What Determines Pension Insurance Participation in China? Triangulation and the Intertwined Relationship among Employers, Employees and the Government

Abstract:

The current study draws on the Advocacy Coalition Framework (ACF) to examine what determines employees' pension participation in China. For the purpose of exploring which employees actually receive pension coverage and why, econometric analysis was conducted with China's Employer-Employee Matched Survey data (N=3412). A variety of both individual factors, ranging from age and Hukou status to job characteristics, and macro factors, including interprovincial migration and level of economic development, are all found to predict insurance coverage. Qualitative research results contextualize these findings by discussing the often ambivalent and triangulated relations among employers, employees and government. These three groups primarily use shared core policy beliefs to structure their interactions in the form of advocacy coalitions. Various types of cross-coalition interaction, including negotiation, cooperation and conflict, are examined. These findings carry both theoretical and policy implications.

Key words: Pension; Triangulation; Employers; Employees; Government

1. Introduction

Among all of the social welfare schemes in China, the old-age pension system is the one that involves the largest share of resources and the second largest proportion of the population. The latest data show that in 2014, 255 million employees were covered by the Urban Employee Pension Scheme (UEPS), the major public pension program in China, and 2531 billion￥was collected as UEPS funds (Ministry of Human Resources and Social Security, 2014), which amounted to almost 4% of the entire GDP for that year. As a result, it has attracted growing attention from employers and employees, often preoccupied the media and garnered increased interest by academics.

China's pension system has set about to achieve far-reaching structural reforms in recent years. The central government has been quite active in promoting new pension programs and related policies to extend pension coverage, which is reflected in new legislation such as the Labor Contract Law (2008) and Social Insurance Law (2011). Given this rapid expansion of national laws and policies, a pension framework which could cover the whole population has already been constructed in China (Guo, 2014). Despite persistent stratification across the various fragmented schemes, within each separate pension scheme, everyone is entitled to the same rights.

In reality, considering the overall size of the country and prevailing regional differences, the existence of a gap in the implementation of pension policies is unsurprising. For instance, even urban employees, who are the traditional beneficiaries of social insurance programs, have not been entirely covered by state pensions. The Statistical Bulletin of the Ministry of Human Resources and Social Security reveals that, as of 2014, of the 393 million employees in urban areas 255 million had joined the Urban Enterprise Pension Program (MOHRSS, 2015), which means almost 35% of urban employees are not covered by a statutory pension. By way of comparison, this coverage rate is much lower than Hong Kong, where only 3% of the entire working population is not covered by any public pension programs (Chan & Guo, 2011). Furthermore, at the international level, all OECD countries have set up

mandatory or quasi-mandatory pension plans, either public or private, to achieve quasi-universal coverage (OECD, 2013).

Developing economies tend to possess less mature institutional systems, which are often characterized by weak enforcement of labor contracts and government policies (Chen & Wu, 2014). Studies on the labor market in developing economies tend to indicate that formal sectors (mostly referring to State/Public-owned firms and foreign-owned firms) experience more thorough and effective policy implementation than informal sectors (Nyland, Thomson & Zhu, 2011; Xu, Guan & Yao, 2011), and that this is usually reflected by a positive wage premium of the former group over the latter.

Adequate pension coverage for employees in China remains an ongoing challenge. Successfully extending pension coverage among enterprises and employees requires a coordinated effort that respects and accounts for established regulations, ensures employer compliance and elicits individual employees' cooperation. The article is primarily addressed to the following research questions: how do institutional-and individual-level differences explain the factors that determine employees' pension participation? How do employer, employee and government actors respond to efforts to extend pension coverage? How can we understand the mutual and intertwined relations among them, and under what circumstances do they result in advocacy coalitions?

Mixed methods were applied in this study. Utilizing the recent China Employer-Employee Matched Survey and accompanying qualitative data, the current study examines the socioeconomic and institutional determinants of employees' participation in pension insurance. Further, the study also drew on qualitative insights to expand upon and contextualize the quantitative findings. Guided by the Advocacy Coalition Framework (ACF), which "provides the most useful tool for aggregating the behavior of the hundreds of organizations and individuals involved in a policy subsystem over periods of a decade or more" (Sabatier & Weible, 2007: 196), it pointed to dyadic relations permeated with ambivalence and triangulation among

employers, employees and government (Weible et al. 2011). Thus, based on empirical data, the current study analyzes both how actors form coalitions and the cooperation and conflicts that occur among coalitions, and it highlights important policy implications for understanding the phenomenon of pension participation.

The remainder of the article is organized as follows. The second section describes and applies the ACF to the case of China, reviews recent pension reforms and summarizes recent empirical findings. The third section introduces methodology and data sources. The fourth and fifth sections present the quantitative and qualitative research results sequentially. The final section summarizes key conclusions regarding the nature of the tripartite relationship among enterprises, employees and the government, and discusses policy implications.

2. The Research Background and Existing Research

2.1 The Policy Evolution

The first pension system was established in 1951 in the form of Labor Insurance, which was available to eligible urban employees and staff employed in state-owned, joint state-privately operated, privately-operated, or cooperative factories and mines (Chow, 2000, p.142). A product of a centrally planned economy, the traditional social security system, which focused on formal sectors in cities, became increasingly inefficient and inadequate as market-oriented economic reforms unfolded (Guan, 2000; Leckie, 1999; West, 1999). One of the major challenges associated with this transformation is that, the large flow of rural-to-urban migrant employees, who lack an urban Hukou (Household Registration Record), cannot participate in the Urban Enterprise Pension Scheme, the major public pension program designed for employees.

Beginning in the late 1990s, the Chinese government began trying to develop a more pluralistic, effective and affordable social security system that was more compatible with both a thriving market economy and a flagging socialist political structure (Leung, 2003). The urban employee pension system went through several

major reforms since then. The pension reform in 1997 established a framework for developing a holistic urban employee pension scheme, including criteria for determining pension eligibility, benefits and contribution rates, etc. The 1999 employment-based social insurance reform conducted by the Ministry of Labor was ground-breaking in that, for the first time, social welfare programs were made available for rural-to-urban migrant employees (Xu, Guan, & Yao, 2011).

In 2008, a new Labor Contract Law (LCL) was enacted to protect the rights and interests of employees. The LCL has two central goals: to enforce the signing of contracts between employers and employees and to broaden social insurance coverage for employees (Gao, Yang & Li, 2011). In 2010, the central government issued the *Social Insurance Law*, which specifies rules governing the Basic Pension. In particular, Article 10 of this law requires that all employees should be offered basic pension insurance coverage through the Urban Employee Pension Scheme (UEPS), which is to be jointly funded by employers and employees. Moreover, the government introduced other initiatives to increase pension coverage and portability[1] (Guo, 2014).

Although the Chinese government has achieved considerable progress in pension reform, the larger system remains both incomplete and inadequate. Indeed, the issue of pension portability, which pertains to ones' ability to transfer funds between different localities and schemes, is as yet far from resolved (Guo, 2014). Additionally, the expected contribution rates of employers and employees are much higher in China than they are in other nations, exceeding what is recommended by the World Bank (Holzmann, et al., 2005, p. 56). These are all barriers impeding the integration of companies and individuals into the pension system.

2.2 Findings from Existing Empirical Research

[1] Including the New Rural Pension Scheme in 2009, Interim Measures for Pension Transfer within Urban Pension System in 2009, Urban Resident Pension Scheme for non-employed urban residents in 2011, and Interim Measures for the Connection between the Urban and Rural Pension Systems in 2014

The recent literature contains several studies that have examined the determinants of social insurance participation among various segments of the Chinese population. Among these contributions, a number of researchers have focused on the gap in insurance coverage confronting rural-to-urban migrant employees (Nielsen, Nyland, Smyth, Zhang, & Zhu, 2005; Xu, Guan, & Yao, 2011). Meanwhile, other scholars have explored the challenges of insurance compliance from the employers' point of view (Smyth, Nielsen, & Qian, 2009).

Rural-to-Urban Migrant Worker Insurance Coverage

In classifying this literature, we divided those studies focused on rural migrant workers into two groups: those based on data collected in the pre- versus post-Labor Contract Law period. Exemplary of the former, Nielsen et.al (2005) drew on a survey to shed light on the characteristics of those who receive social insurance. The results revealed that gender, past earnings, ties to the city to which the migrant had moved, the form of enterprise ownership in which the migrant worked and residential registration status were all found to predict participation. Xu, Guan and Yao (2011) found that individual factors, including lack of knowledge of welfare programs and of a willingness to participate, and macro-level factors, including type of employer and industry, were critical in determining migrant workers' participation in welfare programs. Finally, using China Household Income Project migrant survey data from 2007 to 2008, Gao, Yang and Li (2012) examined the association between migrant workers' labor contract status and their social insurance participation.

Following enactment of the LCL, Giles, Wang and Park (2013) highlighted the importance of the labor tax wedge[1] and gender gap in determining social insurance participation through survey data prior to and following implementation of the 2008 LCL. Min et al. (2013) found that a significant proportion of migrants do not participate in any old age insurance schemes. Those at greatest risk not to participate

[1] Strictly speaking, social insurance contributions are not taxes. They are paid into individual and social pooling accounts to which workers may eventually have a claim. Nonetheless, we follow conventions in the international literature in referring to the ratio of the combined contribution to wages paid as the "tax wedge".

included migrants who live in poorer households, who move cross the province and who work in private enterprise, small businesses, the construction sector and service industries.

As alluded to above, the institutional barriers standing in the way of pension participation by rural migrant workers have gradually been reduced through intensive policy incentives and national laws enacted since 2008. The result is that distinctions based solely on the identity of rural migrant workers are able to explain less and less of the gap in insurance coverage.

The Employers' Perspective and Compliance

Social security regimes must be underpinned by enforcement mechanisms that effectively compel employers to fulfill their contribution requirements (Nyland, Hartel, Thomson & Zhu, 2012). The design of these mechanisms is important because an employer's perspective and capacity to participate greatly affects their insurance compliance. Nyland, Thomson and Zhu (2011) explored how employers respond to attempts by the State to manage social insurance behavior. They identified five concerns expressed by employers based on their perceptions of and responses to policies and regulations: construction of an effective policy, level playing field, cost control, firm reputation, and recruitment and retention. Chen and Wu (2014), who investigated the relationship between industrial agglomeration and employer compliance with required pension contributions, found that in more agglomerated industrial areas, firms were more likely to comply with pension mandates.

To summarize, previous empirical studies demonstrate that individual factors, including gender, past earnings, ties to the city, and a lack of willingness to participate are critical in determining employees' participation in welfare programs. The same can be said for macro-level factors that include: type of employer and industry, presence of a labor contract, and various enterprise features etc. Nevertheless, given that the government has issued a host of key directives in recent years, there is a need for updated research to address the dynamics underlying the desirability of pension

insurance; specifically employees' demographic characteristics, work-related information and subjective preferences, and disparities across various types of employers. This study uses survey data to describe the situation following the implementation of key pension policies in order to examine both employee treatment as well as the mechanisms underlying the perspectives and behavior of major stakeholders.

3. The Theoretical Framework and Research Hypotheses

In reality, the transformation of policy goals into action ultimately depends upon the interaction of a multitude of actors with often separate interests and strategies. Therefore, the current study utilizes the Advocacy Coalition Framework (ACF), which is a policymaking framework developed to understand problems that arise in the policy process (Sabatier 1988; Sabatier & Jenkins-Smith, 1999, 2007), to understand how these separate but mutually dependent actors respond to the unfolding pension policies and institutional hurdles.

The ACF is an overarching lens through which to understand and explain the nature of goal disagreement and technical disputes involving multiple policy stakeholders from government, interests groups, academia, and the media. Sabatier and Jenkins-Smith (1999) indicate that advocacy coalitions are composed of people from various governmental and private organizations that both (1) share a set of normative and causal beliefs and (2) engage in a nontrivial degree of coordinated activity over time (p. 120). The ACF has proven to be one of the more useful public policy frameworks (Johns, 2003), although it can be criticized for, among other things, seeming to neglect the social and historical context in which change occurs (Weible et al., 2011). In particular, ACF is generally used to understand policy formulation in the context of democratic political systems (see e.g. Litfin, 2000).

However, in China, the government normally plays an overwhelming decisive role in the stage of policy formulation and decision making. It is usually the governmental staff's responsibility to develop policy alternatives for dealing with

issues on the public agenda, and then higher level officials or power elites make the final decisions (Guo, 2013). Consequently, policy formation-pension reform being exemplary-appears to be quick, straightforward and "efficient" process. The ACF is particularly useful in the Chinese context because it allows us to attempt to explain the political behavior of actors in the policy process, which is often overlooked in China. In particular, ACF provides researchers a theoretical lens for organizing actors into coalitions by offering a set of hypotheses for explaining coalition structure and behavior (Weible & Sabatier, 2011).

Long-term coalition opportunity structures relate to overlapping societal cleavages and the degree of consensus needed for major policy change. Our study relates to the emerging areas of policy subsystem interdependencies and coordination within, and between, coalitions. In exploring what determines employee pension participation in China, we believe that there are both micro factors (based on individual 'choice') and macro factors that pertain to the behavior of relevant policy coalitions. Neither of these are, strictly speaking, mutually exclusive as individuals make choices within social constraints. The ACF offers insights for understanding both why and how employees decide to participate (and how this decision is institutionally constrained), and how coalitional partners interact to affect policy implementation and the participatory decisions of employees.

There are several hypotheses directly associated with the ACF. While none of them are directly transferable to the Chinese pension context, several of them indirectly inform the two main hypotheses proposed in this study. In particular, we expect that efforts will be made to preserve the core of the pension program but that compromises will occur around secondary issues. We also believe that within a coalition, administrative agencies will usually advocate a more moderate position than their interest-group allies. Specifically, we believe that mid-level administrators, who are a bridge between local employers and the central government, may exhibit flexibility in policy implementation. Further, consistent with ACF, we expect that elites of purpose groups are more constrained in their expression of beliefs and policy

positions than elites from material groups, employers have clear material concerns that they share with employees, and that mid-level government officials have a purposive mission that conflicts with economic exigencies. Finally, ACF notes that actors who share policy core beliefs are more likely to engage in short-term coordination if they view their opponents as (1) very powerful, and (2) very likely to impose substantial costs upon them if victorious. We believe that this could be the case for mid-level government officials, employers and employees.

Based on existing research inquiries and the theoretical expectations raised in the ACF, two major assumptions are proposed: 1). certain factors, including policy contextual and institutional factors (geographical locations, enterprise ownership, Hukou etc.), and employees' demographic and work-related characteristics (gender, educational level, income, marital status, health, contract, income, position, etc.) will affect urban employees' pension participation; 2). At the policy implementation stage, in line with relevant law and regulations, employee's pension insurance usually requires the participation of both employers and employees; therefore, the government, employers and employees naturally form three major coalitions, among which, negotiations and conflicts coexist.

4. **Mixed Method and Data Description**

This research study adopted a mixed methods approach, combining both quantitative and qualitative modes of inquiry. Specifically, the quantitative portion of the study aims to respond to the first hypothesis. Qualitative insights were drawn on to expand upon and contextualize the quantitative findings to shed light on the second research assumption. Data collection and analysis were carried out sequentially. The researchers began by conducting the qualitative phase of the study in order to formulate grounded research questions. The results of these inquiries were then incorporated into the survey in the quantitative phase of the study. Finally, the researchers conducted semi-structured interviews to help explain, interpret and expand upon the quantitative findings.

The quantitative data used in this article were part of the "2013 China Employer-Employee Matched Survey"[1], an anonymous survey conducted in 12 cities across China. The sampling process involved a systematic approach and a three-step scheme. First, 12 cities were selected through purposive sampling, including Beijing (east), Guangzhou (southeast), Suzhou (southeast), Fuzhou (southeast), Jinan (middle), Xiangyang (middle), Zhengzhou (middle), Chengdu (southwest), Changchun (northeast), Qiqihaer (northeast), Taiyuan and Xianyang (northwest). These cities are representative of China's diverse geographic and urban composition. Second, the sampling frame in each city was constructed using the business directory based on the 2008 National Economics Census after which, firms were chosen through a process of stratified sampling. Finally, employees at each company, including front line workers, skilled workers, and managers, were recruited via population proportion sampling. The basic profile of study respondents is shown in Table 1.

In order to develop, refine and answer the research questions to allow us to understand patterns of interaction and negotiation among the various actors, we conducted face-to-face, semi-structured interviews with employees, entrepreneurs/ human resource managers, scholars, and governmental officials between 2012 and 2014. In terms of our sample, we chose: six officials from different levels of government (working in the MoHRSS and at the Beijing municipal, district, and street levels; five scholars working on social security; twelve employees (including rural migrant employees), both male and female between the ages of 18-60, who have been working in cities at least 6 months (and planned to keep working in cities), and come from different vocations, statuses and income levels; and, six enterprise HR managers/owners responsible for employee insurance.

5. The Quantitative Analysis

Utilizing China Employer-Employee Matched Survey data, this section investigates factors believed to influence UEPS participation. As discussed in section

[1]This survey was conducted by the School of Labor and Human Resources of Renmin University of China. The first author and the third author participated in the process of questionnaire design and revision.

2, the aim of universal UEPS coverage implies that individual demographic variables will not exhibit a strong correlation with participation rates. However, if pension participation rates are also in part the result of market-based mechanisms, such as a wage bargaining process, variables reflecting both the productive factors of the employees and the associated job information should exhibit strong explanatory power. In particular, a substitution effect between the pension participation outcome and cash income in the wage profile would appear significant controlling for other conditions.

5.1 Econometric Methodology

The outcome of an employee's pension participation status will be modeled by using logit regressions. The baseline specification of the latent process is written as

$$\text{Pension}_i^* = \alpha' X_i + \delta' Hukou_i + \gamma' B_i + \beta_1 Owners\boxtimes ip + \beta_2 Income + \eta F_i + \epsilon_i$$

Where *Pension** represents the latent propensity for an individual employee, *I* being selected into the state pension scheme. *X* indicates a vector of the individual's characteristic variables, including gender (*Male*), marital status (*Marriage*), self-reported health condition (*Health*), education level and age. In particular, two dummies were introduced to capture secondary (*Secondary Education*) and tertiary (*Tertiary Education*) education. As mentioned before, if pension participation is implemented via market-based mechanisms (such as a wage-profile bargaining process), a higher education level will be associated with a greater likelihood of pension participation. For the age variable, we include a quadratic term to capture the effect of the policy requirement that the state pension fee must be paid for at least 15 years.

Two variables are integrated to capture an employee's Hukou status. An *Urban Hukou* dummy is included to capture the historical advantage of the fact that the state pension was initially established only for urban Hukou employees.. The other dummy variable (*Working in the Same Province*) assumes the value of one if the employee's

Hukou is located within the same province as the work place. This accounts for the current policy requirement that the pension fund be maintained separately at the provincial level.

B represents a vector of variables capturing information about the employee's current job. Specifically, A *Firm Size* variable, measured as the total number of employees, will capture the firm-level characteristics. A *Skilled Position* dummy is added based on whether the employee's job position is managerial, administrative, skilled or professional in nature. A *Contract* dummy variable represents whether an employment contract has been signed or not. This variable is expected to indicate a relatively stronger employee bargaining position and to yield a positive coefficient. Another dummy (*Negotiable Contract*), indicating whether the signed contract is negotiable, has also been included. This accounts for contracts that are either directly negotiable with the employer or collectively drafted by the labor union. Two dummy variables are controlled to distinguish the ownership status of the employee's current firm: *Public-Owned Firm* and *Foreign-Owned Firm*.

Cash Income is constructed as the logarithmic monthly average cash income one year prior to the survey (*i.e.* in the year 2012). This may exclude those employees who entered a new job position within the previous year. In order to enrich the sample coverage, a logarithmic income variable set to one month prior to the survey has been utilized whenever the former measure is unavailable.[1] Moreover, some outlier observations tend to exhibit measurement errors in the sense that they are inconsistent with the job descriptions in other measures of the survey.[2] Thus, all the analyses will exclude the top and bottom quantiles.

F represents general factors denoting the employee's geographical location. Two alternative variables will be employed, one of which is the city's logarithmic GDP per capita and the other is a set of city dummies. These variables aim to capture other

[1]Regressions with the former definition have been conducted as robustness check and show no much qualitative difference.

[2] Excluding those outlier observations does not substantively change the results but would rule out obvious measurement errors. Due to space limitations, results including those outliers are excluded but are available upon request.

general factors that may introduce city-level heterogeneity that impacts pension participation rates.

Standard errors are clustered at firm level to capture the with-in group correlations. An alternative regression strategy to capture multi-level heterogeneity is to implement mixed-logit model. The random effects are introduced at both firm- and city- levels. As shown in baseline results in the next section, the result suggests that variables employed in our baseline logit model are sufficient to capture the multilevel variations. We also did the correlation before the regression analysis, and the results are presented in Table 2,

[Table 2 Here]

5.2 Econometric Analyses

The baseline regression results are presented in the upper panel of Table 3 while the lower panel shows the average marginal effects of variables of key interest. It can be seen from Column 1 that the coefficients for the male and marriage dummies as well as self-reported health indicator variables are insignificant, implying that the state pension scheme does not exhibit selection effects related to these demographic conditions.

Employee's age exhibits a significant negative quadratic effect as expected. Specifically, the age exhibiting the greatest propensity to participate in pensions is about 43.6 (=0.202/2*0.002). This is consistent not only with the life-cycle expectation that younger-aged employees are less willing to participate, but also with the policy requirement that the minimum pension payment should be at least 15 years.

The coefficients for the education variables are significant, suggesting that highly-educated employees are positively selected into the pension scheme. Compared with primary school educational attainment and below, the probability of pension participation would be improved by 9 and 13 percent respectively by secondary or higher levels of education.

The coefficient of the *Urban Hukou* variable is significant and positive across the

various specifications, implying the presence of Hukou discrimination against rural Hukou employees. The positive coefficient for the other Hukou variable is also highly significant, indicating that participation in the state pension scheme is geographically limited at the provincial level due to current fund management regulations.[1]

Among the current job information variables, The *Firm Size* variable is significant and positive, indicating that larger scale firms have higher rates of pension coverage. The coefficient of the *Contract* variable is also significant, which indicates that contractual obligation is a positive predictor of pension participation. Moreover, the marginal effects suggest that there is an approximately 25% improvement in the pension participation rate if the employment contract fully covers all the employees as compared to those with no coverage. The largest of the marginal effects variables points to the importance of an effective legal system for enforcing state pension policy. The coefficients of the *Negotiable Contract* and *Skilled Position* variable are insignificant.

Firms' ownership structure was a significant predictor of an employee's propensity to participate in pension insurance. Specifically, those employees in state- and publicly- owned firms were more likely to participate in the state pension than those in private firms, with more than 15% marginal probabilities. Employees in foreign-owned firms did not exhibit a significantly higher likelihood of pension participation than their fellow cohort in private firms. This is consistent with the expectation that state- and publicly- owned firms possess stronger traditions of social responsibility and closer coordination with the government.[2]

The coefficient of the *Cash Income* variable is significant, reflecting a positive relationship with the propensity to participate. Regressions in Columns 3 repeat those in Column 1 and 2 but use only the previous year's cash income data. Overall, the results exhibit only marginal differences.

[1] By controlling the random effects (Column 3), the coefficient for Urban Hukou becomes insignificant but still positive while working in the same province is still a significant factor for pension participation.

[2] Before the 1990s, the majority of companies in China were SOEs, so the urban pension scheme was originally designed for SOEs mainly.

City-level heterogeneity was shown to contribute to participation rates. Regression shown in Column 1, which use city's GDP per capita as variables, exhibit positive coefficients. This implies that areas with better economic performance tend to display, *ceteris paribus*, higher levels of pension coverage. Alternatively, the city fixed-effects dummies, shown in Column 2, had no substantive effects on the coefficients of the other variables. Moreover, the random effect coefficients in the mixed-logit model, shown in Column 3, are insignificant and the residual intra-class correlations for both levels tend to be moderately low. This suggests that our baseline logit models may sufficiently capture the multilevel variations. Since the fixed-effects model does marginally affect the results, but does so while consuming more degrees of freedom, the results for the following analyses will only use the *GDP pc* variable.

[Table 3 Here]

Regressions in Table 4 have similar specifications as those reported in Table 3 but aim to further examine the various channels of pension participation across different types of firm ownership. Firm ownership and employee *Cash Income* variables are treated as interaction terms. An *Annuity* dummy variable is added into the regressions and is also interacted with type of firm ownership. As previously discussed, establishment of firm annuity schemes provide an alternative form of pension accessibility for employees in foreign-owned firms, which may result in similar job-sorting and substitution effects as those seen with the cash income variable. Meanwhile, recent policy developments prioritize participation in the state pension scheme over firm's annuity schemes. Moreover, regressions incorporating another alternative measure of cash income, the logarithmic ratio of the *Cash Income* to the *Minimum Wage* of the city, devised as a further robustness check, are presented in column 3.

It can be seen from Table 4 that state- and publicly- owned firms still exhibit a significantly higher propensity of pension participation than private firms, which may indicate a greater tendency toward coordination with the government and its' policy implementation goals. Their interaction with cash income is significantly negative.

This implies a substitution effect with respect to pension participation and cash income within those employees' overall wage-profiles. The magnitude of this interaction term's coefficient is smaller than that of the *Public-Owned Firm* dummy, yet indicates a positive overall propensity toward participation.

After controlling for the interaction variables, the statistical difference between the foreign-owned and private firms becomes significant. The cash income substitution effects also become significant, particularly when the income variable is scaled to account for the local city's minimum wage level (shown in Columns 3 and 4). Moreover, the negative coefficient of the annuity interaction variable is highly significant. This suggests that the annuity schemes may particularly serve as the alternatives to the state position scheme and exhibit more significant substitution effects.

[Insert Table 4 Here]

To summarize, age and education level exhibit selection effects on pension participation. Policy variables such as Hukou restrictions and labor contract enforcement exhibit a significant impact on pension coverage. Overall, cash income and annuity participation positively affects participation rates but they also entail substitution effects with respect to the likelihood of pension participation. State- and publicly-owned firms have significantly higher pension participation rates than other types of firms. Other factors, such as firm size and the level of city's economic development, also impact the choice to participate in pensions. These findings are further elaborated and contextualized in the qualitative study findings discussed below.

6. Qualitative Data Analysis

This study uses the ACF to reveal the importance of recognizing the interaction between and among opposing advocacy coalitions. The ACF presumes that individuals are rationally motivated but are bounded by their imperfect information and limited ability to learn about, and comprehend, a complex world (Simon 1985).

Having cognitive constraints, individuals are limited by their capacity to acquire and learn new information. The ACF's model of the individual envisions policy participants as being motivated to seek out like-minded allies and form advocacy coalitions. The ACF argues that people primarily use shared core beliefs about policy to structure their interactions into advocacy coalitions. Certainly, however, cross-coalition interactions occur as well. This section focuses on the negotiation, cooperation and conflicts that occur among these three major coalitions of employees, employers and the government[1].

6.1 The Government and Employees: To Protect or to Take Advantage?

Interviews with employees revealed that not all of them considered pension insurance to be an entitlement or their participation to guarantee protection by the state. One major barrier to their participation lays in UEPS's high contribution rate; the 28% overall rate (20% for employers and 8% for employees) is 8% higher than the average public pension contribution rate in 25 OECD countries (OECD, 2013).The majority of employees we interviewed considered their urban pension payments to be substantial and some regarded it as unacceptable to contribute 8% of their wages to social insurance.[2] Beyond daily consumption requirements, they reported needing to save money for marriage, children, housing, caring for their parents, etc., and for those earning low-to-moderate wages, the pension fee was felt to be a particularly burdensome expense. Indeed, the regression results corroborated that expectation that income predicts pension participation. A second obstacle, related to the first, is that given the current cost of living, younger employees tend to care less about 'nest egg' considerations, postponing them until middle age. Finally, some interviewees did not trust in interprovincial transfers of their pension record and accumulated savings, preferring to opt out or not participate in schemes with which they were unfamiliar or that they distrusted.[3]

[1] The ACF argues that, in any given policy subsystem, there will generally be two to five advocacy coalitions.

[2] Many local governments adopt a "'binding-style" of social insurance, usually referred to as the "Urban Four Insurance." This includes medicine, pension, work injury, and unemployment insurance, or sometimes what is referred to as the "Urban Five" when it also includes maternity insurance. These four or five items together cost employers and employees nearly 40% of employees' wages.

[3] This research finding closely resembles recent arguments made by Mark Frazier (2010). He has observed that:

Despite these barriers, the government expects an increasing number of employees, especially young employees, to enroll in UEPS in hopes that pension funds will remain solvent and be able to accommodate the growing number of future retirees. From an academic perspective, some of the scholars who were interviewed indicated that the current UEPS was constructed in the 1990s, with the purpose of addressing the immediate and short-term exigencies of the pension system at that time. They noted that in order to collect more funds quickly the premium ratio (contribution rate) was set relatively high. These pragmatic rationales, historical evolution of the pension system and socio-economic transformation of China have shaped the deep ambivalence that prevails in the relationship between the state and employees with respect to pension participation.

6.2 Employees and Employers: Cooperation or Conflict?

Given the exceedingly high contribution rates surrounding social insurance programs in China, it is understandable that, even if the government attempted to completely enforce the pension regulations in place, employers and employees would resist full compliance with those regulations. Of course, given the realities of governance in China, both in terms of the fragmented nature of government and sometimes contradictory goals of GDP-ism and social security—the basis of social stability—thorough enforcement is a practical impossibility.

The quantitative analysis above, by controlling for employee and current employer information, revealed that cash income is substitutive to state pension participation for state-/publicly- owned firms (relative to the informal sector). Foreign-owned firms exhibited similar results but via supplementary pension participation.[1] This result was borne out and explained in interviews with HR

"pension benefits now account for the single largest source of spending for local governments, and many of the taxes taken from employers and employees to fund these accounts have been misappropriated by local Social Insurance Agencies for development or other corrupt purposes. These missing funds create the danger of unrest and loss of trust in the government in the event that retiring workers cannot be paid the funds that were taken from their salaries throughout their working lives" (Frazier, 2010)

[1] This may be due to the historical policy restrictions that foreign firms were subjected to; specifically, a much higher cost to participate in the state pension scheme, which resulted in the establishment of supplementary pension funds.

managers and employees. They indicated that in reality, some firms negotiate with their employees in order to reach a consensus on social insurance provision. For instance, if an employee agrees to abandon their insurance entitlements, the firm will typically compensate the employee with cash. Alternatively, some employers would select key employees to participate in the UEPS as a form of bonus or staff welfare.

However, this "employer-employee alliance" is not always stable and mutually beneficial. On some occasions, employees may be under intense employer pressure to relinquish insurance entitlements in exchange for a wage substitute, and may only do so reluctantly. Of course, when they realize their rights are being endangered, they could apply for labor arbitration. In most cases, the government would regard an "insurance evasion agreement" as illegal and require the firm to compensate the employee for lost insurance benefits.

6.3 Who has More Bargaining Power? Ambivalence between Employers and Government

Managing employer's social insurance compliance is a particularly difficult governance challenge in emerging economies that have weak regulatory regimes (Nyland, Thomson & Zhu, 2011).This is an especially acute problem in China, which has aggressively pursued GDP-ism, requiring that the government maintain high levels of economic growth and strike a balance between job growth and social security.[1]Aware of the plight faced by small enterprises, local authorities began to turn a blind eye towards enforcement of social insurance policies. In principle, the government requires enterprises to join the urban pension scheme; in reality, government officials are quite flexible and even considerate of the needs of local employers. Indeed, enterprises that struggle to survive are sometimes relieved of their pension premium obligations by local bureaus. For example, during the economic recession that occurred in 2008-2009, many business owners complained and plead

[1] One government official shed light on this reality: "if a medium-size company with 200 workers is required to pay pension insurance for all employees, this company then has to pay one million CNY per year on this single item without any return. This would be a substantial burden for middle and small sized enterprises." CITE

with government officials to be released from pension requirements.

However, as we alluded to above, should any employees apply for labor arbitration their case will in all likelihood be dealt with strictly according to government regulations. Employers would be required to compensate employees for their loss, and would be liable to a fine and subject to administrative warning. Given the relatively equal power that the parties have to influence the other, it is hard to conclude whether the government or the employer has the upper hand in this situation.

7. Discussions and Implications

Based on a very rapid and relatively recent expansion of national laws and policies, a pension framework capable of covering the whole working population in China has been launched. Despite substantial progress, in reality, owing to the size, diversity, developing nature of the economy and society, policy making mechanisms, and governance structure of the nation, for the foreseeable future, a considerable proportion of urban employees will remain inadequately covered by the pension scheme.

Aiming to explore the reasons behind this reality, this study drew on China's Employer-Employee Matched Survey data to shed light both on which employees are actually covered by pension insurance and why. In response to the first research hypothesis, a variety of micro- and macro-level factors were found to be statistically significant predictors of pension insurance coverage. The econometric model developed in this study substantiated that that cash income is a significant substitute for state pension participation, at least for state-/publicly- owned firms relative to those in the informal sector. Foreign-owned firms shared this pattern but through the slightly different mechanism of supplementary pension participation.

In response to the second assumption, this study also drew on qualitative insights to expand upon and contextualize the quantitative findings. Guided by the ACF, it pointed to dyadic relations permeated with ambivalence and triangulation among employers, employees and government. Qualitative research findings indicated that

the fate of pension policy implementation is deeply intertwined in this triangular employer-employee-government relationship. Being largely subjected to existing policies and institutional arrangements, pension participation in China is fundamentally the result of complex interaction, collaboration and negotiation between governments, employers and employees. In this context, it is unclear who if anyone, has the upper hand in terms of bargaining and leverage at this point in time.

Theoretically, the article shows that the ACF can be expanded beyond the western context to explain pension policy implementation in China, which is different from its original roots and applications in democratic regimes. In other words, although there seems to be less of a formal role for advocacy coalitions in the policy formation stage in China, in the policy implementation stage, different groups of stakeholders do appear to be expressing distinct identities, attitudes and strategies. While ACF is normally used to understand policy formulation in democratic political systems, this study argues that it has the potential to be developed and applied as a useful framework for understanding the complicated relations among stakeholders involved in pension policy implementation in China.

With regard to policy implications, this study strongly suggests that the reason why ambivalence exists among employers and employees is that both have to choose among limited and largely unfavorable choices. If the government is committed to ensuring employer compliance and individual's cooperation, they should recognize and take steps to overcome a series of institutional hurdles. The government should examine its policy enforcement tools and their effects, adjusting, where possible, relevant regulations to better accommodate the needs and capacities of enterprises and individuals.

In sum, we consider that several important policy implications follow from this analysis. First, a central barrier to pension participation is confronted by low-to-moderate income employees and small-to middle- sized firms; that is, UEPS contributions are simply too arduous for many to afford. Among possible solutions that should receive serious consideration is lowering UEPS contribution requirements

by providing a moderate subsidy or allowance to support medium-sized and small enterprises.

A second major barrier to participation relates to pension transfer issues. Although the government aims to address these problems, the UEPS remains fragmented at this stage of implementation. Foremost among the concerns of geographically mobile employees is that they may suffer pension loss when they relocate in pursuit of employment. Possible solutions include higher level pension fund management and the creation of a national pension (social security) information system to track benefit eligibility and accumulated contributions. Both are prerequisites to guarantee pension transfers and improve pension portability.

Last but not least, it may appear at first blush that the state-led policy process in China should be quite "effective" and "efficient." However, closer examination reveals that the policy making process in China, as elsewhere, suffers from limited information among a host of other sources or error that emerge in the form of policy implementation failures over time. Accordingly, we consider that it is important to involve public participation earlier in the policy formation process. It is suggested that policy consultation, hearings, evaluation and other accountability mechanisms are needed in public policy making to generate a rational mechanism through which public opinions can be heard and conflicting interests reconciled.

Despite the theoretical and practical implications discussed above, the current research has several limitations. First, our analyses were based on cross-sectional data and we cannot assert causality. Second, the quantitative findings rely on self-report data from the participants, which may carry common method biases; third, the ACF was rooted in the western democratic regime, so it cannot be perfectly applied in Chinese context.

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Table 1 Descriptive Statistics (N=3,412)

Age		***Cash Income (RMB)***	
Young age (age≤35)	63.3%	Cash Income≤2000	41.6%
Mid age (35<age≤45)	28.0%	2000<Cash Income≤3000	37.5%
Old age (45<age≤60)	8.7%	3000<Cash Income≤4000	12.7%
Gender		Cash Income>4000	8.2%
Male	45.1%	***Ownership***	
Female	54.9%	State-owned enterprise	18.1%
Marital Status		Foreign-owned enterprise	4.5%
Married	67.1%	Private-owned enterprise	46.6%
Single	32.9%	Corp. Ltd Firms	30.9%
Education		***Pension Status***	
Elementary Education	35.5%	With Pension	72.6%
Secondary Education	41.4%	Without Pension	27.4%
Tertiary Education	23.2%	***City***	
Self-reportedhealth condition		Beijing	14.8%
Very poor	0.1%	Guangzhou	1.5%
Poor	1.3%	Chengdu	10.9%
Average	22.0%	Jinan	12.8%
Good	61.0%	Changchun	10.0%
Very good	15.5%	Zhengzhou	11.0%
Hukou		Fuzhou	11.1%
Urban	62.6%	Taiyuan	0.5%
Rural	37.4%	Suzhou	6.5%
Locality		Qiqihaer	6.8%
From local Province	87.5%	Xiangyang	6.5%
From other Province	12.5%	Xianyang	7.6%
Skills		***Contract Status***	
Skilled worker	47.9%	Contract signed	71.7%
Unskilled worker	52.1%	Contract not signed	28.3%

Table 2. Correlation of Variables

	Male	Marriage	Health	Age	Secondary Education	Tertiary Educatioin	Urban Hukou	Working in the Same Province	Firm Size	Skilled Position	Contract	Negotiable Contract	Public-Owned Firm	Foreign Firm
Male	1													
Marriage	0.0108	1												
Health	0.041	-0.1318	1											
Age	0.0978	0.5548	-0.215	1										
Secondary Education	-0.055	-0.118	0.0405	-0.2141	1									
Tertiary Educatioin	-0.049	-0.1342	0.0475	-0.1831	-0.4609	1								
Urban Hukou	-0.049	0.1366	-0.0756	0.2183	0.02	0.2215	1							
Working in the Same Province	-0.032	0.1031	-0.0343	0.1221	0.0651	-0.0596	0.1243	1						
Firm Size	-0.0253	0.0255	-0.0461	0.0047	0.0158	0.1494	0.1373	-0.0174	1					
Skilled Position	0.1179	0.0095	0.0168	-0.0344	0.0475	0.2051	0.0679	-0.0654	0.0862	1				
Contract	-0.0228	0.002	-0.038	-0.0683	0.13 83	0.185 5	0.1 127	-0.0 598	0.2 521	0.1 498	1			
Negotiable Contract	0.0093	-0.0322	0.0273	-0.0191	0.0564	0.0198	0.0159	-0.0039	0.0117	0.0493	0.3024	1		
Public-Owned Firm	0.042	0.1127	-0.0587	0.089	0.0331	0.054	0.1855	0.1293	0.2531	0.0226	0.1802	0.0186	1	
Foreign-Owned Firm	-0.0129	-0.0633	0.0052	-0.0617	-0.0256	0.0869	-0.0035	-0.1204	0.1823	0.0062	0.0913	-0.006	-0.1016	1
Cash Income	0.1822	-0.0179	0.017	-0.1117	0.0179	0.2888	0.1053	-0.1862	0.1386	0.3424	0.238	0.0486	-0.0183	0.1441
lnGDPpc	0.0134	-0.134	-0.043	-0.1772	0.0707	0.171	-0.0616	-0.2854	0.0131	0.1254	0.3587	0.1551	0.0368	0.1095

Table 3. Pension Participation: Baseline Results

Dependent Variable: Pension (1 = Yes, 0=No)

	Logit Regressions		Mixed-Logit Regressions
	(1)	(2)	(3)
Individual Characteristics			
Male	-0.206	-0.200	-0.262
	(0.135)	(0.140)	(0.170)
Marriage	0.140	0.186	0.177
	(0.156)	(0.173)	(0.210)
Health	0.067	0.037	0.093
	(0.096)	(0.098)	(0.120)
Age	0.202***	0.214***	0.280***
	(0.058)	(0.069)	(0.051)
Age^2	-0.002***	-0.003***	-0.003***
	(0.001)	(0.001)	(0.001)
Secondary Education	0.925***	0.906***	1.013***
	(0.152)	(0.151)	(0.206)
Tertiary Education	1.312***	1.416***	1.253***
	(0.227)	(0.227)	(0.290)
Hukou Status			
Urban Hukou	0.356**	0.443***	0.183
	(0.149)	(0.145)	(0.183)
Working in the	0.860***	0.932***	1.049***
Same Province	(0.262)	(0.252)	(0.286)
Information for Current job			
Firm Size	0.397***	0.431***	0.727***
	(0.109)	(0.106)	(0.158)
Skilled Position	0.109	0.180	0.546***
	(0.143)	(0.143)	(0.172)
Contract	2.455***	2.411***	2.623***
	(0.189)	(0.191)	(0.212)
Negotiable Contract	-0.091	-0.145	-0.237
	(0.190)	(0.195)	(0.225)
Firm Ownership and Employees' Cash Income			
Public-Owned Firm	1.644***	1.506***	1.654***
	(0.433)	(0.432)	(0.465)
Foreign-Owned Firm	-0.034	-0.077	0.702
	(0.587)	(0.571)	(0.750)
Cash Income	0.661***	0.601**	1.035***
	(0.254)	(0.275)	(0.285)
Other City-Level Fixed Effects			
lnGDPpc	1.309***		2.245***
	(0.249)		(0.537)

Constant	-27.746***	-12.582***	-43.825***
	(3.595)	(2.543)	(6.480)
Constant_City			0.239
			(0.215)
Constant_Firm			6.297***
			(1.100)
CityDummies	No	Yes	
No. Obs	3412	3412	3412
Pseudo-R^2	0.43	0.45	
Resid_ICC_City			0.024
Resid_ICC_Firm			0.665
Marginal Effects			
Secondary Education	0.095***	0.090***	
	(0.016)	(0.015)	
Tertiary Education	0.135***	0.141***	
	(0.024)	(0.023)	
Urban Hukou	0.037**	0.044***	
	(0.015)	(0.014)	
Working in the	0.089***	0.093***	
Same Province	(0.027)	(0.025)	
Contract	0.253***	0.240***	
	(0.017)	(0.017)	
Public-Owned Firm	0.169***	0.150***	
	(0.045)	(0.043)	
Foreign-Owned Firm	-0.003	-0.008	
	(0.060)	(0.057)	

Notes: Figures in parentheses are standard-errors clustered at firm level and *, **, *** denote significant at 10, 5 and 1% respectively. Average marginal effects are presented in the lower panel and the unconditional standard errors are shown in the parentheses. Resid_ICC represents the residual intra-class correlations.

Table 4. Substitution Between Pension and Cash Income

Logit Regressions, Dependent Variable: Pension

	Income = Income		Income = Income/MinWage	
	Incl. Corp. Ltd Firms	Excl. Corp. Ltd Firms	Incl. Corp. Ltd Firms	Excl. Corp. Ltd Firms
	(1)	(2)	(3)	(4)
(Other Variable Results Omitted)				
Public Owned Firm	16.285***	13.472**	4.379***	3.929***
	(5.748)	(5.883)	(1.438)	(1.441)
Foreign Owned Firm	10.497*	7.859	3.741***	3.457**

	(6.055)	(6.165)	(1.388)	(1.457)
Income	1.176***	0.737**	1.615***	0.942*
	(0.292)	(0.355)	(0.438)	(0.528)
Public Owned Firm *	-1.919***	-1.521**	-2.712**	-2.044*
Income	(0.734)	(0.754)	(1.219)	(1.238)
Foreign Owned Firm *	-1.315*	-0.938	-3.063***	-2.506**
Income	(0.760)	(0.774)	(1.117)	(1.166)
Annuity	2.513***	2.703***	2.488***	2.681***
	(0.348)	(0.399)	(0.350)	(0.399)
Annuity *	-1.088	-1.249	-1.124	-1.282
Public Owned Firm	(0.868)	(0.893)	(0.875)	(0.899)
Annuity *	-2.179**	-2.462***	-2.107**	-2.396***
Foreign Owned Firm	(0.974)	(0.954)	(0.883)	(0.865)
No.Obs	2839	1964	2839	1964
Pseudo-R^2	0.47	0.47	0.46	0.47
Marginal Effects				
Public Owned Firm	0.143***	0.173***	0.151***	0.180***
	(0.042)	(0.043)	(0.044)	(0.045)
Foreign Owned Firm	0.024	0.050	0.044	0.073
	(0.062)	(0.067)	(0.056)	(0.062)
Annuity	0.237***	0.255***	0.236***	0.254***
	(0.033)	(0.038)	(0.034)	(0.038)