The Provincial Pattern of Population Ageing and Household Saving in China

Surajit Deb (University of Delhi, India)

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Aryabhatta College, University of Delhi, India

Email: debsurajit@gmail.com

Abstract

It is often argued that the demographic structure bears an impact on the saving rate of the economy since the old-age population generates lesser levels of household saving. This issue remains very relevant for China not only because the ageing feature has started to emerge, but significant growth in domestic saving rate has also been experienced in the country. This paper uses data from 31 Chinese provinces to examine the impacts of population aging and pension system on household saving levels in a cross-sectional framework. Our results indicate that although the rates of old age dependency remained significantly higher in certain provinces, there is no evidence for the phenomenon of declining household savings rates. We subsequently observe that the pensioners contributed to the generation of household saving across Chinese provinces. (130 words)

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Keyword: Population Ageing, Life Cycle Models and Savings, Social Security and Public Pensions, China.

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1. Introduction:

China's population has been aging rather rapidly over the past two decades as a result of the *one-child policy* and low mortality rates. According to the latest statistical communiqué of the People's Republic of China, about 15% of the population remained over the age of 60 at the end of 2014 (NBSC 2015). Further, the demographic transition in China has progressed at different degrees so that there remain significant differences in the extent of old-age dependency across the 31 provinces in China according to the census data. Incidentally, an exceptionally high and rising saving rate over the past two decades has also remained as one major defining feature of the Chinese economy. The average rates of saving have been on the rise over time, with much of the increase taking place in the 2000s, so that the aggregate marginal propensity to save exceeded 50% in China. Therefore, the possible impacts of the demographic transition on the household savings rate remains as an important policy issue for the Chinese economy. A common view according to the life-cycle hypothesis (Modigliani and Brumberg 1954) is that aging societies can expect reduced levels of domestic savings because older people save less and that low savings would lead to lower capital accumulation, which, in turn, could reduce investment and economic growth. In fact, OECD [2015] has indicated that rapid population ageing may become a drag on growth as it could reduce the national saving rate that supported high investment rates and growth in recent years. This is because the large cohort of baby-boomers was in the stage of high-saving years until recently and thereby enhanced the household saving levels in China. But as this cohort moves into old-age and retirement in another two decades, then lower levels of savings could be generated by this cohort, which would be replaced by the subsequent cohort of a smaller size.

However, the literature on the subject does not provide any clear indication as to how the ageing-saving relationships have happened in different economies, developed, developing or in economies in transition. This paper therefore attempts to test the ageing-saving relationship with

the Chinese data because the country is in the process of experiencing demographic transitions and has also registered high savings rates. We use the provincial data and examine how the demographic structure across different provinces influence the household saving deposits in China. Further, population ageing may bear some crucial implications for the household savings deposits as well as the government savings through the functioning of the *pay-as-you-go* (PAYG) pension system. At one hand, the household saving can have a link with the pension systems, since the contributions and benefits are likely to affect the household savings. On the other, there can be deficits in the state-run PAYG pension systems with rapid population ageing if the contributor's benefits and contribution rates remained unchanged. We therefore provide additional focus on the penetration of pension allowances across Chinese provinces to investigate the impacts of population ageing on household savings.

Since, the main objective of this paper is to explore on the impacts of population aging and pension system on household saving levels in the Chinese provinces, the remaining part of this paper is structured as follows. In section 2, we discuss how population aging or pension system affects the household savings from a macroeconomic perspective. Section 3 provides a picture of population ageing in the Chinese provinces. We then discuss the pattern of household saving behavior among the provinces in section 4. In Section 5, we provide the empirical analysis that contains the structure of the econometric model, the data description, and comments on the estimation results. Section 6 summarizes and concludes.

2. The Ageing-Saving Interrelationship:

It is believed by many that the life-cycle hypothesis provides a direct theoretical relationship between aging and saving behavior (Modigliani and Brumberg 1954). The life cycle model of savings behavior is based on the assumption that an individuals' utility depends on his consumption during the time period in his lifetime. According to the principles of this model, the incentive for saving is to even out his consumption over the lifetime from fluctuating income levels during different periods of his life. Therefore, the need to accumulate sufficient resources for retirement arises as a result of the life-cycle effects. The fact that individuals balance their consumption and savings over the expected life span signifies that older and younger people save less than middle-age individuals. Thus, according to the life-cycle model of consumption, the

demographic profile remains a major determinant of the savings behavior, where the saving propensity and old-age dependency is considered to be negatively associated in an economy.

While the relationship between the ageing and savings behavior within the life-cycle model remains theoretically clear, the empirical evidence for the relationship however has not been uniform. It has been indicated in the literature that the methodology and sample used in the analysis remained as the main reason for the differences (Meredith 1995, Masson, Bayoumi and Samiei 1998, OECD 1998). Thus, while some of the studies do observe a significant relationship between the old-age dependency and household saving rates, others have indicated that the impact of ageing on the saving rates remain insignificant.

It may be observed that the introduction of a pension system in the life-cycle model can be expected to cause a displacement of household savings if the net pension benefit is expected to add to the future wealth. However, while the impact on private savings behavior is through the *life cycle effects*, the impact on the latter can be operative by the growing obligation on the PAYG pension system. The ageing of population has already become a potential risk to the stability of the public pension systems in many European countries. The serious implications on the pay-as-you-go public pension system due to population aging have been discussed in the context of European countries, such as, France, Germany or Italy (Hagemann and Nicoletti 1988, World Bank, 1994, Chand and Jaeger 1996, Visco 2002). This is because the ageing process has made net retirement incomes to occupy a major portion of the pre-retirement earnings due to high replacement rates in these countries. It is therefore argued that the size of the public pension systems would have to increase and the contribution rate would rise if the levels of pension benefits stay at the same level. It is clear that if benefits rate in the state-run PAYG pension systems exceeds the contribution rates, then deficits on the PAYG account would cause deterioration in the government finances. It is for this reason that pension reforms have been initiated in a number of countries with growing scales of ageing population so as to reduce the burden on national budgets.

It is often held that while the pension system in China has remained a nationally universal plan in urban areas, the same in the rural areas still remains in the formative stage with differences in program design, benefit levels and coverage rates. According to Yang [2010], the pension system in China remained confined to urban workers only under the *hukou* system that provided insurances for retirement, working injury, illnesses, maternity and widowhood. The

employees in urban enterprises were also entitled to housing, children's day care, education, etc. This kind of social security system did not exist for old people in rural areas.

3. Regional Dimension of Ageing:

China with a recorded median age of 37 and 15 % of the total population over the age of 60 in the year 2015 has been experiencing the demographic transition rather rapidly. As a result, examination of the likely impacts of population ageing on China's future economic growth has remained a major policy concern in recent years. Figure 1 provides information on the old-age dependency ratio, i.e., the ratio of people older than 65 to the working-age population of age 15-64, as well as the child dependency ratio, i.e., the ratio of children aged up to 14 to the working-age population. It can be observed that the child dependency is falling and the old-age dependency rising consistently in China. According to several projections, the old-age dependency ratio in China is expected to climb more rapidly after 2030. On the other hand, the declining child dependency is widely considered as the direct result of the *one-child policy* or *family planning policy* that was introduced in China during 1979. As the fertility levels declined in China, the child dependency ratio fell initially with an increase in the proportion of working age population. The occurrence of a decline in the child dependency ratio showed the way for a period of *demographic dividend*, which China was undergoing until recently with a society that had a growing number of potential producers relative to the number of consumers. However, as the proportion of working age population starts entering into the old age along with the declining fertility levels, the old-age dependency ratio is expected to accelerate at a faster pace. The total (child plus old-age) dependency in China, which stands at about 35% today, is set to rise faster due to the features of low mortality and low fertility in China.

(Insert Figure 1)

The Chinese demographic transition has also progressed at different degrees whereby significant differences in the magnitude of old-age dependency can be observed according to the 2013 Census data across 31 provinces in China. Figure 2 provides the extent of old-age and child dependency in the provinces of China based on the population estimates of 2011. The national average of old age and child dependency remained at about 13% and 22%, respectively. There

are about 11 provinces where the recorded rate of old age dependency remained higher than the national average, which are Chongqing, Sichuan, Jiangsu, Shandong, Hunan, Anhui, Tianjin, Guizhou, Guangxi, Shanghai and Hubei. On the other hand, the rates of old age dependency remained less than 10% in the provinces of Tibet, Xinjiang, Guangdong, Ningxia, Qinghai. Similarly, there are about 16 provinces where the recorded rates of child dependency remained higher than the national average, which are Tibet, Guizhou, Guangxi, Henan, Xinjiang, Ningxia, Yunnan, Jiangxi, Qinghai, Anhui, Hunan, Hainan, Hebei, Sichuan, Gansu and Fujian. On the contrary, the provinces of Shanghai, Beijing, Liaoning, Tianjin and Jilin demonstrated significantly low rates of child dependency that remained at less than 15% of the working-age population.

(Insert Figure 2)

Figure 3 convey information on the population pyramid where the total population is disaggregated into proportions of male and female in each age group defined over five years of age interval. We can further observe that the pyramid is not uniform as one goes up in the age-groups, due to constrictions in several of the children and middle-age groups. Thus, population in the age-groups of 0 to 4, 5 to 9, 10 to 14 and 15 to 19 definitely appears to be short in comparison to the populations in the one or two succeeding age-groups. Similarly, population in the age-groups of 30 to 4 and 35 to 39 appears to be deficient in comparison to the populations belonging to the preceding or succeeding age-groups. These age-group constrictions broadly coincide with the time when one child policy was introduced in China in 1979 and followed thereafter so that children born during the baby booming decade of seventies are moving into the 40 to 44 and 45 to 49 years of age category. Thus, the shape of the Chinese population pyramid is hardly triangular due to a narrow bottom representing low birth rates and gradually widening top signifying growing proportions of the old-age population.

(Insert Figure 3)

4. Old Age Support, Pensions and Savings:
The growth story in China has also been associated with high rates of household saving (ADB 2009, IMF 2009, Ma and Wang 2010, Yang 2012, Yang, Zhang and Zhou 2012). The Chinese

economy even in the recent past has recorded saving rates that are among the highest in the world. The high and rising aggregate savings in China can be assessed from Figure 4, where the comparative pictures for the middle and high income countries are provided over the time period 1982-2013. It can be noticed that saving rate has been rising over time, with much of the increase taking place in the 2000s, so that the gross saving as percentage of GDP surpassed 50% during 2007-08. The growth in China's saving ratio has continued to materialize even in recent years, when there has been a worldwide reduction in the saving ratio. The savings-GDP ratio in the year 2013 continued to remain around 50%, while the same in the case of middle income, high income and at the world level moved at around 30%, 22% and 21%, respectively, in the same year.

(Insert Figure 4)

It is often argued that the Chinese households typically save more in anticipation of higher future incomes rather than any motive to balance the lifetime consumption as per the life-cycle theory. The literature on the subject have identified factors such as rapid income growth, demographic profile, lack of social safety nets, precautionary saving motives, high costs of education and health care or the rising housing prices as the possible causes. The analyses by Chamon and Prasad [2010], Wei and Zhang [2011], Wang and Wen [2012] have forwarded empirical analysis in this regard. It has also been observed that there remain large differences in income levels and income growth across China's provinces, and the saving rates in richer provinces remained much higher than that of the poor provinces (Kraay 2000). The savings rate defined as per capita household savings (Yuan) as percentage of per capita nominal gross regional product (Yuan) remains quite high in China, which stood at about 78% in 2013. However, there are about 7 provinces that recorded higher savings rate than the national average, which are Beijing, Shanxi, Shanghai, Gansu, Sichuan, Hebei and Guandong. On the other hand, the savings rate with relatively low savings rates were recorded for 8 provinces, viz., Inner Mongolia, Tianjin, Fujian, Shandong, Jiangsu, Hunan, Jilin and Tibet.

The scatter plot of per capita household savings along with per capita gross regional product for all the 31 provinces along with China is provided in Figure 5. We observe a positive relationship between the two indicating household savings progressing along with rising per capita income. The existence of a positive relationship between the per capita household saving

and income levels is supported by a high correlation coefficient of +0.83 observed during the year 2013. The economically well-off provinces in terms of high per capita incomes are also the ones with high rates of savings rate, viz., Beijing, Shanghai and Tianjin. On the other hand provinces like Anhui, Jiangxi, Henan, Hunan, Guangxi, Guizhou, Tibet, Gansu, etc. are marked with low per capita income along with low savings rate.

(Insert Figure 5)

Figure 6 examines the strength of the relationship between the saving patterns and ageing population in Chinese provinces. One can notice that there is a very week negative association between the old age dependency and per capita savings rate. The correlation coefficient remains low at -0.12 indicating that household savings in Chinese provinces have not declined along with the ageing process. The evidence for the phenomenon of declining household savings rate along with the ageing process is therefore week from the analysis of Chinese provincial data. Further, there is no evidence of a falling savings rate along with old age dependency in the Chinese provinces that have recorded high degrees of ageing, viz., Chongqing, Sichuan, Jiangsu, Shandong, Hunan, Anhui, Tianjin, Guizhou, Guangxi, Shanghai or Hubei.

(Insert Figure 6)

The relationship between the per capita household savings and proportion of pensioners in each province are given in Figure 7. One can notice that the positive association of household savings with the proportion of pensioners is very strong with a correlation coefficient of +0.82. We also find that provinces with high levels of household savings are also marked with high proportion of pensioners in their old-age population, viz., Beijing, Shanghai and Tianjin. On the other hand the provinces of Tibet, Guangxi, Hunan, Guizhou, Henan, Anhui and Gansu are characterized by low levels of household savings and a lower proportion of pensioners.

(Insert Figure 7)

The similar scatter plot of household savings against the proportion of salaried persons in different province across China is given in Figure 8. We notice a fairly high negative correlation between the two indicating that household saving would decline along with high proportions of salary-dependent aged persons. The fitted regression line yielded a reasonably negative sloped line with a correlation coefficient of – 0.68. Thus, the provinces with high per capita household savings and fewer proportions of salaried persons are Beijing, Shanghai and Tianjin. On the other hand provinces like Anhui, Henan, Hunan, Guangxi, Guizhou, Yunnan and Tibet are marked with low per capita household saving levels along with high proportion of salaried persons.

(Insert Figure 8)

5. Empirical Analysis:

It may be mentioned that the earlier analysis on the ageing-saving relationship in China has indicated that the household saving rate remains inconsistent with the relationship suggested by the life cycle hypothesis (Chow 1985, Qian 1998, Wang 1995, Modigliani and Cao 2004, Horioka and Wan 2008). The analysis based on the national sample of Urban Household Survey (UHS) data by Chamon and Prasad [2010], Song and Yang [2010] and Ge, Yang and Zhang [2010] have found that the households with elderly population experienced faster growth in saving than the whole sample. These findings were also linked with the hypothesis that the decline in pension incomes of the retired population caused families with elderly save more to insure smooth consumption. Thus, the ageing-saving relationship of household savings in China portrayed a U-shaped curve rather than an inverted U-shaped one, as implied by the life cycle hypothesis.

5.1. Methodology:

A number of studies have examined the impacts of ageing on the consumer spending by utilizing the survey data on consumption expenditure for different age categories. The results seem to indicate that the consumption spending varies depending on the age-distribution of population and the consumption expenditures remains high for the of elderly. An attempt has been made in this paper to investigate the impacts of ageing on the household savings by using the aggregate

data. We begin by specifying a single-equation econometric model to explain the per capita household savings in Yuan (PCHSAVINGS) in terms of per-capita gross regional product (PCGRP), old-age dependency (OAD). We subsequently add variables like the proportions of pensioners and salaried persons in the regression equation as follows:

$$\text{PCHSAVINGS} = f(\text{PCGRP, OAD, PENSIONER, SALARIED}) \qquad (1)$$

$$\text{with: } f'_{\text{PCGRP}} > 0, \ f'_{\text{OAD}} > 0, f'_{\text{PENSIONER}} > 0, f'_{\text{SALARIED}} < 0.$$

We have constructed individual data series on each of the variables for 31 provinces of India referring to the time period 2013. The provinces that we consider for China are: Anhui, Beijing, Chongqing, Fujian, Gansu, Guangdong, Guangxi, Guizhou, Hainan, Hebei, Heilongjiang, Henan, Hubei, Hunan, Inner Mongolia, Jiangsu, Jiangxi, Jilin, Liaoning, Ningxia, Qinghai, Shaanxi, Shandong, Shanghai, Shanxi, Sichuan, Tianjin, Tibet, Xinjiang, Yunnan and Zhejiang. Our regression exercises are undertaken by using cross-sectional data from the provinces.

5.2. Data Base:

The basic data on regional age distribution of population are derived from the respective Census information from the National Bureau of Statistics, China. The data on household savings, per capita gross regional product, were sourced from the National Bureau of Statistics, China. Finally, the information on population aged 65 and over by main source of support and regions was used from the census data tables given in National Bureau of Statistics to construct the series on the proportions of pensioners and salaried persons in the old age population of Chinese regions.

5.3 Results:

The results obtained from estimating these five equations are provided in Table 1. Since the OLS estimation generated autocorrelation problem as evident from the low Durbin-Watson test statistic, we have provided the results from Cochrane-Orcutt estimation after correcting the serial-correlation problem. The explanatory variables that turn out to be statistically significant bear correct signs in all the equations. In Equation (1a) and (1b), the levels of per capita income turned out to be significant (statistically) determinant of household savings across the Chinese

provinces. However, the coefficients of old-age dependency in different provinces did not bear the correct signs and remained statistically insignificant in both the equations. When we include the proportion of pensioners in the contributors to the regression equation, the variable yielded statistically significant impacts on the levels of household savings in Equation (2b). The positive coefficient of the variable would imply that higher proportions of pensioners in the number of contributors have contributed to the rise in household savings across Chinese provinces.

(Insert Table 1)

In Equation (3a and 3b), we include the proportion of pensioners as well as the proportion of salaried persons in the old age population to the basic regression equation. Although, the variable relationship bear somewhat correct signs, the coefficients of both the variables remained statistically insignificant in both the OLS and Cochrane-Orcutt estimation. We subsequently introduce these two variables in turn to the regression equation in Equation 4 and 5. The results from Equation (4b) and Equation (5b) seem to indicate that the pensioners contributed to the generation of household saving, while the salaried persons actually caused the reduction of household savings across Chinese Provinces.

6. Summary:

The population ageing phenomenon is generally expected to result in the reduction of household saving levels if individual consumption patterns follow the traditional life-cycle hypothesis. According to Banister, Bloom and Rosenberg [2010], China has so far benefited from the rapid change in the age structure of its population, in particular the decline in the fertility rate since the early 1970s. It is the previous generation of baby boomers that generated the high share of workforce in China. The high economic growth in China has often been argued to be a direct consequence of the large workforce and the savings generated by them. However, this feature is subject to change with the ageing process in China. In this background, this paper attempted to test the ageing-saving relationship with the Chinese data because the country is in the process of experiencing quick demographic transitions and still represents high savings rates. Further, since the persons aged 65 and above often have to bear the cost of their old-age care and health

expenditures, the role of pension provision to support the elderly have also been included in the analysis.

Our analysis pertained to ageing and household savings data on Chinese provinces for the year 2013. We found that the rates of old age dependency remained significantly higher in the 5 provinces of Chongqing, Sichuan, Jiangsu, Shandong, Hunan, Anhui and Tianjin. On the other hand, significantly low rates of child dependency were observed in the provinces of Shanghai, Beijing, Liaoning, Tianjin and Jilin. The scatter plot of per capita household savings along with per capita gross regional product revealed a positive relationship with high positive correlation between the two indicating high savings rate from economically well-off provinces, viz., Beijing, Shanghai and Tianjin. We could find a very week negative association between the old age dependency and per capita savings rate, which suggests that household savings in Chinese provinces did not decline along with the ageing process. Further, there is no evidence of a falling savings rate along with old age dependency even in the provinces that have recorded high degrees of ageing. We have observed a high positive correlation between household savings and the proportion of pensioners in the old age population. On the other hand, a fairly high negative correlation has been established between the household saving levels and proportions of aged persons dependent on salaries.

Our regression exercise did not reveal any statistically significant impact of old-age dependency in the household savings equation. This result remains consistent with the previous findings on the Chinese ageing-saving relationship that household saving rate are inconsistent with the relationship suggested by the life cycle hypothesis. However, the magnitude of pensioners indicated significant and positive impact on the household saving levels across Chinese provinces. Subsequent experimentations seem to indicate that the pensioners contributed to the generation of household saving, while the salaried persons actually caused the reduction of household savings across Chinese Provinces. It therefore follows that the elderly persons who have participated in the current pension system have actually contributed to the household saving levels in several provinces. Our results also provide some crucial indication on how the saving patterns are going to change as a reaction to any reforms in the public pension system in China.

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Figure 1: Child and Old Age Dependency Ratios in China.

Child Dependency Ratio, 22.2

Old Age Dependency Ratio, 13.1
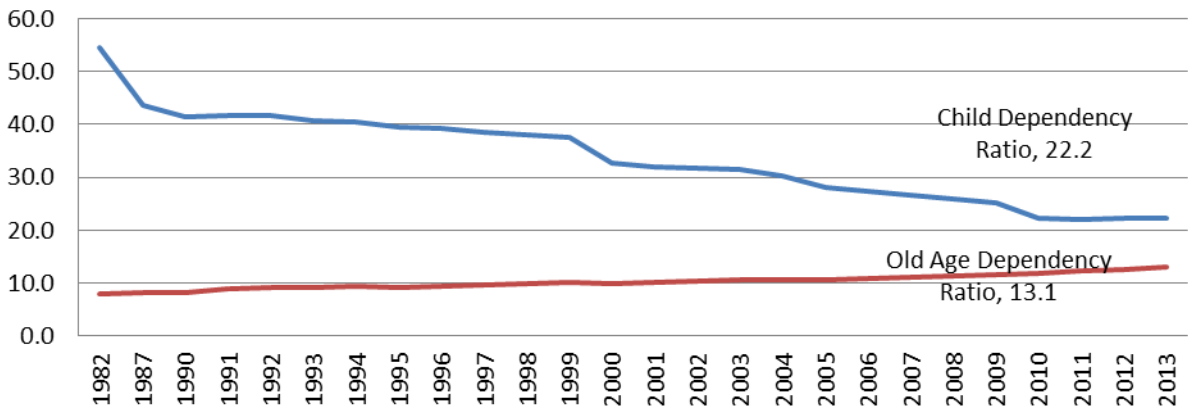
Figure 2: Child and Old Age Dependency Ratio in Chineses Provinces, 2013.

■ Child Dependency Ratio   ■ Old Age Dependency Ratio
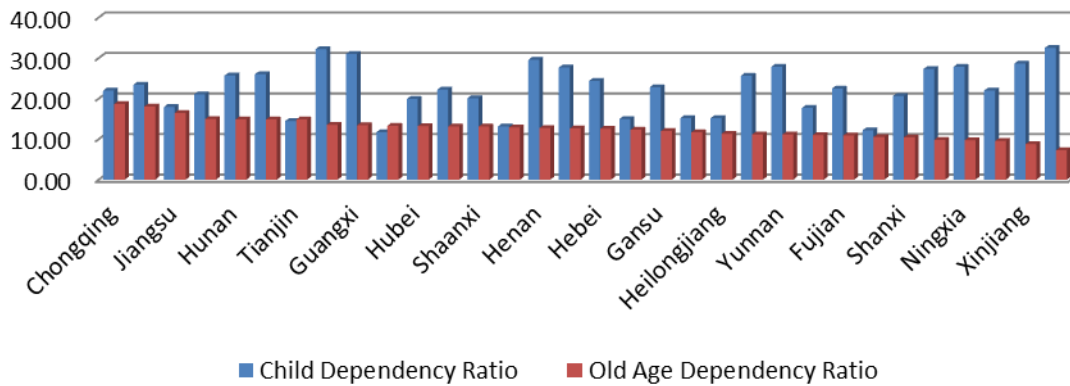
Figure 3: Population Pyramid, China, 2013.
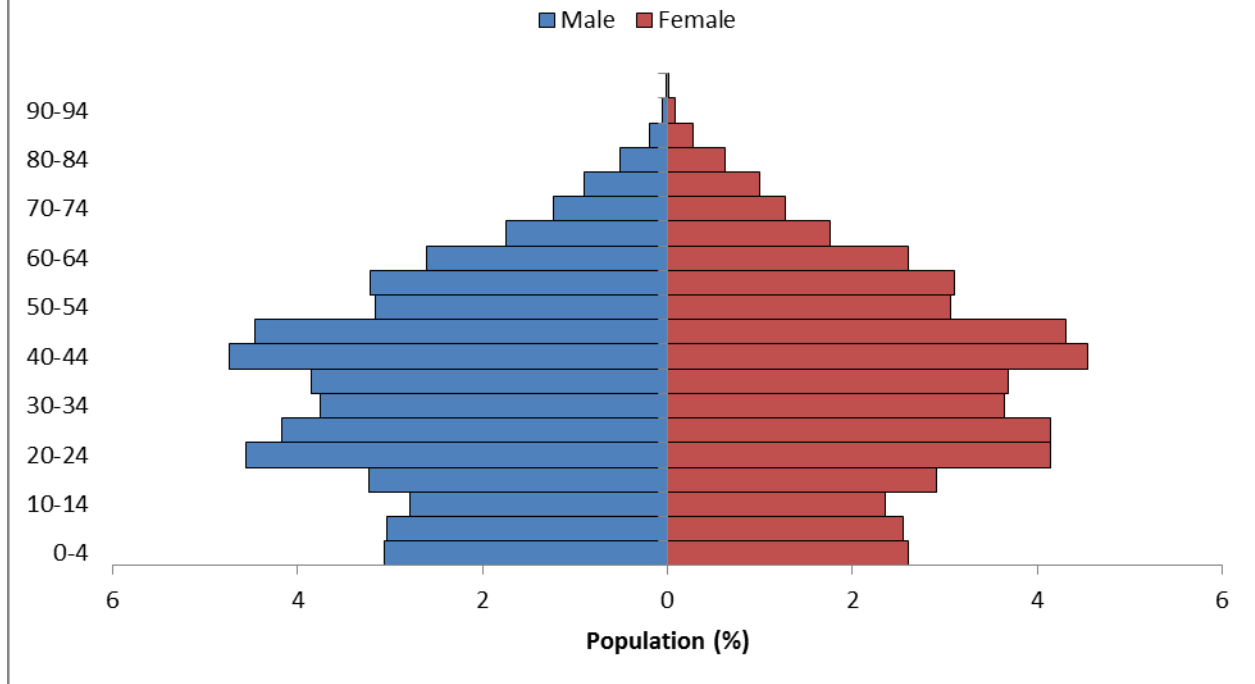
Figure 4: Gros Savings as % of GDP.

Source: World Development Indicators
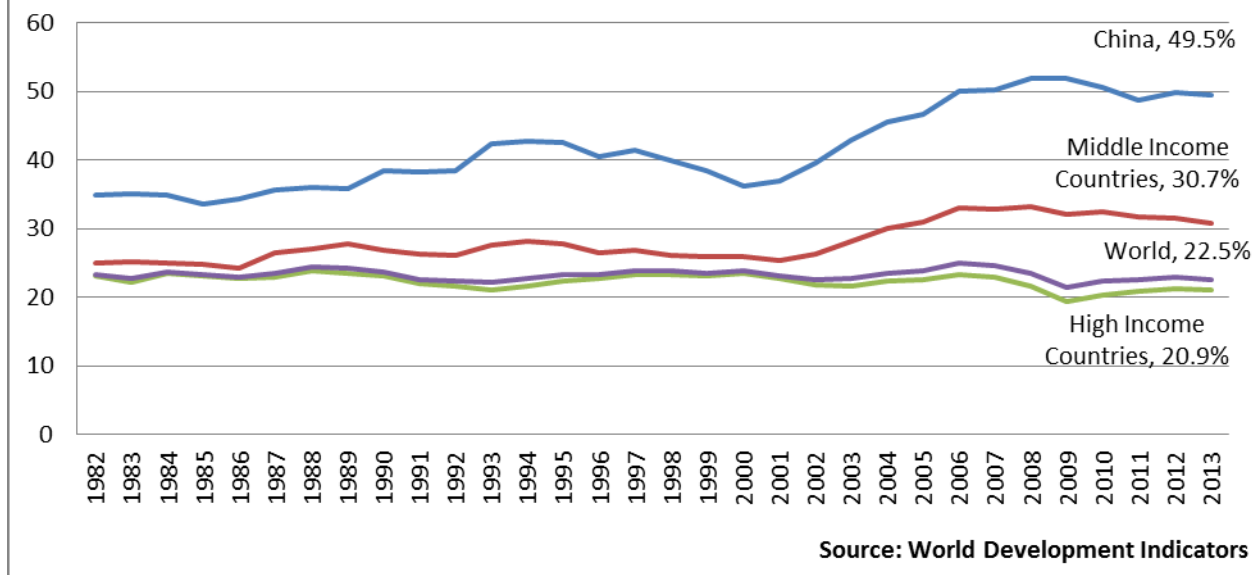
Figure 5: Per Capita Gross Regional Product and Household Savings in Chinese Provinces, 2013.

Per Capita Household Savings, Yuan (y-axis: 0, 20000, 40000, 60000, 80000, 100000, 120000)

Per Capita Gross Regional Product (Current Prices), Yuan (x-axis: 0, 20000, 40000, 60000, 80000, 100000, 120000)

Beijing

Shanghai

Tianjin

China

Inner Mongolia

Anhui

Correlation Coefficient: 0.83
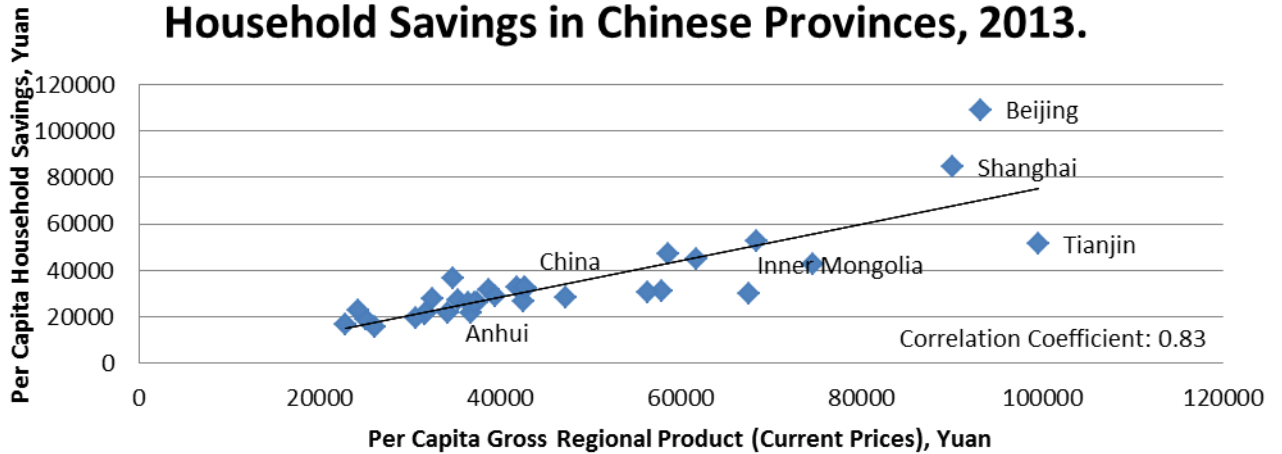
Figure 6: Old Age Dependency and Savings Rate in Chinese Provinces, 2013

Savings Rate (y-axis: 0, 20, 40, 60, 80, 100, 120, 140)

Old Age Dependency (x-axis: 0.00, 2.00, 4.00, 6.00, 8.00, 10.00, 12.00, 14.00, 16.00, 18.00, 20.00)

Shanghai

Guandong

China

Anhui

Tibet

Jilin

Jiangsu

Correlation Coefficient: - 0.12
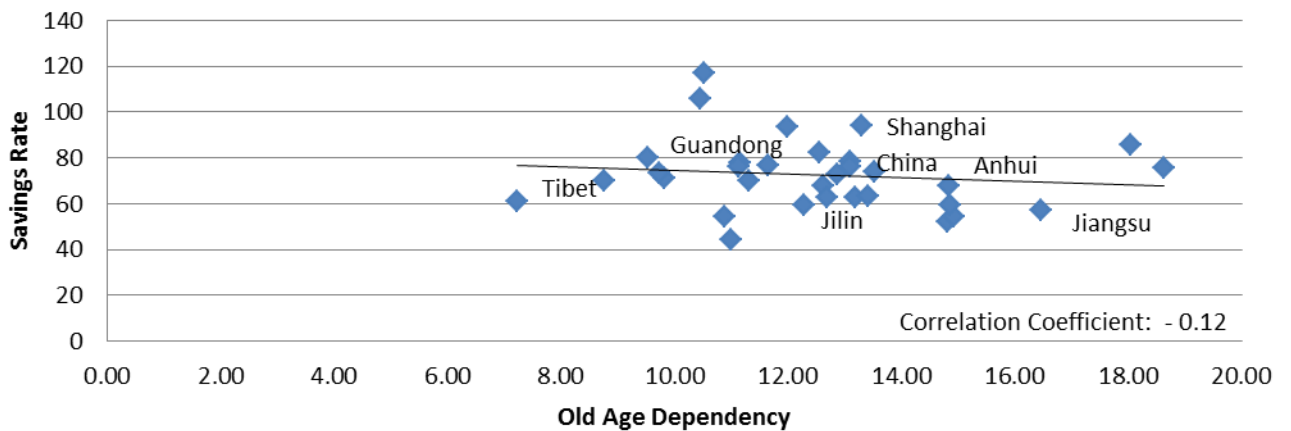
Figure 7: Proportion of Pensioners in 65-plus Population and Per Capita Household Savings, 2013.

Per Capita Household Saving

120000
100000
80000
60000
40000
20000
0

Beijing
Shanghai
Guandong
Shanxi
Liaoning
Tianjin
Tibet
China

Correlation Coefficient: +0.82

0   10   20   30   40   50   60   70   80   90

Proportion of Pensioners in 65-plus Population
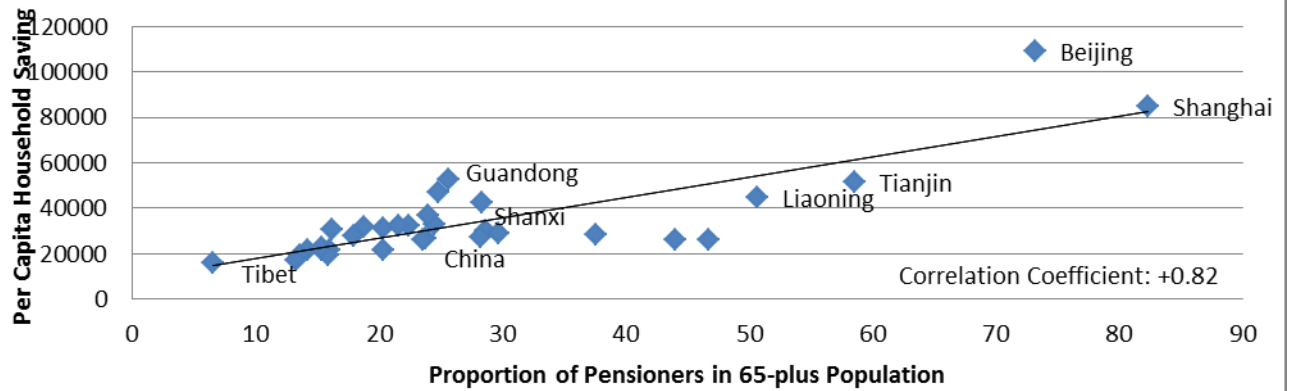
Figure 8: Proportion of Salaried Persons in 65-plus Population and Per Capita Household Savings, 2013.

Per Capita Household Saving

150000
100000
50000
0

Beijing
Shanghai
Tianjin
Zhejiang
China
Anhui

Correlation Coefficient: -0.68

0   5   10   15   20   25   30

Proportion of Salaried Pesrsons in 65-plus Popiulation
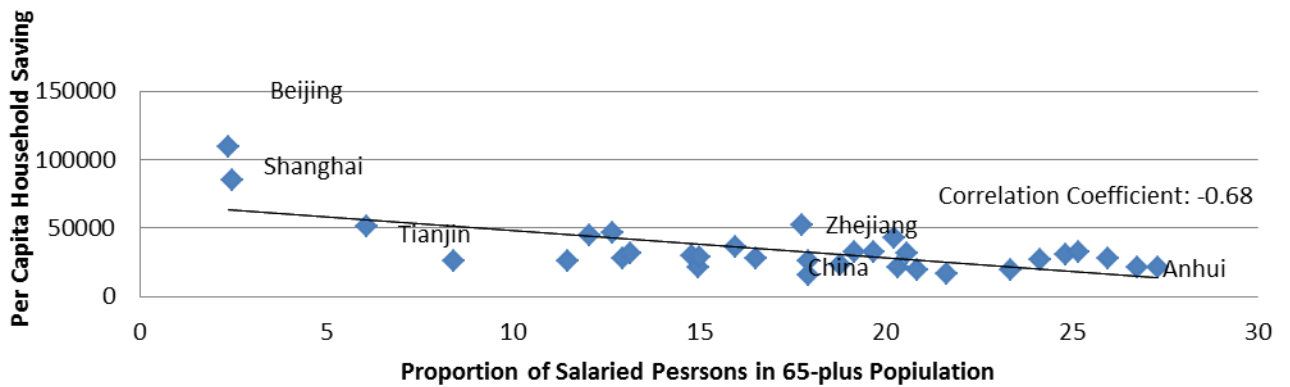
Table 1: Regression Results: Dependent Variable: Per Capita Household Savings Deposits (Yuan) in Chinese Provinces (sample: 31 provinces & China).

Explanatory Variables ↓	OLS (1a)	Cochrane-Orcutt (1b)	OLS (2a)	Cochrane-Orcutt (2b)	OLS (3a)	Cochrane-Orcutt (3b)	OLS (4a)	Cochrane-Orcutt (4b)	OLS (5a)	Cochrane-Orcutt (5b)
Constant	788.53 (0.67)	-112.4 (-0.16)	274.40 (0.25)	-283.03 (-0.44)	-71.18 (-0.05)	505.43 (0.55)	-185.64 (-0.39)	-46.88 (-0.15)	2022.9 (1.74)	-167.68 (-0.27)
Per Capita Gross Regional Product (Yuan)	0.79 (8.26)	0.70 (10.91)	0.95 (7.54)	0.51 (5.18)	0.49 (3.53)	0.59 (7.48)	0.47 (3.69)	0.59 (7.93)	0.80 (5.59)	0.53 (5.77)
Old-Age Dependency Ratio (%)	-820.50 (-1.04)	93.70 (0.20)	22.87 (0.02)	-915.90 (-2.02)	-538.21 (-0.55)	119.29 (0.22)				
Pensioners as % of Contributors			-452.62 (-1.83)	797.14 (3.38)					-389.3 (-1.91)	576.20 (3.47)
Pensioners as % of Population aged 65 & above					513.39 (2.37)	131.34 (0.92)	481.84 (3.22)	202.50 (2.01)		
Salaried Persons as % of Population aged 65 & above					202.96 (0.32)	-248.36 (-0.74)			-606.1 (-1.68)	-373.59 (-2.18)
R-Squarred	0.70	0.77	0.73	0.91	0.77	0.88	0.77	0.88	0.76	0.91
R-Bar-Squarred	0.68	0.74	0.71	0.88	0.74	0.84	0.76	0.85	0.73	0.88
DW Statistic	2.60	1.76	2.41	1.97	2.27	1.97	2.36	1.93	2.31	1.95
F-Statistic	0.68	21.80	0.70	29.33	23.22	18.87	1.54	26.81	0.82	30.12

Note: * and ** indicate statistical significance at 5% and 20% level of significance, respectively.