Tackling the Chinese Pension System

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Pozen was formerly Vice Chairman of Fidelity Investments and President of Fidelity Management & Research Company, the investment advisor to the Fidelity mutual funds. During Pozen's five years as President, Fidelity's assets increased from $500 billion to $900 billion. From 1987 to 1996, he was Managing Director and General Counsel of Fidelity Investments. In that role, he created Fidelity's Charitable Gift Fund and helped launch Fidelity funds in several foreign markets.

Before joining Fidelity, Pozen was a partner at the Washington, DC law firm of Caplin & Drysdale, where he led the banking/securities department from 1981 to 1986. Prior to that, he was Associate General Counsel to the SEC from 1978 to 1980. Pozen was also a law professor at Georgetown University and New York University from 1973 through 1977. In 1968, he graduated summa cum laude and Phi Beta Kappa from Harvard College, which awarded him a Knox Traveling Fellowship. He received a law degree from Yale Law School in 1972, where he served on the editorial board of the Yale Law Journal. In 1973, he received a JSD from Yale for his doctoral thesis on state enterprises in Africa.

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Pozen has published on many subjects, including opinion pieces in the *Financial Times*, the *New York Times*, the *Wall Street Journal*, and the *Washington Post*. He authored the main textbook on asset managers, *The Fund Industry: How Your Money is Managed*, as well as *Too Big To Save? How to Fix the US Financial System*. His latest book, *Extreme Productivity*, was named the third best business book of 2012 by *Fast Company*.

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Introduction

China has made great strides in expanding pension coverage for its population over the last fifteen years. Before 1997, state-owned enterprises (SOEs) provided their workers with so-called legacy pensions without regular contributions. Since 1997, China has established a contributory pension system, which covered over 280 million urban workers in 2011.[1] More recently, China has established a pension scheme for rural workers; by the end 2012, the rural pension scheme had grown to cover roughly 460 million individuals.[2]

The "Chinese pension system," as currently constituted, actually has four main subsystems. The Urban Enterprise Pension System (UEPS) covers urban workers, who in practice are mainly employees of large private enterprises and SOEs. The recently established Rural Pension scheme allows rural workers to make voluntary contributions to individual accounts that are subsidized by local and central governments. The structure of Rural Pensions is similar to the structure of the new and much smaller pension plan for non-employed urban residents (though this smaller plan is sometimes seen as a subset of the UEPS). Finally, the civil service pension system covers most employees of government agencies and related governmental bodies—without contributions required from these workers.

Yet these pension programs face major and urgent challenges. Some of these challenges are the result of underlying economic and demographic trends in China. Other challenges derive from the design of the Chinese pension system, particularly its decentralized administration.

Organized into three parts, this policy memorandum describes the current state of the Chinese pension system, as well as its shortfalls, and then offers some suggestions to help address these issues. First, it will discuss the key challenges facing the Chinese pension system: the aging of the population, the fragmentation of the system, the lack of advance funding, and the low level of investment returns. Second, it will examine the causes of each of these challenges. Third, it will put forward several proposals to address each of these challenges. In each of these three main parts, the memorandum will focus primarily on the UEPS portion of the Chinese pension system.

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What are the Challenges to China's Current Pension Arrangements?

China's pension system, as currently constituted, faces a number of urgent challenges that will, in time, make the present arrangements unsustainable.

Unfavorable Demographics

China has been experiencing a "demographic dividend"—meaning that it has a large working-age population and relatively few retirees. This demographic dividend has allowed China to finance pension benefits to retirees from current pension contributions. But this favorable situation will shortly come to an end, as the population ages.

As of 2013, 68.1 percent of China's 1.39 billion people were of working age, defined as between the ages of 15 and 59.[3] This compares to 59.8 percent in Germany, 60.7 percent in the United States, and 54.6 percent in Japan. Only 13.9 percent of China's population were age 60 or above in 2013, compared to 19.7 percent in the United States, 27.1 percent in Germany, and 32.3 percent in Japan. For every Chinese citizen over the age of 60 in 2013, there are 4.9 people of working age—a ratio that can easily support pension benefits from current contributions.

Unfortunately, these favorable demographics will deteriorate rapidly. According to the most recent Chinese census in 2010, the growth of the aging population has been accelerating. The working-age share of the Chinese population peaked in 2010 and, according to China's National Bureau of Statistics, the absolute working-age population of China declined by 3.45 million people in 2012.[4] Under current projections, the percentage of the Chinese population aged 65 or older will roughly double by the early 2030s.[5] By 2050, absent major policy changes, there will be fewer than 1.6 workers for every retiree in China.

Demographic pressures will put severe strains not only on the government-run pension system, but also on informal family support of retirement.

These demographic pressures will put severe strains not only on the government-run pension system, but also on informal family support of retirement: children caring for their elderly parents and grandparents. This has become known as the "four-two-one" problem in which one child must take care of two parents and four grandparents—a situation that will be aggravated by the increasing longevity of elderly Chinese citizens as public health practices continue to improve.

These demographic shifts are not unique to China. In fact, compared to China, the projected worker-to-

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retiree ratio in 2050 will be lower (i.e., worse) in the European Union, Japan, South Korea, and Singapore. But China is unique in that it has made the demographic transition so rapidly, much faster than other advanced economies. Indeed, the speed of the Chinese transition means that it is in the unenviable position of having to deal with the negative implications of these demographic shifts at a substantially lower level of per capita income. China will be one of the first countries to grow older as a developing country. Therefore, it is critical for China to address its pension challenges as soon as possible because they will exert enormous pressures on the government's fiscal capacity and put a drag on economic growth.

Photo: World Bank/Curt Carnemark

Excessive Fragmentation

The largest part of China's pension system—in terms of benefits for workers outside the civil service—is the UEPS, which applies mostly to urban employees at large businesses, including foreign and private firms and SOEs. More recently, the central government has implemented two voluntary pension systems—one for rural workers and another for non-employed urban residents. And even within the UEPS, there is a high degree of fragmentation. Each part of the UEPS is financed and managed by the local city or provincial government, often with different ground rules.

This fragmentation within the UEPS, combined with relatively long vesting rules (at least fifteen years of contributions) is a major impediment to labor mobility in China. When an individual moves from one city to another, recent guidelines from the central government indicate that the individual theoretically retains the rights to his or her accrued pension benefits.[6] In reality, however, there are significant administrative hurdles in actually transferring the accrued benefits. For example, there is no centralized record-keeping system and each jurisdiction has its own rules with respect to matters such as eligibility.

So, in practice, an individual moving to a new city is likely to face significant barriers to pension portability. First, he or she is typically forced to surrender a portion of the accrued pension benefits. Second, the pension system of the new city may have different rules or rule interpretations. Third, the move could restart the vesting clock—meaning

that the individual would need to work longer in order to receive guaranteed benefits.[7] All of these consequences could dissuade an individual from moving to obtain better employment.

The interaction between the pension system and *hukou* system, or system of residency permits, increases the barriers to labor mobility. *Hukou* registration is required for any Chinese worker to live permanently in, and be entitled to the social welfare benefits of, a particular geographic area. As a result, workers with a rural *hukou* are not eligible for the social benefits of the city where they work[8]—including benefits under the UEPS. This lack of pension benefits discourages workers without the proper *hukou* from permanently relocating to cities that offer the best job opportunities.

The interaction between the pension system and hukou *system, or system of residency permits, increases the barriers to labor mobility.*

In addition, the current fragmented system is inequitable. Among urban workers, employees of the central government or government-related agencies receive generous pension benefits under civil service pensions—even though they were not required to contribute toward these pension benefits. Even within the UEPS, residents of wealthier cities often receive larger monthly pension benefits than residents in other areas—because of differences in the average local cost of living.

Overall, less than one-half of all adults in China are covered by a civil service pension or the UEPS. Everyone else is either not covered, or covered only by the more recent voluntary schemes for rural workers or non-employed urban residents. The Rural Pension, begun in late 2009, has expanded rapidly, while the pension for non-employed urban residents has much less extensive coverage. Nevertheless, since most participants in these voluntary schemes save only small amounts,[9] their retirement benefits are modest despite being augmented by government subsidies.

Insufficient Funding

In most cities, the UEPS is funded through employer contributions (known as "social pooling" contributions) and employee contributions. The employer is supposed to contribute 20 percent of the individual's wages, while the individual contributes 8 percent of wages.[10] The employer's portion of the contributions is pooled together at the local level in order to finance current benefits along a defined schedule. Put differently, the employer's portion is explicitly used as part of a pay-as-you-go (PAYGO) defined benefit plan. By contrast, the employee's contributions are designed to be deposited into the individual's account. Upon retirement, the employee becomes entitled to a monthly distribution of the amount

in that account—based on an annuity factor of 139 months.

However, most local governments in China have found that the social pooling contributions are insufficient to pay current benefits, including the legacy pensions from before the UEPS was introduced in 1997. In response, these local governments have "borrowed" from the individual accounts in order to pay the benefits promised to current retirees. The overwhelming majority of contributions to individual accounts have in fact been used for other purposes; estimates of shortfalls in individual accounts range as high as 90 percent.[11] This is widely called the problem of "empty accounts."

Photo: Flickr/Eric Chan

As a result, the UEPS currently operates in large part on a PAYGO basis. This is very troublesome because, as mentioned above, China's era of a demographic dividend is rapidly drawing to a close, compelling the government to fund and invest in pension contributions to head off the coming demographic challenge.

Even worse, the prevalence of "empty accounts" has undermined the trust of Chinese workers in the pension system. Although these individual accounts are formally credited with interest by the local governments, many workers doubt whether they will ultimately receive any of the contributions from their individual accounts, let alone their contributions plus interest as promised by the government.

Limited Investment Choices

When the funds within an individual account are actually invested—rather than diverted to pay for current benefits—they must be used to buy Chinese government bonds or deposited into bank accounts, both of which command very low interest rates. These returns are so low because interest rates on these "safe" investments have been repressed over the last decade by the Chinese government for various policy reasons. With low investment returns and sharp rises in Chinese wages, the projected replacement rate of retirement benefits—in other words, the ratio of retirement benefits to average career salary—is relatively low.

For example, individual accounts are most frequently credited with interest of 2 percent per year, though interest rates on bank accounts are currently around 3 percent per year.[12] Thus, an average of 4 percent in returns earned by individual

accounts would almost double current retirement income from individual accounts (although these returns would still not likely keep pace with wage inflation).

To supplement the retirement income of employees from the UEPS, the Chinese government has introduced another savings vehicle called the "Enterprise Annuity"—a funded individual account for the benefit of an employee, which is roughly analogous to a 401(k) account in the United States. Employers sponsoring an Enterprise Annuity must make contributions to these accounts, while employees can choose whether to contribute. Upon retirement, employees will receive the funds within such accounts as a lump sum or as an annuity.

Unfortunately, the adoption of Enterprise Annuities has been very low in China. In 2012, there were 18.47 million account holders—roughly 6 percent of the number of participants in the UEPS.[13] This low participation rate may be explained in part by insufficient tax incentives for employers and employees to contribute to Enterprise Annuities. For example, although the investment earnings of Enterprise Annuities are exempt from tax, many types of investment earnings are already exempt from tax under the baseline income tax system, including capital gains from the transfer of stocks listed on the Chinese stock exchange and interest on government bonds. Thus, the additional tax subsidy for Enterprise Annuities—exempting investment gains from tax—is a relatively small consideration for most individuals.

Furthermore, the investment choices within Enterprise Annuities are strictly regulated: an employer sponsoring an Enterprise Annuity fund may not allocate more than 30 percent of its assets to stocks and, until recently, had to allocate at least 20 percent of its assets to money market instruments.[14] Such restrictions lower the potential returns on investment, reducing an employee's potential retirement income.

How Did China Get into This Situation?

Several factors, including demographics again, played a contributing role in pushing China's pension system to where it is today. These factors include the following:

Unfavorable Demographics

China's anticipated demographic challenge is the result of demographic shifts that began in the 1960s and government policies initiated in the 1970s. During the 1960s, life expectancy at birth increased from roughly 45 years to nearly 60 years, based on a significant fall in the mortality rate that led to a dramatic increase in the Chinese population. Shortly thereafter, China's fertility rate fell—from roughly six births per woman in the late 1960s to roughly four in the mid-1970s. Since then, the fertility rate has gradually decreased to 1.6 births per woman as of 2013, which is well below the 2.1 births that most demographers consider the rate necessary for population replacement.[15]

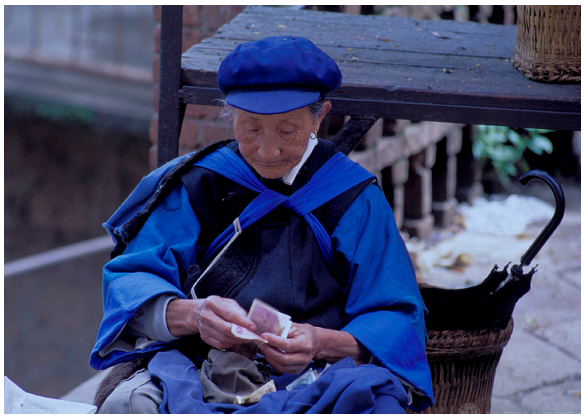

Photo: World Bank/Curt Carnemark

In the early 1970s, the central government began implementing the *wan xi shao* policy.[16] Through massive public health and propaganda campaigns throughout the country, the government encouraged couples to marry later (*wan*), to wait longer between children (*xi*), and to have fewer children (*shao*). It appears that the *wan xi shao* policy was quite successful at reducing family size.

In 1979, the central government under Deng Xiaoping instituted the more well-known "one-child policy." Under this policy, certain couples (mainly those living in urban areas) are formally restricted to having only one child. There have been several significant exceptions to this policy. In particular, many rural families are allowed to have two children. Even in urban areas, two children may be allowed if both parents are themselves "only children." The precise effect of the one-child policy on fertility, as distinct from other factors, is a subject of considerable debate. Some estimate that the policy has prevented 400 million births,[17] while others estimate that the policy has prevented only 100 million births.[18]

Excessive Fragmentation

The fragmentation of the Chinese pension system is both the result of deliberate

policy choices and a historical accident. The division of the pension system into several subsystems—one for urban workers in large enterprises and others for rural workers and urban non-workers—is the result of reasonable policy choices. In the 1990s, it would have been very difficult economically and administratively to expand the UEPS to the rural areas. For instance, a 28 percent mandatory contribution for rural workers would have been totally prohibitive.

By contrast, the fragmentation within the UEPS—that is, the fact that each municipality and province runs its own pension—is largely the result of historical events. Prior to the 1997 reforms, most pensions were run by SOEs with local operations. To a significant extent, the late 1997 pension reforms were designed to provide for those same employees of SOEs, including those who had been laid off and those who worked for newly privatized enterprises. Thus, the decision to keep the pension pooling at the local level seemed least disruptive and least burdensome on the central government.

Pensions were a component of the so-called "iron rice bowl," through which SOE employees were given job security and extensive benefits.

When the UEPS was formulated in the early 1990s, however, the trend toward increased internal migration in China was just gaining momentum.[19] As a result, there was insufficient attention paid to the implications of migration between provinces and within the same province. In any event, the central government has now decided to accelerate major migration from rural areas to the cities,[20] albeit without yet undertaking major *hukou* reforms, which will intensify concerns about the impact of fragmented pensions on labor mobility.

Insufficient Funding

Under the pre-1997 pension schemes, state sector employees received pension benefits without making any pension contributions. These pensions were a component of the so-called "iron rice bowl," through which SOE employees were given job security and extensive benefits. As part of the political process establishing the 1997 reforms, existing retirees were allowed to maintain their existing schedule of benefits. Those who were working in 1997 and had yet to retire were given a blend of the previous benefits and the new schedule.

The 1997 reforms incorporated these "legacy pensions" into the newly developed UEPS. The local governments running the new pensions were required to pay the legacy pension benefits (and any other pension benefits subsequently due) out of current pension contributions by the employer

(the social pooling contributions). In most cases, however, too few workers participated in the UEPS for the employer contributions to adequately cover the existing legacy benefits. At the same time, the local governments were under financial pressure from many quarters. As a result, many local governments decided to utilize the employee contributions within the individual accounts to pay the amounts due to current retirees.

While politically expedient, these funding decisions by local governments make the UEPS unattractive to many employers and employees. Together they contribute 28 percent of wages to the UEPS, of which the majority goes to pay legacy pensions. In exchange, the local government makes a mostly unfunded promise to provide relatively low retirement benefits in the future. Effectively, current employers and their employees are being asked to pay for two retirements: their own benefits and the benefits of legacy pensioners.

With volatile stock markets and low interest rates at banks, retirement savers do not have many attractive investment choices.

In response, many employees and employers have tried to avoid or minimize participation in the UEPS, sometimes by under-reporting wages. This behavior has been particularly evident in small firms or among the self-employed, who usually have limited financial resources.[21] Yet this behavior creates a vicious cycle: lower participation makes it more difficult to pay current benefits, which requires individual accounts to be further invaded, which in turn reduces current workers' trust in the system, yielding further disincentives to participation.[22]

Limited Investment Choices

Despite China's growth miracle and modernization, its capital markets remain relatively underdeveloped. As a result, the investment options for Chinese citizens are highly limited, especially given the restrictions on pension investing overseas. As mentioned above, interest rates on bank deposits are very low and generally do not keep pace with inflation, yielding negative real returns. So are interest rates on Chinese government bonds. The Chinese stock market, for example, has been so volatile that it has scared away many participants in Chinese retirement plans (see Box). And international stocks have also been largely off limits for Chinese pension investments.

This volatility of the Chinese stock market can be partially explained by the trading mentality of most Chinese investors and the perception that the Chinese market is moved more by rumors than economic fundamentals. Based on my experience in the mutual

funds industry, most investors in Chinese stocks have a short-term mindset: they rapidly trade stocks with an eye toward making a quick profit. This undermines the link between stock price and the underlying value of a company—making it difficult for markets to allocate capital to its best use. In any case, the extreme volatility of the 2007-2009 period, followed by the sharp decline thereafter, has generally made Chinese workers saving for long-term retirement reluctant to invest in the Chinese stock market.

With volatile stock markets and low interest rates at banks, retirement savers do not have many attractive investment choices. Some with large savings have decided to seek higher returns by investing in urban apartments, a tangible asset that has appeared in recent years to appreciate in value. But housing is generally not allowed as a pension investment in China. Other well-off savers have shifted toward so-called "wealth management products" (WMPs) issued by banks and "shadow" lenders.[25] WMPs are relatively liquid short-term instruments with relatively high interest rates, backed by less-liquid, long-term collateral assets, such as real estate or commercial loans. Because of this maturity mismatch, these products are very risky and have generally not been allowed for pension investments.

The Surge and Plunge of the CSI 300 Test

Consider the performance of the CSI 300, an index of 300 stocks traded on the Shanghai and Shenzhen exchanges. Since the index's inception in April 2005, its lowest close occurred at 818.03 on June 3, 2005. On October 16, 2007, it closed at 5877.20. Over the 28 months between those two dates, the CSI 300 appreciated at the astonishing annualized rate of 83.1 percent.[23] Just over one year later, on November 4, 2008, the index closed at 1627.76, having lost over 70 percent of its value. As the world economy began to recover from the worst of the 2008 financial crisis, the CSI recovered about half of its losses, closing at 3787.03 on August 3, 2009. Since then, the index has steadily declined, closing at 2160.74 on June 28, 2013.[24]

Proposals to Improve the Pension System

Improving the Chinese system will require reforms in several baskets simultaneously.

Basket One: Increase the Working Portion of the Chinese Population

First, forward-looking reforms would need to increase the working portion of the Chinese population in the face of impending demographic change. Steps to do so would include:

Revising the One-Child Policy

When the one-child policy (and the *wan xi shao* policy) took effect, Chinese officials were legitimately worried about a population explosion disaster, as the Chinese population was nearing 1 billion in 1980. Some studies at the time had shown that China's resources could only support 700 million, making population control an apparently urgent issue.[26]

Photo: World Bank/Curt Carnemark

But given China's economic growth, these concerns, to the extent they drove Chinese policy, are now clearly outdated: China certainly has the financial resources to support its current population. And, as described above, the continued existence of the one-child policy will exacerbate the demographic challenges inherent in providing pension plan benefits to most of the Chinese population.

There are some signs that the central government might be reconsidering the one-child policy. The National Health and Family Planning Commission, which enforces the one-child policy, was recently merged into the Ministry of Health. And last November, outgoing President Hu Jintao deleted a reference to "maintain[ing] a low birth rate" in a work report to the 18th Congress of the Chinese Communist Party.[27]

Yet even if the central government is unwilling to repeal the one-child policy, it should at least consider adopting reforms by expanding some of the exceptions to the policy. For example, if both married individuals are the only children of their parents, they have often been permitted to have two children. This practical exception could be widened to two children if either the husband or the wife were only-children. More dramatically, China could allow any family to have two children.

Nevertheless, any modifications to the one-child policy would likely have only a modest effect on China's total population. First, the one-child policy has made small families a cultural norm. Second, throughout East Asia, fertility rates are very low: Japan, South Korea, and Singapore all have fertility rates of 1.4 or less. Even in Thailand, which has a per capita GDP comparable to China's, the fertility rate is only 1.6.[28] So even if China moved to a two-children policy now, the fertility rate would likely stay below the 2.1 children replacement rate.

This prediction is a double-edged sword. On the one hand, changing the one-child policy will be more politically feasible if such changes are expected to have relatively minor impacts on overall population. On the other hand, if the changes have modest effects in practice, then China's demographic challenge would continue to exert pressure on the pension system even with those reforms. In other words, changing this policy alone will not be the silver bullet that solves the country's monumental pension problem.

Increase the Retirement Age

Another way to increase the size of China's working population would be to promote an older workforce. Currently, the retirement age for urban workers is 55 for men, 55 for managerial or technical women, and 50 for the rest.[29] These retirement ages have been in effect since the 1950s, when the life expectancy at birth was about 45 years.[30]

But life expectancy at birth has since risen to 73.5 years,[31] making these low retirement ages unsustainable and anachronistic. In fact, China's retirement age is relatively low by international standards. The average retirement age among Organization for Economic Cooperation and Development (OECD) countries is 64 for men and 63 for women.[32] The retirement age for women in China is lower than in almost all OECD countries.

Chinese policymakers should consider gradually raising the retirement age for women to 60, matching that of men—so long as this change does not affect female workers currently over age 45.

Therefore, Chinese policymakers should consider gradually raising the retirement age for women to 60, matching that of men—so long as this change does not affect female workers currently over age 45. Since women have become an integral part of the Chinese workforce, the government should equalize the retirement ages for both sexes. Beyond this hike in the initial retirement age, the government may also consider gradually indexing further increases in the retirement age (for both sexes) to increases in life expectancy. One possibility would be to increase the retirement age by two months for every year of additional life expectancy. A higher age for normal retirement would not only help the finances of the Chinese pension system but also

would contribute to economic growth by increasing the relatively low level of labor participation in Chinese cities.

Basket Two: Centralize the Pension System

Recommendations in this basket include:

Move Pension Administration Out of Local Governments

Recently, there have been hopeful signs from the central government that it is giving more attention to the relationship between labor mobility and pension fragmentation. In 2009, the State Council issued guidelines clarifying that workers within the UEPS had the right to transfer both components of their pension—most of the accrued benefits from the social pooling component and the accumulations within the individual accounts—when they change cities.[33] Yet, as mentioned previously, these workers face significant administrative hurdles in transferring accrued pension benefits within the current decentralized structure of the UEPS. In addition, some local governments have allowed pension contributions to UEPS to drop below the required 20 percent for employers.[34]

Therefore, it may be more prudent for the central government to take control of the UEPS and standardize pension contributions. The central government has the resources to establish a nationwide database of urban workers. This is the essential first step toward establishing a national pension system. Then, as explained in Basket Three below, the central government would be in a position to gradually move toward a pension system with substantial advance funding.

Of course, local governments might object to losing their role as pension collectors in the UEPS. However, the central government would also take over the liabilities of the UEPS, including responsibility to pay the legacy benefits from the "iron rice bowl" era. This tradeoff makes sense because the pension liabilities of the UEPS are larger than the current assets of the UEPS, and because the tradeoff would reduce the opportunities for mishandling funds at the local level. The new matching pension schemes for rural workers and non-employed urban residents would also be integrated into the national system more slowly, as discussed below.

Harmonize the Various Types of Pension Plans

Over a much longer time horizon, the various components of the pension system—the UEPS as well as the newer programs for rural workers and non-employed urban residents—should be harmonized. Eligibility rules and benefit levels should be as uniform as possible, both in their legal interpretation and application across the country.[35] However, the reality is that true benefit equality among pension programs still

remains decades away. In the interim, therefore, the central government should allow pension benefits to vary somewhat based on the average cost-of-living in different cities and provinces.

Pension harmonization would remove substantial barriers to labor mobility in China. Reducing disparities among pension programs would be particularly helpful to China's large group of temporary migrant workers—currently estimated to range from 150 to 260 million people[36]—many of whom are also barred from participating in the UEPS by virtue of holding a rural *hukou*. More broadly, the Chinese government should reconsider the relationship between the pension system and *hukou* registration.

If the central government takes over the legacy pensions, it should then be feasible to invest current contributions to fund future benefits.

Basket Three: Move Toward Pre-Funding Pensions

As described above, the UEPS now operates largely on a PAYGO basis: the social pooling element is explicitly PAYGO, and the individual accounts have been substantially invaded in order to pay current benefits. As China's population ages, the PAYGO system will quickly become unsustainable. If the central government takes over the legacy pensions, it should then be feasible to invest current contributions to fund future benefits. As such, the central government should consider moving toward partial pre-funding of the UEPS for workers, as divided into the following three categories:

1. For workers starting after a given date before the end of the 13th Five-Year Plan period (2016-2020)—using 2017 for illustrative purposes—their pensions would be fully funded. In particular, the employer (social pooling) contributions would be set aside and invested in a manner sufficient to pay scheduled benefits in the future.

2. Existing workers would have their pensions partially funded: those benefits that accrued prior to the starting date, say in 2017, would be paid out of future revenue upon the worker's retirement. But beginning in 2017, the employers' social pooling contributions would be set aside and invested to pay the benefits that accrue after 2017.

3. The central government should adopt a new law making it clear that, after 2017, contributions by new and existing employees to their individual accounts could not be borrowed or used for any purpose other than funding that individual account. The central government should continue its current efforts in thirteen provinces to complete the actual funding of existing individual accounts.

This three-part proposal would have very large transitional costs. Benefits to

current retirees, now paid out of current pension contributions, would need to be financed by some other source. When pre-2017 existing workers retire, only a portion of their pensions would be funded in advance, and the remainder would also have to be financed by another source. While there is no precise calculation of these transition costs, they are likely to involve several trillion dollars, though these costs are payable over many years as the current generation retires.

Of course, these transition costs for pensions must be considered within the context of China's other important fiscal goals. The good news is that the central government is in relatively strong financial shape: in April 2013, it reported foreign exchange reserves of roughly $3.4 trillion.[37] China's total public debt to GDP ratio was roughly 46 percent in 2012.[38] Although not politically easy, the central government could devote more resources to pension funding. For example, it could allocate to pension funding a substantial percentage of the proceeds from any initial offering of an SOE.[39] More broadly, Beijing would have to tolerate a higher level of debt to GDP and a lower level of foreign reserves.

Transition costs for pensions must be considered within the context of China's other important fiscal goals.

It bears emphasis that the reforms proposed above would not actually increase the overall debt of China's local and central governments, which has become a substantial challenge. Rather, the legacy pension obligations to pre-1997 retirees would simply be shifted from local governments to the central government, which is in a better position to handle them efficiently. The pension liabilities of the Chinese government to workers retiring after 1997 exist now, but they are not funded or formally recorded. These proposals would make explicit the pension liabilities that are now implicit.

When the pension debt becomes explicit, Chinese officials will see more clearly the extent of this problem and why it must be addressed in the near future. At the same time, these officials should recognize that these proposals, if properly implemented, would virtually eliminate the government's unfunded liabilities for pension benefits accruing after 2017. Those pension benefits would be largely pre-funded by employer and employee contributions, which would be held in separate pools and invested by experts as discussed below.

Basket Four: Create Better Long-Term Investment Vehicles

China is a nation of savers whose citizens lack diverse investment vehicles. Reforms could include the following:

The National Social Security Fund Should Invest Pension Assets

Because of the current low investment returns on pension assets, it is very difficult to provide adequate retirement income without imposing very high contribution requirements. So, starting after 2017, the Chinese government could place all pension contributions into two pools at the national level (one each for the employer contributions and employee contributions) and assign the National Social Security Fund (NSSF) as the chief investor of these two pools, with a goal of achieving higher returns than bank deposits while taking prudent risks.

Photo: Flickr/Michael Elleray

The NSSF already has a group of sophisticated investment professionals, and it is already allowed to invest in foreign securities. For example, the NSSF has recently begun to invest 100 billion yuan ($16 billion) for individual accounts in a pilot program in Guangdong province.

In particular, the NSSF should establish a balanced fund, in which half of the assets would be invested in a diversified portfolio of high-quality Chinese bonds, including private sector and governmental bonds, while the other half would be invested in a broad portfolio of global stocks, including a reasonable portion in Chinese stocks. This balanced fund should aim to provide for a higher return than bank deposits at a reasonable risk. At the same time, these large retirement investments by the NSSF in Chinese stocks and bonds would accelerate the development of a longer term perspective in China's capital markets. It could potentially pave the way for creating a more rational Chinese stock market rather than one that is dominated by day traders.

Expand the Tax Subsidy for Enterprise Annuities

China must also develop the second pillar of its retirement savings: tax-subsidized savings by individuals through employer-sponsored plans. As mentioned previously, employers may set up an investment vehicle known as an Enterprise Annuity on behalf of their employees. However, employer adoption of such a plan has been very low, largely owing to its relatively weak tax subsidy.

To encourage more participation in Enterprise Annuities, the Chinese government should increase the

related tax incentives. For example, contributions by employers could attract tax credits, and contributions by employees could be excluded from income until retirement. These tax incentives should be made conditional on holding funds within the account for a long period of time, such as ten to twenty years. At the same time, government officials should reexamine the tight investment restrictions for Enterprise Annuity plans.

While such tax incentives would have a modest fiscal cost, they are likely necessary to encourage employers to offer more attractive Enterprise Annuities plans to their employees. More participation in Enterprise Annuities would not only increase supplemental retirement savings, but also would create a class of long-term investors who could help move the Chinese stock markets from a "trading" approach to an "investment" approach.

Endnotes

[1] "2012 Human Resources and Social Security Development Statistics Bulletin," May 2013, Ministry of Human Resources and Social Security, accessed at http://www.gov.cn/gzdt/2013-05/28/content_2412954.htm.

[2] Wu Bangguo speech at the 2013 National People's Congress, accessed at http://news.hexun.com/2013-03-08/151876321.html.

[3] "World Population Prospects: The 2012 Revisions,"2013, United Nations, Department of Economic and Social Affairs, Population Division, Population Estimates and Projection Section, accessed at http://esa.un.org/unpd/wpp/Documentation/pdf/WPP2012_%20KEY%20FINDINGS.pdf.

[4] "Peak Toil," *The Economist*, January 26, 2013, accessed at http://www.economist.com/news/china/21570750-first-two-articles-about-impact-chinas-one-child-policy-we-look-shrinking.

[5] World Bank Population Estimates and Projections, accessed at http://datatopics.worldbank.org/hnp/popestimates.

[6] "State Council Interim Provisions on Portability of Pension Benefits of The Urban Enterprise Pension System," State Council, December 2009, accessed at http://www.gov.cn/zwgk/2009-12/29/content_1499072.htm.

[7] *China 2030: Building a Modern, Harmonious, and Creative Society*, World Bank and Development Research Center of the State Council, accessed at http://www.worldbank.org/en/news/feature/2012/02/27/china-2030-executive-summary.

[8] Chan, Kam Wing, "The Chinese Hukou System," *Eurasian Geography and Economics*, 2009, 50, No. 2, pp. 197-221, accessed at http://www.willamette.edu/cla/debate/pdf/youth_forum/mtt%20research/role%20of%20gov/Anca_Chinese%20Hukou%20System%20at%2050.pdf.

[9] The voluntary contributions to the rural pension scheme range from 100 yuan to 500 yuan ($16-$81); the voluntary contributions to the urban pension scheme range from 100 yuan to 1,000 yuan ($16-$162).

[10] The 28 percent in total contributions is paid only on wages up to three times the city average. For example, if the average wage in Shanghai were 2,700 yuan ($440) per year, the 28 percent would be paid only on the first 8,100 yuan ($1,320) of an employee's wages.

[11] Zuo Xuejin, "Designing Fiscally Sustainable and Equitable Pension Systems in China," presentation at IMF OAP/FAD Conference, Tokyo, January 9-10, 2013, accessed at http://www.imf.org/external/np/seminars/eng/2013/oapfad/pdf/zuo.pdf.

[12] Interview with Stuart Leckie, July 2013.

[13] "2012 National Social Security Conditions," Ministry of Human Resources and Social Security, June 19, 2013, accessed at http://www.mohrss.gov.cn/SYrlzyhshbzb/dongtaixinwen/shizhengyaowen/201306/t20130618_105477.htm.

[14] Now, an Enterprise Annuity fund must allocate at least 5 percent of its assets to money market instruments instead of 20 percent. See "Notice on Expanding the Scope of Enterprise Annuity Investment," Ministry of Human Resources and Social Security, accessed at http://www.mohrss.gov.cn/shbxjjjds/SHBXJDSzhengcewenjian/201304/t20130402_95729.htm.

[15] World Bank Population Estimates and Projections, accessed at http://datatopics.worldbank.org/hnp/popestimates.

[16] Tien, HY, "Wan Xi Shao: How China Meets its Population Problem," *International Family Planning Perspectives*, v. 6, n. 2, June 1980, pp. 65-70, accessed at www.jstor.org/stable/2947873.

[17] "400 Million Births Prevented by One-Child Policy," *People's Daily*, October 28, 2011, accessed at http://english.peopledaily.com.cn/90882/7629166.html.

[18] "How Has China Had 400 Million Fewer Births?" *China Reform*, June 29, 2010, accessed at http://magazine.caixin.com/2010-06-29/100156612.html.

[19] Chan, Kam Wing, "China, Internal Migration," Immanuel Ness and Peter Bellwood (eds.), *The Encyclopedia of Global Human Migration*, Blackwell Publishing, February 2013, accessed at http://faculty.washington.edu/kwchan/Chan-migration.pdf.

[20] Johnson, Ian, "China's Great Uprooting: Moving 200 Million into Cities," *New York Times*, June 15, 2013, accessed at http://www.nytimes.com/2013/06/16/world/asia/chinas-great-uprooting-moving-250-million-into-cities.html?pagewanted=all&_r=0.

[21] Self-employed people and employees at small firms (e.g. under ten employees) are usually allowed to make a total pension contribution of 20 percent of wages, rather than 28 percent in total.

[22] Ebbers, Haico, Rudolf Hagendijk, and Harry Smorenberg, "China's Pension System," Europe-China Institute, Nyenrode Business Universiteit, accessed at http://www.mn.nl/pls/portal/docs/PAGE/MN_CORPORATE_2011/CONTENT_MN/PDF_BIJLAGEN/PAPERS_EN_RAPPORTEN/POSITION%20PAPER%20CHINA%27S%20PENSION%20SYSTEM.PDF.

[23] For the sake of this calculation, I assumed continuous compounding.

[24] Historical prices from Yahoo! Finance.

[25] Zhu, Grace, "Chinese Banks Cut Back on Wealth-Management Products," *Wall Street Journal*, May 27, 2013, accessed at http://online.wsj.com/article/SB10001424127887324125504578508663401719782.html.

[26] Magistad, Mary Kay, "China Past Due: One Child Policy," PRI's *The World*, April 29, 2013, accessed at http://www.theworld.org/2013/04/china-past-due-one-child/.

[27] Wee, Sui-lee and Hui Li, "In China, Signs That One-Child Policy May Be Coming to an End," January 21, 2013, Reuters, accessed at http://www.reuters.com/article/2013/01/21/us-china-population-idUSBRE90K0UV20130121.

[28] World Bank Population Estimates and Projections, accessed at http://datatopics.worldbank.org/hnp/popestimates.

[29] Under the new Rural Pensions, the normal retirement age is 60 for both men and women.

[30] "World Population Prospects: The 2012 Revisions,"2013, United Nations, Department of Economic and Social Affairs, Population Division, Population Estimates and Projection Section, accessed at http://esa.un.org/unpd/wpp/Excel-Data/mortality.htm.

[31] World Bank Population Estimates and Projections, accessed at http://datatopics.worldbank.org/hnp/popestimates.

[32] The average is unweighted. See "Statistics on Average Effective Age and Official Age of Retirement in OECD Countries," OECD, accessed at http://www.oecd.org/els/emp/ageingandemploymentpolicies-statisticsonaverageeffectiveageofretirement.htm.

[33] "State Council Interim Provisions on Portability of Pension Benefits of The Urban Enterprise Pension System," State Council, December 2009, accessed athttp://www.gov.cn/zwgk/2009-12/29/content_1499072.htm.

[34] Interview with Stuart Leckie, July 2013.

[35] In an effort to raise pension benefits for lower income individuals, the government already subsidizes each participant's annual contribution, and then, at retirement, provides an additional 660 yuan per year to participants in the new pension programs for rural workers and non-employed urban residents. See Zuo Xuejin, "Designing Fiscally Sustainable and Equitable Pension Systems in China," presentation at IMF OAP/FAD Conference, Tokyo, January 9-10, 2013, accessed at http://www.imf.org/external/np/seminars/eng/2013/oapfad/pdf/zuo.pdf.

[36] Chan, Kam Wing, "China: Internal Migration," Immanuel Ness and Peter Bellwood (eds.), *The Encyclopedia of Global Human Migration,* Blackwell Publishing, February 4, 2013. See also Zhu Jianhong, "2012 National Migrant Workers Survey Report: Migrant Workers Total 269 Million," People's Daily, May 26, 2013, accessed at http://politics.people.com.cn/n/2013/0528/c1001-21635235.html.
See also Song, Sophie, "China Now Has More Than 260 Million Migrant Workers Whose Average Monthly Salary Is 2,290 Yuan ($374.09)," *International Business Times*, May 28, 2013, accessed at http://www.ibtimes.com/china-now-has-more-260-million-migrant-workers-whose-average-monthly-salary-2290-yuan-37409-1281559#.

[37] Rabinovitch, Simon, "China's Forex Reserves Reach $3.4 tn," April 11, 2013, *Financial Times*, accessed at http://www.ft.com/intl/cms/s/0/d0fdafbe-a255-11e2-ad0c-00144feabdc0.html#axzz2XKyFp5GM.

[38] See IMF Country Report No. 13/211, July 2013, accessed at http://www.imf.org/external/pubs/ft/scr/2013/cr13211.pdf. Estimates of this ratio vary widely depending on the exact definition of public debt.

[39] In 2001, China announced that 10 percent of all IPOs of its SOEs would be allocated to the NSSF, but this was soon changed to only Chinese IPOs of SOEs in overseas markets. See Leckie, Stuart and Ning Pan, "A Review of the National Social Security Fund in China, *Pensions* (2007), v. 12, pp. 88-97.

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