

# Son preferences in Central Asia: possible factors and cohort differences

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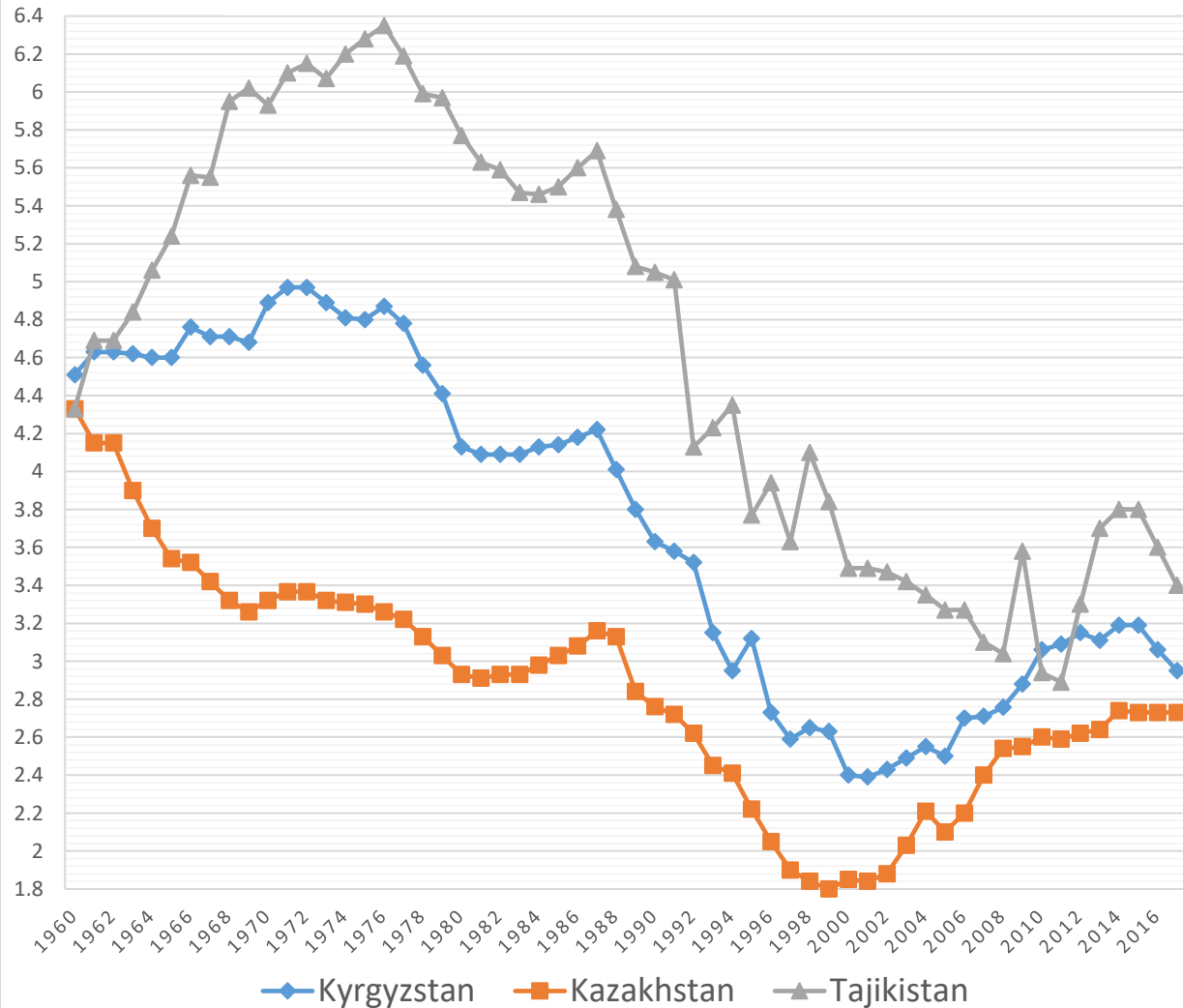
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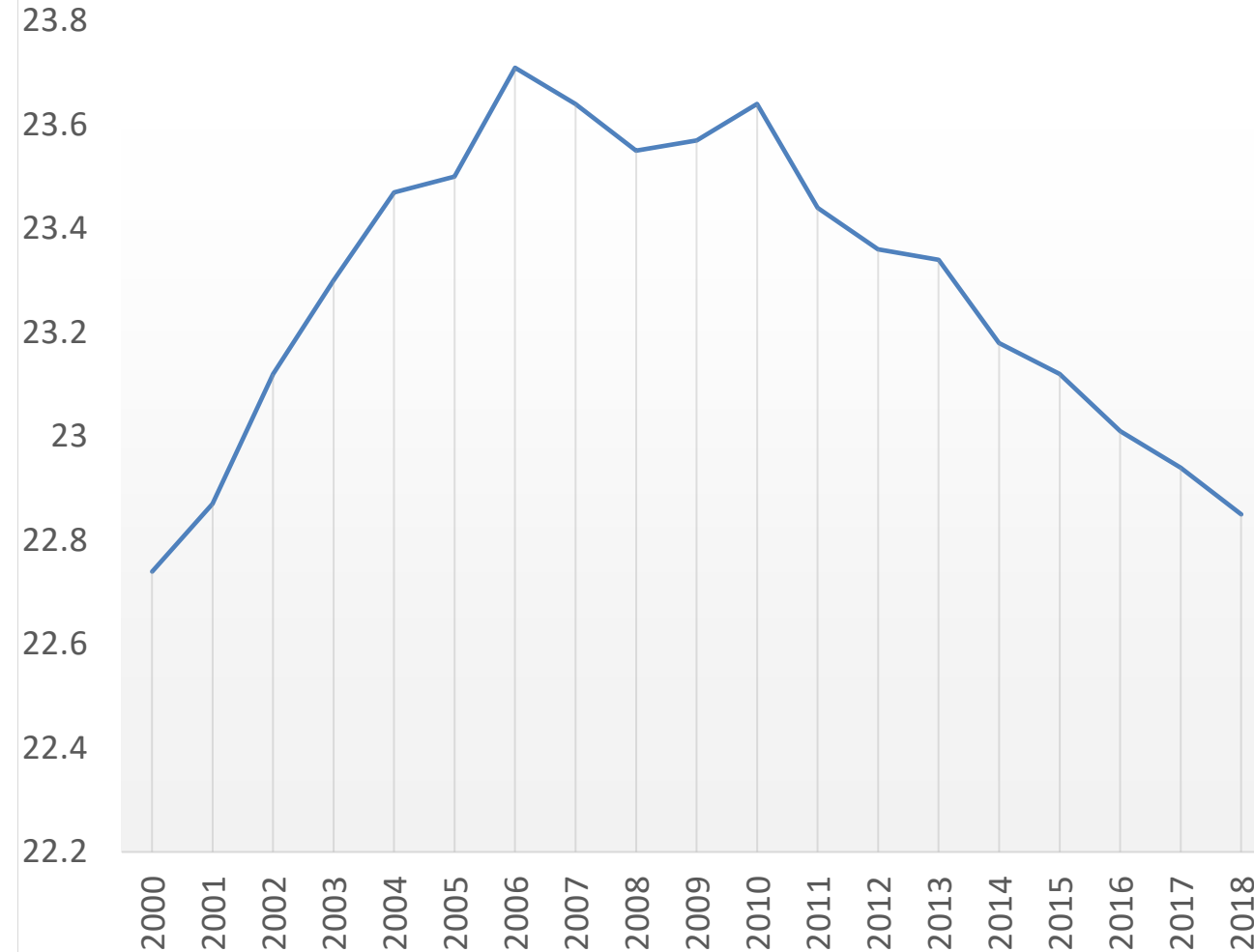
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# Post-Soviet countries and demographic transition

## TFR



## MAB 1, Kyrgyzstan





# Son preference: two paths of reproductive behavior

- Sex-selective abortions (South East Asia – Chung, Das Gupta 2007, Murphy et. Al. 2011; Albania – Grogan 2018; Transcaucasia – Guilmoto 2009);
- Higher propensity to transition to the next child if no or boys or “too little” boys were born before (Egypt – Yount et al. 2000; Pakistan – Channon 2017).



# Central Asia: son preference governing parity progressions

- Spoorenberg, 2018: intentions to have one more child among women in post-Soviet CA countries are negatively related to proportion of sons among children already born;
- Kazenin, 2021: propensity to transition to 3<sup>rd</sup> and 4<sup>th</sup> children in Kyrgyzstan is higher when all children already born are girls.

# Hypotheses on son preference in Kyrgyzstan

- **Son preference is more articulated in families with more strict gender asymmetries;** cf. similar results for India (Pande, Astone 2007), Nepal (Brunson 2010), South Korea (Kim 2004).
- **Son preference becomes weaker from elder to younger cohorts;** supported by evidence for gradual growth of women empowerment in Kyrgyzstan, partly caused by labor migration conditions (Thieme 2008, Ismailbekova 2016).

# Data and method

- Data: Kyrgyzstan DHS 1997, 2012; Kyrgyzstan MICS 2014, 2018;
- Method: Proportional hazard models (Cox regressions) for transition to different parities, with sex composition of children already born as an independent parameter:
  - for the whole sample of women;
  - for sub-samples differing on some parameters of gender relations within families;
  - for different cohorts.

# Independent variables

Parameters of gender relations:

- Age gap between spouses (binary parameter: higher vs. not higher than average);
- Educational gap between spouses (binary parameter: 1 – husband's education higher; 0 – otherwise);
- Patrilocal residence;
- Woman accepting domestic violence (at least under certain conditions; composed from several DHS/MICS parameters).

Controls: women's education, year of birth, wealth quintile, native language



# Transitions to the next child (HR): all women DHS2012, weighted sample

Transition to parity:	Second	Third	Fourth	Fifth
Number of boys already born				
0	1	1	1	1
1	0.878***	0.616***	0.595***	0.446***
	(0.033)	(0.047)	(0.075)	(0.125)
2		0.656***	0.475***	0.300***
		(0.056)	(0.077)	(0.127)
3			0.463***	0.429***
			(0.104)	(0.137)
4				0.400***
				(0.217)
Controls	+	+	+	+
N	4,416	3,628	2,493	1,470



# Transition to the 3<sup>rd</sup> and 4<sup>th</sup> children among women differing on parameters or gender relations (HR); DHS 2012; unweighted sub-samples

Transition to the third child								
	Patrilocal residence		Husband's education higher		Age gap higher than average		Accepting domestic violence	
Number of boys	Yes	No	Yes	No	Yes	No	Yes	No
0	1	1	1	1	1	1	1	1
1	0.588***	0.617***	0.529***	0.632***	0.631***	0.609***	0.611***	0.601***
2	0.697**	0.644***	0.529***	0.679***	0.653***	0.657***	0.638***	0.675***
Controls	+	+	+	+	+	+	+	+
N	804	2,788	437	3,183	1,248	2,361	1,697	1,920
Transition to the fourth child								
	Patrilocal residence		Husband's education higher		Age gap higher than average		Accepting domestic violence	
Number of boys	Yes	No	Yes	No	Yes	No	Yes	No
0	1	1	1	1	1	1	1	1
1	0.825	0.571***	0.483***	0.613***	0.655**	0.552***	0.586***	0.606***
2	0.556**	0.470***	0.433***	0.482***	0.467***	0.475***	0.498***	0.455***
3	0.614*	0.452***	0.246***	0.505***	0.369***	0.508***	0.485***	0.442***
Controls	+	+	+	+	+	+	+	+
N	421	2,055	324	2,165	831	1,655	1,228	1,264



# Transition to the 3<sup>rd</sup> child for women of different birth cohorts (HR); DHS1997, 2012; MICS 2014, 2018

Birth cohort	DHS1997		DHS2012		MICS2014		MICS2018	
1955-64	0	1						
	1	0,670***						
	2	0,827						
	N=708							
1965-74	0	1	0	1	0	1		
	1	0,665***	1	0,604***	1	0,540***		
	2	0,696**	2	0,693***	2	0,639***		
	N=549		N=1322		N=1086			
1975-84			0	1	0	1	0	1
			1	0,662***	1	0,696***	1	0,729***
			2	0,636***	2	0,669***	2	0,664***
			N=1431		N=1388		N=1115	
1985-94							0	1
							1	0,670***
							2	0,707**
							N=1165	



# Transition to the 4th child for women of different birth cohorts (HR); DHS1997, 2012; MICS 2014, 2018

Birth cohort	DHS1997		DHS2012		MICS2014		MICS2018	
1955-64	0	1						
	1	0,835						
	2	0,691**						
	3	0,697**						
	N=574							
1965-74	0	1	0	1	0	1		
	1	0,490**	1	0,513***	1	0,499***		
	2	0,316**	2	0,487***	2	0,436***		
	3	0,725	3	0,513***	3	0,514***		
	N=261		N=1135		N=928			
1975-84			0	1	0	1	0	1
			1	0,652**	1	0,551***	1	0,530***
			2	0,463***	2	0,539***	2	0,468***
			3	0,393***	3	0,523***	3	0,527***
			N=1008		N=1051		N=925	
1985-94							0	1
							1	0,464***
							2	0,288***

# Results

- Higher propensity to parity transitions among women having no boys was confirmed;
- No significant differences in son preference among women with different ideas of gender relations parameters (cf. similar results for Pakistan – Javed & Mughal 2020);
- No decline of son preference from elder to younger cohorts.

# Discussion

Possible explanation of the stability of son preference across birth cohorts and across families with different gender relations:

- Persistence of certain gender contrasts at the societal level, which families have to respect independently upon family-internal gender relations (patrilineal inheritance; marriage rites, including dowries; participance of wives in housework in the in-laws' household; cf. a similar account in Brunson (2010) for Nepal);
- Lower propensity to contraceptive use among families with strict gender asymmetries (Kazenin 2021).

**Thank you for your attention!**

# References

- Channon, M.D. (2017) Son preference and family limitation in Pakistan: a parity- and contraceptive method-specific analysis. *International Perspectives on Sexual and Reproductive Health*, 43(3), 99-110. <https://doi.org/10.1363/43e4317>
- Chung, W., & Das Gupta, M. (2007). The decline of son preference in South Korea: The roles of development and public policy. *Population and Development Review*, 33(4), 757-783. <https://doi.org/10.1111/j.1728-4457.2007.00196.x>
- Grogan, L. (2018). Strategic fertility behaviour, early childhood human capital investments, and gender roles in Albania. *IZA Institute for Labour Economics Discussion Paper Series*, 11937, November 2018.
- Guilmoto, Ch.Z. (2009). The Sex Ratio Transition in Asia. *Population and Development Review*, 35(3), 519-549. [doi.org/10.1111/j.1728-4457.2009.00295.x](https://doi.org/10.1111/j.1728-4457.2009.00295.x)
- Ismailbekova, A. (2016). Constructing the authority of women through custom: Bulak village, Kyrgyzstan. *Nationalities Papers*, 44(2), 266-280. <https://doi.org/10.1080/00905992.2015.1081381>
- Javed, M., & Mughal, M. (2020). Preference for Boys and Length of Birth Intervals in Pakistan. 2020. <https://doi.org/10.1080/00905992.2015.1081381>
- Kazenin, K. (2021). Son Preference, Gender Asymmetries and Parity Progressions: the Case of Kyrgyzstan. To appear in: *Asian Population Studies*.
- Kim, D.-S. (2004). Missing Girls in South Korea: Trends, Levels and Regional Variations. *Population (English Edition, 2002)*, 59(6), 865-878.
- Murphy, R., Tao, R., & Lu, X. (2011). Son Preference in Rural China: Patrilineal Families and Socioeconomic Change. *Population and Development Review*, 37(4), 665-690. <https://doi.org/10.1111/j.1728-4457.2011.00452.x>
- Pande, P.R., & Astone, M.R. (2007). Explaining son preference in rural India: the independent role of structural versus individual factors. *Population Research and Policy Review*, 26, 1-29. <https://doi.org/10.1007/s11113-006-9017-2>
- Spoorenberg, T. (2018). Fertility preferences in Central Asia. Gietel-Basten, S., Casterline, J., & Choe, M.K. (eds.) *Family demography in Asia: a comparative analysis of fertility preferences*. Edward Elgar. P. 88-108.
- Thieme, S. (2008). Living in transition; how Kyrgyz women juggle their different roles in a multi-local setting. *Gender, Technology and Development*, 12(3), 325-345. <https://doi.org/10.1177/097185240901200303>
- Yount, K.M., Langsten, R., & Hill, K. (2000). The Effect of Gender Preference on Contraceptive Use and Fertility in Rural Egypt. *Studies in Family Planning*, 31(4), 290-300. <https://doi.org/10.1111/j.1728-4465.2000.00290.x>