A Study of Chinese and Japanese Students in British Universities

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Importance of internationalization

- Governments prioritize the internationalization of higher education

- Key organizational strategy of the expansion of the core missions of higher education systems
  - 2014 British Council survey (1336 higher education institutions in 131 different countries across the world) →
    - 53 % has an internationalization policy/strategies
    - 22 % cent has one in preparation

Impact on universities…

- International race toward excellence
  - Embeddedness of universities within a global framework of competition
  - National and international rankings and quality assessment

- Global imaginary of higher education
  - Standardized conceptions of university, legitimated by international rankings

Impact on students...

- Global imaginary of higher education student
  - Standardized conceptions of the individual, who can easily move and learn across national borders and are able to carry their degrees with them wherever they may go

- International rankings normalize international mobility of students.

Research question & hypotheses

- In the context of an increasing global competition among higher education institutions… What attracts international students?

- Hypotheses:
  - H1: Universities being more international (International research funds, staff) attract more international students
  - H2: Expenditure on student services increase the flow of international students
  - H3: Income from tuition fees, stronger focus on student statisfaction, more international students
  - H4: Universities increase their prestige through research, more research-intensitive universities are able to attract more international students
  - H5: International prestige absorbs it all (little room for improvement)
  - H6: Inertia… little room for change

Data

- Logitudinal universities database
  - 206 British universities
  - Observed in four moments in time
    - 2002/2003, 2005/2006, 2010/2011, and 2013/2014
- HESA
  - # of Japanese and Chinese students
- CUG (Complete University Guide), university rankings and prestige.
  - CUG has been chosen over other available rankings (e.g. The Guardian, Times Higher Education) following the availability of earlier data on rankings
- ETER
  - University instituional characteristics

Which characteristics?

- Universities' international outlook:
  - proportion of EU students in total students
  - proportion of non-EU international research funding in the total funding from research grants and contracts (measured in thousands of pounds).
- International funding sources: non-EU based charities and non-EU industry, commerce and public corporations.
  - By excluding EU funding we are able to specifically focus on universities' international outreach through research connections, which may increase universities' visibility and appeal to prospective international students.
- Universities' service orientation: proportion of expenditure on student and staff facilities in total expenditure
  - careers advisory services
  - grants to student societies
  - accommodation office
  - athletic and sporting facilities
  - transport, chaplaincy, student counselling
  - health services.
- Proportion of income from tuition fees and education contracts in total income.
  - all income from student fees from individual
  - The Student Loans Company (SLC), Local Education Authorities (LEA), Student Awards Agency for Scotland (SAAS), the Department for Education Northern Ireland (DfE(NI)), the Department of Health (DH), Local Education and Training Boards (LETBs), the Scottish Health Directorate.
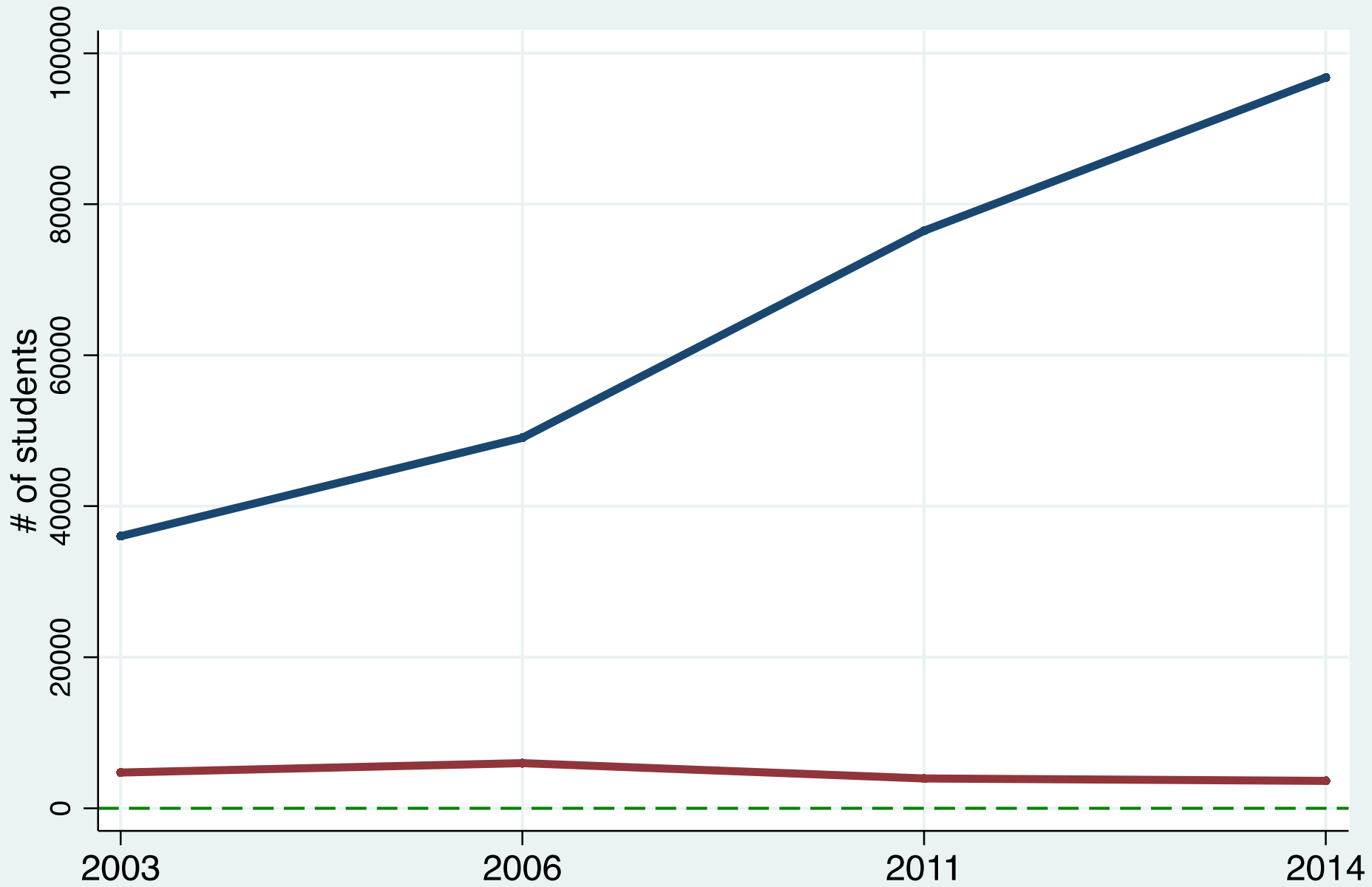
Why Chinese and Japanese students?

CHINESE

- Single-largest and fastest-growing body of international students

  About 750,000 Chinese tertiary level students studied abroad in 2014

  20 % of International higher education students in all OECD countries originate from China (UNESCO, Education at a Glance 2014)

  China sources the biggest group of international students not only in the UK (16% of the total) and Germany (10%), but also in Japan   (62%) and South Korea (76%) (OECD 2013)

- According to data from CPFS 2010, 20% of Chinese parents of children aged 10-15 have ever considered sending their children abroad
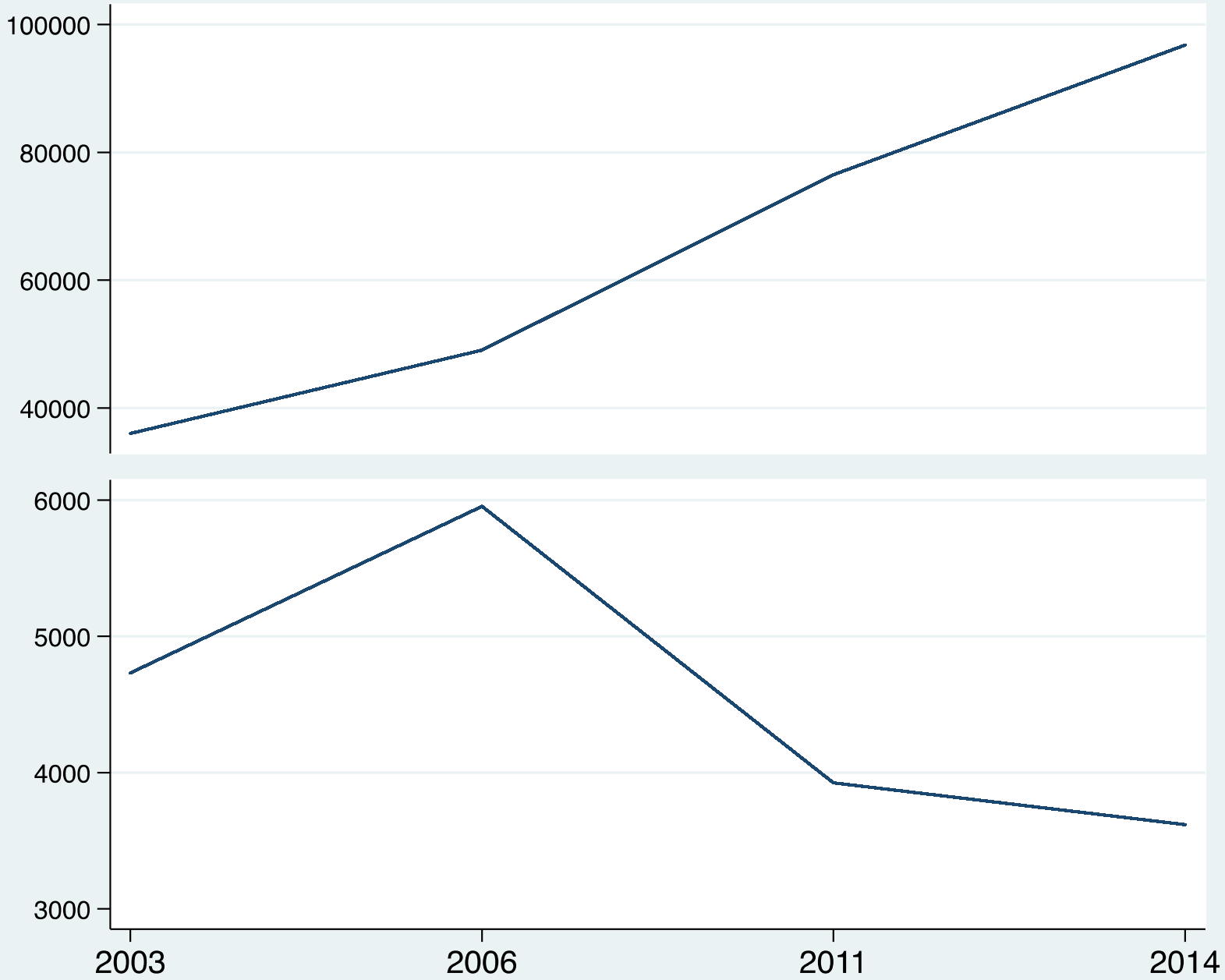
JAPANESE contrasts sharply;

- International mobility trajectory of Japanese students, which has shown a downward trend since the early 2000s
- Japanese students persistently choose Western destinations, despite the rapid diversification of higher education market in the East Asia region

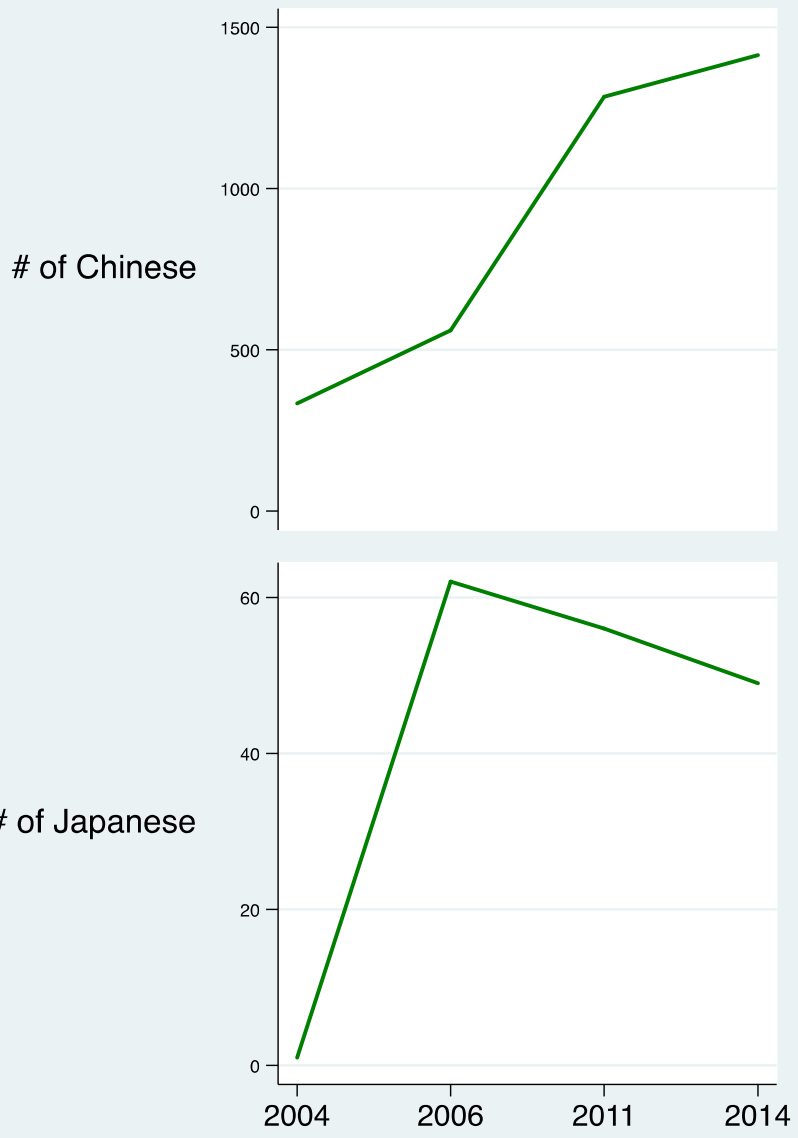→ No specific hypothesis…, expectation of a similar behaviour.

The University of Bristol

The University of Oxford

# of Chinese
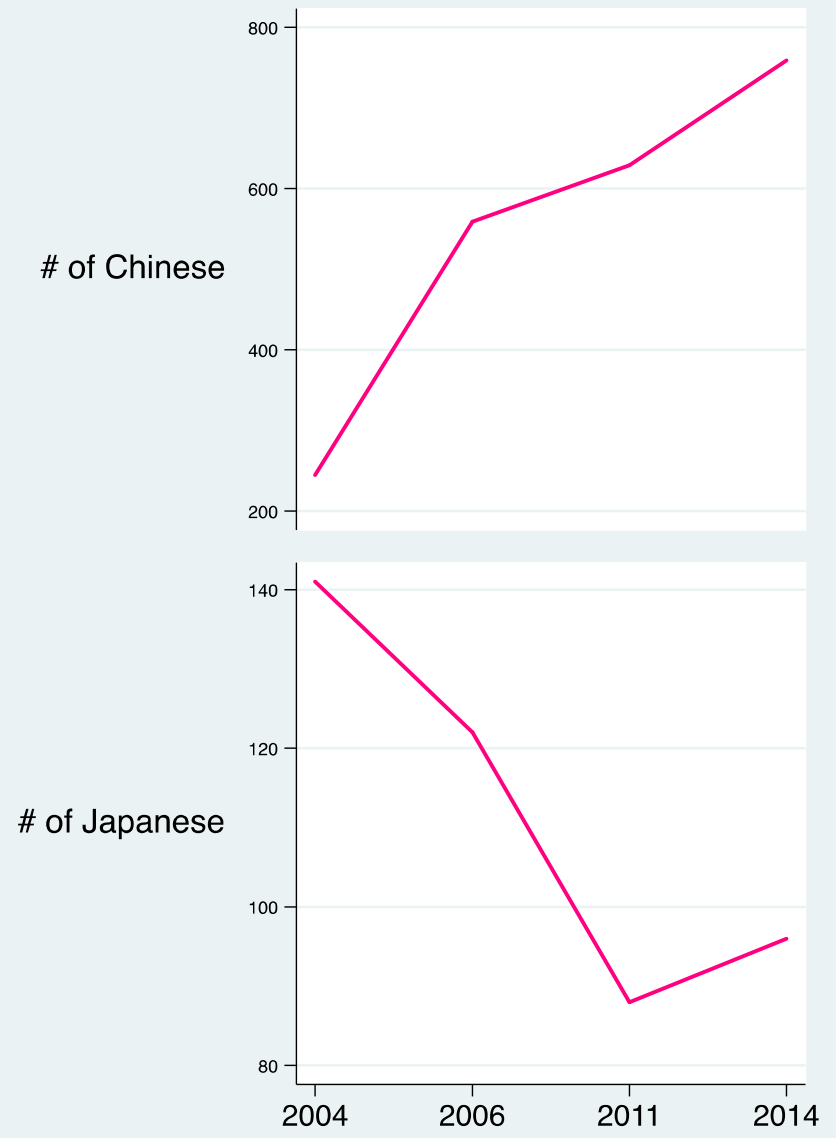
# of Japanese

Table 1 *Descriptive Statistics*

Interval Variables	Mean	Standard Deviation	Min	Max
Chinese Students	375.49	532.29	0	3812
Japanese Students	27.79	47.37	0	536
Total Students	13836.41	15621.77	140	208710
% Change in Ranking (2007-2013)	5.65	32.33	-52.63	183.33
% EU Students	7.95	6.41	0	83.26
% International Research Funds	3.73	6.47	0	87.66
% Expenditure on Facilities	2.52	1.75	0	15.99
% Tuition Fees Income	33.81	16.58	0	84.04
Binary Variables	**%**			
Prestigious Universities	11.26			

Notes: *Variable 'total students' has been log transformed in order to reduce skewedness.

*Each interval indicator has been standardised by subtracting its average value from the absolute value, and dividing the result by its standard deviation.

*Values are rounded at the third decimal

Method

- Random effects estimator (RE) to model the hypothesized relationships.
  - Within (institution specific) as well as between variance
  - Inclusion of time variant (e.g. # of students, expenditure) and predictors (e.g. prestige).
  - Two separate models to predict # Chinese and Japanese students.
  - Each model has been re-run by including the lagged dependent variable (*T-1*) as a predictor, in order to account for the previous levels of Chinese/Japanese students.
  - Use of lagged independent variables predicts whether changes in universities' institutional features nurture or inhibit the # of Chinese and Japanese students.

$$Y_{it} = \beta_1 X_{i(t-1)} + \alpha_i + u_{i(t-1)} + \epsilon_{i(t-1)}$$

Table 2 *Random Effects Model with Lagged Independent Variables Predicting the Number of Chinese Students*

Variables	Model 1	Model 2
Prestige	.967***	.363**
	(.245)	(.135)
% Change in Ranking (2006-2013)	.098	.009
	(.064)	(.035)
% EU Students	.014	-.049
	(.059)	(.049)
% International Research Funds	-.005	.031
	(.052)	(.041)
% Expenditure on Facilities	-.004	-.023
	(.060)	(.042)
% Tuition Fees Income	.058	-.099*
	(.078)	(.047)
Total Students	.610***	.235
	(.175)	(.121)
Chinese Students (T-1)		.622***
		(.068)
Wald X^2	48.95***	278.57***
N	302	302
R^2 (within universities)	.00	.05
R^2 (between universities)	.32	.84

Notes: *p<.05, **p<.01, ***p<.001
Robust Standard Errors in the Parentheses
Coefficients and Robust Standard Errors Rounded at the Third Decimal

Table 3 *Random Effects Model with Lagged Independent Variables Predicting the Number of Japanese Students*

Variables	Model 1	Model 2
Prestige	1.037***	.416*
	(.214)	(.171)
% Change in Ranking (2006-2013)	.099	.037
	(.059)	(.029)
% EU Students	.194*	.155*
	(.090)	(.068)
% International Research Funds	-.012	.008
	(.040)	(.050)
% Expenditure on Facilities	.009	.001
	(.035)	(.040)
% Tuition Fees Income	-.029	-.045
	(.055)	(.048)
Total Students	.139	.107
	(.128)	(.088)
Japanese Students (T-1)		.638***
		(.096)
Wald X^2	59.27***	366.01***
N	299	299
R^2 (within universities)	.01	.08
R^2 (between universities)	.36	.86

Notes: *p<.05, **p<.01, ***p<.001
   Robust Standard Errors in the Parentheses
   Coefficients and Robust Standard Errors Rounded at the Third Decimal

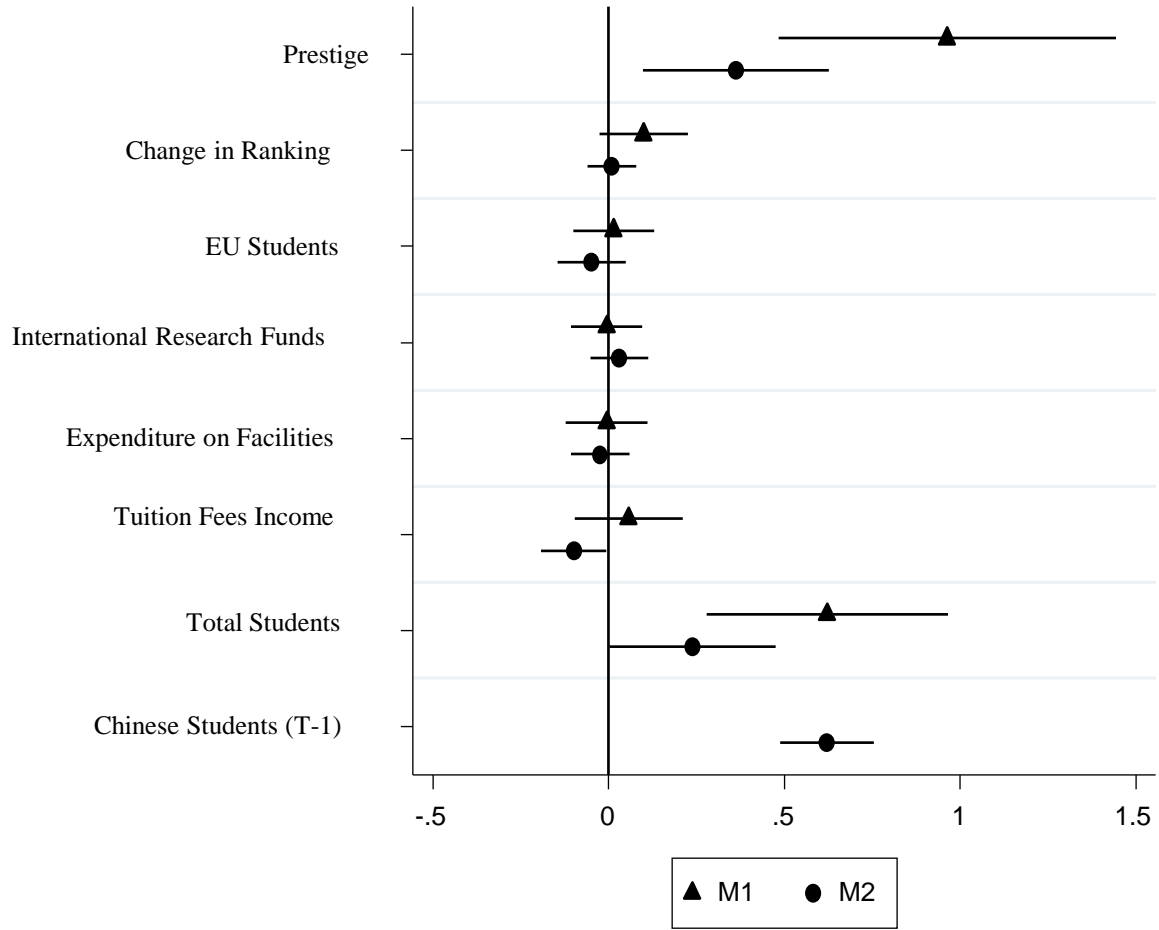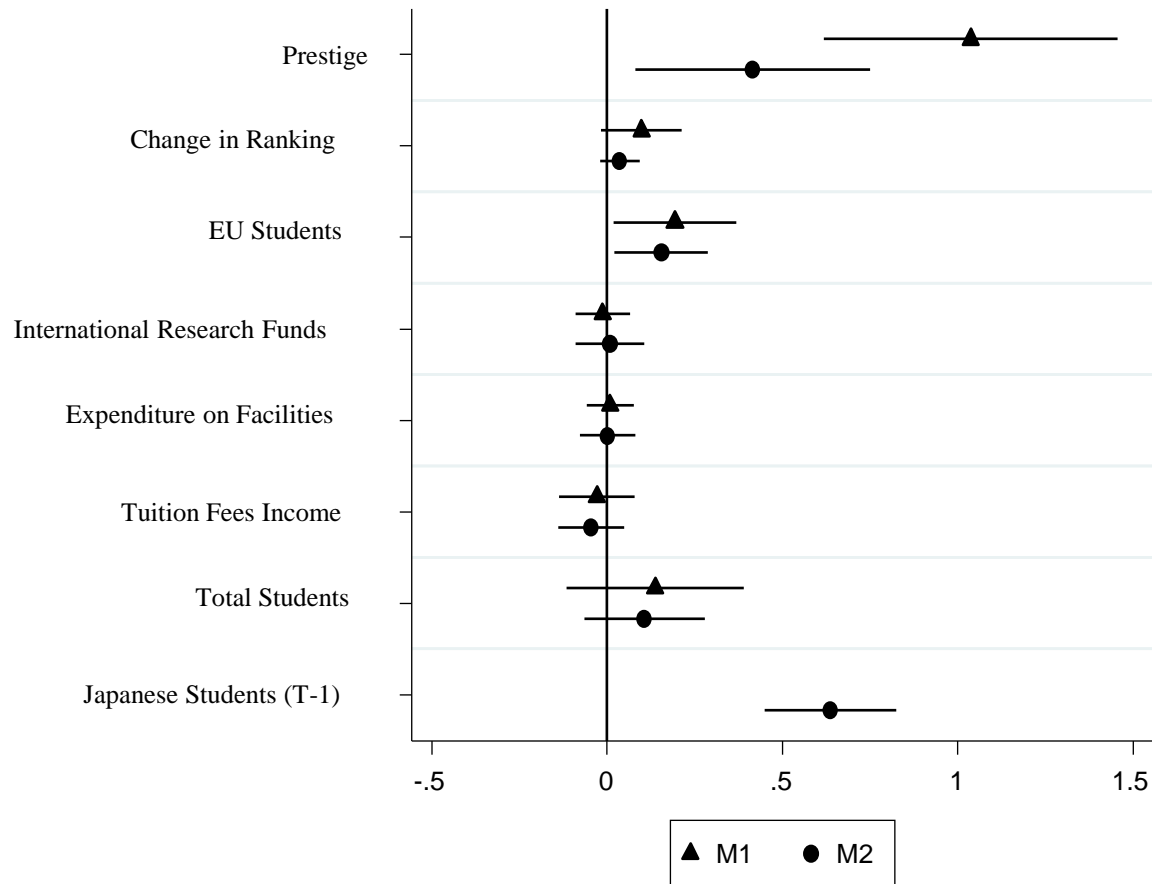**Figure 2** *Average Marginal Effects for Predicting the Number of Chinese Students*

Figure 3 *Average Marginal Effects for Predicting the Number of Japanese Students*

Diffuse symbolic effect of university prestige

A: I look out [in world rankings] for which universities are ranked higher overall. Because universities with higher overall rankings must be more famous in China, I have to think ahead about my employment prospects when I go back to China. (male, master's in business)

B: …As I planned to study for a master's degree [in the UK], I consulted a previous student from my undergraduate university [in China] who had studied in the UK. He said University B is best for the subject I wanted to study, it's highly ranked in the UK, top 5 maybe or even number 1, I can't remember the exact number … (female, master's in humanities)

C: It is not that I believe in the rankings. They are produced by the media and commercial institutions anyway. But when you look for a job, your employers judge you against whichever ranking they can get hold of. Then you have but to consider ranking seriously when choosing universities. (male, master's in accounting)

Conclusion

Which institutional configuration?

> Research intensive universities and more prestigious ones

> Other aspects, not important (internationalization, expenditure, tuition fees)

Path dependence, universities having succeeded in the past, do better.

Flows appear to be more similar than it is expected regardless of timing.

Thank you!

ETER: which characteristics?

- Internationalization: **factor (international funds, international staff, EU students) (+)**
- **Expenditure on student services (%) (+)**
- Income
  - **from tuition (%) (-)**
  - **From research (%) (+)**
- Time invariant:
  - **Prestige (+)**
  - Multi site (+)
  - Post 1960 (-)
- Total # of students (+)

Internationalization on Chinese flow

Internationalization on Japanese flow
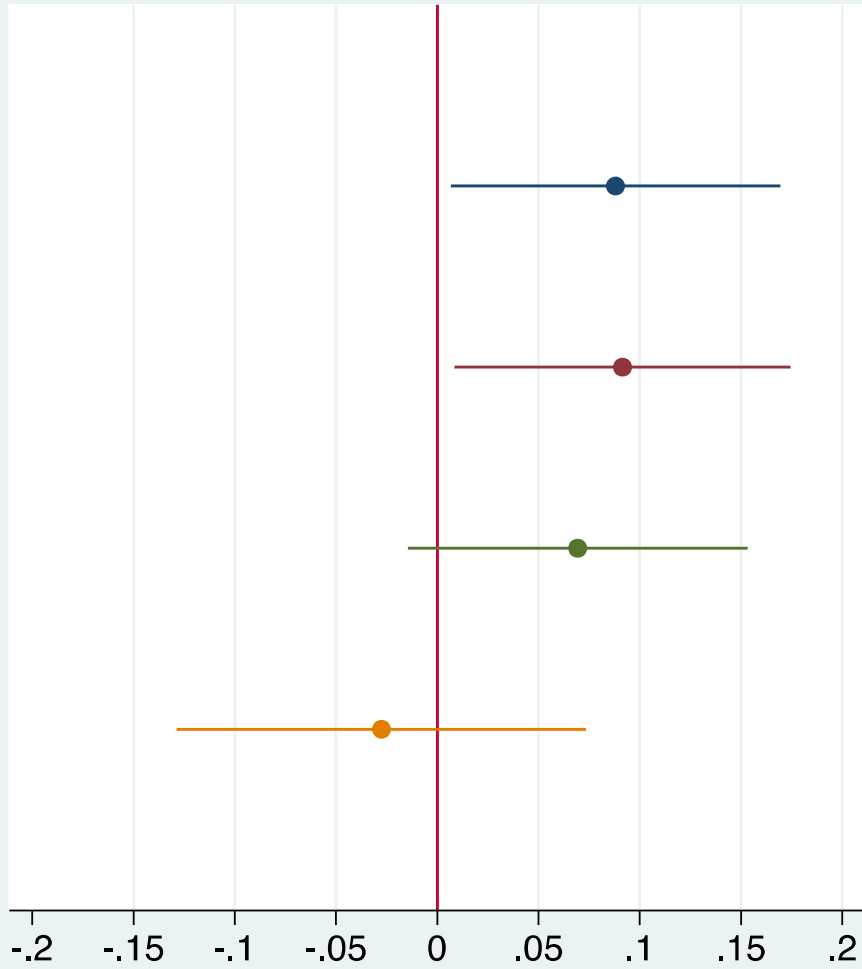
Legend (left panel):
- Control: + stock of Chinese previous period
- Controls: + tuition on income, student expenditure
- Controls: + prestige
- Controls: + research on income
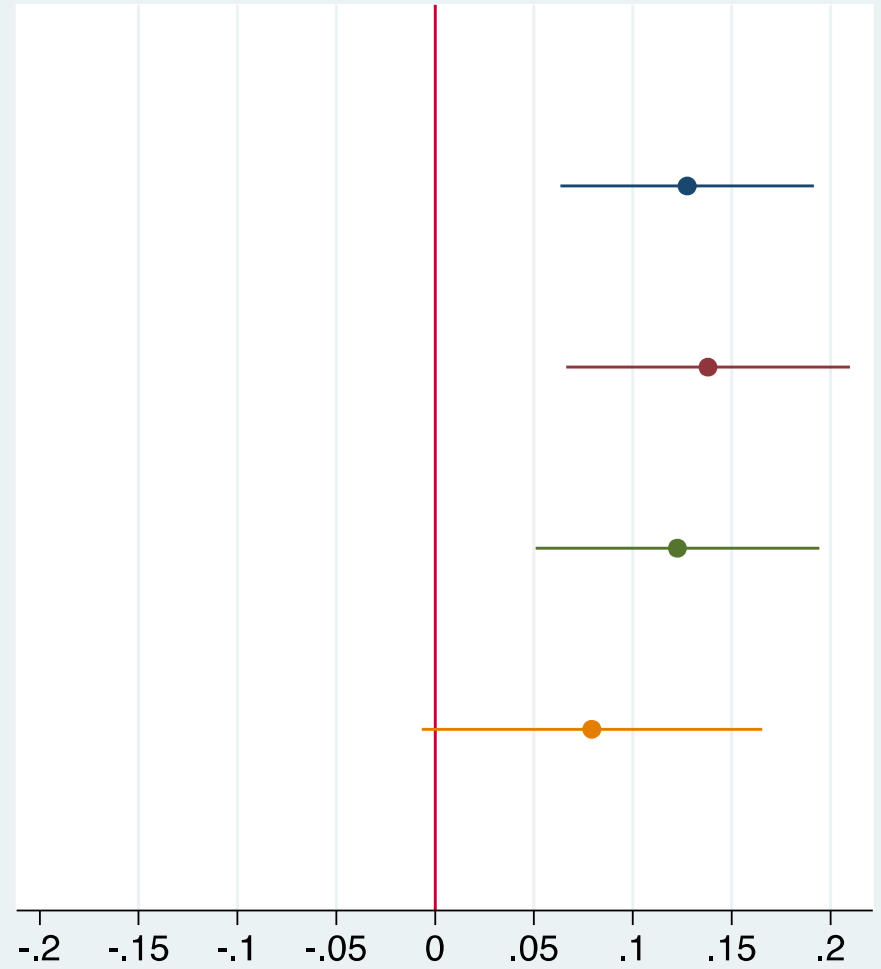
Legend (right panel):
- Control: + stock of Japanese previous period
- Controls: + tuition on income, student expenditure
- Controls: + prestige
- Controls: + research on income