

Gender-based Attitudes toward Income Inequality in the Asia-Pacific Region

Vo, Duc

Ho Chi Minh City Open University, Vietnam

31 January 2019

Online at https://mpra.ub.uni-muenchen.de/103280/ MPRA Paper No. 103280, posted 20 Oct 2020 07:59 UTC

Gender-Based Attitudes toward Income Inequality in the Asia-Pacific Region

Abstract

Sustainable economic growth and development are generally associated with a harmonious society, where achievements from national economic growth benefit most, if not all, people. However, income inequality appears to exist regardless of the level of a country's economic growth. As such, attitudes toward income inequality and its determinants in the process of achieving a harmonious society have attracted great attention from policy makers around the globe. However, the issue has not been thoroughly investigated in emerging markets. In addition, gender-based attitudes have largely been ignored. This study is conducted to examine attitudes toward income inequality in the Asia-Pacific region, with a focus on gender. The sample comprises 19 emerging and advanced countries for which data were available. Various scenarios in relation to gender and income levels are considered. Findings from this study indicate that both emerging and advanced countries in the region have gender-based attitudes toward income inequality. In particular, social class appears to be a key and fundamental determinant across all countries in the region, especially in emerging markets, regardless of income level.

Keywords: Emerging markets, attitude, gender, income inequality.

JEL Classification: D31, D33, D63, J16, J31, P46.

December 2018

1 Introduction

Economic inequality normally refers to differences in various measures of economic well-being among individuals in a group, among groups in a population, or among countries around the world. In other definitions, economic inequality is viewed through the prism of income inequality, pay inequality, or wealth inequality. In practice, tackling the issue of income inequality requires an analysis of different notions of income inequality.

It has been argued that economic inequality is a fundamental source of various social problems (Dorling 2011; Stiglitz 2012). Indeed, Neumayer and Plümper (2016), in their interesting note, state that economic inequality might lead to the prevalence of poverty and distort political decision-making, with the result of benefiting the rich. A rise in poverty, in turn, is the reason for premature deaths, lower nutritional levels as well as increasing consumption of unhealthy beverages. As a result, potential consequences include higher rates of crime and violence. Politically, the poor tend to have little way to protect themselves against negative external forces and, therefore, are vulnerable to macroeconomic volatility. The rich have closer relations with politicians than the poor via lobbying and financial donations.

Economic inequality is inevitable as long as a country experiences high economic growth or a concentration of wealth.¹ The top 10 percent of the US population holds nine times as much income as the bottom 90 percent (Inequality.org, 2018). In China, a similar trend is also observed, in which the richest 1 percent of households own a third of the country's wealth (Financial Times, 2018). Moreover, a recent report by the World Bank indicates that, although poverty in Thailand has declined dramatically over the past 30 years, significant and growing segregation of household income and consumption is seen across and within regions. In Vietnam, after its *doi moi* (economic reform), economic growth increased remarkably, which

¹ Detailed discussions can be found in Yang and Greaney (2017).

led to improvement in living conditions. Nevertheless, concerns over inequality have arisen because the wealthiest are receiving a disproportionate share of income. It is reported that the income of the 210 superrich Vietnamese would be sufficient to move 3.2 million people out of poverty (Oxfam, 2017). Moreover, a number of super wealthy individuals are increasing. Based on these observations, it is argued that Vietnam is headed toward significant income inequality as a consequence of the nation's economic growth. Although economic inequality can create extremely serious social problems and the situation appears to be growing worse in Vietnam and other emerging markets, policy responses to that problem appears inadequate. For example, Oxfam (2017) reports that in Vietnam, economic inequality is associated with inequality in power when the wealthy have access to all kinds of benefits whereas the poor may be left behind in the process of economic growth and development. Millions of people from ethical background in Vietnam, small farmers, migrants, workers in the informal sector of the economy, and women are likely to fall into poverty from the current living standard of Vietnam. As a consequence, they lack access to public services and are not involved in the policy-making process and are discriminated against.

Experience shows that sustainable economic growth is not possible in the presence of social unrest. In an effort to shed light on the potential damage of income inequality on national economic growth and thus on society, this study is conducted to examine the fundamental determinants of attitudes toward income inequality in emerging countries in the Asia-Pacific region. Differences in gender-based attitudes toward income inequality are also a focus of this study. Findings from this study are useful for making policy makers aware of this serious issue in formulating the economic policies.

2 Literature Review

Recently, inequality has become a crucial keyword as the world has been experiencing rapid economic growth, especially since the period of the "tech boom." The need to properly

measure inequality is required. Inequality is commonly believed to be a mixture of perceptions of income differences between groups in society, attitudes toward income gaps, and preference for greater pay equity (Osberg and Smeeding 2006). As such, various studies have been conducted to gain better understanding of public attitudes toward economic inequality. Using data from 2005 British Social Attitudes report, Sefton (2005) shows that many people in Britain believe that the gap between those with high income and those with lower income is too large. Similarly, with data from the General Social Survey and the International Social Survey Programme, McCall and Kenworthy (2009) argue that Americans believe income differences are too wide, especially from the late 1980s to the early 1990s. Neumayer and Plümper (2016) demonstrate their concerns on the consequences of income inequality. Spatial segregation of the rich and the poor, a low level of social cohesion, and gaps in the quality of public services and nutrition are just some characteristics of a society experiencing high income inequality. Other inequality-related studies stress that it is essential for the government to mitigate the consequences of income inequality through redistribution policies (Franko 2016; Kelly and Enns 2010; Lupu and Pontusson 2011).

A wide range of empirical studies have been conducted to figure out the determinants of attitudes toward income inequality around the world (Austen 2002; Franko 2017; Hadler 2005; Osberg and Smeeding 2006). Using data from the International Social Survey Programme in six countries - Australia, West Germany, the UK, the United States, Hungary, and Poland, over five years, 1987-1992—Austen (2002) states that respondents in those countries appeared to accept higher levels of inequality because of a change in the perception of legal wage inequality. In particular, the authors emphasize that in Hungary and Poland, the sample showed a significant increase. Moreover, the current level of inequality in earnings was likely to be a source of attitudes toward income inequality. A few years later, Lübker (2006) also shed light on the relationship between actual income inequality and attitudes using data from the

International Social Survey Programme 1999. Findings from this study confirmed that actual income inequality, measured by the Gini index, has a considerable impact on attitudes toward income levels.

However, serious concern in relation to the validity of those findings has emerged among economists because of the presence of endogeneity. For example, it is argued that if there is a strong egalitarian norm prevailing in a country that is possibly omitted, we would observe unsatisfactory answers. In response, Andersen and Yaish (2012) reaffirm the inevitable role of income differences in attitudes toward inequality. Their findings indicate that growth in inequality tends to correspond to a rise in preferences with regard to inequality. Remarkably, in contrast to previous studies, their results were obtained from a multilevel analysis, which may have endogeneity problems. Similarly, using the same regression technique and data from the World Values Survey, Medgyesi (2013) confirms a relationship between income inequality and attitudes toward inequality.

As for the substantial increase in income disparity in the United States beginning in the 1980s, Franko (2017) examines whether a change in public perception of growing income inequality occurred during the period. The author argues that not only basic information about the economy as a whole but also the state-related context (e.g., political, economic, and social issues) affect how people understand inequality. Findings from the study confirm that public perception of growing inequality is influenced by the state's political ideology and the objective economic indicators. Hadler (2005) reaches similar conclusions when employing macro-level and micro-level factors in the study. The author finds that social position, macro performance, and social ideology contributed to individual attitudes toward income inequality.

On the other aspect of inequality perception—awareness of gender inequality—Lussier and Fish (2016) conduct analyses to shed light on attitudes toward gender inequality by comparing the perspectives between Muslim and non-Muslim communities. The authors

5

explore the difference between men and women in Muslim communities compared to non-Muslim countries with regard to gender-based inequality in (1) school attendance, (2) employment opportunities, and (3) political leanings. Generally, the authors find that being Muslim does affect the perception of gender discrimination, and discrimination between men and women becomes more serious among people who live in societies with a high proportion of Muslims. The gender discrimination in term of access to social activities could be a source of income inequality between men and women. As such, social acceptance became the social norm in income distribution, then it seems to prevent people especially women against inequality. This reveals that religious ideology is very important, dominating individual perceptions of inequality.

In summary, various attempts have been made to identify the factors that affect individual perceptions of income inequality. However, to the best of our knowledge, few empirical studies focus on the dominance of gender in the perception of individuals toward income inequality, in particular in emerging countries in the Asia-Pacific region.

Our literature survey reveals that individual perceptions toward income inequality can be affected by three demographic characteristics and social views, including political and religious ideology. Our study takes them into account in our analysis of 19 countries in the Asia-Pacific region for which required data are available. Our dataset includes 11 emerging countries whose capital markets, according to the International Monetary Fund, have liberalized to promote capital flows with nonresidents and are broadly accessible to foreign investors (IMF, 2018) (e.g., Chile, China, India, Malaysia, Peru, Russia, Thailand, Colombia, Mexico, the Philippines, and Pakistan) and 8 advanced countries, including Australia, Taiwan, Japan, South Korea, New Zealand, the United States, Hong Kong, and Singapore.

3 Data and Methodology

3.1 Data

Data for this study are obtained from the World Values Survey (WVS). Established in 1981, the WVS has conducted surveys in more than 100 countries, covering almost 90 percent of the world's population. Its most recent survey, WVS6, which covers 60 countries, was completed and posted on <u>http://www.worldvaluessurvey.org</u> in 2016.² Nineteen of these countries in the Asia-Pacific region are selected due to data availability. Countries in this region are expected to provide relevant policy implications for Vietnam. The countries in our sample include Australia, Chile, Taiwan, China, India, Japan, South Korea, Malaysia, New Zealand, Peru, Russia, Thailand, the United States, Colombia, Hong Kong, Mexico, Singapore, the Philippines, and Pakistan.

The dependent variable, *Attitudes toward income inequality*, was assessed by asking respondents to indicate the extent to which they agree on income inequality, with a questionnaire using a 10-point Likert-type scale, in which 1 means "incomes should be made more equal", and 10 means "larger income differences are incentives for different individual efforts". Figure 1 demonstrates the level of income inequality across 19 countries in the Asia-Pacific region, among which the mean level of income inequality is lowest in Russia and highest in Pakistan, at about 3.4 and 7.07, respectively. Descriptive statistics and description of variables are presented in Tables 1, 2, and 3 and Figure 1.

3.2 Methodology

The key purpose of this study is to consider the impact of gender on attitudes toward income inequality. As such, the following model is employed:

$$\ln\left(\frac{P_{Attitude_i}}{1-P_{Attitude_i}}\right) = \beta_0 + \beta_{Gender} Gender + \sum \beta_j X_j + \varepsilon_i$$
(1)

² Available at <u>http://www.worldvaluessurvey.org.</u> accessed on 25 September 2017.

Attitude represents attitudes toward income inequality. $P_{Attitude_i}$ is the probability that respondents agree on attitudes toward income inequality at level *i*. β_0 is the intercept. β_{Gender} measures the effect of gender on attitudes toward income inequality. *Gender* is an independent variable. X_i is the set of control variables, including *Age*, *Political party*, *Education*, *Supervision*, *Family income*, and *Class*. Details on each variable are described in Table 1. ε_i is the error term. Moreover, the squared value of *Age*, *Education*, and *Family income* are also included in the model to address possible curvilinear effects in the relationship between these variables and *Attitude to income inequality*.

An ordered logistic regression is used because *Attitude* is in the form of qualitative, having a natural ordering. One potential issue in cross-sectional data is that the error terms' variance is not equal, which may lead to statistically insignificant coefficients or misleading inferences. As such, White's robust standard error procedure is considered. In addition, multicollinearity could occur among the independent variables included in the model. Indeed, a preliminary investigation reveals that *Class* and *Family income* tend to be correlated. Intuitively, people with a high family income tend to see themselves as high class citizens. As a result, the dependent variable – *Attitude* - is regressed on *Class* and *Family income* separately.

This model utilized in this study considers two scenarios: (i) for each individual country in the sample; and (ii) for different income levels. The rationale for this choice is to investigate whether a crucial variable, *Gender*, can explain potential differences in *Attitudes toward income inequality* between males and females among countries as well as among group of countries based on the income levels.

4 Empirical Results

Table 6 presents empirical results for individual countries. The impact of *Gender* on *Attitudes toward income inequality* divide the countries in the sample into two groups. The first

group consists of Malaysia, New Zealand, the United States, and Colombia, which show a relationship between *Gender* and *Attitudes toward income inequality* regardless of whether *Class* or *Family income* are included in the model. In the second group of countries, a relationship between *Gender* and *Attitudes toward income inequality* is also present but at a much lower level than from the first group.

In this study, $\frac{P_{attitude_i}}{1-P_{attitude_i}}$ is the ratio in relation to attitudes toward income inequality at

level *i* or higher. $P_{attitude_i}$ is the probability of agreement on attitudes toward income inequality at a level *i* or higher while the $1 - P_{attitude_i}$ is the probability of agreement on attitudes toward income inequality below a level *i*. The coefficients presented in Table 6 illustrate the change in the ratio in favor of agreement on attitudes toward income inequality at level *i* or higher changes when the independent variables change by one unit of measurement.

In two distinct models, the first group had a negative relationship between gender and attitudes toward income inequality in Malaysia, but the opposite relation was observed in New Zealand, the United States, and Colombia. In particular, in Malaysia, the ratio of being in a higher-income-inequality category is 0.267 lower for males than females when *Class* is considered. Similarly, the ratio of being in a higher income inequality category is 0.292 lower for males than females if family income is taken into account. Intuitively, it could be inferred that in Malaysia, females appear to accept higher income differences more than males do.

In New Zealand, the United States, and Colombia, the estimated coefficients in a higher income inequality group are higher for males than females when Class is considered. Similar finding is achieved when family income is considered. Notably, unlike Malaysia, males in New Zealand, the United States, and Colombia are more likely to accept income differences than females.

In addition, the impact of demographic characteristics on attitudes toward income inequality varies across the countries in this study. First, neither *Age* nor *Gender*, in general, has a statistically significant impact on attitudes toward income inequality in Australia, Taiwan, China, India, Japan, Peru, Russia, Mexico, the Philippines, and Singapore. However, *Age* seems to be influential in explaining attitudes toward income inequality in Chile, South Korea, Thailand, Hong Kong, and Pakistan whereas *Gender* matters in Malaysia, New Zealand, the United States, and Colombia.

Political party appears to have a significant effect on attitudes toward income inequality. It has a negative effect in Australia, Russia, Japan, Peru, and Singapore, and positive effect in the rest of the countries from the research sample. However, statistically significant results are found only in Australia, Russia, Chile, South Korea, New Zealand, Thailand, Mexico, and Pakistan.

Our empirical results show that the highest level of *Education* seems to have little effect on the perception of income inequality. For example, in Peru, individuals with higher education consider that income inequality is obvious. In contrast, in India, Russia, and the Philippines, people who have higher education perceive that income across individuals is expected to be more equal.

The effect of position in employment appears to be significant in 10 of the 19 countries. Supervisors in India and Mexico consider that income distribution should be equal whereas acceptance of income inequality across sectors is found in eight countries including China, Japan, South Korea, Malaysia, Russia, the United States, Pakistan, and Singapore.

Among all the factors considered, the respondent's *Social class* is likely to be a key determinant of attitudes toward income inequality in the Asia-Pacific region, as it is significant in 13 out of the 19 countries. In particular, a large proportion of the impact of a respondent's

social class on attitudes toward income inequality is negative, which suggests that as people consider themselves as being in a higher class, they tend to accept income differences.

In addition, it is argued that the prevailing level of income inequality heavily influences attitudes toward income inequality (Andersen and Yaish 2012; Austen 2002; Lübker 2006; Medgyesi 2013). As such, it seems reasonable to argue that a strict view on attitudes toward income inequality is more observable in developed countries than in less developed countries. This phenomenon, in turn, could imply that attitudes toward income inequality vary by gender. On the ground of a country classification by the World Bank using an income level, countries with required data are divided into three different groups: (i) *high-income countries* including Australia, Chile, Taiwan, Japan, South Korea, New Zealand, the United States, Hong Kong, and Singapore; and (ii) *upper-middle-income countries* including China, Malaysia, Peru, Russia, Thailand, Colombia, and Mexico; and (iii) *lower-middle-income countries* including India, the Philippines, and Pakistan.

Table 7 presents empirical results for these three groups. As expected, the high-income countries show a difference in attitudes toward income inequality by gender, regardless of class or family income. In particular, the agreement from surveys' respondents on larger income differences as incentives for individual efforts versus the other views on the level of income differences is approximately 0.059 (or 0.0698) higher for males than females, when family income (or Class) is considered. This result also confirms that two of the countries (New Zealand and the United States) classified as high income demonstrate differences in attitudes toward income inequality by gender.

In the lower-middle-income group, regardless of class or family income, gender's coefficients are not statistically significant at any common levels. In the upper-middle-income group, a difference in attitudes toward income inequality is found by class in the model, but this effect disappears as family income is taken into account.

Tables 4 and 5 present results for some diagnostic tests to ensure that these findings are robust.

5 Concluding Remarks

This study is conducted to investigate factors that could affect attitudes toward income inequality across countries in the Asia-Pacific region, including many emerging markets, such as Vietnam and Thailand. The study also examines whether a difference in attitudes toward income inequality exists by gender. Using data from the World Values Survey, empirical findings in this study suggest that gender-based attitudes toward income inequality does exist in a number of countries in the region, from emerging markets to advanced economies. Surprisingly, the difference in attitudes toward income inequality by gender is observed more often in developed countries than emerging markets in the region. In addition, at least in this study, empirical findings suggest that different demographic characteristics such as social class, education, political party contribute differently to attitudes toward income inequality. Interestingly, among the characteristics considered, the respondent's social class is likely to be a key determinant of attitudes toward income inequality in the Asia-Pacific region.

Findings in this empirical study offer additional empirical evidence for governments in, for example, Vietnam and Thailand to formulate policies addressing concerns about rising income inequality. Sustainable economic growth and development appear to be associated with a harmonious society, and achievements from economic growth should flow to all people in society. However, these empirical findings could be significantly improved by focusing on the dataset which includes only countries that are comparable in terms of their level of economic growth and/or social norms. In addition, an optimal level of income equality associated with specific characteristics of the economies can provide detailed recommendations for formulating social policies. These can be done after detailed surveys are conducted, and results become available.

References

- Andersen, R., and M. Yaish. 2012. GINI DP 48: Public Opinion on Income Inequality in 20Democracies: The Enduring Impact of Social Class and Economic Inequality, GINIDiscussion Papers, AIAS, Amsterdam Institute for Advanced Labour Studies
- Austen, S. 2002. An international comparison of attitudes to inequality. *International Journal of Social Economics* 29(3): 218-237. doi: 10.1108/03068290210417106
- Dorling, D. 2011. Injustice: Why Social Inequality Persists. Bristol: Policy Press. doi: 10.1017/S0144686X1100002X
- Dorling, D. 2011. Injustice: Why Social Inequality Persists. Bristol: Policy Press. doi: 10.1017/S0144686X1100002X
- *Financial Times*. China income inequality among world's worst. Accessed January 10, 2018. https://www.ft.com/content/3c521faa-baa6-11e5-a7cc-280dfe875e28/.

Franko, W. W. 2016. Political context, government redistribution, and the public's response to growing economic inequality. *Journal of Politics* 78(4): 957-973. doi.org/10.1086/686025

- Franko, W. W. 2017. Understanding public perceptions of growing economic inequality. *State Politics & Policy Quarterly* 17(3): 319-348. doi: 10.1177/1532440017707799
- Hadler, M. 2005. Why do people accept different income ratios? A multi-level comparison of thirty countries. *Acta Sociologica* 48(2): 131-154. doi: 10.1177/0001699305053768
- Inequality.org. 2018. Income inequality in the United States. Accessed January 10, 2018. https://inequality.org/facts/income-inequality/.
- International Monetary Fund (IMF). 2018. Glossary of selected financial terms. Accessed August 1, 2018. http://www.imf.org/external/np/exr/glossary/showTerm.asp#97/.

- Kelly, N. J., and P. K. Enns. 2010. Inequality and the dynamics of public opinion: The selfreinforcing link between economic inequality and mass preferences. *American Journal of Political Science* 54(4): 855-870. doi.org/10.1111/j.1540-5907.2010.00472.x
- Lübker, M. 2006. Inequality and the demand for redistribution: Are the assumptions of the new growth theory valid? *Socio-Economic Review* 5(1): 117-148. doi: 10.1093/ser/mwl002
- Lupu, N., and J. Pontusson. 2011. The structure of inequality and the politics of redistribution.
 American Political Science Review 105(2): 316-336.
 doi.org/10.1017/S0003055411000128
- Lussier, D. N., and M. S. Fish. 2016. Men, Muslims, and attitudes toward gender inequality. *Politics and Religion* 9(1): 29-60. doi: 10.1017/S1755048315000826
- McCall, L., and L. Kenworthy. 2009. Americans' social policy preferences in the era of rising inequality. *Perspectives on Politics* 7(3): 459-484. doi.org/10.1017/S1537592709990818
- Medgyesi, M. 2013. GINI DP 94: Increasing income inequality and attitudes to inequality: A cohort perspective. GINI Discussion Papers, AIAS, Amsterdam Institute for Advanced Labour Studies
- Neumayer, E., and T. Plümper. 2016. Inequalities of income and inequalities of longevity: A cross-country study. *American Journal of Public Health* 106(1): 160-165. doi: 10.2105/AJPH.2015.302849
- Osberg, L., and T. Smeeding. 2006. "Fair" Inequality? Attitudes toward Pay Differentials: The United States in Comparative Perspective. *American Sociological Review* 71(3): 450-473. doi: 10.1177/000312240607100305
- Oxfam. 2017. Reducing gaps in order to reduce inequality in Vietnam. Hanoi: Labour and Social Publishing House. Accessed August 1, 2018. Available at

https://www.oxfam.org/sites/www.oxfam.org/files/file_attachments/bp-vietnaminequality-120117-vn.pdf.

- Sefton, T. 2005. Give and take: Public attitudes to redistribution. In *British Social Attitudes 22nd Report*, ed. A. Park, J. Curtice, K. Thomson, C. Bromley, M. Phillips, and M. Johnson, 1-32. London: Sage.
- Stiglitz, J. 2012. *The Price of Inequality: How Today's Divided Society Endangers Our Future*. New York: W. W. Norton & Company.
- Yang, Y. and Greaney, T. 2017. Economic growth and income inequality in the Asia-Pacific region: A comparative study of China, Japan, South Korea, and the United States. *Journal of Asian Economics*, Vol. 48, pp. 6 – 22.

Appendix



Figure 1 Mean value of attitude to income inequality by countries.

Source: Author's calculation.

Variable	Definition											
	Dependent variable											
Attitude to income inequality	Measuring income inequality. It is in a form of 10-point Likert-type scale 1: Income should be made more equal 10: We need larger income differences as incentive for individual effort											
	Independent variable											
Gender	Respondent's gender by observation 1: male 2: female											
Age	Respondent's age											
Education	Measuringthehighesteducationlevelattendedbyrespondent1: No formal education.2: Incomplete primary school.3: Complete primary school.4: Incomplete secondary school: technical/ vocational type.5: Complete secondary school: technical/ vocational type.6: Incomplete secondary school: university-preparatory type.7: Complete secondary school: university-preparatory type.8: Some university-level education, without degree.9: University - level education, with degree.											
Family income	Scale of family income 1: Lowest group. 10: Highest group.											
Political party	Being a member of a political party0: Don't belong.1: Inactive member.2: Active member.											
Supervision	Supervise or used to supervise other people at word 1: Yes 2: No											
Class	Measuring respondent's social class 1: Upper class. 2: Upper middle class. 3: Lower middle class. 4: Working class. 5: Lower class.											

Table 1A description of variables.

Source: World Values Survey.

	Attitude to income inequality		Gei	nder	Educ	ation	Family	income	Politic	al party	Supervision		Class		Age			No of obs.	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Min	Max	
Australia	4.863	2.643	0.451	0.497	5.747	2.232	5.197	2.046	0.150	0.417	0.657	0.475	2.953	0.827	50.222	15.901	18	92	963
Chile	3.585	2.506	0.531	0.499	4.625	1.922	4.850	1.733	0.119	0.378	0.259	0.438	3.154	0.800	44.064	15.401	18	85	782
Taiwan	5.820	2.573	0.558	0.497	6.183	2.084	4.795	1.641	0.258	0.508	0.373	0.484	3.147	0.878	44.931	15.248	18	85	847
China	4.6	2.738	0.547	0.498	5.029	2.026	4.693	1.861	0.134	0.400	0.289	0.453	3.541	0.825	41.450	13.308	18	75	1,135
India	5.456	2.729	0.676	0.468	3.700	2.072	4.744	2.572	0.672	0.721	0.382	0.486	2.705	1.064	39.259	13.932	18	86	1,190
Japan	5.207	2.103	0.526	0.499	5.814	1.743	4.126	2.751	0.072	0.308	0.460	0.498	3.338	0.859	50.867	15.144	18	80	1,178
South Korea	6.378	2.388	0.501	0.500	6.602	1.698	5.039	1.803	0.083	0.312	0.273	0.446	2.924	0.821	42.485	14.890	19	83	1,038
Malaysia	6.661	2.660	0.524	0.499	4.166	1.724	6.021	1.845	0.222	0.515	0.485	0.500	3.590	0.877	40.282	13.313	18	80	1,182
New Zealand	5.197	2.689	0.444	0.497	6.609	1.247	5.988	2.753	0.179	0.452	0.641	0.480	3.073	0.856	49.568	16.181	18	90	596
Peru	5.822	2.916	0.523	0.499	4.805	2.077	4.741	1.816	0.073	0.329	0.246	0.431	3.293	0.944	39.109	15.998	18	88	1,048
Russia	3.391	2.608	0.448	0.497	5.492	1.799	4.228	1.775	0.033	0.208	0.231	0.421	3.473	0.875	46.082	16.741	18	91	1,934
Thailand	5.186	2.974	0.528	0.499	3.766	2.364	4.577	2.412	0.155	0.471	0.802	0.398	3.132	0.768	45.376	12.167	18	85	1,107
The United States	5.537	2.521	0.484	0.499	6.808	1.230	5.177	1.897	0.628	0.746	0.501	0.500	3.031	0.933	49.113	16.853	18	93	2,097
Colombia	5.046	2.860	0.519	0.499	4.900	2.327	5.054	2.090	0.144	0.445	0.338	0.473	3.781	0.974	40.543	15.333	18	82	1,291
Hong Kong	5.979	2.330	0.456	0.498	4.976	2.204	4.733	1.876	0.149	0.435	0.469	0.499	3.245	0.927	44.398	16.059	18	85	934
Mexico	5.338	3.309	0.562	0.496	4.463	2.205	3.411	2.438	0.266	0.603	0.338	0.473	3.283	0.990	36.642	14.126	18	85	1,579
The Philippines	6.369	3.121	0.515	0.499	4.716	2.368	4.219	2.454	0.285	0.610	0.262	0.440	3.264	1.036	42.817	15.081	18	87	1,092
Pakistan	7.074	2.807	0.967	0.177	3.828	1.824	5.749	2.121	0.183	0.519	0.571	0.495	3.196	1.01	36.379	11.394	18	85	403
Singapore	5.763	2.358	0.457	0.498	5.242	2.128	5.735	1.490	0.100	0.350	0.394	0.488	3.034	0.857	40.830	15.866	18	89	1,837

Source: Authors' calculation.

Table 3.Variable statistics by income level

	Attitude to income inequality		Attitude to income inequality		Ger	nder	Educ	ation	Family	income	Politica	al party	Super	vision	Cla	ass		Age	;		No of obs.
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Min	Max			
High income	5.444	2.513	0.489	499	5.894	1.971	5.046	2.097	0.223	0.518	0.446	0.497	3.102	0.880	46.372	16.252	18	93	10,182		
Middle income	5.006	3.043	0.517	0.499	4.725	2.142	4.589	2.181	0.144	0.444	0.373	0.484	3.446	0.921	41.526	15.065	18	93	9,276		
Low income	6.071	2.966	0.655	0.475	4.133	2.217	4.682	2.512	0.441	0.682	0.361	0.480	3.006	1.078	40.274	14.257	18	87	2,685		

Source: Authors' calculation.

Table 4.Analysis of variance

		Attitude to income inequality		Bartlett's test for equal variances F-test				
	Mean (Male)	Mean (Female)	Difference in mean					
Australia	5.016	4 737	0 279	0.452	2.66			
Australia	5.010	4.737	0.279	(0.501)	(0.103)			
Chile	3.537	3.640	-0.103	0.186	0.33			
				(0.666)	(0.567)			
Taiwan	5.778	5.874	-0.096	0.531	0.29			
				0.0007	0.58			
China	4.657	4.531	0.126	(0.979)	(0.441)			
				0.0012	2.29			
India	5.539	5.283	0.256	(0.972)	(0.130)			
T	5 251	5.047	0.202	5.013	8.98			
Japan	5.351	5.047	0.303	(0.025)	(0.0028)			
South Koraa	6 422	6 224	0.108	2.1065	0.53			
South Korea	0.432	0.524	0.108	(0.147)	(0.465)			
Malaysia	6 4 5 3	6 889	-0.436	5.901	7.98			
Willing Sin	0.155	0.007	0.150	(0.015)	(0.0048)			
New Zealand	5.430	5.012	0.418	0.243	3.57			
	01100	01012	01110	(0.622)	(0.059)			
Peru	5.916	5.72	0.196	0.1712	1.18			
				(0.679)	(0.277)			
Russia	3.510	3.294	0.215	0.727	3.28			
				0.0187	0.09			
Thailand	5.160	5.214	-0.0538	(0.891)	(0.763)			
				0 164	8 72			
The United States	5.705	5.380	0.324	(0.685)	(0.0032)			
	5.0/1	4.014	0.117	0.0464	7.89			
Colombia	5.261	4.814	0.446	(0.829)	(0.005)			
Hong Vong	5 950	6.096	0.224	1.046	2.35			
Hong Kong	5.652	0.080	-0.234	(0.306)	(0.125)			
Mexico	5 313	5 370	-0.057	0.0392	0.12			
WIEXIEO	5.515	5.570	-0.057	(0.843)	(0.732)			
The Philippines	6 381	6 357	0.024	0.362	0.02			
The Timppines	0.501	0.557	0.021	(0.547)	(0.896)			
Pakistan	7.048 7.846 -0.74		-0.797	0.056	1.02			
				(0.812)	(0.314)			
Singapore	5.755	5.769	-0.0138	0.132	(0.02)			

Table 5.Analysis of variance

		Attitude to income inequality		Bartlett's test for equal variances	F-test
	Mean (Male)	Mean (Female)	Difference in mean		
High income	5.502	5.389	0.112	1.275 (0.259)	5.46 (0.0195)
Middle income	5.092	4.914	0.178	0.458 (0.498)	7.95 (0.004)
Low income	6.144	5.932	0.211	1.603 (0.205)	3.10 (0.0784)

Source: Authors' calculation.

	Age	Age Squared	Gender	Political Party	Education	Education Squared	Supervision	Family Income	FamilyIncome Squared	Class	Observations
	0.00453	-0.000120	0.168	-0.395***	0.235	-0.0198	0.0178	2/0		-0.391***	062
Australia	(0.0187)	(0.000189)	(0.117)	(0.145)	(0.212)	(0.0192)	(0.124)	n/a	II/a	(0.0817)	903
Australia	-0.00256	-1.89e-05	0.118	-0.351**	0.224	-0.0177	-0.00813	0.138	0.00349	n/a	063
	(0.0197)	(0.000201)	(0.119)	(0.148)	(0.216)	(0.0195)	(0.124)	(0.133)	(0.0128)	II/a	905
	0.0397*	-0.000405	-0.000619	-0.289**	0.133	-0.0161	-0.0671	n/a	n/a	-0.157*	782
Chile	(0.0232)	(0.000248)	(0.133)	(0.146)	(0.162)	(0.0156)	(0.163)	ii/a	ii/a	(0.0871)	762
Cinic	0.0445*	-0.000448*	0.00218	-0.291**	0.0550	-0.0172	-0.205	0.531***	-0.0221	n/a	782
	(0.0232)	(0.000250)	(0.134)	(0.148)	(0.170)	(0.0165)	(0.164)	(0.154)	(0.0137)	11/4	762
	-0.0261	0.000161	-0.00889	0.159	-0.228	0.0191	0.0835	n/a	n/a	-0.361***	847
Taiwan -	(0.0225)	(0.000227)	(0.130)	(0.124)	(0.197)	(0.0177)	(0.140)	ii/u	ii/u	(0.0869)	017
i ui wuii	-0.0218	0.000144	-0.0771	0.179	-0.141	0.0141	0.101	-0.220	0.0387*	n/a	847
	(0.0224)	(0.000228)	(0.128)	(0.126)	(0.194)	(0.0174)	(0.141)	(0.222)	(0.0212)	14 4	
	0.0392	-0.000530*	0.0256	0.00946	-0.210	0.0225	0.347***	n/a	n/a	-0.0877	1.135
China -	(0.0254)	(0.000285)	(0.107)	(0.145)	(0.148)	(0.0143)	(0.134)		in u	(0.0714)	1,100
Cinna	0.0371	-0.000502*	0.0179	0.00101	-0.203	0.0218	0.338**	-0.0668	0.0121	n/a	1,135
	(0.0255)	(0.000285)	(0.107)	(0.145)	(0.149)	(0.0143)	(0.135)	(0.140)	(0.0144)		-,
	0.0156	-0.000257	0.117	0.0345	-0.225**	0.0343***	-0.363***	n/a	n/a	0.0865*	1.190
India -	(0.0196)	(0.000221)	(0.114)	(0.0677)	(0.111)	(0.0130)	(0.114)			(0.0486)	,
manu	0.000173	-8.63e-05	0.0891	0.0461	-0.347***	0.0450***	-0.372***	0.0723	0.0154*	n/a	1.190
	(0.0191)	(0.000214)	(0.113)	(0.0670)	(0.111)	(0.0126)	(0.110)	(0.0929)	(0.00868)	0.450.000	,
	0.0223	-0.000266	0.112	-0.216	-0.135	0.0171	0.354***	n/a	n/a	-0.459***	1,718
Japan -	(0.0197)	(0.000196)	(0.0992)	(0.153)	(0.139)	(0.0126)	(0.0978)	0.100.00	0.00001	(0.0546)	,
	-0.00115	-3.62e-06	0.0747	-0.186	-0.106	0.0157	0.391***	0.132**	-0.00201	n/a	1,718
	(0.0194)	(0.000194)	(0.0984)	(0.156)	(0.139)	(0.0126)	(0.0968)	(0.0652)	(0.00595)	0.000****	,
	-0.0/1/***	0.000699***	0.0950	-0.396*	0.0888	-0.0133	0.286**	n/a	n/a	-0.223***	1,038
South Korea	(0.0235)	(0.000266)	(0.113)	(0.207)	(0.194)	(0.0168)	(0.139)	0 27 4 * * *	0.045(***	(0.0736)	
	-0.0792***	0.000784^{****}	0.0799	-0.434**	0.155	-0.0187	0.312**	-0.3/4	0.0430****	n/a	1,038
	0.0230)	0.000200)	0.0(7***	0.0200	0.0529	(0.0103)	0.159)	(0.141)	(0.0155)	0.21(***	
	-0.0114	(0.0001/5)	-0.20/	0.0390	-0.0528	0.0151	(0.455^{***})	n/a	n/a	0.510***	1,182
Malaysia -	0.0112	0.000244)	0.202***	0.0260	0.0206	0.0144)	0.204***	0 665***	0.0591***	(0.0080)	
	-0.0113	(0.000128)	-0.292	(0.106)	-0.0300	(0.0108)	(0.111)	-0.005***	(0.0142)	n/a	1,182
	0.0156	1.822.05	0.224**	0.285**	0.280	0.0251	0.107	(0.103)	(0.0143)	0 252***	
	(0.0130)	(0.000320)	(0.145)	(0.161)	(0.230)	(0.0231)	(0.157)	n/a	n/a	(0.0944)	596
New Zealand	0.0420	0.000320)	0.254*	0.350**	0.303	0.0336	0.145	0.0753	0.0163	(0.0747)	
	(0.0316)	(0.000288	(0.145)	(0.166)	(0.791)	(0.0603)	(0.143)	(0.133)	(0.0109)	n/a	596
	0.00447	1 380 05	0.0228	0.0726	0.357***	0.0245*	0.130	(0.155)	(0.0107)	0.0353	
	(0.00447)	(0.000190)	(0.111)	(0.173)	(0.134)	(0.0245)	(0.130	n/a	n/a	(0.0606)	1,048
Peru -	0.00800	-1 67e-05	0.0550	-0.0615	0 332**	-0.0254*	0.102	0.329**	-0.0208	(0.0000)	
	(0.0173)	(0.000189)	(0.111)	(0.180)	(0.132)	(0.0134)	(0.132)	(0.141)	(0.0147)	n/a	1,048
	-0.00417	-0.000232	0.116	0.321*	-0.385**	0.0320*	0.234**	(0.141)	(0.0177)	-0.228***	
Russia	(0.0143)	(0.000152)	(0.0831)	(0.190)	(0.193)	(0.0167)	(0.105)	n/a	n/a	(0.0539)	1,934

Table 6Ordered logit regression's result by countries. Coefficients are in form of odd ratio.

	0.0001(2	0.0002(5*	0.0005	0.227*	0.2(0*	0.0211*	0.257**	0.170	0.00479		
	0.000162	-0.000265*	0.0895	0.33/*	-0.369*	0.0311*	0.257**	0.179	-0.00478	n/a	1,934
	(0.0144)	(0.000152)	(0.0832)	(0.194)	(0.194)	(0.0168)	(0.103)	(0.110)	(0.0122)	0.4.40 tota	
	0.0552**	-0.000643**	-0.0244	0.208*	0.187	-0.0277*	-0.0871	n/a	n/a	-0.143**	1.107
Thailand	(0.0279)	(0.000299)	(0.107)	(0.121)	(0.145)	(0.0146)	(0.127)			(0.0697)	,
	0.0556*	-0.000644**	0.0140	0.231*	0.140	-0.0249*	-0.0839	0.0662	0.00379	n/a	1 107
	(0.0284)	(0.000304)	(0.107)	(0.121)	(0.146)	(0.0146)	(0.128)	(0.0965)	(0.0113)	10 4	1,107
	-0.0122	9.58e-05	0.212***	0.0251	0.0279	-0.0113	0.136*	n/a	n/a	-0.282***	2 007
The United	(0.0124)	(0.000126)	(0.0782)	(0.0584)	(0.184)	(0.0150)	(0.0812)	li/a	11/ a	(0.0485)	2,077
States	-0.0156	0.000131	0.209***	0.0209	0.0257	-0.0108	0.136*	0.165	-0.000155	nlo	2 007
	(0.0122)	(0.000123)	(0.0780)	(0.0586)	(0.176)	(0.0143)	(0.0809)	(0.112)	(0.0108)	11/a	2,097
	0.0195	-0.000187	0.260***	0.121	0.102	-0.00400	0.121			0.0235	1 201
C 1 1'	(0.0169)	(0.000193)	(0.0999)	(0.126)	(0.104)	(0.0110)	(0.109)	n/a	n/a	(0.0528)	1,291
Colombia	0.0238	-0.000236	0.257**	0.110	0.0817	-0.00399	0.0971	0.0502	0.000977	1	1 201
	(0.0169)	(0.000193)	(0.100)	(0.126)	(0.105)	(0.0111)	(0.110)	(0.115)	(0.0114)	n/a	1,291
	0.0342*	-0.000270	-0.157	0.00361	-0.133	0.0119	-0.0441	1	,	-0.0475	022
Hong Kong	(0.0199)	(0.000217)	(0.117)	(0.124)	(0.182)	(0.0165)	(0.129)	n/a	n/a	(0.0678)	933
	0.0345*	-0.000271	-0.144	-0.0233	-0.128	0.0103	-0.0928	-0.00802	0.0106	, ,	022
	(0.0199)	(0.000220)	(0.117)	(0.123)	(0.182)	(0.0166)	(0.129)	(0.190)	(0.0189)	n/a	933
	-0.000969	2.27e-06	-0.00467	0.165**	0.00886	-0.00357	-0.187**	,		-0.0476	1.570
	(0.0157)	(0.000185)	(0.0903)	(0.0806)	(0.101)	(0.0101)	(0.0939)	n/a	n/a	(0.0493)	1,579
Mex1co	-0.00262	1.95e-05	-0.0101	0.160**	0.0112	-0.00352	-0.186**	-0.0457	0.00600	,	4 550
	(0.0156)	(0.000185)	(0.0916)	(0.0810)	(0.101)	(0.0101)	(0.0939)	(0.0745)	(0.00800)	n/a	1,579
	0.00175	1.66e-05	-0.0324	0.166*	-0.205*	0.0279**	0.191			0.0540	
The	(0.0195)	(0.000214)	(0.111)	(0.0990)	(0.120)	(0.0126)	(0.126)	n/a	n/a	(0.0549)	1,092
Philippines	0.00494	-1.82e-05	-0.0322	0.120	-0.198*	0.0272**	0.168	-0.236**	0.0266***	,	1 000
11	(0.0194)	(0.000212)	(0.111)	(0.0973)	(0.119)	(0.0125)	(0.123)	(0.0988)	(0.00989)	n/a	1,092
	-0.0810**	0.00110**	-0.903	0.523***	0.0745	0.00176	0.778***	, ,	· · ·	0.270***	(02
5.1.1	(0.0388)	(0.000448)	(0.673)	(0.187)	(0.229)	(0.0241)	(0.206)	n/a	n/a	(0.101)	403
Pakistan	-0.0869**	0.00116**	-0.548	0.438**	-0.0882	0.0143	0.773***	-0.405	0.0390*		
	(0.0400)	(0.000473)	(0.633)	(0.195)	(0.228)	(0.0238)	(0.212)	(0.258)	(0.0218)	n/a	403
	0.00727	-3.47e-05	-0.0318	-0.135	0.0609	-0.00846	0.251***			-0.239***	
~	(0.0140)	(0.000152)	(0.0850)	(0.0950)	(0.0987)	(0.00924)	(0.0922)	n/a	n/a	(0.0510)	1,837
Singapore	0.00651	-2.82e-05	-0.0514	-0.111	0.0751	-0.0111	0.237***	0.236	-0.00171	n/a 1,83	
	(0.0139)	(0.000152)	(0.0846)	(0.0941)	(0.0982)	(0.00922)	(0.0918)	(0.192)	(0.0170)		1,837
	(0.0157)	(0.000152)	(0.00+0)	(0.0)+1)	(0.0702)	(0.00)22)	(0.0710)	(0.1)2)	(0.0170)		

Source: Authors' calculation. Robust standard errors in parentheses

*significant at 10% level, ** 5% level, *** 1% level

	Age	Age Squared	Gender	Political Party	Education	Education Squared	Supervision	Family Income	Family Income Squared	Class	Observations
High Income	-0.00494 (0.00594)	2.95e-05 (6.22e-05)	0.0590* (0.0345)	-0.0743** (0.0359)	-0.0438 (0.0495)	0.00578 (0.00452)	0.0868** (0.0362)	0.135*** (0.0347)	-0.000773 (0.00325)	n/a	10,811
	-0.000287 (0.00595)	-3.75e-05 (6.22e-05)	0.0698** (0.0346)	-0.0742** (0.0355)	-0.0581 (0.0498)	0.00666 (0.00454)	0.0976*** (0.0362)	n/a	n/a	-0.266*** (0.0210)	10,811
Upper Middle	0.0146** (0.00680)	-0.000324*** (7.62e-05)	0.0588 (0.0364)	0.245*** (0.0450)	-0.152*** (0.0444)	0.00781* (0.00436)	0.227*** (0.0395)	-0.0139 (0.0379)	0.0132*** (0.00401)	n/a	9,276
	0.0165** (0.00680)	-0.000350*** (7.61e-05)	0.0643* (0.0365)	0.262*** (0.0448)	-0.137*** (0.0442)	0.00766* (0.00436)	0.286*** (0.0396)	n/a	n/a	-0.0560*** (0.0213)	9,276
Lower Middle Income	0.00458 (0.0132)	-3.91e-05 (0.000147)	0.0851 (0.0743)	-0.0753 (0.0477)	-0.159** (0.0733)	0.0243*** (0.00784)	0.0448 (0.0715)	-0.0765 (0.0669)	0.0194*** (0.00609)	n/a	2,685
	0.00534 (0.0133)	-5.91e-05 (0.000149)	0.120 (0.0745)	-0.0374 (0.0487)	-0.113 (0.0728)	0.0215*** (0.00784)	0.123* (0.0730)	n/a	n/a	0.133*** (0.0329)	2,685

Table 7Ordered logit regression's result by income level. Coefficients are in form of odd ratio.

Source: Authors' calculation. Robust standard errors in parentheses

*significant at 10% level, ** 5% level, *** 1% level