appendix 1: Education Plan (up to one A4 page)

Education Plan

Train Senior Research Assistant in Chinese data search, data management, coding, some statistical analysis, and documenting one's work progress and findings. Gain experience in implementing a research project and inter-acting with senior researchers (PI, Co-I).