

# Quantifying Social Capital in Central and South Asia: Are There Democratic, Developmental, and Regionalizing Potentials?

**TAKASHI INOBUCHI AND ZEN-U LUCIAN HOTTA**

*Chuo University*

## Introduction

This paper aims to apply the methodology used in Inoguchi's former paper (2004c) and build on to the findings concerning social capital in Asia. The previous paper used ten Asian countries from the AsiaBarometer 2003 survey; this time we are using the 14 Central and South Asian countries – Kazakhstan, India, Pakistan, Afghanistan, Sri Lanka, Bangladesh, Maldives, Bhutan, Mongolia, Nepal, Tajikistan, Turkmenistan, Kyrgyzstan, and Uzbekistan – from the AsiaBarometer 2005 survey.

Social capital is often defined as something that can be most useful in minimizing the costs of misunderstanding and transactions when one tries to forge bridges and enhance bonds, when one ventures joint undertakings, and when one tries to regularize reciprocities. Social capital is such a broad concept that it is often used to mean what you mean (Bacon *et al.*, 2003), but of all the matters that are conceptualized as being 'caused' by social capital, directly or indirectly, two stand out – democracy and prosperity. Putnam (1993) asserts the causal chain of social capital facilitating democracy, whereas Fukuyama (1995) upholds the causal path of social capital promoting prosperity. In essence, Putnam argues that democracy is much more deeply rooted where there is tradition of civic engagement, e.g. the tradition of republican rule in Florence, the tradition of civic associations in mid-nineteenth century America, etc. Likewise, Fukuyama argues that where there is the tradition of social capital, prosperity is created in a civilized form. Fukuyama models high and low trust societies, whereby civilized and not-so-civilized business transactions take place. His argument is that without civilized trust permeating society, sustained prosperity is more difficult to create. His anthropological evidence supporting his argument is marshaled on Chinese, Korean, Indian, Japanese, French, German, American, and other social relations.

Although one may take issue with Putnam or Fukuyama in one way or another like Bacon *et al.*, we find the concept of social capital very useful in understanding the propensity to take initiatives, to avert risks, to cooperate or defect, and to shape and share values, norms, and rules, especially when some measures are given. Moreover,

there have been findings on the topic from the health sciences. Kawachi (2002) has investigated the psychosocial explanations for the relation between income equality and health, and has found out that at levels of states, provinces, cities, and neighborhoods, low social capital predicts bad health, bad self-reported health, and high mortality rates.

In this paper, we attempt to identify some major dimensions of social capital as found in the AsiaBarometer 2005 data, to place the 14 countries on those dimensions, and to reflect on the nature of political culture in 14 Asian societies in terms of social capital. By doing so, we seek to highlight the democratic, developmental, and regionalizing trends in current Asia using AsiaBarometer. After all, social capital is conducive to building democracy, so argues Robert Putnam; social capital is facilitative to creating prosperity, so argues Francis Fukuyama; and social capital is essential to integrate countries into a region, so argues Karl Deutsch. This paper neither claims nor intends to map out what are far more complex causally interpretable schemes of democratic, developmental, and regionalizing evolution of Asia and its sub-components, but, at least, we here wish to show some meaningful facts on these prospects on the basis of social-capital focused survey data.

### **Social capital questions: overview**

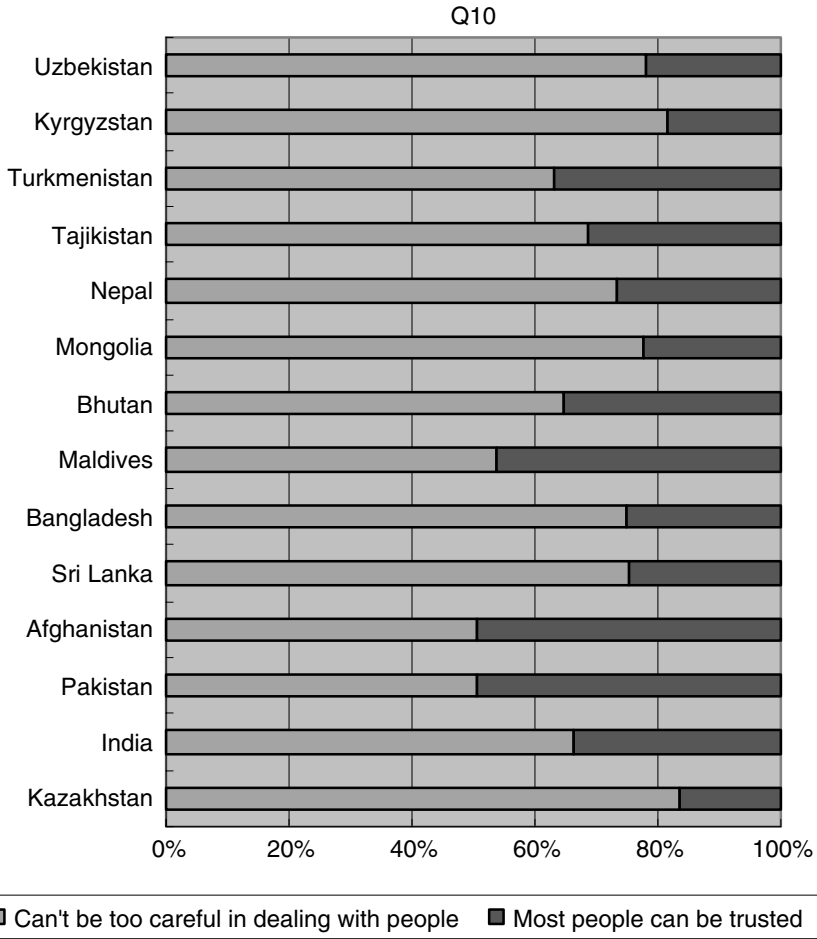
The social capital questions examined in this paper are Q10, Q11, Q12, Q13, Q14, Q15-3, Q15-4, Q15-6, Q15-7, Q15-8, Q21, and Q33-1. In order to ensure ordinal alignment of the answer selections and to render all 'don't know (DK)' as missing values (MV), the numerical values of the answer selections have been parameterized according to the following manner.

Q10: 'Generally, do you think people can be trusted or do you think that you can't be too careful in dealing with people (that it pays to be wary of people)?' Respondents had to choose between: 'Most people can be trusted (+1)', 'Can't be too careful in dealing with people (0)', and 'Don't know (MV)'.

Q11: 'Do you think that people generally try to be helpful or do you think that they mostly look out for themselves?' Respondents had to choose between: 'People generally try to be helpful (+1)', 'People mostly look out for themselves (0)', and 'Don't know (MV)'.

Q12: 'If you saw somebody on the street looking lost, would you stop to help?' Respondents had to choose between 'I would always stop to help (+1)', 'I would help if nobody else did (+0.5)', 'It is highly likely that I wouldn't stop to help (0)', and 'Don't know (MV)'.

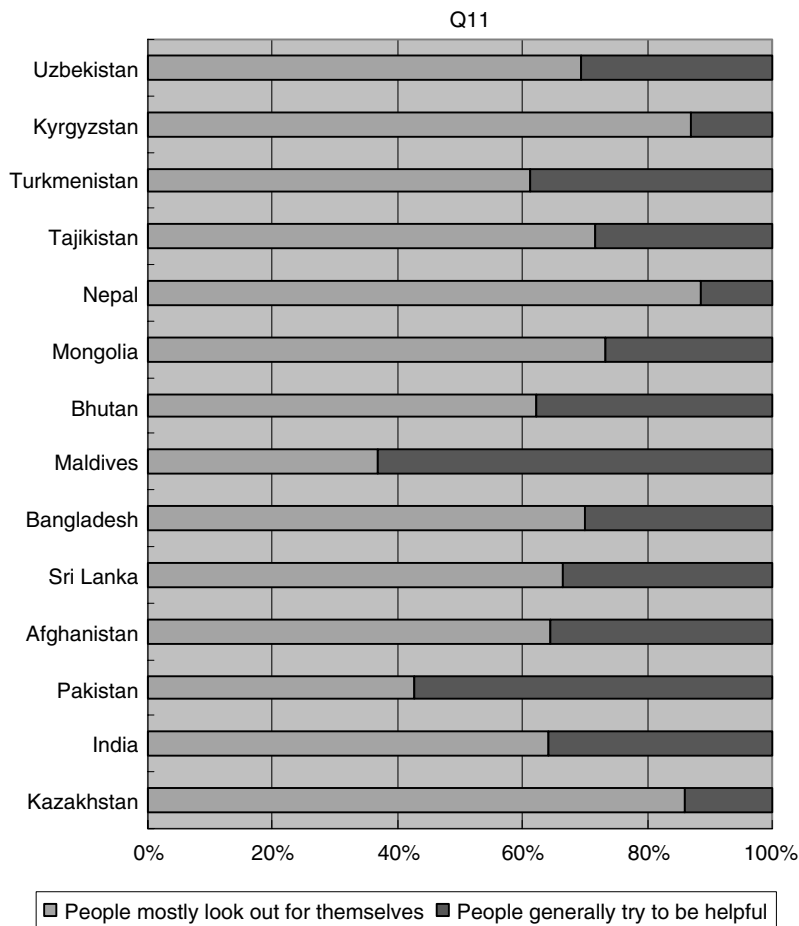
Q13: 'If you had no descendants, would you think it desirable to adopt somebody in order to continue the family line, even if there were no blood relationship? Or do you think this would be unnecessary?' Respondents had to choose between: 'Would adopt in order to continue the family line (+1)', 'Would not adopt in order to continue the family line. I think it would be pointless (0)', 'It would depend on the circumstances (+0.5)', and 'Don't know (MV)'.



**Figure 1**

Q14: ‘Suppose that you are the president of a company. In the company’s employment examination, a relative of yours got the second highest grade, scoring only marginally less than the candidate with the highest grade. In such case, which person would you employ?’ Respondents had to choose between ‘The person with the highest grade (o)’, ‘Your relative (+1)’, and ‘Don’t know (MV)’.

Q15-3: ‘If the main breadwinner of your household should die or become unable to work due to illness, how would your household maintain the household budget? Select up to two of the following measures’. Respondents had to choose from a list of answers including: ‘Would get support from relatives (+1)’, all other answers (o), and ‘Don’t know (MV)’.



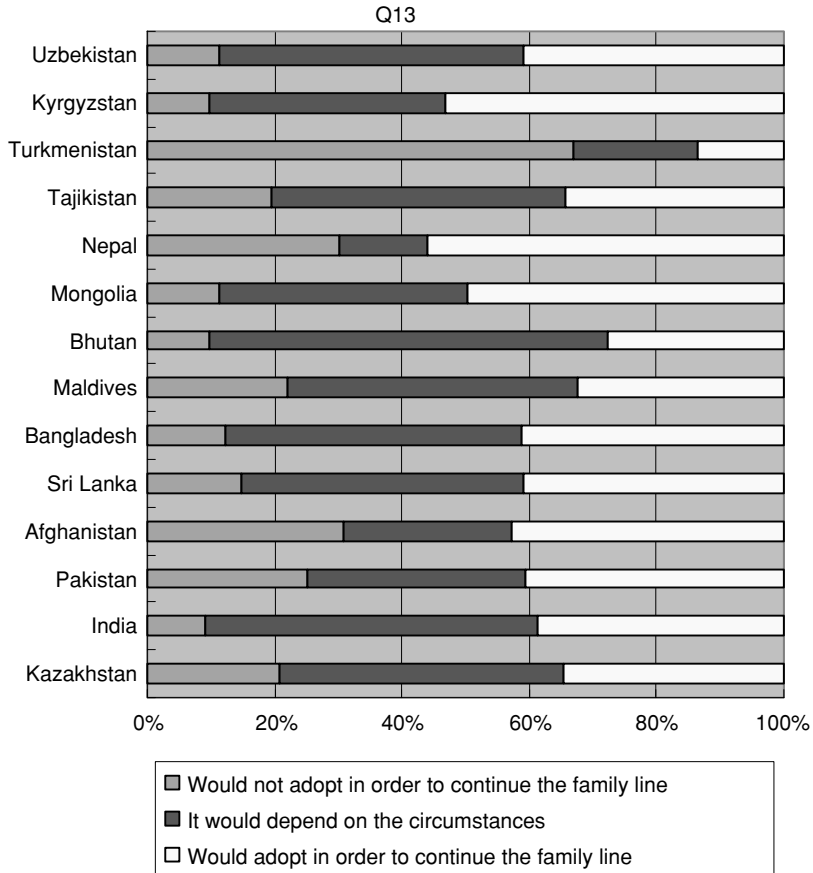
**Figure 2**

Q15-4: ‘If the main breadwinner of your household should die or become unable to work due to illness, how would your household maintain the household budget? Select up to two of the following measures’. Respondents had to choose from a list of answers including: ‘Would get support from neighbors and the community (+1)’, all other answers (o), and ‘Don’t know (MV)’.

Q15-6: ‘If the main breadwinner of your household should die or become unable to work due to illness, how would your household maintain the household budget? Select up to two of the following measures’. Respondents had to choose from a list of answers including: ‘Would get social welfare payments (+1)’, all other answers (o), and ‘Don’t know (MV)’.

Q15-7: ‘If the main breadwinner of your household should die or become unable to work due to illness, how would your household maintain the household budget?’





**Figure 4**

equally (+1), ‘Women are treated much more favorably than men (+1)’, ‘Women are treated somewhat more favorably than men (+1)’, and ‘Don’t know (MV)’.

Q33-1: ‘What should a person who needs a government permit do if the response of the official handling the application is: “just be patient and wait”? Respondents had to choose from a list of answers including: ‘Use connections to obtain the permit (+1)’, all other answers (o), and ‘Don’t know (MV)’.<sup>1</sup>

Our plan is to identify some underlying dimensions of social capital by employing multidimensional analysis methods on the above-listed questions and then to relate them back to the conceptual discussion on social capital. However, before moving on to stochastic multidimensional analyses, let us first survey the questions in terms of their significance and relevance in terms of social capital.

<sup>1</sup> As observed in Figure 8, it is evident that this answer was not an option in Maldives.

Q14

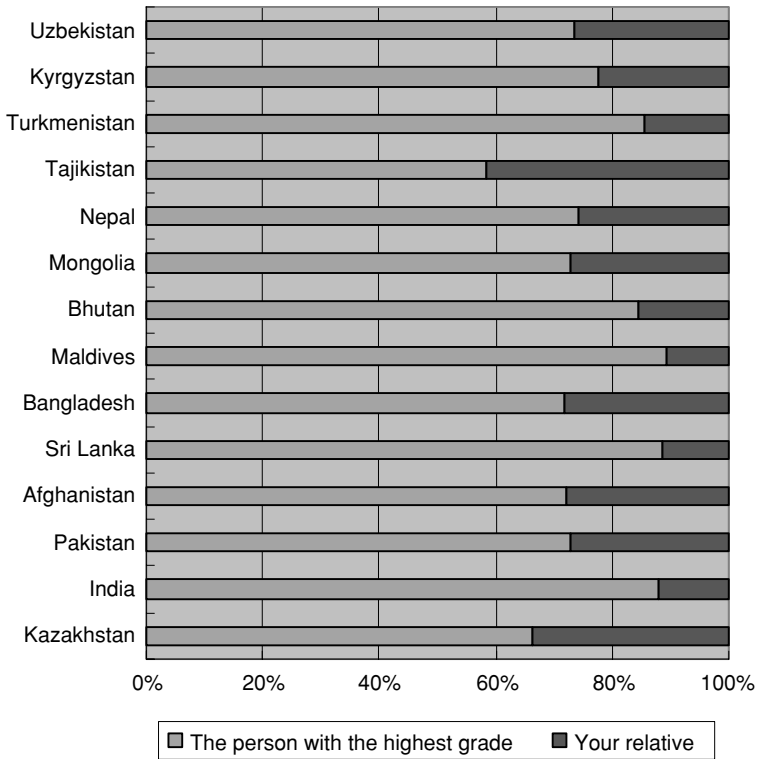


Figure 5

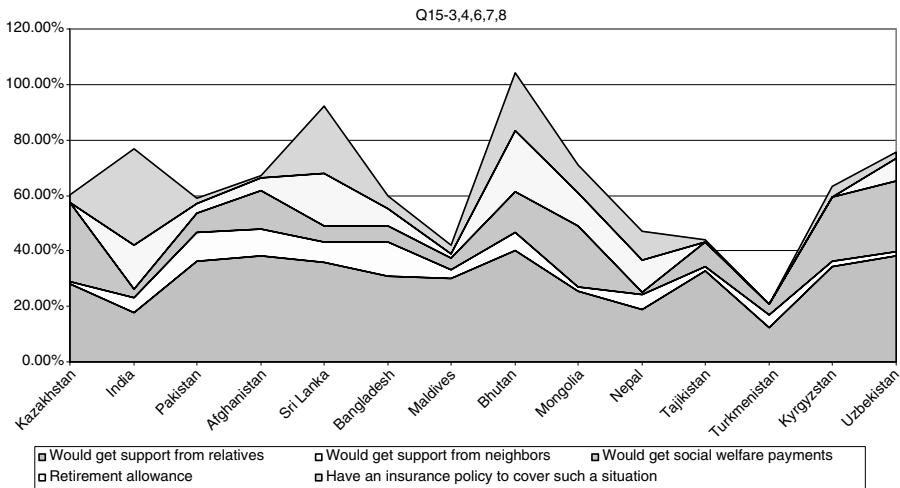
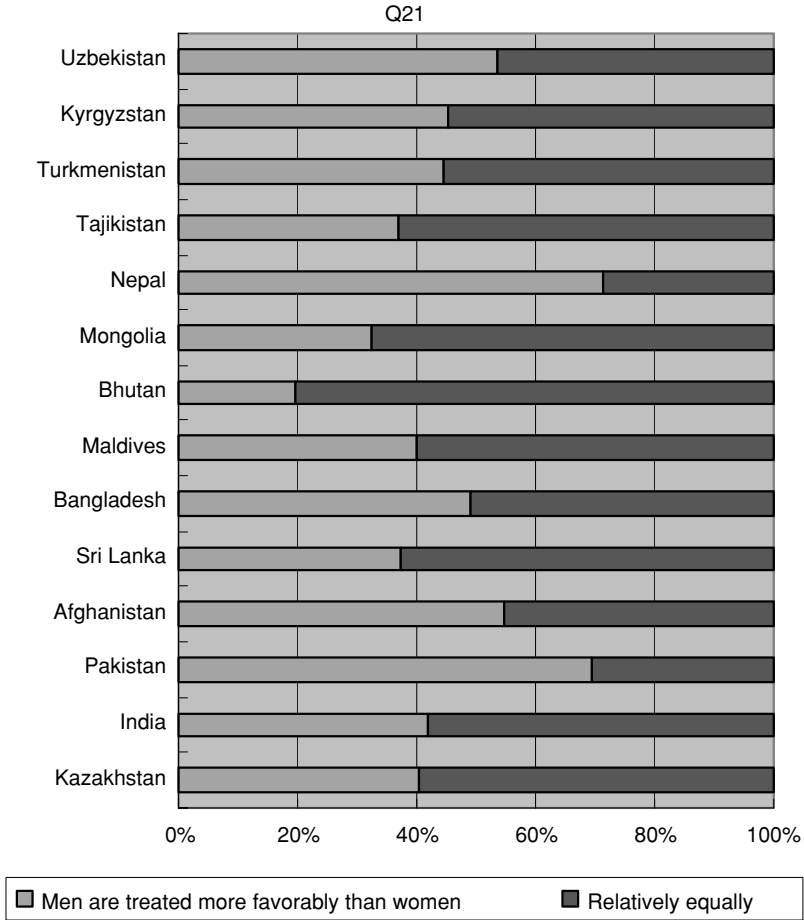


Figure 6

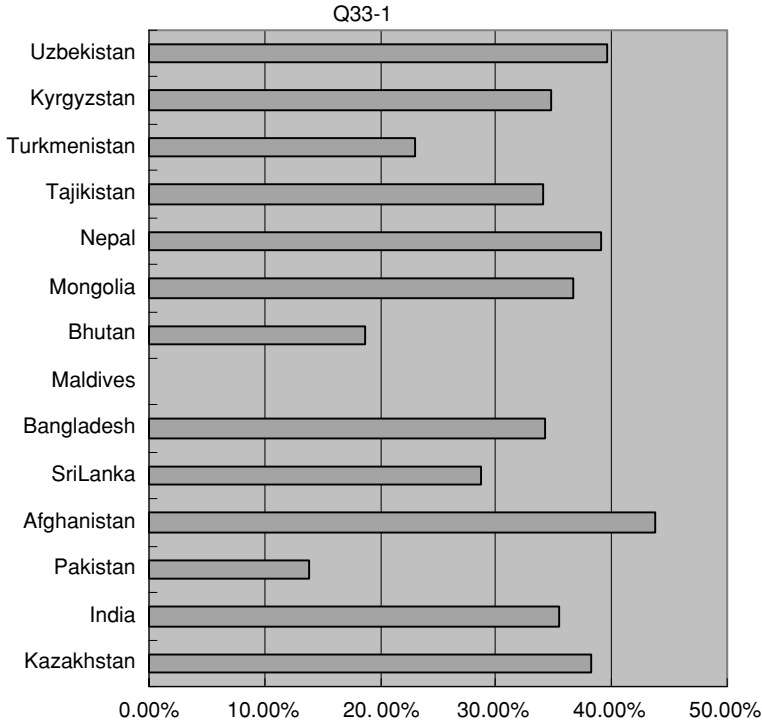


**Figure 7**

Questions 10, 11, and 12 are questions useful in observing how much trust prevails in interpersonal relations. They are the questions on civic trust, touching up on the communitarian concept (Inglehart/Weltzel, 2004). Notice that there is a gap between the objectivity of Questions 10 and 11 and the subjectivity of Question 12. Also, Question 12 entails action on the part of the respondent to strengthen connection with the society and to reaffirm his/her position in the social network.

Meanwhile, Questions 13–15 measure the broadness of trust. We are interested in measuring the various degrees of trust, from self-trust to blood-based trust, to trust in neighbors, and on to trust in social institutions and the general public. Question 13 involves the continuation of family line despite lack of blood-based connection with the successor. It is not a question of how much the respondent values the blood-based succession of family line, but rather, a question of how much the respondent values





**Figure 8**

the concept of family line, a form of social infrastructure. In that sense, Question 13 is in essence close to Question 12 given the aspect of placing oneself in the society. On the other hand, Question 14 is a question on blood-based trust, or better to say, cronyism/nepotism versus utilitarianism/meritocracy, whether one should employ a relative of good capacity or a non-relative of the highest proven capacity.

The various response categories of Question 15 are aimed at measuring the degree of anonymous communitarian scheme of trust when the breadwinner has deceased. Questions 15-3 and 15-4 are similar to Question 14 in that they deal with narrow trust; they ask whether one would employ so-called crony connections, namely those of relatives and neighbors, in time of financial emergency. Question 15-6 deals more with broader trust. Here, the question measures how much one trusts the social institution and how much one relies on his/her positioning as a member of the society. In this sense, it is an extension of Questions 12 and 13. Questions 15-7 and 15-8, reliance on retirement allowance and insurance policy, should be distinguished from Question 15-6, despite the seemingly common reference to the social system. The major difference is that income from retirement allowances and insurance policies are self-earned (or self-deserved) and are results of careful planning, while social welfare payments are more or less public financial support and are hardly results of long-term planning. Thus,

Questions 15-7 and 15-8 are in fact questions relating to (1) self-trust (despite their social aspects) and (2) fairness in respect of not making use of crony connections or adding burden to the society.

Question 21 portrays trust in terms of gender. It asks about the emancipative aspect of trust; that is, the approach that focuses on self-expression values and liberty aspirations (Inglehart/Weltzel, 2004). The response categories, 'Men are treated much/somewhat more favorably than women males', measure the degree of discriminatory and oppressive nature of trust in terms of gender. Moreover, this question measures the utilitarian aspect of social capital. It is expected that more utilitarian respondents would have less bias on non-utilitarian parameters, such as gender or blood. In that sense, the question has close connection with Q14, which contrasts utilitarianism and cronyism.

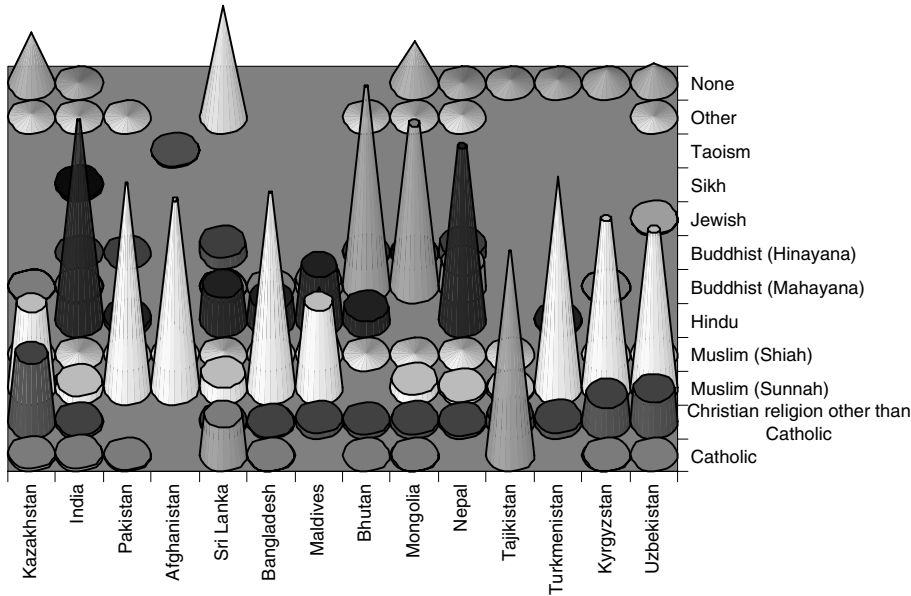
Question 33-1, the question on making use of connections with officials to elicit government permit, measures the degree of confidence in official institutions. It asks about the system support aspect of trust, the approach that underlines confidence in concrete institutions and support for democracy (Inglehart/Weltzel, 2004), and as in Question 15-6, it refers especially to one's positioning in the system.

### **Social capital questions: relevance to individual parameters**

Let us now observe the social capital questions one by one using individual parameters: in this case, gender, religious affiliation, atheism, religiosity, internet usage, standard of living, marriage status, employment, age bracket, educational level, and English fluency. Recent studies have shown that such parameters have deep impact upon individuals' value system, such as social capital, trust, worries, satisfaction, sense of freedom, etc. For example, using the Asia-Europe survey data, Inoguchi and Hotta have noted earlier that gender affects notions of life worries and satisfaction, higher standard of living is associated with higher trust in government, English fluency discourages nationalism but is positively correlated with trust in government and life satisfaction, advanced age seems to uphold both nationalism and trust in government, etc. (Inoguchi and Hotta, 2003).

Some of the parameter breakdowns by country are shown in the respective figures. Naturally, the 14 survey countries have very contrasting trends in terms of individual parameters (and also, similar trends in terms of geographical, religious, and cultural affiliations, as we see later on).

Question 10, a highly general question on trust has yielded the following contrasts. According to the chi-square test, female ( $p = 0.003$ ), education ( $p < 0.001$ ), atheist ( $p < 0.001$ ), and unemployed ( $p < 0.001$ ) respondents tended to be more cautious in dealing with people. Meanwhile, English-fluency ( $p = 0.001$ ) and marriage ( $p = 0.001$ ), higher standard of living ( $p < 0.001$ ), internet usage ( $p < 0.01$ ), and higher importance of God ( $p < 0.001$ ) seemed to enhance the sense of general trust in people. By religious breakdown, Muslims (Shiah), Muslims (Sunnah), Hindus, Catholics, and Buddhists (Mahayana) had higher percentages of respondents generally trusting in people, in

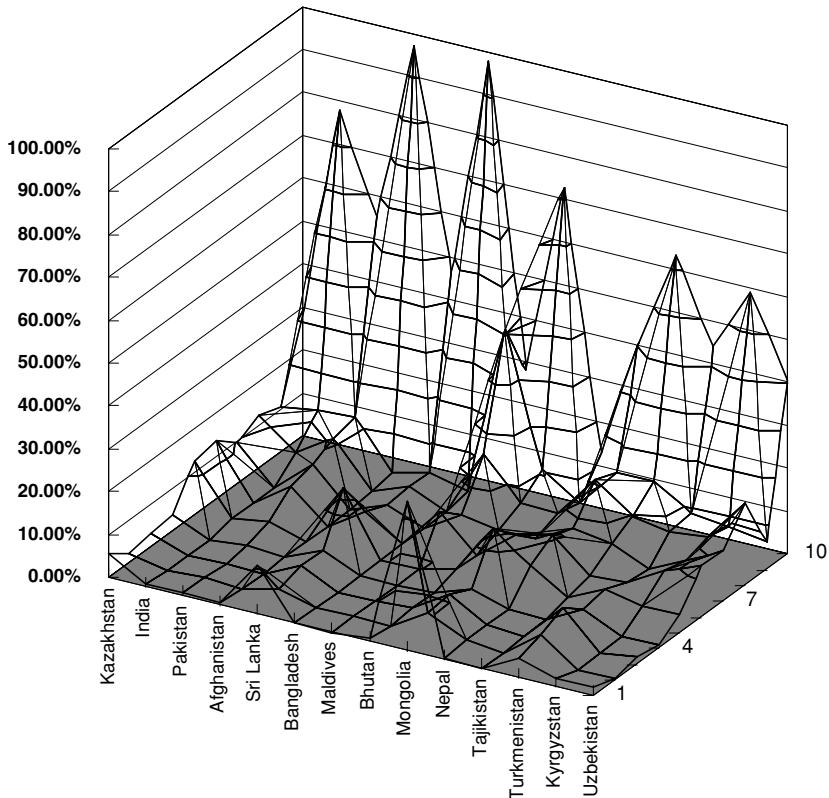


**Figure 9a** Religious Breakdown by Country.

descending order. Percentages were lower for Buddhists (Hinayana), non-Catholic Christians, and those practicing other religions, and even lower for atheists. Age did not have to do much with general trust.

The above results are intuitive. English-fluency, marriage, internet usage, and religiosity enhance social connections and infrastructures, and form camaraderie. Education often goes against general trust, especially in the field of empirical studies and courses on history. Unemployment often leads to disappointment in the society and humankind, while on the contrary higher standard of living leads to affirmation of the society and humankind. Catholics exhibit higher sense of general trust than non-Catholic Christians (primarily Protestants), and this may be due to the latter’s relative individualism and rationalism (Weber, 1930; Bell, 1996). Meanwhile, Mahayana Buddhists show greater sense of trust than Hinayana Buddhists, possibly reflecting the latter’s more self-reliant approach to enlightenment.

Question 11 asked about trust in general but in a more specific situation. Findings, however, were similar to those of Question 10. Female ( $p = 0.014$ ), educated ( $p < 0.001$ ), atheist ( $p < 0.001$ ), unemployed ( $p < 0.001$ ) respondents tended to believe that people mostly look out for themselves. Also, English fluency ( $p < 0.001$ ), marriage ( $p = 0.026$ ), higher standard of living ( $p < 0.001$ ), internet usage ( $p < 0.001$ ), and greater importance of God ( $p < 0.001$ ) boosted up the notion that people generally try to be helpful. Religious trends were also similar to the former question. The high rankings of Muslims

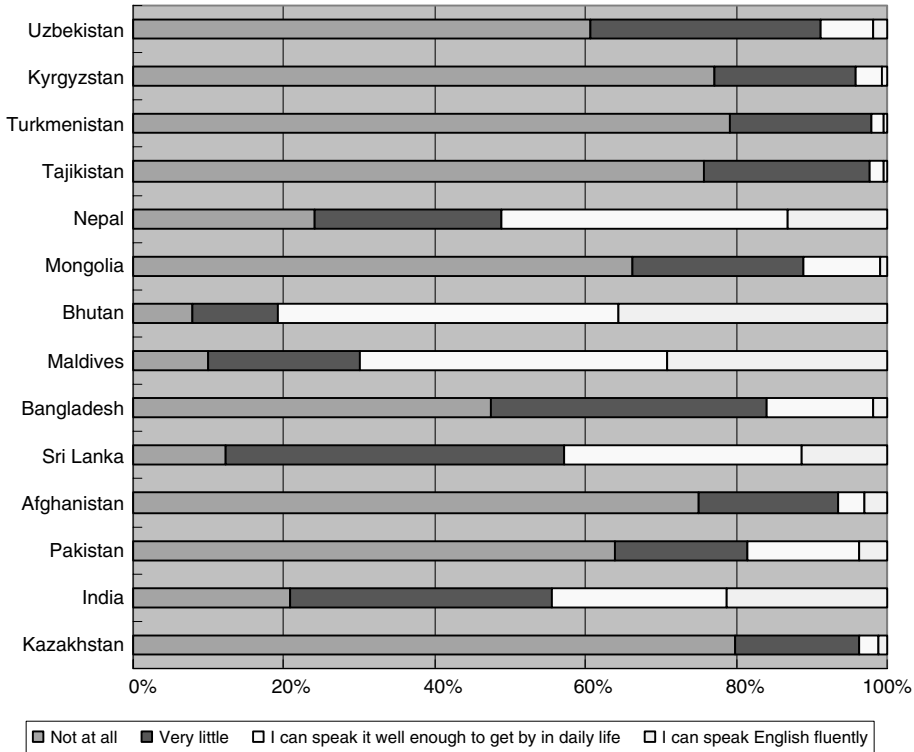


**Figure 9b** The Importance of God (10 = Most) by Country.

suggest the influence of *zakât* (mandatory alms) and *sadaqah* (voluntary charity), both of which are traditional practices for helping the needy. Again, age was not a factor.

Question 12 asked about trust in a specific situation. In this case, education ( $p < 0.001$ ), lower standard of living ( $p < 0.001$ ), and higher internet usage ( $p < 0.001$ ) discouraged respondents from being helpful to others, whereas marriage ( $p = 0.003$ ), older age ( $p < 0.001$ ), and greater importance of God ( $p < 0.001$ ) promoted respondents' helpfulness towards others. Gender, English fluency, employment status, and atheism did not have an effect on the answers. Like before, the reasons behind education and religiosity are clear. Lower income respondents are less helpful to others, but this is probably because they have limited resources to help others and because some of them feel that they need to be helped before they help others. The link between helpfulness and older age is not intuitive, but they are probably associated with religiosity and higher living standards.

Results for Question 13 were more complex. Education ( $p < 0.001$ ) and English fluency ( $p < 0.001$ ) went against adoption to continue one's family line, while marriage



**Figure 9c** English Fluency by Country.

( $p < 0.001$ ) and older age ( $p < 0.001$ ) strongly promoted adoption. Gender and atheism were not factors, whereas employment status, living standard, internet fluency, and religiosity posed mixed results. This is probably because continuation of family line is a traditional concept that is less observed in modern, urban societies, but at the same time is also a desire for many married couples who have some wealth to leave behind. Thus, a greater percentage of employed, high income, internet fluent respondents have answered, ‘It would depend on the circumstances’, given the fact that many of them have non-traditional educational background as well as necessity to leave behind some wealth.

Question 14 hit upon the narrowness of trust in a specific setting. As mentioned earlier, it was a question of cronyism/nepotism versus utilitarianism/meritocracy. From our observation, better education ( $p < 0.001$ ), English fluency ( $p < 0.001$ ), higher standard of living ( $p < 0.001$ ), and high internet usage ( $p < 0.001$ ) pushed respondents towards meritocracy, but gender, marriage, employment status, and religiosity were not significant factors behind the responses. Interestingly, atheism contributed towards cronyism, while the relationship between age brackets and responses were mixed, with no clear pattern. In terms of religious affiliation, Buddhists (Hinayana),

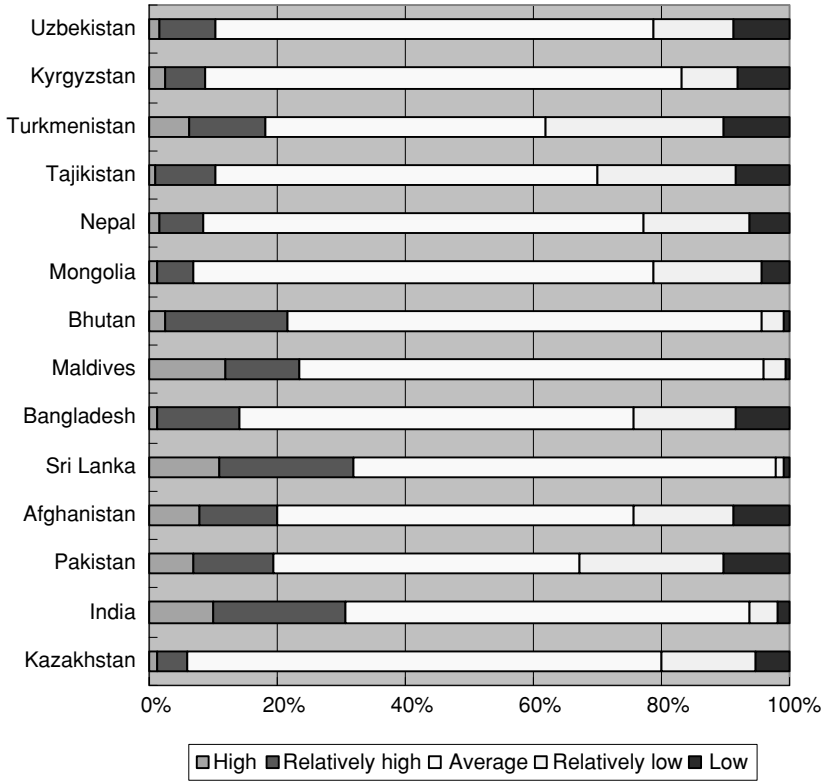


Figure 9d Standard of Living by Country.

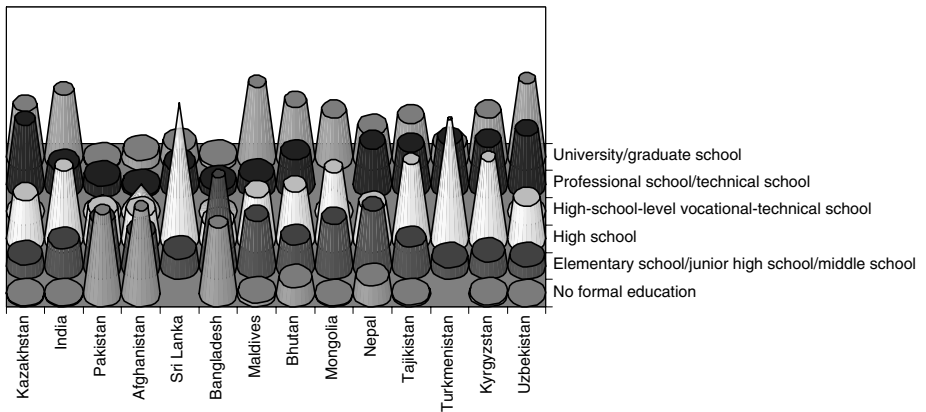


Figure 9e Education Level by Country.

Hindus, Muslims (Shiah), Muslims (Mahayana), non-Catholic Christians, and Muslims (Sunnah) tended to support meritocracy in descending order, while Catholics leaned towards nepotism. As observed in Question 10, the ranking of Hinayana Buddhists makes sense given their high priority on self-earned enlightenment. Similarly, the difference in the results between non-Catholic Christians (largely Protestants) and Catholics are evident given the so-called Protestant work ethic and their emphasis on improvement of productivity against the backdrop of Catholic's rather communitarian culture (Weber; Bell).

Some may argue that Question 15 is not necessarily a question on trust, but merely a question of financing the household given the availability and non-availability of means of financing the household when the main breadwinner has deceased. Nonetheless, when looked at from another angle, we can see that it is also a question on the various degrees of trust that extends from the self to relatives and neighbors, and to society, and how the society is able to create confidence in its sub-groups and systems.

Questions 15-3 and 15-4 asked whether one would rely on relatives and neighbors, respectively, at the time of the above-described emergency. As for Question 15-3, younger age ( $p < 0.001$ ) and internet usage ( $p < 0.001$ ) were associated with dependence on relatives, whereas education ( $p < 0.001$ ), English fluency ( $p < 0.001$ ), and atheism ( $p = 0.021$ ) went against such dependency. Gender, marriage, employment status, and living standard were not significant factors. Though atheists tended not to rely on their relatives, from the view of religiosity, the least religious respondents and highly religious respondents equally showed above-average dependency on their relatives ( $p = 0.001$ ). By affiliation, Catholics, Buddhists (Mahayana), Muslims (Sunnah), and Muslims (Shiah) exhibited above-average family bonding, in descending order, whereas Hindus, Buddhists (Hinayana), and non-Catholic Christians were even less reliant on their relatives than atheists.

Question 15-4 yielded similar but somewhat different results. In this case, younger age ( $p = 0.039$ ), marriage ( $p = 0.042$ ), and religiosity ( $p < 0.001$ ) promoted dependency on neighbors for emergency assistance, while education ( $p < 0.001$ ), higher standard of living ( $p < 0.001$ ), and atheism ( $p < 0.001$ ) turned respondents away from such a choice. Gender, English fluency, and unemployment were not significant factors, and internet usage was only significant in that mild users tended to seek neighbors' assistance (but not heavy users or non-users). Surprisingly, in terms of religious affiliation, only Sunnah Muslims exhibited above-average tendency to depend on neighbors.

For both questions, younger age had significant association with nepotistic reliance, largely due to the existence of elder relatives who might be able to provide financial assistance. Education turned respondents away from such options, as the availability and knowledge of other options, such as social welfare and insurance, usually increases according to educational level. Although we shall not discuss this in depth, there seems to be a strong link between atheism and reluctance against use of narrow-trust connections. Marriage and standard of living were a factor for dependency on

neighbors, and not on relatives. Marriage could be seen as the most intimate form of non-blood relationship, and, thus, married couples might be more willing than other respondents to seek help from close non-blood-related friends. Standard of living could be seen more in terms of pride, reluctance of high-income earners to suddenly seek help from others without first attempting other forms of solution. The linkage between religious affiliations and the two questions is somewhat puzzling, but the high ranking of Sunnah Muslims may be a result of sadaqah. Meanwhile, zakât (mandatory alms) is closer to the category of Question 15-6, social welfare, rather than direct support from relatives or neighbors.

Question 15-6 asked about the use of social welfare if the respondent's household happens to lose its breadwinner. Educated ( $p < 0.001$ ), advanced age ( $p < 0.001$ ), atheist ( $p < 0.001$ ), non-English-fluent ( $p < 0.001$ ), female ( $p = 0.004$ ), non-internet user ( $p < 0.001$ ) and lower standard of living ( $p < 0.001$ ) had significant tendency to choose this response category. Interestingly, marriage and unemployment had no significant impact on the response, while the impact of religiosity was only evident from moderately religious respondents. As for religious affiliation, non-Catholic Christians and Buddhists (Mahayana) showed extremely high tendency to choose this option; Muslims were average; social welfare was not a desirable option for many Catholics, Buddhists (Hinayana), and Hindus.

The impact of advanced age, female gender, and lower standard of living on this question was expected, given the age and financial brackets of most social welfare systems. Education contributed towards this response due to the knowledge of the mechanism and subsequent trust in the system. The contribution of atheists may be a reaction of their averseness against nepotistic connections, or may be because of the significant positive correlation between atheism and education ( $p < 0.01$ , Spearman's test) and negative correlation between religiosity and education ( $p < 0.01$ , Spearman's test). English-fluent, heavy internet users tended not to choose this response, primarily due to their high correlation with high standard of living. As for religion, non-catholic Christians scored high, given their historical involvement in the development of the Western social welfare system and Equity Law. Mahayana Buddhism also has had a long history of communal and societal support, largely due to its teachings.

Questions 15-7 and 15-8 were response categories corresponding to retirement allowance and insurance policy, both of them which have individual and social aspects, but none in between. In other words, they represent both self-achievement and trust in the social system. As for Question 15-7, education ( $p < 0.001$ ), advanced age ( $p < 0.001$ ), higher standard of living ( $p < 0.001$ ), English fluency ( $p < 0.001$ ), and heavier internet usage ( $p < 0.001$ ) all had significant association with the selection of retirement allowance as an option. Religiosity tended to go against this choice ( $p < 0.001$ ), but atheists also tended not to choose this option ( $p = 0.001$ ). Gender, marriage, and employment status were not significant factors. In terms of religion, Buddhists (Mahayana), Buddhists (Hinayana), and Hindus, in descending order,



overwhelmingly supported this option on the backdrop of not-so-eager monotheistic religions. The results for Question 15-8 were very similar. Again, education ( $p < 0.001$ ), higher standard of living ( $p < 0.001$ ), English fluency ( $p < 0.001$ ), and heavier internet usage ( $p < 0.001$ ) all promoted insurance as an emergency option. Also, religiosity tended to go against this choice ( $p < 0.001$ ), though atheists also tended not to choose this option ( $p = 0.001$ ). Gender, marriage, age, and employment status were not significant factors. As for religion, Hindus, Buddhists (Hinayana), and Buddhists (Mahayana), in descending order, overwhelmingly supported the idea of insurance policy, but support from the monotheistic religions was low.

Education, higher standard of living, and English fluency, as well as heavy internet usage, were all linked with the selection of retirement allowance and insurance policy as emergency financial means, primarily due to the fact that the impact of the two options depend upon the respondents' earnings and wealth. Age was only linked with retirement allowance due to their obvious connection. Religiosity tended to go against such choices as it is negatively correlated with standard of living ( $p < 0.01$ , Spearman's test), but atheists also tended not to choose the two options, since the greatest supporters of the two responses were Buddhists and Hindus. It is very interesting that believers of polytheistic religions had much more trust in retirement allowance and insurance policy than those of monotheistic religions. We can attempt to explain this phenomenon by the concept of karma, common to both Buddhism and Hinduism, but there should be deeper geopolitical and religion-cultural causes that ought to be addressed in separate researches.

Question 21 focuses on gender equality and fairness. It is often assumed that a 'fair' society tends to be more utilitarian, and in this sense the question is closely related to the employment problem of Question 14. Females ( $p < 0.001$ ) are more sensitive to male chauvinism, given the nature of the question. Meanwhile, English-fluent ( $p < 0.001$ ), older ( $p < 0.001$ ), average income ( $p < 0.001$ ), not religious ( $p < 0.001$ ) or atheist ( $p < 0.001$ ) respondents are more prone to believe that their society is based on gender equality. English fluency can be seen as a tool that has allowed many women to receive the same societal treatment as men, with respect to income and occupation. As for religion, Buddhists (Mahayana), Buddhists (Hinayana), and Catholics, in descending order, have largely felt that men and women are treated fairly equally.

Question 33-1 is an interesting question in that it has to do with both the recognition of power with government officials and with the non-confidence in government officials. The question also deals with utilitarianism, as well as trust in social institutions. From observation, educated ( $p < 0.001$ ), unemployed ( $p = 0.028$ ), young ( $p < 0.001$ ), average income ( $p = 0.002$ ), atheist ( $p = 0.025$ ) respondents seem to support such use of connections with government officials to elicit permits. On the other hand, English fluency ( $p < 0.001$ ) seems to go against such tendency. Also, Muslims (Shiah) and Buddhists (Hinayana) have higher proportions of respondents who do not prefer such an option, as compared to believers of other religions.

### Three dimensions of social capital

We subsequently extracted three components from the above questions using principal component analysis.<sup>2</sup> The eigenvalues were 1.531, 1.314, 1.121, respectively, and both KMO and Bartlett's tests were adequate. After varimax rotation with Kaiser normalization and minor parameterization, we gained the following results.

Component 1: Q10 (0.765), Q11 (0.782), Q12 (0.424)

Component 2: Q14 (-0.355), Q15-3 (-0.616), Q14-4 (-0.264), Q15-7 (0.505), Q15-8 (0.630), Q21 (0.243)

Component 3: Q12 (0.487), Q13 (0.631), Q15-4 (-0.295), Q15-6 (0.460), Q33 (0.291)

Component 1 is general trust in interpersonal relations. Component 2 is merit-based utilitarianism, and its reverse (opposite vector) can be considered as trust in nepotistic value. Component 3 is institutional engagement, composed of trust in social institution and exploitation of social network. Interestingly, these three key dimensions are the same as the findings by Inoguchi using data from AsiaBarometer 2003 (Inoguchi, 2004c).

We then took the Bartlett's scores of the three components and parameterized the initial scores for binary logistic regression analysis (LRA) of the three components against the individual parameters observed earlier. They all passed the Hosmer and Lemeshow test, but Nagelkerke's R Squares were low, indicating some unfitness in the three models (which was expected).

Component 1, or general trust in interpersonal relations, was best explained by gender ( $p = 0.090$ ), educational level ( $p < 0.001$ ), English fluency ( $p < 0.001$ ), marriage ( $p = 0.004$ ), unemployment ( $p < 0.001$ ), internet usage ( $p < 0.001$ ), and living standard ( $p < 0.001$ ). Component 2, or merit-based utilitarianism, was best explained by age ( $p < 0.001$ ), English fluency ( $p < 0.001$ ), internet usage ( $p < 0.001$ ), and living standard ( $p < 0.001$ ). English fluency was especially influential among the four independents, given the highest odds ratio out of the four. Lastly, Component 3, or institutional engagement, was best explained by age ( $p = 0.002$ ), educational level ( $p < 0.001$ ), and English fluency ( $p < 0.001$ ).

### Country rankings

We then aggregated the initial Bartlett scores of the three components by country, and ranked the 14 survey countries according to each of the three components.

Figures 10-a, 10-b, and 10-c exhibit the country rankings by component. Figure 2a is a two-dimensional scatter plot matrix showing the positions of the countries with respect to any two of the three components. Figure 2b is a three-dimensional scatter plot that positions the 14 countries with respect to all of the three components.

General trust was high for countries such as Maldives, Pakistan, Turkmenistan, and Afghanistan, which are situated in the towards the western region of the survey area. Bhutan, India, Sri Lanka, Bangladesh, Tajikistan, and Nepal, most of which are

<sup>2</sup> Hayashi's quantification method III and categorical principal component analysis are other options.

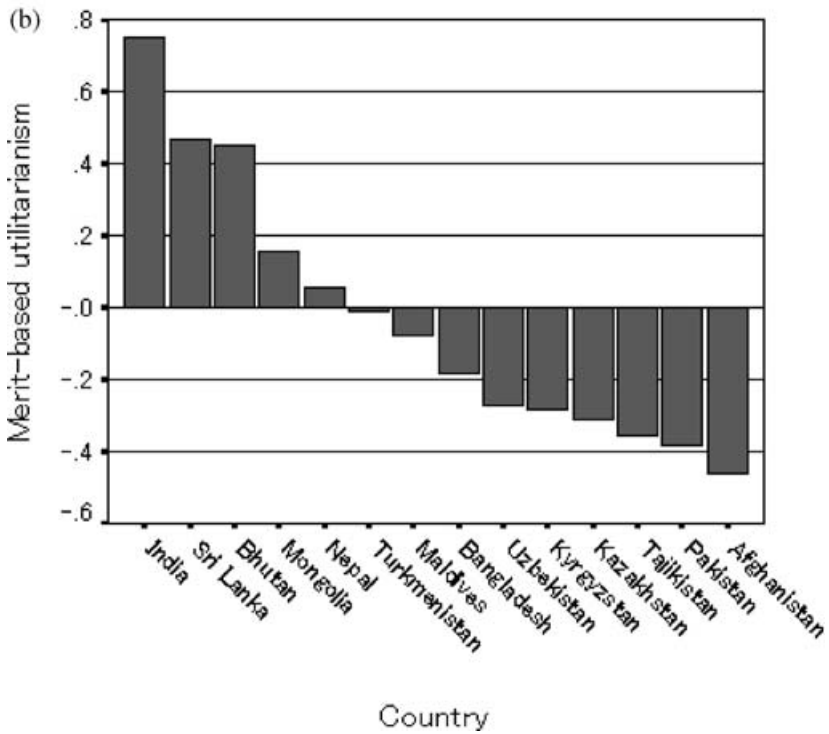
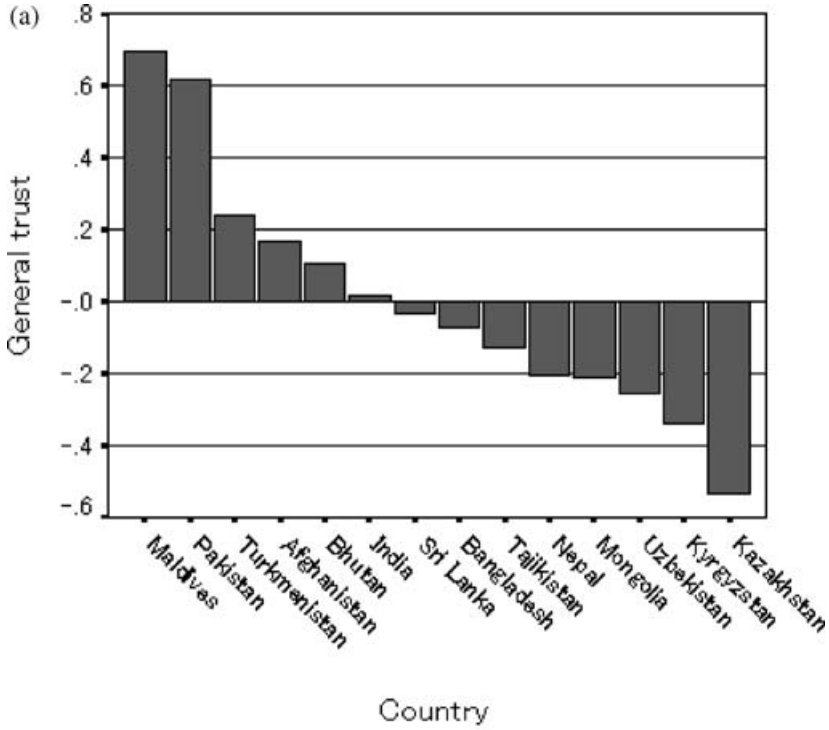
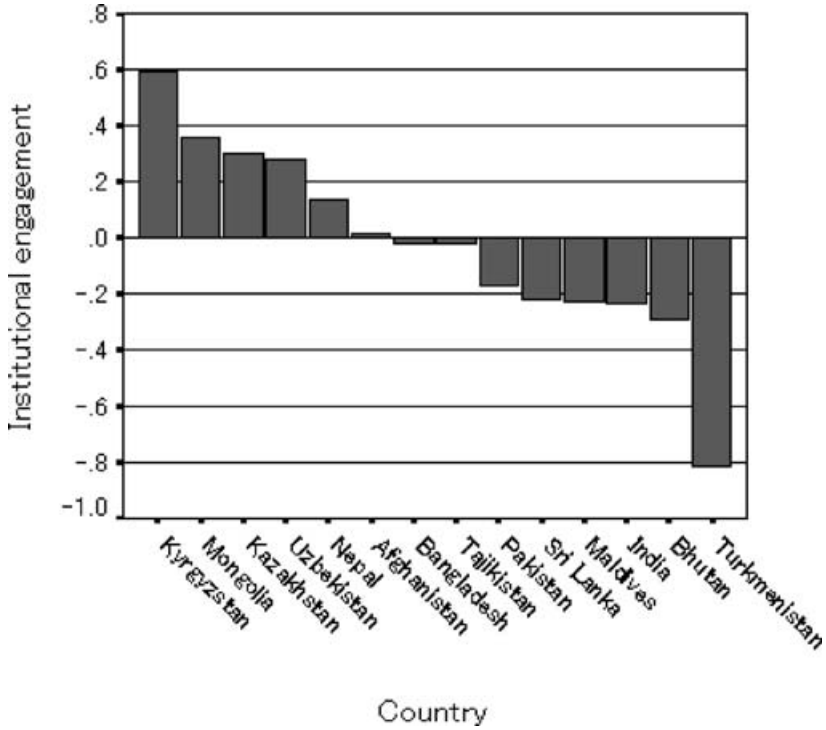


Figure 10a, b



**Figure 10c**

towards the southeastern border of the survey area ranked in the middle. Mongolia, Uzbekistan, Kyrgyzstan, and Kazakhstan – the four northern countries in the survey area – displayed a lower level of general trust. Note that there was not much similarity between the respondents of the different countries in each category, such as between the Maldives and Afghanistan, with respect to the individual parameters observed earlier. In fact, religious affiliation, religiosity, and educational levels vary greatly among the countries ranked close together. The rankings, therefore, seem to be geographically induced, possibly from geopolitical and historical background.

As for merit-based utilitarianism, India, Sri Lanka, Bhutan, Mongolia, and Nepal, which are countries largely consisting of Buddhists and Hindus, ranked in the top category. With the exception of Mongolia, English fluency and living standards of the respondents were relatively high in these countries. Also, in Bhutan, Mongolia, and Nepal, greater proportions of respondents were using internet than the other countries.

In terms of institutional engagement, or better to say, trust in social institutions and exploitation of social network, Kyrgyzstan, Mongolia, Kazakhstan, and Uzbekistan ranked high. These countries are all situated in the northern ends of the survey area, implying reminiscence of the former Soviet regime. Some countries like India scored high for Question 33-1, the question of whether one would use government connections

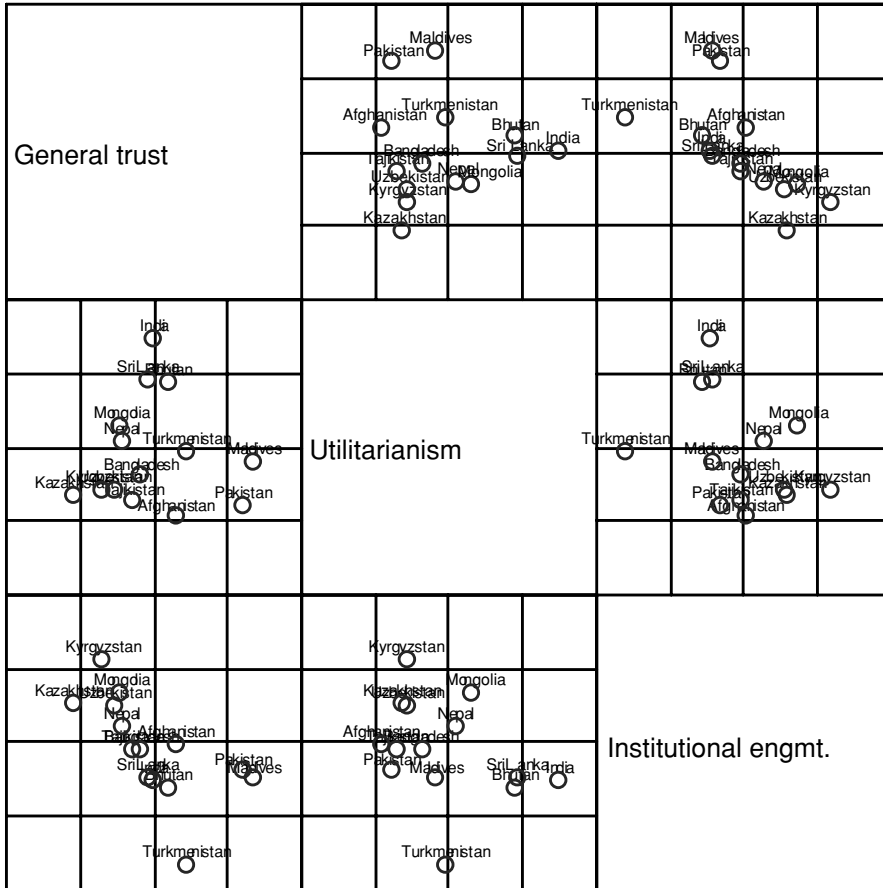


Figure 11a

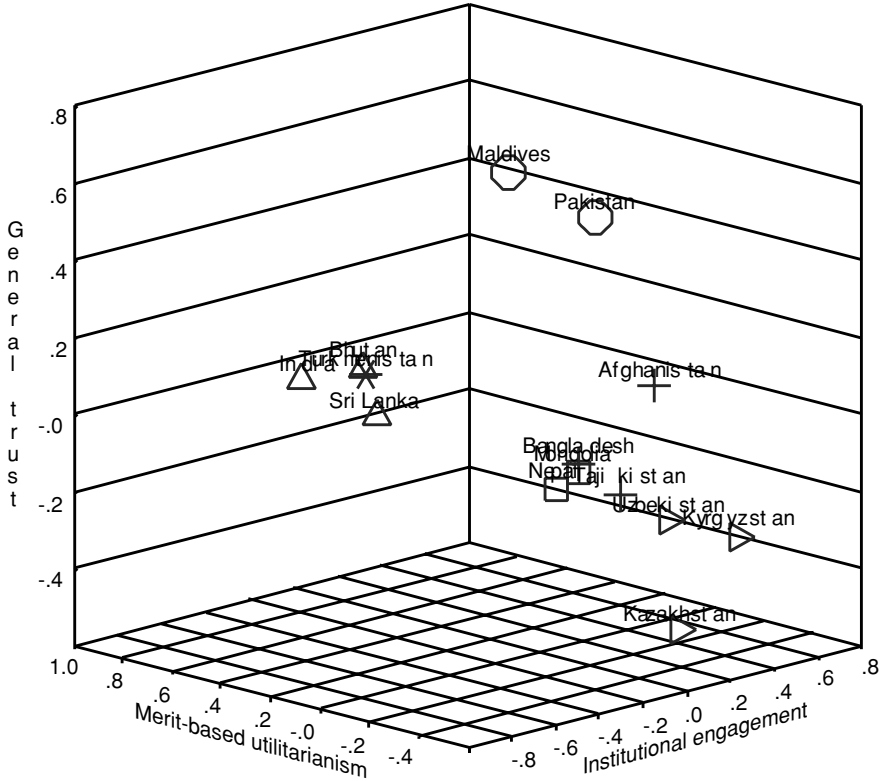
to elicit permits, but they ranked low for the other questions dealing with social infrastructure, such as reliance upon social welfare in case of financial emergency.

**Six groups of countries**

As used in some recent literature, we grouped the 14 countries using hierarchical cluster analysis based on the three key dimensions (Inoguchi and Hotta, 2003; Inoguchi, 2004c). Ward’s method was used.

It seems that there are roughly six groups:

- Group 1: Sri Lanka, Bhutan, and India
- Group 2: Pakistan and Maldives
- Group 3: Turkmenistan
- Group 4: Bangladesh, Tajikistan, and Afghanistan

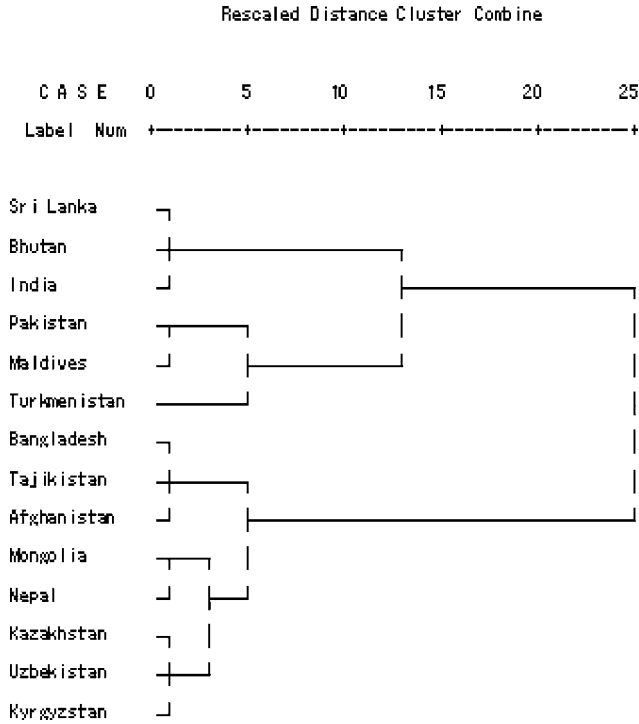


**Figure 11b**

Group 5: Mongolia, and Nepal

Group 6: Kazakhstan, Kyrgyzstan, and Uzbekistan

It is quite surprising that that the groupings are geographically and historically oriented. Group 1 revolves around India in terms of geography and history, and is notable for middle-level general trust, high-level utilitarianism, and low level of institutional engagement. Group 2 is located along the Arabic Sea and is characterized by high-level general trust, low- to middle-level merit-based utilitarianism (or higher-level of cronyism), low-level institutional engagement. Group 3 is Turkmenistan on its own. The country has shown different traits from the rest of the groups: high level of general trust, mediocre utilitarianism, and low institutional engagement. It is rather close to Group 2 as compared to the rest of former Soviet countries, with some hints of Group 4. Group 4 shows middle to low level of general trust, middle to low level of meritocracy, and middle level of institutional engagement. The characteristics are not too far from Group 2. Group 5 countries rank low for general trust, high for utilitarianism, and high for institutional engagement. Except for institutional engagement, their traits resemble Group 1, and this may largely owe to their religious commonality. The relative highness

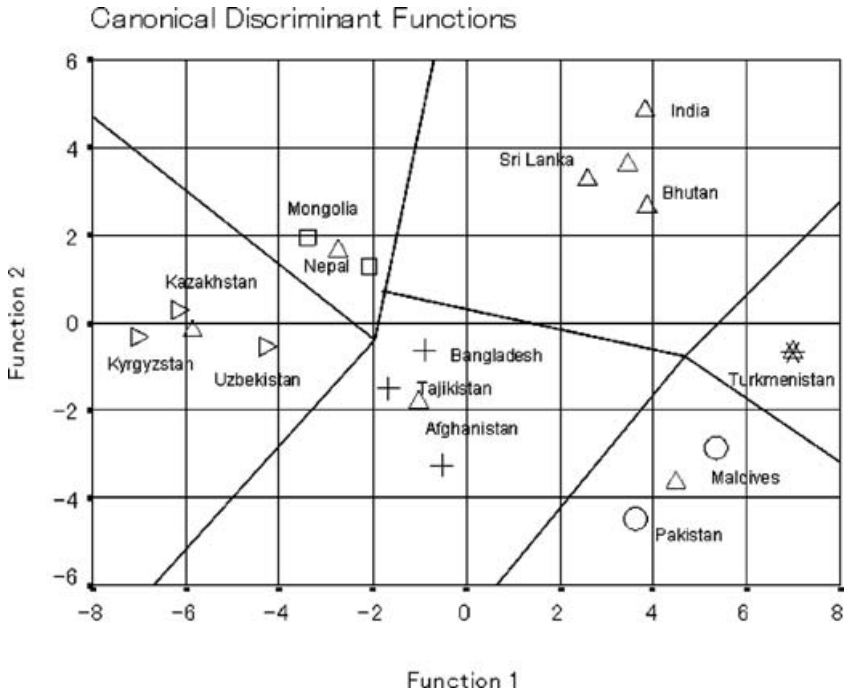


**Figure 12**

of institutional engagement may owe to the two countries’ closer geopolitical affiliation with China. Group 6 are the three former Soviet nations located on the northwest end of the survey district. Culturally and historically, the three countries have more in common among themselves when compared to the other countries. This group is characterized by low level of general trust, low level of merit-based utilitarianism, and high level of institutional engagement.

In Inoguchi’s earlier paper, Uzbekistan was grouped with Sri Lanka, characterized by low social engagement and higher merit-based trust (Inoguchi, 2004c). In our present observation, this no longer holds true. This difference owes not only to the time lag between the two surveys (AsiaBarometer, 2003 and 2005) and to the slightly different choice and parameterization of the questions, but also to the fact that AsiaBarometer 2005 forced comparison with more similar countries in similar geographical settings. Before, we were comparing oranges to grapefruits; now, we are comparing selected types of oranges.

Figure 13 is a map of the 14 countries plotted according to the first two of the discriminant canonical functions based on the three components. The relative position of the six groups is quite evident.



**Figure 13**

### Conclusion

As was the previous paper (Inoguchi, 2004c), the three key dimensions observed in this paper have turned out to be surrogate dimensions (with slightly different labels) of the three diverse lines of thought on social capital: utility, fairness, and institution. Utility is normally used by economists and rational choice theorists, who chiefly argue that cultural differences are not significantly detected in cross-cultural game experiments (Roth *et al.*, 1991), and thus play down the notion of social capital. Fairness is deployed normally by philosophers, sociologists, and political scientists, who tend to argue that political cultures do matter in differentiating the way in which bridging and bonding trust is conducted (Scott, 1976; Putnam, 1993; Fukuyama, 1997; Blondel and Inoguchi, 2002). Meanwhile, institution is frequently brought in by anthropologists, sociologists, economists, and political scientists, whose argument centers on 'the role of government institutions as the engine of higher levels of generalized trust and cooperation' (Ensminger, 2001).

It is not a coincidence that the general-trust dimension can be associated with fairness in terms of the Equity Law in the world of English Social Democrats, but not with the utilitarian-based fairness of the Common Law of Adam Smith. The second component, merit-based utilitarianism, greatly overlaps with concepts of fairness as a means to promote utility and suppress cronyism. Cross-cultural differences



emerge only when experimental games like the ultimatum bargaining game or the dictator game are conducted both in low-income societies and high-income societies, or both in formally better institutionalized societies and not so well-institutionalized societies (Roth *et al.*, 1991; Ensminger, 2001). Such phenomenon has been evident in our present analysis, primarily due to the diversity of the per capita income level among the 14 survey countries of the AsiaBarometer 2005 survey. The third dimension of institutional engagement evidently touches the concept of institution and taps the basic difference between communitarianism (and former communism) and market capitalism. Social systems based on different institutional coordination and incentives are bound to constrain and reinforce certain sets of norms and values. Hence, our third dimension is a significant measurement in distinguishing between ideologically and bureaucratically organized market economies and much freer market economies, and between under-institutionalized societies and comprehensively institutionalized societies (Ensminger, 2001). Also, we should note that institutional engagement often involves (1) passive trust in the existent social infrastructure, such as government bureaucracy, social welfare system, and family line, as well as (2) active exploitation of the social network, such as the establishment of a new social network and use of government connections.

It is our hope that this paper serves as a starting point for sorting out the social capital questions a little more systematically along the dimensions of fairness, utility, and institution, with slightly more depth and area as compared to our previous studies. We also hope to emphasize the importance of this paper, that this is one of the first attempts by any serious academian to gain a comprehensive cross-sectional, and simultaneous glimpse into the status quo of social capital in Central and South Asia, gauging steps to say more directly some significant implications to the region's democratic, developmental, and regionalizing potentials in the next decade.

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