Inequality and Stability in Democratic and Decentralized Indonesia

Mohammad Zulfan Tadjoeddin, Athia Yumna, Sarah E. Gultom, M. Fajar Rakhmadi, M. Firman Hidayat & Asep Suryahadi

University of Western Sydney (Australia) & SMERU Research Institute (Indonesia)

Paper for UNU-WIDER Conference on 'Inequality – measurement, trends, impacts, and policies' Helsinki, 5-6 September 2014

Outline

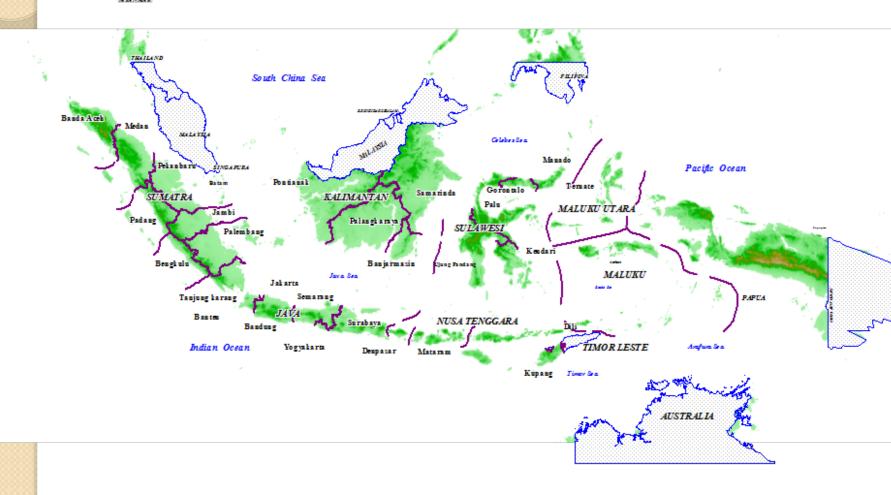
- Background
- 2) Societal stability
- 3) Inequality and violent conflict
- 4) Empirical strategy
- 5) Results
- 6) Conclusion

Indonesia



250 mil. people (33 provinces – 497 districts)

MEANMAR



(I) Background

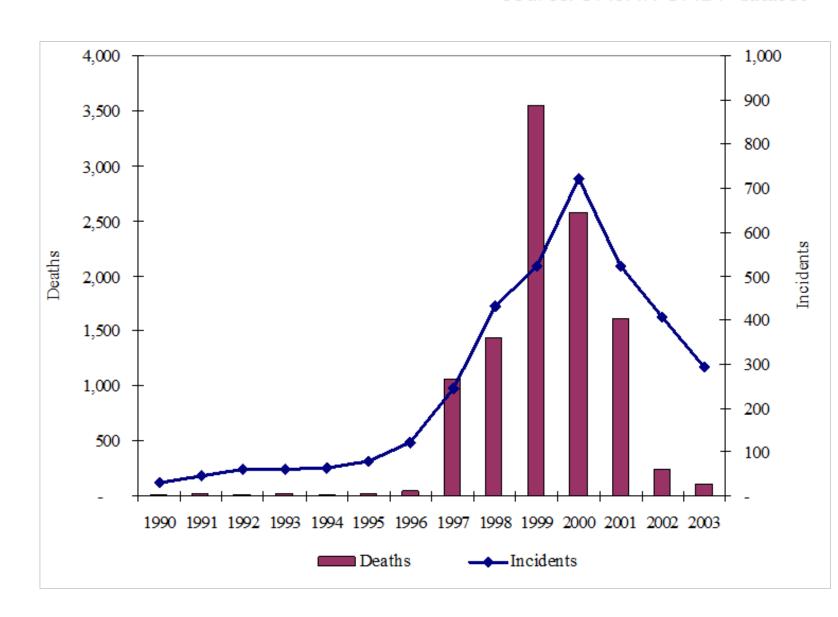
- Rising inequality in democratic & decentralized Indonesia
- The need to differentiate between tackling inequality and poverty reduction
- Two effects of inequality: (a) on economic performance, (b) on societal stability
- The democratic transition was a successful one, but it was de-stabilising

(2) Societal stability

- Highly important in a large and diverse country like Indonesia
- Collective violence during the democratic transition & decentralization reform (1998-2003)
 - Separatist violence
 - Ethnic violence
 - Routine-everyday violence (small scale, sporadic)
- This study concerns collective violence during 2005-2012 in regions previously considered as high conflict.
 - When the de-stabilizing effect of democratic transition has largely disappeared

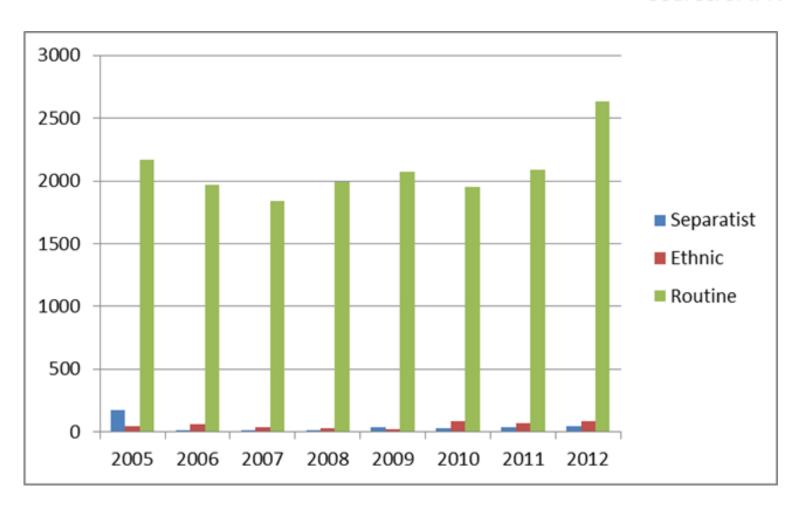
Collective violence 1990-2003

Source: UNSFIR-UNDP dataset



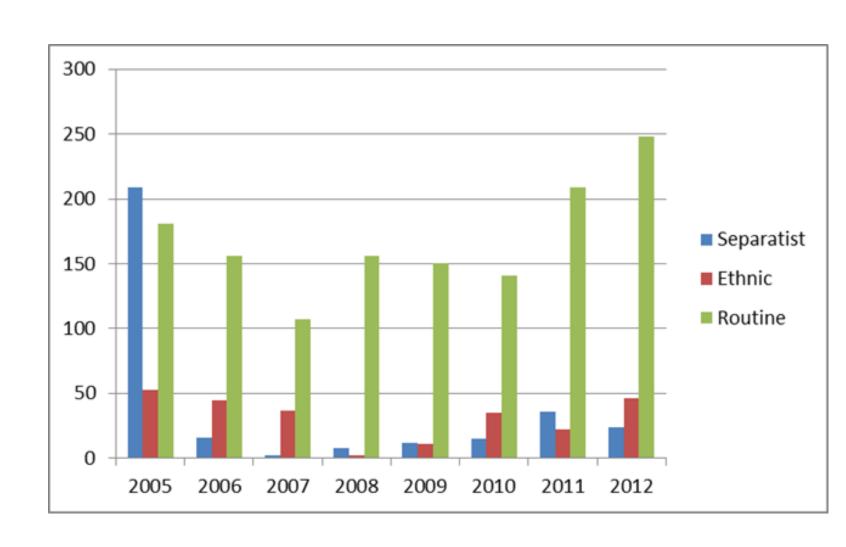
Incidents of collective violence, 2005-12

Source: SNPK



Deaths of collective violence, 2005-12

Source: SNPK



(3) Inequality and violent conflict

- Matching the correct categories
- Two types of Inequality:
 - i. vertical
 - ii. horizontal
- Two types of violent conflict
 - Large scale 'episodic' violence such as civil war & ethnic conflict
 - ii. Small scale 'routine' violence

(3) Inequality and violent conflict

- An age old concern
- The role of (vertical) inequality in civil war was largely dismissed the (Fearon-Laitin 2003; Collier-Hoeffler 2004)
- What matter is Horizontal inequality (Stewart, 2000, 2008 & Cederman, Gleditsch and Buhaug, 2013)
- But, what about vertical inequality?
 - Vertical inequality and (small scale and sporadic) 'routine' violence

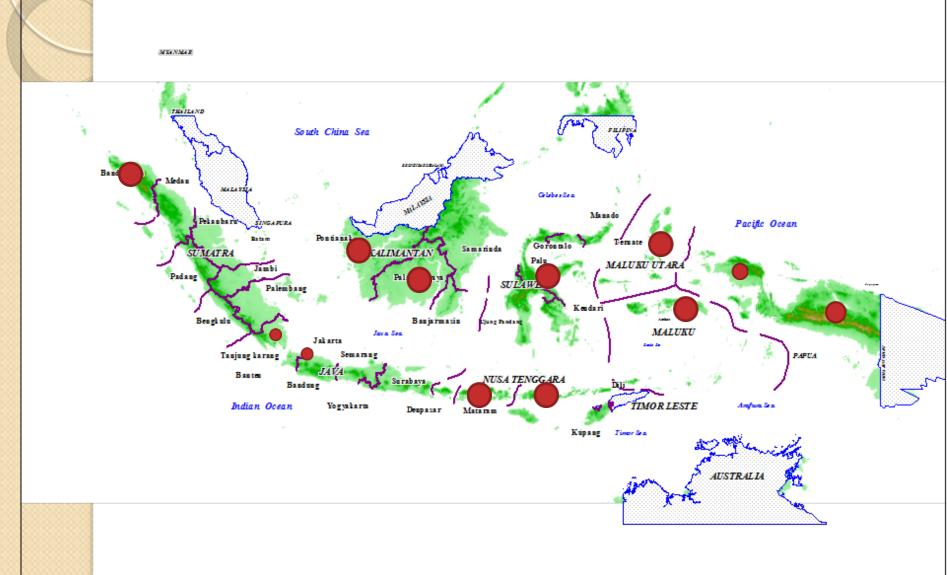
(4) Empirical strategy

Model

Violence = inequality + others

- Coverage
 - Across district observation during 2005-12 (in 12 provinces previously considered as 'high' conflict areas)
- Data
 - SNPK (Indonesian National Violence Monitoring System)
 - Available at: <u>www.snpk-indonesia.com</u>
 - Developed by the World Bank, based on the UNDP-UNSFIR dataset

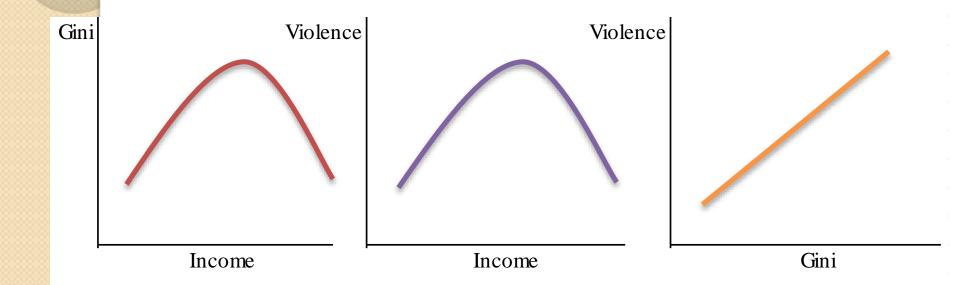
250 mil. people (33 provinces – 497 districts)



(5) Results: Routine violence

- Large and significant effect of vertical inequality on routine violence
- The effect has considered the Kuznetstype relationship between inequality (Gini) and income
- The inverted-U relationship between income and violence is confirmed

Inequality, income, violence



A: Kuznets (1955)

B: Tadjoeddin & Murshed (2007)

C: Tadjoeddin et al. (2012)

Vertical Inequality and routine violence (negative binomial regressions)

	Dep. Var: ii	ncidents of ro	utine violence	!		
Variable	(1)	(2)	(3)	(4)	(5)	(6)
Gini	0.903	0.937				
Predicted_Gini		(18.2***	15.7***		
Percapita RGDP	.024***	.023***			.058***	.051***
Percapita RGDP_squared					-3.0e-04***	
Fractionalization athric	0.406		F02#		F07*	
Fractionalization_ethnic Fractionalization_religion	-0.496	0.588	582*	0.593	587*	0.478
Growth of RGDP	885*	885*	841*	-0.838	85*	-0.849
Poverty	017*	-0.016	018*	-0.016	018*	-0.016
Years of schooling	0.069	0.048	0.069	0.046	0.049	0.03
Young population (15-24)	7.6*	7.71*	6.44	6.67	7.83*	8.08*
Urban dummy	1.02*	.894*	.977*	0.85	.995*	.877*
Popuation (million)	.567***	.588***	.412***	.442***	.526***	.555***
Cosntant	0.319	0.323	-4.2**	-3.53*	0.604	0.555
Province_fixed effect	yes	yes	yes	yes	yes	yes
Year_fixed effect	yes	yes	yes	yes	yes	yes
Over-dispersions	816***	807***	759***	746***	839***	822***
Observations	567	567	567	567	567	567

(5) Results: Ethnic violence

- Previous findings on routine violence are also found in the case of ethnic violence
 - Characteristics of post 2005 ethnic violence are closer to 'routine' violence

 But, the effect of horizontal inequality is stronger than that of vertical inequality on ethnic violence

Vertical inequality and ethnic violence

	Dep. Var: incidents of ethnic violence					
Variable	(1)	(2)	(3)	(4)	(5)	(6)
Gini	0.723	0.832				
Predicted_Gini			41.2***	33.4***		
Percapita RGDP	.039***	.037***			.105***	.086***
Percapita RGDP_squared					-6.0e-04***	-4.5e-04**
Fractionalization_ethnic	-2.07**		-2.29**		-2.26**	
Fractionalization_religion		2.89**		2.89**		2.77*
Growth of RGDP	-2.75**	-2.48**	-2.17*	-2.08*	-2.11	-2.01
Poverty	0.017	0.018	9.00E-03	0.011	0.013	0.015
Years of schooling	0.055	-0.031	-0.012	-0.091	-8.90E-03	-0.083
Young population (15-24)	0.478	1.41	-0.693	0.286	0.833	1.83
Urban dummy	1.69**	1.06	1.54**	0.941	1.56**	0.957
Popuation (million)	1.07***	1.21***	.709***	.868***	.914***	1.1***
Constant	-2.84	-2.65	-13***	-10.7***	-2.27	-2.16
Province_fixed effect	yes	yes	yes	yes	yes	yes
Year_fixed effect	yes	yes	yes	yes	yes	yes
Over-dispersions	.735***	.751***	.705***	.744***	.678***	.715***
Observations	567	567	567	567	567	567

Horizontal inequality and ethnic violence

	Dep. Var: in			
Variable	(1)	(2)	(3)	(4)
HI (w_GCOV_ethnic)	4.24***			
HI (w_GCOV_religion)		6.09***		
HI (GGINI_ethnic)			7.22***	
HI (GGINI_religion)				15***
Fractionalization_ethnic	-2.56***		-2.73***	
Fractionalization_religion		2.49*		1.6
Percapita RGDP	.022***	.025***	.024***	.021***
Growth of RGDP	-1.5	-1.39	-1.58	-0.912
Poverty	3.40E-03	-1.30E-03	7.10E-03	3.40E-03
Years of schooling	0.174	0.173	0.117	0.085
Young population (15-24)	-1.46	-0.479	-0.33	-0.887
Urban dummy	1.13	0.245	1.37*	0.663
Popuation (million)	.854***	1.12***	.89***	1.06***
Constant	-3.02	-3.48*	-2.67	-2.6
Province_fixed effect	yes	yes	yes	yes
Year_fixed effect	yes	yes	yes	yes
Over-dispersions	.612**	.607***	.644***	.589***
Observations	567	567	567	567

(5) Results: Violent crime

- Previous findings on routine violence are also found in the case of violent crime
 - Resemblance between violent crime and 'routine' violence

Vertical inequality and violent crime

	Dep. Var: i	ncidents of vi	olent crime			
Variable	(1)	(2)	(3)	(4)	(5)	(6)
Gini	0.692	0.675				
Predicted_Gini			24***	21.8***		
Percapita RGDP	.025***	.023***			.073***	.066***
Percapita RGDP_squared					-4.3e-04***	-3.8e-04***
Fractionalization_ethnic	-0.198		-0.339		-0.36	
Fractionalization_religion		0.971		0.913		0.814
Growth of RGDP	-1.35***	-1.36***	-1.37***	-1.37***	-1.41***	-1.41***
Poverty	021**	021**	023**	022**	023**	022**
Years of schooling	.178***	.165***	.176***	.158***	.156***	.141**
Young population (15-24)	10.7***	10.5***	9.86**	9.89**	11.1***	11.1***
Urban dummy	0.509	0.381	0.401	0.269	0.417	0.293
Popuation (million)	.692***	.704***	.537***	.557***	.624***	.643***
Constant	-0.305	-0.184	-6.53***	-5.86***	-0.097	-0.07
Province_fixed effect	yes	yes	yes	yes	yes	yes
Year_fixed effect	yes	yes	yes	yes	yes	yes
Over-dispersions	766***	779***	761***	769***	81***	815***
Observations	567	567	567	567	567	567

Robustness checks

- Have controlled for
 - usual determinants of violent conflict based on the opportunity hypothesis
 - province and time fixed effects

Using death measure of collective violence

(6) Conclusion

- Different types of inequality may differently affect different types of collective violence,
 - unpacking inequality and violence into several categorisation becomes critical
- Violence increasing effects of inequality that may harm societal stability
- Continuously increasing inequality is something to be worried about. Need to ensure that tackling inequality is included as an explicit focus in development agenda

Thank You

