China’s Ideological Spectrum

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Abstract

The study of ideology in authoritarian regimes—of how public preferences are configured and constrained—has received relatively little scholarly attention. Using data from a large-scale online survey, we study ideology in China. We find that public preferences are weakly constrained, and the configuration of preferences is multi-dimensional, but the latent traits of these dimensions are highly correlated. Those who prefer authoritarian rule are more likely to support nationalism, state intervention in the economy, and traditional social values; those who prefer democratic institutions and values are less likely to be nationalistic or support traditional social values but more likely to support market reforms. This latter set of preferences appears more in provinces with higher levels of development and among wealthier and better educated respondents. These findings suggest preferences are not simply split along a pro-regime or anti-regime cleavage, and indicate a possible link between China’s economic reform and societal cleavages.

Keywords: ideology, authoritarianism, political cleavage, China, factor analysis

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1 Introduction

Understanding the nature of latent strains, disagreements, and cleavages in societal preferences has implications for the emergence of party systems, the dynamics of political conflict, and the stability of democracy (Dalton 1988; Lijphart, Rogowski and Weaver 1993; Lipset and Rokkan 1967). While the study of how public preferences are configured—known also as the study of ideology, belief systems, and political cleavages—has been the subject of intense interest in democratic settings, it has received minimal consideration in nondemocratic contexts. This is because the arrangement of preferences is often seen as unimportant where individuals cannot vote or where votes do not meaningfully influence political outcomes. However, studying ideology in authoritarian regimes is valuable because it can shed light on the contours of opposition to and support for the regime.

We take a step to ameliorate this gap in knowledge by examining ideology in China—how preferences are configured and the extent to which preferences are bound together by some form of constraint. How preferences are configured refers to whether individuals who are more likely to hold certain preferences on one set of issues are also more likely to hold certain preferences on other issues. For example, are those who favor democratization also more likely to favor free markets, and are those who oppose democratization also more likely to oppose free markets? The extent to which preferences are bound together by some form of constraint refers to how well the identified configuration of preferences can correctly predict preferences. For example, if preferences are configured so that those who favor democratization tend to also favor free markets, what is the likelihood an individual favors both democratization and free markets?

Based on a large-scale online survey, we study how preferences are configured and constrained across a wide range of issues. We uncover three main findings. First, we find that public preferences over policy and social issues are constrained in China, but less so than preferences in competitive democracies. Second, the configuration of preferences across dif-

\[1\] We use the terms belief system, ideology, and cleavage interchangeably in this paper.

\[2\] For examples, see Converse (1964); Poole and Rosenthal (1991, 2000); Heckman and Snyder (1997); Ansolabehere, Snyder and Stewart (2001); Treier and Hillygus (2009); Stimson (2012); Ellis and Stimson (2012).
ferent issues reflects known debates, and fall along the following dimensions: (i) preference for authoritarian institutions and conservative political values versus preference for democratic institutions and liberal political values, (ii) preference for pro-market economic policies and non-traditional social values versus preference for state intervention in the economy and traditional social values, and (iii) preference for nationalism. We find that respondents’ estimated latent traits in the three dimensions are highly correlated with one another, and we refer to these highly correlated latent traits as *China’s ideological spectrum*. Third, we find that China’s ideological spectrum is related to respondent characteristics such as education and income, as well as regional economic indicators, such as trade openness and urbanization.

Our first finding, focused on the constraint of preferences, uses principal component analysis (PCA) and exploratory factor analysis (EFA) to extract information from the variance-covariance matrix of the data. Using these approaches, we find that preferences are organized in non-random ways. For example, the first principal component explains roughly 18% of the total variation in the data and increases the percentage of responses correctly predicted (PCP) to 70%. This PCP is considerably lower than what has been observed in data from consolidated democracies such as the United States (*Jessee 2009; Tausanovitch and Warshaw 2013*), suggesting that while public preferences in China are bound together by some constraint, the constraint is relatively weak.

Our second finding, focused on the configuration of preferences, combines our substantive knowledge of debates in China with Confirmatory Factor Analysis (CFA). We organize the online survey questions into seven categories that reflect known debates over China’s political, economic, and social trajectory, and test a large set of models using CFA. The best fit model is three dimensional. In the first dimension, which we refer to as the *political* dimension, individuals who favor more inclusive political institutions such as a multi-party system and universal suffrage are also more likely to favor protecting individual rights from state intervention (we call this set of preferences “liberal”). In contrast, individuals who are more likely to oppose the adoption of more inclusive political institutions are more likely to believe that the state should intervene in the private domain (we call this set of prefer-
ences “conservative”). In the second dimension, which we refer to as the economic/social dimension, individuals who are more likely to oppose state intervention in markets are more likely to oppose state ownership of assets for protectionism, less likely to believe China’s economic reforms have generated negative outcomes for the working class and peasants, and more likely to endorse non-traditional social values, such as sexual freedom (we call this set of preferences “pro-market/non-traditional”). On the other hand, individuals who believe China’s economic reforms have generated negative externalities are more likely to support greater state intervention in market dynamics, such as price setting, more likely to support state ownership of assets to protect national interests, and more likely to endorse traditional values, such as social hierarchy and practices such as the study of Confucian classics (we call this set of preferences “anti-market/traditional”). Finally, in the third dimension, which we call the nationalism dimension, individuals are divided between those who endorse nationalism—for example, strong defense of territorial sovereignty and take an adversarial view of the West (we call this set of preferences “nationalist”)—and those who oppose nationalism (which we call “non-nationalist”).

We find that respondents’ latent traits in these three dimensions are strongly correlated so that individuals who are politically “liberal” are also more likely to be “pro-market/non-traditional,” and “non-nationalist,” while individuals who are politically “conservative” are more likely to be “anti-market/traditional” and “nationalist.” Despite the high correlation of the latent traits of the dimensions, preferences are better described as three dimensional rather than reduced to one dimension. If we were to visualize the configuration of preferences, China’s ideological spectrum is better described as a three-dimensional ovoid (think football) than either a one-dimensional line or a three-dimensional sphere.

Our third finding focuses on the relationship between China’s ideological spectrum and individual and regional level covariates. We find that individuals from regions such as Guangdong, Shanghai, and Beijing with higher levels of economic development, trade openness, and urbanization on average lean toward the “liberal,” “pro-market/non-traditional,” and “non-nationalist” end of the spectrum in comparison with respondents from poorer regions
such as Guizhou, Guangxi, and Henan who lean on average toward the “conservative,” “anti-market/traditional,” and “nationalist” end of the spectrum. At the individual level, those with the “liberal,” “pro-market/non-traditional,” and “non-nationalist” clustering of preferences are more likely to have higher levels of income and education. We validate these results with the nationally representative Asian Barometer Survey.

These findings have implications for our understanding of potential opposition to Chinese Communist Party (CCP) rule. The configuration of preference we identify does not represent a pro- or anti-regime cleavage. Those who are more likely to favor political reform and liberalization are supportive of market reform and liberalization, while those supportive of China’s current political institutions favor changes to the economic status quo. In other words, although wealthier and better educated individuals may support changes to China’s political system, these preferences may not result in opposition to the CCP because the same sub-population prefers the regime’s trajectory of market-oriented economic reform. Similarly, those who oppose economic policies—the less educated and well-off—are likely to support the continuation of CCP rule, given their opposition to political liberalization and emphasis on national strength. On the whole, China’s current configuration of preferences does not appear conducive to the emergence of consolidated opposition to the CCP.

These results may also expand our understanding of what factors shape the emergence of political cleavages. Lipset and Rokkan (1967) argue that cleavages in Western Europe emerged through a series of conflicts between the church and state. Kitschelt (1992) critiques this view and instead argues that different types of political cleavages emerge depending on whether resources are allocated by the market or by the state when political liberalization occurs. We examine a context marked by absence of electoral competition and organized political opposition.\(^3\) China’s ideological spectrum appears to correspond with the outcomes of post-Mao market reforms. China has experienced tremendous growth, but also increasing inequality in income, wealth, and access to public goods (Khan and Riskin 2001). Those

\(^3\)Elections in China are relegated to villages and neighborhoods where the authority of office holders is limited, and candidates do not compete on differing party platforms (e.g., Manion 2006; O’Brien and Li 2000; Xu and Yao 2015).
who are relatively better off in China’s era of market reform tend to welcome continued
market reforms as well as political reform toward democratic institutions, but tend to reject
traditional social norms. Those who are relatively worse off tend to support authoritarian
rule, favor a return to state allocation of resources, and endorse traditional values. While
we cannot establish a causal relationship between economic outcomes and preferences, our
data is consistent with several existing explanations of how economic reforms and attendant
changes may influence the configuration of preferences, including theories of material self-
interest, information exposure, cognitive mobilization, and personality traits.

This paper proceeds in five sections. Section 2 explores how studying ideology can ad-
vance our understanding of authoritarian regimes, and describes how we operationalize ideo-
logy. Section 3 discusses the online survey data, and places the survey questions into seven
categories based on existing debates over policies and practices. Sections 4 presents our res-
ults on the constraint and configuration of preferences. Section 5 explores the relationship
between the configuration of preferences we identify and individual-level and regional-level
covariates. Section 6 concludes by discussing the implications of our findings.

2 Study of Ideology in Authoritarian Regimes

In this section, we discuss why relatively little attention has been paid to the study ideology
in authoritarian regimes, and why studying ideology advances our understanding of non-
democratic regimes. Then, we discuss how we operationalize the concept of ideology.

2.1 Ideology and Authoritarian Regimes

While there has been rapid growth in research examining public opinion in authoritarian
regimes, relatively little attention has been put on how these opinions are organized and
arranged.\footnote{Exceptions include Wu (2013) and Blaydes and Linzer (2012).} This inattention may relate to the perception that the organization of societal
preferences is largely irrelevant for political systems without voters as well as the belief that
those living in authoritarian regimes may not have organized preferences.

In his work on belief systems in mass publics, Converse (1964) notes that the organization of societal preferences is largely irrelevant in non-democratic settings because mass publics in these political regimes are not voters. However, Converse notes that in non-democratic settings, belief systems are occasionally extremely important—in periods of “crisis or challenge to the existing power structure” (Converse 1964, p. 2). Periods of crisis could arise because societal preferences become organized in opposition to regime policies. Elite rivals can exploit divergences in preferences to gain mass support. Outside of periods of crisis, mass preferences may also influence policy and governance outcomes in non-democratic regimes, as a growing body of work shows (Weeks 2008; Wang 2008).

For post-totalitarian and post-communist regimes, the lack of attention to studying ideology also stems from the assumption that societal actors are unlikely to have coherently organized preference because of the legacy of ideological control and suppression of autonomous social organizations (Elster, Offe and Preuss 1998; White, Rose and McAllister 1997). However, instead of destroying the organization of preferences, totalizing ideology could instead structure cleavages in public preferences. For example, Maoism was put into place by the CCP as a totalizing ideology to motivate voluntary compliance and involvement in societal transformation (Schwartz 1970; Starr 1973). However, rather than flattening ideological divisions, state-led ideological campaigns, such as China’s Anti-Rightist Movement in the late 1950s, reified the ideological cleavage between the regime and “rightists” supposedly sympathetic to liberal political values.

Studying ideology can help advance our understanding of support for and opposition to autocratic rule. Research on public opinion in authoritarian regimes, including China, focuses on assessing regime support and alternative political institutions (Dowd, Carlson and Shen 1999; Shi 2001; Tang 2005; Dickson 2008; Wright 2010). Studying the configuration of preferences (ideology) allows us to examine how public preferences across issues are arranged relative to the policy positions of the regime. Instead of evaluating regime support by directly asking respondents about their trust in current and alternative institutions, procedures,
and outcomes as is the main strategy of public opinion research, studying ideology allows researchers to evaluate regime support by whether public preferences are organized so that key cleavages align with the policies and positions of the regime.

2.2 Conceptualizing Ideology

The diverse meanings of the term “ideology” may also help explain why it has been understudied. In authoritarian and especially post-communist settings, the term is closely associated with totalitarianism and the use of totalizing ideology to motivate and reinforce social control (Friedrich and Brzezinski 1965; Inkeles 1954; Linz 1975; Neumann 1957).

In this paper, ideology refers to the study of how public preferences are configured and the extent to which this configuration is bound by some constraint. This conception of ideology follows Converse (1964) and focuses on the extent of agreements and disagreements in people’s beliefs and attitudes across myriad issues. In any given society, each individual likely has beliefs on many issues at the same time—for example, one might have opinions on religion, globalization, urbanization, nationalism, and income redistribution. These beliefs may be shaped by various internally developed or externally imposed factors. We are interested in whether and how beliefs across issues area are organized among individuals in a society. To put it differently, we are interested whether individuals who are more likely to hold certain preferences on one set of issues are also more likely to hold similar preferences on other sets of issues. The study of ideology or belief system differs from the general study of public opinion, which tends to focus on preferences on individual issues or support for the incumbent, rather than the organization of preferences across a variety of different issues.

Our conceptualization of ideology implies a focus on “operational” ideology, namely, the measurement and description of how preferences are arranged, which follows a long tradition in the study of belief systems in American politics. Our operational definition is distinct from “symbolic” ideology, or self-identification, and differs greatly from the use of ideology to denote domination by the ruling class (Marx and Engels 1970), as well as cultural understandings of the term (Geertz 1964).
A configuration of preferences refers to the minimum number of coordinates of a space (known as dimensions) that can best capture divisions and clusterings in beliefs and attitudes. A uni-dimensional ideology means that divisions can be mostly captured by a line in a high-dimensional space. A two-dimensional ideology means that divisions in beliefs and attitudes are best represented by a plane, and a three-dimensional ideology means that divisions mostly occur within a cuboid.

To illustrate this more clearly and to show what a configuration implies for how preferences are arranged, we describe a hypothetical society where individuals have diverse preferences across two issue areas: attitudes about whether the individual or the group is the fundamental unit of concern (individualism vs. collectivism), and beliefs about whether the state should or should not intervene in economic production and allocation (economic interventionists vs. economic non-interventionists). If beliefs in this hypothetical society are configured such that preferences for individualism or collectivism (x axis) are uncorrelated with preferences in the economic realm (y axis), we would say the configuration of preferences is two dimensional and the two dimensions are orthogonal to each other. This configuration is best represented by a plane, as depicted in Figure 1(a). In this case, divisions in both issue areas exist—there are cleavages between those who are collectivist and those who are individualist, and between those who support and oppose economic intervention.

In contrast, if beliefs in this hypothetical society are configured such that individuals who support collectivism almost all support economic interventionism, and individuals who

Figure 1. Dimensionality of Ideology: Hypothetical Example

(a) 2D orthogonal  (b) 1D  (c) 2D not orthogonal
support individualism almost all support economic non-interventionism, then the two dimensions would be reduced to one dimension—the 45° line in Figure 1(b). In this case, we would say that the configuration of preferences is one dimensional. The main cleavage lies between those who favor collectivism and economic interventionism and those who favor individualism and economic non-interventionism.

A more realistic configuration may fall somewhere between these two cases: opinions are split on both issue areas, but individual preferences in the two issue areas are correlated (Stimson 2012). For example, people who support individualism are more likely to support economic non-interventionism and people who support collectivism are more likely to support economic interventionism, as shown in Figure 1(c). In this case, we would say that the configuration of preferences is two dimensional, but they are not orthogonal to each other, and the main cleavage in society resembles that of a one dimensional configuration.

3 Data

We explore ideology in China mainly using data from the online survey zuobiao.me between January 1, 2012 and December 31, 2014. During this period, 460,532 respondents completed the online survey. In this section, we describe the characteristics of this unique dataset and how we reweight the data and construct a more representative sample. We also describe the issue areas that the questions in this survey cover, and how these issues relate to existing debates in China.

3.1 Opt-in Sample and Resampling

The zuobiao survey, also known as the Chinese Political Compass (中国政治坐标系), was designed and set up by a diverse group of graduate students and researchers at Peking University in 2007 to measure beliefs and preferences of the public. These researchers developed the 50 questions through

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5In democratic contexts with national-level elections and robust party competition, non-survey based methods such as campaign contributions (Bonica 2014), Twitter networks (Barberá 2015), and representation in the media (Groscoce and Milyo 2005) are used to study ideology. However, the activities of competing political parties underlie these non-survey methods, which are often validated by comparison to roll call data (Heckman and Snyder 1997). Although ideology could also be measured with non-survey methods in a context like China, survey-based measure will likely remain important in the absence of voting and roll-call data.
a process of consultation and discussion with a wide range of experts that emphasized the creation of a set of questions that were time-insensitive and covered a wide array of debates on key issues facing China. Like questions included in survey-based measures of ideology in democratic contexts, the zuobiao survey focuses on question related to politics and positions of political elites. In other words, in the study of ideology in the U.S., survey-based measures of ideology include questions on issues ranging from redistribution to morality because these are the issue where the Democratic and Republican parties have established viewpoints and positions. In the zuobiao survey, questions not only include those where the CCP has established a position, but also those where this is debate among elites and the public over whether the regime should alter its stance.

The zuobiao website gained traction among Chinese students through online bulletin boards and spread through (virtual) word of mouth. Since this data is generated through an opt-in online survey, it has both advantages and limitations. The survey’s most important advantage is that it includes questions typically excluded from nationally representative surveys, which are subject to government and CCP oversight. Another advantage is that in comparison with officially approved surveys, participants in opt-in samples are typically more intrinsically motivated and are likely to produce data with less measurement error, satisficing, and social desirability bias (Chang and Krosnick 2009).

The main limitations of the data is that the sample is not representative of the Chinese population as a whole, and it only records a small number of respondent characteristics.

The zuobiao website records the IP address associated with each respondent, which we use to identify the location of respondents. The nearly half million respondents come primarily from mainland China (90 percent), with a few 4,310 (less than 1 percent) from Hong Kong, and the remaining 45,066 (10 percent) from countries and regions outside of mainland China. As shown in Figure 2, respondents come from all 31 of China’s provincial-level administrative units. The largest proportion (21%) come from Beijing, followed by Guangdong (9%), Shanghai (8%) and Jiangsu (7%). Although the overall sample size is large, the number of respondents is only in the hundreds for some provinces. It is clear that the zuobiao data are geographically biased towards more developed areas. The zuobiao survey asks respondents for their gender, year of birth, level of education, and annual income. Figure 3(a) shows the age and gender composition of respondents

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6In China, controversial questions have high rates of non-completion and high levels of social desirability bias (Meng, Pan and Yang 2014).

7For education, respondents can select “middle school and below,” “high school,” “college,” and “advanced
in the zuobiao sample. As we can see, the majority of the respondents are young and male.

In order to achieve better representativeness across geography and demographics, we construct a new sample of 10,000 observations using a resampling scheme. We conduct all subsequent analyses on this 10,000 observation sample. We do not embed a reweighing scheme in statistical modeling because most of estimation procedures we use, such as PCA, EFA, and CFA, cannot easily accommodate sampling weights. The resampling procedure entails two main steps. First, we adjust weights of the zuobiao sample using calibration reweighting such that sample-estimated totals of province, age cohorts, gender, and their interactions match the population total in the 2005 One-Percent Intercensal Population Survey (Zaslavsky 1988; Särndal and Lundström 2006). Since most of the zuobiao data come from urban areas, we focus on urban population characteristics from the Population Survey. Second, we randomly sample 10,000 observations from the zuobiao data based on the weights.

Figure 3(b) shows the age and gender composition of the constructed sample, which is very close to that of China’s urban population. College-aged men in the original zuobiao data are much less likely to enter the new sample than respondents who are middle-aged women. Similarly, respondents

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8Inverse probability reweighting based on province, gender and age gives similar results. We use calibrations reweighting because it allows us to borrow strength from neighboring cells since it targets marginal distributions of the covariates instead of their joint distribution.
from western provinces, such as Shaanxi and Gansu, are more likely to enter the new sample than respondents from areas such as Beijing, Shanghai, and Guangdong. We exclude provinces with fewer than 1,000 respondents in the original data, which removes Qinghai, Ningxia, and Tibet from the new sample. Table A2 in the Online Appendix shows the regional distributions of respondents in the original sample and in the new 10,000 observation sample.

Although we work to improve data quality, limitations remain. For example, there are characteristics we are not able to incorporate in the reweighting/resampling scheme, but which may be correlated with the probability of participating in the online survey. In addition, while we believe the questions of the zuobiao survey provide insight into our ability to understand ideology in China, we cannot determine whether the questions of the zuobiao survey as the best questions to use when measuring ideology in China. These are questions that scholars should continue to explore. To go an additional step in addressing these concerns in this paper, we use data from the third wave of the Asian Barometer Survey (ABS) China Section, a nationally representative survey, to validate the relationship between ideology and various individual and regional level covariates.9 Altogether, we believe we can gain valuable insights from the zuobiao data because we have an understanding of the nature of the sample bias and it is unlikely the sample bias will lead us to uncover patterns that are not present in a larger population (Manion 1994).

9We focus on ABS questions that cover issues similar to zuobiao.
3.2 Survey Questions and Existing Debates

The zuobiao survey comprises of 50 statements with responses on a four-point scale—“strongly disagree,” “disagree,” “agree,” and “strongly agree.” The statements are randomly ordered for each respondent. The zuobiao website only records a respondent’s answers if responses to all 50 statements are obtained. As a result, there is no missing data in the sample.

We group the 50 questions into seven categories: (1) political institutions, (2) individual freedom, (3) market economy, (4) capital and labor, (5) economic sovereignty and globalization, (6) nationalism, and (7) traditionalism. These categories represent areas where cleavages in public preferences, were they to exist, would most likely be found. We identify these sources of potential cleavage based on prior academic research as well as the substance of debates among Chinese intellectuals and elites.

**Political Institutions, Individual Freedom.** First and foremost, politics occupies a central position in debates over China’s future. We place questions related to political preferences in the *Political Institutions* and *Individual Freedom* categories. Statements falling into the *Political Institutions* category are those that pertain to preferences over the type of political, legal, and media institutions that are appropriate for China. An example statement in this category is: “Western multiparty systems are unsuitable for China in its current state.” The *Political Institutions* category reflects debates following Mao’s death over China’s political trajectory. Senior members of the CCP agreed that excessive concentration of power was at the root of Maoist era economic disasters (Perry and Wong 1985), and reforms decentralized power through changes in cadre appointment and monitoring (Burns 1989; Manion 1985). Marxist humanists within the CCP wanted to go further. They believed China’s stability and prosperity required new institutions such as multiparty competition (Goldman and Lee 2002). Calls for changes to political institutions led to the protest movements of the late 1980s and culminated in the 1989 Tiananmen incident.

After state suppression of the 1989 movement, the push for political liberalization was halted until the late 1990s when prominent economists and jurists argued for changes to political insti-

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10 The creators of the zuobiao survey organized the 50 questions into three categories: political, economic, and social. While our grouping shares some commonalities with this typology, we organize question with a greater focus on known debates. There are other ways of grouping the questions (e.g. Wu 2013).

11 In Online Appendix A.1, we show the full list of questions in each category and more details on the coding of specific questions. Their descriptive statistics are presented in Online Appendix Table A.2.
tutions and greater protection of individual freedoms (for examples, see Feng 2005). This new wave of debate informs the questions we place into the *Political Institutions* category as well as the questions we place into the *Individual Freedom* category. The *Individual Freedom* category includes statements about whether the state should intervene in individual behavior and in the private domain, or whether some individual-level choices should be protected from state intervention. Questions in this category include those on educational choice, religious freedoms, as well as reproductive rights—for example: “Even with population pressures, the state and the society have no right to interfere in the decision to have a child, or how many children to have.” Debates over what type of political institutions are best for China and the extent to which individual freedoms should be protected persist in China today, despite censorship and other controls on the free flow of information (King, Pan and Roberts 2013).

**Market Economy.** Debates over China’s political trajectory go hand in hand with debates over China’s economic reforms. We put questions that relate to the role of the state in allocating resources in the *Market Economy* category. Before 1979, resources were allocated by the state and CCP. After Mao’s death in 1976, Deng Xiaoping introduced market reforms as well as fiscal decentralization, and China has since continued down the path of reducing state intervention in the market—privatizing state-owned enterprises, lifting price controls, reducing state regulations of industries, opening up the country to foreign investment (Naughton 2007). However, there has always been opposition to decreasing state intervention in markets. In the 1980s, Leftists, including senior Party leaders, believed that market-oriented reforms would bring dangerous Western values, such as individualism and materialism, into China, and ultimately lead China to the the fate of the USSR under Gorbachev. Leftist within the party continued to oppose the economic reforms of Deng’s successors. Question from the *zuobiao* survey that reflect these debates on how resources should be allocated and the extent of state intervention in markets fall in the *Market Economy* category, which includes attitudes towards price controls, private ownership, and redistribution. For example: “Attempting to control real estate prices will undermine economic development.”

**Capital and Labor.** Debates over state intervention in market remain relevant in part because China’s economic reform continues to have dramatic effects on Chinese society While economic reform has coincided with unprecedented growth and dramatic increases in living standards for
much of China’s population, it has also been accompanied by sharp increases in inequality and other social disparities. Around 30 millions workers were laid off during privatization of state-owned enterprises (SOEs) from 1998 to 2004 and the disparity between rural and urban areas has widened (Yang 1999; Naughton 2007). Increasing inequality generates debates over the effect of economic reform on disadvantaged groups. Many of these debates are framed with language of Marxist economics, and especially the “labor theory of value.” Questions in the Capital and Labor category reflect these debates, evaluating perceptions of distributive justice and the consequences of China’s economic reforms such as: “The fruits of China’s economic development since reform and opening up are enjoyed by a small group of people; most people have not received much benefit.”

**Economic Sovereignty and Globalization.** China’s economic reform also dramatically altered China’s relations with the rest of the world. As China opened its market to foreign and private investors, debates emerged over whether economic openness would constrain or damage China’s economic sovereignty. For example, neo-nationalists argued that economic reforms, particularly the reduction of protectionist barriers and the opening of Chinese markets to foreign investment, would damage China’s national interests (Fewsmith 2008). Questions placed into the Economic Sovereignty and Globalization category reflect these debates, including the extent to which China should cede control of its economic activities, wealth and natural resources to foreign or societal interests, or whether economic activities that relate to national interest should remain firmly under the control of the state. For example: “Sectors related to national security and important to the national economy and people’s livelihoods must be controlled by state-owned enterprises.”

The categories Market Economy, Capital and Labor, and Economic Sovereignty and Globalization all relate to preferences in the economic domain and to China’s economic reforms. We place them into three separate categories because they reflect different aspects of existing debates—on the extent of state intervention in market, on the effects of market reform on Chinese society, and on the effects of market reform on China’s international standing and national interests. By doing so, we leave open the possibility that public preferences diverge in these three areas.

**Nationalism, Traditionalism.** The last two categories Nationalism and Traditionalism reflect

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[12]For example, the so-called “New Left,” were concerned with the effects of China’s economic reforms on the urban and rural underclass, especially the welfare of workers, pensioners, and peasants laid-off during SOE privatization, emerged in the late 1990s.
debates with longer historical trajectories that remain salient today. Nationalism has been a subject of debate since the late Qing dynasty and continue to attract attention of Chinese scholars and intellectuals (e.g. Unger 1996; Gries 2004; Weiss 2014). Questions falling into the Nationalism category reflect public concerns over territorial integrity, China’s relationship with the west, as well as its status on the international stage. For example, a question in this category is: “National unity and territorial integrity are the highest interest of society.”

Questions falling into the Traditionalism category reflect debates over the relevance of Confucian doctrines and teachings for China’s current social and political order, as well as debates about sexual freedom and homosexuality. For example: “The modern Chinese society needs Confucianism.” Confucian teaching have been deeply influential in China’s political tradition (Tang 2005). While Mao aimed to remove the influence of Confucian hierarchy from Communist society, Confucian values shaped implicit practices throughout the Maoist era (Perry 2008). In recent years, various schools of thought advocating for the explicit application of Confucian doctrines and institutions to Chinese society have emerged under the broad banner of neo-Confucianism (Jiang 2012).  

While the zuobiao survey includes questions across a large number of issues areas, the survey does not contain a comprehensive list of issues and debates. For example, the survey does not touch on ethnic relations or gender issues. As a result, the configuration and constraint of preferences we identify is not an exhaustive description of preferences in China, and preferences on issues not included in this survey may change the configuration of preferences. Despite this and other shortcomings of the data, we believe it offers a compelling first step in the examination of ideology in China. We hope others will build on these results in China as well as other authoritarian contexts.

4 Constraint and Configuration of Preferences

We present the main empirical results of the constraint and configuration of preferences in this section. First, we use principal component analysis (PCA) and exploratory factor analysis (EFA), to gauge the strength of the constraint on the configuration of preferences, namely, the extent to which preferences and attitudes are organized and how predictive are the most salient latent

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13Some strains of Confucian thought are increasingly well received by the CCP, and interest in Confucianism as normative political theory has also garnered interest beyond China in recent years.
dimensions of responses. We then move onto the framework of confirmatory factor analysis (CFA), where we use the seven categories of questions described in Section 3.2 along with a few additional assumption to identify the configuration of preferences.

4.1 Strength of Constraints

We employ PCA on the 10,000 observation sample to determine whether there is any systematic grouping of preferences among respondents. PCA is a dimension reduction procedure that converts multiple possibly correlated variables into linearly uncorrelated composite variables called principal components (PCs). These composite variables are orthogonal linear combinations of the original variables and are ordered according to their variances. In other words, PCA transforms correlated observed responses to the 50 statements to a smaller set of important composite variables that explain the most variability in the original responses, plus errors. There is a sizable literature on the use of PCA to study the configuration of preferences (Heckman and Snyder 1997; Ansolabehere, Snyder and Stewart 2001; Carsey and Layman 2006).

If responses to the zuobiao survey are random, then the first PCs would not explain much more of the variance in responses than the subsequent PCs. This is not what we observe in the data. Figure 4(a) is a scree plot that displays the eigenvalue of each PC (in solid black dots), which corresponds to the amount of variance each PC explains in the normalized data (hence the total variance equals 50, the number of questions). We see that the first 9 PCs have eigenvalues bigger than 1, which is the variance of a normalized variable; in particular, the first three PCs explain have considerably larger eigenvalues than the rest of PCs and they explain 19%, 6% and 4% of the total variance, respectively. This means there are at least some level of organization of the respondents’ preferences and configuration of preferences may be captured by a three-dimensional subspace.

To lend further support to this finding, we subsequently conduct an EFA, which is widely used in psychology to uncover the underlying structure of a potentially large set of variables (Gorsuch 1988). It is a method of factor analysis (with a formal statistical model) but requires minimal prior knowledge of the latent factor structure. In contrast to PCA, EFA recovers factors that maximize the shared portion of the variance instead of total variance.\footnote{Mathematically, EFA constructs factors by extracting information from the off-diagonal entries of the variance-covariance matrix while PCA takes on the entire variance-covariance matrix. Because parameters are assigned to variance of each variable in EFA, the off-diagonal matrix will not be full-rank. As a result,} Eigenvalues of estimated factors from
EFA is also shown in Figure 4 (in hollow gray dots). Consistent with the PCA, the EFA shows that there may be three factors that can explain relatively a large chunk of the variance in the data.

Having established that there exist some form of constraints of the respondents’ preferences, we investigate how strong these constraints are, where strength refers to the extent the PCs from PCA (and latent factors from EFA) can predict preferences on individual questions. In the upper panel of Figure 4(b), we show the percentage correctly predicted (PCP) by each PC. PCP is the proportion of respondents answers that would be correctly predicted had we observed this set of PCs. It is a commonly used measure of the constraint of preferences. The baseline is the PCP when none of PCs are observed but the mean of responses to each question is used. The lower panel of Figure 4(b) shows the the increase in PCP due to the inclusion of each PC.

As Figure 4(b) shows, (1) the predictive power of the first PC is considerably higher than the rest of the PCs, which indicates some systematic organization of preferences, and (2) the overall predictive power of the first few PCs is relatively low. For example, the first PC produces a classification rate of 69% (from the baseline of 61%), and the number increases to 73% when two additional PCs are added. To put these numbers into context: based on an Internet survey of American voter on policy issues, Jessee (2009) finds that a one-dimensional ideal point model

some eigenvalues will be negative.

Following common practice in the literature, the responses are first dichotomized to “agree” or “disagree”.

This number is known as the aggregate reduction in error, or APRE. See Poole and Rosenthal (2000).
produces an overall correct classification rate of 79%, while a two-dimensional model increase in classification rate to 82%; Tausanovitch and Warshaw (2013) find that a one-dimensional Item Response Theory model can correctly classify 79% of responses to policy questions using a nationally representative survey, and the PCP increases to 80% when a second dimension is added.

In summary, through PCA and EFA, we find systematic groupings of preferences, but the strength of the constraints is much weaker compared with what has been observed in competitive democracies like the United States. PCA and EFA results also suggest that the configuration of preferences is best captured by a multi-dimensional space. However, the PCs from the PCA and factors from the EFA do not naturally align with the the issue categories described in Section 3.2. In fact, by construction each principal component from PCA or factor from EFA contains information from all questions, so their substantive meanings can be hard to interpret. Next, we turn to the Confirmatory Factor Analysis to investigate the configuration of preferences more formally.

4.2 Configuration of Preferences

Confirmatory Factor Analysis (CFA) is method of factor analysis that allows researchers to test whether their understanding of the relationship between a construct of latent traits (factors) and observed measurements are consistent with data. Similar to other methods of factor analysis, CFA starts with the assumption that observed measures (in the our case, respondents’ answers to the 50 questions) reflect some latent traits of the subjects. In contrast to EFA, however, CFA requires researchers to clearly specify the factor structure, namely, the mapping from the latent traits and the observed measures, based on their prior knowledge. A CFA model is a set of system equations, which are often estimated using weighted least-squares or maximum likelihood methods.

The CFA model has two main advantages over EFA and PCA. First, because each latent trait is assumed to be driving only a subset of measures, they are easier to interpret. Taking the zuobiao data as an example, if we assume each of the seven categories is driven by one distinctive factor, then the estimated factors likely represent our understanding of these categories, as long as the model is correctly specified and converges. Second, because we specify a fully generative probabilistic model for each CFA, we can conduct statistical tests to evaluate the models. These test statistics help us select a model that best characterizes the data. For the same reason, CFA can accommodate more
complicated data generating processes, such as ordinal items.\textsuperscript{17}

The main challenge for researchers in using CFA, however, is to specify a model that they believe to be both substantively meaningful and to reflect the true data generating process. This is often a difficult task because with a large set of measures, the number of all possible models is astronomical. In order to simplify the model and keep the problem tractable, we add two modeling assumptions: (1) each question is driven by only a single factor, and (2) questions within the same category (as described in Section 3.2) are driven by the same factor. The first assumption rules out the possibility that two or more latent factors affect the answer to one question simultaneously. Though restrictive, this assumption dramatically reduces model complexity, and makes sense substantively given the nature of the 50 \textit{zuobiao} questions. The second assumption sets the maximum number of latent factors (dimensions) to seven and allows for clear interpretation of each of the factors. Note that we allow any factors to be correlated with the others or to collapse into one factor. Given the seven categories, our two assumptions reduce the number of candidate models to 877, allowing for models of one to seven dimensions. Throughout the paper, we use the Diagonally Weighted Least Squares (DWLS) estimator to estimate CFA models, given our ordinal data (Li 2016). We run a complete search of all 877 models and select the model that has the best fitness statistics, such as Chi-squared ($\chi^2$), the root mean square error of approximation (RMSEA), and the comparative fix index (CFI). These test statistics help us access model fit and determine the dimensionality, or number of factors, that make up the configuration of preferences.

\textbf{Dimensionality} Figure 5 presents the results from evaluating 877 models. It shows two goodness of fit measures, $\chi^2$ and RMSEA, for all 877 models. Figure 5(a) shows the $\chi^2$ measure of fitness, the difference between observed and expected covariance matrices, where a smaller $\chi^2$ (closer to 0) indicates a better fit. Figure 5(b) shows RMSEA, the difference between the hypothesized model and the population covariance matrix, where again, smaller values indicate better model fit. In both plots, black circles represent valid models and light gray circles invalid models, where the estimated variance-covariance matrices of the latent factors are not positive definite, which happens when some of the estimated factors are highly collinear, suggesting that they should be collapsed into a single factor. Valid models with the best fit with each number of dimensions are shown with

\textsuperscript{17}We thank an anonymous reviewer for suggesting the use of CFA with ordinal items and formal statistical tests.
solid black circles.

Figure 5 shows that the valid model with best measure of fit is a three dimensional model (Model A).\textsuperscript{18} This three-dimensional model provides better fit than the best two-dimensional model (Model B) and the one-dimensional model (Model C).\textsuperscript{19} Table 1 shows measures of absolute fit ($\chi^2$ and RMSEA) and relative fit (CFI and TLI, the Tucker-Lewis Index) for Models A, B and C. The three-dimensional Model A outperforms the two dimensional Model B ($\Delta \chi^2$ of 301), and the difference between these models is statistically significant (p-value 0.000).\textsuperscript{20} The two dimensional Model B outperforms the one dimensional Model C ($\Delta \chi^2$ of 1879), and the difference between the two models is also statistically significant.

Altogether, our analyses reveal a multi-dimensional configuration of preferences, where a three

\begin{table}[h]
\centering
\caption{CFA Model Selection}
\begin{tabular}{lcccccc}
\hline
 & \#dim & $\chi^2$ & CFI & TLI & RMSEA & $\Delta \chi^2$ & p-value \\
Model A & 3 & 65761 & 0.909 & 0.905 & 0.0742 & & \\
Model B & 2 & 66062 & 0.908 & 0.904 & 0.0743 & 301 & 0.000 \\
Model C & 1 & 67941 & 0.906 & 0.902 & 0.0754 & 2180 & 0.000 \\
\hline
\end{tabular}
\end{table}

\textsuperscript{18}A graphical presentation of a three-dimension model is shown in Online Appendix Figure A1.
\textsuperscript{19}Compared with Model A, Model B collapses the political dimension (which includes the Political Institutions category and the Individual Freedom category) and the nationalism dimension.
\textsuperscript{20}Compared with Model B (or Model C), Model A only loses two (or three) degrees of freedom.
dimensional model describes the configuration of preferences.\textsuperscript{21} The results from CFA are broadly consistent with those from PCA and EFA in terms of dimensionality.

**Substantive meaning of latent traits** We now describe how the seven categories map onto the three dimensions in Model A, and examine the substantive interpretation of each dimension.

The first dimension of Model A, which we will refer to as the political dimension, includes questions in the *Political Institution* and *Individual Freedom* categories.\textsuperscript{22} The CFA estimates of this first latent variable, as well as their 95% confidence intervals, are shown in Figure 6.\textsuperscript{23} Each coefficient represents standard-deviation increase (or decrease if the number is negative) in the response to a question due to a one standard-deviation increase in the corresponding latent factor.

From Figure 6, we can see that individuals who favor more inclusive political institutions such as a multi-party system and universal suffrage are also more likely to favor protecting individual rights from state intervention (we call this set of preferences “liberal”). For example, those more likely to agree that “When events that have major repercussions for the safety and security occur, the government should freely disseminate information even if information disclosure increases the risks of unrest” (*Political Institutions*) are also more likely to agree that “Religious adherents should be allowed to conduct missionary work in nonreligious spaces” (*Individual Freedom*).

In contrast, Figure 6 shows that individuals who oppose the adoption of more inclusive political institutions are more likely to believe that the state should intervene in the personal and private domain (we call this set of preferences “conservative”). For example, respondents who agree that “People should not have universal suffrage if they have not been educated about democracy.” (*Political Institutions*) are more likely to agree that “Primary school, secondary school, and college students should all participate in government organized military training” (*Individual Freedom*).\textsuperscript{24}

The second dimension of Model A, which we call the economic/social dimension, includes ques-

\textsuperscript{21}It is important to note that our results do not imply ideology in China definitively consists of three dimensions, only that it is multi-dimensional. As shown in Figure 5, higher dimensional models have better fit, but are not supported by our current data. Using 12 questions from the zuobiao survey plus three additional questions, Wu and Meng (2016) suggest that a two-dimensional factor model can capture the configuration of preferences of the public.

\textsuperscript{22}We assign a text label to each of the three categories for ease of reference, but these text labels maybe not fully encapsulate the nuances of the question included in this dimension. See Online Appendix A.1 for details of how questions as assigned to the seven categories, which form the basis of the dimensions.

\textsuperscript{23}All point estimates and standard errors of Model A are shown in Online Appendix Table A3.

\textsuperscript{24}The question on “wasting food” evaluates beliefs about the limits of individual autonomy and whether individual freedom refers to protections for all types of individual behavior.
Primary school, secondary school, and college students should all participate in government-organized military training.

Wasting food is an individual freedom.

Western multiparty systems are unsuitable for China in its current state.

Indiscriminately imitating (systems of) western-style freedom of speech will lead to social disorder in China.

When laws fail to fully constrain criminal behaviors, people have the right to impose their own punishments for these behaviors.

People should not have universal suffrage if they have not been educated about democracy.

Even if procedural rules are violated in the process of investigation and evidence gathering, those who have actually committed crimes should be punished.

Media should be allowed to represent the voice of a particular social stratum or interest group.

Even with population pressures, the state and the society have no right to interfere in the decision to have a child, or how many children to have.

Religious adherents should be allowed to conduct missionary work in nonreligious spaces.

Three of these categories are related to China’s economic reforms while the last category reflects respondents’ preferences toward social values. The CFA estimates of this second latent variable are shown in Figure 7. These estimates show that individuals who are more likely to oppose state intervention in markets are more likely to oppose state ownership of assets for protectionism, less likely to believe China’s economic reforms have generated negative outcomes for the working class and peasants, and more likely to embrace non-traditional values, such as sexual freedom and same-sex marriage (we call this set of preferences “pro-market/non-traditional”). For example, those more likely to believe “Individuals should be able to own, buy and sell land” (Free Market) and that “Foreign capital in China should enjoy the same treatment as national capital” (Economic Sovereignty) are more likely to disagree that “People who make money through gains from financial investments contribute less to then society than people make money through labor” (Capital and Labor) and agree that “Two adults should be free to engage in voluntary sexual behavior regardless
of their marital status” (Traditionalism).

On the other hand, from Figure 7, we see that individuals who believe China’s economic reforms have generated negative externalities for workers and peasants are more likely to support greater intervention of the state in the market, more likely support state ownership of assets to protect national interests, and more likely to subscribe to traditional values (we call this set of preferences “anti-market/traditional”). For example, those who are more likely to agree that “The process of capital accumulation is always accompanied by harm to the working class” (Capital and Labor) are
more likely to agree that “If the price of pork is too high, the government should intervene” (*Free Market*) and that “The Eight Diagrams (*Bagua*) in The Book of Changes (*Zhouyi*) can explain many things well” (*Traditionalism*).

The third dimension of Model A includes only the questions in the *Nationalism* category, as shown in Figure 8. Here, respondents are split between those who endorse nationalistic positions,

![Figure 8. Estimated Coefficients: Third Latent Factor](image)

such as “National unity and territorial integrity are the highest interest of society,” favor strong defense of territorial sovereignty, and take a adversarial view of the West (we call these preferences “nationalist”) and those who do not (we call these preferences “non-nationalist”. In the rest of the paper, we use the estimated latent factors in these three dimensions as the measure of ideology.

**Strong correlations between latent traits** CFA allows estimated latent traits to be correlated with one another. We examine the correlations among the three latent traits of CFA Model A, as well as the first principal component of the PCA (recall the difference between the three cases in Figure 1). Figure 9 shows that the latent traits on all three dimensions are highly correlated with each other. The correlation coefficients range from 0.937 to 0.993. It also shows that they are strongly correlated with the first principal component from the PCA, from 0.975 to 0.992.

The high correlations suggest that individuals who are politically “liberal” are also more likely

25The fact that the three latent factors are correlated at such a high level is somewhat unexpected, especially since PCA results suggest the underlying latent structure to be highly multidimensional. We conducted three separate PCAs using questions from each of three dimensions identified through CFA and measured correlations among the first principle component from each of these three PCA analyses. The correlations from this analysis range from 0.69 to 0.75, suggesting there is a chance the very high CFA model correlations among the latent variables may be overestimates. The correlation between the two factors estimated from the ABS data is 80% (Online Appendix Figure A4). Since correlations of 69% to 80% are still extremely high, we believe it remains appropriate to characterize the dimensions we identify as highly correlated.

25
to be “pro-market/non-traditional” and more likely to be “non-nationalist” while individuals who are politically “conservative” are more likely to be “anti-market/traditional” more likely to be “nationalist.” We call this correlated, three-dimensional configuration of preferences China’s ideological spectrum. On one end of the spectrum, preferences for political liberalism, limited state intervention in markets, liberal social values, and opposition to nationalism are more likely to go together, and on the other end, preferences for political conservatism, state intervention in markets, traditionalism, and nationalism are more likely to go together.

It is important to note that preferences are best described in this data as three dimensional not one dimensional, but the three latent dimensions are strongly correlated with each other. If visualized, China’s ideological spectrum is better described as a three-dimensional ovoid (football) than either a one-dimensional line or a three-dimensional sphere.
5 Individual and Regional-Level Variation

In this section, we explore the relationship between the latent traits we obtain from the CFA (Model A) and individual and regional variables. We use the constructed 10,000 observation sample from zuobiao in our main analyses, and we use data from the Asian Barometer Survey (2009)—a nationally representative sample—as for our robustness check. The ABS data employs a stratified sampling strategy that was carefully designed and implemented, and ABS allows for non-responses, and hence contains missing values. The ABS contains questions on politics that overlap in part with those found in the zuobiao survey, but the ABS contains a larger array of questions related to traditional values and fewer questions related to economic preferences and nationalism. Given the results presented in the previous section and scarcity of questions related to nationalism, we fit a two-dimensional CFA model, where ABS questions pertaining to political institutions and individual freedom are placed in one dimension and question pertaining to traditional values and economic policies are placed in the other dimension. Additional analyses using PCA and EFA also point to a two-dimensional factor model (Online Appendix Figure A4). Finally, the ABS survey does not have regional representativeness; in fact, the public version of the ABS data does not release regional identifiers. Thus, we cannot use it to explore the correlation between ideology and regional indicators, such as provincial-level economic development.

5.1 Ideology and Individual-level Characteristics

At the individual level, we see that individuals with higher levels of education and higher levels of income are more likely to be “liberal”, “pro-market/non-traditional”, and “non-nationalist.” This pattern is clearly seen in the zuobiao data shown in Figure 10. In the ABS data, we also see that those who have higher levels of education and income are more likely to be liberal and endorse non-traditional social values.

In terms of age, both the zuobiao sample and ABS show that “conservative” and “anti-market/traditional” preferences increase with age for those age of 35 and over. However, in the zuobiao data, there seems to be an increase in “liberal” and “pro-market/non-traditional” preferences.

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26 Using the raw zuobiao data produces almost the exact same results.
27 Descriptive statistics are shown in Online Appendix Table A5.
28 We impute missing data using a standard multiple imputation procedure.
29 Online Appendix Table A4 shows the full list of questions.
between the ages of 18 to 35, while in the ABS data “liberalism” and “pro-market/non-traditional” preferences decrease linearly with age. When we split the ABS data into two subsamples, urban and rural, we see a nonlinear pattern similar to the zuobiao data in urban areas and a monotonically decreasing relationship between ideology and age in rural areas (Online Appendix Figure A5). Additional research is needed to examine whether the ideological shift towards political liberalism is being halted among young people and, if so, the reasons behind it.
5.2 Ideology and Regional Developmental Indicators

Figure 12 shows the relationship between one of the ideological measures (the political dimension of CFA Model A) and provincial-level economic indicators: log income per capita (left), trade openness (middle), and urbanization (right). Larger, positive, values on the y-axis refers to a liberal political orientation and smaller, negative, values on the y-axis refer to a conservative orientation. Average income refers to provincial mean of log income per capita. Urbanization is the proportion of permanent urban residents. Trade openness is imports and exports as a proportion of GDP.\(^\text{30}\) The gray dots are the average ideological measure for each province, and black lines are loess fits.

Figure 12 reveals positive correlations between liberal preferences and all of these economic variables at the provincial level. It is worth emphasizing that none of the relationships are causal, and

\(^{30}\)The calculation for the x-axis is \((\text{imports} + \text{exports})/\text{GDP} \times 100\). All regional economic indicators are from *China Statistical Yearbook* (2014).
the three indicators used are highly correlated with one another. However, these figures point to a
general pattern that provinces such as Beijing, Shanghai, and Guangdong with higher average dis-
posable incomes, more urban residents, and more trade openness tend to have more liberal political
preferences on average while poorer provinces such as Guizhou, Guangxi, and Henan with lower
levels of economic development, urbanization, and foreign trade tend to have more conservative
political preferences on average. We see similar patterns for the pro-market/non-traditional dimen-

Figure 12. Correlates of Provincial Ideological Measure

sion and the nationalism dimension. On average, regions with higher levels of development and
openness are more likely to have “pro-market/non-traditional” and “non-nationalist” preferences
while regions with lower levels of development are more likely to have “anti-market/traditional”
and “nationalist” preferences on average (see Online Appendix Figure A3).

6 Concluding Remarks

In this paper, we study ideology in China—how public preferences are constrained and configured.
We find that although preferences are less constrained than what has been observed in compet-
itive democracies, they are grouped in systematic ways that reflect known debates about China’s
political, economic, and social trajectory. Preferences are best described as multi-dimensional. A
three dimensional CFA model best characterizes the configuration of preferences in our data. Pref-
erences diverge between (1) liberal vs. conservative views of political institutions and individual
freedoms; (2) pro-market and non-traditional social values vs. anti-market and traditional values,
and (3) nationalism. At the individual level, these latent traits are highly correlated. Individu-
als with liberal values are also more likely to welcome market-oriented economic policies, embrace
non-traditional values, and less likely to subscribe to nationalism while individuals who are politically conservative are more likely to support greater state intervention in the economy, subscribe to traditional, conservative social values, and more likely to be nationalistic. In China’s ideological spectrum, preferences for liberal, pro-market, non-traditional, and non-nationalistic values are associated with higher levels of education, income, and regional development.

These results have implication for our understanding on how political cleavages emerge. China’s ideological spectrum appears linked to the outcomes of market reforms enacted by the Chinese Communist Party. Those who are relatively better off in China’s era of market reform tend to welcome additional market liberalization as well as political reform toward democratic institutions, and tend not to endorse traditional social norms. Those who are relatively worse off tend support a return to political redistribution, authoritarian rule, as well as traditional and social values.

The relationship we identify between economic structure and divergent preferences is not causal, and our evidence is consistent with several different explanations of this relationship. The alignment of preferences could directly result from material self-interest—as people become wealthier, they wish to protect economic property through certain types of liberal political institutions. Alternatively, these preferences may have emerged because those who are wealthier and better educated have greater exposure to ideas of political liberalism and free markets. Another potential explanation not ruled out by these data is that education, urbanization, and higher incomes influence attitudes through some form of cognitive mobilization. These preferences may also be related to psychological factors and personality traits related to authority and risk-taking (Hetherington and Weiler 2009). We cannot rule out the reverse relationship, that the configurations of preferences may influence economic outcomes.

These results shed light on our understanding of potential opposition to CCP rule. The belief system we identify does not reflect an alignment of pro-regime or anti-regime preferences. Even though those who are better educated and wealthier may prefer changes to China’s current political system, these preferences may not lead to opposition if the CCP maintains the trajectory of market-based economy. Similarly, those who oppose economic reforms—the less educated, the less well-off, those who have benefited less from China’s economic reforms—support the continuation of CCP rule. On the whole, the current configuration of preferences in China does not appear conducive to the development of consolidated opposition to Communist Party rule.
By studying ideology, we complement existing studies of public opinion in China by offering a different perspective on assessing regime support. We see this research as a first step in examining the configuration of preferences in non-democratic contexts, which we hope others will take up.

References


Meng, Tianguang, Jennifer Pan and Ping Yang. 2014. “Conditional Receptivity to Citizen Participation Evidence From a Survey Experiment in China.” Comparative Political Studies (First View).


Wright, Teresa. 2010. Accepting Authoritarianism: State-society Relations in China’s Reform Era. SUP.
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A  The Zuobiao Survey

A.1  Zuobiao Questions

The zuobiao survey contains 50 questions. The ordering of these questions is randomized for each respondent who takes the survey. We categorize these 50 questions into seven categories. Each of the categories are explained below, and all the questions belonging to each category are listed. The number before each question is the original question ID in the original zuobiao data.

1. Political Institutions: Questions in the category of political institutions are those that pertain to preferences over the type of political, legal, and media institutions that are appropriate for China. Specifically, these questions focus on preferences for democratic institutions, including universal enfranchisement, multi-party competition, information and media freedom, and due process. Specific questions include:

#1  “People should not have universal suffrage if they have not been educated about democracy.” 如果人民没有受过民主教育，他们是不应该拥有普选权的

#2  “Universality of human rights take precedence over sovereignty.” 人权高于主权

#3  “When events that have major repercussions for the safety and security of people occur, the government should freely disseminate information even if information disclosure increases the risks of unrest.” 发生重大社会安全事件时，即使认为信息公开会致使骚乱的风险，政府仍应该开放信息传播

#4  “Western multiparty systems are unsuitable for China in its current state.” 西方的多党制不适合中国国情

#5  “Indiscriminately imitating (systems of) western-style freedom of speech will lead to social disorder in China.” 在中国照搬西方式的言论自由会导致社会失序

#10 “Even if procedural rules are violated in the process of investigation and evidence gathering, those who have actually committed crimes should be punished.” 哪怕经历了违反程序规定的审讯和取证过程，确实有罪的罪犯也应被处刑

#12 “It is acceptable to besmirch the images of national leaders and founding leaders in literary and artistic works.” 国家领导人及开国领袖的形象可以作为文艺作品的丑化对象

1This question is included in the “Political Institutions” category rather than “Individual Freedoms” category because it relates to the question of how human rights should be balanced against sovereignty, not about what individual level behaviors should be protected.
2. Individual Freedom: Question related to “Individual Freedom” are those pertaining to whether the state should intervene in individual behavior and the private domain, or whether there are individual-level choices that should be protected from state intervention. Questions in this category relate to educational choices, religious freedoms, sexuality and reproductive rights, as well as other issues of individual autonomy. Specific questions include:

#6 “It is preferable to let universities recruit students by themselves than to have a unified national college entrance examination system.” 由高校自主考试招生比全国统一考试招生更好

#7 “Religious adherents should be allowed to conduct missionary work in nonreligious spaces.” 应该容许宗教人士在非宗教场所公开传教

#8 “Primary school, secondary school, and college students should all participate in government organized military training.” 无论中小学生或大学生，都应参加由国家统一安排的军训

#24 “Wasting food is an individual freedom.” 浪费粮食也是个人的自由

#44 “The fundamental standard to evaluate the value of a work of art is whether it is liked by the masses.” 判断艺术作品的价值的根本标准是看是不是受到人民大众喜爱

#45 “Even with population pressures, the state and the society have no right to interfere in the decision to have a child, or how many children to have.” 即使有人口压力，国家和社会也无权干涉个人要不要孩子，要几个孩子

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2This question evaluates beliefs about the limits of individual autonomy and whether individual freedom refers to protections for all types of individual behavior.

3This question related to individual freedom because it pertains to whether individuals can set their own standards for evaluating art, or they are dictated by the government.
3. Free Market: Questions in the category of “Free Market” evaluate preferences for the state or the market as the main mechanism of resource allocation, including attitudes towards price controls, private ownership, and redistribution. This category includes questions on state regulation unless the question includes references to capital and labor (workers, peasants), in which case it is placed in the “Capital and Labor” category because of the normative connotations associated with communism and Maoism. Specific questions include:

#21 “The minimum wage should be set by the state.” 最低工资应由国家规定

#25 “If the price of pork is too high, the government should intervene.” 如果猪肉价格过高，政府应当干预

#27 “Education should be public to the greatest extent.” 教育应当尽可能公立

#29 “Attempting to control real estate prices will undermine economic development.” 试图控制房地产价格的行为会破坏经济发展

#30 “The primary means to improve the lives of the low-income people is to give them fiscal subsidies and support.” 改善低收入者生活的首要手段是国家给予财政补贴和扶持

#37 “Individuals should be able to own, buy and sell land.” 私人应当可以拥有和买卖土地

#40 “Natural monopolies that emerge out of market competitions are harmless.” 市场竞争中自然形成的垄断地位是无害的

4 The context for the question is the privatization of education. Education has traditionally been public in China, but private educational providers are growing and has brought with it increasing debates over whether the state should regulate the education industry.

5 This question indirectly assesses whether the state should intervene to regulate natural monopolies, which can be done through price controls, yardstick competition, and preventing the formation of monopolies.

4. Capital and Labor: Question in the category of “Capital and Labor” evaluate perceptions of distributive justice and the effects of China’s economic reforms, especially wealth inequalities, in the context of China’s Marxist and Maoist heritage. A few of the questions in this category relate to the preferences for state intervention in markets; however, they are included in the category of “Capital and Labor” instead of “Free Market” because they use terms such as class, capital, and labor (workers, peasants) that carry normative connotations associated with class struggle under Maoist rule. Specific questions include:

#22 “The fruits of China’s economic development since reform and opening up are enjoyed by a small group of people; most people have not received much benefit.” 中国改革开放以来的经济发展的成果都被一小群人占有了，大多数人没得到什么好处
"A rich person deserves better medical services." 有钱人理应获得更好的医疗服务

"People who make money through gains from financial investments contribute less to the society than people make money through labor." 靠运作资金赚钱的人对社会的贡献比不上靠劳动赚钱的人

"It is better to sell state-owned enterprises to capitalists than to let them go bankrupt.” 与其让国有企业亏损破产，不如转卖给资本家

"The process of capital accumulation is always accompanied by harm to the working class.” 资本积累的过程总是伴随着对普通劳动人民利益的伤害

"The government should adopt higher grain purchasing prices to boost the income of peasants.” 政府应当采用较高的粮食收购价格以增加农民收入

5. Economic Sovereignty and Globalization: Questions of “Economic Sovereignty and Globalization” related to preferences on the extent to which China should cede some control of its economic activities, wealth and natural resources to foreign or societal interests, or whether economic activities that relate to national interest should remain firmly under the control of the state. Questions pertain to economic protectionism as well as state ownership of assets crucial to national interest. This category is related to questions of “Nationalism” but differs due to its focus on the economic realm. Specific questions include:

"A high tariff should be imposed on imported goods that are also produced domestically to protect domestic industries.” 应当对国外同类产品征收高额关税来保护国内民族工业

"Foreign capital in China should enjoy the same treatment as national capital.” 在华外国资本应享受和民族资本同样的待遇

"The interests of state-owned enterprises are part of the national interest.” 国有企业的利益属于国家利益

"Sectors related to national security and important to the national economy and people’s livelihoods must be controlled by state-owned enterprises.” 那些关系到国家安全、以及其他重要国计民生的领域，必须全部由国有企业掌控

"In the decision-making of major (infrastructure) projects, individual interests should give way to social interests.” 在重大工程项目的决策中，个人利益应该为社会利益

While this question balances individual and societal interests, it does not fall under the “Individual Freedom” category about its is not about protection of specific individual-level behaviors. Instead it is about whether major construction projects, which are often described by the regime as a matter of importance to China’s continued economic development, should eclipse individuals concerns.
6. **Traditionalism:** Question in the category of “Traditionalism” pertain to preferences for traditional values, norms, and practices, especially related to Confucianism, and preferences for non-traditional views towards sexual freedom and same-sex marriage. Specific questions include:

#32 “High income earners should disclose the sources of their income.”

#41 “Two adults should be free to engage in voluntary sexual behavior regardless of their marital status.”

#42 “One should not openly comment on the shortcomings of their elders.”

#43 “The modern Chinese society needs Confucianism.”

#46 “The Eight Diagrams (Bagua) in The Book of Changes (Zhouyi) can explain many things well.”

#47 “The perspective of traditional Chinese medicine on human health is superior to that of modern mainstream medical science.”

#48 “It is unnecessary to push forward the simplification of Chinese characters.”

#49 “Traditional Chinese classics should be the basic education material for children.”

#50 “I will recognize the relationship between my child and a same-sex partner if it is a voluntary choice.”

7. **Nationalism:** Questions of “Nationalism” pertain to preferences on the importance of protecting China’s national interests, China’s relationship with the West, and whether China should aggressively advance and defend its national and territorial interests. Specific questions include:

---

Footnote: This question does not fall into the category of “Market Regulation” because it does not specify any role for the state. This question does not fall into the category of “Capital and Labor” because the focus of the question is disclosure about sources of income, rather than income levels. Confucianism warns against greed and exploitation. High income is not problematic in and of itself, but to guard against greed, high income earners should disclose their sources of income.
“National unity and territorial integrity are the highest interest of society.” 国家的统一和领土完整是社会的最高利益

“The state has an obligation to provide foreign aid.” 国家有义务进行对外援助

“If it has sufficient state capabilities, China has the right to take any action to defend its national interests.” 如果国家综合实力许可，那么中国有权为了维护自己的利益而采取任何行动

“Force should be used to reunify Taiwan with China if conditions permit.” 条件允许的话应该武力统一台湾

“Chinese citizens should be allowed to hold foreign citizenship.” 应该允许中国公民同时具有外国国籍

“It is impossible for western countries led by the United States to tolerate the rise of China into a major power.” 以美国为首的西方国家不可能真正容许中国崛起成为一流强国

“The state should take measures to train and support athletes so they can win glory for the country in various international competitions.” 国家应当采取措施培养和支持体育健儿在各种国际比赛场合为国争光

Foreign aid is not understood as a moral obligation but as a way of projecting China’s power. See, for example, Copper (1976).
### A.2 Descriptive Statistics

**Table A1. Descriptive Statistics of Zuobiao Data**
(Constructed Sample of 10,000 Observations)

<table>
<thead>
<tr>
<th>No</th>
<th>Question</th>
<th>Mean</th>
<th>SD</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>People should not have universal suffrage if they have not been educated about democracy.</td>
<td>2.17</td>
<td>0.86</td>
<td>0.24</td>
<td>0.42</td>
<td>0.28</td>
<td>0.06</td>
</tr>
<tr>
<td>2</td>
<td>Universality of human rights take precedence over sovereignty.</td>
<td>2.66</td>
<td>0.93</td>
<td>0.12</td>
<td>0.30</td>
<td>0.38</td>
<td>0.20</td>
</tr>
<tr>
<td>3</td>
<td>When events that have major repercussions for the safety and security of people occur, the government should freely disseminate information even if information disclosure increases the risks of unrest.</td>
<td>2.62</td>
<td>0.92</td>
<td>0.11</td>
<td>0.36</td>
<td>0.33</td>
<td>0.19</td>
</tr>
<tr>
<td>4</td>
<td>Western multiparty systems are unsuitable for China in its current state.</td>
<td>2.11</td>
<td>0.76</td>
<td>0.20</td>
<td>0.53</td>
<td>0.23</td>
<td>0.04</td>
</tr>
<tr>
<td>5</td>
<td>Indiscriminately imitating (systems of) western-style freedom of speech will lead to social disorder in China.</td>
<td>2.60</td>
<td>0.83</td>
<td>0.09</td>
<td>0.35</td>
<td>0.42</td>
<td>0.13</td>
</tr>
<tr>
<td>6</td>
<td>It is preferable to let universities recruit students by themselves than to have a unified national college entrance examination system.</td>
<td>2.65</td>
<td>0.88</td>
<td>0.09</td>
<td>0.35</td>
<td>0.38</td>
<td>0.18</td>
</tr>
<tr>
<td>7</td>
<td>Religious adherents should be allowed to conduct missionary work in nonreligious spaces.</td>
<td>2.42</td>
<td>0.79</td>
<td>0.13</td>
<td>0.37</td>
<td>0.44</td>
<td>0.06</td>
</tr>
<tr>
<td>8</td>
<td>Primary school, secondary school, and college students should all participate in government organized military training.</td>
<td>2.56</td>
<td>0.87</td>
<td>0.13</td>
<td>0.30</td>
<td>0.44</td>
<td>0.12</td>
</tr>
<tr>
<td>9</td>
<td>National unity and territorial integrity are the highest interest of society.</td>
<td>2.84</td>
<td>0.92</td>
<td>0.08</td>
<td>0.26</td>
<td>0.38</td>
<td>0.27</td>
</tr>
<tr>
<td>10</td>
<td>Even if procedural rules are violated in the process of investigation and evidence gathering, those who have actually committed crimes should be punished.</td>
<td>2.41</td>
<td>0.72</td>
<td>0.11</td>
<td>0.41</td>
<td>0.45</td>
<td>0.03</td>
</tr>
<tr>
<td>11</td>
<td>The state has an obligation to provide foreign aid.</td>
<td>2.44</td>
<td>0.85</td>
<td>0.15</td>
<td>0.35</td>
<td>0.41</td>
<td>0.09</td>
</tr>
<tr>
<td>12</td>
<td>It is acceptable to besmirch the images of national leaders and founding leaders in literary and artistic works.</td>
<td>2.51</td>
<td>0.85</td>
<td>0.13</td>
<td>0.33</td>
<td>0.43</td>
<td>0.11</td>
</tr>
<tr>
<td>13</td>
<td>When laws fail to fully constrain criminal behaviors, people have the right to impose their own punishments for these behaviors.</td>
<td>2.54</td>
<td>0.81</td>
<td>0.10</td>
<td>0.38</td>
<td>0.41</td>
<td>0.11</td>
</tr>
<tr>
<td>14</td>
<td>Media should be allowed to represent the voice of a particular social stratum or interest group.</td>
<td>2.23</td>
<td>0.87</td>
<td>0.24</td>
<td>0.35</td>
<td>0.37</td>
<td>0.05</td>
</tr>
<tr>
<td>15</td>
<td>If it has sufficient state capabilities, China has the right to take any action to defend its national interests.</td>
<td>2.81</td>
<td>0.85</td>
<td>0.06</td>
<td>0.29</td>
<td>0.43</td>
<td>0.22</td>
</tr>
<tr>
<td>16</td>
<td>Force should be used to reunify Taiwan with China if conditions permit.</td>
<td>2.55</td>
<td>0.85</td>
<td>0.09</td>
<td>0.42</td>
<td>0.34</td>
<td>0.15</td>
</tr>
</tbody>
</table>
Table A1. Descriptive Statistics of Zuobiao Data  
(Constructed Sample of 10,000 Observations)

<table>
<thead>
<tr>
<th>No</th>
<th>Question</th>
<th>Mean</th>
<th>SD</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>Lawyers should do their utmost to defend clients even if the client has committed a crime.</td>
<td>2.60</td>
<td>0.96</td>
<td>0.15</td>
<td>0.30</td>
<td>0.35</td>
<td>0.20</td>
</tr>
<tr>
<td>18</td>
<td>Chinese citizens should be allowed to hold foreign citizenship.</td>
<td>2.43</td>
<td>0.79</td>
<td>0.08</td>
<td>0.51</td>
<td>0.30</td>
<td>0.11</td>
</tr>
<tr>
<td>19</td>
<td>It is impossible for western countries led by the United States to tolerate the rise of China into a major power.</td>
<td>2.21</td>
<td>0.76</td>
<td>0.13</td>
<td>0.61</td>
<td>0.18</td>
<td>0.08</td>
</tr>
<tr>
<td>20</td>
<td>The state should take measures to train and support athletes so they can win glory for the country in various international competitions.</td>
<td>3.02</td>
<td>0.84</td>
<td>0.06</td>
<td>0.17</td>
<td>0.47</td>
<td>0.31</td>
</tr>
<tr>
<td>21</td>
<td>The minimum wage should be set by the state.</td>
<td>2.47</td>
<td>0.85</td>
<td>0.11</td>
<td>0.44</td>
<td>0.32</td>
<td>0.13</td>
</tr>
<tr>
<td>22</td>
<td>The fruits of China’s economic development since reform and opening up are enjoyed by a small group of people; most people have not received much benefit.</td>
<td>2.58</td>
<td>0.67</td>
<td>0.05</td>
<td>0.37</td>
<td>0.53</td>
<td>0.05</td>
</tr>
<tr>
<td>23</td>
<td>In the decision-making of major (infrastructure) projects, individual interests should give way to social interests.</td>
<td>2.52</td>
<td>0.76</td>
<td>0.11</td>
<td>0.33</td>
<td>0.50</td>
<td>0.06</td>
</tr>
<tr>
<td>24</td>
<td>Wasting food is an individual freedom.</td>
<td>2.43</td>
<td>0.80</td>
<td>0.11</td>
<td>0.43</td>
<td>0.37</td>
<td>0.08</td>
</tr>
<tr>
<td>25</td>
<td>If the price of pork is too high, the government should intervene.</td>
<td>2.43</td>
<td>0.86</td>
<td>0.16</td>
<td>0.35</td>
<td>0.40</td>
<td>0.09</td>
</tr>
<tr>
<td>26</td>
<td>A high tariff should be imposed on imported goods that are also produced domestically to protect domestic industries.</td>
<td>2.35</td>
<td>0.76</td>
<td>0.14</td>
<td>0.42</td>
<td>0.41</td>
<td>0.04</td>
</tr>
<tr>
<td>27</td>
<td>Education should be public to the greatest extent.</td>
<td>2.40</td>
<td>0.77</td>
<td>0.11</td>
<td>0.46</td>
<td>0.37</td>
<td>0.07</td>
</tr>
<tr>
<td>28</td>
<td>The interests of state-owned enterprises are part of the national interest.</td>
<td>2.77</td>
<td>0.70</td>
<td>0.03</td>
<td>0.28</td>
<td>0.56</td>
<td>0.12</td>
</tr>
<tr>
<td>29</td>
<td>Attempting to control real estate prices will undermine economic development.</td>
<td>2.05</td>
<td>0.71</td>
<td>0.19</td>
<td>0.61</td>
<td>0.17</td>
<td>0.04</td>
</tr>
<tr>
<td>30</td>
<td>The primary means to improve the lives of the low-income people is to give them fiscal subsidies and support.</td>
<td>2.75</td>
<td>0.92</td>
<td>0.08</td>
<td>0.35</td>
<td>0.31</td>
<td>0.26</td>
</tr>
<tr>
<td>31</td>
<td>A rich person deserves better medical services.</td>
<td>2.31</td>
<td>0.78</td>
<td>0.12</td>
<td>0.54</td>
<td>0.26</td>
<td>0.08</td>
</tr>
<tr>
<td>32</td>
<td>High income earners should disclose the sources of their income.</td>
<td>2.84</td>
<td>0.91</td>
<td>0.06</td>
<td>0.34</td>
<td>0.32</td>
<td>0.29</td>
</tr>
<tr>
<td>33</td>
<td>People who make money through gains from financial investments contribute less to the society than people make money through labor.</td>
<td>2.71</td>
<td>0.84</td>
<td>0.09</td>
<td>0.26</td>
<td>0.49</td>
<td>0.15</td>
</tr>
<tr>
<td>34</td>
<td>It is better to sell state-owned enterprises to capitalists than to let them go bankrupt.</td>
<td>1.95</td>
<td>0.80</td>
<td>0.31</td>
<td>0.45</td>
<td>0.21</td>
<td>0.03</td>
</tr>
<tr>
<td>35</td>
<td>Sectors related to national security and important to the national economy and people's livelihoods must be controlled by state-owned enterprises.</td>
<td>2.88</td>
<td>0.71</td>
<td>0.04</td>
<td>0.21</td>
<td>0.59</td>
<td>0.16</td>
</tr>
<tr>
<td>36</td>
<td>The process of capital accumulation is always accompanied by harm to the working class.</td>
<td>2.52</td>
<td>0.82</td>
<td>0.09</td>
<td>0.41</td>
<td>0.38</td>
<td>0.12</td>
</tr>
</tbody>
</table>
### Table A1. Descriptive Statistics of Zuobiao Data
(constructed sample of 10,000 observations)

<table>
<thead>
<tr>
<th>No</th>
<th>Question</th>
<th>Mean</th>
<th>SD</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>37</td>
<td>Individuals should be able to own, buy and sell land.</td>
<td>2.61</td>
<td>0.88</td>
<td>0.09</td>
<td>0.38</td>
<td>0.35</td>
<td>0.18</td>
</tr>
<tr>
<td>38</td>
<td>The government should adopt higher grain purchasing prices to boost the income of peasants.</td>
<td>2.71</td>
<td>0.83</td>
<td>0.08</td>
<td>0.29</td>
<td>0.47</td>
<td>0.16</td>
</tr>
<tr>
<td>39</td>
<td>Foreign capital in China should enjoy the same treatment as national capital.</td>
<td>2.01</td>
<td>0.79</td>
<td>0.28</td>
<td>0.47</td>
<td>0.22</td>
<td>0.03</td>
</tr>
<tr>
<td>40</td>
<td>Natural monopolies that emerge out of market competitions are harmless.</td>
<td>2.30</td>
<td>0.76</td>
<td>0.13</td>
<td>0.49</td>
<td>0.33</td>
<td>0.05</td>
</tr>
<tr>
<td>41</td>
<td>Two adults should be free to engage in voluntary sexual behavior regardless of their marital status.</td>
<td>2.20</td>
<td>0.83</td>
<td>0.23</td>
<td>0.38</td>
<td>0.35</td>
<td>0.04</td>
</tr>
<tr>
<td>42</td>
<td>One should not openly comment on the shortcomings of their elders.</td>
<td>2.90</td>
<td>0.84</td>
<td>0.04</td>
<td>0.29</td>
<td>0.40</td>
<td>0.27</td>
</tr>
<tr>
<td>43</td>
<td>The modern Chinese society needs Confucianism.</td>
<td>2.33</td>
<td>0.81</td>
<td>0.12</td>
<td>0.54</td>
<td>0.24</td>
<td>0.10</td>
</tr>
<tr>
<td>44</td>
<td>The fundamental standard to evaluate the value of a work of art is whether it is liked by the masses.</td>
<td>2.58</td>
<td>0.82</td>
<td>0.13</td>
<td>0.25</td>
<td>0.53</td>
<td>0.09</td>
</tr>
<tr>
<td>45</td>
<td>Even with population pressures, the state and the society have no right to interfere in the decision to have a child, or how many children to have.</td>
<td>2.11</td>
<td>0.71</td>
<td>0.18</td>
<td>0.55</td>
<td>0.24</td>
<td>0.02</td>
</tr>
<tr>
<td>46</td>
<td>The Eight Diagrams (Bagua) in The Book of Changes (Zhouyi) can explain many things well.</td>
<td>2.68</td>
<td>0.87</td>
<td>0.09</td>
<td>0.32</td>
<td>0.41</td>
<td>0.18</td>
</tr>
<tr>
<td>47</td>
<td>The perspective of traditional Chinese medicine on human health is superior to that of modern mainstream medical science.</td>
<td>2.75</td>
<td>0.75</td>
<td>0.05</td>
<td>0.29</td>
<td>0.53</td>
<td>0.14</td>
</tr>
<tr>
<td>48</td>
<td>It is unnecessary to push forward the simplification of Chinese characters.</td>
<td>2.21</td>
<td>0.86</td>
<td>0.19</td>
<td>0.48</td>
<td>0.23</td>
<td>0.09</td>
</tr>
<tr>
<td>49</td>
<td>Traditional Chinese classics should be the basic education material for children.</td>
<td>2.81</td>
<td>0.69</td>
<td>0.03</td>
<td>0.27</td>
<td>0.57</td>
<td>0.13</td>
</tr>
<tr>
<td>50</td>
<td>I will recognize the relationship between my child and a same-sex partner if it is a voluntary choice.</td>
<td>2.72</td>
<td>0.74</td>
<td>0.06</td>
<td>0.28</td>
<td>0.55</td>
<td>0.12</td>
</tr>
</tbody>
</table>

**Note:** This table shows the mean, standard deviation (SD) of the responses, the proportion of responses for each of the four options: “Strongly Disagree” (1), “Disagree” (2), “Agree” (3), and “Strongly Agree” (4) to each of the 50 questions in zuobiao survey (with the constructed sample of 10,000 observations).
Table A2. Regional Compositions of the *Zuobiao* Data: Original vs. Resampled

<table>
<thead>
<tr>
<th>Province</th>
<th>Original</th>
<th></th>
<th>Resampled</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Beijing</td>
<td>96,529</td>
<td>20.96</td>
<td>345</td>
<td>3.45</td>
</tr>
<tr>
<td>Tianjin</td>
<td>10,860</td>
<td>2.36</td>
<td>171</td>
<td>1.71</td>
</tr>
<tr>
<td>Hebei</td>
<td>9,589</td>
<td>2.08</td>
<td>406</td>
<td>4.06</td>
</tr>
<tr>
<td>Shanxi</td>
<td>9,023</td>
<td>1.96</td>
<td>234</td>
<td>2.34</td>
</tr>
<tr>
<td>Inner Mongolia</td>
<td>1,441</td>
<td>0.31</td>
<td>231</td>
<td>2.31</td>
</tr>
<tr>
<td>Liaoning</td>
<td>9,183</td>
<td>1.99</td>
<td>513</td>
<td>5.13</td>
</tr>
<tr>
<td>Jilin</td>
<td>4,800</td>
<td>1.04</td>
<td>213</td>
<td>2.13</td>
</tr>
<tr>
<td>Heilongjiang</td>
<td>5,996</td>
<td>1.30</td>
<td>404</td>
<td>4.04</td>
</tr>
<tr>
<td>Shanghai</td>
<td>37,321</td>
<td>8.10</td>
<td>435</td>
<td>4.35</td>
</tr>
<tr>
<td>Jiangsu</td>
<td>30,714</td>
<td>6.67</td>
<td>706</td>
<td>7.06</td>
</tr>
<tr>
<td>Zhejiang</td>
<td>25,995</td>
<td>5.64</td>
<td>544</td>
<td>5.44</td>
</tr>
<tr>
<td>Anhui</td>
<td>9,314</td>
<td>2.02</td>
<td>278</td>
<td>2.78</td>
</tr>
<tr>
<td>Fujian</td>
<td>11,617</td>
<td>2.52</td>
<td>315</td>
<td>3.15</td>
</tr>
<tr>
<td>Jiangxi</td>
<td>5,533</td>
<td>1.20</td>
<td>165</td>
<td>1.65</td>
</tr>
<tr>
<td>Shandong</td>
<td>16,346</td>
<td>3.55</td>
<td>710</td>
<td>7.10</td>
</tr>
<tr>
<td>Henan</td>
<td>8,890</td>
<td>1.93</td>
<td>445</td>
<td>4.45</td>
</tr>
<tr>
<td>Hubei</td>
<td>16,610</td>
<td>3.61</td>
<td>449</td>
<td>4.49</td>
</tr>
<tr>
<td>Hunan</td>
<td>10,051</td>
<td>2.18</td>
<td>389</td>
<td>3.89</td>
</tr>
<tr>
<td>Guangdong</td>
<td>41,782</td>
<td>9.07</td>
<td>1,392</td>
<td>13.92</td>
</tr>
<tr>
<td>Guangxi</td>
<td>7,251</td>
<td>1.57</td>
<td>170</td>
<td>1.70</td>
</tr>
<tr>
<td>Hainan</td>
<td>1,365</td>
<td>0.30</td>
<td>90</td>
<td>0.90</td>
</tr>
<tr>
<td>Chongqing</td>
<td>7,460</td>
<td>1.62</td>
<td>172</td>
<td>1.72</td>
</tr>
<tr>
<td>Sichuan</td>
<td>18,118</td>
<td>3.93</td>
<td>363</td>
<td>3.63</td>
</tr>
<tr>
<td>Guizhou</td>
<td>3,171</td>
<td>0.69</td>
<td>116</td>
<td>1.16</td>
</tr>
<tr>
<td>Yunnan</td>
<td>3,431</td>
<td>0.74</td>
<td>238</td>
<td>2.38</td>
</tr>
<tr>
<td>Tibet</td>
<td>70</td>
<td>0.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shaanxi</td>
<td>3,765</td>
<td>0.82</td>
<td>240</td>
<td>2.40</td>
</tr>
<tr>
<td>Gansu</td>
<td>2,252</td>
<td>0.49</td>
<td>126</td>
<td>1.26</td>
</tr>
<tr>
<td>Qinghai</td>
<td>300</td>
<td>0.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ningxia</td>
<td>461</td>
<td>0.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Xinjiang</td>
<td>1,961</td>
<td>0.43</td>
<td>140</td>
<td>1.40</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>4,310</td>
<td>0.94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overseas</td>
<td>45,055</td>
<td>9.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>460,563</td>
<td>100.00</td>
<td>10,000</td>
<td>100.00</td>
</tr>
</tbody>
</table>
This figure illustrate the structural equation model used in the confirmatory factor analysis (Model A). “fc1,” “fc2,” and “fc3” represent three latent factors and the numbers in the squares at the bottom correspond to the original question numbers in the zuobiao survey.
## Table A3. Estimated Coefficients of the CFA (Model A)

<table>
<thead>
<tr>
<th>Latent Factor 1</th>
<th>Latent Factor 2</th>
<th>Latent Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No.</strong></td>
<td><strong>Coef.</strong></td>
<td><strong>S.E.</strong></td>
</tr>
<tr>
<td>1</td>
<td>-0.210</td>
<td>(0.014)</td>
</tr>
<tr>
<td>2</td>
<td>0.682</td>
<td>(0.008)</td>
</tr>
<tr>
<td>3</td>
<td>0.718</td>
<td>(0.007)</td>
</tr>
<tr>
<td>4</td>
<td>-0.349</td>
<td>(0.012)</td>
</tr>
<tr>
<td>5</td>
<td>-0.303</td>
<td>(0.012)</td>
</tr>
<tr>
<td>6</td>
<td>0.680</td>
<td>(0.008)</td>
</tr>
<tr>
<td>7</td>
<td>0.491</td>
<td>(0.011)</td>
</tr>
<tr>
<td>8</td>
<td>-0.591</td>
<td>(0.009)</td>
</tr>
<tr>
<td>10</td>
<td>-0.196</td>
<td>(0.014)</td>
</tr>
<tr>
<td>12</td>
<td>0.730</td>
<td>(0.007)</td>
</tr>
<tr>
<td>13</td>
<td>-0.263</td>
<td>(0.014)</td>
</tr>
<tr>
<td>14</td>
<td>0.140</td>
<td>(0.015)</td>
</tr>
<tr>
<td>17</td>
<td>0.666</td>
<td>(0.008)</td>
</tr>
<tr>
<td>24</td>
<td>-0.365</td>
<td>(0.012)</td>
</tr>
<tr>
<td>44</td>
<td>0.560</td>
<td>(0.011)</td>
</tr>
<tr>
<td>45</td>
<td>0.217</td>
<td>(0.014)</td>
</tr>
<tr>
<td>38</td>
<td>-0.408</td>
<td>(0.012)</td>
</tr>
<tr>
<td>40</td>
<td>0.216</td>
<td>(0.014)</td>
</tr>
<tr>
<td>42</td>
<td>-0.313</td>
<td>(0.014)</td>
</tr>
<tr>
<td>46</td>
<td>-0.713</td>
<td>(0.007)</td>
</tr>
<tr>
<td>48</td>
<td>-0.671</td>
<td>(0.008)</td>
</tr>
<tr>
<td>50</td>
<td>0.374</td>
<td>(0.012)</td>
</tr>
</tbody>
</table>

**Note:** Standard errors are in the parentheses. Each coefficient represents standard-deviation increase (or decrease if the number is negative) in the response to a question due to a one standard-deviation increase in the corresponding latent factor.
B.2 Diagnostics

Figure A2. Correlation between Latent Factors and PCs

(a) Political Liberalism  (b) Pro-Market/Non-Traditional  (c) Nationalism

The above figures show the correlations between latent factors estimated from the CFA Model (Model A) and the first principal components from three separate PCAs that use questions corresponding to the respective latent variables. For example, in Figure (a), 18 questions related to political liberalism and individual freedom are used in the PCA, not but the other 32 questions.
B.3 Additional Provincial Correlates

Figure A3 shows the correlations between ideological measures (2nd and 3rd dimensions) and developmental indicators at the regional level.

Figure A3. Correlates of Provincial Ideological Measures
Second and Third Dimensions

(a) Second Dimension

(b) Third Dimension
The Asian Barometer Survey (ABS)

ABS Attitudinal Questions

The questions we use to form an ideological measure based on the ABS data, as well as their coding rules, are listed in Table A4. We use two criteria to select these questions. First, we include questions pertaining to preferences for political institutions, political values, policies, and social values, but not evaluations of government performance or the current political events. Second, we exclude questions with terminology that has multiple meanings in the Chinese context, such as “democracy.” Based on our analysis in the main text, as well as an exploratory factor analysis on ABS data, we group the questions into two categories: (1) preferences related to politics (political category) and (2) preferences for social values and trade (social/economic category).

Table A4. Coding Rules for the ABS Data

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Coding Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>74</td>
<td>Statement (a): Government leaders should implement what people want. vs. Statement (b): Government leaders should do what they think is best for the people.</td>
<td>1 = Strongly prefer (a) to (b); 2 = prefer (a) to (b); 3 = prefer (b) to (a); 4 = strongly prefer (b) to (a).</td>
</tr>
<tr>
<td>75</td>
<td>Statement (a): The government is our servant; the people should tell government what needs to be done. vs. Statement (b): The government is like our parents; it should decide what is good for the people.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>76</td>
<td>Statement (a): The media should have the right to publish news and opinions free from government control. vs. Statement (b): The government should have the power to prevent the media from publishing things that might be politically destabilizing.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>77</td>
<td>Statement (a): People should look after themselves and be primarily responsible for their own success in life. vs. Statement (b): The government should bear the main responsibility for taking care of the well-being of the people.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>78</td>
<td>Statement (a): Political leaders are chosen by the people through open and competitive elections. vs. Statement (b): Political leaders are chosen on the basis on their virtue and capability even without election.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>79</td>
<td>Statement (a): We should allow multiple parties compete and represent different political interests. vs. Statement (b): We should have only one party to represent the interests of all people.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>129</td>
<td>We should get rid of the People’s Congress and elections and have a strong leader to make decisions.</td>
<td>1 = Strongly disagree; 2 = disagree; 3 = agree; 4 = Strongly Agree.</td>
</tr>
<tr>
<td>131</td>
<td>We should have the military to govern the country.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>132</td>
<td>We should have technocrats to make decisions on behalf of the people.</td>
<td>Same as above.</td>
</tr>
</tbody>
</table>
### Table A4. Coding Rules for the ABS Data

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Coding Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>139</td>
<td>Women should not be involved in politics as much as men.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>140</td>
<td>People with little or no education should have as much say in politics as those who are highly-educated.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>141</td>
<td>Government leaders are like the head of a family; we should all follow their decisions.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>142</td>
<td>The government should decide whether certain ideas should be allowed to be discussed in the society.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>143</td>
<td>Harmony of the community will be disrupted if people start to organize groups.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>144</td>
<td>When courts make decisions on important cases, they should accept the view of the local government.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>145</td>
<td>If the government is constantly being constrained by the legislature, it cannot possibly accomplish great things.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>146</td>
<td>If we have political leaders who are morally upright, we can let them decide everything.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>147</td>
<td>If people have too many different opinions, the society will be chaotic.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>148</td>
<td>When the country is facing a difficult situation, it is ok for the government to disregard the law in order to deal with the crisis.</td>
<td>Same as above.</td>
</tr>
</tbody>
</table>

**Category 2: Social/Economic**

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Coding Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>For the sake of the family, an individual should put his personal interests second.</td>
<td>1 = Strongly disagree; 2 = disagree; 3 = agree; 4 = Strongly Agree.</td>
</tr>
<tr>
<td>51</td>
<td>We should sacrifice our individual interest for the sake of the group’s collective interest.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>52</td>
<td>For the sake of national interest, individual interest could be sacrificed.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>53</td>
<td>When dealing with others, developing a long-term relationship is more important</td>
<td>Same as above.</td>
</tr>
<tr>
<td>54</td>
<td>When dealing with others, one should not only focus on immediate interest but also plan for future.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>55</td>
<td>Even if parents’ demands are unreasonable, children still should do what they ask.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>56</td>
<td>When a mother-in-law and a daughter-in-law come into conflict, even if the mother-in-law is in the wrong, the husband should still persuade his wife to obey his mother.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>57</td>
<td>Being a student, one should not question the authority of their teacher.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>58</td>
<td>In a group, we should avoid open quarrel to preserve the harmony of the group.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>59</td>
<td>Even if there is some disagreement with others, one should avoid the Conflict.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>60</td>
<td>A person should not insist on his own opinion if his co-workers disagree with him.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>61</td>
<td>Wealth and poverty, success and failure are all determined by fate.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>No.</td>
<td>Question</td>
<td>Coding Rule</td>
</tr>
<tr>
<td>-----</td>
<td>-------------------------------------------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>62</td>
<td>If one could have only one child, it is more preferable to have a boy than a girl.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>63</td>
<td>When dealing with others, one should not be preoccupied with temporary gains and losses.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>151</td>
<td>Our country should defend our way of life instead of becoming more and more like other countries</td>
<td>Same as above.</td>
</tr>
<tr>
<td>152</td>
<td>We should protect our peasants and workers by limiting imports of foreign goods.</td>
<td>Same as above.</td>
</tr>
<tr>
<td>153</td>
<td>Imported foreign goods are hurting the local economy.</td>
<td>Same as above.</td>
</tr>
</tbody>
</table>

C.2 Descriptions of the ABS Data

Table A5 shows the basic descriptive statistics of ABS respondents’ profiles. As we can see, the gender, age, education distributions are closer to those of the Chinese population than the raw zuobiao data.

<table>
<thead>
<tr>
<th>Variable</th>
<th>#Obs.</th>
<th>Mean</th>
<th>S.D.</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>3,405</td>
<td>0.47</td>
<td>0.50</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Age</td>
<td>3,405</td>
<td>45.0</td>
<td>15.6</td>
<td>18</td>
<td>92</td>
</tr>
<tr>
<td>Middle school or above</td>
<td>3,389</td>
<td>0.60</td>
<td>0.49</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>High school or above</td>
<td>3,389</td>
<td>0.29</td>
<td>0.45</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>College or above</td>
<td>3,389</td>
<td>0.09</td>
<td>0.28</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Rural resident</td>
<td>3,405</td>
<td>0.53</td>
<td>0.50</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
C.3 Additional Results with the ABS Data

Figure A4 shows the additional results with the ABS data. Figure A4(a) shows the scree plots with both a principal component analysis and a exploratory factor analysis. We see that two components/factors stand out. Figure A4(b) is a scatterplot of the two estimated latent factors based on a confirmatory factor analysis, of which factor structure is specified in Table A4.

Figure A4. Correlation Matrix

(a) Scree plot

(b) Latent factors
Figure A5 shows the relationship between the ideological measures and age by urban and rural areas with the ABS sample. We see that, in the urban sample, both ideological measures are almost flat in the age range of 18–36, while in the rural areas, younger cohorts seem to have consistent more liberal/non-traditional attitudes than older cohorts.

Figure A5. Ideological Measures and Age: Urban vs. Rural

(a) Urban

(b) Rural