Meeting India's Retirement Challenge

By Richard Jackson

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ISBN: 978-1-943884-30-8
Cover photo: Kriangkrai, Adobe Stock.

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Acknowledgments

The author has accumulated many debts while working on *Meeting India's Retirement Challenge*. He is pleased to be able to acknowledge the most important ones here.

Above all, the author is grateful to Principal International for funding the project and for helping to ensure its success in countless ways. In particular, he wishes to thank Luis Valdes (President & CEO, Principal International) for his confidence in GAI; Renee Schaaf (Senior Vice President & COO, Principal International) for believing in the project; and Eric A. Shimp (Assistant Vice President, International Government Relations, Principal Financial Group) for his thoughtful feedback and helpful advice.

The author also benefited from discussions with members of Principal's team in India. For sharing their expertise, he is grateful to Mahim Bisht (Head of Business Development, Principal Asset Management Co. Pvt. India); Pedro Borda (President, South Asia, Principal International); Ritesh Jain (Financial Controller, Principal Asset Management Co. Pvt. India); Kim Thean Soo (COO, Southeast Asia and India, Principal International); and Lalit Vij (Managing Director, Indian Mutual Funds, Principal Asset Management Co. Pvt. India).

In addition, the author wishes to thank Thomas S. Terry (Chairman, Global Aging Institute) for his unwavering support and Tobias Peter (Research Associate, Global Aging Institute) for his valuable assistance. Alison Bours (Principal, AliBDesign) deserves credit for the design of the report. As always, the author is grateful to her for her unerring design sense, attention to detail, and willingness to work against tight deadlines.

While the author gratefully acknowledges the assistance he has received in preparing the report, he is solely responsible for its content.

Introduction

ALTHOUGH RAPID DEVELOPMENT BRINGS GREAT BENEFITS, it also creates great challenges. Among the most critical is ensuring a measure of security for the old, who often find themselves vulnerable and marginalized as economic growth accelerates and traditional social and cultural norms are overturned. When rapid development is combined with rapid population aging, confronting the challenge becomes all the more urgent.

India is one of the world's most rapidly developing countries. Like most emerging markets, it is also progressing through the demographic transition, the shift from high fertility and high mortality to low fertility and low mortality that accompanies development and modernization. Since the early 1970s, the Indian fertility rate has fallen from 5.4 to 2.4, while life expectancy at birth has risen from 49 to 68. The result is an inexorable aging of the population. Throughout India's long history until the mid-1990s, the elderly, defined in this report as adults aged 60 and over, never comprised more than 5 or 6 percent of the country's total population. By 2015, that share had risen to 9 percent. By 2050, the UN projects that it will reach 19 percent.[1] (See figure 1.)

1. All national level population data cited in this report, as well as all population projections, come from the UN Population Division; state level population data come from India's 2011 Census and other standard government sources. For references to the major data sources that GAI used in preparing the report, as well as to some of the more important studies it consulted, see the "Technical Note on Data and Sources."

On India's current course, a retirement crisis of potentially immense proportions looms in its future.

As things stand, India is far from prepared. The reach of its formal retirement system is limited, even by emerging market standards. Just one worker in eight is now earning a contributory pension benefit of any kind, either mandatory or voluntary. The rest, most of whom labor in India's vast informal sector, have little to fall back on for support in old age except the extended family. But traditional family support networks are already under stress from the forces of modernization, and will soon come under intense new demographic pressure from declining family size. On India's current course, a retirement crisis of potentially immense proportions looms in its future.

Yet as daunting as the challenge is, there are reasons to be optimistic that India will successfully meet it. For one thing, India still has time to build a more inclusive and adequate retirement system. Although India is due to age significantly, its age wave lies well over the horizon. For the next decade or two, it will enjoy a period of "demographic dividend" in which falling dependency burdens and a large and growing working-age population lean strongly with economic growth. Even when its age wave rolls in, moreover, it will not be as large as those in many of today's other leading emerging markets. While the elderly share of India's population is projected to reach 19 percent by 2050, Chile's is projected to reach 31 percent and China's 35 percent.

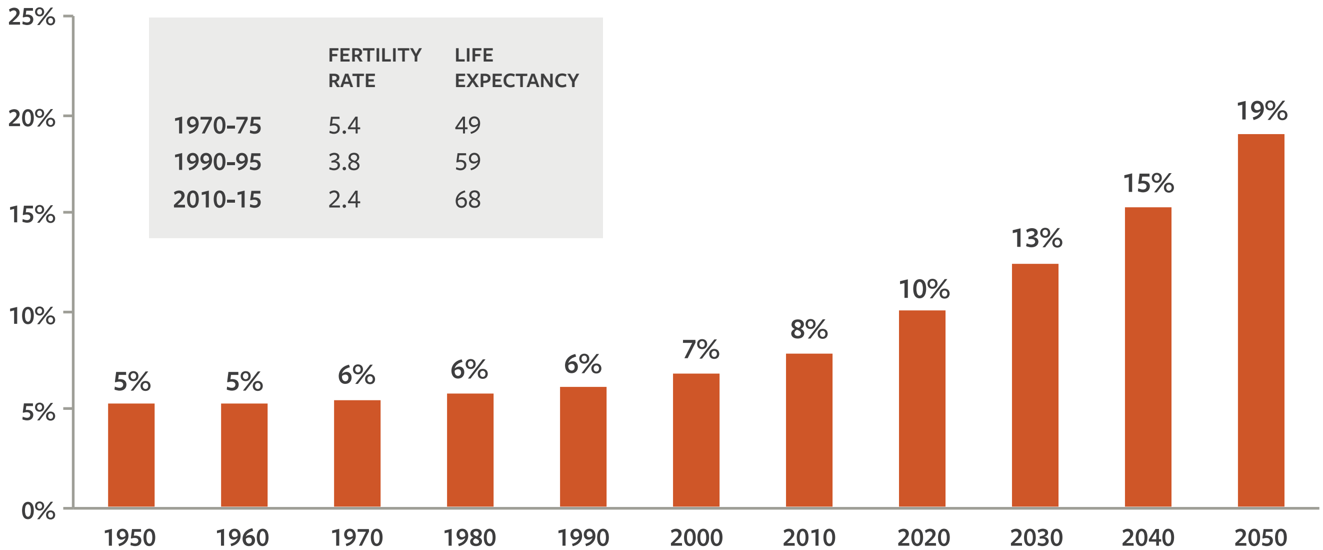
Even more importantly, India's government is committed to addressing the challenge. The government began to take concerted action in 2004, when it closed India's old pay-as-you-go civil service pension system to new entrants and replaced it with a system of fully funded retirement accounts. One goal of the reform was to reduce the fiscal cost of civil service pensions, which had become a growing burden on central and state government budgets. But the government also intended the New Pension System (NPS), as it was originally called, to serve as a vehicle for expanding coverage.

India's government is committed to addressing the challenge.

The Employees' Provident Fund (EPF), India's mandatory retirement scheme for nongovernmental workers, only covered and still only covers a small sliver of the private-sector workforce. To fill the gap, the NPS, now renamed the National Pension System, was in 2009 opened up on a voluntary basis to the rest of the private sector. The reform provided for several NPS options. Individual workers could open personal retirement accounts, while employers could set up corporate plans. Critically, there was also a special scheme, known as NPS Lite, that was designed to appeal to lower-income workers in the informal sector. Although NPS Lite is now closed to new entrants, another scheme, called Atal Pension Yojana (APY),

FIGURE 1

India's Elderly Population (Aged 60 & Over), as a Share of the Total Population, 1950-2050



Source: UN Population Division, *World Population Prospects: The 2017 Revision* (New York: UN Population Division, 2017)

has replaced it. The goal of these initiatives, as India's Finance Minister recently put it, is to transform India from a "pension-less" to a "well-pensioned" society.[2]

India's overall approach to reform is the right one. The government is correct to focus on expanding the share of the workforce that participates in contributory retirement schemes. Although India will also need to strengthen its noncontributory social pension system, which serves as a final backstop against destitution in old age, in the long run only widespread participation in contributory retirement schemes can ensure widespread retirement security. The government is also correct to expand coverage on a voluntary basis. Given the high level of informality in India's labor market, mandating universal coverage is simply not a practical option. Finally, the government is correct to reject pay-as-you-go financing in favor of full funding. As societies develop and age, funded pension systems, in which workers' contributions are saved and invested and benefits are paid out of the accumulated assets, have important economic advantages over pay-as-you-go pension systems, in which current workers are taxed to pay for the benefits of current retirees. At the micro level, funded systems can generate higher rates of return and hence higher replacement rates than pay-as-you-go

2. Quoted in Hemali Chhapia, "From 'Pension-Less' to 'Well-Pensioned' in 10-15 Years," *The Times of India*, August 24, 2015.

Although there has been some modest progress in expanding pension coverage, the great majority of Indians are still saving nothing for retirement.

systems can. At the macro level, they can help to take pressure off government budgets, maintain adequate rates of savings and investment, and speed the development of capital markets.[3]

Although India is clearly on the right track, more will be required if it is to meet its retirement challenge. The old civil service pension system, in which all workers hired before 2004 were grandfathered, will continue to burden government budgets for decades to come while monopolizing fiscal resources that might be better used to subsidize the retirement savings of the rest of the workforce. The EPF, whose benefits are undermined by low returns, lax rules about preretirement withdrawals, early retirement ages, and unrestricted lump-sum payouts, is failing in its basic mission of delivering an adequate retirement income at an affordable cost. As for the NPS, it has not taken off as anticipated. Although there has been some modest progress in expanding pension coverage over the past few years, the great majority of Indians are still saving nothing for retirement, and of those who are saving something most are not saving enough. Without new and more ambitious reforms, tens of millions of Indians will reach old age over the next few decades without pensions, personal savings, or children to support them. Averting this outcome will require bold new reforms that not only increase participation in India's formal retirement system, but also improve its overall performance.

This report explores the challenge of ensuring retirement security in a rapidly developing and aging India. The first chapter outlines the contours of the gathering crisis in retirement security. The second chapter describes India's current pension programs and assesses their strengths and weaknesses. It focuses on the NPS and EPF, the two most important programs, but also briefly discusses other retirement savings schemes. The third chapter, which draws on lessons learned from the experience of other countries, suggests some possible directions for reform. A brief conclusion then recaps the report's main findings and calls on India's government to continue pressing forward with its efforts to build a retirement system that is both more inclusive and more adequate. ■

3. On the economic advantages of funded pension systems, see, among others, Horst Siebert, "Pay-As-You-Go versus Capital Funded Pension Systems: The Issues," Kiel Working Papers 816 (Kiel, Germany: Kiel Institute for the World Economy, 1997); Martin Feldstein and Jeffrey B. Liebman, "Social Security," in *Handbook of Public Economics*, vol. 4, ed. Alan J. Auerbach and Martin Feldstein (Amsterdam: Elsevier B.V., 2002); and Richard Jackson and Keisuke Nakashima, *Global Aging and Retirement Security in Emerging Markets: Reassessing the Role of Funded Pensions* (Alexandria, VA: GAI, 2015).

01

Contours of Crisis

WHEN IT COMES TO RETIREMENT POLICY, India finds itself midway on the journey from the traditional to the modern. The old order of family-based retirement provision is passing away, but formal government and market substitutes are not yet fully developed. The result is growing retirement insecurity. The problem is more acute in the informal sector, which makes up more than four-fifths of the labor force. But even in the formal sector, a retirement crisis looms over the horizon.

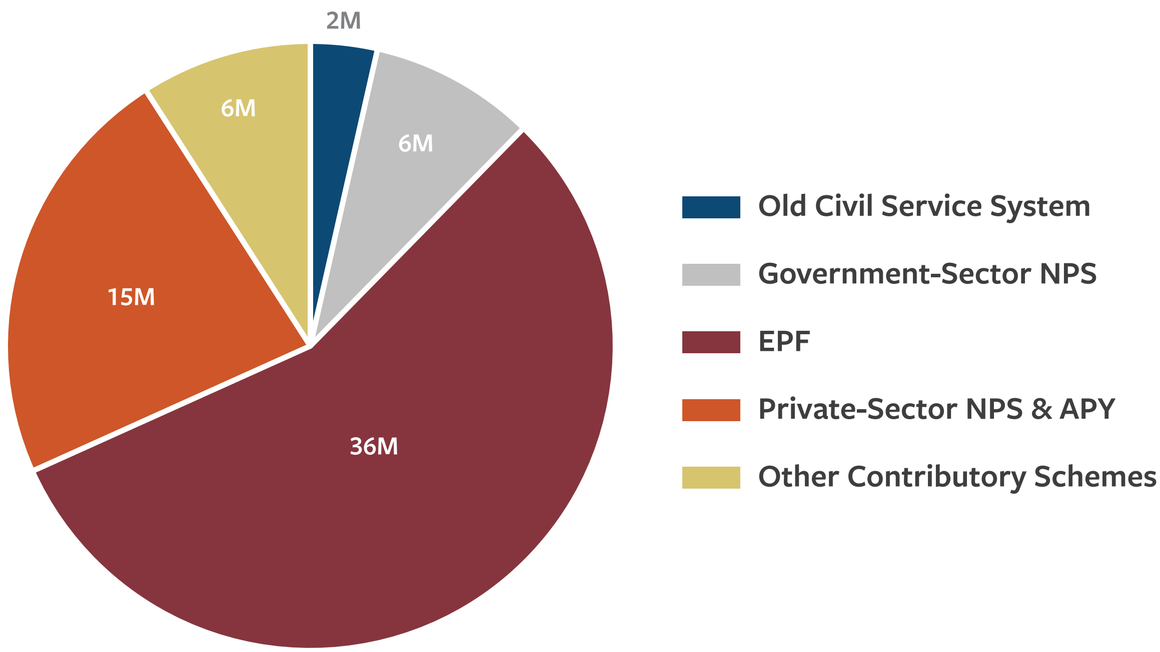
According to the latest available data, 44 million workers contribute to one of India's mandatory pension systems. This figure includes 8 million central and state government employees covered either by the NPS or the old civil service pension system and 36 million private-sector workers covered by the EPF or one of four much smaller employee provident funds for special categories of workers.[4] An additional 1 million workers contribute voluntarily to the NPS under the personal (All Citizen NPS) and employer (Corporate NPS) schemes, while 13 million contribute voluntarily to NPS Lite or APY, the special schemes for informal-

All told, just 12 percent of India's labor force is earning a pension.

4. These are the Assam Tea Plantations Provident Fund, the Coal Mines Provident Fund, the Seamen's Provident Fund, and the Jammu and Kashmir Employees' Provident Fund.

FIGURE 2

Pension Coverage in India by Pension Scheme, in Millions, 2018 or Latest Year Available



Note: The EPF includes participants in several smaller employee provident funds; "other contributory schemes" includes participants in the PPF and insurance company pension products. Data for the NPS and APY are for February 2018; data for the other schemes are for various years between 2015 and 2017.

Source: PFRDA, *Pension Bulletin* 7, no. 2 (New Delhi: PFRDA, February 2018) and CRISIL Research, *Financial Security for India's Elderly: The Imperatives* (Mumbai: CRISIL Research, April 2017)

sector workers. There are also some 6 million contributors to a variety of other voluntary retirement savings schemes, some of whom may also be contributing to the EPF or NPS. All told, that comes to at most 65 million workers, or 12 percent of India's labor force. (See figure 2.)

Even for the minority of workers with pension coverage, retirement benefits are often inadequate. The EPF, the main retirement scheme for formal-sector workers, allows virtually unlimited preretirement withdrawals under a wide range of circumstances. Until recently, account balances were routinely cashed out when workers changed jobs, and they can still be cashed out if they are unemployed for as little as two months. Whatever is left when workers turn 55, the system's retirement age, is then disbursed entirely as a lump sum. Or take the APY, the main retirement scheme for informal-sector workers. Most participants are scheduled to receive a monthly pension of just Rs. 1,000, or about one-fifth of the current average minimum wage for unskilled workers.[5]

For workers who reach old age without having earned a contributory pension benefit, the prospects for a secure retirement are more problematic still. Some of the elderly may be able to rely on personal savings that they have accumulated on their own. But this is only a small minority. According to a 2011 UNFPA survey that provides the most comprehensive data available on the economic circumstances of India's elderly, very few have significant financial assets.[6] In fact, only 22 percent report having any savings in a bank account or post office savings account, while the share who report having assets invested in life insurance policies or stocks, bonds, and mutual funds is a mere 2 percent.

Some of the elderly may also be eligible for benefits under the Indira Gandhi National Old Age Pension Scheme (IGNOAPS), India's noncontributory social pension. The reach of IGNOAPS, however, is limited. As of 2015, just one in five elders was enrolled. The benefits, moreover, are modest. For most beneficiaries, the guaranteed central government payment is just Rs. 200 or $3 per month, and even with optional state supplements the total reaches or exceeds Rs. 500 in only six states.

For many workers, retirement is simply not an option. While workers in the formal sector typically retire in their mid- or late fifties, workers in the informal sector often stay on the job far into old age. Overall, nearly 60 percent of Indian men aged 60 and over are in the labor force. And though labor-force participation falls among the oldest elderly, even among men aged 75 and over 20 percent are still working. Although a high elderly labor-force participation rate might seem like a positive indicator for an aging society, most of the Indian elderly who continue to work eek out a living in agriculture or toil for subsistence wages in low-skilled jobs. According to the UNFPA survey, an enormous 71 percent of the working elderly stay on the job out of economic necessity rather than by choice. Of those elderly who have stopped working, moreover, the most common reason given is poor health.

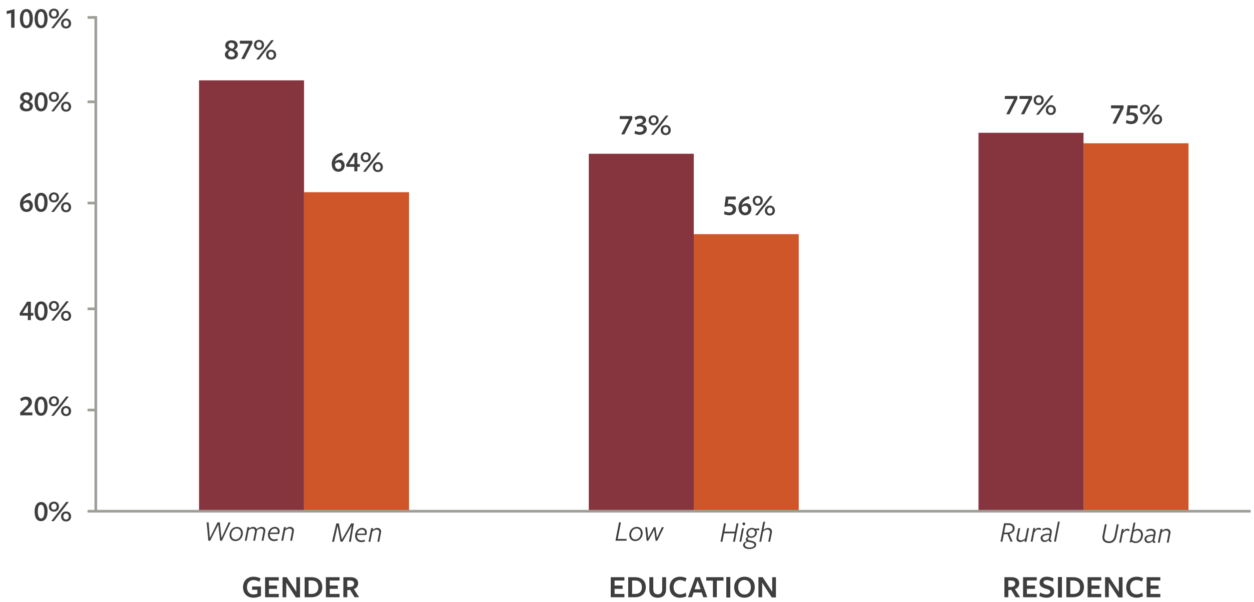
For many workers, retirement is simply not an option.

Not surprisingly, most of the elderly end up dependent on their extended families. According to the UNFPA survey, four out of five live in the same household as their grown children or other relatives. Overall, 76 percent say that they are dependent on others economically, with 50 percent saying that they are fully dependent. The dependency level is similar in rural and urban India, and thus, contrary to what many might suppose, is not just a problem of the less-developed countryside. However, it is much higher for the less

5. Since wage levels vary widely across India, averages should be interpreted with caution. In this comparison, GAI has used the simple average of state-mandated minimum wages for unskilled workers. On a daily basis, this came to Rs. 221 in 2017, which, assuming five-day work weeks, translates into roughly Rs. 5,000 per month. See Ministry of Labour and Employment, *Annual Report, 2017-18* (New Delhi: Ministry of Labour and Employment, 2018). As another point of comparison, the OECD reports that average annual wages in EPF-covered employment were Rs. 99,349 in 2016, or roughly Rs. 8,250 on a monthly basis. See OECD, *Pensions at a Glance 2017: OECD and G20 Indicators* (Paris: OECD, 2017).
6. UNFPA, *Report on the Status of Elderly in Select States of India, 2011* (New Delhi: UNFPA, November 2012).

FIGURE 3

Share of the Elderly (Aged 60 & Over) Who Are Economically Dependent on Others, by Gender, Educational Attainment, and Residence in 2011



Note: Low educational attainment is defined as no schooling; high educational attainment is defined as eight or more years of schooling.

Source: UNFPA, *Report on the Status of Elderly in Select States of India, 2011* (New Delhi: UNFPA, November 2012)

educated elderly than for the more educated elderly, who are more likely to have pensions. It is also much higher for women than for men. (See figure 3.) The large difference in elderly dependency by gender is explained by the fact that older women are much more likely than older men to be widowed, to have never worked, to have never earned a contributory pension, and hence to be destitute. While 43 percent of the elderly report having no personal income of any kind, the share of elderly women who report this (59 percent) is twice the share of elderly men who do (26 percent).

Although strong family support networks are a great asset, overdependence on them can also become a liability in eras of rapid social, economic, and demographic change. Like most developing countries, India is urbanizing. In 1950, just 17 percent of Indians lived in cities. Today 33 percent do—a share that the UN projects will reach 53 percent by 2050.[7] This momentous shift is driven by the migration of the young from the countryside to the city, and when the young move they typically leave the old behind. Although many young migrants send remittances home to their aged parents, these cannot fully substitute for the financial and personal benefits of coresidency.

7. UN Population Division, *World Urbanization Prospects: The 2018 Revision* (New York: UN Population Division, 2018).

Nor is it just urbanization that is increasing the vulnerability of the dependent old. Along with development and modernization come new attitudes toward traditional social roles. Although the belief that grown children should support their aged parents is still widespread in India, there are signs that it is weakening. According to the UNFPA survey, just a slender 54 percent majority of elderly adults think that, ideally, children should be responsible for supporting the elderly, while 25 percent think that the elderly should be independent and 21 percent think that the government should support them. Among working-age adults, shifts in normative attitudes about filial responsibility are beginning to translate into diminished personal expectations of financial support. In a 2015 survey of higher-earning urban professionals, just 12 percent said that they expect their children to fully "take care of my retirement." Even including those who anticipate receiving some support, the share expecting to depend on their children was only 36 percent.[8]

In the future, demographic pressure from declining family size is sure to put additional stress on traditional family support networks. As recently as 2010, the typical Indian elder had 3.8 surviving children potentially available to provide support. By 2040, that number will fall to just 2.6.[9] Even if the propensity of grown children to support their aged parents remains unchanged, the odds that the elderly will be able to live with one of their children or count on them financially will steadily worsen.

India's skewed sex ratio may add still more stress. In India, there are currently 111 male babies born each year for every 100 girl babies, compared with 105 in a normal population. There are only eight countries where that number is 108 or higher and, other than India, only four where it is 111 or higher: Vietnam (112), Armenia (114), and Azerbaijan and China (116). Many Indian families prefer sons, in part because daughters may require expensive dowries and in part because sons are expected to care for their parents in old age. They would do well to remember that, while it may be the son who is responsible for caring for his aged parents, it is the son's wife who will do much of the actual caring. Already today, India's skewed sex ratio has created a socially dangerous bride shortage. Before long, that bride shortage will become a daughter-in law shortage.

Until recently, the Indian government could assume that workers who reached old age without a pension would be cared for by their children or other family members. The government knows that this assumption is no longer defensible today and will be even less so tomorrow, which is why it has made expanding pension coverage such a high policy priority. To be sure, the family will in all likelihood continue to play a much larger role in retirement security in India than it does in most western nations. But if there were any doubt that the traditional system

8. "The Principal Financial Well Being Index 2015: Indian Households," PowerPoint presentation prepared by Principal Retirement Advisors, January 2016.

9. Richard Jackson, Neil Howe, and Tobias Peter, *The Global Aging Preparedness Index: Second Edition* (Washington, DC: CSIS, 2013).

The traditional system of family-based retirement provision is weakening.

of family-based retirement provision is weakening, the Maintenance and Welfare of Parents and Senior Citizens Act of 2007, which establishes legal penalties for children who fail to support or who abandon their parents, should lay it to rest. When governments feel the need to enforce traditional social norms in court, it is a sure sign that those norms can no longer be taken for granted.

India is of course a vast and diverse country. Within it, globally competitive high-tech industries exist side by side with subsistence agriculture. There is an enormous English-speaking middle class that is larger than the total population of all but a dozen of the world's countries. Yet at the same time, one-quarter of all Indians are illiterate. Not surprisingly, the reach of India's formal retirement system varies tremendously, with pension coverage and receipt rates generally higher in the more developed states than in the less developed ones. As of 2017, the share of the elderly receiving EPF or NPS benefits ranged from a low of just 5 percent in Bihar to a high of 27 percent in Haryana.[10] Within each state, there are equally large differences by income, educational attainment, and urban and rural residence.

The demographic transition is also progressing much faster in some states than in others. Life expectancy at birth varies by nearly ten years across India, with Assam at the low end and Kerala at the high end. In some states, the fertility rate has sunk beneath the so-called 2.1 replacement rate needed to maintain a stable population from one generation to the next, while in others it remains stuck above 3.0. These differences in turn affect the pace of population aging. As of the latest 2011 Census, the elderly made up 10 percent or more of the population in nine of India's thirty-five states and union territories, but 5 percent or less in five of them. In general, it is the southern states that have lower fertility and higher life expectancy and that are aging more rapidly.

The combination of rapid development and rapid demographic change is increasing retirement insecurity.

Yet everywhere, the combination of rapid development and rapid demographic change is increasing retirement insecurity. In confronting the challenge, India enjoys two enviable advantages. The first is that the government has already begun to lay the foundations for a more inclusive and adequate retirement system. Although much remains to be done, many of the basic building blocks are already in place. The second is that India's demographics will remain broadly favorable for the next decade or two, giving it ample time to complete the task before its age wave rolls in.

10. CRISIL Research, *Security for Seniors: Opportunities and Challenges in Creating an Inclusive and Sustainable Pension System in India* (Mumbai: CRISIL Research, February 2018).

02

Today's Pensions Landscape

FOR A COUNTRY WITH SUCH A LOW RATE OF PENSION COVERAGE, India has a surprisingly complex retirement system. Workers covered by the EPF, the mandatory provident fund for private-sector workers, are also covered by the Employees' Pension Scheme (EPS), a related defined-benefit program. The NPS, which is mandatory for civil servants and voluntary for everyone else, includes both personal and employer pension options, as well as special schemes for informal-sector workers. There are also a variety of other voluntary retirement savings schemes, including the Public Provident Fund (PPF), a government-run scheme open to all; Superannuation Funds, which are employer-sponsored pension plans; and pension products offered by life insurance companies and mutual funds. In addition, there is IGNOAPS, the noncontributory social pension for the indigent elderly.

Before turning to the steps that India can take to build a more inclusive and adequate retirement system, we briefly survey today's pensions landscape.

For a country with such a low rate of pension coverage, India has a surprisingly complex retirement system.

The Employees' Provident Fund

Established in 1952, the Employees' Provident Fund is India's oldest and largest retirement program. Like other provident funds, which are common in East Asia and South Asia, the EPF is a funded but centrally managed defined-contribution system. It is administered by the Employees' Provident Fund Organization (EPFO), which in turn is part of the Ministry of Labour and Employment. The EPFO functions both as pension provider and pension regulator. Its investment policies, which until 2015 excluded the purchase of equities, ensure that its portfolio is heavily tilted toward government debt.[11] As for EPF participants, they have no investment choice and receive an administratively determined rather than a market rate of return.[12]

The EPF is an employment-based system. Participation is mandatory for private-sector firms with at least twenty employees, as well as for some smaller firms in a few specified industries. Workers whose salaries at the time they are hired are more than Rs. 15,000 per month, a little less than twice the average wage in covered employment, are not required to join.[13] In practice, however, most firms enroll all employees regardless of their salary. Firms can apply to the EPFO for an exemption that allows them to manage their employees' EPF accounts in-house; the employees, however, receive the same administratively determined rate of return that they would if their accounts were managed by the EPFO. As of 2017, roughly 1,500 mostly large firms operated an EPF Private Trust, as this arrangement is called.

The Employees' Pension Scheme, which was established in 1995 and covers essentially the same workers as the EPF, is a defined-benefit program.[14] The program is funded primarily by carving out a portion of EPF contributions. Employers and employees each contribute 12 percent of basic salary to the EPF, but 8.33 percentage points of the employer contribution is diverted to the EPS, reducing the total combined EPF contribution to 15.67 percent.[15] There is also a small government contribution to the EPS of 1.17 percent of salary, which boosts the total EPS contribution to 9.5 percent.

Like most provident funds, the EPF is more of an all-purpose savings scheme than a dedicated retirement program. There are multiple circumstances under which the early withdrawal of most or even all of EPF account balances is permitted, including

11. In fact, the EPFO buys so much government debt that shifts in its asset allocation affect government borrowing costs. See "Government Borrowing Cost Likely to Fall, Thanks to EPFO," *The Economic Times*, February 26, 2018.

12. In 2017, the EPFO announced that participants would henceforth earn a market return on the small portion of their account balances (currently 15 percent) invested in equities. The return credited to participants on EPF fixed-income investments, however, will continue to be administratively determined.

13. The wage ceiling for mandatory EPF coverage is raised from time to time on an ad hoc basis. As this report was being finalized in August 2018, a proposal was under consideration to increase it from Rs. 15,000 to Rs. 21,000.

14. The only difference in coverage is that, starting in 2014, newly hired employees with salaries over the EPF's mandatory contribution ceiling are no longer eligible to participate in the EPS.

15. In a few specified industries, as well as at covered firms with fewer than twenty employees, the EPF contribution rate is reduced from 12 to 10 percent for both employers and employees.

Like most provident funds, the EPF is more of an all-purpose savings scheme than a dedicated retirement program.

purchasing a home or paying off a mortgage, paying for medical expenses, and financing the education or marriage of one's children. Workers can also cash out the portion of their account balances that is attributable to their own contributions when they quit or are laid off from their current job, provided that they are unemployed for at least two months. Preretirement withdrawals and cash outs, moreover, are tax-free once workers have been enrolled in the EPF for at least five years. The EPF retirement age, after which whatever savings remains is disbursed in a single lump-sum payment, is just 55. Taken together, these provisions greatly compromise the system's adequacy.

If EPS benefits were generous, all of this might be less of a problem. Unfortunately, this is not the case. Although the EPS benefit formula yields a seemingly respectable 50 percent replacement rate for workers retiring with thirty-five years of service at age 58, the scheme's full-benefit retirement age, the monthly salary base to which the formula applies is capped at the EPF's relatively low mandatory contribution ceiling. Moreover, one-third of the EPS pension can be converted to a lump sum which, just like EPF account balances, may be quickly dissipated. Meanwhile, the two-thirds that must be taken as an annuity is not indexed for inflation, meaning that its value will erode steadily over time.

The public is increasingly concerned about meager EPS benefits.

For current retirees, there are two additional factors keeping benefits low. Since the EPS only began operations in 1995, no one now receiving a pension has much more than twenty years of creditable service, which means that current replacement rates are at most 30 percent. The salary base used in the EPS benefit formula was also much lower for most current retirees—just Rs. 6,500 for those retiring as recently as 2014. As things stand, some two-thirds of EPS beneficiaries receive a pension of less than Rs. 1,500 per month, and of these many receive the guaranteed minimum pension of Rs. 1,000. Not surprisingly, the public is increasingly concerned about meager EPS benefits, and the government is coming under pressure to increase the generosity of the minimum pension.[16]

The National Pension System

The EPF was established before India's market-oriented reforms of the 1990s, and in important respects reflects the statist pri-

16. See "Raise Minimum Pension to EPS Beneficiaries to Rs. 3,000: BJP," *The Hindu*, January 15, 2014; "Pensioners' Body Bats for Rs. 7,500 Minimum Monthly Pension," *Deccan Chronicle*, December 4, 2017; and Yogima Sharma, "Bonanza Likely for Employees' Pension Scheme Pensioners," *The Economic Times*, March 16, 2018.

orities of an earlier era. This is most evident in the EPFO's investment policies. By loading portfolios with government debt, it condemns participants in the EPF to sub-market returns on their savings. At the same time, it provides a guaranteed source of backdoor deficit-financing for government.

The basic architecture of the NPS reflects current global best practice.

In contrast, the basic architecture of the NPS reflects current global best practice. Like the EPF, the NPS is a fully funded defined-contribution system. But unlike the EPF, it has an independent regulator, the Pension Fund Regulatory and Development Authority (PFRDA). The NPS Trust, established by PFRDA, is prudentially charged with ensuring that the system's various players act in the best interest of participants. The NPS Trustee Bank receives participant contributions and transfers them to one of several independent pension fund managers certified by PFRDA. A Central Recordkeeping Agency (CRA) with a unified IT platform ensures transparency and portability, while helping to reduce administrative costs.[17]

The NPS grew out of the recommendations of the influential Old Age Social and Income Security Commission, better known as the OASIS Commission, which was convened by the government in the late 1990s to devise a new pension system for India and released its report in 2000.[18] The OASIS Commission was charged with two objectives, the first being to reduce the long-term cost of India's old civil service pension system. That system consisted of two tiers: the Central Civil Service Pension Scheme, a defined-benefit plan financed entirely on a pay-as-you-go basis, and the Civil Service Provident Fund, a centrally managed defined-contribution scheme similar to the EPF. Starting in 2004, the old system was closed to new entrants and all newly hired central government employees were instead enrolled in the newly created NPS. State governments were also given the option of adopting the NPS, and it is now fully operational in all but three states: Tamil Nadu, Tripura, and West Bengal.

The second objective was to expand private-sector pension coverage beyond the narrow slice of the workforce covered by the EPF. To this end, the NPS was opened up to the private sector on a voluntary basis starting in 2009. Since all adults aged 18 to 60 (later changed to 18 to 65) were eligible to join, whether or not they were employed, self-employed, or indeed working at all, the private-sector NPS scheme was, appropriately enough, called All Citizen NPS. NPS Lite, a special scheme designed for lower-income informal-sector workers,

17. The NPS outsources recordkeeping functions. While there was originally one CRA (NSDL-CRA), PFRDA added a second (Karvy-CRA) in 2017 with a view to promoting competition and reducing recordkeeping fees. Participants can now choose (and switch) between the two CRAs.

18. OASIS Foundation, *The Project OASIS Report* (Mumbai: OASIS Foundation, January 2000).

was added in 2010, while Corporate NPS, which provided for an employer pension option, was added in 2011. Along the way the NPS, which was originally called the New Pension System, was renamed the National Pension System, thus emphasizing its broader mission while conveniently keeping the same initials.

There are some significant differences between the various NPS schemes. Participants in the central and state government schemes interface with the NPS through the government departments where they are employed, while participants in All Citizen NPS and Corporate NPS do so through so-called Points of Presence (PoPs), such as banks and post office branches. In NPS Lite, the interface is through Aggregators, who pool the relatively small contributions of many enrollees and forward them to the NPS Trustee Bank.

Contribution rules also differ across the schemes. For government participants, the contribution rate is 20 percent, split evenly between employers and employees. In Corporate NPS, there is more flexibility. Contributions can be made entirely by employers, entirely by employees, or in some combination by both of them, subject to a maximum contribution rate of 10 percent of salary for each. In All Citizen NPS, there is a minimum annual contribution of Rs. 1,000 and a tax-deductible maximum contribution of Rs. 150,000. In NPS Lite, the allowable contribution range is Rs. 1,000 to Rs. 12,000. There is no minimum contribution, but participants receive a government matching contribution of 50 percent or Rs. 1,000 per year, whichever is lower.

The same is true for investment rules. Participants in All Citizen NPS enjoy considerable investment discretion, and are able to choose both their pension fund manager and how, within certain limits, they allocate their contributions to different investment funds with varying degrees of risk. There are currently four asset-class fund options among which participants can actively choose: an equities fund, a government securities fund, a corporate securities fund, and an alternative investments fund. There are also three lifecycle fund options: a default lifecycle fund, designed for those who do not wish to actively manage their retirement savings, and two alternative “conservative” and “aggressive” lifecycle funds. The same investment options are available in Corporate NPS, the difference being that employers may either make the selections for the plan as a whole or leave the choices to individual employees. In the central and state government NPS schemes, on the other hand, participants have no investment discretion and portfolios are heavily tilted toward fixed-income securities. Nor is there any investment discretion in NPS Lite.

Yet all of the NPS schemes have certain important characteristics in common. Participants always earn market returns rather than administratively determined returns. Upon enrolling in the NPS, they receive a unique Permanent Retirement Account Number (PRAN), which ensures that their account balances are always portable. Participants may have two types of NPS accounts: a Tier 1 retirement account (which offers tax benefits but restricts preretirement withdrawals) and a Tier 2 savings account (which allows unrestricted preretirement withdrawals but offers no tax benefits). The Tier 1 account is mandatory while the Tier 2 account is optional. Participants also have access to a full-function online platform called eNPS, through which they can do everything from enrolling and choosing a pension fund manager to checking their account balances, making contributions, and changing their asset allocation.

Unlike the EPF, the NPS schemes all function as dedicated retirement programs.

Perhaps most importantly, the NPS schemes all function as dedicated retirement programs. While the EPF allows virtually unrestricted preretirement withdrawals, withdrawals from Tier 1 NPS accounts are strictly limited. At most, participants can withdraw 25 percent of their balance on three different occasions while enrolled in the NPS. There must be a five-year interval between the withdrawals, and the 25 percent limit for the second and third withdrawals only applies to incremental contributions made since the previous withdrawal. The retirement age is also higher in the NPS than in the EPF: age 60, with an option to remain a contributing participant until age 70. Rather than disbursing benefits entirely as a lump sum, moreover, the NPS requires the annuitization of at least 40 percent of account balances. And though participants are permitted to exit the NPS before reaching retirement age if they have been enrolled for at least ten years, the annuitization requirement in the case of early exit rises to 80 percent.

The different NPS schemes have had varying degrees of success. Being mandatory, the central and state government schemes have grown steadily as newly hired workers have come on stream. All Citizen NPS and Corporate NPS, however, have been slow to take off. Part of the problem may have been lack of adequate public outreach and education. But part has also clearly been competition from the EPF and other retirement savings schemes, such as the PPF, whose lump-sum payouts and lax rules about preretirement withdrawals may not be good policy, but appeal to the public. Nor has it helped that these other schemes enjoy more favorable tax treatment. Over the past few years, the government has responded by significantly strengthening tax incentives in All Citizen NPS and Corporate NPS, and enrollment has picked up sharply. NPS Lite was also slow to take off, but in its case the government decided that an entirely new approach was needed. The scheme was closed to new entrants in 2015 and APY was launched in its place. Although it is technically not a part of NPS, APY is administered by PFRDA and piggybacks on the NPS infrastructure.

Unlike the NPS schemes, APY offers participants guaranteed benefits, a feature which it was hoped would make it attractive to informal-sector workers. Contribution schedules are also highly flexible, another potential selling point. APY enrollment is open to workers aged 18 to 40. Upon joining, which can be done at any bank or post office or (as of 2018) online, participants select the guaranteed monthly pension benefit, ranging from Rs. 1,000 to Rs. 5,000, that they would like to receive beginning at age 60. The required contributions vary both with the amount of the pension benefit participants have selected and their age at the time of enrollment. If the actual returns earned on APY's investments exceed the returns assumed in calculating its contribution schedules, the pension benefits of participants are increased accordingly when they retire. Contributions can be made on a monthly, quarterly, or semi-annual basis. All contributions are paid by auto-debiting participants' bank accounts, which means that having a bank account is a prerequisite for enrollment. Participants can later choose to adjust their contributions, and hence their eventual pension benefits, if their financial circumstances change. APY also includes a government matching contribution of 50 percent or Rs. 1,000 per year, whichever is lower, payable for the first five years of enrollment.

Without additional reforms, the NPS is likely to remain a national pension system in name alone.

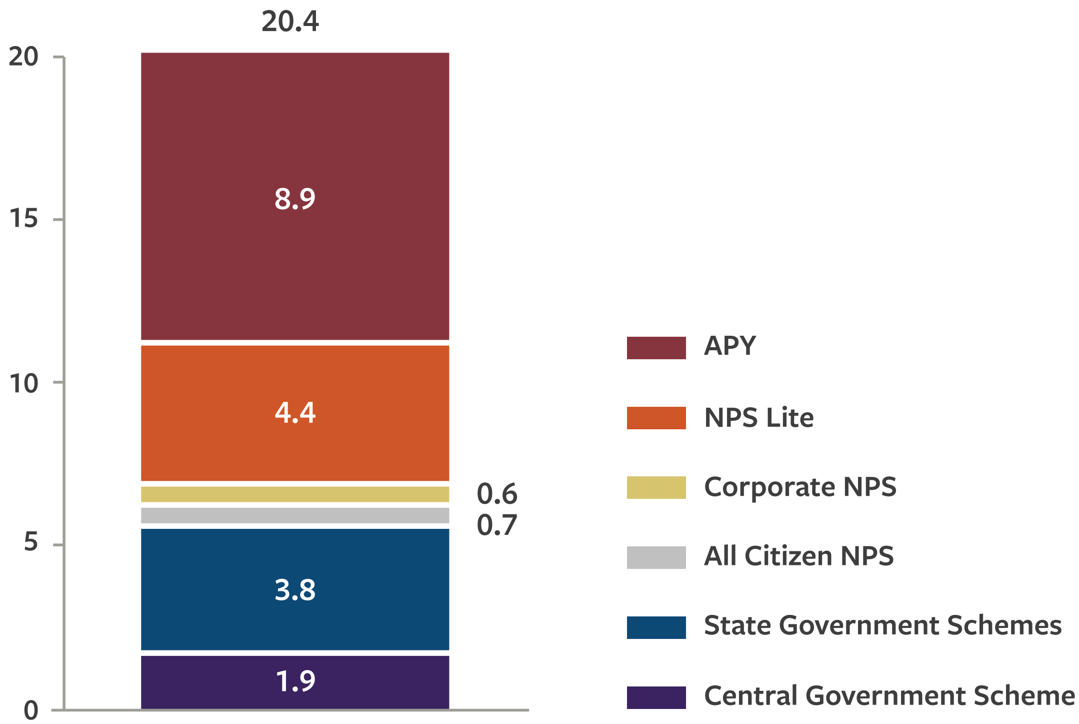
APY has indeed turned out to be more appealing to informal-sector workers than NPS Lite. In the three years since it was launched, it has grown to be twice as large as the program it replaced. All Citizen NPS and Corporate NPS are now also growing rapidly, tripling their combined enrollment over the past three years. Yet measured in absolute numbers of enrollees, NPS and APY remain small. As of February 2018, their total combined enrollment stood at 20 million. (See figure 4.) Excluding central and state government employees, it was just 15 million, or 3 percent of India's total labor force. In short, the recent progress in expanding coverage is promising. Without additional reforms, however, the NPS is likely to remain a national pension system in name alone.

Other Contributory Schemes

There are a variety of other contributory retirement savings schemes in India. None of them, however, are promising vehicles for building a more inclusive and adequate retirement system. This is clearly true of the Voluntary Provident Fund (VPF), an EPFO-administered scheme to which EPF participants can make additional contributions above and beyond their mandatory 12 percent of salary contribution. Although the VPF has its own name, VPF contributions are comingled with EPF contributions and earn the same administratively determined rate of return. All of the EPF rules, including those regarding preretirement withdrawals and lump-sum payouts, also apply to the VPF. Being part of the EPF, moreover, the VPF is only open to workers in EPF-covered employment. The PPF, a popular government-run retirement savings scheme established in 1968, is in contrast open to everyone. The PPF, however, is no more a dedicated retirement program than the EPF

FIGURE 4

NPS and APY Enrollment in Millions, by Scheme, in February 2018



Source: PFRDA, *Pension Bulletin* 7, no. 2

is. PPF savings accounts have a maturity of fifteen years, regardless of the account holder's age, though they can be extended for one or more additional five-year periods. As in the EPF, participants earn an administratively determined rate of return, and as in the EPF benefits are payable entirely as a lump sum. Participants in the PPF can also make early withdrawals, though these must generally be taken as loans rather than advances.

India also has a small system of employer-sponsored pensions known as Superannuation Funds. These are genuine retirement plans which, depending on whether employees also receive severance pay, require the annuitization of one-half or two-thirds of benefit payouts. They may be defined-contribution or defined-benefit plans, and can either be managed internally by the sponsoring firm or externally by a life insurance company. Superannuation Funds, however, have a drawback—namely, their complexity and expense. Establishing one requires drawing up a plan document, executing a trust deed that must be approved by the income tax authorities and, in the case of defined-benefit plans, providing for actuarial evaluations. As a consequence, Superannuation Funds are generally only set up by large firms, and even then only for highly compensated employees. Although no comprehensive data on Superannuation Funds exist, the system does not appear to be growing. In a recent KPMG survey of forty-five mostly large employers, only sixteen had one and, of those that did not, only one was considering establishing one.[19] The Corporate NPS scheme, which allows employers to set up a low-cost pension plan without any of the onerous requirements of Superannuation Funds, seems like a more promising vehicle for expanding coverage.

In addition, both life insurance companies and mutual funds offer a variety of tax-favored retirement savings products, though the insurance product market is much larger, whether measured in terms of participants or assets under management.[20] In the case of insurance products, benefits are typically payable as immediate or deferred annuities, while in the case of mutual fund products, they are typically payable in partial or phased withdrawals. Both the insurance products, which are regulated by the Insurance Regulatory and Development Authority (IRDA), and the mutual fund products, which are regulated by the Securities and Exchange Board of India (SEBI), clearly have an important role to play in the retirement planning of more affluent Indian households. The products, however, may be too complex to appeal to the broad public. With fees ranging as high as 2.5 percent of assets under management, they may also be too costly.

The Indira Gandhi National Old Age Pension Scheme

Along with its contributory retirement savings schemes, India, like many emerging markets, has a noncontributory social pension for the indigent elderly. When first launched in 1995, this social assistance program was called the National Old Age Pension Scheme, but it later added Indira Gandhi to its name. Eligibility for IGNOAPS benefits was originally restricted to adults aged 65 and over living in households with incomes beneath the poverty line, but the age threshold for eligibility was subsequently lowered to 60. As of 2015, IGNOAPS enrollment totaled 23 million, or 20 percent of the elderly. Although the program provides a critical income supplement, the benefits are exceedingly modest. Beneficiaries aged 60 to 79 receive a guaranteed central government payment of Rs. 200 per month, or one-fifth of the already inadequate minimum EPS pension, while those aged 80 and over receive a guaranteed central government payment of Rs. 500 per month. State governments are encouraged,

Along with its contributory retirement savings schemes, India, like many emerging markets, has a noncontributory social pension.

19. KPMG, *Employee Pensions in India: Current Practices, Challenges, and Prospects* (Gurgaon, India: KPMG, December 2015).
20. See Ernst & Young, *Pensions Business in India* (Gurgaon, India: Ernst & Young, November 2013).

but not required, to top up these payments with an at least equal contribution. Most do supplement IGNOAPS, but the amounts vary greatly, from Rs. 100 or 200 in the poorer states to as much as Rs. 1,800 in Goa. In addition, a number of states have their own social pensions, which together cover about 10 percent of the elderly.[21] ■

21. CRISIL Research, *Financial Security for India's Elderly: The Imperatives* (Mumbai: CRISIL Research, April 2017).

03

The Way Forward

INDIAN POLICYMAKERS ARE TO BE PRAISED for grappling so seriously with the nation's retirement security challenge. The creation of the NPS represents an important step toward transforming India, in the Finance Minister's words, from a "pension-less" to a "well-pensioned" society. Universal coverage is the right goal, and the model that the government has chosen to pursue it is the one most likely to succeed. A contributory, voluntary, and fully funded retirement system offers the best hope of delivering broad-based retirement security as India develops and ages in the decades to come.

Yet despite the government's efforts, India's retirement system is failing to deliver that security to today's retirees and, without further reform, will fall short for tomorrow's as well. The retirement system remains highly fragmented, with different programs, rules, and regulators that sometimes work at cross-purposes with each other. Although pension coverage is beginning to grow, the overwhelming majority of workers still have nothing to fall back on in old age except the extended family. Even for those lucky enough to be earning a pension, benefits are often inadequate. Savings hemorrhages from the retirement system due to early withdrawals and cash outs. Investment performance is impaired by overly restrictive regulations and, in some segments of the pensions market, lack of transparency and accountability. Meanwhile, early retirement ages and lump-sum payouts leave a growing number of Indians at risk of outliving what savings they do have.

In this chapter, GAI offers some suggestions on how the government can complete its reform agenda. In the first section, we focus directly on retirement policy. Some of our recommendations build on recent government initiatives, while others suggest a change of course. In formulating them, we consider lessons learned from the experience of other countries and draw on the emerging expert consensus about global best practice in pension system design.[22] In the second section, we consider some broader challenges, from improving financial literacy to more effectively leveraging India's demographic dividend, that will also need to be met if the country is to succeed in building a more inclusive and adequate retirement system.

A Framework for Retirement Reform

To be successful, retirement reform will have to proceed on many fronts at once, expanding pension coverage, strengthening economic incentives, preserving retirement savings, improving investment performance, rethinking the payout phase of the pension lifecycle, and building a more robust old-age poverty floor. In what follows, we take up each of these imperatives in turn. Our recommendations focus on reform of the EPF and the NPS. The first, after all, is India's largest retirement scheme, but as currently structured is failing its participants. The second, though also in need of reform, represents the best hope for improving the retirement security of most Indians.

Retirement reform will have to proceed on many fronts at once.

Expanding Pension Coverage

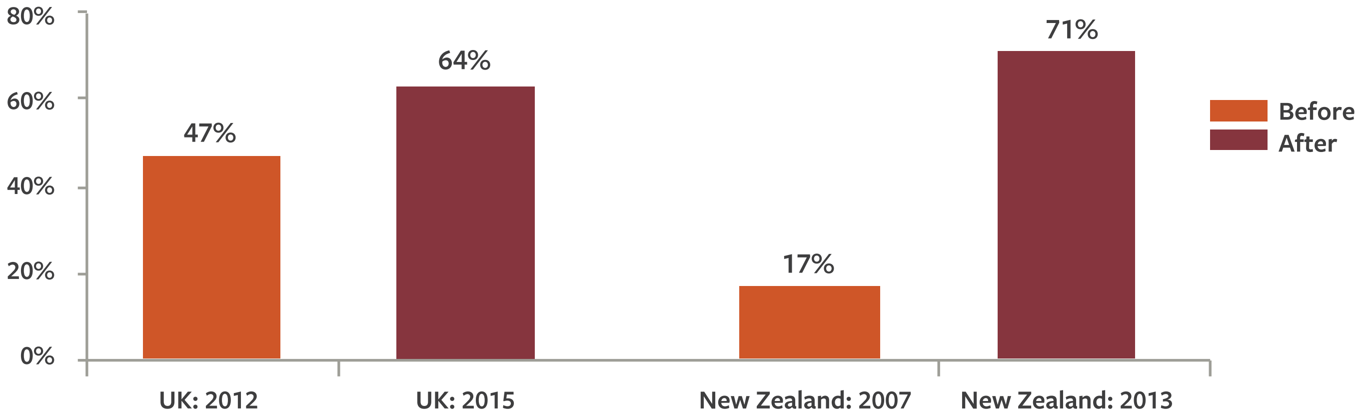
Mandating that all workers participate in a contributory pension system is impossible in a country like India, where more than eight out of ten workers labor in the informal sector. There is simply no way to enforce the mandate. Yet the experience of other countries around the world teaches that purely voluntary pension systems never achieve anything close to universal coverage. Fortunately, there is a third way, sometimes called "soft compulsion," that leverages the lessons of behavioral economics to boost participation and savings without actually mandating it.

Many developed countries have recently introduced elements of soft compulsion into their voluntary pension systems by encouraging or requiring employers to switch enrollment from the traditional "opt in"

22. References to "global best practice" in this report generally refer to OECD guidelines, which are summarized in *The OECD Roadmap for the Good Design of Defined Contribution Pension Plans* (Paris: OECD, 2012) and are further developed in related documents published by the OECD Working Party on Private Pensions. For a discussion of the special challenges involved in applying global best practice in emerging markets, see Richard Jackson, *Voluntary Pensions in Emerging Markets: New Strategies for Meeting the Retirement Security Challenge* (Alexandria, VA: GAI, 2017).

FIGURE 5

Share of the Labor Force Participating in an Employer Pension Plan in New Zealand and the UK, before and after Autoenrollment



Source: *OECD Pensions Outlook 2014* (Paris: OECD, 2014); Office for National Statistics, *Annual Survey of Hours and Earnings Pension Tables: 2015 Provisional and 2014 Revised Results* (London: Office for National Statistics, March 2016); and GAI calculations

Many developed countries have recently introduced elements of "soft compulsion" into their voluntary pension systems.

model, in which employees have to make an active decision to participate in a pension plan, to an "opt out" model, in which they are automatically enrolled and have to make an active decision not to participate. The theory is that, human inertia being what it is, plans with "autoenrollment" should have significantly higher participation rates than plans without it. The theory, moreover, is confirmed by experience. The most compelling evidence is provided by New Zealand, which introduced autoenrollment into its KiwiSaver Scheme in 2007, and the UK, which introduced it into its NEST Pensions in 2012. Following the introduction of autoenrollment, the share of New Zealand's labor force that participates in an employer pension plan rose from 17 to 71 percent, while the share of the UK's that participates in one rose from 47 to 64 percent. (See figure 5.) Both countries now have substantially higher participation rates than Canada (30 percent) or the United States (54 percent), countries whose occupational pension systems are at least as well developed, but which do not require autoenrollment at the national level.[23]

23. For Canada, see *Pensions at a Glance 2015: OECD and G20 Indicators* (Paris: OECD, 2015); for the United States, see *National Compensation Survey: Employee Benefits in the United States, March 2016* (Washington, DC: U.S. Bureau of Labor Statistics, September 2016).

In addition to increasing the share of workers who participate in voluntary pension systems, behavioral economics can also be harnessed to increase what they save once they are enrolled. If the default contribution rate is set at a high level, workers may overcome their inertia and opt out. If it is set at a low level, more workers will remain in the plan, but inertia will tend to keep them from increasing their contributions above the default rate. This suggests that the best strategy is to set the default rate low initially, but then to raise it automatically over time. Along with autoenrollment, "autoescalation" (as it is called) now forms part of global best practice. In the United States, for example, roughly two-thirds of 401(k) plans that use autoenrollment also use autoescalation.[24]

India should autoenroll all employees working at small formal-sector firms not covered by the EPF in the NPS.

India could make significant progress in expanding pension coverage by autoenrolling all employees working at small formal-sector firms not covered by the EPF in the NPS. As things stand, millions of workers at firms with fewer than twenty employees, the standard EPF threshold for mandatory coverage, are excluded from India's formal retirement system. To be sure, these workers may be able to join the EPF on a voluntary basis, but only if their employer and a majority of employees agree to do so, which creates a high hurdle. It would be far better to require firms with fewer than twenty employees to set up a Corporate NPS plan in which all employees would then be autoenrolled with an opt out option. To further encourage participation, the initial employee contribution rate could be set at a low level, perhaps 3 to 5 percent of salary, but then raised over time according to an autoescalation formula.

Autoenrolling informal-sector workers is more problematic, but by no means impossible. To begin with, the informal sector is not comprised exclusively of day laborers and subsistence farmers. Along with poorly educated, low-income workers, it also includes self-employed professionals. It should be possible to autoenroll the latter group in All Citizen NPS via the government's existing tax-filing infrastructure. As for the former group, a significant number of workers, although informally employed, actually work for formal-sector employers, notably the labor, health, and agriculture departments of state governments. They could be autoenrolled in APY, something that, in fact, PFRDA is now urging state governments to do.[25] There are also other categories of informal-sector workers that might be subject to autoenrollment in APY through their employers, including rural health workers and workers at Small Scale Industry (SSI)

24. Vanguard, *How America Saves 2016: 15th Anniversary Edition* (Malvern, PA: Vanguard, 2016).
25. See PFRDA, "Concept Note on Auto Enrollment for Increase in Pension Coverage in India," *Pension Bulletin* 5, no. 8 (New Delhi: PFRDA, September 2016).

Advances in financial inclusion, digital technology, and national IDs have opened up new avenues for enrolling informal-sector workers in voluntary pension systems.

Units, Construction Boards, and Gram Panchayats, India's village councils.

Recent advances in financial inclusion, digital technology, and national IDs, where India is the world leader, have also opened up new avenues for enrolling informal-sector workers in voluntary pension systems, collecting their contributions, and channeling them to pension fund managers.[26] Any Indian can now access the NPS and APY through third-party service outlets that they already use for accessing other financial or nonfinancial services. Any Indian with a mobile phone, which is to say most Indians, can also access the NPS and APY online. The pension contributions of existing participants can be and often are automated. The next step is to find a way to automate initial enrollment, perhaps by making opening a bank account or accessing some vital service, such as public utilities or private cellular networks, contingent on also opening a retirement account.

In some cases, India may find that it is more effective to enroll informal-sector workers collectively through membership groups, such as rural cooperatives, rather than individually. It may also find that, as an incentive, it is helpful to bundle pensions with other financial products, and especially insurance. Enrollment in APY, for example, could be bundled with access to government-subsidized health insurance (Rashtriya Swasthya Bima Yojana or RSBY) and life and disability insurance (Pradhan Mantri Suraksha Bima Yojana or PMSBY). India might even consider experimenting with a novel arrangement known as "family binding" that China uses to encourage participation in its new voluntary pension systems for rural and migrant workers. It works this way: So long as workers are enrolled and saving for their own future retirement, their aged parents immediately qualify for a modest pension benefit paid for by the government.

The challenge is clearly enormous, and universal pension coverage may not be achieved for years to come. Yet just as clearly, there are many promising strategies that the government could employ as it strives to build on its recent progress.

Strengthening Economic Incentives

Although autoenrollment and autoescalation have a proven track record in increasing both the share of the workforce that participates in voluntary pension systems and how much workers save once they are enrolled,

26. For an in-depth discussion of how financial inclusion initiatives, national IDs, and digital technology can be harnessed to expand pension coverage in the informal sector, as well as a review of recent developments in emerging markets worldwide, see Parul Seth Khanna, William Price, and Gautam Bhardwaj, eds., *Saving the Next Billion from Old Age Poverty: Global Lessons for Local Action* (Singapore: Pinbox Solutions, 2018).

Although autoenrollment and autoescalation have a proven track record, adequate economic incentives are also critical.

adequate economic incentives are also critical. Almost all governments subsidize voluntary retirement savings in order to persuade workers, who typically prefer current consumption to future consumption, to defer the receipt of at least a portion of their income until later in life. Traditionally, such subsidies have taken the form of preferential tax treatment, and in particular allowing the deduction of contributions from the income tax base.

This is of course the case in India. There is an overall combined tax-deductible limit of Rs. 150,000 per year for contributions to retirement savings schemes. Not all schemes, however, enjoy the same tax treatment. In the NPS, contributions, up to the allowable limit, are made out of pretax income and investment earnings accumulate tax-free, but benefits are taxed in retirement, an arrangement known as EET for "exempt, exempt, taxable." In contrast, the EPF, as well as the PPF and VPF, are entirely tax-free EEE schemes, a more generous treatment that favors them over the NPS.

There is widespread agreement that this bias in the tax code has stunted the growth in NPS enrollment. Correcting it has become one of PFRDA's top priorities, and over the past few years a series of tax changes have made the NPS more attractive. On the contribution end, tax deductibility has become more generous. In the NPS, but not in the EPF, employees can deduct not only their own contributions from their taxable income, but also their employers'. In addition, there is an extra deduction of up to Rs. 50,000 above and beyond the standard Rs. 150,000 limit that is allowed in the NPS, but not in the EPF. Meanwhile, on the withdrawal end, the NPS has begun to move toward an EEE tax regime. Although NPS annuities are taxed as regular income, NPS lump sums are now tax-free to the extent they do not exceed 40 percent of account balances.

It would probably have been better policy to move in the opposite direction and realign tax incentives in the EPF and India's other EEE retirement savings schemes with those in the NPS. EET tax treatment is the gold standard for retirement savings in the developed world, and for good reason. The idea is for government to encourage voluntary retirement savings by deferring taxation until retirement, when beneficiaries are likely to have lower incomes and thus to be in lower income tax brackets, not to forego the collection of all of the lost tax revenue indefinitely. In a budget-constrained country like India, this is an important distinction. But EEE is the prevailing standard in India, and the most important thing is that tax incentives be harmonized. To this end, the government should consider fully exempting both NPS lump sums and annuities from taxation.

Despite their widespread use, there is considerable debate whether tax preferences are the most efficient and equitable way for governments to subsidize retirement savings. Since their value rises along with marginal income tax rates, higher-earning workers in the top marginal tax brackets receive the greatest government subsidies, middle-earning workers in lower tax brackets receive smaller subsidies, and lower-earning workers, who often pay no income taxes, may receive little or no subsidy at all. Although most pension experts agree that tax preferences increase net retirement savings, many also worry that they do little to encourage savings among those workers who need it most.

Several developed countries are combining traditional tax preferences with government flat subsidies and/or matching contributions.

The best approach may be for governments to combine traditional tax preferences with flat subsidies and/or matching contributions, which tilt the other way and disproportionately benefit lower- and middle-earning workers. Several developed countries are doing just this. In Germany, the government supplements the savings of participants in its voluntary Riester Pensions through flat subsidies, while participants in the KiwiSaver Scheme in New Zealand and NEST Pensions in the UK receive government matching contributions. The early experience with government subsidies and matches is encouraging. As we have seen, the share of New Zealand's labor force that participates in an employer pension plan has surged since KiwiSaver was introduced. Although KiwiSaver's autoenrollment provision helped to propel the increase, that provision only applies to newly hired workers. The take-up among current workers, which accounts for nearly two-thirds of the increase in KiwiSaver enrollment, appears to be largely explained by the government matches.[27] Meanwhile, the share of households participating in Germany's Riester Pensions, which have no autoenrollment provision, has risen from zero in 2001, when the scheme was introduced, to nearly 40 percent today. Both countries, moreover, have not only achieved relatively high levels of voluntary pension participation, but also, in contrast to countries that rely exclusively on standard tax preferences, relatively high levels across all income brackets.[28]

The advantages of government matching contributions may be even greater in India where, even more than in most developed countries, the tax deductibility of retirement savings is at most a minor consideration for the great majority of workers. India of course already uses government matches in NPS Lite and APY. It should incorporate them into All Citizen NPS as well.

27. Geoff Rashbrooke, "New Zealand's Experience with the KiwiSaver Scheme," in *Matching Contributions for Pensions: A Review of International Experience*, ed. Richard Hinz et al. (Washington, DC: World Bank, 2013).
28. Axel Börsch-Supan and Christopher Quinn, "Taxing Pensions and Retirement Benefits in Germany," MEA Discussion Papers no. 10-2015 (Munich: Munich Center for the Economics of Aging, November 2015) and Pablo Antolín, Stéphanie Payet, and Juan Yermo, "Coverage of Private Pension Systems: Evidence and Policy Options," OECD Working Papers on Finance, Insurance, and Private Pensions no. 20 (Paris: OECD, 2012).

The advantages of government matching contributions may be even greater in India, where the tax deductibility of retirement savings is at most a minor consideration for the great majority of workers.

To be effective, the matching contributions would have to be substantial—perhaps as much as 50 percent—but the overall cost could be kept manageable either by capping them in rupee terms or by phasing them out above a certain income level. The government should also consider supplementing the savings of workers enrolled in Corporate NPS plans, as New Zealand does with employer-sponsored KiwiSaver plans, as the UK does with NEST Pensions—and indeed, as India does with the EPS. Although all of this will be expensive, in the long run the cost of more generous subsidies for voluntary retirement savings will be far less than the cost of social pensions for workers who arrive in old age destitute.

Preserving Retirement Savings

Increasing participation is only the first challenge that India faces in building a more inclusive and adequate retirement system. Once workers are enrolled in a pension scheme and saving for retirement, it is also essential to have policies in place which, to the extent possible, ensure that their savings is preserved for retirement.

The place to start is to restrict preretirement withdrawals. In an ideal world, they would of course be completely prohibited. But since most workers are liquidity constrained, such a prohibition might drastically undercut participation in voluntary pension systems. This is especially true for lower-income workers in the informal sector, who are not only liquidity constrained, but typically have little or no precautionary savings to meet emergencies. The necessary compromise is to allow preretirement withdrawals, but to limit, penalize, or otherwise discourage them. The NPS, with its 25 percent limit, seems to have struck a reasonable balance. The EPF, on the other hand, is much too lax. The EPF rules should be aligned with the NPS rules. Alternatively, the government might consider substituting preretirement loans for preretirement advances in both the NPS and the EPF.

The necessary compromise is to allow preretirement withdrawals, but to limit, penalize, or otherwise discourage them.

There also need to be provisions which ensure that account balances are fully portable when workers change jobs. Portability has never been an issue within the NPS, whose PRAN number and CRA make rollovers simple. Until recently, portability within the EPF and between the EPF and NPS was more problematic. The EPFO, however, recently introduced a Universal Account Number (UAN), similar to the PRAN number, that greatly facilitates rollovers within the EPF. While cashing out account balances upon changing jobs was once routine, the EPFO is now trying to enforce a rollover requirement. Although this is an important step, it does not go far enough. Workers are still allowed to cash out their EPF account balances if they are unemployed for as little as two months, which effectively short-circuits the new rollover requirement. This practice should be ended. If EPF participants leave EPF-covered employment, moreover, they should be required to roll over their account balances to the NPS. Although such rollovers have been possible since 2017, they remain purely optional.

Improving Investment Performance

Any funded pension system necessarily involves plan administration, recordkeeping, and investment management functions, any or all of which could in principle be performed by government agencies or by private firms. While the relative advantages of public and private responsibility for plan administration and recordkeeping are at least debatable, there is no real question about investment management. When it comes to generating the highest rate of return on worker contributions, there is ample evidence that systems in which assets are privately managed almost always generate higher long-term returns than ones in which they are publicly managed. Most experts agree that the lower rate of return in publicly managed systems is mainly due to the large share of assets that is channeled into government debt and "social overhead" projects.[29]

The success of any funded pension system requires a liberal investment regime.

The success of any funded pension system also requires a liberal investment regime that allows fund managers to earn the global rate of return to capital. During the startup phase of a funded pension system, it may make sense for regulators to establish broad guidelines for allowable investments, with minima and maxima for different asset classes. This is especially true in an emerging market like India whose capital markets are not yet fully developed. Over time, however, regulators should relax these restrictions and move toward a "prudent man" investment regime that allows contributions to flow to the investments with the most attractive returns.

Limits on foreign investment can be particularly damaging. While it is understandable that governments would prefer retirement savings to be invested at home in creating jobs, building housing, or improving public infrastructure, strict limits on foreign investment, like requirements

29. See, among others, Robert Holzmann, Ian W. MacArthur, and Yvonne Sin, "Pension Systems in East Asia and the Pacific: Challenges and Opportunities," Social Protection Discussion Paper no. 0014 (Washington, DC: World Bank, 2000); World Bank, "Public Management, Part 1: How Well Do Governments Invest Pension Reserves?" in *World Bank Pension Reform Primer* (Washington, DC: World Bank, 2005); and Dimitri Vittas, Gregorio Impavido, and Ronan O'Connor, "Upgrading the Investment Policy Framework of Public Pension Funds," Policy Research Working Paper no. 4499 (Washington, DC: World Bank, January 2008).

to load portfolios with government debt, ultimately undermine the primary purpose of any funded pension system, which is to earn the highest risk-adjusted return for participants. Global diversification of pension portfolios, moreover, becomes all the more important as societies age, economic growth slows, and domestic returns to capital decline. Without it, countries with funded pension systems may find themselves no better off economically than countries with pay-as-you-go ones.

As a whole, India's retirement system is far from meeting global best practice standards for pension fund investment.

As a whole, India's retirement system is far from meeting global best practice standards for pension fund investment. Neither the EPF nor the NPS is permitted to invest abroad. The EPF is a centrally managed provident fund, and though the EPFO outsources asset management, its investment guidelines ensure that its holdings are heavily tilted toward government debt. In the NPS, the rules vary dramatically from scheme to scheme. Assets in All Citizen NPS and Corporate NPS are privately managed by competing pension funds. PFRDA, moreover, is beginning to move the two schemes toward a prudent man investment regime by relaxing portfolio restrictions, and especially the limit on equity investment, which was recently raised from 50 to 75 percent. Assets in the central and state government NPS schemes, however, are divvied up according to a predetermined formula among three public-sector financial entities, which are allowed to invest no more than 15 percent of their portfolios in equities, the same limit that the EPFO currently imposes.

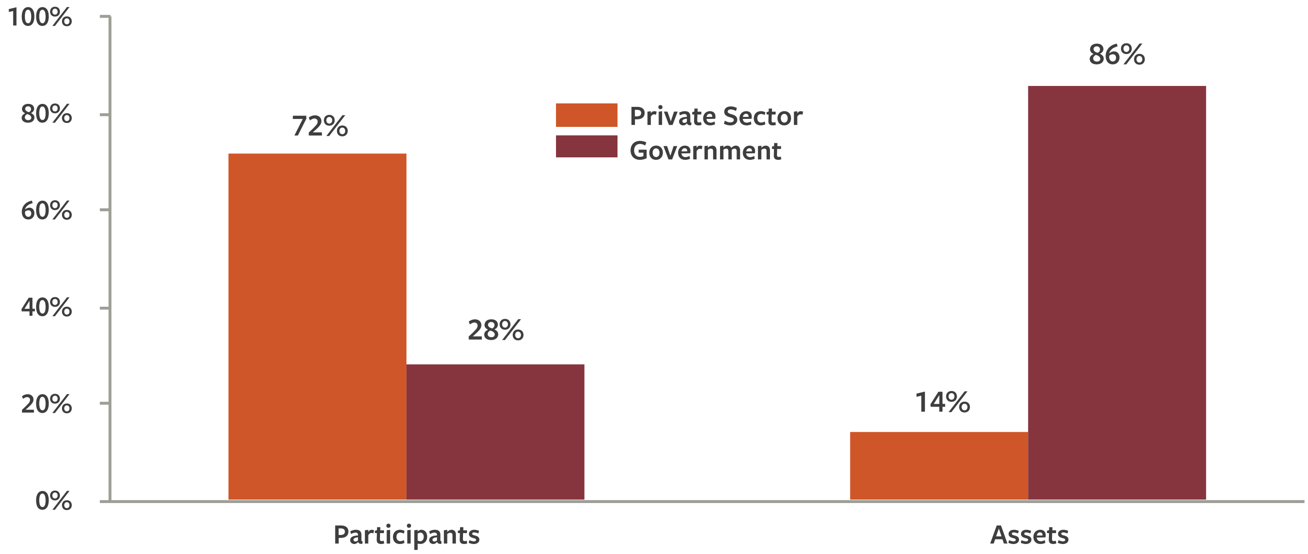
The government should consider three simple but bold reforms which would greatly improve the long-term investment performance of India's retirement system.

The government should consider three simple but bold reforms which, taken together, would greatly improve the long-term investment performance of India's retirement system. First, the prohibition on foreign investment should be lifted. An initial cap of perhaps 10 percent of assets under management could be set that would then be gradually raised over time.

Second, the investment regime of the central and state government NPS schemes should be thoroughly overhauled. Asset management should be opened up to all PFRDA-certified pension fund managers; government employees should be given the same freedom to choose their fund managers and allocate their portfolios as participants in All Citizen NPS and Corporate NPS have; and the limit on equity investment should be raised to match the limit in All Citizen NPS and Corporate NPS. These changes should attract new players to the NPS pension fund market, promote competition, and lead to better investment per-

FIGURE 6

NPS and APY Participants and Assets by Sector, as a Percent of Total Participants and Assets in February 2018



Source: PFRDA, *Pension Bulletin* 7, no. 2

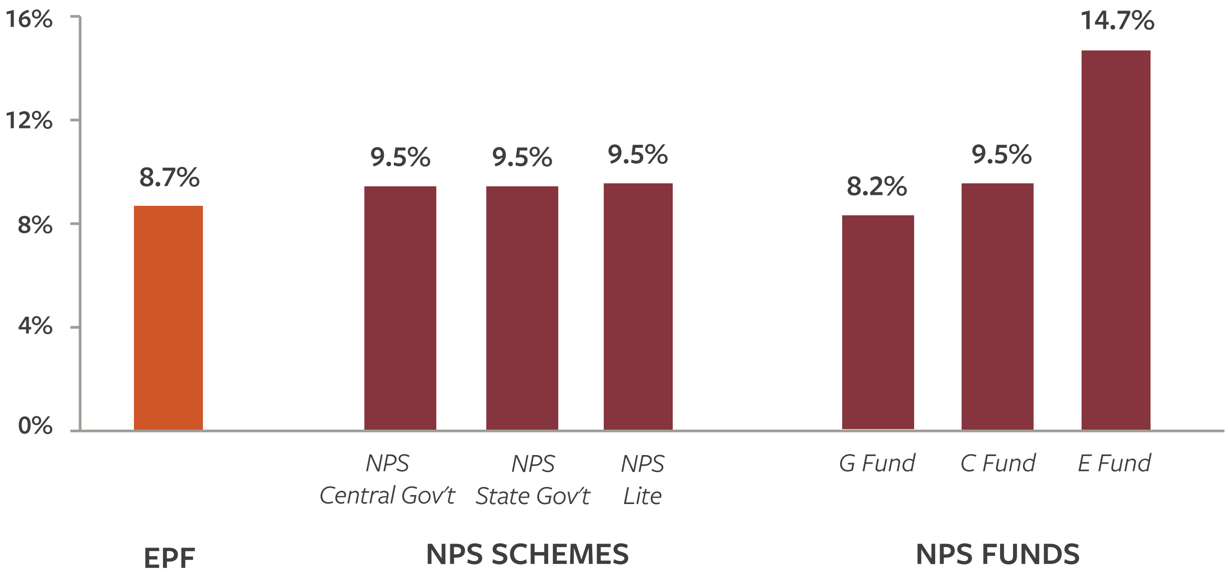
formance. Indeed, given the large relative size of the central and state government schemes, the changes have the potential to be transformative. While the private-sector NPS schemes, together with APY, account for 72 percent of NPS participants, the government schemes account for 86 percent of the assets. (See figure 6.)

Attracting new players may also require raising allowable NPS asset management fees. While it is important for regulators to limit fees in order to prevent them from eroding account balances, it is also possible for fees to be too low. The current NPS fee is just 0.01 percent of assets under management, or one basis point, which is one-tenth to one-twentieth of what the least expensive passively managed U.S. index funds charge and between one-hundredth and two-hundredths of what Indian insurance companies and mutual funds typically charge for pension products. As PFRDA itself acknowledges, the annual bidding process that is now used to set NPS fees has encouraged an unsustainable "race to the bottom, leading to uneconomical bids being forced on all the pension funds."[30] It suggests that, along with a fixed fee which would continue to be determined by the lowest bid, pension funds be allowed to charge additional variable fees based on performance.

30. PFRDA, *Report of the Committee to Review Investment Guidelines for National Pension System (NPS) Schemes in Private Sector* (New Delhi: PFRDA, 2015).

FIGURE 7

Five-Year Average Annual Returns, by Pension Scheme or Investment Fund, 2012 to 2017



Note: The EPF figure refers to the administratively determined rate of return credited to participant accounts; the NPS figures refer to market returns. NPS figures are simple averages for all pension fund managers. NPS G Fund = government securities; NPS C Fund = corporate securities; NPS E Fund = equities.

Source: For the EPF, EPFO, "Interest Rate Declared on Provident Fund Accumulations since 1952," available at https://epfindia.gov.in/site_en/index.php, and "EPFO Cuts Interest Rate to 8.55% for 2017-18 from 8.65% for 2016-17," *The Economic Times*, February 22, 2018; for the NPS, PFRDA, Pension Bulletin 7, no. 2

Finally, EPF asset management should be transferred to the NPS.[31] EPF investment policies are set by the EPFO's Central Board of Trustees, which consists entirely of government, business, and labor representatives, through a process that lacks transparency and accountability. The NPS, on the other hand, is constituted as an independent trust, prudentially charged with acting in the best interest of participants, and is overseen by an independent and highly professional regulator. To facilitate this reform, EPF recordkeeping functions might also need to be transferred to the NPS. The EPFO, however, would continue to collect contributions and disburse benefits.[32] Since current EPF assets dwarf current NPS assets by roughly four to one, this reform would vastly increase the size of India's competitively managed pensions market. In the long run, it would also result in higher benefits for EPF participants. To date, all of the NPS schemes, even the debt-laden central and state government ones, have consistently delivered higher returns than the EPF does. (See figure 7.)

31. In 2017, the government took an important first step in this direction by giving individual EPF participants the option of transferring their account balances to the NPS.

32. For a similar proposal, see Dhirendra Swarup, "India's Pension Reform Initiative," in *Equitable and Sustainable Pensions: Challenges and Experience*, eds. Benedict Clements, Frank Eich, and Sanjeev Gupta (Washington, DC: IMF, 2014).

Naturally, this reform would entail eliminating the EPF's rate of return guarantee. While this may meet with resistance from participants, experts agree that such guarantees are costly and counterproductive.[33] Since pension fund managers cannot promise participants returns that are higher than the long-term rate of return to capital, rate of return guarantees compel them to shift portfolios toward lower-risk and lower-return assets. Workers in turn bear the cost in the form of lower benefits.[34] If some sort of guarantee is deemed to be politically essential, the least expensive and least harmful option is to offer a nominal capital guarantee. Rate of return guarantees of course do have a legitimate financial function, and there are many savings products in India that offer them, including the PPF. However, they undermine the long-term performance of funded pension systems, which should always be designed to maximize risk-adjusted returns.

Rethinking the Payout Phase

In rapidly developing economies, it may make sense to compel older workers to retire early in order to make room for younger ones. After all, with educational attainment rising rapidly cohort over cohort, the young have the skills to fill the high value-added jobs being created in the growth sectors of the economy, while the old do not. By and large, this is still the case in India, where only 8 percent of the elderly have completed high school and 56 percent of them are illiterate.[35] To be sure, many of the elderly continue to work, but rarely in the formal sector. While in the United States and other developed countries elderly labor-force participation is generally higher among the better educated and more affluent, in India just the opposite is true.

All of this, however, is about to change. As today's young and midlife adults climb the age ladder, later retirement ages will not only become feasible but necessary. They will become feasible because the current skills gap between young and old will gradually close, and they will become necessary because India is aging. As life expectancy rises, early retirement will be increasingly expensive to finance, whether on a pay-as-you-go or a funded basis. It will also leave retirees at a growing risk of outliving their savings. As fertility declines and the workforce grows more slowly, the economy may also face growing labor shortages that longer work lives could alleviate. Although such an eventuality still lies well over the horizon, this too looms in India's future.

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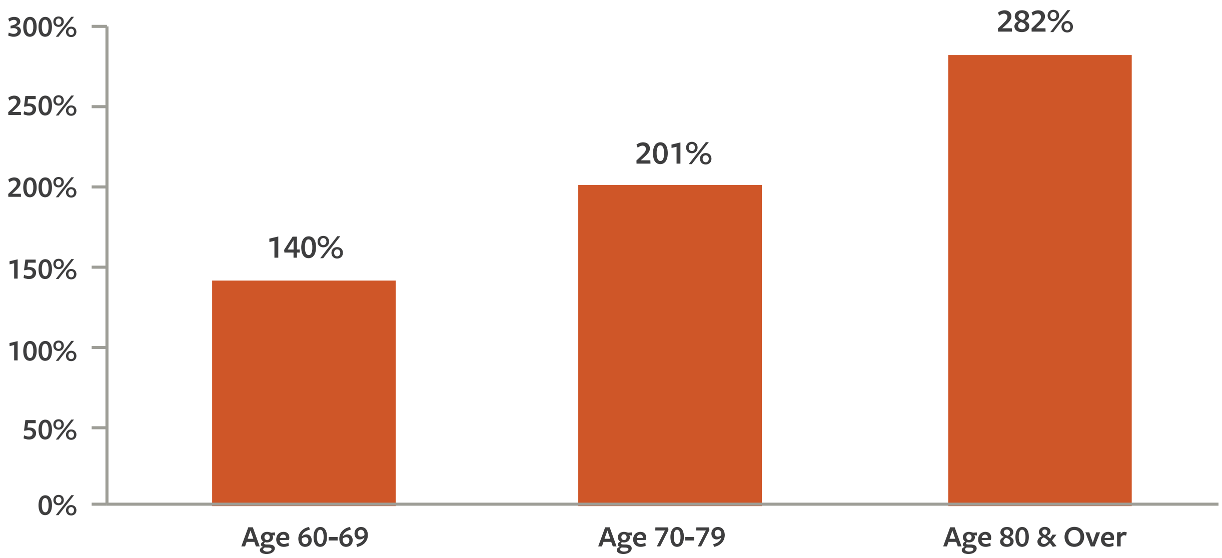
33. See OECD, "Design and Delivery of Defined Contribution (DC) Pension Schemes: Policy Challenges and Recommendations," report presented at the Cass Business School Conference on Defined Contribution Pensions: Guarantees and Risk Sharing, London, March 5, 2013.

34. While this is always true of privately managed pension systems, centrally managed provident funds, to the extent that they are subsidized by general government budgets, may be able to offer workers higher benefits than the earnings on their investments would otherwise allow. According to some experts, this historically has been the case with the EPF. See Mukel Asher, "Pension Reform in India," in *The Indian Economy Sixty Years after Independence*, ed. Raghbendra Jha (New York: Palgrave MacMillan, 2008). Even in centrally managed provident funds, however, the cost of rate of return guarantees is ultimately borne by workers, although it may be imposed in the form of higher taxes rather than lower benefits.

35. MOSPI, *Elderly in India, 2016* (New Delhi: MOSPI, February 2016).

FIGURE 8

Percentage Growth in India's Elderly Population, by Elderly Age Group, from 2015 to 2050



Source: *World Population Prospects: The 2017 Revision*

India's current early retirement ages are clearly inconsistent with its future needs.

India's current early retirement ages are clearly inconsistent with its future needs. The EPF retirement age is 55, ten years younger than the typical age in developed countries. At 58, the EPS full-benefit retirement age is slightly higher, but early retirement is allowed starting at age 50. Even the NPS, which in many respects is more closely aligned with global best practice, has a retirement age of just 60. In 2017, the NPS took a step in the right direction by changing its eligibility rules to allow workers aged 60 and over to join and contribute to the scheme. While this is a positive development, much more needs to be done. At a minimum, retirement ages under the EPF and EPS should be gradually raised to match the current NPS retirement age, perhaps over a period of ten years. More ambitiously, the new harmonized retirement age would then be further raised to 65 by 2050 and thereafter indexed to life expectancy.

At the same time, India will need to rethink whether lump-sum payouts make sense in a society where people keep living longer and longer. Life expectancy at age 60 is already 18 years in India, up from just 12 years in the early 1950s, when the EPF was set up. By 2050, the UN projects that it will reach 20 years. Over the next few decades, the fastest growing age group in India will be persons aged 80 and over. (See figure 8.) Yet the EPF, with its 100 percent lump-sum

India will need to rethink whether lump-sum payouts make sense in a society where people keep living longer and longer.

payouts, offers no protection against longevity risk. And although the NPS requires partial annuitization, the minimum is just 40 percent.

Global best practice does not necessarily recommend 100 percent annuitization of retirement savings. Protecting retirees against longevity risk must be balanced against their need to have funds on hand to meet financial emergencies, such as a health crisis, or their desire to leave a bequest. Annuities, moreover, are not only illiquid, but in an era of low interest rates may lock in low benefit levels. They may also subsidize the rich at the expense of the poor, who have lower life expectancies. Yet India's retirement system clearly offers too little protection against longevity risk. At a minimum, the EPF should require 40 percent annuitization, just as the NPS does. More ambitiously, the annuitization requirement in both systems could be raised to 60 percent. Alternatively, both systems might adopt what the OECD considers the optimal solution: combining phased withdrawals with a deferred lifetime annuity starting at (say) age 75.[36]

Lump-sum payouts are deeply engrained in Indian culture, and attempts to curtail them will doubtless meet with considerable resistance from the public. Government, however, has a legitimate paternalistic interest in ensuring that people have adequate retirement incomes and do not become free riders on the social safety net.

Building a More Robust Old-Age Poverty Floor

Throughout the emerging world, noncontributory social pensions have become the standard way to provide a backstop against destitution in old age for those workers who fail to participate in a country's contributory retirement system or who only participate intermittently. Yet over the past few years, a growing number of experts have concluded that voluntary pensions are a much better response to the problem of old-age insecurity in the informal sector than social pensions.[37] And a growing number of countries, especially in Asia, are actually designing and implementing special voluntary pension systems for informal-sector workers. India, of course, is among them.

The reasons for the shift in thinking are compelling. Social pensions leave a large share of the elderly dependent on government assistance and vulnerable to benefit cuts as societies age and fiscal pressures grow. They also encourage labor-market informality, the very condition that makes

36. OECD, "Design and Delivery of Defined Contribution (DC) Pension Schemes."

37. See, among others, Yu-Wei Hu and Fiona Stewart, "Pension Coverage and Informal Sector Workers: International Experiences," OECD Working Papers on Insurance and Private Pensions no. 31 (Paris: OECD, 2009); *Matching Contributions for Pensions*, ed. Richard Hinz et al.; and World Bank, *Live Long and Prosper: Aging in East Asia and Pacific* (Washington, DC: World Bank, 2016).

them necessary, thereby ensuring that a high level of elderly dependence on government assistance will continue indefinitely. Voluntary pensions do not have these drawbacks. Moreover, they can offer the same or greater retirement security at a much lower fiscal cost, even after government subsidies, than social pensions will ultimately impose on government budgets. Quite simply, it is more economically efficient and socially progressive to subsidize retirement on the front end by helping workers to accumulate savings that will allow them to support themselves than it is to subsidize retirement on the back end when workers arrive in old age destitute.

In the near term, a robust social pension system is a social necessity.

Yet if in the long term voluntary pensions are the most promising solution to retirement insecurity in the informal sector, in the near term a robust social pension system is nonetheless a social necessity. For today's elderly, it is obviously already too late to accumulate significant retirement savings. The same may also be true for many workers in their forties and fifties, which is why the APY, in which workers must save enough to cover the cost of a guaranteed monthly benefit, limits eligibility to those aged 18 to 40. Even among younger workers, moreover, the incomes of some significant share are simply too low and/or too irregular to contribute to a pension plan.

As we have seen, India's social pension system is anything but robust. As things stand, some of the elderly who might otherwise be eligible for IGNOAPS do not have a Below Poverty Line Card, better known as a BPL Card, which is a prerequisite for enrollment, while some of those who do have a card are unaware of the program. At a minimum, a concerted outreach campaign aimed at enrolling all of the currently eligible elderly is required.[38] Given the high level of dependence and vulnerability among today's elderly, even those who are not officially poor, the government should also consider increasing the income eligibility threshold for IGNOAPS to 150 percent of the poverty line. Along with boosting participation, the guaranteed IGNOAPS benefit level needs to be raised, perhaps all the way to Rs. 1,000, through some combination of central and state government payments. While one can debate the appropriate parameters of the reform, one way or another India needs to strengthen its floor of old-age poverty protection.

Some Broader Challenges

Designing a comprehensive reform agenda that addresses the shortcomings of India's retirement system is only the first step in

38. CRISIL Research suggests that enrollment could be facilitated by utilizing the so-called JAM Trinity, where the "J" stands for Pradhan Mantri Jan-Dhan Yojana (PMJDY), a financial inclusion program under which people can open zero-balance bank accounts; the "A" stands for Aadhaar, India's biometric national ID; and the "M" stands for mobile telecommunications. See CRISIL Research, *Financial Security for India's Elderly*.

improving retirement security. If the agenda is to be successful, there are also broader challenges that must be met.

Just 13 percent of all Indian households are actively saving for retirement in any way at all.

To begin with, success will require a concerted public education campaign. One goal clearly needs to be raising awareness about particular retirement programs and products. A 2006 survey of informal-sector workers in India conducted by the Asian Development Bank found that four out of five did not even know what a pension is.[39] To the government's credit, its efforts to extend the reach of India's formal retirement system, and especially its promotion of APY, are rapidly changing that. Yet there remains a more fundamental problem—namely, that even among better educated Indians a large share are simply not convinced that saving for retirement is necessary. In a 2015 SEBI survey, retirement ranked seventh in the list of reasons that people gave for investing. Just 8 percent of urban respondents, moreover, reported contributing to any type of voluntary pension plan.[40] According to the Reserve Bank of India, just 13 percent of all Indian households are actively saving for retirement in any way at all.[41] At bottom, the lack of any sense of urgency about preparing for retirement reflects the still widespread expectation of family support. Indians need to be persuaded that reliance on the family is a risky proposition in eras of rapid demographic and social and economic change.

Success will require overcoming entrenched interests. Some important reforms will encroach on well-defended institutional turf, as is clearly the case with the proposal to transfer EPF asset management to NPS pension fund managers. The EPFO will undoubtedly feel that it has a stake in preserving the status quo. So too may central and state government officials, since EPF investment in government bonds provides a guaranteed source of deficit-financing. Policymakers need to be reminded that the primary function of any pension system is not to finance government consumption—or even government investment—but to maximize long-term, risk-adjusted returns for participants. Ensuring that EPF participants earn higher returns and receive higher benefits is particularly important, since the scheme's high mandatory contribution rate effectively precludes most participants from undertaking additional voluntary retirement savings.

Success will require new fiscal resources. Some important reforms, and especially the proposals for government matching contributions and enhanced social pensions, will entail significant costs. One obvious, though

39. See Hu and Stewart, "Pension Coverage and Informal Sector Workers: International Experiences."
40. *SEBI Investor Survey 2015* (Mumbai: SEBI, October 2016).
41. RBI, *Report of the Household Finance Committee* (Mumbai: RBI, August 2017).

India's civil service pensions are 100 times more generous than its social pensions.

politically challenging, place to look for the money is in India's old civil service pension system. Because the NPS reform only applied to newly hired workers, the cost of the system will only decline after a long lag. India spends 2.2 percent of GDP on civil service pensions today, as much as it ever did, and is projected to still be spending 2.2 percent of GDP in 2030. Only after that will spending begin to taper off.[42] Rather than grandfather existing participants back in 2004, it would have been better to shift them to the NPS and convert their accrued benefit claims to recognition bonds, as Chile did when it launched its personal accounts system. But even now, it would be possible to achieve significant fiscal savings through parametric reforms that trim benefit formulas and raise retirement ages. Nor is doing so merely a fiscal expedient. It is also a question of equity. What India now spends on civil service pensions for 2.3 million government retirees is ten times more than it spends on social pensions for 23 million destitute elders. Put another way, India's civil service pensions are 100 times more generous than its social pensions. Some of this money could surely be better spent on broadening and deepening the country's retirement system.

Finally, success will require completing India's development agenda. Encouraging informal-sector workers to save for retirement and enhancing social pensions are both critical policy imperatives. Yet so long as informality and the inequality that it breeds remain so high in India, anything approaching universal retirement security may prove elusive. Lasting success will require not just extending the reach of the formal retirement system, but also extending the reach of the formal sector itself. This in turn will require new large-scale investments in infrastructure and human capital. It may also require rethinking India's "leapfrog development strategy," which has aimed to bypass basic manufacturing in favor of high-tech industry and high-tech services. The problem is that the strategy provides no clear path along which India's masses of unskilled rural labor can move into the growth sectors of the economy. In effect, it has locked half of India's population out of India's economic success story.

Funded pension systems can play a critical role in broadening and deepening capital markets.

Fortunately, there exist important synergies between India's development and retirement security agendas. It is well established that well-functioning capital markets are a prerequisite for successful development. It is also well established that funded pension systems, like India's NPS, can play a critical role in broadening and deepening

42. CRISIL Research, *Financial Security for India's Elderly*.

capital markets.[43] As a country's pension funds grow, so do the size and liquidity of its capital markets. Along with professional investment management come greater accountability, transparency, and long-term returns. Broader and deeper capital markets in turn increase the availability of long-term investment funds, and thus serve as a multiplier on economic growth. Meanwhile, the demand for new financial instruments, from mortgage-backed securities and foreign exchange and interest rate derivatives to inflation-indexed bonds, can reduce volatility and promote stability.

As countries continue to develop and age, there are other potential benefits as well. In the longer term, funded pension systems can take pressure off government budgets, which would otherwise be under growing stress from the rising cost of retirement benefits. They can also help to maintain adequate rates of savings and investment, another critical challenge for aging societies.

In short, the basic model that India has chosen to rely on in meeting its retirement challenge is the correct one. The country is on the right path. What remains is to take the next logical steps and build on the foundations that have already been laid. ■

43. See, among others, Juan Yermo, "Pension Reform and Capital Market Development," Background Paper for Regional Study on Social Security Reform no. 30486 (Washington, DC: World Bank, 2004); Channarith Meng and Wade Donald Pfau, "The Role of Pension Funds in Capital Market Development," GRIPS Discussion Paper no. 10-17 (Tokyo: National Graduate Institute for Policy Studies, October 2010); and Ratna Sahay et al., "Rethinking Financial Deepening: Stability and Growth in Emerging Markets," IMF Staff Discussion Notes no. 15/8 (Washington, DC: IMF, May 2015).

Conclusion

A RETIREMENT CRISIS OF POTENTIALLY IMMENSE PROPORTIONS LOOMS in India's future. Just one in eight workers is now earning a contributory pension benefit of any kind. Most Indians still rely heavily on the extended family for support in old age. But traditional family support networks are already under stress from the forces of modernization, and will soon come under intense new demographic pressure from declining family size as India ages. If nothing is done, tens of millions of Indians will reach old age over the next few decades without pensions, personal savings, or children to support them.

The good news is that the government has made it clear that it is committed to engaging the retirement security challenge. Nor, as is too often the case with daunting policy challenges, is the commitment merely rhetorical. Since first launching the NPS in 2004 and opening it up to the private sector in 2009, the government has worked tirelessly to build a more inclusive and adequate retirement system.

The basic pension model that the government has chosen to extend the reach of India's retirement system—contributory, voluntary, and funded—is the right one. Relying primarily on noncontributory social pensions to expand coverage would leave

Summary of GAI Recommendations

Expanding Pension Coverage	■ Require small formal-sector firms not covered by the EPF to autoenroll employees in Corporate NPS ■ Set the initial contribution rate low (3 to 5 percent), but use an autoescalation formula to raise it over time ■ Autoenroll informal workers employed by formal-sector entities in APY ■ Autoenroll independent professionals in All Citizen NPS via the government's existing tax-filing infrastructure ■ Explore innovative ways to autoenroll other informal workers in APY
Strengthening Economic Incentives	■ Harmonize NPS and EPF tax treatment by making both NPS annuities and lump sums fully tax-exempt ■ Introduce substantial government matches (as much as 50 percent) into All Citizen NPS ■ Introduce a government subsidy into Corporate NPS similar to the existing government subsidy for EPS enrollees
Preserving Retirement Savings	■ Align EPF preretirement withdrawal rules with NPS rules ■ Consider substituting preretirement loans for preretirement advances in both the NPS and EPF ■ Eliminate EPF cash outs for unemployed workers ■ Require rollovers from the EPF to the NPS when workers leave EPF-covered employment
Improving Investment Performance	■ Eliminate the EPF and NPS prohibition on foreign investment ■ Open up asset management in the NPS government schemes to all PFRDA-certified pension fund managers ■ Allow government employees the same freedom to choose their pension fund managers and allocate their portfolios as participants in All Citizen NPS and Corporate NPS have ■ Raise the limit on equity investment in the NPS government schemes to match the limit in All Citizen NPS and Corporate NPS ■ Allow higher (perhaps performance-based) NPS asset management fees ■ Shift EPF asset management to PFRDA-certified pension fund managers
Rethinking the Payout Phase	■ Raise the EPF and EPS retirement age to 60 over ten years ■ Further raise the new harmonized NPS-EPF retirement age to 65 by 2050 and thereafter index it to life expectancy ■ Align EPF payout rules with NPS rules by requiring 40 percent annuitization of EPF account balances ■ More ambitiously, require 60 percent annuitization of both EPF and NPS account balances ■ Alternatively, require combining phased withdrawals with a deferred annuity (perhaps starting at age 75)
Building a More Robust Old-Age Poverty Floor	■ Leverage the JAM Trinity to enroll all of the currently eligible elderly in IGNOAPS ■ Increase the IGNOAPS eligibility threshold to 150 percent of the poverty line ■ Increase guaranteed IGNOAPS benefits to Rs. 1,000 per month

The basic pension model that the government has chosen to extend the reach of India's retirement system—contributory, voluntary, and funded—is the right one.

the elderly dependent and vulnerable. In the long run, only widespread participation in contributory retirement schemes can ensure widespread retirement security. Given the high level of informality in India's labor market, increasing that participation on a voluntary basis is the only practical option. There is simply no way to enforce a mandate. As for funding, it has important advantages over pay-as-you-go financing in aging societies. At the micro level, funded pension systems can generate higher returns, and hence higher replacement rates, than pay-as-you-go systems can. At the macro level, they can help to take pressure off government budgets, maintain adequate rates of savings and investment, and speed the development of capital markets.

Yet despite the government's efforts, India's retirement system is failing today's retirees and, without further reform, will fall short for tomorrow's as well. Although pension coverage is beginning to grow, led by the expansion of the NPS and APY, the overwhelming majority of workers still have nothing to fall back on in old age except the extended family. Even for those lucky enough to be earning a pension, benefits are often inadequate. Savings hemorrhages from the retirement system due to early withdrawals and cash outs. Investment performance is impaired by overly restrictive regulations and, in some segments of the pensions market, lack of transparency and accountability. Meanwhile, early retirement ages and lump-sum payouts leave a growing number of Indians at risk of outliving what retirement savings they do have.

Broad-based retirement security can only be achieved through comprehensive reform that proceeds on many fronts at once. It will require new strategies to expand coverage, such as autoenrollment and autoescalation, that leverage the lessons of behavioral economics. It will require new economic incentives, such as government matching contributions, that are better targeted at lower- and middle-income workers than traditional tax preferences are. It will require preserving savings for retirement by restricting preretirement withdrawals and mandating rollovers. It will require relaxing investment restrictions and promoting professional fund management so that workers can earn the highest risk-adjusted return on their contributions. It will require gradually raising retirement ages and drastically limiting lump-sum payouts to protect against longevity risk. Finally, while India's more inclusive and more adequate retirement system is developing and maturing, it will require putting in place a more robust social pension system for those who are already too old to benefit from the reforms.

Although the elements of a successful reform agenda are clear, carrying it through to completion will not be easy. Finding the fiscal resources will be challenging. There is likely to be push back from powerful institutional interests with a stake in the status quo. Perhaps most problematically, the public itself may resist reform. Indians are used to treating retirement programs as all-purpose savings vehicles, which is why early withdrawals and lump-sum payouts are so common. To the extent that they think about retirement at all, many if not most Indians still bank heavily on the extended family in their planning. Although doubts about the soundness of this strategy are beginning to grow, they have yet to catalyze a widespread shift in behavior.

There is also another obstacle—namely, the uneven extent and pace of India's development. So long as informality and inequality remain so high, anything approaching universal retirement security may prove elusive. In the end, a more inclusive retirement system will also require a more inclusive development agenda.

As daunting as the obstacles are, there is ample reason for hope that the outcome will be a happy one.

As daunting as these obstacles are, they can and must be surmounted. The time to do so is now, while India is still demographically young and economically growing. If India succeeds before the window of opportunity closes, it will not only avert a retirement crisis, but will also ensure that the nation as a whole prospers as it ages. If it fails, the economic and social costs will be staggering. The government seems to understand this, which gives ample reason for hope that the outcome will be a happy one. ■

Technical Note on Data and Sources

All national level population data cited in this report, as well as all population projections, come from the UN Population Division and are published in *World Population Prospects: The 2017 Revision* (New York: UN Population Division, 2017). State level population data come from India's 2011 Census (available at http://censusindia.gov.in/2011-Common/CensusData2011.html) and various Sample Registration System (SRS) Statistical Reports (available at http://www.censusindia.gov.in/vital_statistics/SRS_Statistical_Report.html). Data on educational attainment also come from India's 2011 Census, while data on labor-force participation come from Sample Survey Organization (NSSO) Reports (available at http://www.mospi.gov.in/national-sample-survey-office-nsso).

Most data on the socioeconomic status of the elderly cited in the report come from UNFPA, *Report on the Status of Elderly in Select States of India, 2011* (New Delhi: UNFPA, November 2012). Other useful sources include P. Arokiasamy et al., "Longitudinal Aging Study in India: Vision, Design, Implementation, and Preliminary Findings," in *Aging in Asia: Findings from New and Emerging Data Initiatives*, eds. James P. Smith and Malay Majmundar (Washington, DC: National Academies Press, 2012); HelpAge India, *State of Elderly in India, 2014* (New Delhi: HelpAge India, 2015); MOSPI, Elderly in India, 2016 (New Delhi: MOSPI, February 2016); and UNFPA, *India Ageing Report, 2017. Caring for Our Elders: Early Responses* (New Delhi: UNFPA, 2017).

Data on and information about India's retirement system come from a variety of sources. For the NPS, GAI relied mainly on PFRDA publications, including its annual reports, circulars, public notices, and monthly *Pension Bulletin*, all of which are available at http://www.pfrda.org.in/. For the EPF and India's other retirement programs, where the official websites are not nearly as helpful, GAI relied on several authoritative overview studies, the most important being CRISIL Research, *Financial Security for India's Elderly: The Imperatives* (Mumbai: CRISIL Research, April 2017); CRISIL Research, *Security for Seniors: Opportunities and Challenges in Creating an Inclusive and Sustainable Pension System in India* (Mumbai: CRISIL Research, February 2018); Ernst & Young, *Pensions Business in India* (Gurgaon, India: Ernst & Young, November 2013); and KPMG, *Employee Pensions in India: Current Practices, Challenges, and Prospects* (Gurgaon, India: KPMG, December 2015).

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Abbreviations

APY	Atal Pension Yojana
BPL Card	Below Poverty Line Card
CRA	Central Recordkeeping Agency
CSIS	Center for Strategic and International Studies
EEE	Exempt, Exempt, Exempt
EET	Exempt, Exempt, Taxable
EPF	Employees' Provident Fund
EPFO	Employees' Provident Fund Organization
EPS	Employees' Pension Scheme
GAI	Global Aging Institute
IGNOAPS	Indira Gandhi National Old Age Pension Scheme
IMF	International Monetary Fund
IRDA	Insurance Regulatory and Development Authority
JAM Trinity	Jan-Dhan + Aadhaar + mobile telecommunications
MOSPI	Ministry of Statistics and Programme Implementation
NEST	National Employment Savings Trust
NPS	National Pension System
OASIS Commission	Old Age Social and Income Security Commission
OECD	Organization for Economic Cooperation and Development
PFRDA	Pension Fund Regulatory and Development Authority
PMSBY	Pradhan Mantri Suraksha Bima Yojana
PoPs	Points of Presence
PPF	Public Provident Fund
PRAN	Permanent Retirement Account Number
RBI	Reserve Bank of India
RSBY	Rashtriya Swasthya Bima Yojana
SEBI	Securities and Exchange Board of India
UAN	Universal Account Number
UN	United Nations
UNFPA	United Nations Population Fund
VPF	Voluntary Provident Fund

About the Author

Richard Jackson is the founder and president of the Global Aging Institute (GAI), a non-profit research and educational organization dedicated to improving understanding of the economic, social, and geopolitical challenges created by demographic change, and especially population aging, in the United States and around the world. Richard is the author or co-author of numerous policy studies, including *Voluntary Pensions in Emerging Markets: New Strategies for Meeting the Retirement Security Challenge* (2017); *From Challenge to Opportunity: Wave 2 of the East Asia Retirement Survey* (2015); *The Global Aging Preparedness Index, Second Edition* (2013); and *The Graying of the Great Powers: Demography and Geopolitics in the 21st Century* (2008). Richard regularly speaks on demographic issues and is widely quoted in the media. He holds a Ph.D. in history from Yale University and lives in Alexandria, Virginia, with his wife Perrine and their three children, Benjamin, Brian, and Penelope.

About the Global Aging Institute

The Global Aging Institute (GAI) is a nonprofit research and educational organization dedicated to improving our understanding of global aging, to informing policymakers and the public about the challenges it poses, and to encouraging timely and constructive policy responses. GAI's agenda is broad, encompassing everything from retirement security to national security, and its horizons are global, extending to aging societies worldwide.

GAI was founded in 2014 and is headquartered in Alexandria, Virginia. Although GAI is relatively new, its mission is not. Before launching the institute, Richard Jackson, GAI's president, directed a research program on global aging at the Center for Strategic and International Studies (CSIS) which, over a span of nearly fifteen years, played a leading role in shaping the debate over what promises to be one of the defining challenges of the twenty-first century. GAI's Board of Directors is chaired by Thomas S. Terry, who is CEO of the Terry Group, past president of the International Actuarial Association, and past president of the American Academy of Actuaries. To learn more about the Global Aging Institute, please visit us at *www.GlobalAgingInstitute.org.*

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