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China's transitioning class identity

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Abstract

Background: China's rapid economic transformation is similar in some ways to those that have occurred in other rapidly developing nations. Is the pattern in China the same?

Methods: Cross-country macrodata are used to compare class self-identification transition in China with other similar countries. Survey microdata from two sources are used to test the comparative pattern to test the determinants of such identification in both China and around the world.

Results: The changing structure of self-identification that occurs in many rapidly growing economies are found to be absent in China. In fact, as China has continued to grow, such change as has occured is found to be downward, despite the immense material improvement there. Objective data on income distribution in China do not explain this phenomenon, but distinct features of China's urban real estate market might.

Keywords: Housing market, Class identity, Middle class, Social effects of economic growth

Background

Sufficiently strong economic growth over an extended period of time is synonymous in the minds of many with "economic development," which is actually a process also characterized by many other social changes. A rapidly "developing" economy, in addition to increased per capita income, often sees (whether as cause or effect) significant political and environmental changes and such changes in social organization as less of the workforce found in agriculture, more people working in the formal sector of the economy, demographic transition (Hafner and Mayer-Foulkes 2013), and a greater reliance on formal titling in property and credit markets (De Soto 2000). It is also marked by a change in class structure (Easterly 2001), with more people identifiable as being in the upper and especially middle classes (Landes 1998). Part of this change is driven by changes in average income and its distribution among the population. But part of it is said to reflect a change in values and in people's perceived relation to their fellow citizens and perhaps to the state itself.

In particular, to a first approximation, as societies develop, more of their members feel more of an identification with the middle class and its values. This is partly driven by the aforementioned changes in average material standard of living, while others, e.g., McCloskey (2010), posit causation in the other direction. She traces the history of the idea of the middle class and says it is the adoption of what she terms bourgeois values that drives development. Whatever the direction of causation, these hypotheses suggest that rapid, sustained economic growth should coincide with a rising share of the population that is and deems itself to be part of the middle class. This paper

comparatively analyzes data from China to outline an anomalous path for that country. As the country's standard of living has grown tremendously in recent decades, the proportion of the population that views itself as middle class has not only stopped rising but has actually declined, even as the data on average income and income distribution are consistent with patterns in other countries in East Asia whose collective sense of self became dominated by the middle-class identity decades ago. (For rising middle-class self-identification in postwar Japan, see Slater 2011; for similar evidence for Korea and elsewhere, see Kharas 2010) The paper does not look at the effect of development on the rise of an objectively defined middle class or vice versa as in Lopez-Calva and Ortiz-Juarez (2014) but on the *perception* of belonging (or not) to the middle class. The unusual pattern in China is interesting in its own right and to the extent that it is this perception that drives the social and individual behavioral changes in McCloskey-type arguments, this question is important for China's future as well. "The dynamics of class self-identification in China" section documents the phenomenon. The "Class identity dynamics in other transition countries" section renders it curious by looking at class identification transition in other countries that have had comparable patterns of economic growth. The "Determinants of self-identification as middle class from micro-data" section uses cross-country data to investigate the determinants of class identification both around the world and in China in particular, and "The housing effect in China" section explores the potential distinct effect in China of anomalies in recent years in the housing market there.

Methods and results

The dynamics of class self-identification in China

There are two routes by which one might come to think of oneself as becoming a member of the middle class. In one case, a person with rapidly improving fortunes compares his way of life, including his material standard of living, to some conception to that most common in already developed countries. This absolute reference point requires, at least materially, the satisfaction of a certain set of material desires, e.g., home ownership and reliable access to electricity, chlorinated water, reliable transportation, high-quality education, convenient modern appliances, and modern medical care. With such an absolute reference point, a country can easily arrive at a point at which most people consider themselves to have at least a middle standard of living. (Throughout, social classes will be treated as rankable hierarchically but only in a material and not meritorious sense.) Alternatively, people make a within-country comparison and define themselves as middle class if their standard of living is sufficiently close to the center of the country's income distribution. In this framework, any country regardless of its average standard of living could have a sizable proportion of people who consider themselves middle class, provided only that the standard deviation of the income distribution is sufficiently low.

The primary data used to explore questions of the formation and transition of class self-identification worldwide come from the World Values Survey. This long-running research project has been carried out in six waves since 1981. Each survey is based on stratified random sampling to attempt to obtain a representative sample of the population. The question of interest here asks respondents in a wide variety of countries to identify as a member of one of five classes—upper, upper middle, lower middle,

working, or lower class. The survey is carried out in the dominant local language in the area where the respondent lives. China first participated in wave 3, which was carried out between 1995 and 1998, and has participated in all waves since.

If we take the view that middle class means an absolute standard of living, it is somewhat striking that as actual per capita income has increased substantially in China, a transition often associated eventually with a more uniform income distribution, perceived inequality, measured by the extent to which respondents assign themselves into various class identities, has increased significantly since 1995, and mostly because of decline in higher class identification. Table 1 presents the response to the question in which respondents are asked to classify themselves as belonging to one of the five aforementioned classes. Note that while in most countries the percentage of respondents willing to characterize themselves as belonging to the upper class has always been very small, in China, it is even smaller. The percentage of such respondents in other countries characterized by the World Bank as upper-middle-income, as China is, is 1.86 %, but in China, it is only 0.23 %. Between the beginning of the first survey period, 1995, and the end of the second, 2004, in China, there is essential stability in the lower and working classes, a big decline in the upper middle class and an increase in the lower middle class of almost the same magnitude. This period did include the aftermath of the 1997 Asian financial crisis, although China was, at least according to official and financial market data, not as severely affected by this turmoil as other countries in that region. Between the second and third survey periods, there is a big increase in the working class, which might reflect a substantial growth in factory employment during that period. The final transition sees minor increases in both the lower and working classes. Overall, there is no sense whatsoever throughout the data period of upward class mobility, and a fair amount of downward class self-identification.

Could this be because people in China have been absolutely downwardly mobile in large numbers? Almost certainly not. Li and Sicular (2014) note that between 2002 and 2007, the incomes of the bottom and second lowest income quintiles in China increased by 46.35 and 56.76 %, respectively, although even these figures are less than the percentage growth for the top (94.27 %) and second (94.55 %) quintiles. Absolute poverty, measured by household income, has declined substantially as well. Despite adjusting the poverty line upward by over 90 % in 2011, to 2300 yuan earned annually (approximately US$355 at midyear exchange rates for that year), poverty in 2011 was only 12.7 % and has been in continuous decline since the introduction of economic reform in 1979. Measured by a broader set of outcomes, Yu (2013) reports that access to clean water, sanitation, cooking fuel, and health insurance among China's poor also rose substantially from 2000 to 2009. The percentage of families without access to health insurance, as opposed admittedly to access to actual health care and to good health outcomes, fell dramatically, from 66.38 to 3.98 %. Health, as measured by the presence in the family of someone with a body mass

Table 1 Change in class identification, China (proportion of respondents)

	Lower class	Working class	Lower middle class	Upper middle class	Upper class
1995–1998	0.1758	0.2185	0.3662	0.2318	0.0077
2000–2004	0.1861	0.2353	0.5455	0.0289	0.0043
2005–2008	0.2097	0.3041	0.4259	0.0543	0.0060
2010–2014	0.2007	0.3211	0.4343	0.0415	0.0023

index of less than 18.5, improved slightly, moving from 13.24 to 12.76 %. Only measured education inputs decreased, as lack of access to primary school increased somewhat (from 7.96 to 12.43 %). Elfstrom and Kuruvilla (2014) also note that labor dispute patterns in China have increasingly suggested wage bargaining power shifting toward factory workers and away from residual claimants.

China thus is a society where economic growth has materially benefited from all strata of society. Perhaps a combination of both one's absolute standard of living and the perception of one's place in the income distribution, which includes the possibility that the perception is accurate, together define a belief in middle class identity. At any rate, it seems that at least in China, achieving a particular absolute standard of living is not sufficient to consider oneself middle class.

Class identity dynamics in other transition countries

The World Bank classifies countries into only four categories by per capita income—high-, upper-middle-, lower-middle-, and low-income. During the World Values Survey (WVS) research period, there have been five countries that participated in the 1995–1998 and at least one of the 2005–2008 or 2010–2014 surveys. Four of them—China, Turkey, Argentina, and Bulgaria—transitioned from lower-middle- to upper-middle-income between 1995 and 2014, while the three others—Chile, Russia, and South Korea—moved from upper-middle to high-income. India also moved from low-income to lower-middle-income during this time.

Table 2 presents the class identification during the 1995–1998 WVS survey period and the latest period for which data are available for these countries. For Argentina, Bulgaria, and India, this latter period is 2005–2008. For the other countries, it is 2010–2014. Only one of the countries in Table 2, Argentina, exhibits the self-identification pattern most closely associated with the Chinese one of perceived downward mobility, a lower proportion of the population thinking of themselves as upper middle or lower middle class and a higher proportion thinking of themselves as lower or working class. But it also (like Russia and South Korea) experienced a wrenching financial crisis early in the period, combined (unlike those countries) with much less ability to seek credit internationally because of ongoing litigation in the USA and elsewhere over Argentina's attempts to avoid being declared in default. The perception being consistent with the reality is thus a very plausible explanation in this case. Two countries, Chile and Turkey, exhibit the expected pattern—a larger proportion of people declaring themselves to be in the upper, upper middle, or lower middle classes and a lower proportion considering themselves to be in the lower and working classes. Unlike Argentina, China officially grew robustly throughout most of the period, even as its self-identified upper middle class saw the largest percentage point fall (i.e., the largest downward shift in class self-identification in this group) of any country in Table 2. In addition, while Argentina had the lowest growth of all of these countries, China had the highest. And yet China is also, along with Argentina, a country where people's perceived identity trended most dramatically downward.

Determinants of self-identification as middle class from microdata

Another way of exploring the relation between economic growth and class self-perception is to look at the cross-sectional relation during the 2010–2014 period

Table 2 Change in class identification and other transition countries (proportion of respondents)

		1995–1998 survey	Most recent survey (2014 unless otherwise noted)	Average annual real P/C GDP growth during period
Argentina[a]	Upper	0.0038	0.0031	1.77[b]
	Upper middle	0.1246	0.1152	
	Lower middle	0.4056	0.3110	
	Working	0.4142	0.4796	
	Lower	0.0518	0.0911	
Bulgaria[a]	Upper	0.0071	0.0032	3.73
	Upper middle	0.1153	0.1074	
	Lower middle	0.2315	0.2074	
	Working	0.5066	0.5585	
	Lower	0.1395	0.1234	
Chile	Upper	0.0041	0.0111	3.00
	Upper middle	0.1785	0.1558	
	Lower middle	0.4718	0.5427	
	Working	0.2349	0.2371	
	Lower	0.1108	0.0532	
India[a]	Upper	0.0778	0.0457	5.18
	Upper middle	0.2590	0.1551	
	Lower middle	0.3183	0.3498	
	Working	0.2078	0.1772	
	Lower	0.1372	0.2722	
Korea	Upper	0.0080	0.0092	3.77
	Upper middle	0.2959	0.3001	
	Lower middle	0.4988	0.4798	
	Working	0.1315	0.1655	
	Lower	0.0658	0.0445	
Russia	Upper	0.0094	0.0039	3.80
	Upper middle	0.1528	0.1276	
	Lower middle	0.2360	0.3582	
	Working	0.5317	0.3893	
	Lower	0.0702	0.1210	
Turkey	Upper	0.0185	0.0196	2.68
	Upper middle	0.2553	0.2495	
	Lower middle	0.2744	0.4402	
	Working	0.3906	0.2476	
	Lower	0.0612	0.0431	

[a]Last WVS survey period is 2005–2008
[b]Argentina growth figures only available through 2006

between countries of particular income categories and class self-identification. Table 3 separates class self-identification by the World Bank's country income category. The rate of identification with the two middle classes in the WVS data is much larger in the Bank's upper-middle- than in lower-middle-income countries. What is more, identification with the lower or working classes declines significantly in the comparison between

Table 3 Class identification proportions, by country's average income level, 2010–4

Low-income countries	
Upper	4.67
Upper-middle	22.58
Lower-middle	27.65
Working	23.71
Lower	21.39
Lower-middle-income countries	
Upper	2.03
Upper-middle	16.34
Lower-middle	32.50
Working	31.23
Lower	17.90
Upper-middle-income countries	
Upper	1.86
Upper-middle	19.36
Lower-middle	37.71
Working	29.11
Lower	11.96
Upper-income countries	
Upper	1.87
Upper-middle	25.95
Lower-middle	39.50
Working	27.15
Lower	5.53

lower-middle- and upper-middle-income countries and continues to do so in the movement to upper-income countries.

The determinants of perceived class identity for both absolute and relative standards of living can also be tested more thoroughly at the country and at the individual level. Table 4 presents the results of ordinary least squares estimation of whether middle-class self-identification is merely a relative definition, an absolute definition, or both. In the top portion of the table, the left-hand variable is a logistic transformation of the combined share of the population in each country that regards itself as lower or working class (left side) or lower class only (right side), from the 2010–2014 survey. The right-hand variables are simply PPP-adjusted per capita GDP in 2012, from the World Bank's world development indicators, and the most recent version of the Gini coefficient (measuring inequality of family income), which is compiled from different years in many countries by the Central Intelligence Agency (2015) and which, for every country save New Zealand (1994), is estimated for a year between 2005 and 2013.[1] The results indicate that there are elements of both absolute and relative self-definition: as *PCGDP* is higher, the percentage of the population that thinks of itself as lower in the class structure goes down, while a greater dispersion in family income, measured by a higher *Gini*, leads to more people defining themselves as lower or working class.

At first glance, part of the mystery seems to be solved: based on the periodic estimates by the World Bank, China's Gini coefficient has increased significantly over the

Table 4 Class identification structure, by country

Dependent variable: lower class, logistic transformation	
Variable	Coefficient
LOGGDP	−0.4587804[c] (−3.76)
Gini	4.927614[c] (3.66)
CONSTANT	0.182402 (0.13)
n: 43	
R^2: 0.4855	
F: 18.87[c]	
Dependent variable: logistic transformation of the percentage of the population that says it is lower or working class	
Variable	Coefficient
LOGGDP	−0.2169505[b] (−2.76)
Gini	1.535321[a] (1.77)
CONSTANT	1.138504 (1.27)
n: 43	
R^2: 0.2648	
F: 7.20[b]	

[a]Statistical significance at 10 % level
[b]Statistical significance at 1 % level
[c]Statistical significance at 0.1 % level

study period, as noted in Fig. 1. But most of the increase in China's income dispersal occurred in roughly the first 20 years after reform, between 1996 and 2002 alone, the Gini coefficient increased from 35.7 to 42.59. But since then, non-uniformity of income earned has been more or less constant, a result similar to that in Li and Sicular (2014), who find that inequality peaked before 2008 and then stabilized. And this is roughly consistent with the evidence on transition in class self-identification in Table 1: the transition from the first to the second WVS survey period is marked by a large decline

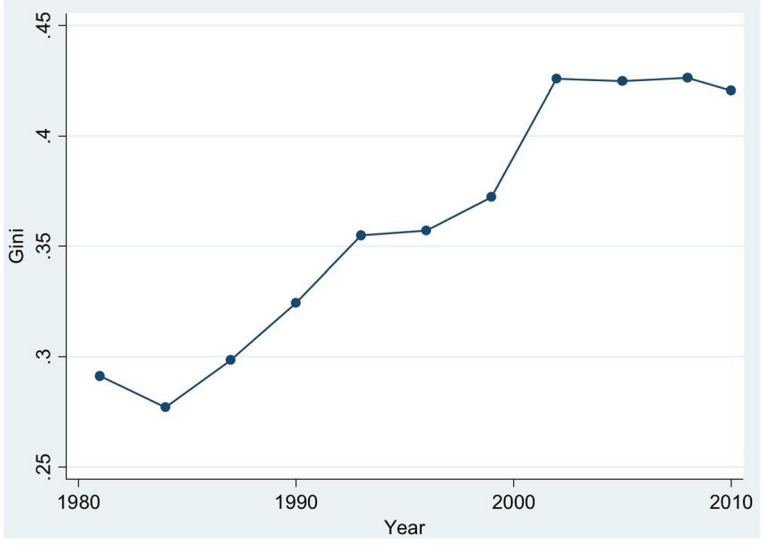

Fig. 1 Gini coefficient over time, China. Source: World Bank, World Development Indicators 2014

in the number of people in China who say they belong to the upper middle class, and the next transition is marked by another large drop in the number who say they belong to the lower middle class, with almost all of these drops accompanied by increases in self-characterization as working or lower class. There is some downward trend in self-identification as middle class between the third and fourth periods, although that is not accompanied by much of an increase in China's Gini coefficient. The mystery thus remains: although incomes have risen across the board in China, self-identification as middle class has declined even as measured inequality has not increased to nearly the same extent. In addition, most of the increase in inequality occurred at the beginning of the study period, with most of the decline in middle-class self-identification occurring in the latter part.

What about at the individual level? There are two ways to examine the determinants of perceived middle-class status using class and income self-identification data from the WVS. The first is to examine the correlation in each survey between perceived place in the income distribution, measured by the respondent's own estimation of his income decile, and class self-characterization, where 1 = "upper class," 2 = "upper middle class," 3 = "lower middle class," 4 = "working class," and 5 = "lower class." (The expected correlation by this specification is negative.) Table 5 depicts the correlation for these two questions in each survey. The importance of perceived income in China declines between the first two surveys but grows substantially subsequently, in conspicuous contrast to the mostly stable correlations in other countries over time, shown in the right-hand column. As time has gone by, the Chinese, in other words, have emphasized to a greater extent their perceived income relative to others in determining their class identity, even as the actual increase in inequality in income earned, by international standards, may not justify that belief. Between the first WVS survey and the last, China in fact changes from a country where the correlation is significantly lower than in other countries to one in which the opposite is true. (The null that China is no different from the rest of the world in both the 1995–1998 and 2010–2014 periods can be rejected at $p < 0.001$.)

In addition, at the individual level, the WVS can be used to see what makes a person assign himself an identification below middle class or not. Class identification is a function of objective results—education acquired and income, e.g.,—and subjective ones—not just the perception of one's income relative to others but the perceived nature of one's job. Someone who does a job that pays relatively little may consider himself as middle class if the work is of a creative nature, for example. Table 6 reports a multinomial probit estimation of the determinants of identification as being in the

Table 5 Correlation between subjective class identity and subjective place in the income distribution

	China	Rest of sample
1995–1998	−0.5060	−0.3937
	(n = 1428)	(n = 60,748)
1999–2004	−0.3345	−0.4323
	(n = 899)	(n = 50,614)
2005–2009	−0.5560	−0.4904
	(n = 1534)	(n = 54,805)
2010–2014	−0.6332	−0.4916
	(n = 2002)	(n = 68,238)

Table 6 Regression results, individual level

	Dependent variable: class level Estimation method: multinomial probit	
	Without China dummy	With China dummy
INCOME	0.4270264[c]	0.4032947[c]
	(37.13)	(37.66)
EDUCATION	0.1587162[b]	0.1291475[c]
	(14.20)	(13.60)
INTWORK	0.0750522[c]	0.078627[c]
	(9.27)	(10.41)
INDEPENDENT	0.0457379[c]	0.0418879[c]
	(5.36)	(5.29)
CREATIVE	0.0501165[c]	0.0389087[c]
	(621)	(5.11)
UNDER30	0.0073472	0.0623379
	(0.16)	(1.44)
BIGCITY	0.2386952[c]	0.2401394[c]
	(4.13)	(4.72)
CHINABIGCITY	−0.9880888[b]	−0.8609935[a]
	(−3.02)	(−2.07)
CHINAUNDER30	−0.3879328	−0.3310799
	(−0.76)	(−0.62)
CHINA		−0.3326631
		(−1.04)
X^2	11,637.54[c]	X^2: 9489.37[c]
Log-likelihood	−38,687.528	−40,965.676
n	40,923	40,923

[a]Statistical significance at 5 % level
[b]Statistical significance at 1 % level
[c]Statistical significance at 0.1 % level

lower or working class (assumed to be indistinguishable as "bottom" rungs of a class ladder), along with each of the three remaining classes, yielding a 1–4 scale, as a function of several respondent characteristics. INCOME is the subjective decile in the income distribution into which the respondent places himself, INTWORK is the degree to which the respondent sees his work as "intellectual" instead of "manual," CREATIVE is the assessment of whether the work is "routine" vs. "creative," and INDEPENDENT measures how much independence the respondent believes he has at work. The scale for these four variables is 1–10. A higher value for any, other things equal, might lead to a person being less likely to assign himself to the working or lower classes. EDUCATION measures the respondent's actual education level, from no formal education to a university degree, on a 1–9 scale.

In addition, research in China suggests that there may be generational effects at work. In a series of works descended from Lian (2009), the Chinese scholar Lian Si has conducted and analyzed surveys on Chinese young urban college graduates (e.g., Lian 2014). He has discovered that many live in unregistered housing in spartan conditions, often sharing an apartment with numerous other people in similar life circumstances.

They hope to accumulate experience and move up. But he also points out that unlike older generations of college graduates, many of these members of what he calls the "ant tribe" (蚁族) were born in smaller cities or rural areas. Arriving in the city and graduating, they have neither family wealth nor social networks to draw on, unlike other young professionals who grew up in the big city. Despite salaries that are comparable to many longtime urban residents, in a climate of rising housing prices, they are unable to buy an apartment. To consider whether such generational and residence effects might be in play, several other dummy variables are included. UNDER30 simply indicates whether the respondent was under 30 at the time of the interview, and BIGCITY takes the value 1 if the respondent lives in a city with a population over half a million, the largest available category for all countries in the WVS data.[2] In the estimation in Table 6 for all countries, on the left-hand side, fixed effects dummy variables are also included for all countries in which the city size question is asked. The result for China, the country of interest, is reported there.[3] On the right-hand side, the same regression is run, absent fixed effects dummies, but a dummy instead employed only for China. In that regression, there are also interaction terms between UNDER30 and BIGCITY and the China dummy.

In both regressions, several coefficients have unsurprising signs and are significant at $p < 0.001$. Higher perceived relative income is positively associated with higher class self-identification, as are education level and the job characteristics of reliance on creativity, the work being characterized as more intellectual and having more independence on the job. The coefficient for CHINA is not significant at conventional standards in the right-hand estimation ($p < 0.299$). In both estimations, being young is not a significant predictor of perceived class status, including when it is interacted with being in China. But strikingly, while living in a city has a positive coefficient and is significant at a level of $p < 0.001$, in both the fixed effects and China dummy regressions, interacting urban residence with China yields a negative coefficient that is significantly larger in absolute value than urban residence generally and is significant at $p < 0.003$.

Discussion

The housing effect in China

The analysis above suggests that there is no "China effect" per se. Being a resident of China has no strong association with an unwillingness to declare oneself a member of the middle or upper classes. However, living in a big city in China, in contrast to being a resident of a big city in any other country, does with a high degree of confidence appear to be positively associated with such reluctance. City life in China is different in some respects from that in most countries. The existence of the *hukou* (戶口) system, where a particular *hukou* permit is required to live in most cities, has long made difficult for the nonetheless growing number of residents who lack such permits but have moved to the cities in recent years in search of better opportunities. (Many of the residents described in Lian (2009) and Lian (2014) fall into this category.)

But the distorted nature of the housing market in Chinese cities may also be a contributing factor. Presumably, it is true everywhere to some degree that home ownership is seen as a marker of middle-class life. In China's larger cities in recent years, there has been a combination of large numbers of migrants, the increasing necessity of home ownership as

a condition for men to marry (Li and Wu 2014), and the tendency of very wealthy people to buy such housing as soon as it is constructed for investment purposes and then to either rent it or leave it unoccupied (Yao et al. 2014). The WVS questions in China did not include any about home ownership or the fraction of income devoted to home payments. But to the extent that such ownership is a major marker of middle-class life and that rising prices and home purchases for non-consumption reasons mean that an increasingly small share of the population has the means to obtain this marker, a Gini-like measure of income inequality alone may understate growing perceived inequality.

There are some reasons to suppose that housing access, whether from mere or artificially high prices, may damage perceived status. In China, market forces are somewhat constrained in translating higher incomes and wealth into home ownership. The government has property rights in all land in China, and while it has since 1998 allowed developers to construct housing essentially for sale to would-be residents or investors, the market for housing is subject to distortions. Since 2003, when the means of acquiring development rights changed to public auction, large numbers of people have purchased multiple properties for investment purposes. In addition, massive migration into cities, often without the aforementioned *hukou* protection, limits the ability to purchase housing. Looming reform of China's pay-as-you-go, defined benefit pension plans have made it imperative for Chinese to acquire houses not for consumption but as a form of investment, to be sold later to young, credit-constrained consumers (Zhao 2015). These young consumers—eager to buy but having few opportunities—are exactly the sort described in Lian (2014). Owning housing also is said to perform a signaling function, as marriage-age people (more often than not men) seek to demonstrate to potential mates their potential future wealth by purchasing housing before the marriage is offered (Wu et al. 2015). If people with incomes within the middle of the distribution expect to own housing but cannot purchase it and if home ownership is a requirement of deeming oneself to be a member of the middle class, then anything that deters the supply of housing that would prevail in a standard equilibrium will exacerbate downward class-perception bias.

Some data for testing the salience of housing are found in the 2010 edition of the Chinese General Social Survey (CGSS). Modeled on the General Social Survey of the National Opinion Research Center of the University of Chicago, it has been carried out in various years since 2003 and published only in Chinese by the National Survey Research Center at Renmin University of China. Its variables allow testing that is not available using the WVS. In particular, there is a variable recording the number of residential properties owned by the respondent.[4] As a preliminary, Fig. 2 notes the downward bias of this survey's respondents' assessment of their own class identity. And Table 7 reports regression estimates similar to those for the global data in Table 6. The left-hand variable in this survey is the respondent's own assessment of which class (not income, note) he belongs to, on a 1-to-10 scale. The right-hand variables available in the CGSS include the dummy MANAGE, which takes the value 1 if the respondent supervises others at work (regardless of whether he is also supervised by others), INDEPENDENT, a 1–4 scaled variable measuring the extent to which the respondent is autonomous with respect to how he carries out his work (with one measuring complete autonomy and four complete lack of autonomy), household income in Chinese yuan (INCOME), income squared, and the number of homes owned (HOMES)

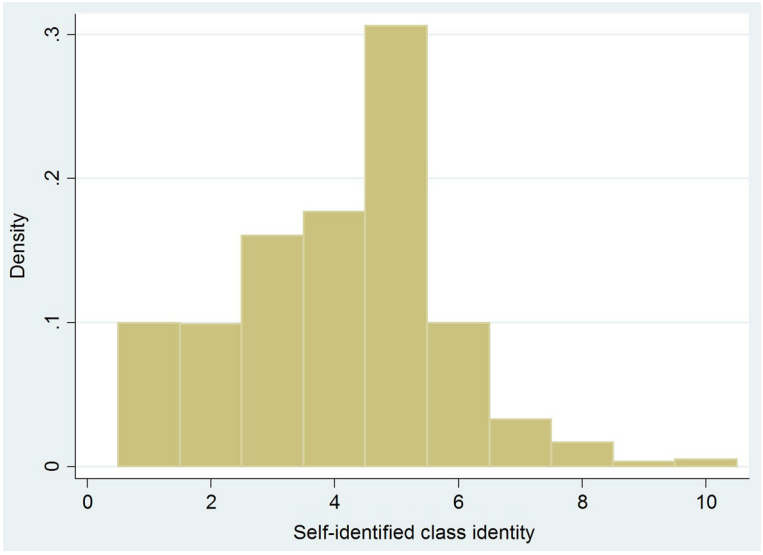

Fig. 2 Distribution of class self-identification (1–10 scale). Source: Chinese General Social Survey 2010

Table 7 Formation of class identity, China General Social Survey Data

Dependent variable: class level	
Estimation method: OLS	
INCOME	1.23e−06[b]
	(3.47)
INCOMESQ	−1.21e−13[b]
	(−3.42)
EDUCATION	0.1473224[a]
	(8.77)
MANAGE	0.5546049[b]
	(9.24)
INDEPENDENT	−0.3294147[b]
	(−4.38)
UNDER30	−0.0560569
	(−0.82)
HOUSES	0.8553272[b]
	(6.05)
EDUCHOUSE	−0.1005114[b]
	(−3.62)
INCHOUSE	−5.98e−09
	(−0.54)
n	4316
F	49.48[b]
R^2	0.0937

[a]Statistical significance at 5 % level
[b]Statistical significance at 0.1 % level

along with its square. EDUCATION is on a 1–10 scale ranging from no formal schooling to postgraduate education. (Since private school is recorded as a category of educational attainment but the level of private school education obtained is, unlike public schools, not recorded, these observations are deleted. Private school is very rare in China, and over 99 % of the CGSS respondents reported having attended public schools.) UNDER30 is also included. Finally, EDUCATION and INCOME are both interacted with HOUSING, testing for further housing effects. The analysis is limited to urban residents, in the sense defined before.

MANAGE, INDEPENDENT, and EDUCATION have signs consistent with those in the regression using cross-country WVS data in the previous section. Income has a positive sign, and its square has a negative sign, suggesting that increased income raises the level of one's class self-identification but at a diminishing rate. Also of interest is that independent of income (which admittedly is different from wealth), home ownership contributes to a higher level of class identity. Home ownership, in other words, appears to be a significant determinant of MCI. Most strikingly, home ownership interacted with education has a negative effect on perceived class identity, while ownership interacted with income does not. Being young also has no effect after other variables have been considered. To be educated in China and own housing, including more housing units, thus promotes higher perceived class identity. But the effect is absent when income and housing ownership are interacted. The results speak more to a common belief that high education (rather than high income) without home ownership is a depressing force with respect to having a sense of upward mobility. The phenomenon of a perception of being "overeducated" relative to life outcomes for the young may thus also be a factor of rising importance in China.

Could downward bias in class identification matter much in terms of Chinese social stability? There are some reasons to think so, but only some. Table 8 displays correlations

Table 8 Class identity and social attitudes, China General Social Survey data

Correlate variable: self-described class identity (1–10 scale)	
China is an entirely unequal (1) versus entirely equal (5) society	0.1220[c]
My life is very unhappy (1) versus entirely happy (5)	0.3281[c]
Government should prohibit public display of criticism of government (1 = entirely disagree, 5 = entirely agree)	−0.0231[a]
The number of children one has is an individual matter, the government should not interfere (1 = entirely disagree, 5 = entirely agree)	−0.0374[c]
Completely trust (1) or completely do not trust (5)	
Party leadership	0.0531[c]
Business	0.0673[b]
Central government	0.0114
Local government	0.0540[c]
Public safety personnel	0.0258[b]
Local media	0.0012
Private organizations (民间组织)	0.0273[b]
Companies	0.0531[c]
Business people	−0.0136

[a]Statistical significance at 5 % level
[b]Statistical significance at 1 % level
[c]Statistical significance at 0.1 % level

among several variables in the CGSS, which are germane both from the point of view of Chinese policymakers and advocates of the McCloskey (2010) hypothesis that modernization sprouts from growing adherence to middle-class values. While a number of the correlations are significant at the 5 % level, only two of them are noticeably high: believing one belongs to a higher class is more closely associated with being happy and with believing that Chinese society is equal. It is thus possible that the rising tide of belief that one belongs to the lower and working classes even amidst rising prosperity overall (and a lack of marked increase in recent years in Chinese Gini values) may generate discontent among those with those beliefs.

Conclusions

It must be conceded that it is not clear that the very concept of social class is seen as it is in other countries, particularly Western ones. But given that caveat, the analysis in this paper provides some support for several propositions. First, China is a highly unusual country, in that it has seen rapid economic growth and a truly substantial rise in the standard of living at all levels of the income distribution, and yet the proportion of its population that sees itself as middle class has fallen in the last 20 years. Second, while there has been a real trend toward higher income inequality as measured by the estimated Gini coefficient, the shift in people's self-identification toward the lower and working classes has been if anything more dramatic and more recent than the significant rise in measured inequality. This suggests, although does not prove, that *perceived* relative income is at least in China a significant source of changing class self-identification, as is lack of ownership of residential real estate. To the extent that perceived class conflict is a driver of actual social tension, these trends bear watching.

Endnotes

[1]The World Bank reports Gini coefficients only for non-upper-income countries.

[2]There are over 100 cities with a population over half a million in China as of 2014. Residents in such cities account for over 74 % of the respondents in the 2010–2014 WVS in China.

[3]The excluded country in the analysis is Algeria.

[4]The characters in the question about number of properties translated by the author as "owned" are 拥有.

Competing interests
The author declares that he has no competing interests.

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