

British Council (India), World Bank and CPRHE/NUEPA  
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# **Global Trends in Higher Education: *Implications for India***

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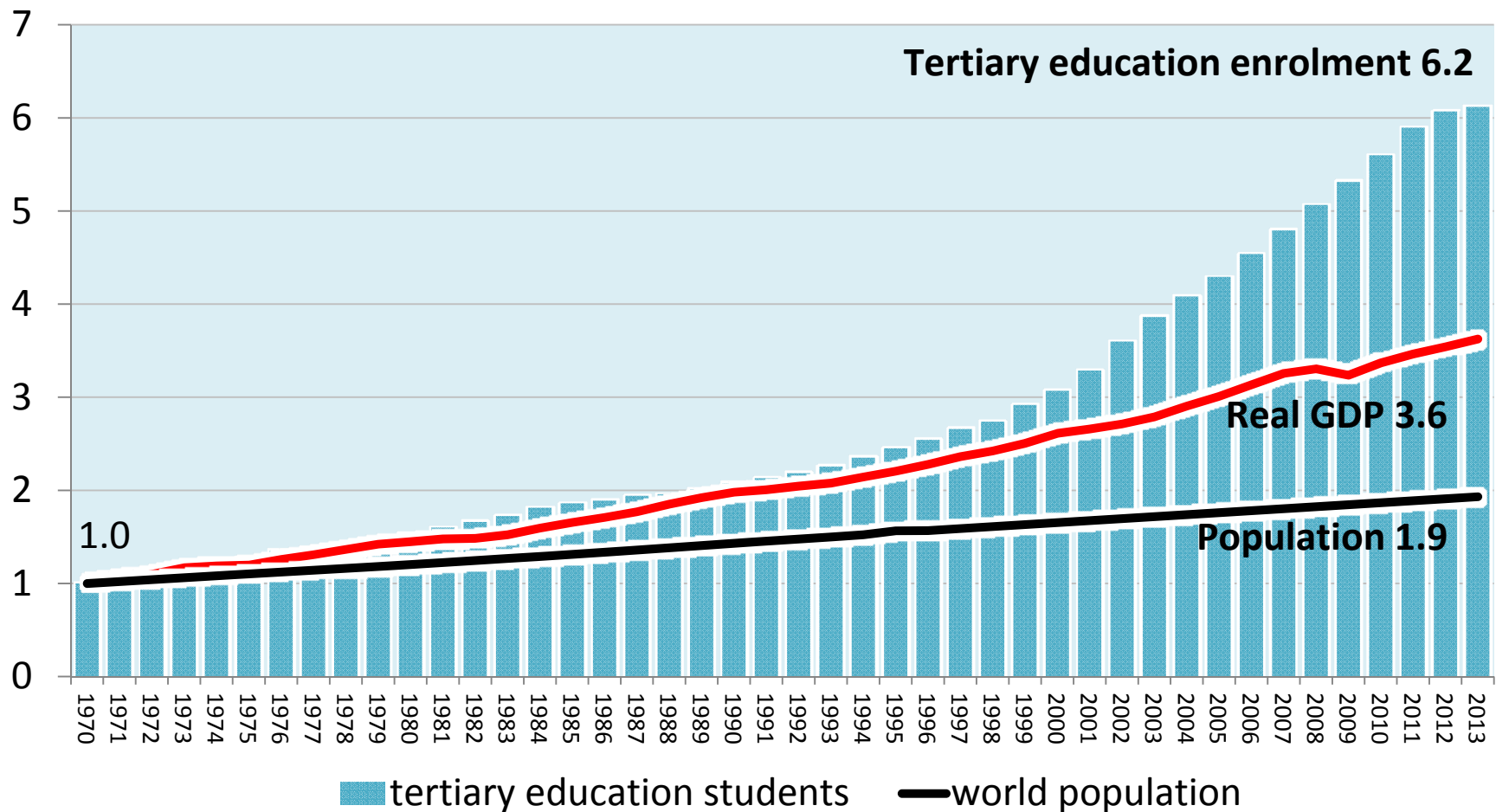
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## *Global trends*

- Accelerating growth of participation across the world in tertiary and higher education in last two decades
- Increasing importance of comprehensive universities in tertiary provision and decline in diversity of HEI type
- Growing role of private sector in many countries, though role of private provision and costs varies greatly
- Growth of both participation and research science/ WCUs
- Rise of East Asia in science, especially China and Singapore
- Growth of student mobility continues. But does Brexit and Trump signify a new environment for higher education?

# World GDP, population and tertiary enrolment, 1970-2012

1970 = 1.0. Constant price GDP. Data from World Bank, UNESCO Institute of Statistics



## ***The growth dynamic***

‘It seems to me very unlikely that any advanced industrial society can or will be able to stabilize the numbers going on to some form of higher education any time in the near future.’

~ Martin Trow, *Problems in the Transition from Elite to Mass Higher Education*, Carnegie Commission on Higher Education, Berkeley, 1973, p. 40.

## ***Regional Gross Tertiary Enrolment Ratios (%), 1970-2013***

	1970	1990	2010	2013
World	10.0	13.6	29.3	32.9
North America/ W. Europe	30.6	48.6	76.9	76.6
Central and Eastern Europe	30.2	33.9	67.9	71.4
Latin America and Caribbean	6.9	16.9	40.9	43.9
East Asia and Pacific	2.9	7.3	27.3	33.0
Arab States	6.0	11.4	25.5	28.1
Central Asia	n.a.	25.3	26.7	26.1
South and West Asia	4.2	5.7	17.4	22.8
Sub-Saharan Africa	0.9	3.0	7.7	8.2

## ***GDP and GTER, 2013 or nearest year***

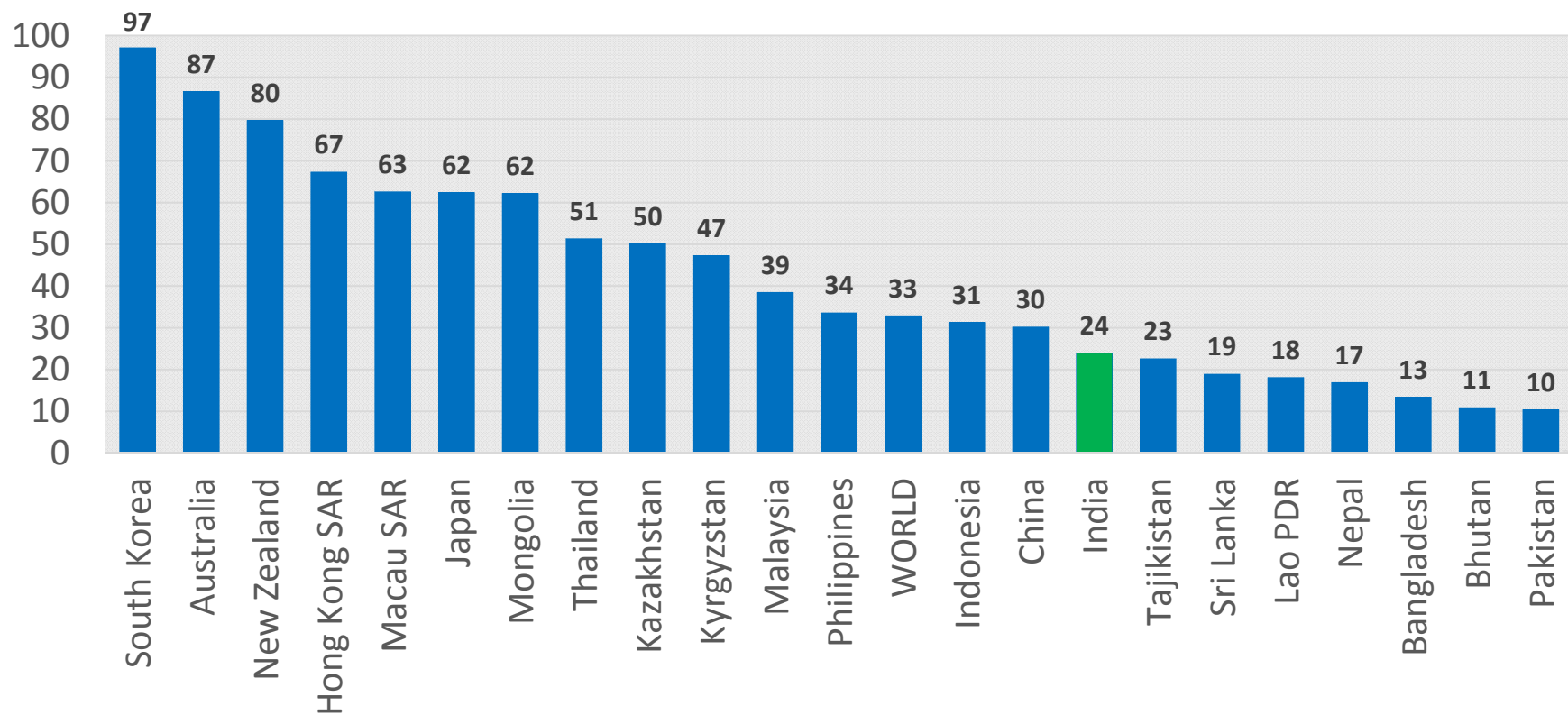
GDP per head in nation (2011 USD, PPP)	Gross Tertiary Enrolment Ratio		
	Above 50%	15% to 50%	Below 15%
Above \$30,000 per head	25	10	0
\$20,001-30,000 per head	15	3	1
\$10,001-20,000 per head	14	17	2
\$5001-10,000 per head	2	13	7
\$5000 or less per head	0	13	32
total	56	56	42

## ***Educational level and ICT and problem solving skills, OECD survey, selected countries***

HPS	GTER 2013 (%)	Proportion of 25-34 year olds with 'good ICT and problem solving skills', by highest completed educational qualification, eight HPS countries, 2012		
		below upper secondary education (%)	upper secondary or post-school non-tertiary (%)	tertiary education (%)
Finland	91	9	29	57
United States	89	3	21	51
Australia	87	15	33	56
Russia	78	13	16	27
Norway	76	15	32	59
Poland	71	2	7	37
Japan	62	8	24	49
Canada	n.a.	5	26	47

# Gross Tertiary Enrolment Ratio, selected Asia-Pacific systems 2013

UNESCO Institute of Statistics data. Data not available for all countries

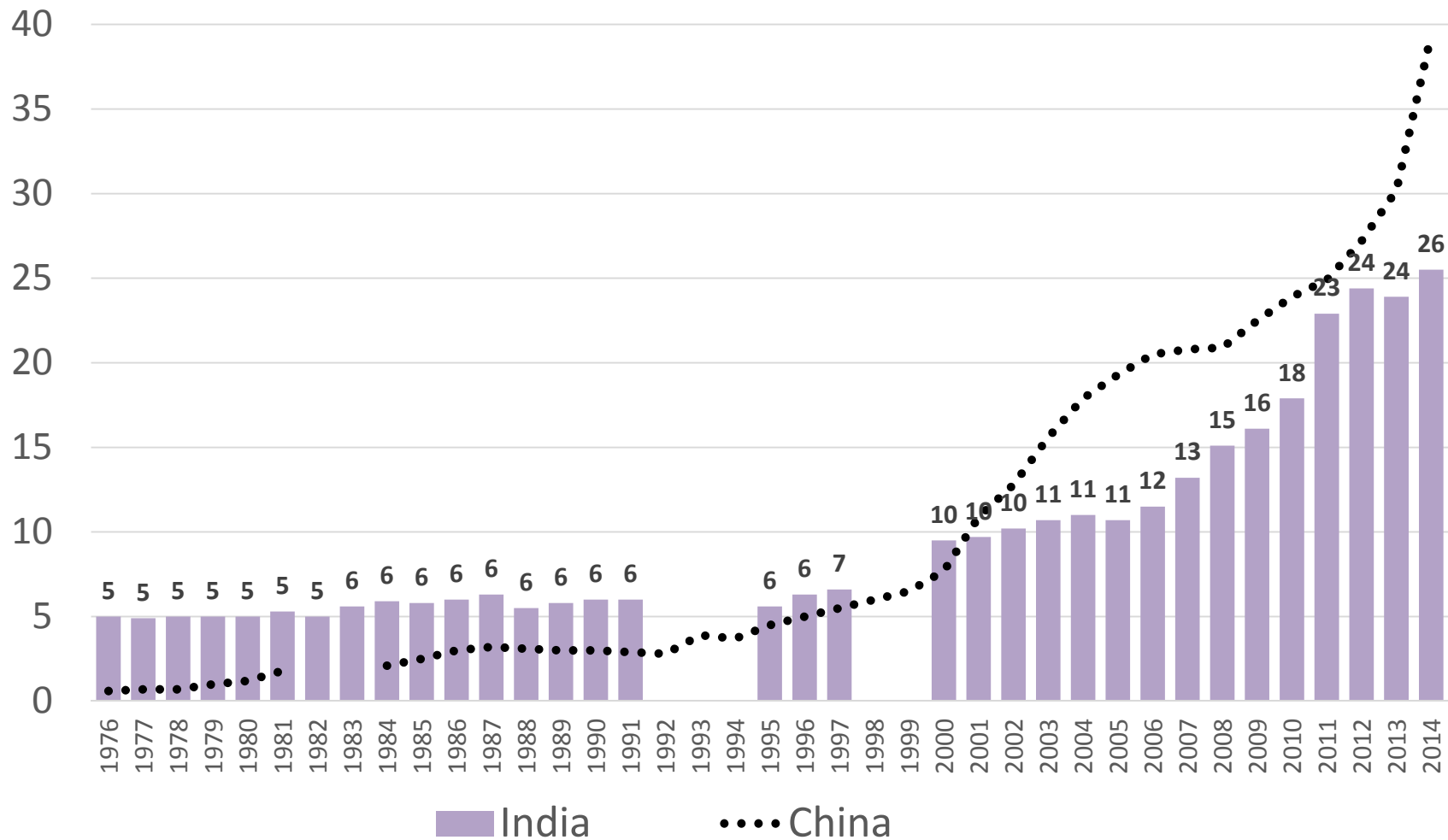




## ***GTER growth in Indonesia, China and India***

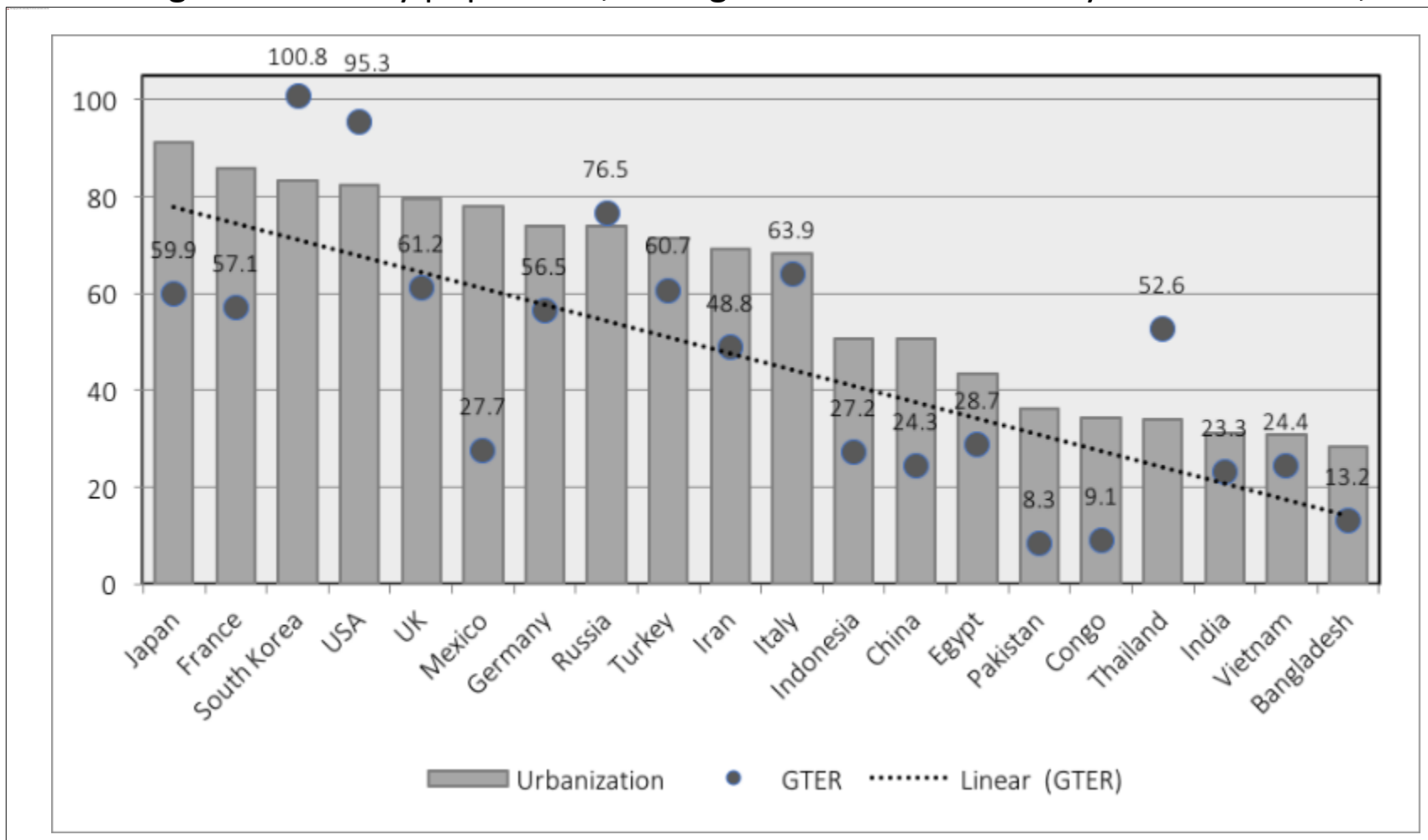
Nation	population	Gross Tertiary Enrolment Ratio in:		
		2014	1972	1992
	millions	%	%	%
Indonesia	252.2	2.8	9.6	31.5
China	1365.7	n.a.	2.9	26.7
India	1247.0	5.0	6.0	24.8

# ***GTER in India and China, 1976-2015***



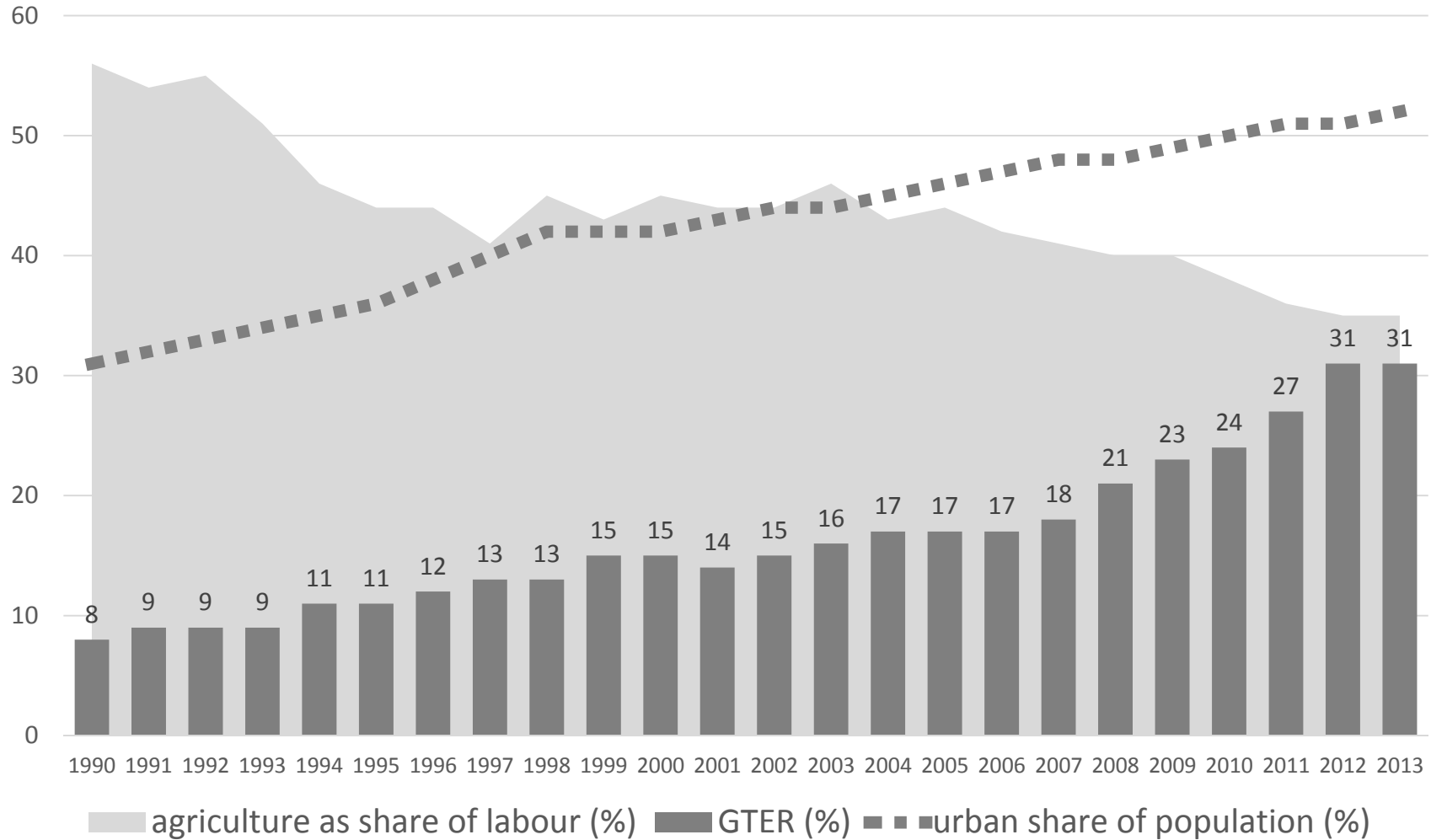
## *Proportion of population living in urban areas (%) and Gross Tertiary Enrolment Ratio (%)*

world's largest nations by population, arranged in order of intensity of urbanization, 2011



Selection of countries was based on 20 largest by population. 2011 GTER data not available for Brazil, Nigeria, Philippines and Ethiopia. Next countries in order of size were Thailand, UK, Italy, South Africa, Myanmar and South Korea. Full data were not available for South Africa and Myanmar

# ***GTER and urbanization in Indonesia 1990-2013***



# ***Configurations of systems and institutions***

1. The rise of the multiversity, the large comprehensive research university, to a more dominant role within national systems, advancing its global capacity, together with growth the size and scope of individual multiversities
2. Overall reduction (with some national exceptions) in the role of semi-horizontal binary sector distinctions and single-purpose institutions
3. Growing internal diversity within the comprehensive multi-purpose institutions
4. Steeper vertical stratification in many national systems

*It is likely that there is an overall decline in diversity in the horizontal sense, with the (relatively peripheral) exception of on-line forms and in some countries, the growing role of for-profit private sectors*

# *Public and private sector enrolments 2012*

country	Proportion of all degree level enrolments	
	PUBLIC %	PRIVATE %
South Korea	25	75
Japan	25	75
United States	70	30
France	83	17
Norway	85	15
Netherlands	88	12
Italy	91	9
Germany	94	6
Sweden	94	6
Australia	95	5
Switzerland	95	5

country	Proportion of all degree level enrolments	
	PUBLIC %	PRIVATE %
Israel	10	90
Chile	25	75
Brazil	31	69
Indonesia	32	68
Mexico	67	33
Poland	70	30
Argentina	79	21
Russia	84	16
Hungary	87	13
Turkey	94	6
Saudi Arabia	95	5

# ***Rapid growth of both research output and enrolment 1995-2011***

UNESCO 2015, United States NSF 2014

<b>System</b>	<b>Annual growth rate of tertiary enrolments</b>	<b>Annual growth rate of science papers</b>
Iran	9.9%	23.5%
China	11.8%	15.4%
Tunisia	8.2%	13.0%
Thailand	4.8%	12.7%
Malaysia	10.5%	11.5%
Turkey	7.7%	10.4%
Singapore	6.7%	9.0%
Brazil	8.8%	8.7%

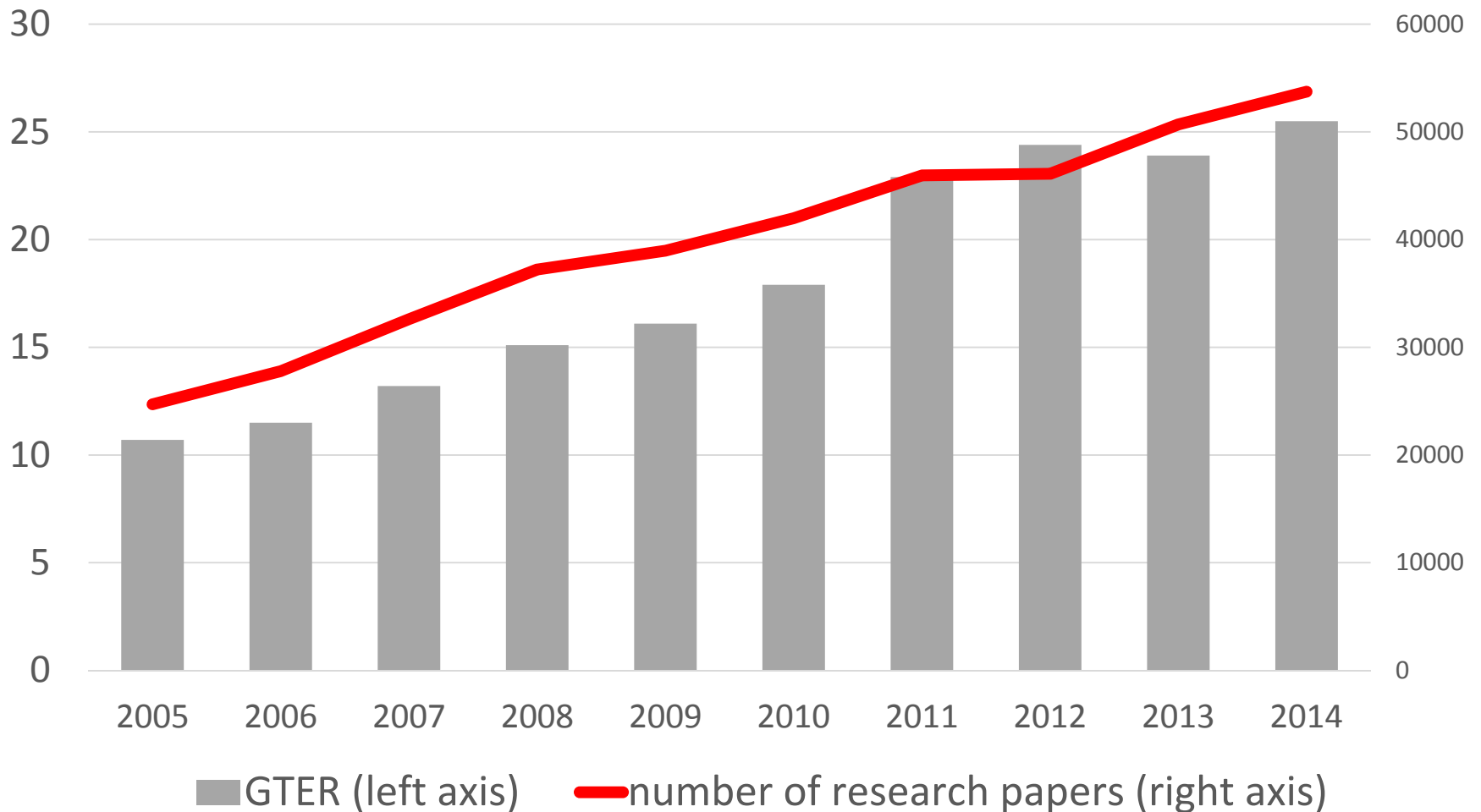
# ***37 systems have a GTER of 50% plus, and at least one top 500 research university in ARWU***

number of WCUs in **bold**

<b>EUROPE</b>	Portugal 65.9%	<b>3</b>	UK 59.8%	<b>37</b>	
Greece 116.6%	<b>2</b>	Sweden 64.9%	<b>11</b>	<b>MIDDLE EAST</b>	
Finland 91.9%	<b>6</b>	Czech Rep. 63.1%	<b>1</b>	Saudi Arabia 51.5%	<b>4</b>
Spain 85.9%	<b>13</b>	Italy 62.5%	<b>20</b>	Israel 66.5%	<b>6</b>
Slovenia 84.4%	<b>1</b>	Germany 60.0%	<b>39</b>	Iran 57.9%	<b>2</b>
Denmark 82.4%	<b>5</b>	France 59.5%	<b>22</b>	<b>ASIA</b>	
Austria 80.5%	<b>6</b>	Switzerland 56.5%	<b>7</b>	South Korea 98.4%	<b>12</b>
Turkey 79.3%	<b>1</b>	Serbia 56.4%	<b>1</b>	Taiwan n.a.	<b>7</b>
Norway 77.9%	<b>3</b>	Hungary 56.1%	<b>2</b>	Hong Kong 66.8%	<b>5</b>
Netherlands 77.4%	<b>12</b>	<b>ANGLO-SPHERE</b>		Japan 61.5%	<b>18</b>
Russia 76.1%	<b>2</b>	Canada n.a.	<b>20</b>	Singapore n.a.	<b>2</b>
Belgium 72.1%	<b>7</b>	USA 89.1%	<b>146</b>	<b>LATIN AMERICA</b>	
Ireland 71.7%	<b>3</b>	Australia 88.5%	<b>20</b>	Argentina 80.3%	<b>1</b>
Poland 71.5%	<b>2</b>	New Zealand 79.0%	<b>2</b>	Chile 78.7%	<b>2</b>



# ***GTER and number of science papers, India 2005-2014***



## ***21 systems have GTER above 50% but no WCUs***

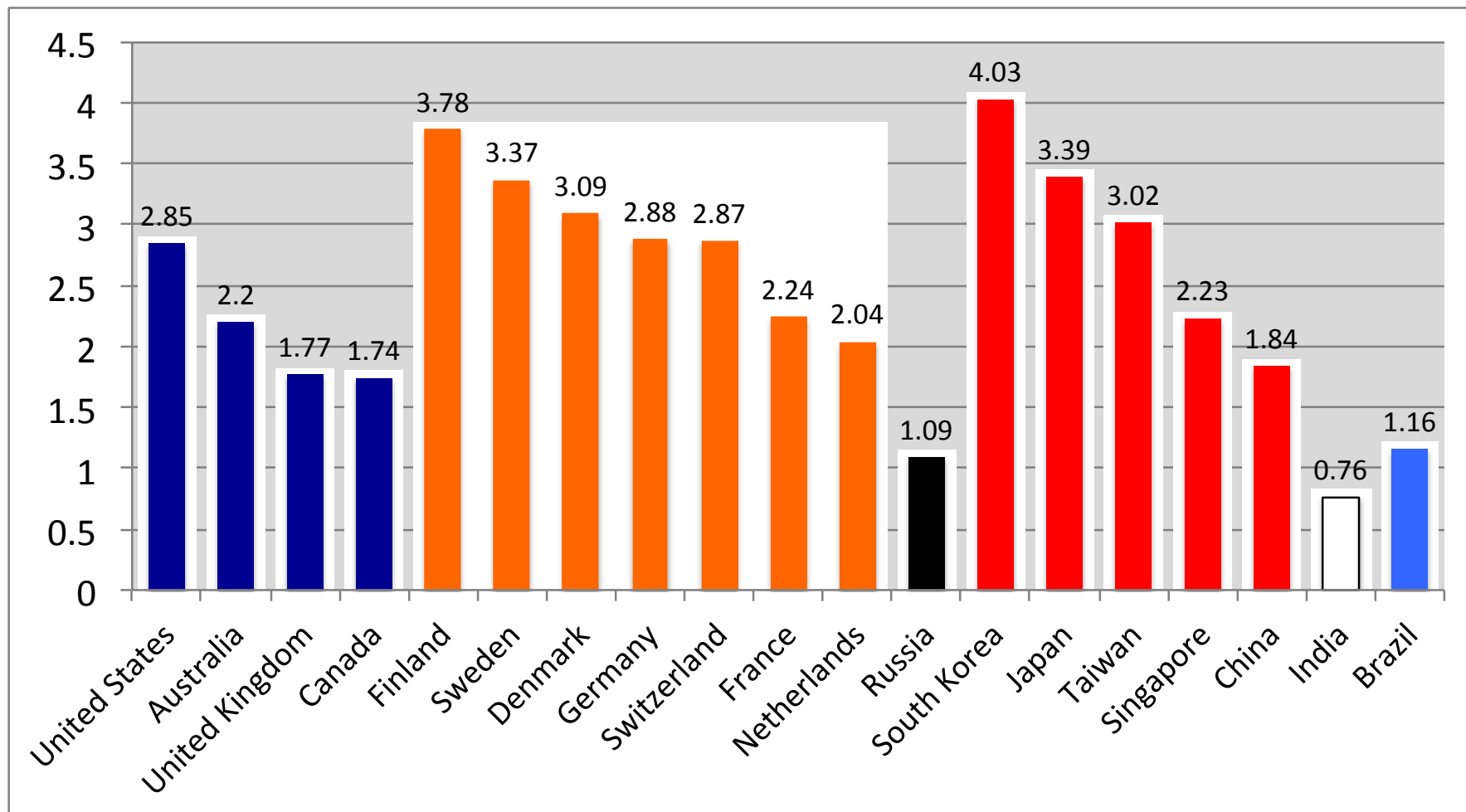
Belarus 92.9%	Italy 62.5%	Macau 62.6%
Iceland 81.4%	Croatia 61.6%	Mongolia 62.3%
Ukraine 79.0%	San Marino 59.8%	Kazakhstan 55.3%
Estonia 78.0%	Albania 58.5%	Thailand 51.2%
Lithuania 70.0%	Slovakia 53.6%	Puerto Rico 85.3%
Bulgaria 66.5%	Romania 51.6%	Cuba 62.5%
Latvia 66.4%	Palau 61.9%	Barbados 60.8%

## ***7 systems have WCUs but GTER is below 50%***

China 29.7% <b>32</b>	Malaysia 37.2% <b>2</b>	India 24.7% <b>1 WCU</b>
Brazil n.a. <b>6</b>	Egypt 32.9% <b>1</b>	
South Africa 19.9% <b>4</b>	Mexico 29.9% <b>1</b>	

# *Investment in R&D, selected countries*

Investment in R&D as a proportion of GDP, 2011, selected countries (OECD data 2013)



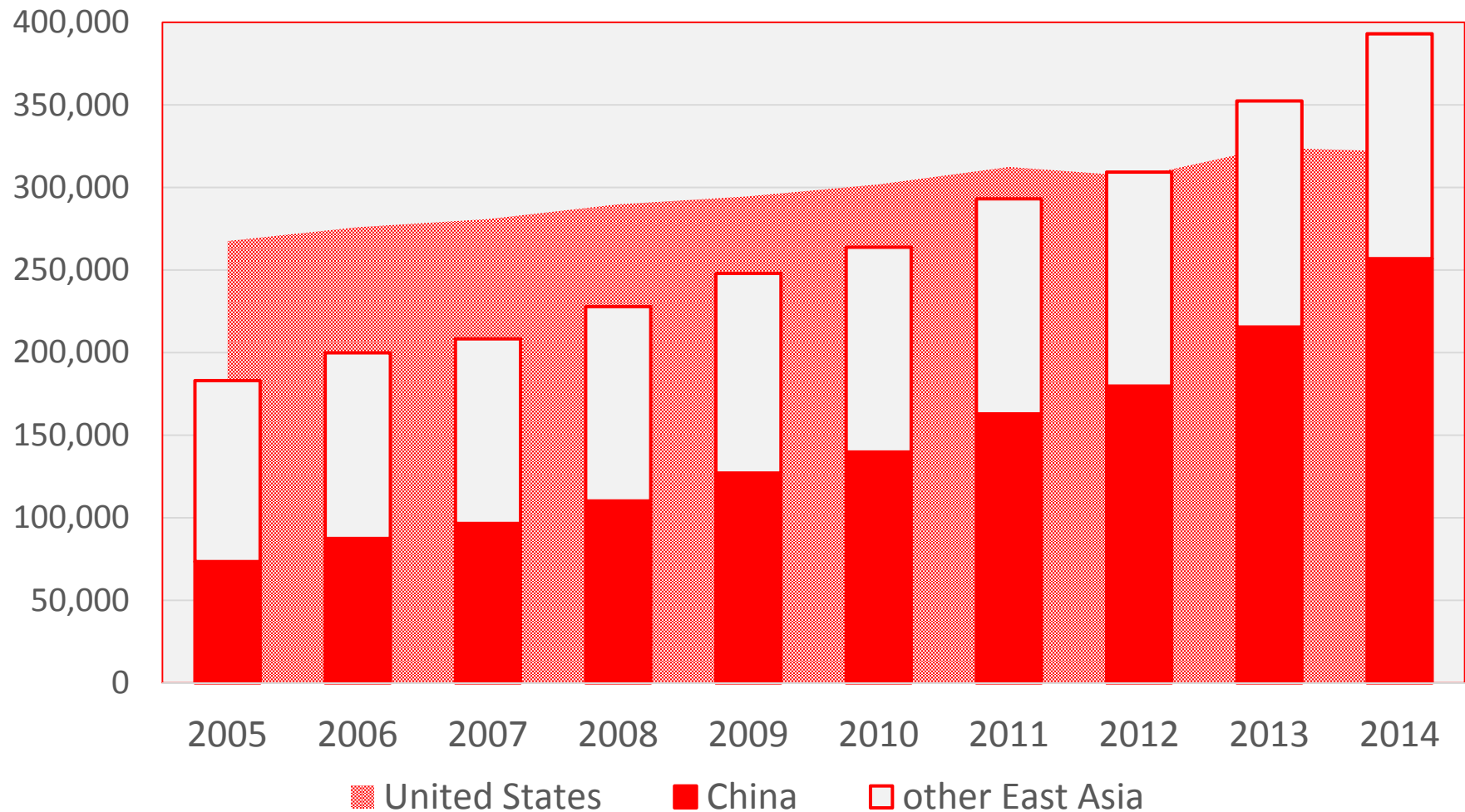
***Universities with more than 10,000, 5000, 2000 and 1200 journal papers, 2006-09 to 2011-14 (Leiden U data)***

<b>Universities publishing over</b>	<b>2006 to 2009</b>	<b>2007 to 2010</b>	<b>2008 to 2011</b>	<b>2009 to 2012</b>	<b>2010 to 2013</b>	<b>2011 to 2014</b>
10,000 papers	25	26	31	34	39	46
5000 papers	122	128	135	143	154	171
2000 papers	381	402	425	452	481	496
1200 papers	594	629	657	682	712	743

# Number of science papers 2005-2014

## USA, China, other East Asia

Thomson-Reuters/UNESCO data. Papers include reviews and notes. Other East Asia = Japan, Korea, Singapore, Vietnam



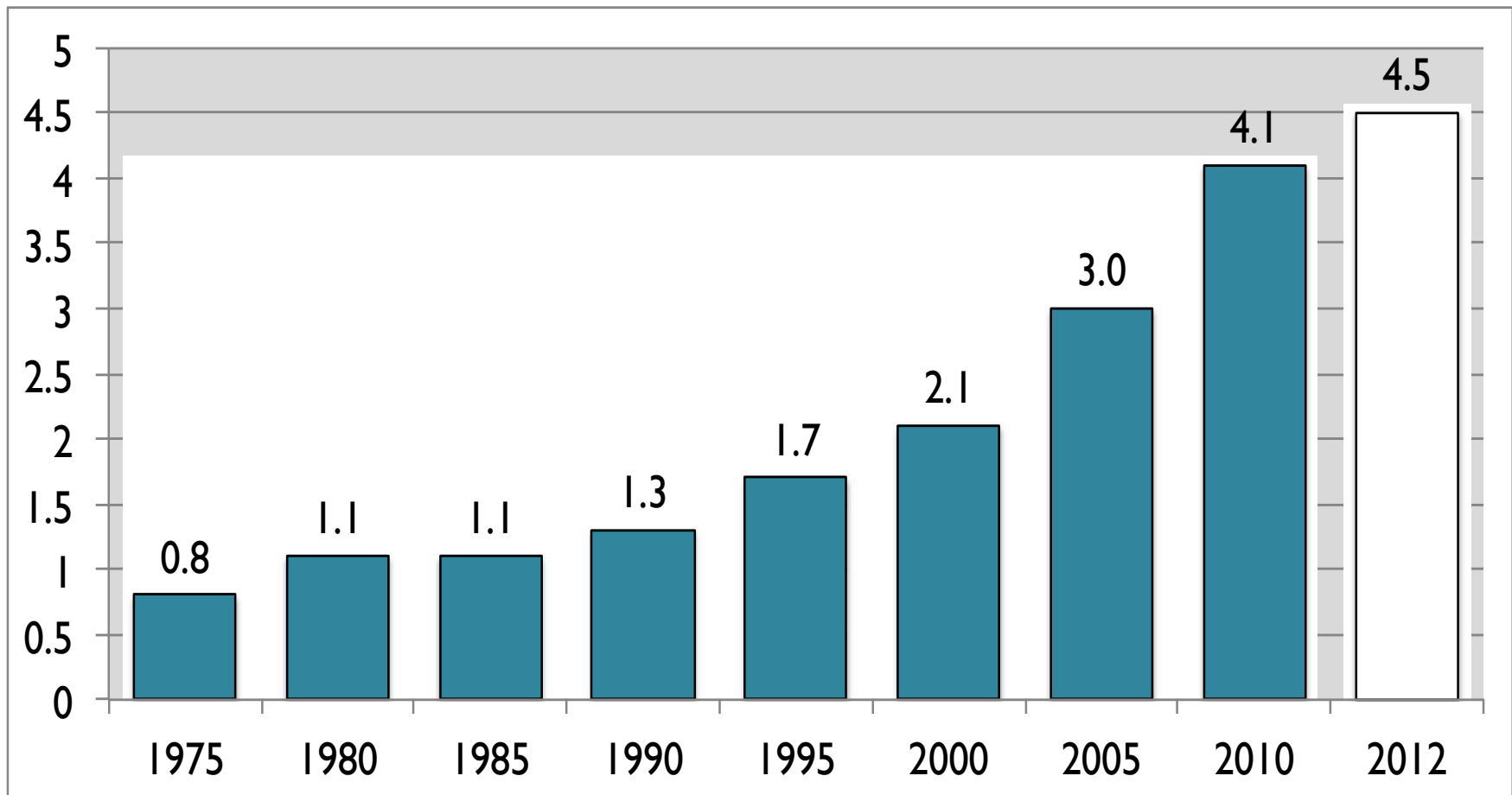
***High citation papers, in top 10% of their research field, in mathematics and physical sciences, 2011-14 (Leiden data)***

World rank	University and system	Mathematics and computing
1	Tsinghua U CHINA	280
2	MIT USA	246
3	Nanyang TU SINGAPORE	243
4	Stanford U USA	215
5	Zhejiang U CHINA	205
6	UC Berkeley USA	201
7	Huazhong UST CHINA	198
8	U Texas Austin USA	193
9	National U SINGAPORE	187
10	City U HONG KONG SAR	180
11	Harbin IT CHINA	180
12	U Michigan USA	169
13	Xidian U CHINA	168
14	Shanghai JT CHINA	164
15	ETH Zurich SWITZERLAND	164

World rank	University and system	Physical sciences and engineering
1	UC Berkeley USA	1215
2	MIT USA	1164
3	Stanford U USA	936
4	Tsinghua U CHINA	894
5	Harvard U USA	834
6	Nanyang TU SINGAPORE	797
7	U Cambridge UK	764
8	Zhejiang U CHINA	732
9	National U SINGAPORE	670
10	U Tokyo JAPAN	664
11	U Science & Tech. CHINA	633
12	U Michigan USA	627
13	ETH Zurich SWITZERLAND	626
14	Caltech USA	613
15	Peking U CHINA	579

# *Students enrolled outside their country of citizenship, millions, 1975-2012*

OECD data, 2014







# EUROPE

Support your Local  
Continent.

Vote

# YES





# ***Brexit and educational level***

	<b>LEAVE</b>	<b>REMAIN</b>
Total (same for men and women)	52	48
<b>EXIT POLLS</b>		
18-24 years	27	73
Higher degree	36	64
First degree	43	57
Secondary education	64	36
Primary education	72	28
<b>KINGS COLLEGE LONDON STUDY</b>		
Degree holders	26	74
No qualifications	78	22

# ***US Presidential election and education***

- *The 50 counties in the US with the highest level of college education:* diverse by state, income, ethnic composition and other respects. In 48 of these counties Clinton improved on Obama's 2012 vote by an average of 9 percentage points. These districts included many counties with high proportions of white voters
- *The 50 least educated counties in the US:* Clinton's vote collapsed here, compared to Obama in 2013; she lost ground in 47 of the 50 counties, with an average slide of 11 percentage points. Again this set of counties were fairly varied among themselves except for the education factor
- Trump received 72% of the white non-college male vote and 62% of the white non-college female vote. Among white women voters there was a majority for Clinton only among the college educated.
- Clinton's problem was that two thirds of Americans are white, while only 35 per cent of Americans have achieved a college degree