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Grandma's Mortgage

Who's Paying for China's Property Bubble?

CRC asked 132 property owners in China what was their source of capital for the real estate they acquired? In addition to personal savings, most buyers borrowed funds from a complex array of third party lenders. This reliance on "friends and family" and "other" sources of capital is a form of non-bank lending that is little understood and is a potential liability in the financial system.

- **Reliance on Non-Bank Lending.** Our survey of 132 Chinese residents indicates that 80% borrow money from sources other than banks, including friends and family, to buy property. Although frequently cited as a source of stability, we believe is a potential liability that could be negative to confidence in a time of declining prices.

- **No Savings Among Some.** Among our surveyed group, 15% have acquired property *with no savings as down payment*, relying on bank loans, relatives and friends. This is another source of weakness in the system.

- **Uncertainty about the Value of Property.** The survey finds a marked confusion about the direction of the property market in the future, with the group equally split between forecasting rising and declining prices.

Table of Contents

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Where Does the Money Come From?

China's property market is a significant driver of GDP growth. Depending on estimates of the degree of leakage of corporate bank lending into the residential property market, property fixed asset investment accounts for a significant portion of China's GDP. Thus, it is important to understand the strength or weakness of the property market in China to assess the trend for the country's GDP in the future. The debate about whether the country has entered a property bubble has generally centered on quantifiable factors such as the ratio of supply and demand, the pace of new construction, and macroeconomic factors such as the stimulus by the central government and the contrasting tightening and loosening of credit engineered by the People's Bank of China. (PBOC).

Housing in Wuhan

However, one factor that is often left out of the equation is the source of capital that buyers use for their purchases, along with the attitude of the lenders to the market. It is widely assumed that the cash portion of the property purchase is ultimately quite stable. However, our feeling is that it depends on who is doing the lending. Optimism or pessimism can influence the outcome of property investment in China in the future depending on individual assessments of the property market and their relationship to the actual buyer. As economist Patrick Chovanec recently noted, "However, their willingness to hold idle properties depends on real estate's reliability as a store of value — a rationale that seems to be disintegrating before home buyers' eyes."

But who are the providers of capital? It is generally assumed most buyers use their life savings as a down payment and borrow the remainder from banks. Chinese will tell you that a portion of the cash payment is obtained from non-bank sources; how much is generally not known. But these same Chinese frequently state that the large cash portion of residential property purchases compared with other markets such as the U.S. is a stabilizing factor for the overall property market.

China's Hidden "Derivatives" Market

We think the CRC survey provides evidence for what we can call a "hidden" derivatives market. Similar to the growing body of off-balance sheet financing in China's economy, much of which flows through local governments, the source of capital for property purchases is another form of non-bank lending. And, like off-balance sheet corporate loans, these personal loans are unregulated, unrecorded and are an unacknowledged liability. In fact, during our numerous trips to China in the past two years, local Chinese have frequently told us that China would never confront a subprime mortgage crisis similar to that of the U.S. due to the lack of a derivatives market. China consumer reliance on household on household savings for property purchases would prevent a crisis of this nature from occurring. This survey – along with the data on off-balance sheet corporate lending – suggests the capital connections are more complicated than most Chinese realize.

Methodology

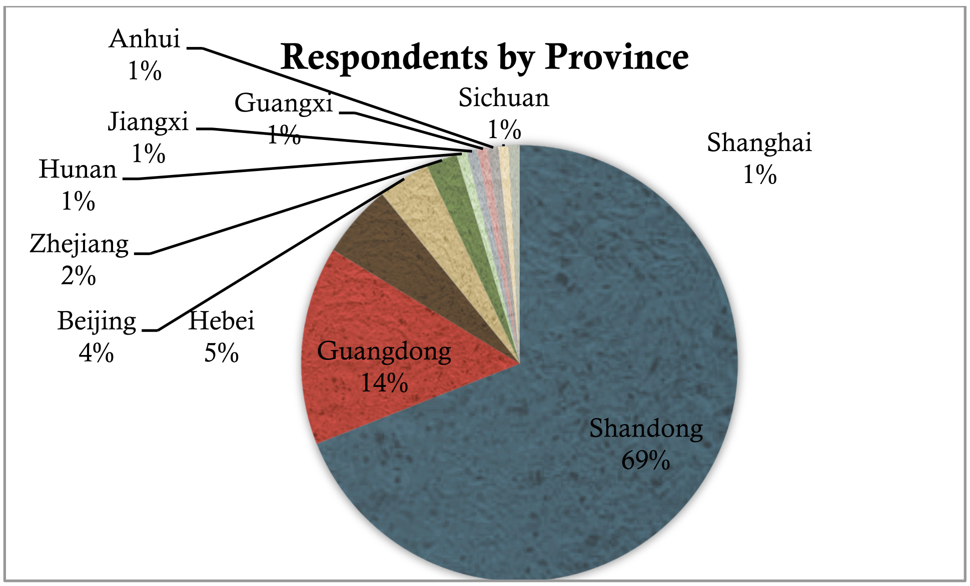
First, we will explain our methodology and define the group we polled. Second, we will summarize our main conclusions. Finally, we will relate our conclusions to the wider macroeconomic issues.

National Poll of Cash Sources

Our poll surveyed residents in 11 Provinces (including, Beijing and Shanghai). In contrast to online polls and third party services, we used the methodology of tapping "friends and family." Although this method may reduce the statistical validity from a demographic viewpoint, due to the lack of random selection, we believe this is can be a more reliable method because many third party polls are most likely unable to breach the walls of privacy of most households in order to obtain accurate information about a sensitive subject such as the size of personal family wealth. In other words, by using "friends and family" we have a higher faith in the accuracy of the responses.

Demographics – The Cohort

Our survey polled 132 people in 11 Provinces. For logistical reasons, we had a heavy concentration in Shandong, whose wealth may make it less representative than other provinces. But even in Shandong the respondents came from a number of cities and thus provide a cross-section of residents of the Province. For the most part, we were able to poll people mainly outside the atypically wealthy cities such as Beijing, Shanghai, and Guangzhou.



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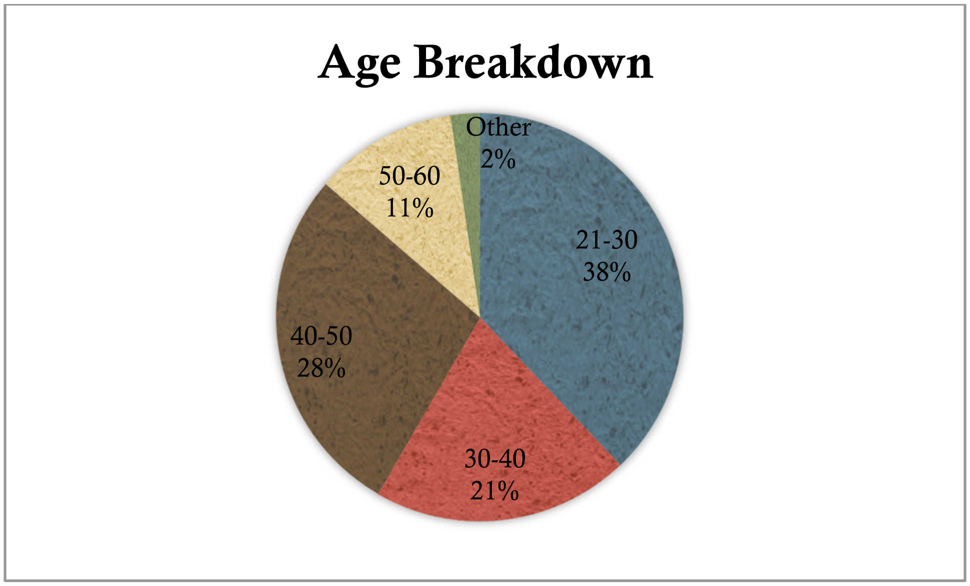
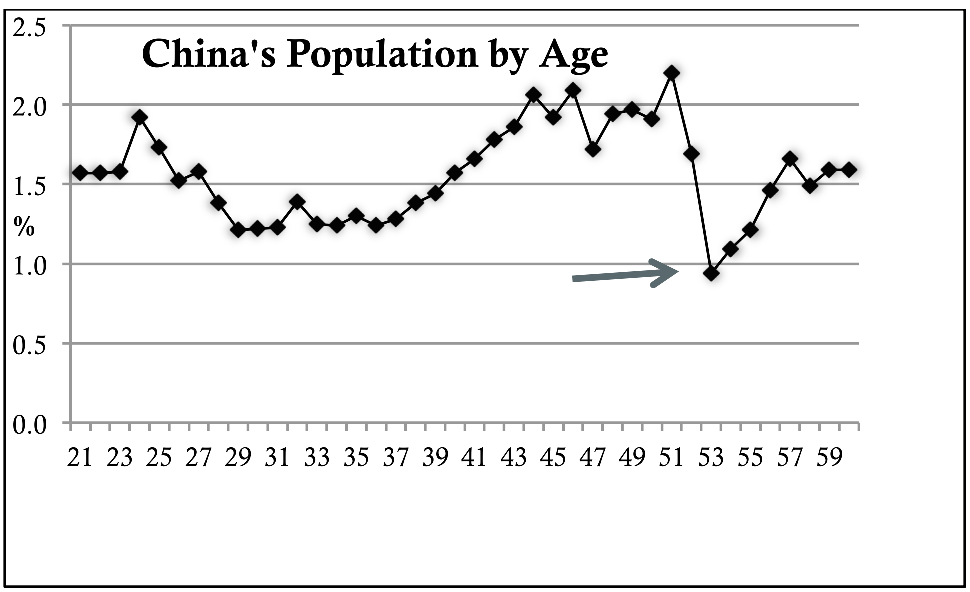
Age Breakdown – Three Cohorts

The breakdown by age is nicely divided between the three main ten-year cohorts of 21-30, 30-40, and 40-50. The large number, 11%, of buyers age 50 to 60 could suggest they are taking advantage of higher prices to upgrade.

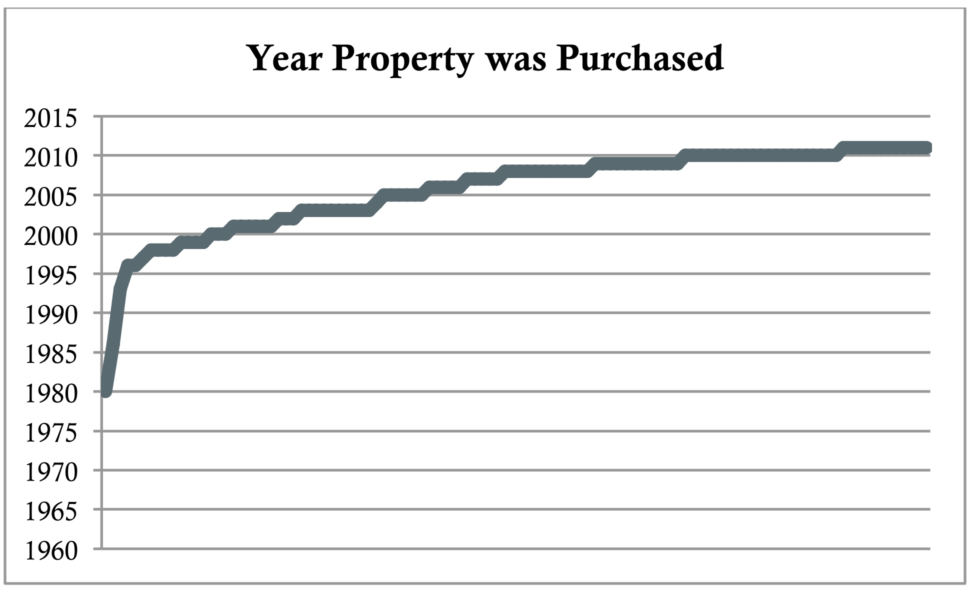


We also compared our demographic data with the broader figures for China's population as a whole. By age, China's population peaks around age 53 (born in the late 1950s prior to famine of the early 1960s) and drops off sharply beyond this age and among younger citizens.



Recent Buyers

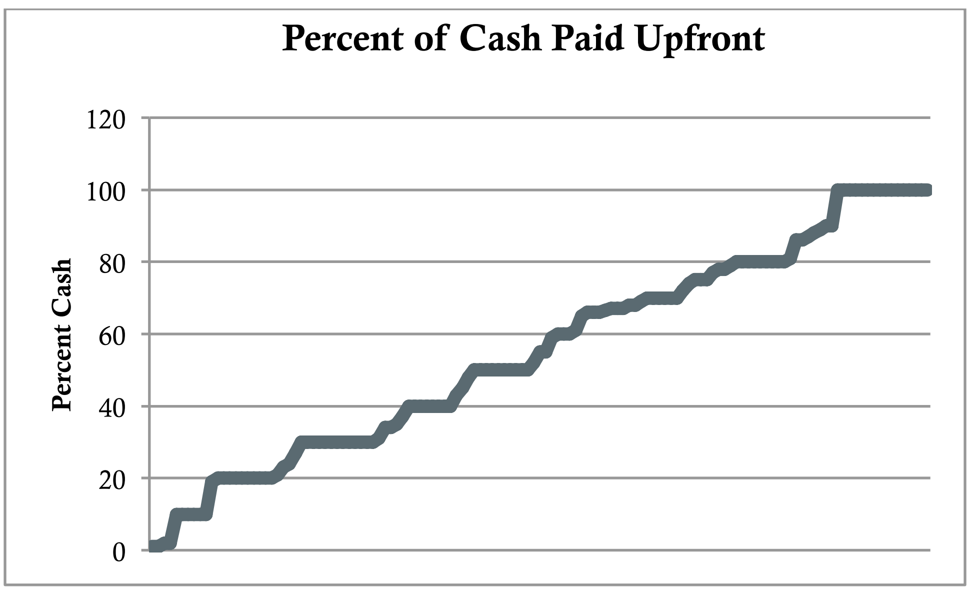
Within our survey, the median time of purchase for the property is 2008 although the ages range from 1980 to the present. That year was during the financial crisis when China's domestic assets had declined modestly in value, reflecting international pressure, but still appeared to be a safe investment relative to the rest of the Asian region. However, there is a large cluster in recent years; 40% of the buyers we surveyed had made their purchase in just three years, 2009, 2010 and 2011. It is possible our survey was biased toward recent buyers. However, it is also possible the recent rise in property prices has convinced buyers to either jump into the market or upgrade. There was also a significant group, 18%, who made their purchase in 2003.



Who Are the Lenders?

We next looked at the source of the capital provided.

We asked our respondents a series of question about their holdings in property. The first question concerned the amount of cash versus mortgages. The answers varied from 1% to 100% cash. The median payment was 55% but the range was evenly dispersed across all percentages. Depending on the buyer, the amount of cash paid could include personal savings, a loan from a relative or a friend, or other. We did not define "other" but this could include a variety of non-traditional sources of funds, including corporate bonus, or company subsidy. Interestingly, eleven respondents said they paid less than 20% in cash. This is above the government mandated 20% required cash down payment and we will return to this issue later.



Friends and Family

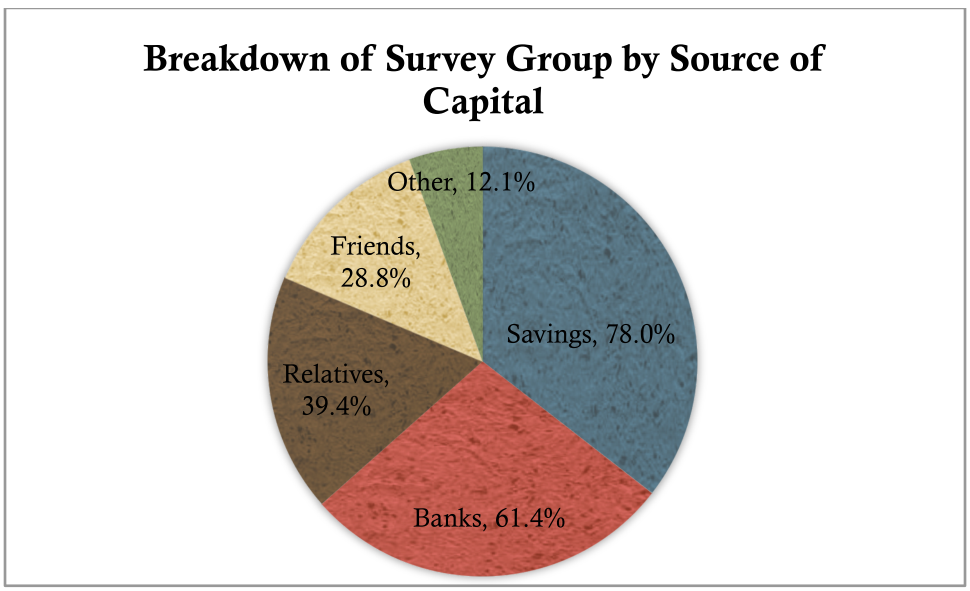
We then requested data on how many of the 132 polled received money from five categories: savings, family, friends, banks, and other.

More than three-quarters used their own **personal savings** as part of the down payment. This is in line with the common wisdom that Chinese citizens tend to rely on their own wealth for the acquisition of property. There was a slight correlation between the amount of cash used (savings plus other sources) and the date of the purchase; the more recent the purchase, the larger the amount of cash paid. But the correlation was modest.

The second largest source was **mortgages** through the banks, with 61.4% of our survey group relying on this.

While the largest cohort in our survey cited banks as a source of funds, the remaining categories also were significant sources of capital. The largest group cited, apart from banks and personal savings, were relatives, cited by 39.4% of our respondents. China's reliance on kinship relationship for a variety of services, such as retirement and health care, is well known. Still, one-third is a significant number.

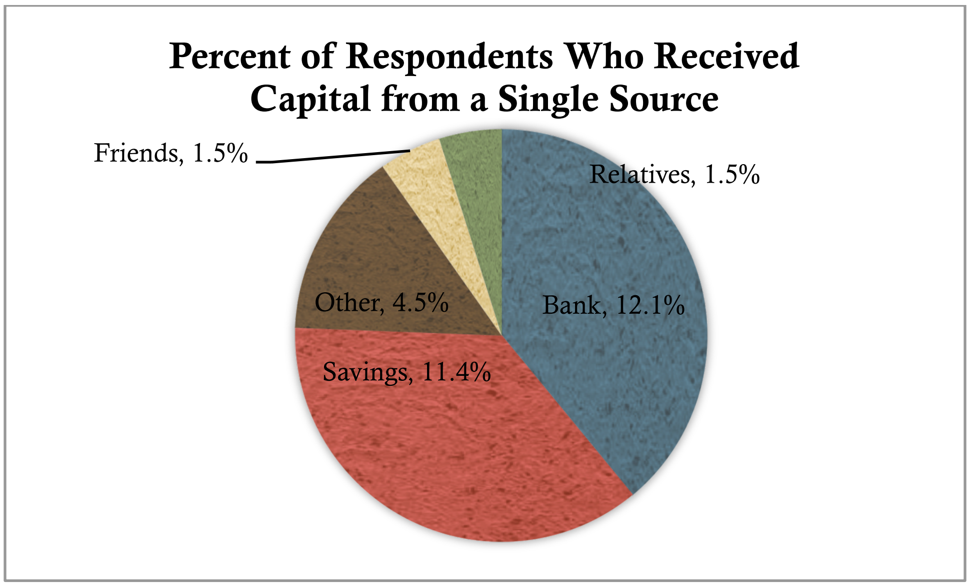
The third largest source of borrowed money was from friends, cited by a significant 28.8%. And the fourth category that was undefined in our survey was labeled "other", which provided funds to 12.1% of the buyers.



Single Loan Source: Banks and Savings Neck and Neck

We also examined how many buyers relied on a single source of funds, whether it was personal savings, a mortgage loan or cash from friends and family. It is usually assumed that personal savings in the majority of cases provides the total purchase capital. However, personal savings were almost tied with banks as the largest single source. Among 12.1% of the buyers, savings accounted for the entire purchase price, while for another 11.4%, banks were the sole source of funds. The reliance on personal savings is understandable given the general emphasis on property as the principal investment for many Chinese. However, the fact that banks were the sole source of funds in over 10% of the cases is more perplexing. How can this occur in light of the rules requiring at least a 20% down payment in cash? It is possible the question was misunderstood. However, assuming the survey is accurate, we suspect that these buyers were able to a) understate the value of their real estate and use bank loans to fund the entire purchase or b) use corporate loans for the purchase of personal real estate. This "leakage" in the system bears further investigation.

The other sources, savings, friends, family and other, were insignificant as single source providers.



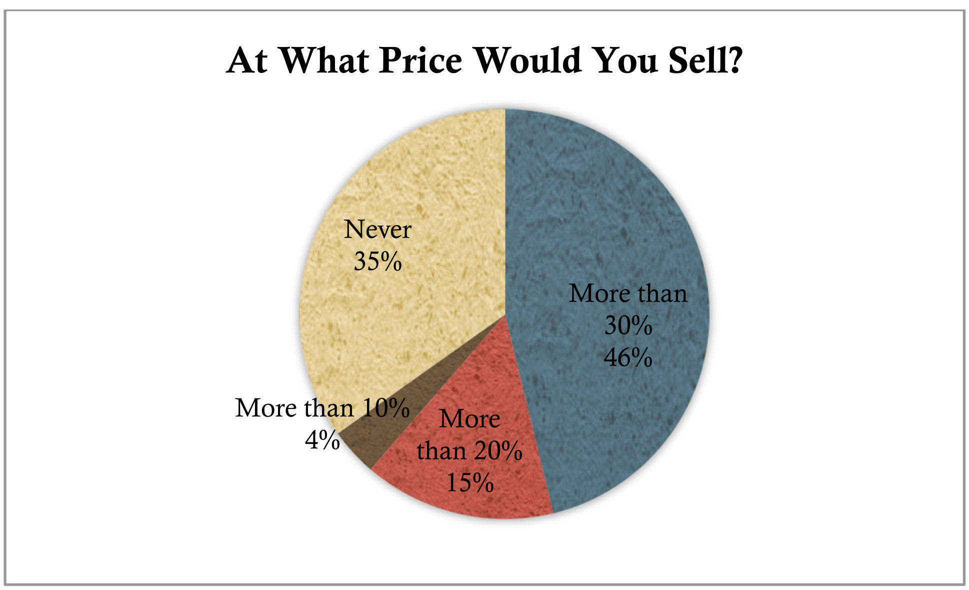
Are the Buyers Optimistic or Pessimistic about the Future of the Property Market?

We asked two other questions to try to divulge the attitude among buyers about the future prospect for their property holdings. The first was to ask at what point they would sell. The second was to ask if they thought property prices would rise or fall in the future.To answer the first question, all spoke of in terms of the gains they would have to realize before selling. None mentioned any need to dispose of an asset whose value was declining, as would occur in a downturn.

The answers gravitated toward a scenario of rising prices and picked a number that would make a sale worthwhile. Almost half – 46% -- say they would not sell until prices rose another 30%. That is a fairly aggressive posture in light of the steady upward march of prices in the past three years and the current efforts by the central government to cool things down. Interestingly, a large group – 35% -- said they would never sell. This was a surprising response given the frothy market and the tendency for buyers to "chao fangdichan" – which means essentially to play the market. But those who say they would never sell clearly form a much more stable part of the market.

The buyers seeking 30% plus appreciation before selling may slip into the "never sell" category if prices do not reach those levels.

The remainder would sell at more modest asset appreciation – 10% to 20%.

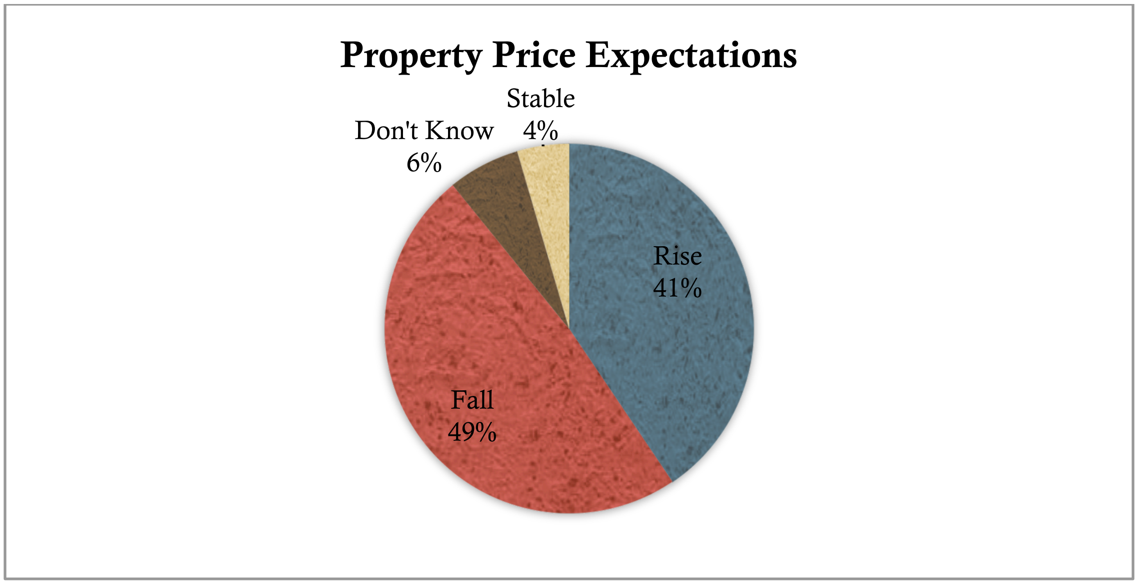


Split Views on the Market in General

The survey respondents took a markedly more negative turn when asked about the property market in general, and not just their own holdings. Half expect prices to fall in the future (we didn't specify the time frame). Close to half, 41%, are anticipating increases, with the rest saying they don't know or see them remaining unchanged.

Along with specific numbers on the future price of property, we asked for more open-ended comments on the views of property. The responses were quite varied; vehemently expecting either a falling or a rising market. Given the lack of consensus, we thought we would simply publish a few of the comments to provide a flavor of the thinking among owners.

- "Mainland Prices will rise because maintaining control is difficult."
- "Due to government controls, prices will continue to fall."
- "Slow growth in the near future, but long-term decline."
- "Stable in Tier 1 and 2, rising in Tier 3."
- "Fall over the next two years significantly."
- "Prices have been rising, but the government is involved in regulation."

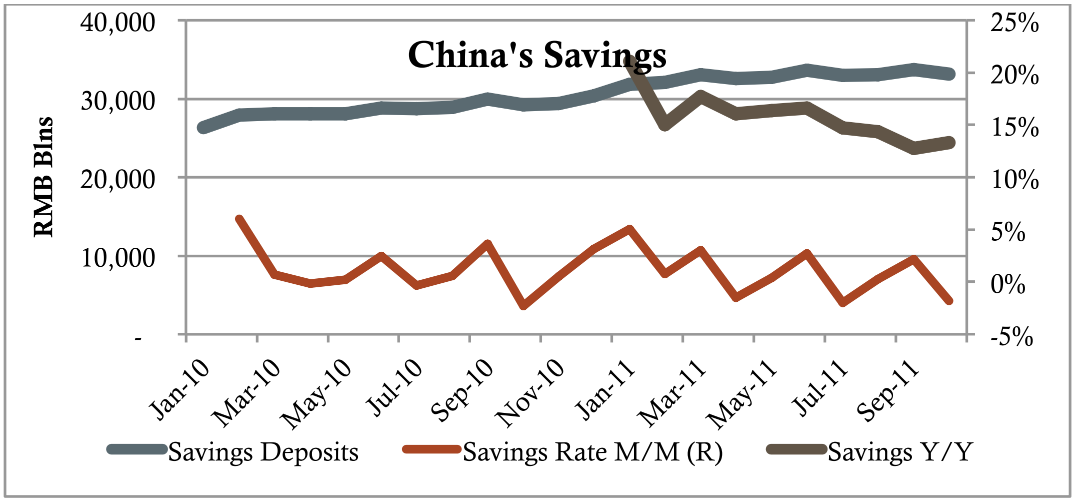


Non-Bank Lenders are Pressure in the System

Understanding Their Intentions is Crucial to Understanding the Market's Direction

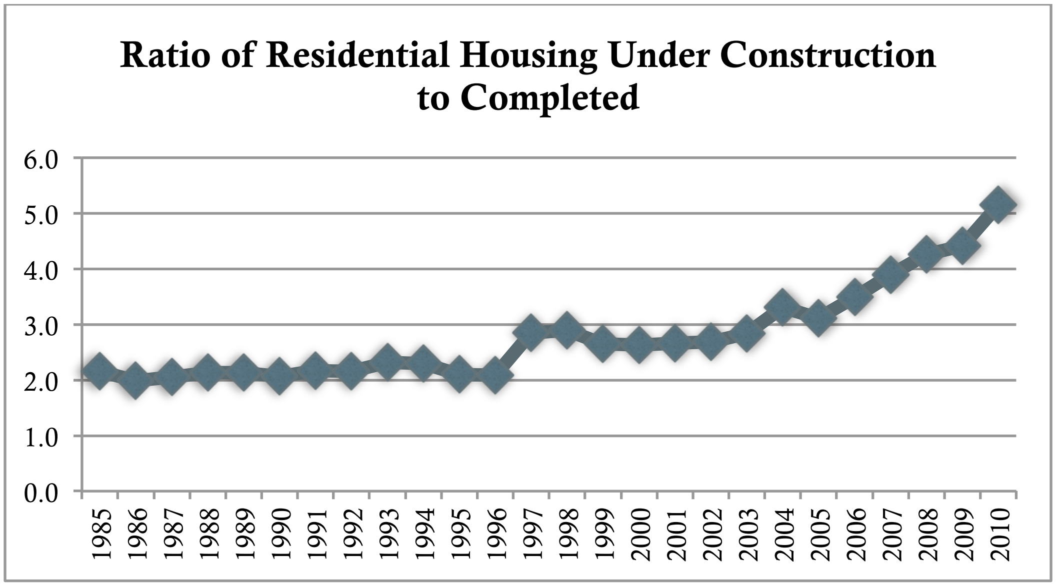
A significant percentage of buyers are relying on friends and family (and the undefined "other") to fund their property purchases. These lenders have a personal relationship to the buyer, but ultimately will be interested in protecting their investment. In a rising market, investing in property is a wise strategy. However, in a downturn, there will be a complex circle of borrowers and lenders who will need to be satisfied. Presumably, the lending terms with the banks are straightforward. But what are the arrangements signed between a buyer and his parents? Or his friends? Or the unknown "other" source of capital in our survey? In a declining market, they all will be rushing to the exits, but that may be difficult given that they are holding each others' debt. In addition, it is likely that the portion of capital from relatives is likely coming from parents and grandparents, whose investment forms a part of their retirement capital. They may view the investment in property for their offspring as a safe harbor for their retirement. In a declining market, they are going to be quite concerned about the security of this capital stock.

The data from the PBOC suggests that investment in property – either directly or indirectly -- is increasing. Although savings are rising, the savings rate is declining. Either incomes are dropping or people are putting their savings directly into other investments – such as property – rather than into the banks. Rising inflation, coupled with the heated property market, certainly would encourage them to do so.



While total loans from 2005 to 2011 rose at an 18.5% CAGR, mortgage loans increased at a faster 25.6% rate. Beginning in mid 2010, though, the liquidity tightening has slowed mortgage loan growth, as the chart below shows.

The data for housing starts also illustrates the more general point about an over-build in property. This is widely discussed elsewhere.



Macroeconomic Implications – How Much Personal Property Debt is There?

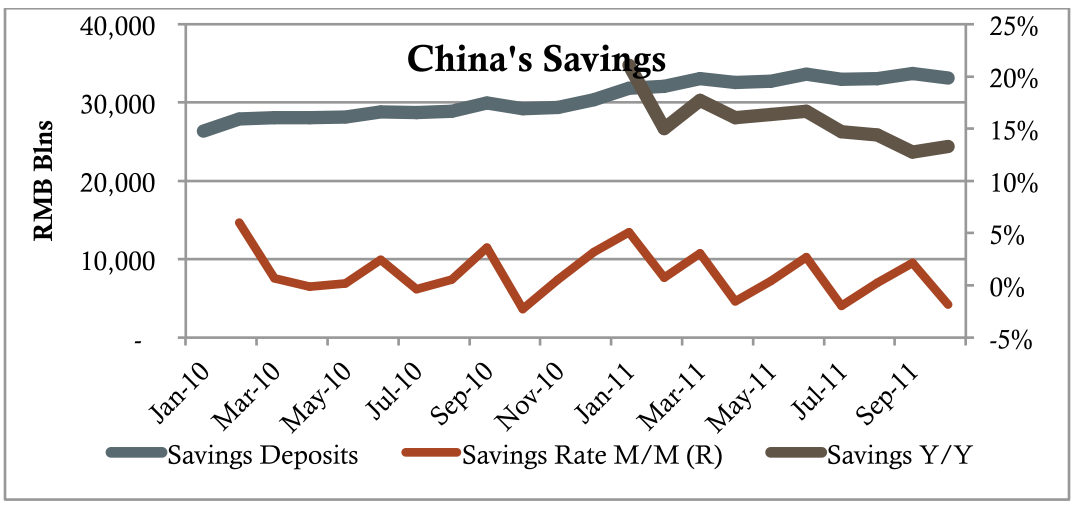
We can try to use the data gleaned from the survey to estimate the total amount of "hidden" loans for consumer property purchases. This is where we are forced to hazard a guess. Our interviewees were reluctant to state exact percentage contributions from each source of capital apart from the split between cash and mortgages. Since we don't have a breakdown of the percent contribution from family, friends, and other to the cash contribution of the property purchases, we relied on a proxy to estimate the breakdown. In this case, we use the percentage of respondents who cited the various sources as a proxy – a very rough way of estimating the total financial contribution of each source of capital. We fully acknowledge the limitations of this methodology but obtaining precise data on the source of cash holdings is nearly impossible.

We first need to estimate the total amount of property purchases under discussion. We use as our base number the total outstanding mortgage loans lent by the banks. This number, from the PBOC, stands at RMB 7,031 billion, as of September 2011. Then we use our survey number for the division between mortgage loans and cash, which is 45% mortgages and 55% cash. Using this methodology, we reach a figure of RMB 8.5 trillion in cash. Once again, we acknowledge that this is a very loose approximation of a number of variables, including a) the relationship between the source of cash cited by respondents and their actual cash makeup; b) the total value of the property under discussion, as we only arrive at a figure using mortgages as our base number.

In addition, this total number is subject to the wealth of the survey respondents. If respondents are either more or less wealthy than the average Chinese borrower, then the cash portion would be higher or lower, skewing the macroeconomic extrapolation. Arguably, the large number of responses from just two provinces, Shandong and Guangdong could be viewed as representative; these provinces are wealthier than much of China, but are poorer than Beijing and Shanghai, where much property speculation has occurred.

Estimates of Breakdown of Cash Portion of Property Purchase		
		RMB Bln
Savings	49%	4,211
Relatives	25%	2,148
Friends	18%	1,547
Other	8%	687

As the chart shows, using the rough proxy methodology described above, we are estimating that the cash contribution of personal savings is twice that of relatives, which is in turn 50% higher than friends. Even if we adjust the amounts – for example by cutting them in half – we still arrive at a number of loans from relatives of more than RMB 1 trillion, and of friends of RMB 750 billion. This is a significant amount of cash sloshing through the system that would have to be accounted for if prices were to plummet.



What are the long-term implications? Clearly, declining property prices will lower the wealth effect, not just among the direct holder, but also among the related population that has co-invested in the property. According to some estimates, a young couple needs to save their entire income (a 100% savings rate) for 12 years to afford a 600 square foot apartment. That couple has foreshortened its required savings time to buy its apartment but has involved a host of other people. There has been a transferred of wealth between the older to the younger generation, and a similar transfer from other relatives, friends and third-party providers. In our view, this long lending chain poses an additional problem for the health of the financial system.

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