

Globalization, Sport and the Olympic Games

Marcus Noland

Executive Vice President & Director of Studies

The Peterson Institute for International Economics
December 2015

Raw Materials

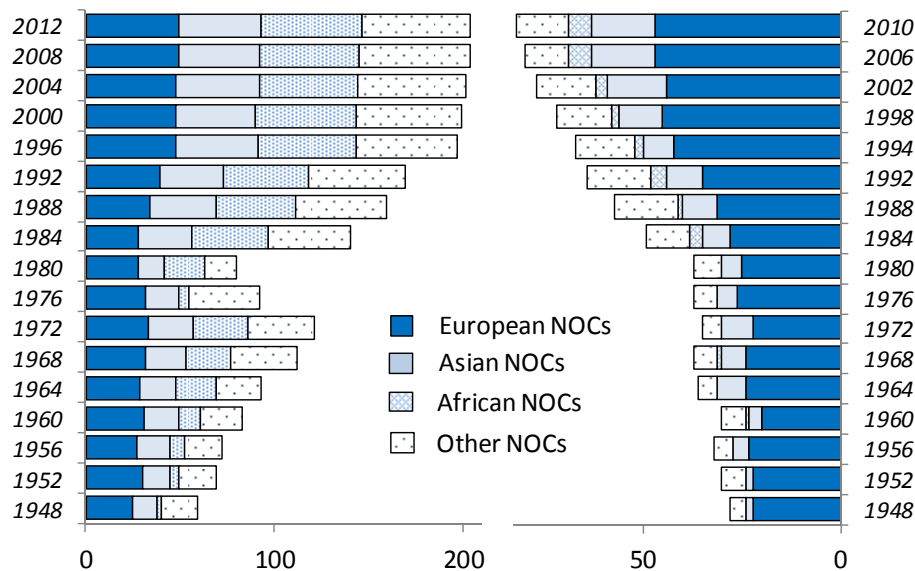
- Presentation based on four papers:
- Marcus Noland and Kevin Stahler, “What Goes Into a Medal: Women’s Inclusion and Success at the Olympic Games,” *Social Science Quarterly*, 2015.
- Marcus Noland and Kevin Stahler, “An Old Boys Club No More: Pluralism in Participation and Performance at the Olympic Games,” *Journal of Sports Economics*, 2015.
- Marcus Noland and Kevin Stahler, “Asian Participation and Performance at the Olympic Games” *Asian Economic Policy Review*, forthcoming 2016.
- Marcus Noland, “A Note on Russian Doping,” unpublished manuscript.

Growing pluralism at the Olympic Games

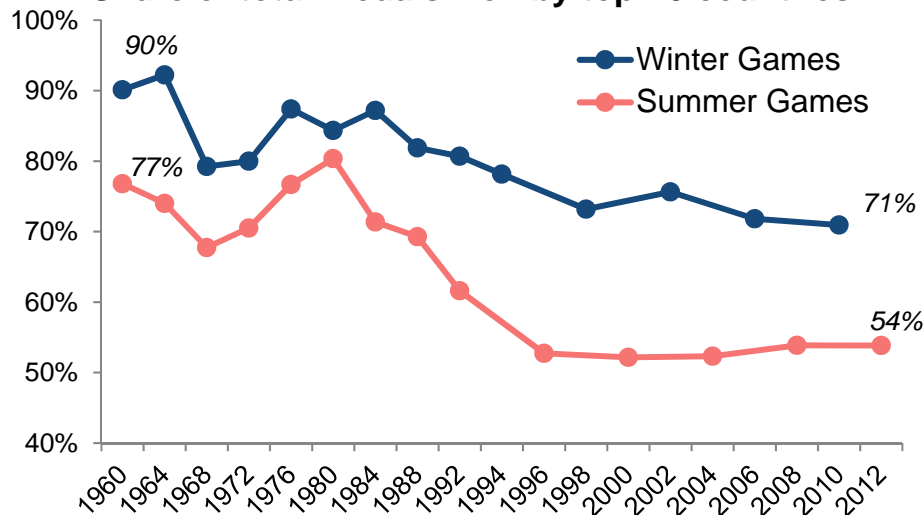
Number National Olympic Committee participation at the Olympics

Summer Games (1948 - 2012)

Winter Games (1948 - 2010)



Share of total medals won by top-10 countries

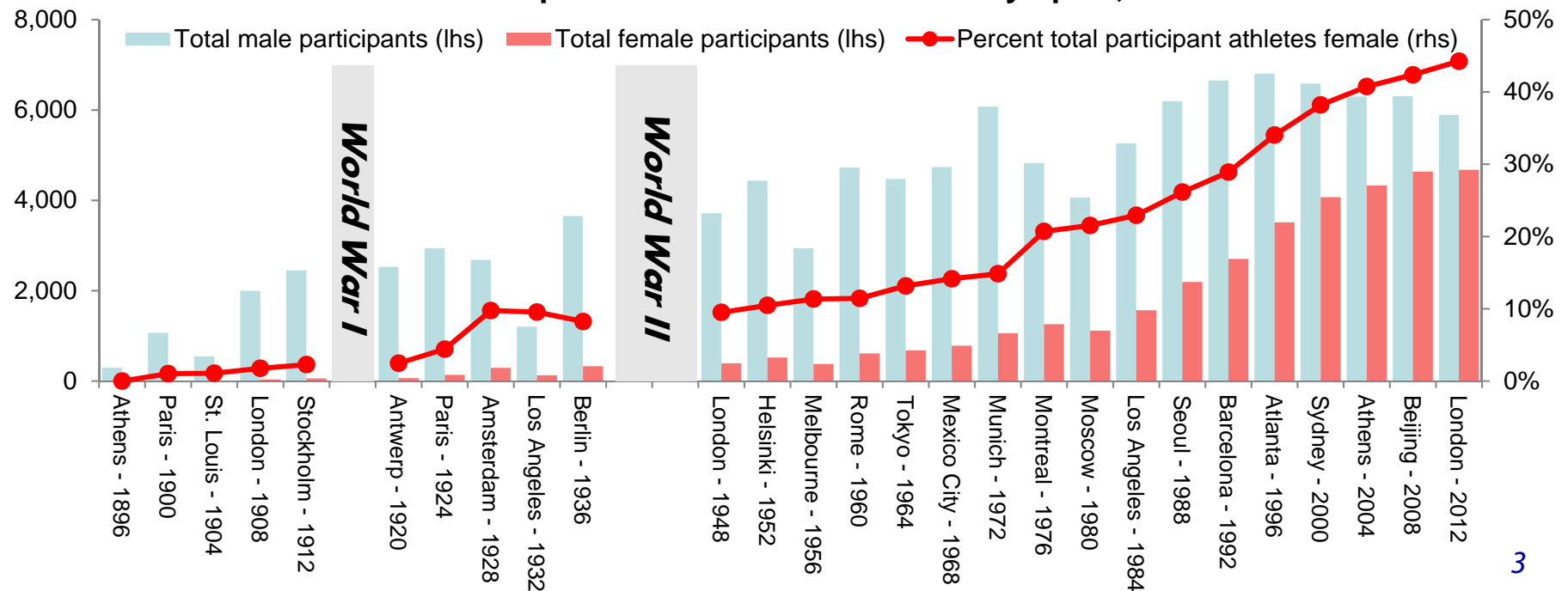


- Pluralism in participation and medaling has grown over time
- Correlates with medaling have changed in a sports-specific manner over time: low entry barrier events (e.g. athletics, boxing) increasingly pluralistic, high entry barrier events (aquatics, equestrian) not
- Host advantage evident, particularly in judged events

Gender an important component of the story

- Roughly half the competitors in both Summer and Winter Games now female
- Participation and medaling correlated with socio-economic status of women, societal attitudes
- Historical record with respect to performance utterly distorted by East German doping program: at its peak, the program accounted for 17 percent of medals, equal to the total haul of the US or USSR teams at the 1972 Games

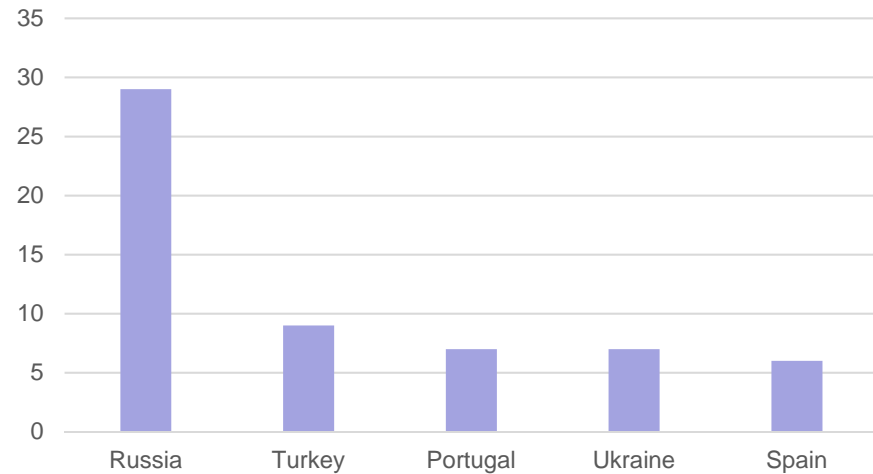
Female athletic representation at the Summer Olympics, 1896 - 2012



An aside on Russian doping

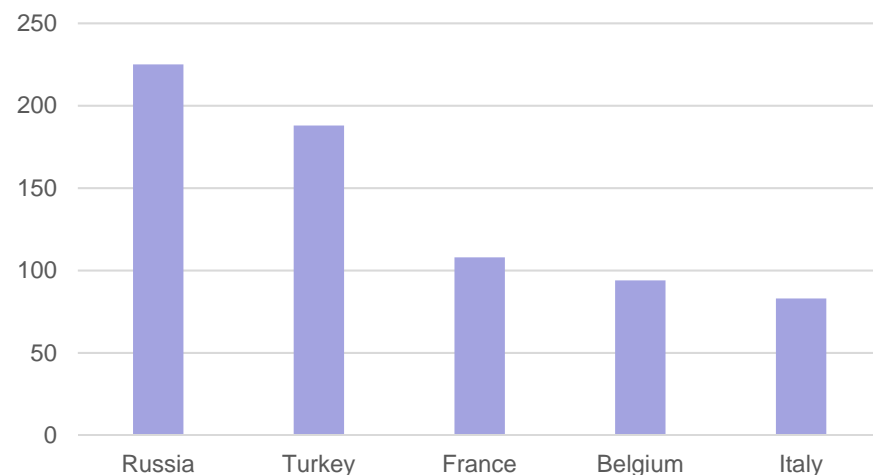
- Russian athletics subject of investigative report by WADA
- WADA data document Russian doping
- Multivariate analysis establishes
 - Russian outperformance at 2012 London Games
 - Cross-country correlation between doping and performance
 - Russian event-specific outperformance correlated with doping, including events outside athletics (e.g. weightlifting and wrestling)
 - Quantitative impact much smaller than East Germany

Positive ABP Results (since 2010), Top 5 Countries



Source: WADA Independent Commission Report

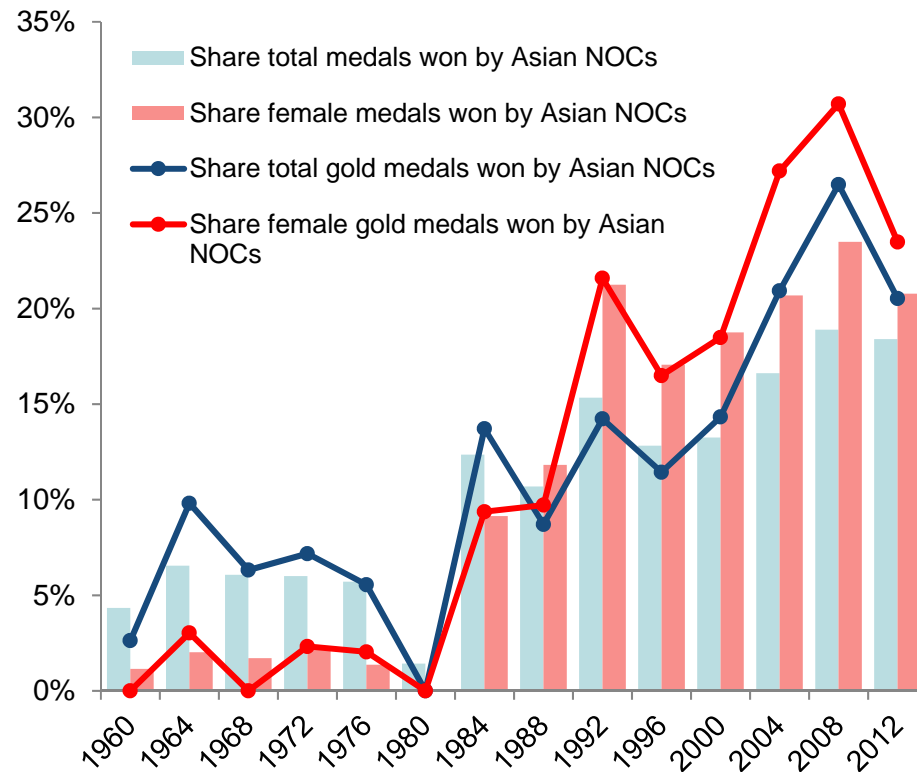
Total ADRVs (2013), Top 5 Countries



Source: WADA, 2013 Anti-Doping Rules Violations (ADRVs) Report Table 9

The rise of Asia

Share of all available medals won by Asian countries



- Asian participation and performance have mirrored the broad patterns of development over the past century
- 2018 and 2020 Games in Asia
- Medaling dominated by China, Japan, and South Korea
- Women outperform, particularly in the case of China, which has targeted women's competitions
- Particular success in culturally-connected events (e.g. table tennis, taekwondo), some weight-stratified events (weightlifting) but not others (boxing)

He who tells the future lies—Arab proverb (Not updated for Russian doping)

Forecasted Rankings for Asian Countries at Rio De Janeiro 2016

Forecasted Medal Shares for Asian Countries at Rio De Janeiro 2016

Country	Actual Rank at London 2012 (out of 72)	Country	Predicted Rank at Rio de Janeiro 2016 (out of 64)
Top 15NOCs			
United States	1	United States	1
PR China	2	PR China	2
Russian Federation	3	Russian Federation	3
Great Britain	4	Great Britain	5
Germany	5	Germany	4
Japan	6	Japan	6
Australia	7	France	7
France	8	Australia	8
Republic of Korea	9	Brazil	9
Italy	9	Republic of Korea	10
Netherlands	11	Italy	11
Ukraine	11	Canada	12
Canada	13	Netherlands	13
Hungary	13	Ukraine	14
Brazil / Spain	15	Spain	15
Other Asian Countries That Medal			
Mongolia	32	Chinese Taipei	39
Thailand	42	Vietnam	43
Malaysia	47	Thailand	45
Chinese Taipei	47	Malaysia	48
Singapore	47	Indonesia	51
Indonesia	47	Hong Kong	59
Hong Kong	58		

Country	NOC Share of Total Medals Available (%)		Absolute Percent Change Medals Won	Absolute Total Change Medals Won
	London 2012 Actual	Rio 2016 (Model-weighted forecast)		
Cambodia	0	0	0	0
China	9.1	9.37	0.22	2
Hong Kong	0.1	0.06	-0.04	0
Indonesia	0.2	0.13	-0.08	-1
Japan	4.0	4.29	0.34	3
Laos	0.0	0	0	0
Malaysia	0.2	0.17	-0.04	0
Mongolia	0.5	0.00	-0.52	-5
Myanmar	0	0	0	0
Nepal	0	0	0	0
Philippines	0	0	0	0
Singapore	0.2	0	-0.21	-2
Republic of Korea	2.9	3.28	0.37	4
Taiwan	0.2	0.41	0.20	2
Thailand	0.3	0.25	-0.06	-1
Vietnam	0	0.29	0.29	3

Notes: [Left] Both actual and predicted rankings reflect sample of countries where all necessary control data is available, and do not necessarily reflect rankings of full selection of NOCs. Laos, Philippines, Myanmar, Nepal, and Cambodia excluded as they neither medal in 2012 nor are forecasted to medal in 2016. Vietnam did not medal in 2012. [Right] We hold the 962 available medals awarded at the 2012 London Games constant for 2016, though in practice total medals available will likely differ due to added/dropped events, ties, and other factors.