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Civil service pension reform in developing countries: Experiences and lessons

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This document was authorised for publication by Mario Pezzini, Director of the Development Centre and Special Advisor to the OECD Secretary-General on Development.

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Abstract

This study examines reforms to civil service pension arrangements in a number of developing countries across Africa, Asia and Latin America. These arrangements are a significant component of public-sector remuneration in many developing countries and they can carry substantial risks, not only financial but also political and social. This study takes a long-term and systemic approach to civil service pensions, charting their evolution as part of a country's social protection provision and with reference to public-sector remuneration as well as broader institutional developments. It demonstrates the short- and long-term costs of these arrangements against spending on other social protection interventions, notably poverty-targeted social assistance. Through a series of case studies, it examines the motivation behind countries' decision to reform their civil service schemes, as well as the challenges they faced when undertaking these reforms and their overall impact. The study is intended to support countries planning to reform their civil service pension schemes by identifying key principles and specific policies they might consider in this process; it can also support governments not planning such reforms to better understand the financial dynamics of their civil service schemes.

Foreword

Civil service pension arrangements are a common component of social protection systems in developed and developing countries alike. While almost all OECD countries have merged these schemes with those for private-sector workers, civil servant pension arrangements continue to stand alone in most developing countries; in some cases, they are the only statutory pension arrangement.

While the size and dynamics of public-sector wage bills in developing countries are frequently analysed, pension schemes for civil servants are often overlooked. Yet these arrangements are a significant component of public-sector remuneration and they can carry substantial risks. In a number of cases examined in this study, civil service pensions absorb a relatively high proportion of public spending in covering a small (and sometimes relatively well-off) group; as such, they risk becoming unsustainable not only in financial terms but also socially and politically.

This study is intended to support countries that are considering reforms to their civil service pension arrangements. It takes a long-term and systemic approach to civil service pensions, charting their evolution as part of social protection provision as a whole. Through careful analysis of the reform experiences of a number of developing economies in Africa, Asia and Latin America, this study identifies principles and specific policies governments might consider when planning to reform their own pension arrangement. These good practices, which relate to improved reporting, transparency and equity, are also relevant to countries that wish to understand better the risks and dynamics of their civil service pension scheme.

The study does not advocate for a particular design of pension system for civil servants; such decisions should reflect the political choices and specific circumstances of individual countries. Nor is its objective to reduce the quality of coverage for public servants for the sake of parity with pension arrangements for other workers. Rather, the aim is to support countries in addressing imbalances in civil service schemes as a complement to the broader task of strengthening social protection systems for the population as a whole – an endeavour whose importance has been underlined by the COVID-19 pandemic.

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Abbreviations and acronyms

AFP	Administradora de Fondos de Pensiones
APY	Atal Pension Yojana
BPC	Beneficio de Prestaçâo Continuada
BPOPF	Botswana Public Officers Pension Fund
CSP	Civil Servants' Pension (India)
CSPS	Civil Servant Pension Scheme (Malawi)
DB	Defined benefit
DC	Defined contribution
EEBP	Enterprise Employee Basic Pension
GEPF	Government Employees Pension Fund
GIPF	Government Institutions Pension Fund
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
MNSSP	Malawi National Social Support Programme
NPS	National Pension System
PMSYM	Pradhan Mantri Shram Yogi Maan-dhan
RGPS	Regime Geral de Previdencia Social
RPPS	Regimes Próprios de Previdência Social
SCTP	Social Cash Transfer Programme

Executive summary

The public-sector wage bill absorbs a significant proportion of government spending in developed and developing countries alike. This paper examines a typical component of civil service remuneration: the pension schemes that most governments provide to their employees. While almost all OECD countries have merged their public-sector pension funds with arrangements for private-sector workers, civil servants in developing countries tend to be covered by stand-alone schemes.

Providing civil servants with their own pension scheme has advantages for these workers and the state (as employer) alike, at least in the short term. For civil servants, these schemes are often more generous than those available to private sector workers and in certain countries compensate for low levels of pay in the public sector. Indeed, public pension provision for the private sector might not even exist in some developing countries while provision for civil servants is much more widespread, often as a legacy of colonial administration or a communist system. For the state, generous retirement provision can be a means of attracting and retaining skilled workers without immediate cost.

In many cases, the solvency of civil servant pension arrangements is at risk. This is especially the case where schemes operate on a non-contributory basis, meaning that civil servants receive an income in retirement without having contributed while they worked. These benefits are financed from general revenues, shrinking the resources available for other spending. These liabilities pose a long-term risk to public finances yet are often not reflected in the government's balance sheet. There are substantial financial and political challenges to mitigating the risks inherent to these schemes.

This paper analyses civil service pension arrangements that have undergone reforms in six developing countries across Africa, Asia and Latin America: Brazil, Chile, China, India, Malawi and South Africa. It also summarises reform experiences in Botswana, Namibia, Rwanda and Myanmar. In some cases, such as Brazil and Malawi, the reform process has only recently concluded; in others, such as Chile, the landmark reform took place almost three decades ago but its consequences are still evident today.

Although recognising the risks associated with different financing arrangements, the paper does not endorse a particular design of civil service scheme. Rather, its purpose is to highlight the factors behind the decision to reform, to analyse the successes and challenges each country experienced when reforming these arrangements and to identify principles for the treatment of civil service schemes that might be of use to other countries. When addressing these questions, the paper locates civil service pension schemes within countries' broader social protection system, encompassing both contributory and non-contributory programmes. It also situates civil service pension schemes within a broader context of public-sector employment dynamics in each country.

Civil service arrangements have been a major contributor to a protracted pensions crisis in Brazil, where successive pension reforms over the past two decades have failed to bring the problem under control. A reform to the pension system as a whole approved in October 2019 is expected to reduce the fiscal burden of benefits provided to civil servants (and their dependants) over time. During the same period, Brazil has led innovation in social assistance provision but expenditure pales in comparison with spending on pensions, reducing the capacity of the fiscal system overall to reduce high levels of inequality.

Chile, meanwhile, responded to a financing crisis in its pensions system with a landmark reform in 1990 that instituted a system of individual accounts. Civil servants were brought into the new system on the same terms as private-sector employees: since then, both groups of workers have been treated equally, with the exception of members of the police and military, who retained their own stand-alone arrangements. The individual accounts approach has encountered difficulties relating to low coverage, low benefits and unequal access that successive pension reforms have been unable to resolve.

China’s impressive progress in scaling up pension coverage over the past decade has played an important role in closing gaps in social protection provision that appeared during its economic transformation. Pensions for civil servants were largely insulated from this upheaval; indeed, it was only in 2015 that civil servants were required to contribute to their pension scheme. This reduction in take-home pay was compensated by a significant pay increase the same year, a measure which offset the fiscal gains that employee contributions might have generated.

Meanwhile, India closed its unfunded Civil Service Pension to new entrants amid unsustainable spending growth and in 2004 established the National Pension System (NPS), which runs on a defined contribution basis. The NPS is also intended as a mechanism for expanding social insurance coverage to the broader workforce, in particular the informal sector. While membership of the NPS has grown, some civil servants in the new arrangement are not satisfied with their pensions in retirement.

Malawi’s public-sector wage bill is very high for a country at its income level; the associated burden on public finances is exacerbated by the cost of its pension arrangements for civil servants. Although the government has undertaken to control this spending and contain its long-term liabilities, the cost of doing so has proven prohibitive. New civil servants and those aged under 35 have moved into a new defined contribution scheme, but other civil servants will continue to benefit from the old, non-contributory dispensation.

South Africa’s Government Employees Pension Fund (GEPF) is one of the largest such arrangements in the world. Established before the return of democracy, it provides benefits that are adequate without being unduly generous and is well managed, although arrangements at a local government level, which are run under a different legislation, are cause for concern. However, reforms to close gaps in retirement coverage among the population as a whole might have major implications for the GEPF in the future.

These case studies give rise to some key principles for civil service pension schemes of any design, in any context: equality of treatment, transparency of reporting and respect for vested rights. These principles are not only essential for ensuring the solvency and long-term sustainability of civil service schemes, but also for maintaining their political and social legitimacy.

Introduction

A capable and effective civil service is a prerequisite for sustainable development. The quality of the public sector directly affects the capacity of governments to improve citizens' wellbeing and to generate and sustain inclusive economic growth. Compensation and non-financial incentives are a key means of attracting and retaining workers in the civil service who possess the skills needed to deliver on this mandate (OECD, 2019[1]). The government's wage bill absorbs a significant proportion of public expenditure in advanced and developing economies alike.

This paper examines a component of public sector remuneration: the pension schemes in which civil servants are enrolled by the government. Such arrangements often provide more attractive benefits than pension schemes available to other workers, thereby improving the public sector's prospects of hiring and retaining talented employees. Where the pension is provided on an unfunded basis, meaning that the government as employer does not make a contribution on behalf of a worker at the same time as an entitlement is accrued, the government can do this without incurring immediate cost.

At the same time, civil service pension schemes are typically considered part of a country's broader social protection provision. Civil service schemes thus perform a dual role, as both an integral part of a competitive remuneration package for appropriately skilled employees and an important component of a social protection system for the population as a whole. Tensions emerge between these two roles when spending on civil service pensions is high relative to other social protection spending or when a civil service scheme is unsustainable financially. Such situations not only pose a long-term risk to a country's public finances but also risk crowding out other social protection programmes, including for individuals in extreme poverty.

As (Palacios and Whitehouse, 2006[2]) demonstrate, civil service pension schemes often have lower funding ratios and higher liabilities per member than other arrangements; they typically exist alongside schemes for the private sector; and they are run on an unfunded (pay-as-you-go) defined benefit basis, with less than one-quarter of surveyed arrangements having accumulated any reserves. The authors find that civil service schemes in developing countries "are a greater fiscal burden than in higher income countries where the tax base is larger". They calculate spending on civil service pensions in OECD countries as equivalent to between 2.5% and 7.5% of government revenues, averaging 5%; the corresponding average for developing countries is 6%, with a range of 2% to 12%.[1]

Over the past 20 years, many OECD countries have closed the gap between schemes for civil sector workers and other public pension programmes. Integrating pension schemes for civil servants with those for the entire workforce has advantages in terms of equity, transparency and mobility between the public and private sector. Economies of scale are also possible, leading to lower administrative costs overall.

Of the 35 countries analysed by (OECD, 2016[3]), only four had entirely separate schemes for civil servants. Meanwhile, 17 countries have completely integrated schemes for public and private-sector workers, 10 countries implement a top-up scheme for civil servants in addition to their membership of private-sector schemes and four countries run schemes with the same parameters as for private-sector schemes but with a separate administration.

Civil service pensions in developing countries

The trend towards integration identified in OECD countries has not been observed in a majority of developing countries. This generally reflects either a historic policy decision to maintain separate schemes or the absence of a statutory pension arrangement for private-sector workers which could be merged with the public-sector scheme.

(Dorfman, 2015[4]) finds that all countries in Sub-Saharan Africa have a civil service scheme in place, of which a quarter are integrated into national schemes. The same study finds that only nine countries provided national non-contributory social pensions, although a further four countries were piloting such programmes. Most civil service schemes in Africa are run on an unfunded basis; some do not require civil servants to make any contributions.

Moreover, the financial position of many civil service schemes in Africa is worsening, in part due to the increasing life expectancy of former civil servants in retirement. According to (Schwarz and Abels, 2016[5]), civil service pension costs in Africa 'are high relative to other social expenditures and growing'; they are also 'extraordinarily high' given the number of individuals currently receiving benefits.

Many countries in Latin America implemented reforms during the 1990s to improve the sustainability of their pension system. However, in many cases, civil-service schemes were not affected, leaving these workers to enjoy more favourable provision than members of mandatory schemes (Bosch, Melguizo and Pagés, 2013[6]), (OECD/IDB/The World Bank, 2014[7]). Separate pension schemes for civil servants are also common in Asia, and are typically more generous than the corresponding arrangements for private-sector workers (Asian Development Bank, 2012[8]); (World Bank, 2016[9]).

These trends must be understood in the context of low social insurance coverage for the workforce as a whole (especially amongst informal workers). Just 9.0% of the labour force in Sub-Saharan Africa are active contributors to a pension scheme, against 23.6% in the Asia Pacific region and 40.4% in Latin America and the Caribbean (International Labour Office, 2017[10]). Rather than advocating the abolition of civil service schemes, this report contends that leveraging the scale, systems or skills of existing public-sector arrangements can be a critical means of expanding social insurance coverage overall.

Nonetheless, the financing arrangements of civil servant schemes are often problematic. The debt generated by civil service pension schemes is not clearly understood in many countries and consequently cannot be disclosed. The outstanding liability is frequently not calculated, let alone on a standardised actuarial basis with full governance and auditing oversight. The annual cost of servicing the debt and of adding to the liability is not included in government accounting or a corresponding social budget (Box 1). As a result, these schemes often represent an increasing yet unquantified burden on public finances.

Box 1. Principles of accounting for long-term liabilities

Sound accounting principles require that a future liability is reported when the actions that establish that liability occur, rather than when the payment is eventually made. Such reporting is required even where that future liability is characterised by a degree of uncertainty. In the case of a defined benefit arrangement, this means that, whether contributions are made or not, when eligibility to a benefit is granted, or when the quantum of that benefit is increased, the cost of providing for that benefit should be reported at the same time. Furthermore, the value of liabilities accrued in the past should be recalculated from time to time and plans should be put in place to finance any shortfalls in the funding over a specified period.

These principles lend themselves more naturally to an environment of funded rather than unfunded defined benefit arrangements. The principles apply equally, though much more simply, to defined contribution arrangements. Under such schemes, the contribution payable each year is determined as the present value of the addition to the liabilities attributable to the marginal benefits accrued during the course of that year. The funding shortfall or excess is reflected by the difference between total assets and the corresponding total liabilities. Any funding deficit may be made up through additional contributions payable over a specified number of years. Similarly, any surplus may be reduced over time by reducing the contribution.

We argue nevertheless that the same principles ought to apply to unfunded arrangements in the interests of sound measurement and transparent disclosure. Liabilities should be accounted for in the period in which they arise. If such liabilities are not backed by a corresponding contribution then the cost of the debt arising from the missing contribution should at least be accounted for, as should the corresponding cost of servicing the notional debt attributable to the funding shortfall, and should form part of the national social budget. The reason for this is simple: a debt exists. To the extent that the terms of that debt are not fixed, allowance could be made for this in determining the amount of the debt but this too should form part of transparent reporting and clear disclosure of methodology. Pensions in payment may increase at an appropriate rate of inflation, for example, but only to the extent that resources permit it. Transparency of the methodology and approach should characterise the system of social budgeting.

The reform challenge

Reforms to civil servant pension schemes face obvious political-economy challenges, primarily relating to civil servants' proximity to the policy-making process. Creating a new fund or altering the pension formula for civil servants in such a way as to leave contributors worse off in retirement than they would have been under the old system is clearly problematic from that perspective.

The reluctance of civil servants to join a less favourable arrangement can be overcome by mandating only new civil servants to join an integrated scheme or receive less advantageous terms in an existing arrangement, although this slows down attempts to reduce the fiscal burden of civil service schemes (by decades rather than years). This solution is viable in part because it does not impinge on entitlements accrued by individuals as part of the existing pension arrangement (otherwise known as vested rights); these entitlements might have informed civil servants' decision to join the public service and might determine their desire to stay.

The process of transitioning from one system for civil servants to another can be extremely complicated, expensive and difficult to manage, to the extent that it can deter governments from taking any action at all. Various factors can make it difficult to calculate the value of entitlements accrued by civil servants, starting with (in some cases) fundamental challenges such as a lack of information about pension scheme enrolment or how much these members have contributed (Mitchell, 2002[11]). Such uncertainty makes it difficult to ensure adequate financing for these entitlements once an old dispensation is closed to new contributions as part of a process to establish a new scheme. At an aggregate level, these factors also make it difficult to identify the overall debt associated with a pension arrangement. A number of issues around policy coherence ought also to be recognised: a civil service pension fund might be designed to incentivise long periods of service in the public sector where a corresponding arrangement for the private sector does not.

This paper examines a sample of countries in Africa, Asia and Latin America whose policy makers have taken the decision to reform their public servant pension schemes. There is significant variation regarding how far along the reform process they have travelled, the design of the schemes that are being reformed and between the countries themselves. Nonetheless, this study identifies common characteristics to the reform processes and considers some examples of best practice that have emerged.

Six countries have been selected for detailed description, partly out of consideration for the mix of approaches they represent. They are Brazil, Chile, China, India, Malawi and South Africa. A number of shorter case studies are used to support or contrast the points made in these thorough descriptions. For each case study, civil servant pension schemes are analysed with reference to a framework that places them not only within a social protection system but also in the context of the country's broader economic and institutional development.

This approach starts with a brief look at the dynamics of public sector employment in each country and then charts the historical development of social insurance to show the different trajectories of schemes for the public and private sector. Each case study also identifies the key features of social assistance provision and provides an overview of spending on the main contributory and non-contributory programmes. The case studies then examine reforms to civil servant schemes both in terms of process and with regard to the successes, challenges, costs and compromises incurred. The purpose is to identify principles and good practices that may be of value to governments contemplating such reforms or simply wanting to better understand the workings and sustainability of their civil service scheme.

Notes

[1] Brazil is one of the countries that spends more than 10% of government revenue on paying pensions to public servants. We consider the country in more detail in this paper. India and Malawi are, respectively, ranked second and fifth in a list of 23 developing countries in (Palacios and Whitehouse, 2006[150]). We also consider these two countries in depth in this paper.

1. Brazil

Brazil’s pension system represents a significant burden on public finances; specific arrangements for public servants are a particular challenge. A pension reform passed in 2019, the latest in a series of measures since 1998, has reduced the state’s long-term pension liability but the cost of providing benefits for civil servants will continue to grow. The annual deficit in the pension scheme for federal civil servants alone amounted to 0.8% of GDP in 2018; the shortfall is far higher once Brazil’s myriad sub-national schemes are included.

Meanwhile, Brazil has been a global leader in social assistance innovation. Programmes such as Beneficio de Prestaçao Continuada and Bolsa Familia have a large impact on poverty but their spending is very low relative to that of the contributory system. Notwithstanding the progress it has made, Brazil has a considerable way to go to improve the transparency of its pension spending and to address deeply entrenched inequity in the social protection system.

Brazil's civil service is expensive in global terms. In 2015, the total public sector wage bill was equivalent to 13.1% of gross domestic product (GDP), up from 11.6% in 2005 (World Bank, 2017[12]). This is above the average for Latin America and the Caribbean (LAC) and all other geographical regions, as well as above the OECD average.

The overall size of the civil service is not particularly large but salaries are very high. Around 18% of the workforce (24% of formal workers) is in public employment, which is much lower than the average for LAC and the OECD. However, the salary gap between public- and private-sector workers is very significant: on average, salaries for the public sector as a whole are 70% higher (per worker) than in the private sector. This contributes to the high level of income inequality in Brazil (World Bank, 2017[12]).

This gap is even higher for civil servants in federal government, who are better paid than those in sub-national government. Overall, 90% of public-sector workers are employed in sub-national government and 10% in the federal government. Growth in the wage bill over the last decade or so has been driven by higher wages for civil servants at the federal and the subnational level, as well as by growth in employment among the latter. In addition to high salaries, public-sector workers are also eligible to employment benefits that are typically more attractive than those received by the private sector.

The divergent evolution of public and private sector schemes

The size and dynamics of Brazil's public sector wage bill are critical factors in a long-running pensions crisis, which spans both public and private sector arrangements. High salaries exacerbate the imbalances that exist within the public sector pension funds – the *Regimes Próprios de Previdência Social* (RPPS) – because most workers are eligible for benefits that are calculated as a proportion of their salary.

The civil servant pension scheme in Brazil is a complex chain of national and local systems that includes many federal employee categories (executive, legislative, judiciary and armed forces, for example) at different levels of government. At the regional level, Brazil has 27 state pension entities that mirror the complexity of those at federal level. Employees of 2 140 municipalities (out of a total of more than 5 500) are also covered by the RPPS. (Medici, 2004[13])

Contributory arrangements under the social security system (*Previdência Social*) date back to workers' insurance arrangements of 1919 and 1923,[1] and to the system of pension institutes for different categories of workers (*Institutos de Aposentadorias e Pensões*) established in the 1930s. The problems resulting from this fragmentation were first addressed in the 1960s with the Social Security Law (*Lei Orgânica da Previdência Social*), which unified the contributions and corresponding benefits payable by and due to various types of workers.

The establishment of two statutory funds in 1966 enshrined the distinct approaches for privately employed workers and public servants (Robles and Mirosevic, 2013[14]):

- The Social Security Institute (*Instituto Nacional de Previdência Social*, INPS[2]), which covered formal workers and included a range of risk insurance arrangements, formally managed by private insurance companies, and
- The Social Security Institute for State Services (*Instituto de Pensão e Aposentadoria dos Servidores Estaduais,* IPASE), which covered workers in the public sector.

A regulatory framework was put in place in the 1970s allowing the establishment of open and closed complementary pension arrangements, and voluntary, privately managed, fully funded pension schemes.[3] Parametric adjustments implemented in the 1980s were not sufficient to arrest rising deficits in the national contributory pension system.

The Constitution promulgated in 1988 established social security as a right and entrenched progressively universal coverage. According to (ILO, 2016[15]), it set out the right to social security, the architecture of the social security system and a benchmark for the level of contributory benefits.

Subsequently, under the terms of the *Regime Geral de Previdencia Social* (RGPS), a country-wide pension system for private-sector workers was established. The RPPS, a special social security plan with its own legal contract framework (*Regime Jurídico Único*, RJU), was also established for public servants at every level of government and was independent of the corresponding regime applying to private-sector workers. This entrenched the rights of employees working in the public sector to benefits greater than those available to their counterparts in the private sector.

Under reforms of 1998 set in motion by the Constitution, the contributory principle was established: until that point, neither civil servants nor the state (as employer) financed the benefits paid to civil servants. However, the pay-as-you-go structure of both the private- and public-sector funds was retained after it was found that the transition to a fully-funded capitalisation scheme would have been prohibitively expensive (Bonturi, 2002[16]).

At the same time, the minimum retirement age for civil servants was increased benefits for civil servants were redefined based on workers' ages and the term of their contributions. Nevertheless, as (Medici, 2004[13]) notes, the deficit was only partially addressed by the reform. In 2000, the federal government allocated 18% of revenues to finance the civil servant pension deficit, while state governments spent 13% and municipalities 3%.

The guarantee of equal treatment of urban and rural employees by the Constitution resulted in a significant increase in the social protection coverage of rural workers through the *Previdência Rural.* This is a semi-contributory arrangement insofar as eligibility for benefits requires proof of work but not evidence of contribution history.

In 2003, the administration of President Lula da Silva put in place further reforms aimed at equalising the civil service benefits with those of the general pay-as-you-go system and shoring up the financial sustainability of the pension system. Among the changes introduced were the following:

- **Later retirement**: The regular retirement age increased from 53 to 60 for men and from 48 to 55 for women;
- **Reduction on early retirement**: While early retirement was permitted, benefits were reduced by between 3.5% and 5% for each year prior to the regular retirement age;
- **Member contributions**: Contributions of 11% of salary were required from all participants including, unusually, current pension recipients.[4] The minimum government contribution was set at 11% of salary; a level of 22% was recommended but often not implemented.
- **Change to the pension base**: Benefits were no longer based on a worker's total final salary but 80% of their highest salary in the period prior to retirement; and
- **Change to indexation**: Benefits were indexed against prices rather than wages.

Following the reform, years of service in both public and private employment count towards the pension but at least 20 years of the minimum 35-year total needs to be in public schemes in order to benefit from the more favourable benefits to which civil servants are eligible. Blending provisions were made to respect the rights of existing civil servants, particularly those hired before the RPPS were established.

Critically, many of the new rules only applied to new entrants to the RPPS. Civil servants who joined prior to 2003 are entitled to benefits that far exceed the contributions they make. It will take many decades for this cohort of workers to pass through the system, meaning that the fiscal burden associated with the dispensation that prevailed up to 2003 will continue to be felt for a long time, regardless of how effective subsequent reforms prove in terms of better linking contributions and benefits (World Bank, 2017[12]).

Despite progress in addressing imbalances in the system, significant disparity remains in the benefit rules and requirements for different kinds of employees. Civil servants remain a privileged group. The civil service pension system is also undermined by the absence of a set of financing rules. Such rules should be legislated, with both clear reporting requirements and pre-defined actions to be taken in the event of deficits.

> *… the government has never defined, calculated, or made explicit the contributions to be paid by governments (as employers) as a counterpart of civil servant contributions. Some analysts claim that even if the government contribution were twice the size of the civil servant payroll tax, the system would still run a deficit. But the current situation most likely never would have occurred if financing rules had been defined earlier." (Medici, 2004[13])*

Another reform to the RPPS, intended to build on the reform of 2003, was implemented in 2013. Under this measure, the ceiling for contributions to the RPPS was lowered to be in line with the contribution ceiling for the RGPS. Contributions above that level were diverted into a system of funded individual accounts called the de Previdência Complementar do Servidor Público Federal or Funpresp) with one fund for the executive, legislative and judicial branches of government respectively.

As (Robles and Mirosevic, 2013[14]) argue, these reforms did not go far enough to address serious financial imbalances in the pension system. Maximum benefits were reduced by the 2003 reforms but transitional rules are still in place allowing workers to receive an amount equivalent to their final salary, and the revised benefit levels are considerably higher than the corresponding benefits available to private-sector workers. Moreover, military pensions were excluded from the 2003 reform.

According to (Robles and Mirosevic, 2013[14]), the budgetary demand of the RPPS increased by 30% between 2006 and 2010 while the corresponding resources available for financing these benefits increased by only 14% over the same period. They also point out that the benefits granted under the RPPS scheme are inherently regressive.

Social assistance in Brazil: Evolving and innovating

Non-contributory social assistance in Brazil has its roots in the late 1930s, when the National Social Service Council (*Conselho Nacional de Serviço Social, CNSS*) was established with the aim of providing support to the poorest individuals through charity organisations. Several entities were set up in the years that followed focusing primarily on the needs of children (Robles and Mirosevic, 2013[14]).

In the 1970s, the first non-contributory pensions were created. In 1971, the Fund for Social Assistance to Rural Workers (*Fundo de Assistência do Trabalhador Rural, FUNRURAL*) and the Programme for the Social Assistance of Rural Workers (*Programa de Assistência ao Trabalhador Rural, PRÓRURAL*) were established.

These were forerunners of what became the rural pension, the *Previdência Rural*, after the passing of the 1988 Constitution. According to (Holmes, Hagen-Zanker and Vandemoortele, 2011[17]), the *Previdência Rural* was "originally to be financed through contributions from rural workers and a produce tax in rural areas. This was postponed and later abandoned." The programme is typically classified as social assistance financed principally from general tax revenue. The Lifetime Monthly Income (*Renda Mensal Vitalícia*), established in 1974, granted a flat-rate transfer to people with disabilities and to individuals over the age of 70 subject to a means test and other eligibility requirements.

The set of non-contributory programmes in place before the Constitution was expanded and the generosity of benefits improved. The Constitution converted non-contributory social pensions into a national arrangement through the *Beneficio de Prestaçâo Continuada* (BPC). Like the *Previdência Rural,* the BPC pays benefits at the level of the minimum wage to elderly persons and persons with disabilities not receiving a public or private pension. Above-inflation increases in the minimum wage[5] have been of considerable benefit to recipients of both the BPC and the *Previdência Rural* but increased pressure on public finances.

The BPC is payable to persons 65 years and older whose family income is below one-quarter of the official minimum wage.[6] In order to qualify, however, no member of the pensioner's family can be in receipt of an alternative income-replacing benefit such as unemployment insurance or other social insurance benefit.[7]

The improvements to provision for elderly Brazilians did not take place in isolation. They were developed in tandem with conditional cash transfer programmes, itself not at first a national system but an approach initially pioneered by two or three municipalities before being rolled out more widely.[8] Over time, a number of initiatives were combined into the national *Bolsa Familia* programme, which in 2017 covered 13.8 million families, with 56.3 million individuals living in beneficiary households (more than a quarter of the population) (ECLAC, 2019[18]).

Bolsa Familia is targeted at poor households and has been shown to achieve impressive results across a range of outcomes (Soares, Ribas and Osório, 2010[19]). Despite its high levels of coverage (it is one of the largest cash transfer programmes in the world), spending on Bolsa Familia was equivalent to just 0.4% of GDP in 2017, reflecting the low level of benefits provided by the programme (ECLAC, 2019[18]).

Expenditure on the BPC in 2016 amounted to BRL37.9 billion, or 0.6% of GDP. The programme covered 4.4 million individuals, of whom 2.4 million were people with disabilities and 2.0 million elderly (ECLAC, 2019[18]). Unlike the case with Bolsa Familia, BPC recipients are concentrated at the upper end of the income distribution: 70% belong to the top three quintiles, which in part reflects the higher level of benefits (World Bank, 2017[12]). Coverage of the *Previdência Rural* is also higher at the upper end of the distribution: 76% of beneficiaries belong to the top three deciles. There were 6.9 million beneficiaries of the *Previdência Rural* in 2017 and expenditure was equivalent to 1.2% of GDP (ECLAC, 2019[18]).

In total, spending on social assistance was equivalent to 1.5% of GDP in 2015, up from 1% a decade earlier, due largely to the BPC's higher coverage and real increases in benefit levels. Public spending at a federal level on social insurance (RPCG and RPPS), was equivalent to 11% of GDP (World Bank, 2017[12]).

Addressing a pensions crisis

The high level of social insurance spending is not a problem in itself. However, Brazil's pension system is extremely generous and is already generating large-scale deficits that are contributing to an increase in the country's debt level. Moreover, Brazil's current demographic situation is favourable but the country is expected to age rapidly; when this happens, pressure on pension spending will be magnified.

These deficits also have important distributional implications: while pension benefits are overwhelmingly received by individuals at the top end of the income distribution, the deficits must be financed through the tax system; the implicit subsidies make the pension system highly regressive. Moreover, they crowd out other items of public spending, including pro-poor social assistance.

Addressing deficits across the entire pension system is an urgent fiscal priority (OECD, 2018[20]), (World Bank, 2017[12]). In 2018, spending by the RPGS was BRL 590 billion, equivalent to 8.7% of GDP. Contributions, meanwhile, stood at BRL 395 billion, resulting in a deficit equivalent to 2.9% of GDP. Expenditure by the RPPS da União (RPPSU), which only covers federal employees, stood at BRL 85 billion in 2018 (1.3% of GDP), with contributions of BRL 34 billion. The RPPSU accounted for some 30% of the pension system's overall deficit of BRL 171 billion (Tesouro Nacional, 2019[21]).

It is important to note that these figures do not include the RPPS for employees in state or municipal governments. Once these are included, the RPPS paid benefits to approximately 1.5 million people in 2015, at a cost equivalent to 4% of GDP (Cuevas et al., 2017[22]).

In 2017, the number of individuals receiving pensions (including retirement benefits and other insurance payments) from the RPGS was 30.3 million, while 737 472 individuals (not including the military) were receiving pensions from the RPPSU (Ministério da Fazenda, 2017[23]). While there were thus 40 times more beneficiaries from the RPGS than the RPPSU, expenditure by the former was less than seven times higher than the latter, indicating the extent to which benefit levels are more favourable for public servants.

The deficits across the pension system will grow as the population starts to age. According to (OECD, 2017[24]), Brazil's old-age dependency ratio will be the same as the average for OECD countries, having been half the OECD level in 2015, with 38% of the population aged 65 or over in 2050. The study projects that spending on pensions (excluding civil service arrangements) will increase by almost 5% of GDP by 2040.

Improving the sustainability of the pension system (including both public- and private-sector arrangements) was a priority of President Jair Bolsonaro, elected in 2018. The government introduced a pension reform to Congress in February 2019 that it said would generate savings of BRL 1.24 trillion (USD 312 billion) over 10 years (Reuters, 2019[25]).

The proposal included an increase in the pension age to 65 for men and 62 for women and the introduction of a minimum contribution period of 20 years. It also included a number of other parametric changes to make the system less generous, including to the *Previdência Rural* and the BPC. For example, the BPC would no longer be linked to the minimum wage, while the required contribution period for the *Previdência Rural* was increased and the eligibility age for women was raised to 60, the same age as for men.

Congress subsequently amended the bill, for example by excluding RPPS arrangements at a state and municipal level. These changes reduced the potential savings to BRL 900 billion. If sub-national RPPS schemes were to be excluded, the reform would also fail to address a key factor behind projected increases in the deficit of the system as a whole.

In October 2019, the reform was approved by the senate and thus passed its final legislative hurdle. A notable aspect of the government's strategy to achieve buy-in for the reform was to stress the equity aspect of the reform, rather than focusing only on its importance for the country's financial sustainability.

Conclusion

Brazil has set the benchmark for innovation in social assistance since 2000, thanks largely to the effectiveness of the Bolsa Familia programme and its progress in establishing an information system (the Cadastro Único) that links beneficiaries from one social protection programme to another according to their needs. High levels of pension coverage, especially amongst rural workers covered by the *Previdência Rural*, have also been instrumental in improving welfare.

At the same time, the generosity and fragmentation of the social insurance system providing for public servants has continued to allow participants and their families to derive extraordinary benefits from a system that has for many years been a drain on state resources, exacerbating inequality and putting public finances under substantial pressure. The reform passed towards the end of 2019 is a major step forward in addressing the imbalances in the pension system but, in excluding pensions for workers in sub-national government, has not addressed one of the main long-term threats to the system.

The Brazilian case study is a reminder that all arrangements, particularly those structured on a pay-as-you-go basis, should be subject to a common reporting basis utilising actuarial principles and assumptions that consistently recognise the uncertainty of future income and expenditure. Such reporting should include standardised projections of financial position to illustrate the sustainability of these arrangements. It is imperative that disciplined measurement be brought to bear on the matter so that the problem is considered through a common lens.

This type of disciplined reporting and financial projection might be more easily achieved in the case of the rules-based arrangements available to formal-economy workers, both in public and private service, than under the corresponding social protection initiatives intended to benefit the poor, because the rules limit the discretion of policy makers. Nevertheless, projections of expenditure under these non-contributory systems, with disclosure of demographic and financial assumptions, can only improve the clarity of assessment of the sustainability of the system as a whole, and the equity with which resources are allocated across the elements of the system.

Notes

[1] By the end of the 1920s, Brazil had more than 200 pension funds (Medici, 2004[13]).

[2] This became the National Institute for Social Security in 1976.

[3] In 1999, assets held in these arrangements amounted to some 14.3% of GDP, yet membership in that year amounted to some 3% of the total private sector labour force and only one-sixth of higher-income workers, notwithstanding inadequacy of supervisory infrastructure, opaque and unfavourable tax rules and high administrative costs (Bonturi, 2002[16]).

[4] Individuals with earnings below the income tax threshold are not required to contribute.

[5] Between 1995 and 2005, the minimum wage grew at a rate of 3.8% annually in real terms and, between 2005 and 2011, at 3% per year in real terms.

[6] The minimum wage for 2019 was set at BRL 998 (USD 257), a 4.6% increase from the previous year (in current prices) (Agencia EFE, 2019[162]).

[7] The BPC is also payable to people with disabilities who are not able to live and work independently, not considered further in this discussion.

[8] The *Bolsa Familia* programme was launched in 2003 as a merger of four cash transfer programmes.

2. Chile

Chile is well known as the first country in Latin America to break from its financially unsustainable pension system to introduce a system of mandatory individual accounts. Civil servants (but not the military or the police) were included in this far-reaching reform. Vested rights accrued by civil servants in the pre-reform era were respected and continue to bear a weight on public spending today.
The ground-breaking reforms have nevertheless encountered a number of challenges, including relatively narrow coverage and low replacement rates in retirement. Contribution densities amongst low-income workers are particularly low, leaving them at high risk of poverty in old age. Non-contributory benefits have been scaled up to improve outcomes for low-income workers but pressure for further reforms to the contributory system remains.

A landmark pension reform

Old age security systems in Latin America date back to the 1920s, making it the first region outside Europe to introduce such arrangements (Queisser, 1998[26]). Chile was one of the pioneering countries in this regard, alongside Brazil and Uruguay. The Workers' Insurance Fund was established in 1924, later to become the Social Insurance Service. Coverage was extended in 1925 with the opening of the Private Employees' Fund and that of Public Employees and Journalists, and it grew incrementally from there.

The emergent pension system was shaped by the political interests and power of various groups rather than a centrally co-ordinated approach to social security. In time, more than 100 different pension schemes were represented in the system, each with its own rules, benefits and contribution levels (Soto, 2005[27]). These were arranged under a total of 32 pension institutions (OECD, 2011[28]). Some effort was made to consolidate these arrangements into centralised agencies but high levels of complexity remained as government efforts to reform the system tended to be hampered by vested interests (Mesa, Behrman and Bravo, 2001[29]).

By the late 1970s, the pension system was in crisis. In aggregate, annual benefits paid by these arrangements exceeded the contributions by nearly 3% of GDP. The unfunded liability across these arrangements was estimated at more than the value of the country's GDP (Soto, 2005[27]).

This complex mix of entities was unwound with the introduction in 1980 of a system of individual accounts to which all workers were required to contribute at a specified percentage of earnings. Civil servants were included but the armed forces and police were not (Queisser, 1998[26]), (Mesa, Behrman and Bravo, 2001[29]). Individual accounts were managed by pension fund administrators (AFPs) licensed by the Superintendency (SAFP) to provide such services.

Although the reform was intended to resolve the problem of the rapidly growing government liability, there were limits to the extent to which it could do so, at least in the short term (Arenas De Mesa, Behrman and Bravo, 2004[30]). Members of the old system, for example, were given the option of staying in the public scheme or moving to its privately managed defined contribution counterpart.[1] The government recognised the accrued rights of those who chose to move through a system of recognition bonds with a specified value that mature at the retirement age of the eligible member.[2]

These recognition bonds represent promissory notes from the pension system to its participants, redeemable at the date of retirement. This approach is one of the vehicles available for financing the transition from:

- a pay-as-you-go system, under which the contributions of existing workers meet the cost of current pensions, to
- a funded system, under which contributions are set aside when received to meet the (future) cost of pensions for these contributors.

> *In the transition from a pay-as-you-go to a fully or partially funded system, pension liabilities which are implicit in the old scheme are made explicit. The current workers' contributions can no longer be used for the payment of current pensions, as they must be accumulated to build retirement capital. (Queisser, 1998[26])*

The resultant transition cost illustrates the principle that somebody must pay for the pensions promised under a system, even if it is not always obvious who is doing so.

Within 20 years of the initiative by the government of President Augusto Pinochet, pension assets were equivalent to a substantial percentage of the annual GDP.[3] In 2003, they stood at 40% of GDP; by 2017, they were equivalent to 70% of GDP (OECD, 2018[31]). A number of countries, largely in Latin America but also in Eastern Europe, followed the Chilean approach.

Post-reform challenges: Low coverage and low pensions

Chile's individual account system has faced a number of challenges, including:

- the conversion of accumulated capital into a safe income at retirement,
- the costs of administering the system, and
- low coverage, which in turn resulted in poor retirement outcomes for the majority of the population.

When Chile implemented its reform, the government did not have a reliable and competitive market for converting accumulated savings into an income guaranteed to last the full remaining lifetime of the retiree. The insurance sector was immature and the market for annuity products uncompetitive. Over the next twenty years, following a careful path of incremental reforms, a competitive client-centric annuity market was developed (Rocha and Thorburn, 2007[32]). Competition was developed by allowing the retiree to select an annuity but only from one of the three most cost-effective options. Client-centricity was fostered, in turn, by allowing a degree of choice at retirement but not so much that retirees could easily spend away their accumulated saving.

Architects of the reform expected competition between providers to drive down costs in the pre-retirement phase, but administrative fees and commissions rose to more than 25% of contributions in the early years of the system, though they have fallen since then. A number of initiatives have contributed to this decline, including a public tender system in which administrators bid every two years for the position of mandatory provider to workers entering the workforce (Chant West, 2014[33]).

The issues of poor coverage and inadequate outcomes have proven challenging. (Mesa, Behrman and Bravo, 2001[29]) state that, while over 70% of the population was covered by a pension arrangement in 1965, by 1999 the proportion had fallen to below 60%. (Rofman, 2005[34])calculated the number of contributors as 58.2% of the economically active population in 2003, but only 43.5% among individuals living in rural areas, one-third of those in the lowest quintile by income and 32.1% of those working in companies or establishments with five workers or fewer.

Official data show that, as of December 2018, 66.1% of the employed population were contributing to the pension system. The vast majority are from the formal sector, where participation was 86.7%. Among independent workers, who accounted for just over a quarter of the total employed population, only 6.4% contributed to the pension system (Subsecretaría de Previsión Social, 2019[35]).

The problem of participation is not only the number of participants but also the regularity with which they contribute to their accounts. The average density of contributions – the number of contributions as a percentage of the corresponding possible number – was reported by (Iglesias-Palau, 2009[36]) at just over 50%, compared with the figure of 80% typically used to estimate the projected pension income of system participants.

This has profound consequences for the value of the income received in retirement. Average pension payments declined significantly following the global financial crisis of 2008-09, bottomed out in 2012 before recovering somewhat; since 2014 they have plateaued far below pre-crisis levels (Subsecretaría de Previsión Social, 2019[35]). According to (Altamirano et al., 2018[37]), the income replacement rate for contributors at retirement ranges between 20% and 40% depending on contributions density. Tellingly, this report shows that even workers with a 100% contribution density do not generate incomes in retirement that exceed the benchmark 40% replacement rate.

These low replacement rates affect public and private-sector workers alike (with the exception of the military, discussed below). Under the individual accounts system, there would not be any systemic advantage for workers in the public sector relative to their peers in the private sector with the same earnings history. Moreover, there is little evidence of a public sector wage premium in Chile (Navarro and Selman, 2014[38]). However, assuming that employment in the public sector is likely to be more secure and stable than in the private sector, it is possible that workers in the civil service might be better able to make regular pension contributions.

Coverage gaps have driven a scaling-up of non-contributory pensions

In 2008, the Government replaced the existing social pension with two means-tested schemes for the elderly. This arrangement, the New Solidarity Pillar, aims to guarantee to all individuals in the bottom three quintiles of the income distribution a stipulated pension regardless of their contribution history. This scheme, financed from general revenue, was launched in phases and completed in 2011. Its cost is expected to rise from 0.65% of GDP in 2010 to 1.2% in 2025 (Fajnzylber, 2019[39]).

Individuals with no contribution history are entitled to a Basic Solidarity Pension while those with insufficient contributions to achieve a certain threshold are entitled to a Pension Solidarity Complement. The initiative has been found to increase the proportion of Chile's elderly people receiving some form of pension, as well as to reduce poverty and make the retirement system fairer from a gender perspective (Robles Farías, 2013[40]), (Fajnzylber, 2019[39]).

The 2008 reform also sought to address the coverage problem by introducing mandatory participation for the self-employed, starting in 2012 with contributions based on 40% of taxable earnings and increasing this to 100% by 2014. The number of self-employed individuals contributing to an AFP grew from 65 398 in 2008 to 128 959 in 2018 (Subsecretaría de Previsión Social, 2019[35]).

Notwithstanding improvements to the system and the extensive social dialogue around the 2008 reform, concerns remain regarding its effectiveness (Rofman, Fajnzylber and Herrera, 2008[41]), (Hujo and Rulli, 2014[42]). (Sojo, 2014[43]) cites low and decreasing replacement ratios, demonstrates the inadequacy of smoothing and redistribution mechanisms, and expresses support for the introduction of a public-sector AFP.

A presidential commission was established in 2014 to evaluate the reform. Its report, published in 2015, found that it had been effective in expanding coverage, especially amongst self-employed, women and current pensioners. It also found that the new solidarity pensions had reduced poverty. However, the commission raised major concerns about low replacement rates and identified continued gaps in coverage (Mesa-Lago and Bertranou, 2016[44]).

In January 2020, President Sebastian Piñera announced a far-reaching reform to the pension system intended to increase replacement rates and ensure no pensioner falls into poverty (Reuters, 2020[45]). The measures included an additional 6% contribution by employers on behalf of their employees, half of which will go to workers' individual accounts and half to a new solidarity fund. These measures followed a month after Congress approved measures to increase the value of the minimum pension by up to 50%. Reforms to the pension system acquired particular importance when dissatisfaction with the low value of pensions emerged as an important factor behind protests in late 2019.

Pensions for the security forces weigh on public finances

Public servants led by example at the time of Chile's pension reform in 1980: like their private-sector counterparts, they were required to enrol in the contributory system, select an AFP and make their contributions. The unfunded defined benefit arrangement that predated the 1980 reform still pays benefits but the pool of beneficiaries is now relatively small. The fiscal cost of the transitional arrangements characterising the reform have also now run down to relatively low levels (Hujo and Rulli, 2014[42]). In any case, these are costs associated with the system as a whole; they are not attributable to public servants only.

However, evidence is emerging of the cost to Chile's public finances of excluding the military and police from the pension reform. (Mesa-Lago and Bertranou, 2016[44]) estimate the cost of these arrangements, which are almost entirely unfunded, at 0.9% of GDP. A recent media report claimed that the budget for 2019 allocates CLP 2 176 495 million (USD 3.2 billion) to Capredena and Dipreca (the social security schemes for the armed forces and police, respectively) to cover pensions and other benefits (El Mostrador, 2019[46]).

According to the same report, these transfers are growing strongly in real terms and accounted for some 5% of total public spending in 2019. As such, they comfortably exceeded public spending on the solidarity pillar of the pension system, which was budgeted at CLP 1 646 336 million. Some 1.6 million people benefit from the solidarity pillar of the pension system, nine times more than receive pensions from Capredena and Dipreca.

Pensioners enrolled in Capredena and Dipreca receive pensions that are significantly larger than those received with full contribution histories with the AFP. According to data from the Superintendencia de Pensiones, the average monthly pension from Capredena is CLP 946 603, more than twice the CLP 421 000 received by someone who has contributed to the AFP for between 30 and 35 years (Pauta, 2018[47])[4]. According to (Gálvez and Kremerman, 2019[48]), the average pension paid to retirees from Capredena is 4.3 times the average income received by AFP pensioners, while for members of Dipreca it is five times higher.

In January 2019, the government unveiled proposals to control personnel costs in Chile's armed forces, which included an increase in the length of service required to obtain full pension rights. However, these reforms would be phased in gradually and would not cover those with more than 10 years of service, with the result that it would be a long time before the measures had a significant impact on pension spending.

Social assistance helped Chile to reduce poverty but inequality remains high

When democracy was restored in Chile in 1990, the poverty rate stood at 38.6% (Robles Farías, 2013[40]). Efforts in the 1990s focused on poverty relief (UNDP, 2011[49]). The principal social assistance programmes emerged under the 2000-2006 presidency of Ricardo Lagos in the form of:

- *Chile Solidario*, providing minimum guaranteed benefits for the poorest families,
- a set of health-related guarantees,[5] and
- an unemployment insurance arrangement covering formal-sector workers.

The first presidency of Michelle Bachelet that followed (2006-10) built on this foundation, moving towards not only guaranteeing social rights to the population (including all social policies throughout the life cycle of families) but also extending these rights to social groups further away from poverty and institutionalising them in the form of a social protection system' (UNDP, 2011[49]).

In 2013, social assistance expenditure was equivalent to 1.6% of GDP; including spending on cash transfers amounting to 0.4% and non-contributory pensions of 0.9% of GDP. (Martínez-Aguilar et al., 2017[50]) find that direct transfers generate a significant reduction on poverty. The extreme poverty headcount declined from 12.6% in 2006 (when it was already one of the lowest in Latin America) to 3.5% in 2015. Inequality, as measured by the Gini coefficient, declined slightly over this period, from 0.499 to 0.482 (Martínez-Aguilar et al., 2017[50]).

Thanks to these reforms, success has been achieved in many key human development indicators, including malnutrition, education, child and maternal mortality, and population longevity. However, the fiscal system has proven less equipped to reduce inequality.

Conclusion

In terms of its success in integrating public and private sectors, Chile's pension reform has been highly successful: excepting the members of the security forces, public servants are treated in the same way as their private-sector counterparts. Inequity in the system, between men and women for example or between urban and rural workers, is largely a function of the working history of participants.

Systematic advantages for public servants are not provided by Chile's individual accounts system. Higher income for civil servants in retirement is attributable more to the nature of employment for public-sector workers, and the link between employment and pensions, than to systematically more generous benefits. In a context of widespread dissatisfaction at pension levels, all workers are equal.

Continued consideration of the effectiveness of the system, and equitable treatment of its participants, is commendable and encouraged. Clear disclosure of the annual costs of pensions to the armed forces, and the corresponding unfunded liability, should be undertaken.

Notes

[1] Benefits under the public system had been reduced in the late 1970s and the new system was designed to be more attractive than its predecessors (Arenas De Mesa, Behrman and Bravo, 2004[30]).

[2] The large majority of members chose to move. (OECD, 2011[28]) reports that, as of March 2008, some 970 812 old age, disability or survivor pensions were paid from the old public pension schemes but that only 102 452 workers were still contributing to one of these schemes, compared to the corresponding 3.9 million participants in the individual accounts system at the time.

[3] (Arenas De Mesa, Behrman and Bravo, 2004[30]) cite assets of more than USD 30 billion in 2003.

[4] Members of the armed forces can retire with a full pension after 30 years of service and are eligible for some form of pension with 20 years of service.

[5] *El Plan de Acceso Universal con Garantías Explícitas* (the Universal Plan of Explicit Health Guarantees).

3. China

In common with its transformed economy, China's social security system has undergone seismic changes in recent decades. The evolution to a market economy has major implications for pension arrangements provided to hundreds of millions of workers in state-owned enterprises. Rapid structural change sits uneasily with the long-term commitments inherent to pension schemes, and China's attempts to balance these forces is instructive, especially in a context of rapid population ageing. China is on track to achieve its target of universal pension coverage by 2020 through a combination of contributory and non-contributory schemes for urban and rural areas. While progress has been made in addressing the cost of special treatment for civil servants by mandating contributions to their retirement arrangements, they continue to enjoy much higher benefits in retirement than other workers.

China has a relatively small civil service given the size of the overall workforce, reflecting a narrow definition of civil servant (Burns, 2007[51]). According to (Brodsgaard and Gang, 2019[52]), there are around 7 million civil servants, although this does not include all individuals in public employment. It also excludes employees of state-owned enterprises. Since the early 2000s, salaries for civil servants have increased significantly, albeit from a low level. Civil servants also benefit from a range of allowances that supplement their income as well as a greater degree of job security than other workers. Vacancies in the civil service are highly sought after and recruitment is highly competitive.

Evolving pension arrangements amid economic transformation

China's first formal pension system was established in 1951 under labour insurance provisions (Holzmann, Mac Arthur and Sin, 2000[53]).[1] These pay-as-you-go defined benefit arrangements were funded by contributions from state-owned enterprises (SOEs) at the rate of 3% of the wage bill, which included an element of pre-funding and was partly used for risk pooling nationwide. SOEs typically provided comprehensive social security, the so-called "iron rice bowl", that included not only pensions but also housing, healthcare and education. This was underwritten by the state, which subsidised the pension payments of SOEs. Such privileges for the employees of public enterprises along with poorly developed employment markets discouraged workers from seeking opportunities in privately-owned firms, notwithstanding generally poor wages in these public entities (Jackson et al., 2009[54]).

The national system was dismantled during the Cultural Revolution of 1966-1976. The government transferred responsibility for supervising existing funds from labour unions to local labour bureaus. From this time, enterprises were required to finance the entirety of benefit payments from their own revenues. The system's funding levels declined as pension reserves were used elsewhere, mainly to meet the business needs of the SOEs.[2]

Economic reforms initiated in 1978 led to major changes in the structure of the workforce, generating a sudden influx of workers into non-state sectors. They also led to fundamental changes in pension provision. Responsibility for financing pension benefits was gradually shifted away from SMEs and towards public funds and employees themselves. The level of the pension was increased through decree of the State Council in 1978, which stipulated replacement rates based on service thresholds. Pension spending increased rapidly, prompting an increase in contribution rates (Holzmann, Mac Arthur and Sin, 2000[53]).

The descriptions that follow should be seen in the context of substantial changes in the nature of employment in China. Thirty years ago, broadly speaking, rural workers were occupied in agriculture and their urban counterparts in state-owned industries. Internal migration was limited and urban dwellers were registered under the *hukou* system that identifies Chinese as belonging either in rural or urban areas. Only those registered in urban areas, for example, had access to schools and hospitals at subsidised urban costs.

The liberalisation of labour markets over the last few decades stimulated a substantial migration from the countryside to the cities. China shares this experience with many other countries but in China's case this migration is taking place in spite of the *hukou* system that may have sought to discourage it. The result is that city dwellers fall into two categories: those registered as eligible to access urban services and those that are not, a distinction reflected in the statistics on social protection coverage. The economic liberalisation has largely separated the state from the system of employers, even if government remains in many cases the owner of these companies.

The Chinese experience also needs to be seen through the lens of demographic changes. Over the second half of the 20th Century, state family planning policies resulted in a sharp decline in fertility rates.[3] Along with the falling mortality experience attributable to improvements in living conditions and the availability of medical services, life expectancy lengthened substantially and has continued to do so.[4] This has put considerable financial pressure on all arrangements that promise guaranteed pensions without prefunding their commitments.

Urban workers

Following a period of experimentation at the level of regional governments during the 1980s, the system was revamped in 1991, bringing the employees of SOEs into a single system with three tiers financed respectively by government, enterprises and workers (Holzmann, Mac Arthur and Sin, 2000[53]), (HelpAge International, 2013[55]). This also marked the beginning of diversified sources of benefit for workers, with the state sector providing a social basic pension, the enterprise sector a supplementary pension and the individual additional saving accounts.

Two models were provided by decree in 1995: a funded defined contribution model and an alternative with a more substantial role for pay-as-you-go defined benefit provision. City and regional governments were permitted to choose one of these or design a third variant. Fragmentation was the natural consequence. Pension debt grew throughout the system (Zhao et al., 2019[56]).

The Enterprise Employee Basic Pension (EEBP) was established in 1997 (Zhu and Walker, 2018[57]). Also known as the Urban Employee Pension Scheme, the programme was meant to cover all urban workers, although in practice its members were mostly employees of SOEs and the largest private enterprises (Pozen, 2013[58]). It operates as a hybrid system combining an unfunded 'social' component that pools employer contributions (20% of payroll) with individual accounts that are financed by employee contributions (8% of payroll).

Employers' portions are pooled at local level to meet the cost of current benefits under what amounts to a pay-as-you-go defined benefit plan (Pozen, 2013[58]). The employee contribution is supposed to be allocated to an individual account, which is converted at retirement to an income on fixed terms. In practice, because local authorities have found the employer contributions insufficient to meet the demands to pay pensions – including those arising from legacy arrangements prior to the introduction of the EEBP – member accounts are partly or fully put to this purpose (Zhao et al., 2019[56]), (Jackson et al., 2009[54]). This situation is unsustainable and, absent government intervention, can be expected to worsen.

By 2000, some 132 million workers were contributing to pensions in urban areas, just under 40% of all urban workers. To address this coverage gap, the government introduced a public pension system for urban residents in 2011 (Zhao et al., 2019[56]). This arrangement, which is analogous to the new pension system for rural residents founded in 2009 (discussed below), is contributory but is heavily subsidised from public funds.

Rural arrangements

Social protection historically has focused on traditional forms of relief aimed at reducing poverty among target groups, such as orphans, the elderly or people with disabilities who lacked family support. The Rural Minimum Living Standard Guarantee (also known as Dibao) originated as an urban cash transfer programme piloted in Shanghai in the early 1990s. Having been gradually adopted by other urban and rural areas; it was formally recognised as a national rights-based programme for urban areas in 1999 and for rural areas in 2007. Although it continues to operate as a highly decentralised programme, it is the backbone of China's social assistance system (World Bank, 2018[59]).

In 2016, Dibao covered 14.8 million individuals in urban areas and 45.9 million in rural areas (Lixiong, 2018[60]). In 2015, combined expenditure was CNY 219 billion, equivalent to just 0.2% of GDP and 0.8% of total public spending (Solinger, 2017[61]). Although benefit levels are typically adequate, the programme's impact on poverty is undermined by targeting errors (Golan, Sicular and Umapathi, 2017[62]) as well as a high degree of fragmentation (Lixiong, 2018[60]). There were some 500 different poverty lines determined by different local jurisdictions in 2017 (Lixiong, 2018[60]).

The development of a pension system for rural areas took a different route from the cities. After several county-level pilots were tried in the period from 1986 to 1991, the Ministry of Civil Affairs introduced the Basic Scheme of Rural Pensions in 1992. Its financing combined streams from government, rural collectives and individuals, but the largest part of the burden was placed on individuals, who were expected to make regular contributions and cover the administrative costs of the scheme. Policy defining the contributions of local government and rural collectives was determined at the level of the provincial government.

Despite these challenges, coverage grew rapidly, reaching a peak of 80.3 million members in 1998, up from 34.8 million four years earlier (Dorfman et al., 2013[63]). Membership was nevertheless concentrated in a few parts of the country: wealthier, coastal provinces accounted for 45% of members and 64% of contributions (HelpAge International, 2013[55]). A number of challenges emerged, exposed to some extent by the Asian Financial Crisis, and the State Council chose to pull back on ambitions for universal rural pensions. Orders were issued to cease expansion, address operational issues and, where possible, shift management of the schemes to commercial insurers. Coverage fell rapidly, declining to 54.6 million in 2002 and 51.7 million in 2007.

Between 2003 and 2009, the impetus to increase pension coverage was renewed and a number of pilot schemes were launched. The main difference between these pilots and their counterparts from the 1980s and 1990s was the emphasis on state support, most commonly through incentives, to address the problems of low participation in voluntary arrangements.

> *"… these pilot schemes involved either government-subsidised contributions or government-funded (non-contributory) payments, or a mix of both. This reflected a shift in thinking on the part of both local and central government authorities that public financing was necessary to achieve coverage and incentivise participation." (HelpAge International, 2013[55])*

The New Rural Pension Scheme was announced by the State Council in 2009 and operational in 60% of rural counties by early 2012 (Dorfman et al., 2013[63]). The scheme provides the facility for rural workers to make voluntary contributions to individual accounts, subsidised by local authorities and the central government.

The scheme provides benefits in two components:

- Under the **social pension**, a basic income at specified level is payable to those aged 60 and above whose children participate in the scheme, under the so-called "family-binding" eligibility criteria. The pension, which may be supplemented by local government authorities at their discretion, is supposed to maintain its purchasing power, but rules in this regard are not clear. This part of the scheme benefits from central government funding, in full for western and central provinces and at a proportion of 50% in the east.
- Under the **contribution pension**, participation is voluntary but flat-rate local government subsidies are payable into accounts only for those participants making at least a specified minimum contribution in a given year. The pension income is determined on the basis of a fixed annuity conversion factor but is only available to participants who have contributed for 15 years or more.

China has been closing in on its objective of universal pension coverage by 2020. By the end of 2016, there were 379 million participants in the EEBP, while the resident schemes (urban and rural) covered a combined 508 million individuals. Of the 379 million EEBP enrolees, 67% were enterprise employees, 23% were non-standard employees and 10% were civil servants. There were 101 million retirees in the EEBP, implying a system dependency ratio of 2.75 employees to one retired person, down from 3.11 in 1998 (Zhao et al., 2019[56]).

Civil servants

Until a series of reforms initiated in the early 2000s, salaries for China's civil servants were traditionally low and tightly controlled (Gong and Wu, 2012[64]). However, these workers have long been covered by a highly favourable pension arrangement.

Between 1950 and 2015, civil servants were covered by their own defined benefit pension scheme, which included most employees of government agencies and related government bodies.[5] This was run on a non-contributory basis, with benefits paid directly from the public purse. These benefits were generous, with payments based on a retiree's final rank or seniority. This made civil servants extremely unlikely to leave their jobs, and even had they done so the portability of benefits would have been administratively problematic. (Oksanen, 2010[65]) reports government expenditure on benefits at approximately 1% of GDP and rising.

In 2015, the civil service pension scheme was merged with the EEBP. New employees will contribute to the EEBP while current pensioners will continue to benefit from the previous dispensation. Transitional arrangements will be put in place for current employees, the details of which were not available for this study. In order to compensate public-sector employees for the obligation to contribute 8% of their salaries, their salaries were increased significantly as part of a broader reform of civil service pay (South China Morning Post, 2019[66]). This reduces the fiscal benefits of introducing contributions.

Problems with financing, fragmentation and fairness

According to (Zhao et al., 2019[56]), the EEBP would have been in deficit in 2015 and 2016 without fiscal subsidies: pension spending exceeded contributions and interest received on fund assets in both years. Growth in pension spending has outpaced growth in receipts since 2012, and although reserves are continuing to grow (thanks to public subsidies) the number of months of pension payments these can cover has declined since 2012, prompting the authors to note that 'the financial balance of the pension fund in the future is not optimistic'.

This outlook was corroborated by a report published by the Chinese Academy of Social Sciences (CASS, a government think tank) (Reuters, 2019[67]). According to CASS, accumulated assets will be exhausted in 2035 (absent reform) due to a rapid increase in expenditure on retirees. Thereafter, the situation becomes increasingly bleak, as spending continues to outpace contributions and the gap between them reaches 11 trillion yuan by 2050, by which time one pensioner will be supported by one worker (Caixin Global, 2019[68]).

This decline in the dependency ratio reflects China's rapidly changing demographics. The working-age population peaked in 2010 and the proportion of the population aged 60 or over is projected to rise from 15% in 2015 to 25% in 2030 and 31% in 2045 (United Nations Department of Economic and Social Affairs, 2019[69]). In this context, even a contribution rate as high as 28% of wages is proving insufficient to keep many components of the system financially viable.

(Zhao et al., 2019[56]) find that the actual contribution rate per worker is considerably lower than the top statutory rate due to incomplete contribution histories and the fact certain types of workers are able to make contributions at a reduced rate. They also note that the average replacement rate for the EEBP fell from 70% in 1998 to 44% in 2016, indicating that workers are getting less and less from the system.

With the finances of the system in jeopardy and benefits declining, increased public attention is being paid to the overall fairness of the pension system. When (Zhu and Walker, 2018[57]) examine the stratification of the system, they find civil servants receive the highest benefits in retirement, followed by members of the EEBP. Participants in urban and rural resident schemes are far behind, and their benefits have not grown nearly as strongly as those for civil servants or EEBP members. The inequalities identified in this study are in line with data reported by (Hu, 2016[70]) in a policy brief that calculates the ratios between the respective average incomes at retirement under the systems for civil servants, enterprise workers and residents to be in the order of 100:51:2, respectively.

The picture is further complicated by the high degree of fragmentation in pension provision. Each part of the system is financed by its local city or provincial government and, as (Hu, 2016[70]) notes, even within the EEBP there is extensive fragmentation:

> *The urban workers' pension scheme consists of hundreds of sub-schemes run independently by local authorities, with some sub-schemes in surplus and others in deficit. To secure full and on-time payments of current pensions, the Government supplements many of these sub-schemes.*

Legal provisions were formulated in broad terms. This leaves a high degree of autonomy at local level to determine regulation, financing and implementation, and this in turn results in considerable variation. In addition, participants have to contribute for long minimum periods to be eligible for benefits, in many cases 15 years or more. All of these factors severely undermine labour mobility between regions.

(Hu, 2016[70]) and (Zhu and Walker, 2018[57]) identify major geographical disparities in the level of benefits. (Hu, 2016[70]) notes that 'within the workers' pension scheme, there are regional disparities in the pension replacement rates. For instance, in 2012 the average replacement rate was 70.5% in Shandong but only 43.2% in Chongqing.'

These differences in part reflect the economic fortunes of different parts of the country. However, a great deal of this inequity may be attributable to inadequate harmonisation of legal provisions to ensure greater consistency across regions and elements of the system. This leaves too much discretion to decision-makers at local level and a high level of dependence on the corresponding fiscal status of local and regional authorities.

By exacerbating inequality, the pension system is compounding what is already a major challenge (Piketty, Yang and Zucman, 2019[71]), (OECD, 2019[72]). A systematic reform approach that considers the retirement space holistically, including social assistance and social insurance arrangements, would provide an important framework for strengthening the potential of public finances to address this challenge. Inequalities are not just about income: greater centralisation of retirement arrangements are needed to militate against large geographical disparities of pension benefits.

The inclusion of civil servants within the EEBP increases the quantum of contributions to the system at the same time as increasing its liability. The fact that a portion of current workers and all new employees will no longer be receiving benefits on a non-contributory basis is preferable from the perspective of the overall system of public finances, although the gains are somewhat diminished by the compensatory pay increases.

Box 3.1. Myanmar

Myanmar is taking the first steps in providing social assistance for the elderly poor. However, expenditure on pensions for civil servants (including members of the military) is absorbing almost all spending on social protection.

Myanmar introduced a social pension for individuals aged 90 or above in 2015 (Dutta, O'Keefe and Palacios, 2015[73]). From 2019, the eligibility age was reduced to 85, a move that media sources suggested would increase coverage from 40 000 people in 2018 to above 150 000 (Eleven News, 2019[74]).

By contrast, the state budget financed pensions for 668 538 civil servants, politicians, and defence personnel in 2014/15 (Dutta, O'Keefe and Palacios, 2015[73]). These are members of a non-contributory, unfunded arrangement that provides a pension equivalent to 50% of final salary for a worker with 35 years of service in the civil service, from a retirement age of 60.

According to (Villarroel and Mariana, 2015[75]), total public spending on civil pensions for was equivalent to 0.55% of GDP out of the 0.57% of GDP spent on social protection in total. Sources in Myanmar have indicated that spending on civil service pensions was expected to reach 0.7% of GDP in 2019 versus expenditure on social pensions equivalent to 0.02% of GDP.

Conclusion

China's pension system has achieved remarkable gains in coverage over the past 20 years, and especially over the last decade. It has done so through a variety of schemes with different financing mechanisms adapted to the needs of different types of workers in both rural and urban areas. However, the outcomes for different contributors vary widely, and growing evidence of the stratification of pensions is a cause for political concern. The deep and long-standing advantages held by public servants over their private-sector counterparts have been dismantled but their impact will be felt for a considerable time to come, both financially and in terms of public attitudes towards the pension system.

The advantage of subsidised contributions have been removed, putting civil servants roughly on a par with other urban workers. As this change impacts only part of the liabilities to government and none of the past debt to workers, it will take some time for it to take full effect on the financial position of the scheme as a whole. A transparent and consistent calculation of the value of this implicit debt and the expected cost of running it down would clarify the extent and likely duration of this legacy. Unfunded pension debt is not limited to the central government. A concerted effort should be made to determine the corresponding exposure of local and regional governments and enterprises of all kinds, to model the expected development of this exposure and to consider how the problem may be mitigated.

The rapid growth of China's elderly population is undermining the finances of the pension system and further reform seems inevitable. This is an opportunity to improve both the sustainability and the equity of the system, although the importance of respecting vested rights limits the government's ability to address these imbalances straightaway.

China's treatment of its civil servants' pension benefits, in the context of the social protection system as a whole, may be described as increasingly egalitarian. We encourage consistent calculation of pension debt and forward-planning of cash flows across all parts of the country as a demonstration of this commitment to consistency and fair treatment.

Notes

[1] China's first formal pension scheme was the Basic Old-Age Insurance System for Employees. It was founded in 1951 and targeted urban employees. This was followed the next year by the system for civil servants and members of the military, the Basic Old-Age Pension System for Civil Servants. (HelpAge International, 2013[55])

[2] Millions of retirees fell into poverty as weaker SOEs reneged on their commitment to pay pensions.

[3] The total fertility rate fell from 5.72 in 1970 to 1.91 in 1996 (Holzmann, Mac Arthur and Sin, 2000[53]). (Jackson et al., 2009[54]) show that the largest part of this decline occurred in the 1970s. In 1980, the total fertility rate was 2.2.

[4] (Jackson et al., 2009[54]) cite improvements in the life expectancy at birth from 41 for the period 1950-55 through 63 in 1970-75 to 73 in 2005.

[5] Some public sector units are covered under the EEBP, mainly those in the education and health sectors (Oksanen, 2010[65]).

4. India

Faced with an urgent need to address shortcomings in its civil service pension scheme, India not only implemented a far-reaching structural reform of this arrangement – moving from an unfunded defined benefit to funded defined contribution system – but also used this as the basis for a broader reform of the social security system. The early signs are that building a social insurance scheme around public servants provides a critical scale for nascent defined contribution schemes. However, dissatisfaction with retirement incomes among civil servants retiring under the new system has undermined efforts to harmonise retirement arrangements for public and private sector workers. A plan to address the unfunded liabilities in closed civil servant arrangements and the military is needed.

India's public sector accounts for the majority of formal employment, providing almost 70% of jobs in the organised sector in 2000 (Glinskaya and Lokshin, 2005[76]). Public-sector employees have historically enjoyed a large wage premium over their peers in the private sector (Glinskaya and Lokshin, 2005[76]). While the structure of India's bureaucracy is a legacy of the British colonial system (as is its pension system), the role of the public sector has varied since independence, reflecting the state's shifting involvement in the economy (Paul et al., 2009[77]).

It is difficult to know with precision the size of the public-sector workforce given a lack of data on employment at a sub-national level. According to (IMF, 2018[78]), spending on compensation for central government was equivalent to 1.2% of GDP; according to (Glinskaya and Lokshin, 2005[76]), these workers accounted for only 17% of total public sector employment in 2000.

Phasing out the Civil Servants' Pension: Liabilities unknown

The Civil Servants' Pension (CSP) covers national and state-level public-sector employees who joined the service before the end of 2003. According to (Gayithri, 2009[79]), the arrangement that pre-dates India's independence by a considerable period: the origins of the CSP can be traced back to the 1881 recommendations of the Royal Commission on civil establishments and has a history that includes the Government of India Acts of 1919 and 1935. The CSP is a non-contributory defined benefit scheme run on a pay-as-you-go basis with no accumulation of pension assets, through payroll contributions or any other means (Swarup, 2013[80]).

The total cost of disbursements payable to former employees of the central government rose from 0.6% of GDP in the 1993/94 fiscal year to 1.7% in 2002/03.[1] Relative to tax revenue, this expenditure grew from 9.7% to 12.7% over the same period. The Government publishes information in its budget documents on the amount spent on the CSP but not on the underlying implied debt (Swarup, 2013[80]). It has for some time been aware of the problem of its liability to civil servants but does not appear to have published anything on its quantum or its plans to address the problem.

Notwithstanding the fact that the arrangement is closed to new members, financial pressure on the system is growing. (Kumar and Chakraborty, 2019[81]) calculate the sharp increase in costs of financing pensions under the old system, particularly amongst state administrations. They find that state government spending on pensions rose from Rs 1 077 billion in 2010/11 to Rs 1 971 billion in 2015/16 (USD 28.9 billion, or 1.4% of GDP) (IMF, 2018[78]). Spending on pensions at the state level in 2015/16 was well above spending at the federal level (not including defence) at Rs 342 billion.

(Kumar and Chakraborty, 2019[81]) report they are unable to predict how pension spending will evolve due to a lack of basic information: '[D]ata on expenditure on DB-pensions are apparently incontrovertible. However, data relating to [the] number of current and ex-workers in government most often is conjectural.' (Swarup, 2013[80]) outlines earlier efforts to assess the extent of the unfunded liability under the arrangement:

> *Attempts to estimate the future pension liability arising out of the existing unfunded pension plans are at a nascent stage in India. Recently, some private researchers have tried to undertake a limited exercise in respect of the defined civil service pension scheme. One such study puts the implicit pension debt liability of the Central and State Governments arising out of three components of civil servants pensions at Rs.20 034 billion or 64.51% of GDP.[2] While the methodology and/or the results can be questioned, the magnitude of the problem that this estimate suggests cannot be ignored. (Swarup, 2013[80])*

The CSP is not the only scheme that still provides pay-as-you-go benefits to civil servants. The armed forces are also members of a defined benefit pay-as-you-go scheme that is financed by the national government. This arrangement is still open to new members. The pension is determined as half of the average salary drawn during the last 10 months of service. Commissioned officers are eligible for this benefit after 20 years and personnel below officer rank after 15 years.

Total expenditure on pensions under this arrangement in 2010/11 amounted to around 0.3% of GDP (Sane and Shah, 2011[82]). By 2019, it had risen to 0.6% of GDP (The Economic Times, 2019[83]) and accounted for a significant proportion on military spending: some 26% of the national budget for defence in 2019 was allocated to pensions.

Introducing the National Pension System as the basis for a broader pension system

The National Pension System (NPS) is a defined contribution scheme established in 2004 that is mandatory for all central government employees who joined after that date. The scheme has gradually been rolled out to other public-sector employees; as of 2018, all state governments required their employees to join the NPS, with the exception of West Bengal (The Wire, 2018[84]).

For the first 15 years of operation, members contributed 10% of their salary and the employer was meant to contribute another 10%. However, according to the Seventh Central Pay Commission Report (Government of India, 2015[85]), many state governments have been unable to make the 10% contributions: 'Though NPS became effective from 2004, detailed instructions were issued only in late 2009 and in many cases the credit of contributions began from 2012. In the case of AIS officers in some States, contributions by the concerned State Government are yet to be fully made and deployed.'

In December 2018, the government announced it was increasing its contribution for employees of central government to 14% of salary while the employee contribution was kept the same. At the same time, the tax treatment for NPS withdrawals was made more favourable (for all NPS members) and civil servants were offered greater choice of investment options (livemint, 2019[86]).

Minimum annuitisation rules apply to the NPS. When the member reaches the age of 60, 60% of their accumulated savings may be taken in cash but the balance must be applied to purchase an annuity.[3] The member may retire early or terminate membership of the scheme before that age, but in such instance, the 40% minimum annuitisation proportion that applies at age 60 rises to 80%.

Taking advantage of economies of scale, charges have been kept low for the benefit of participants, many of whom are expected to contribute in very small quantities. The Central Record-keeping Agency (CRA), for example, may charge no more than Rs.50 for opening an account, Rs.190 for annual maintenance and Rs.4 for each transaction. Investment management, outsourced to private-sector providers, is cost effective, with an annual fee limited to 0.01% of assets. All equity investment must be in index-linked vehicles. Custodian fees are similarly small.[4] The NPS applies investment defaults on members, although these take the form of explicit limits for public-sector members.

The government has sought to leverage the NPS to increase social insurance coverage amongst the informal sector, which accounts for the majority of the workforce (Swarup, 2013[80]) reported that 307 million workers belong to what is commonly referred to as the *unorganised sector* (out of a total workforce of 425 million people at that time). Of those in the *unorganised sector*, some 40 million have taxable income.

In 2009, the government-authorised Pension Fund Regulatory and Development Authority (PFRDA) offered membership of the NPS to all Indian citizens, particularly those working in the informal economy. As the 20% contribution rate was not easily applied to the informal sector, the PFRDA modified these requirements for privately-employed or self-employed members. Employees in the private sector did not benefit from the increase in employer contribution that was granted to central government employees in 2018 but did benefit from the change in the tax treatment of withdrawals.

In 2010, the government introduced the NPS Swavalamban (literally 'self-resilience') component, also known as NPS-Lite, to attract participation amongst informal workers by offering matching contributions. This was replaced by the Atal Pension Yojana (APY) scheme in 2015, which matches up to 50% of a member's contributions. In 2019, the government established another scheme, Pradhan Mantri Shram Yogi Maan-dhan (PMSYM), to operate alongside the APY (Ernst & Young, 2019[87]). The PMSYM, which is overseen by the Ministry of Labour and Employment rather than the PFRDA, also caters for the informal sector but on slightly less attractive terms.

These new initiatives have increased pension coverage, although it is estimated that close to 90% of the workforce remains outside the pension system (Kumar and Chakraborty, 2019[81]). As of 2017/18, there were 11.6 million individuals subscribing to the NPS, up from 6.5 million in 2013/14 (Ernst & Young, 2019[87]). Of these, approximately half worked for central and state government. Meanwhile, the number of subscribers to the APY scheme reached 9.6 million members of the unorganised sector.

The level of NPS benefits have often disappointed contributors from the civil service. As the Seventh Central Pay Commission identified, "contributions for the period 2004-12 have not been made in full or have earned simple interest and did not get any market linked returns" (Government of India, 2015[85]). Moreover, pensioners are not happy that annuity payments are not adjusted for inflation and benefits are not reviewed periodically, both of which happened under the CSP.

The low level of NPS retirement benefits, in particular relative to civil servants who were covered by the CSP, has caused dissatisfaction (The Wire, 2018[84]). Although the government has so far ruled out a reversion to the old pension system, it announced a number of changes to the NPS in 2018 to improve outcomes for civil servants in the NPS, most notably an increase in the government's contribution (the pioneer, 2019[88]).

India's three-pillar pension system

Outside the civil service, social protection measures for workers in the formal sector have been developed piecemeal over time through various laws. Coverage provided by these initiatives includes compensation to workers for accidents arising in the course of employment, paid maternity leave, health care and cash benefits in the case of sickness and employment injury, and the payment of a gratuity on leaving employment service.[5]

(Confederation of Indian Industry, 2013[89]) provides a comprehensive overview of formal-sector pension provision in India. It divides these elements into those that fall under *Pillar two*, broadly part of the mandatory system, and *Pillar three*, voluntary and not well developed.[6] Pillar two elements are as follows:

- **Civil Servants' Pension**: an unfunded, defined benefit arrangement closed to new members. Benefits include a monthly pension, indexed to wage and price movements,[7] a survivor pension and a disability benefit. Pension rights are only available following ten years of qualifying service.
- **General Provident Fund**: a voluntary defined contribution scheme for permanent employees of central government recruited before 1 January 2004. Interest credits are based on an administered rate of return paid by government. Contributions plus interest are payable as a lump sum benefit on retirement. A small death benefit is payable and limited access to accumulated contributions prior to retirement is available.
- **Contribution Provident Fund**: a defined contribution scheme with benefits that mirror those in the General Provident Fund and investment credits also based on the government's administered return. The scheme is applicable to permanent government employees and those of any departments, offices or organisations where CPF rules apply.
- **Employees' Provident Fund (EPF)**: a defined contribution arrangement established in 1952 and managed by the Employees' Provident Fund Organisation (EFPO). Membership and (equal to 12%

of salary) are mandatory for workers in private-sector organisations covered by the EPFO. It is financed by the employee contribution to the EPF and interest is payable based on an administered rate of return.

- **Employees' Pension Scheme (EPS)**: a defined benefit scheme launched in 1995 for members of the EPF, which is financed by employer contributions, with fixed contribution and pension rates paying a pension from age 58 and benefits for death or disability if prior to retirement. An early retirement option is available from age 50.
- **Public Sector Bank Pension**: a defined benefit scheme paying a monthly pension after retirement, subject to a minimum of 10 years of service. Pension commutation is available and survivor pensions are also payable subject to limiting conditions.

(Confederation of Indian Industry, 2013[89]) lists a number of arrangements falling under what it refers to as the Pillar 3 system. These include:

- public provident funds and individual pension or annuity plans offered by life insurers;
- mutual fund pension plans;
- the NPS for non-government employees; and
- any other individual personal saving.

Despite the growth in NPS coverage across the public and unorganised sectors, it remains much smaller than the main private-sector arrangements. According to (Swarup, 2013[80]), around 26 million individuals belonged to the CSP, 50 million to the EPF, and 28 million to the EPS.

A wide range of programmes seeks to reduce poverty

India's stellar economic performance in the 21st Century has been accompanied by an equally noteworthy reduction in poverty. According to World Bank data, the poverty rate fell from 37.7% in 2004 to 20.0% in 2012 (Dang and Lanjouw, 2018[90]). According to official data, 22% of the population (or 269 million people) lived below the national poverty line in 2012, of whom 80% lived in rural areas (Mehrotra, Kumra and Gandhi, 2014[91]). A decline in the income poverty has been accompanied by improvements in measures of broader deprivation: according to (Alkire, Oldiges and Kanagaratnam, 2018[92]), incidence of multi-dimensional poverty fell from 54.7% in 2005/06 to 27.5% in 2015/16.

However, inequality is rising fast. Without a recent national income survey (the last one was conducted in 2004), it has not been possible to monitor the evolution of income inequality at a national level in recent years. However, other analysis bears witness to the phenomenon. (Chancel and Piketty, 2017[93]) found the top 0.1% of earners captured more of the gains from India's economic growth between 1980 and 2015 than the bottom 50% of the income distribution, while the Council for Social Development has found that the top 1% of the population owns 58.4% of the nation's wealth (Times of India, 2019[94]).

Social protection provision has been shown to have a minimal impact on poverty and inequality (Satpathy, 2018[95]) (Jha, 2014[96]). In part, this is a result of low spending: according to (International Labour Office, 2017[10]), spending on social assistance is equivalent to approximately 1.3% of GDP, which is below the average for South Asia as a whole (2.7% of GDP). The World Bank, meanwhile, calculated social protection spending to be 2.0% of GDP in 2015, with the difference between the two figures attributable to how food and fuel subsidies are classified (Bhattacharya, Falcao and Puri, 2017[97]).

Social protection coverage is also low, with only 19.0% of the population having access to at least one social protection programme (International Labour Office, 2017[10]). The quality of coverage varies greatly by state, often reflecting the capacity of the respective administrations; the outcomes of social protection programmes are thus equally variable, making it hard to assess the effectiveness of specific interventions on a national scale (Ministry of Finance, 2017[98]).

Problems with leakage and targeting have undermined the effectiveness of poverty-alleviation programmes. However, the Aadhaar digital registry is improving matters. As of 2019, it was used by 440 schemes across 55 ministries to reach 1.24 billion individuals, almost the entire population (Bhatia and Bhabha, 2017[99]) (The Hindu Business Line, 2019[100]).

Another pillar of India's social protection system is the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), which was established nationally in 2005 (having previously been implemented at a state level) to guarantee the households of rural workers at least 100 days of paid work a year on demand during the agricultural off-season. The salary is meant to be set at the prevailing minimum wage in the relevant state. Where local administrations are not able to provide work, beneficiaries are entitled to an unemployment allowance.

Coverage has been estimated at around 50 million households, reflecting the fact that only one member of a household can benefit from the programme at a given time (Breitkreuz et al., 2017[101]). MGNREGS is thus the world's largest workfare scheme and one of the few that seeks to guarantee the right to work. However, its budget is very low for a flagship programme: the national budget allocated Rs 60 000 crore to the programme in 2019/20, equivalent to 0.31% of GDP (The Economic Times, 2019[102]).

The implementation of MGNREGS varies widely by state, and there is a dearth of national-level evaluations (Bhatia Shonar et al., 2016[103]). It has nonetheless been found that funding for the programme is lost through corruption, that very few households receive the amount of employment stipulated by the scheme, that wage payments arrive late, that the assets created through the programme are of poor quality and that the programme performs least well in the poorest states (Ravallion, 2019[104]). Problems with gender-based discrimination have also been identified (Holmes, Sadana and Saswatee, 2010[105]). However, there have been marked improvements in recent years, thanks to (among other things) the introduction of biometric smartcards for beneficiaries and greater focus on the quality of assets (Karthik, Niehaus and Sukhtankar, 2016[106]) (McCord and Hannah Paul, 2019[107]).

Social assistance for the elderly operates at a much smaller scale. It is principally provided through the non-contributory Indira Gandhi National Old Age Pension Scheme, which aims to provide to citizens between the age of 60 and 79 who live below the poverty line a monthly pension of Rs 200 while a benefit of Rs 500 is available for poor individuals aged 80 and above. Some 22.3 million people received the programme in 2012/13 (Jha and Acharya, 2013[108]), out of a population aged 60 or over of around 100 million (United Nations Department of Economic and Social Affairs, 2019[69]).

The central government provides a benefit that is topped up by state governments by differing amounts (Kulkarni, Raju and Bammidi, 2015[109]). The level of the monthly benefit paid by central government is equivalent to just under USD 3 at the time of writing and has been frozen in nominal terms since 2007, with its purchasing power thus greatly diminished (The Telegraph, 2018[110]).

Conclusion

India's situation is somewhat enigmatic. On the one hand, it has not assessed the extent of its unfunded liability or taken any steps to manage this liability (or address its continued increase in the case of military employees, which is becoming a major drain on the defence budget). In this sense, it continues to burden public finances with generous past treatment of public-sector employees and continuing largesse in the case of the military.

However, India has taken bold steps to by switching new public-sector employees into a straightforward defined contribution arrangement, the NPS. At the same time, it has sought to meet the savings needs of those working in the informal economy, with the participation of public servants going a long way to providing economies of scale from which other members might benefit. Coverage of the NPS has grown significantly since it was established in 2004, although it remains smaller than mandatory schemes for the private sector and the old arrangement for civil servants (who typically receive larger benefits in retirement).

Dissatisfaction within India's large civil service at the unfavourable retirement outcomes among civil servants who joined the NPS has caused the government to differentiate between central government employees and other NPS members. This risks undermining the potential of the NPS as a retirement vehicle for the workforce as a whole.

A number of initiatives aimed at broadening the effectiveness of social protection have demonstrated the potential to reach large numbers of beneficiaries. MGNREGS is a globally renowned employment guarantee scheme. However, spending on social assistance is low and significant improvements in coordination are required.

The Government of India is looking forward in a way that is not only equitable but shows admirable leadership. It could complement this by undertaking the financial modelling necessary to put a value to its unfunded pension liabilities, current and projected into the future, implementing a plan to address this problem and then tracking and reporting its progress against this plan.

Notes

[1] (Swarup, 2013[80]) refers to this as a *liability*, but other much larger figures cited in his paper for the implicit debt suggest that *liability* in this context refers to the disbursement actually due for payment in the period.

[2] (Sane and Shah, 2011[82]) put the implicit pension debt at 55.8% of GDP, reasonably comparable to the figures quoted by (Swarup, 2013[80]).

[3] Annuities are available from a panel of private providers in a variety of forms. Withdrawal of the lump sum may be deferred for up to ten years, up to age 70.

[4] Both the PFRDA and (Sane and Shah, 2011[82]) describe the fee separately for an electronic segment (0.0075%) and a physical segment (0.05%). Neither explains the terminology further.

[5] An unemployment insurance scheme is also under development by the ESIC.

[6] (Confederation of Indian Industry, 2013[89]) distinction between Pillar 2 and Pillar 3 is not clear as some elements listed under Pillar 2 appear to be voluntary to participants.

[7] (Swarup, 2013[80]) reports that pension benefits in old age typically grow at a rate above the corresponding rate of price inflation.

5. Malawi

Malawi’s public sector is one of the most expensive in the world as a proportion of GDP and the pension arrangement for civil servants (which until recently was non-contributory) is similarly costly. The government has committed to improving the sustainability of civil service pensions but the short-term cost of a reform urgently required to reduce long-term liabilities has proven prohibitive. Meanwhile, spending on social assistance is very low given Malawi’s level of poverty and is almost entirely financed by donors.

Malawi's public sector is large, with a wage bill equivalent to some 26.7% of government revenue in 2016/17. An increase in the wage bill between 2009 and 2014 (from 6.2% of GDP to 9.9%) was due to strong growth in the size of the public sector workforce (World Bank, 2015[111]). While wages for civil servants are generally lower than those for workers in the private sector, salaries of public officials are topped up by allowances and a generous pension scheme in retirement.

The high cost of reforming civil service pensions

Until 2018, public servants were automatically members of the Civil Servant Pension Scheme (CSPS), the only public pension arrangement in Malawi prior to the 2011 Pension Act. The CSPS is operated by the Government of Malawi and is an unfunded defined benefit arrangement. The scheme is non-contributory, with benefits financed by budgetary allocations by government.

(UNPAN, 2004[112]) reports that employees could retire from the public service with a pension

- at a mandatory retirement age of 55, with minimum service of 10 years,
- by voluntary retirement after 20 years of service, or
- with the consent of the Minister of the Public Service with service of at least 10 years and age of 45 or higher.

(UNPAN, 2004[112]) states that full pension benefits were available after 20 years of service and that an ex-gratia payment was made on retirement with service of less than this term. A severance package was also available on retirement. The income portion comprised three-quarters of total terminable benefits and a gratuity the other quarter. (World Bank, 2008[113]) reports that the accrual rate was 3.3% of basic salary, although the basic salary of civil servants is a relatively low proportion of their total compensation.[1]

(World Bank, 2008[113]) shows evidence of progress to control the cost of benefits. It reports a similar set of membership conditions as (UNPAN, 2004[112]) but indicates that the minimum age of retirement for civil servants that had not achieved 20 years of service was increased from 55 to 60. This was unlikely to achieve a major reduction in cost because civil servants could still retire after 20 years of service, regardless of their age. In the case of the military, furthermore, retirement was possible after as little as 10 years of service with no minimum age requirement. As an indicator of the generosity of the system, (World Bank, 2008[113]) estimates that the implicit contribution rate under the civil servant system, depending on the assumed long-term rate of investment returns, amounted to between 22% and 30% of salaries, which is high by any standards.

A number of parametric changes have been introduced to the CSPS since 2004, not all of which reduced its liabilities. On the one hand, the accrual rate was reduced to 2.5% per year for members on lower salaries and to 2.2% for those with higher earnings. Pension income at retirement was based on the average of the worker's salaries in the three years prior to retirement. No automatic inflation-indexation was available to pension recipients. On the other hand, the formula for calculating the pension was based on total remuneration, so the effective accrual rate represented a considerable increase. The overall result of these changes was a system that was unsustainably expensive but which, thanks to the absence of inflation-indexation of benefits, did not provide an income that guaranteed a given lifestyle would be sustained in retirement.

The government signalled its intention to improve the long-term sustainability of the system by transferring civil servants to the National Pension Plan but encountered the cost constraints typically associated with transition from a pay-as-you-go scheme to a prefunded arrangement. In 2015, the Ministry of Finance announced that the government could not afford to cover the total liabilities accrued under the CSPS, estimated to be more than MWK 500 billion (USD 720 million), which equated to approximately 17% of annual GDP or nearly a full-year of government expenditure (Government of Malawi, 2015[114]).

This opinion was supported by the International Monetary Fund (IMF), which argued that "fully funding the public sector pension scheme – one of the objectives of the 2011 pension reform – is fiscally untenable and should be revisited". The IMF was of the opinion that "meeting accrued liabilities would require assets exceeding 60% of GDP, which would undermine fiscal sustainability…a debt issuance of such magnitude could not be accommodated by Malawi's capital markets". It instead called on the government to implement parametric reforms to the existing system to improve its sustainability (IMF, 2015[115]).

It appears that a compromise has since been reached. An initial proposal whereby new entrants to the civil service and existing civil servants under 50 years of age would be obliged to join a new scheme was rejected; however, a revised proposed that lowered the upper age threshold to 35 was accepted, with sources indicating that this took effect in October 2018. The modalities of this change are not known at the time of writing but the exclusion of civil servants older than 35 means that the government will be required to finance civil servant benefits from general revenue on a non-contributory basis for at least two decades into the future.

Medium-term projections underscore the urgency of curbing growth in spending on civil servant pensions. (IMF, 2018[116]) predicts that spending on pensions and gratuities will be 1.5% of GDP between 2018/19 and 2022/23, up from 1.2% in 2016/17 and 0.9% in 2012/13 (IMF, 2015[115]).

Pension coverage in the private sector is very low

Pension provision for workers employed in the private sector became mandatory in 2011 with the passage of two laws: the Pension Act and the Employment Amendment Act.[2] This legislation addressed the duplication of mandatory pensions and severance benefits by specifying the circumstances to which the pensions or severance framework apply. The Pension Act went much further, however, than relieving the burden on employers of the double provision requirement; it made membership of a pension arrangement mandatory for all workers.

Alongside the National Pension Fund,[3] three types of arrangements are permitted under the Pension Act:

- **restricted funds** that limit membership to the employees of a specified employer or group of employers,
- **unrestricted funds** that are open to any member of the public, and
- **umbrella funds**, established for employees of small companies, who typically join these arrangements for the benefits of pooling of administration and investment management fees.

Employers that do not offer membership of a registered pension fund must make provision for their employees to be members of the National Pension Fund. The Act stipulates minimum contribution rates payable to the applicable pension funds of 15% of earnings, of which two-thirds is payable by the employer and the balance by the worker.[4] While the majority of privately managed retirement funds are defined contribution in design, it is not clear how the minimum contribution applies to funds with defined benefit or hybrid structures, although it has been stipulated that defined benefit schemes must be fully funded (IOPS, 2011[117]). No minimum benefits are prescribed by the Pension Act, but it is required that at least 60% of retirement benefits must be taken in the form of a lifetime annuity or a programmed withdrawal, limiting cash benefits on retirement to the balance of 40% of the accumulated saving.

Exceptions to this mandatory participation exist. Employers of certain types of workers are exempted.[5] Employees earning less than a stipulated salary need not participate except where a company employs five workers or more. Any company with an existing pension scheme at the date of commencement of the Act, however, could not step away from its commitment by taking advantage of the exemption provisions.

Growth in pension coverage following the passing of these laws was rapid. The number of registered pension funds increased from around 400 in 2010 to 1 777 in 2013 and membership of the National

Pension Scheme more than doubled in the same period from just below 80 000 to 191 256. Efficiency also improved over this period: with the growth in the volume of contributions and assets, the average administration cost per member fell.

Membership of the National Pension Scheme rose to 304 256 in 2017 and 406 068 in 2018 (The Registrar of Financial Institutions, 2019[118]). The large increase between those two years are attributable to the registration of the Public Service Pension Fund as a stand-alone restricted pension fund, to which belong new entrants to the civil service and existing public servants who are 35 or younger.

Notwithstanding these increases, pension coverage in Malawi is extremely low, even for a country at its income level (Dorfman, 2015[4]). According to (World Bank, 2019[119]), only 3% of adult Malawians have a pension plan; 40% plan to sell or rent out non-financial assets when they reach old age, while 37% intend to rely on income from a business and 31% plan to keep on working. Understanding of the pension system is extremely low: only 41% of adult Malawians have heard of a pension and understand the term. Only 10% have heard of the National Pension Fund.

This situation is made all the more concerning by the absence of a specific transfer for the elderly amongst the social assistance programmes discussed in the next section. Nearly a quarter of people aged 65 or over live in a household that receives the Social Cash Transfer Programme (SCT) while 16% are direct recipients, but that still leaves the majority of the elderly population without any coverage (MANEPO, 2017[120]).

Social assistance is scaling up in response to high levels of poverty

Malawi is the sixth-poorest country in the world, with an extreme poverty rate of around 70% according to the USD 1.90 a day measure (World Bank, 2018[121]). There are two national poverty lines: moderate and ultra poor. In 2016/17, the moderate poverty rate stood at 51.1%, up from 50.7% in 2010/11 and only slightly down from 52.4% in 2004/05; the proportion of the population living below the ultra poverty line was 20.1% in 2016/17, down from 24.5% in 2010/11 and 22.3% in 2004/05 (World Bank, 2018[121]). Around 60% of children are multi-dimensionally poor (UNICEF Malawi, 2019[122]).

Social assistance has a relatively short history in Malawi. Although social assistance was first mentioned in the Poverty Reduction Strategy of 2002, it was not until 2012, with publication of the National Social Support Policy (NSSP), that the Government of Malawi formalised its approach to and ownership of social protection initiatives, although by that time donors such as the World Bank were already implementing social assistance programmes. The first Malawi National Social Support Programme (MNSSP), which covered the period 2012-16, operationalised the NSSP (IPC-IG, 2018[123]).

MNSSP II, published in 2018, outlines the country's social protection strategy for the period 2018-23. It has three pillars: consumption support, resilient livelihoods and shock-sensitive social protection. It commits to improving coordination between the five principal social safety net programmes that cut across these pillars: the unconditional Social Cash Transfer Programme (SCTP), the Malawi Social Action Fund Public Works Programme (MASAF PWP), the School Meals Programme (SMP), the Nutrition and Access to Primary Education programme, and the Food Assistance for Assets Programme (World Bank, 2018[124]). It also seeks to improve linkages between these programmes and other initiatives aiming to improve livelihoods.

The SCTP is Malawi's flagship social protection programme. The programme was first piloted in a single district in 2006, since when it gradually scaled up to reach all 28 districts in 2018. It is targeted at individuals in the bottom income decile who are assumed to be physically unable to support themselves through work (IPC-IG, 2018[123]). Benefit values vary but on average households covered by the programme receive MK7 000 per month (equivalent to about USD 10). Around half of beneficiaries are children. MASAF PWP is aimed at poor individuals who are able to work; the wages for participants are kept very low to encourage self-selection into the programme. It is the only other social safety net other than the SCTP that currently operates nationwide.

The impact of the SCTP has been extensively analysed since the programme was first piloted in 2006. It is widely shown to be effective at reducing poverty and that receipt is associated with improvements in food security, higher school enrolment, better health and higher productivity (Ministry of Finance Economic Planning and Development, 2016[125]) (IPC-IG, 2018[123]). It has also been shown to generate important spillover effects for local communities. The prognosis is not so positive for other programmes. Due to the temporary nature of the work it provides, the wages provided to beneficiaries through MASAF PWP alleviate poverty in the short term rather than the quality of assets generated through the programme. Meanwhile, evidence on the impact of the SMP is also lacking (Ministry of Finance Economic Planning and Development, 2016[125]).

Evidence of the SCTP's success has encouraged a rapid scale-up. In 2016, it covered 700 000 individuals; by June 2018, this had increased to 1.14 million (UNICEF Malawi, 2019[122]). MASAF PWP was the largest safety net programme by coverage in 2016, reaching 17% of the population. In the same year, the SMP covered 12% of the population. In total, around 25% of the population had access to a safety net programme in 2016; in the same year, 33% received some form of humanitarian relief and 37% were covered by the Farm Input Subsidy Programme (FISP), which provides subsidised seeds and fertilizer to poor and vulnerable smallholder farmers (World Bank, 2018[124]).

Spending on safety nets is very low and financing relies heavily on donors. According to (World Bank, 2018[124]), average expenditure on social safety nets averaged 0.6% of GDP between 2011 and 2016, against an average of 1.2% of GDP across Africa as a whole. This stands in marked contrast to spending on humanitarian relief and the FISP, which were equivalent to 6% and 1% of GDP respectively in 2016. Historically, social safety net spending has been almost exclusively financed by donors, which has exacerbated fragmentation between programmes and raises question marks regarding programmes' long-term sustainability (IPC-IG, 2018[123]).

The SCTP's budget is growing rapidly as the programme scales up. At MK 14.4 billion in 2018/19, the SCTP's budget was 49% higher in real terms than in 2017/18, continuing a recent trend of large annual increases in financing. These largely reflect increased support for the programme from the World Bank; the Government of Malawi's contribution to the SCTP in 2018/19 was MK 2.3 billion, a similar level to the previous year.

It is also notable that the increased spending on SCTP in 2018/19 came at the expense of the MASAF-PWP, the budget for which declined dramatically in that year. Overall, total spending on social protection (including donor support) declined from MK 22 billion in 2017/18 to MK 15 billion in 2018/19, or from 0.4% of GDP to 0.3% of GDP (UNICEF Malawi, 2019[122]). This reflects the extremely tight fiscal conditions that prevail in Malawi.

Conclusion

Public servants have long benefited from unfunded promises into an essentially unregulated entity, with inadequate disclosure of the fiscal cost and no consistency with the reality of social protection outside of the public service. Steps have been initiated to change this. Legislation has clarified the issue of double provision by private-sector employers and simultaneously implemented mandatory provision for retirement: participation at national level is now mandatory for all formal-sector employees. Regulation of the sector has improved considerably.

At the same time, government has sought to address the unfunded pension liability by moving its employees to the new defined contribution National Pension Fund and covering the cost of their accrued liabilities. However, the cost of doing do was prohibitive and a compromise agreement was reached whereby only new entrants and younger civil servants would belong to the new arrangement.

The impact of Malawi's transition to a sustainable pension arrangement for public servants has been greatly weakened. Public spending on civil service pensions financed through general revenues is likely to keep rising relative to GDP as the number of retirees increases, thereby crowding out other areas of expenditure, including much needed social safety nets. Today such programmes are almost totally reliant on foreign donors for financing and, even then, total spending on safety nets is extremely low by regional standards.

From a public financial management perspective, disclosure could be improved by setting out the unfunded liability of the CSPS and the pattern of cash outflows expected to arise as a result of this liability. Expected government contributions to the National Pension Scheme in respect of its own employees should be notified separately. These figures, together with a clearer description of the expenditure expected on a consolidated set of activities aiming to benefit the poor, would improve transparency and, ideally, contribute towards a more coherent social protection system.

Notes

[1] (World Bank, 2008[113]) suggests that it would be reasonable to assume a basic salary of around one-third of gross salary, so the accrual rate could be expressed as just over 1% per year based on total salary.

[2] This was the first comprehensive pension regulation in Malawi, Prior to this, only the Taxation Act of 1998 provided any regulation of private pension funds in Malawi. This law required registration with the Tax Commissioner to facilitate tax compliance; it did not regulate the payment of contributions by employers or employees to pension funds (Mhango and Thejane, 2012[171]). The World Bank (2008) also reports that the Income Tax Commissioner, which received financial statements from private pension plans every year did not process these statements nor use them for any control purpose.

[3] The terminology can be slightly confusing. The Pension Act defines the National Pension Scheme as comprising *"… (a) a national pension fund to be established under this Act … and (b) other pension funds licensed under this Act"*. (Government of Malawi, 2011, section 6(2))

[4] This is in line with common practice prior to the passing of the Act (World Bank, 2008[113]).

[5] Included in this category are seasonal workers, employees in homes and members of parliament.

6. South Africa

South Africa's public service pension fund, for state employees at national and provincial level, is by far the country's largest retirement scheme. A fully funded, defined benefit arrangement, it provides benefits that are not excessive relative to those provided by the private retirement industry and at the same time takes all reasonable measures to ensure that the fund is sustainable. Pension arrangements for third-tier public-sector employees, in contrast, appear less stable and are frequently subject to hidden costs. While social grants achieve broad coverage, the absence of a public scheme for South Africa's private sector leaves an important gap in the retirement system.

South Africa's wage bill has risen significantly in recent years, amounting to some 35.5% of public spending in 2017/18 (National Treasury, 2018[126]). Public sector employment accounted for just under 20% of total employment in 2015 (up from 16% in 2008). Public sector employees benefit from a large wage premium vis-à-vis their peers in the private sector, and growth in public sector salaries has outpaced private sector salaries since the Global Financial Crisis (Kerr and Wittenberg, 2017[127]).

The GEPF is one of the largest pension funds in the world

Public-sector employees working for arms of the central and provincial levels of government are members of the Government Employees Pension Fund (GEPF), which was established in 1996 through the consolidation of various public sector funds. With certain exceptions, members contribute at a rate of 7.5% of pensionable salary, while the government as employer contributes 13% of salary. Recent increases in the size and salaries of the public sector increase the cost to the fiscus of the employer contributions and are not always straightforward to anticipate ex ante when attempting to calculate the long-term financing position of the fund.

Three state-owned enterprises have pension arrangements that fall, like the GEPF, under their own legislation. The pension funds of municipal workers and the employees of other state-owned enterprises fall under the occupational funds framework. While the occupational retirement funds of municipalities fall under the same pension fund legislation as private-sector arrangements and are mostly defined contribution in design, these arrangements are characterised by significantly higher employer contributions than their private-sector counterparts. A number of them also provide investment return guarantees backed by employers.

This represents a significant additional risk and expense to government not separately reported by the Registrar of Pension Funds. Although not covered by this paper, this situation adds to the complexity of the assessment of government contributions towards social protection for its employees.

As of 31 March 2018, the GEPF served 1 273 784 active members and 450 322 pensioners and other beneficiaries. Assets amounted to ZAR1 800 billion (USD 134 billion) (GEPF, 2018[128]), making it the 21st largest pension fund in the world that year (Willis Towers Watson, 2019[129]). The fund is structured as a fully funded defined benefit arrangement, paying pensions that are calculated on a basis that might be described as generous without being unreasonable or unsustainable.[1] Members of the armed forces, police services and intelligence agency receive more generous benefits, as is the case in many other countries, but these are also not unduly lavish.[2]

South Africa's national budget publications include figures on total public sector compensation. Annual reports by the Registrar of Pensions Funds disclose the contribution payable to GEPF, separately for government and members. The Government's contribution to the GEPF in 2017 amounted to ZAR 42.5 billion), which is equivalent to approximately 0.9% of GDP (Registrar of Pension Funds, 2018[130]). This may be compared with total social protection expenditure in the 2017/18 fiscal year of ZAR 178.3 billion (3.2% of GDP), of which ZAR 64.3 billion (1.2% of GDP) was spent on grants to the elderly (National Treasury, 2018[126]).

The fund is administered under its own law, outside the provisions governing nearly all other retirement vehicles. The provisions contained in the law and corresponding fund rules are consistent with current global best practice. Governance is sound. In particular, the fund is subject to formal actuarial valuation no less frequently than once every three years and must be either fully funded or adopt a plan to return to a fully funded status in those instances in which it falls short of these standards. The GEPF is fully funded at present, so government has no hidden liabilities in this regard. The additional benefits payable to the armed forces are backed by higher contributions, payable by government.[3]

Investment of assets is performed through a separate entity, the Public Investment Corporation (PIC), which was established in 1911 and initially managed the debt of the Union of South Africa. The PIC is publicly owned and acts under the terms of a mandate from the trustees of the GEPF.

In summary,

- pensions provided to public servants are clearly defined in the rules of the GEPF,
- the quantum of benefits is generous but reasonable,
- the cost of funding these pensions and ancillary benefits is undertaken and accounted for as incurred by government as eligibility to these benefits is accrued, and
- variations to this cost are smoothed over time through the use of globally acceptable actuarial methods.

We should point out that the merits of this arrangement are not universally accepted. (Hendricks, 2008[131]) argues that:

- the transition of the GEPF to a fully funded arrangement took place late in the years of the apartheid government in order to safeguard the financial interests of the members of the fund at the time against the possibility of a unilateral reduction or removal of benefits,
- the cost of this transition was significantly increased by the largesse of the apartheid government in the 1980s towards its public servants,[4]
- the burden for financing this transition, through substantial increases to the levels of public debt,[5] was borne by the people of South Africa, notably the poor, and this continues to be the case,
- the corporatisation of the PIC, still wholly owned by government, undermines the quality of oversight over its investments by Parliament, in the process entrenching economic power in the hands of a few and undermining the potential for the organisation to invest effectively for development, and
- the overall effect of this transition is to undermine the effectiveness with which South Africa is able to spend to the benefit of the poor.

It is not within the scope of this paper to consider the merits and demerits of advance funding of pension benefits. Our primary objective is to argue for transparent reckoning of the costs of providing such pensions to public servants, preferably along with the benefits, within the context of equally clear disclosure of the corresponding costs and benefits of the social protection system as a whole. We take no issue with the assertion that the decision to convert the GEPF to its fully-funded status may have been made under questionable circumstances. Whether the debt to government is direct, through the markets, or indirect, through its obligations to former public-sector employees and their dependants, disclosure of this commitment and its servicing costs should be transparent.

We affirm our position that the structure and governance of the GEPF is sound, even with concerns on governance taken into account. We nevertheless believe that the clarity of disclosure of government financial exposure to this arrangement could be improved.

Considerable attention has been given to the alternative paths along which reforms to retirement provision markets may proceed. Not a great deal of public attention has been paid to the implications of the available reform options for public servants but we understand that options for integration have been considered by policy makers. Such an approach would demonstrate commitment to consistency of approach between the provisions applying to public servants and the corresponding broad approach to social protection, and would allow risk to be shared fully across the workforce. However, the strength of this commitment would only be evident at the time of implementation.

South Africa's retirement system provides well for some but has important gaps

Outside the GEPF, South Africa's model of retirement provision is comprehensive in some respects and substantially lacking in others. Provision for the elderly includes:

- a system of old age grants, means-tested but provided to a high proportion of elderly citizens, with
- a large and separate system of occupational pensions for employment-based saving with a range of benefit models, and
- a sophisticated set of long-term contractual savings arrangements for supplementary saving.

While membership of an occupational retirement fund is commonly a condition of employment, participation in retirement saving is not compulsory at national level. Coverage rates are low, even among those working in the formal economy, let alone among the informally employed and unemployed. Participation among the formally employed is also uneven, with large differences in coverage rates attributable to factors such as level of income, sector of employment and union membership. A number of other factors contribute to poor retirement outcomes for those participating in retirement saving vehicles, notably the absence of mandatory preservation of accrued benefits on resignation from employment.

In contrast, employees of national and provincial government are members of a well-run fully funded defined benefit arrangement, operating under the 1996 Government Employees Pension Law, providing benefits that are adequate and reliable. Most employees of local government entities belong to some 50 occupational retirement arrangements that fall under the 1956 Pension Funds Act, the legislative framework governing arrangements supported by private-sector employers and their workers. Important practical differences between municipal occupational retirement funds and their private-sector counterparts continue to exist.

Historical background

The development of South Africa's social protection framework may be traced to three main historical influences:

- government willingness to provide income support to the poorest elderly citizens, albeit deeply stratified on racial grounds,
- paternalistic provision by many employers, particularly the large mining and manufacturing concerns, of generous defined benefit pensions, again starkly differentiated on grounds of race, and
- the development of a sophisticated financial services industry, supported by the assets of the occupational pensions funds, actively marketing voluntary risk protection and savings products to affluent South Africans.

Moves to dismantle race-based discrimination may be traced back to the 1970s (Taylor Committee, 2002[132])[6] and these accelerated in the 1980s, both in occupational pensions and in the corresponding system of old age grants provided by government. Echoes of the past remain, however, in the design of existing occupational arrangements and the distribution of members across different arrangements. Lower-income workers are more likely to participate in provident funds, which do not attract tax incentives and typically pay benefits at retirement in the form of a tax-free lump sum. Their higher-income counterparts either contribute to (mostly closed) defined benefit arrangements or defined contribution funds that attract tax incentives and convert the larger part of accumulated saving at retirement into an income.[7]

A rapid transition of many occupational schemes from defined benefit to defined contribution arrangements was motivated by workers' demand to access their accumulated savings. It was generally not resisted by employers, who were keen to shed the financial risk attributable to these schemes and gain access to at least some part of the surplus accumulated in many of these defined benefit arrangements. In a number of other countries in which defined benefit plans were converted to defined contribution, the switch applied only to future accrual. This was not the case in South Africa, where the widespread practice was to convert accrued and funded rights in the defined benefit plan into an equivalent defined contribution counterpart.

Financing the conversion was generally not a problem because defined benefit arrangements were characterised by a long history of conservative financial management under which accrued liabilities were matched by appropriate assets. The sense of entitlement that accompanied this conversion was soon to contribute to the deterioration in the overall effectiveness of the private pension system: improving the tangibility of members' financial interest in their retirement fund increased the attractiveness of accessing those benefits. A large proportion of resigning employees withdrew and spent their accumulated retirement saving rather than preserving it for retirement.

Towards comprehensive retirement reform

South Africans have long debated the adequacy and effectiveness of their retirement provision and the options available to them to address these concerns. (Taylor Committee, 2002[132]) identified weaknesses such as:

- the exclusion of those in atypical or informal-sector work from the contributory system,
- the limited capacity to monitor compliance by retirement funds,
- inadequate consumer protection, and
- ineffective competition that limits options for fund members.

Picking up on the work of the Taylor Committee, (Department of Social Development, 2006[133]) identified a number of concerns with the system:

- System fragmentation results in a failure to translate high levels of contribution to benefits of adequate value;
- Administration costs are unduly high;
- Individual families largely bear the consequences of fraud and governance breakdown; and
- Tax subsidies disproportionally benefit of middle- and high-income individuals.

The Department of Social Development went on (in 2007) to recommend modifications to the system. These included the introduction of a mandatory national defined benefit arrangement, changes to the system of tax incentives, and improvements to the product- and governance standards applying to private-sector providers of service to system participants.

Box 6.1. Botswana and Namibia

Given the strong historical links between Botswana, Namibia and South Africa, it is little surprise that their social protection systems share strong similarities that distinguish them from other countries in Africa. Each has established fully funded schemes for civil servants as well as social pensions with high levels of coverage and each is struggling to fill a coverage gap for workers outside the public sector.

Botswana has made a successful transition from a non-contributory pension arrangement for civil servants to a fully funded scheme. Its Botswana Public Officers Pension Fund (BPOPF), established in 2001, runs on a defined contribution basis. Prior to gaining independence from Great Britain in 1966, civil servants had received a pension in retirement on a non-contributory basis. Although actuarial studies carried out in 1984 and 1994 highlighted the rapid growth of the government's liability, the latter recommended that the scheme continue to be run on an unfunded basis because Botswana lacked the financial infrastructure and capacity required to shift to a funded arrangement (Kelobang, 2007[134]).

Nonetheless, fiscal pressures intensified and the process of shifting to a fully funded defined contribution scheme were initiated in 2000. Contributions were set at 5% of pensionable salary for employees and 15% for the employer. Enrolment was mandatory for new employees, while existing civil servants were able to choose whether to remain in the old system or join the new; those who chose the latter course received an additional government contribution on a temporary basis. A high proportion of civil servants of all ages opted to transfer and their entitlements were carried across into their accounts on an actuarially fair basis (Kelobang, 2007[134]).

As of March 2017, there were 158 174 active members of the BPOPF and 7 700 pensioners (BPOPF, 2017[135]). The government's contribution to the BPOPF as employer was BWP 1.9 billion in 2017 (around 1% of GDP) and is publicly and clearly disclosed. In the same year, assets under management at the BPOPF amounted to BWP 57.9 billion (around 31% of GDP) (BPOPF, 2017[135]). In common with private-sector funds, the BPOPF is overseen by the Non-Banking Financial Institutions Regulatory Authority.

Pension coverage in the private sector largely follows the South African model. Occupational pensions are voluntary and have been established by medium-sized and large companies, both defined benefit and defined contribution in design, with individual supplementary arrangements. Coverage is low and limited to formal-sector workers. According to (World Bank, 2013[136]), the government has explored the possibility of expanding the BPOPF to include private-sector workers and address the low coverage, but there is no evidence of this occurring.

On the social assistance side, Botswana implements a universal old age pension, which it launched in 1996. The pension is payable to all citizens aged 65 years and older at a relatively low level (Dorfman, 2015[4]), periodically updated in line with price inflation. It costs around 0.2% of GDP and forms part of a somewhat fragmented social assistance system that includes cash and in-kind support for orphans, school meals and other nutrition interventions, and scholarships for students in tertiary education (World Bank, 2013[136]).

In 2012/13, Botswana's spending on social protection was equivalent to 4.4% of GDP (World Bank, 2013[136]). Social safety nets accounted for 69% of this amount and public-sector pension spending 27%. Within this latter amount, payments to retirees from the old defined benefit system amounted to 0.3% of GDP, higher than spending on social pensions.

Namibia was governed by South Africa until 1990, and its civil service pension scheme bears a striking resemblance to the GEPF. The Government Institutions Pension Fund (GIPF) was established in October 1989 prior to independence as the first scheme specifically for Namibian civil servants. It operates on a fully funded, defined benefit basis. It is financed through employee contributions equal to 7% of salary and employer contributions of 16% (making this the highest combined contribution rate for civil servants amongst the three countries).

The GIPF is soundly run under the same regulatory infrastructure that governs all retirement fund arrangements in Namibia. Benefits for public servants are generous, however, exposing the country to a degree of financial risk, which could be mitigated through forward planning. Transparency could be improved through clearer disclosure of the overall cost of social protection and the share of this devoted to pension and other benefits payable to civil servants.

Namibia provides a universal pension to citizens aged 60 and older, at a cost of 1.2% of GDP (IMF, 2019[137]). This is part of a well-developed social assistance system, which also includes cash transfers for people with disabilities and a number of grants for children. Spending on cash transfers was equivalent to 3.4% of GDP in 2016/17, versus combined spending by GIPF, the Public Service Employees Medical Aid Scheme and the Social Security Commission (which protects private-sector workers against a range of risks including maternity, death and work-related accident) of 2.9% of GDP (Schade, La and Pick, 2019[138]).

Gaps in coverage of contributory pensions in Namibia's private sector have prompted the government to develop proposals for a statutory pension fund similar in nature to the one under consideration in South Africa. As is the case in South Africa, it is not clear what would happen to the GIPF were such an arrangement to be established.

(National Planning Commission, 2012[139]) examined social protection in the context of a wider set of problems, such as unsustainable levels of unemployment and poor education outcomes. Its recommendations on social protection broadly supported those of predecessors like the Taylor Committee of Inquiry, stressing the need for:

- improved retirement fund governance,
- a harmonised system of tax incentives and of the benefits and contributions applying to retirement funds,
- compulsory preservation of accrued retirement savings to improve financial security in retirement, phased in to avoid undue market disorder, and
- reforms to the market for annuities provided at retirement.

Government pressed ahead with the first part of its intended reforms, amendments tax laws to make possible the gradual harmonisation of retirement funding vehicles. This legislation will have the effect of bringing all arrangements on to the same exempt-exempt-tax basis, phasing in the transition over some time by applying the rules only to new contributions from the date of implementation, 1 March 2016. It also puts into place the mandatory conversion at retirement of a stipulated portion of accumulated saving into an income for life, again with phasing-in provisions.

These changes have met with strong resistance from organised labour and, despite being signed into law have been partially postponed.[8] Still, they deal with only a small part of the concerns covered in the last twenty years of policy discussion. Forcing mandatory participation and preservation prior to retirement, and addressing the problems of poor coverage for those on the edges of formal employment remain among the most significant challenges.

In the background to these recent reforms to occupational pensions, the Government has been deliberating a comprehensive reform of social protection (Republic of South Africa, 2012[140]). The cornerstone of these proposals, which were formulated by an Inter-Departmental task team on behalf of an Inter-Ministerial Committee on social security, is the introduction of a new National Social Security Fund to which all workers would be obliged to contribute. The fund is intended to provide benefits to retired workers or in the event of death, disability or unemployment, and is intended to be fully aligned with existing social protection mechanisms outlined below.

Proposals published for public consultation in 2016 recommended that the new pension fund be run on a partially funded defined benefit basis. It includes a ceiling that allows higher-earning workers to direct part of their mandatory contribution towards occupational or private arrangements, provided these meet a range of regulatory requirements.

Social assistance confronts a triple burden

South Africa confronts a triple burden of poverty, unemployment and inequality. It has for a long period been one of the most unequal countries in the world, and around half the population lives below the national poverty line (World Bank, 2018[141]). According to the World Bank's international poverty line, the poverty headcount was 18.9% in 2014 (World Bank, 2018[142]). The unemployment rate was 29.0% in the second quarter of 2019, using the narrow definition, which includes individuals who are actively looking for work; using a broader definition (which includes discouraged work seekers), the unemployment rate was 38.5% (Statistics South Africa, 2019[143]).

Inequality and poverty would be far higher if it were not for South Africa's social assistance system, which was established before democracy was established in 1994 but has undergone radical changes since then, equalising the treatment of racial groups and sexes. The system comprises a number of grants for children, people with disabilities, the elderly and other groups. These grants are unconditional but are means tested; however, the means test is not stringently applied, leading it to be classified in some quarters as an affluence test (Kidd et al., 2018[144]). In 2017/18, 17.2 million individuals (more than an quarter of the population) received a social grant, of whom 12.2 million were children, 3.4 million elderly (aged 60 or over) and 1.1 million people with disabilities (National Treasury, 2018[126]).

(World Bank, 2018[141]) finds that social grants reduced the poverty rate by 8% and the poverty rate by 30% in 2015. The impact on inequality was greater: social grants reduced the Gini coefficient by 10.5%, which is a far stronger than the effect achieved by social assistance in any other region or income group on average. These findings corroborate the exceptional impact of South Africa's broader fiscal policy on poverty and inequality in 2010/11 found by (Inchauste et al., 2015[145]). Meanwhile, (Schiel, Leibbrandt and Lam, 2014[146]) found that old age grants caused a sharp reduction in poverty but did not affect income inequality while child grants significantly reduced inequality.

The benefits associated with social grants extend beyond poverty relief and income redistribution. A range of studies over time have attested to the impact of social grants and validated their expansion over the 2000s. These include (Duflo, 2000[147]), who was one of the first researchers to identify the health benefits that accrue to children living in a household where a recipient of the old age grant resides in South Africa. (DSD, SASSA and UNICEF, 2012[148]) find that receipt of a child support grant is associated with higher school attendance, better educational outcomes, better health, lower incidence of work and lower propensity to engage in risky behaviours.

South Africa's social protection system also includes public works programmes for individuals in the working age population who are not eligible for social grants. The majority of these programmes fall under the umbrella of the Expanded Public Works Programme (EPWP), which originated in the early 2000s with the dual objective of improving local infrastructure and finding work for the large, low-skilled workers struggling to find employment. The EPWP has further extended its activities to include social and environmental services, and to partner with non-governmental organisations in supporting community-driven initiatives.

Social protection provision also includes statutory funds and voluntary arrangements. Statutory funds include the unemployment insurance fund (UIF), compensation funds covering workers in the event of illness or accident and the road accident fund. Voluntary arrangements encompass medical schemes and occupational or personal retirement funds, the latter providing a vehicle not only for saving but also for protection against death and disability. Although the outcome is a number of different arrangements covering a large number of lifecycle risks, extensive fragmentation between them underscores the need for a comprehensive and systematic approach to social protection.

Even with the highly effective system of taxes and transfers that exists in South Africa, unemployment, inequality and poverty remain extremely high. Fiscal constraints militate against a further expansion of the grant system despite pressure to include young adults, for whom finding employment is a particular challenge and who cannot access the UIF until they have been working in the formal labour market for a certain amount of time. In the second quarter of 2019, 40.3% of the population aged between 15 and 34 were not in employment, education or training (Statistics South Africa, 2019[143]).

Conclusion

The system under which South Africa provides for the pensions of its public servants is broadly sound. Disclosure of its financial position is regularly provided, benefits are generous but reasonable and the framework of governance adequate.

Defined benefit and defined contribution arrangements have pros and cons to members and to other stake-holders like sponsoring employers. A growing awareness of the investment risk to which members of defined contribution funds are exposed shows the advantageous position of South Africa's public servants against their privately-employed counterparts and the potential cost to government of underwriting this benefit. This risk does not feature in social budget disclosures.

Transparency of reporting would be enhanced by consistent disclosure of the cost of meeting government's ongoing commitment to its employees. This could be improved further by ensuring that the methods and assumptions used to assess the solvency of the arrangement are consistent with international norms and that the value of any resulting deficit (or surplus) is also disclosed, allowing it to form part of the ongoing assessment of creditworthiness of the South African government.

However, the greatest challenge for the GEPF might lie ahead. If proposals for comprehensive social security reform in South Africa advance (at the time of writing there is little sign of progress), the separation between the GEPF and the rest of the retirement landscape, not only in terms of its membership but also with respect to its legislative status, will be tested. The interests of the population as a whole are better served by civil servants pooling risks with the rest of the workforce through a single public arrangement, but this is likely to come at a cost in terms of the benefits civil servants eventually receive.

Notes

[1] Benefits are accrued at a standard rate of 1/55 of final salary, defined as average earnings over the last 2 years of work. A cash gratuity is payable at retirement in addition to this. The gratuity accrues at a rate of 6.72 percent per year and is based also on average salary over the last two years of service. The current contribution rate is 20.5 percent of payroll, of which 7.5 is payable by the members and 13 by employers. Benefits vest over a period of 10 years. Reduced benefits are payable on resignation or retirement with less than 10 years' service.

[2] The service period reckoned for members falling into this group is increased by one quarter of the period by which their membership of the fund exceeds ten years. Under these provisions, individuals with 18, 26 and 34 years of service, for example, would have benefits calculated as if they had served, respectively, 20, 30 and 40 years.

[3] The total contribution rate is 23.5% of payroll, 3 percentage points higher than the corresponding rate for other members. This gives a sense of the relative generosity of benefits due to these members, not unduly liberal.

[4] First, workers could purchase additional service, back to age 16, at very low cost. Second, the formula under which pensions were based on salary on the final day of work was routinely abused through the awarding of substantial pay increases just prior to retirement. Third, other liabilities are funded on budget, for example, the costs of medical treatment for retired former civil servants.

[5] Between 1989 and 1996, government debt grew from ZAR 68 billion (USD 27 billion) to ZAR 308 billion (USD 71 billion). The assets of the GEPF grew, over the same period, from ZAR 31 billion (USD 12 billion) to ZAR 136 billion (USD 31 billion).

[6] This document is often referred to as “the Taylor report”, named after the chairperson of the Committee of Inquiry, Professor Vivienne Taylor.

[7] The majority of high-income employees participate in pension funds that operate under an “EET” tax regime, under which contributions are exempted from tax, earnings are also tax-exempted, and income after retirement is taxed, except for a tax-free lump sum. Low-income employees are more likely to participate in provident funds under which employees do not benefit from tax incentives – many of them earn at such a level that they pay no or little tax anyway – and do not pay tax on benefits.

[8] Labour-sector partners to government have a few concerns about the law, primarily the phased-in annuitisation for provident fund members, who have hitherto not been subject to any such constraints. They have indicated that they will not support further piece-meal reforms in the absence of an agreed social security strategy.

7. Options for development

The discussion that follows considers options available to policy makers seeking a coherent approach to their social protection policy that treats all residents with consistency. Equity of outcome is not proposed because such an argument needs to be more carefully defined and interpreted, and its consequences considered. This ultimately forms part of the national debate in any country. For the same reasons, we do not endorse one type of pension provision over another, defined benefit or defined contribution, funded or unfunded.

The discussion that follows takes the form of a set of principles that could be applied to a wide range of circumstances. A few thoughts thereafter propose a number of practical steps that might be taken to put these principles into effect and the paper concludes thereafter.

Guiding principles

The first principle under consideration is the concept of **equality of treatment**. Such an approach need not necessarily imply a formula that is proportional to personal income or assets or a method that is redistributive to a lesser or greater extent, although these could form a natural part of the outcome of a particular policy direction. The argument put forward here is the philosophical approach should be consistent across stakeholders. It should not give privileges to special groups or discriminate against certain sectors. It should provide demonstrably and recognisably the same rules across all individuals.

This is the most challenging principle to apply in light of the tension discussed in the introduction to this study between civil service pensions as part of the remuneration package designed to attract and retain skilled employees, on the one hand, and as part of a broader social protection system, on the other. It is also challenging in a context where certain occupations typically associated with the public sector – such as the military or police – require a unique dispensation. Moreover, both foreseeable and unforeseen consequences of any policy can give systematic benefit or disadvantage to certain identifiable parts of the population. These should be avoided, as far as possible, in a manner that is consistent with the overall framework within which government policy is defined.

This principle could find practical application in a number of areas, for example:

- public servants should not be eligible for benefits of any kind that their private-sector counterparts do not have access to except where there are clear motivations for such discrepancy related to the nature of occupation;
- formally employed individuals should not, as far as possible, be granted access to social insurance arrangements that are not, in some pragmatic and transparent way, also available to those operating in the informal economy and neither should they be subject to costs, rules or requirements that disincentivise formal economy work over its informal counterpart; and
- every policy targeted at a particular sub-set of the population of a country should be considered as well from the perspective of those who fall outside of that sub-set.

These statements, it is acknowledged, may be difficult to explain, challenging to implement and potentially contradictory. Policy makers could nevertheless recognise that, in the absence of such statements, expressed in their own language and consistent with their constitutional framework, inconsistency of treatment is more likely to emerge, whether deliberate or not.

The second principle is **transparency of reporting**. Consistency of treatment should be backed up by consistency of description. Where treatment is in reality not consistent, transparent reporting could be a useful tool to expose this absence.

Transparency of reporting might be underpinned by a number of conceptual elements, which are consistent with the OECD Recommendation on Public Governance (OECD, 2015[149]):

- all government expenditure is reported timeously and with clear explanation,
- where expenditure is attributable to a specific purpose and a designated set of people, such reporting is accompanied by a description of that purpose and a sound estimate of the number and characteristics of people benefiting from that expenditure,
- accrued liabilities are accounted for when incurred and disclosed in a manner that is consistent with sound accounting principles in international use, supported by appropriate actuarial modelling, and
- the value of all debt resulting from these accrued liabilities is calculated along similar lines and forms part of transparent government disclosure.

In an ideal world, countries would be able to explain their social protection spending in terms of a social budget. This is a framework within which all government expenditure towards social protection objectives might be disclosed clearly and consistently, along with an explanation of the nature of the benefit available to any targeted part of the population and the economic and demographic characteristics of that grouping. Supporting expenditure from other sources – donors, employers and individuals, for example – could be disclosed within the same framework to show the extent to which state resources are applied to a particular objective but in the process attracting additional resources.

Liabilities, explicit or implicit, promised or only half-promised, should be calculated and disclosed in a manner that facilities expert review and enhances public transparency. Such an approach ought also to facilitate clear disclosure of the promise itself, for the nature of the promise, or its absence, often lies at the heart of the transparency problem.

It might be argued that such standards are unrealistic due to a lack of actuarial capacity or information systems, or because they are inconsistent with the prevailing political economy. It should nonetheless be possible to establish a set of norms against which government reports are assessed. Ministers of Finance who believe that such standards are unrealistic or unnecessary should explain why they ought not to apply to that country at that time. Where the technical skills or information required to meet these standards do not exist, this should also be clearly acknowledged.

A final point regarding this principle (and not covered by this study) relates to the communication of reform proposals. Assuming the aforementioned transparency is achieved, it is possible to justify a reform to pension arrangements with reference to their solvency or long-term sustainability. However, international experience of pension reforms in advanced and developing countries alike has shown that a purely technical explanation for reform might not be sufficient to overcome political opposition unless it is clearly communicated as part of a broader effort to secure buy-in from public servants and perhaps the broader population.

The third foundational principle proposed is a **respect for vested rights**. Uncomfortable as the financial and political consequences of vested rights might be, failure to uphold them risks undermining the integrity of the entire system. In order to do this, and yet find a way to move on from a difficult situation, governments should lay out precisely what is meant by such rights. Poor explanation of eligibility to such rights may lie at the heart of the problem. If that is the case, then this problem needs to be addressed as well. Credibility of government respect for vested rights could be enhanced by transparency of disclosure, particularly of the financial plan for addressing any actuarial shortfall in a pension system resulting from these rights.

Other elements of the system may be subject to different types of government influence that are not always in the interest of the people of the country. Prohibitions on investing the assets of pension arrangements in certain asset classes or outside the country may form part of unhealthy government influence in the affairs of citizens. Engaging in discussion on such complex and wide-ranging issues is not within the scope of this paper. It is sufficient to note that government influence in pension arrangements can take a number of forms.

Way forward

How a country might apply such principles in practice depends on a number of factors prevailing in that environment, including the quality of information systems and actuarial capacity. Elements of the following actions would exist in all countries that take seriously the three principles set out earlier while acknowledging the dual role of civil servant pension schemes:

- an assessment of the extent of the unfunded liabilities implicit in a pension system;
- clear disclosure of the costs of meeting contributions or paying pensions from the system;
- transparency on the quantum of unfunded liabilities, calculated using internationally accepted actuarial methods;
- a strategy for social protection showing how elements of the framework form a coherent whole;
- a transition plan that shows how elements of the social protection framework are to be developed and how the costs implicit in unregulated provision are to be met;
- a social budget framework within which all government disbursements with a social protection objective are reported alongside the characteristics of the groups intended to benefit from each type of disbursement; and
- transparency regarding remuneration policies for civil servants.

A number of countries have made substantial progress in these areas, in the interests of good governance and accountability. The approaches recommended in all of these cases have a common thread in building a clear understanding of the financial dynamics of the system and responding to these dynamics in a manner that is consistent with policy objectives but entrenches improved transparency of analysis and reporting.

Concluding comments

In their synopsis of the evolution of pension arrangements globally, (Palacios and Whitehouse, 2006[150]) point out that governments were the first institutions to provide widespread coverage for their workers, initially for those in the military and then also for civilian employees. The first pension fund for British public-sector workers was established for customs officials in 1712.

> *In 1810, the foundation of the British civil servants scheme was legislated by Parliament. While the parameters described in the original Act would be changed many times subsequently, the underlying model of a generous and non-contributory pension scheme survived nearly two centuries and was inherited by dozens of former British colonies. (Palacios and Whitehouse, 2006[150])*

Generous, non-contributory pension schemes for public servants have extended beyond the boundaries of the former British colonies, although the legacy of colonial arrangements is evident in many countries.

With the need to attract good skills and a natural tendency to utilise state resources in pursuit of these skills, the high incidence of such arrangements should perhaps not be surprising.

In the largely democratic modern era, however, in which national policy makers, and the global community as a whole, are paying increasing attention to reducing poverty and inequality, such generosity contrasts with the often much smaller fiscal allocations to the social protection needs of privately and informally employed people, and those in extreme poverty. The problem is particularly acute in developing countries because these countries generally do not have the resources to address the imbalance by raising the living standards of those working or surviving outside of public-sector employment.

Four supporting problem statements may help to explain the prevalence of this imbalance and its consequences:

- describing the totality of a social protection system and tracking the extent to which its goals are met is an intrinsically demanding task;
- the effectiveness and financial sustainability of social protection systems is subject to serious challenge in many countries;
- public-sector remuneration is an emotive subject characterised by intractable trade-offs; and
- the nature of the fiscal commitment to pension plans for public servants is frequently unclear and seldom publicly disclosed.

The case studies examined in this paper collectively represent nearly half the world's population across three different continents and span a range of income levels. They exemplify financial, political and demographic challenges common to developing countries but differences in approach that illustrate the proposed archetypes.

A great deal could be done to address the imbalances noted in our case studies. Much as the differences between these approaches are worth noting, a number of similarities in these actions may be emphasised. These similarities rest on a foundation of assessment and disclosure. We recommend that policy makers in all these countries:

- rigorously assess the financial exposure, present and future, to which the promises to their public servants expose them;
- establish a framework for social budgeting that shows a government's financial commitment to all elements of the social protection system along with the characteristics of each group that its actions are intended to benefit; and
- commit to a social protection strategy and disclose the extent to which it is realising this strategy as well as the costs that it incurs or becomes liable to as a result of its implementation.

Policy makers are not blind to these problems. Every country studied showed ample signs that these issues were under consideration. We recommend that analytical and strategic work continue and that governments are willing to set their priorities and then act in concert to meet them. In cases where development partners are supporting the social protection sector, consideration might be given to developing the capacity of the government or social security administration to understand the financial position of the civil service scheme to enhance the efficiency of spending across the social protection system as a whole.

The case studies demonstrate that reform of civil service schemes can be a lengthy, multi-step process, which confronts pressure to water down proposals or even, in the worst case, be rolled back when civil servants express dissatisfaction with new arrangements. Successful and lasting reform requires a commitment that cuts across administrations.

References

(n.a.) (2011), *Sharing Innovative Experiences, Vol. 18 – Successful Social Protection Floor Experiences*, UNDP, https://www.unsouthsouth.org/2011/12/10/sharing-innovative-experiences-vol-18-successful-social-protection-floor-experiences-2011/ (accessed on 27 June 2019). [166]

Agencia EFE (2019), "Bolsonaro increases Brazil's minimum wage by 4.6 percent | Business | English edition | Agencia EFE", *Agencia EFE*, https://www.efe.com/efe/english/business/bolsonaro-increases-brazil-s-minimum-wage-by-4-6-percent/50000265-3855905 (accessed on 27 June 2019). [162]

Alesina, A., R. Baqir and W. Easterly (1998), "Redistributive Public Employment", *NBER Working Paper*, No. 6746, National Bureau of Economic Research, Cambridge, MA, http://dx.doi.org/10.3386/w6746. [155]

Alkire, S., C. Oldiges and U. Kanagaratnam (2018), "Multidimensional Poverty Reduction in India: Still a Long Way to Go but the Poorest Are Catching Up", *Research in Progress*, No. 54a, Oxford Poverty & Human Development Initiative, Oxford, http://www.ophi.org.uk. (accessed on 30 June 2019). [92]

Altamirano, Á. et al. (2018), *Presente y futuro de las pensiones en América Latina y el Caribe*, https://publications.iadb.org/publications/spanish/document/Monografia_Presente_y_Futuro_de_las_Pensiones_en_ALC.pdf (accessed on 29 October 2019). [37]

Arenas De Mesa, A., J. Behrman and D. Bravo (2004), "Characteristics of and Determinants of the Density of Contributions in a Private Social Security System", http://ssrn.com/abstract=1092907 (accessed on 29 October 2019). [30]

Arza, C. (2018), "Cash transfers for families and children in Argentina, Brazil and Chile: segmented expansion or universal benefits?", *Journal of International and Comparative Social Policy*, Vol. 34/1, pp. 58-75, http://dx.doi.org/10.1080/21699763.2017.1415218. [163]

Barma, N. and J. Orac (2014), "Tailoring Civil Service Pay Analysis and Advice to Context: Challenges, Approaches, and the Case of Lao PDR", *Policy Research Working Papers*, No. 6744, http://dx.doi.org/10.1596/1813-9450-6744. [158]

Barnwal, P. (2017), *Curbing leakage in public programs: Evidence from India's direct benefit transfer policy*. [177]

Behar, A. et al. (2013), "Does Public-Sector Employment Fully Crowd Out Private-Sector Employment? Does Public-Sector Employment Fully Crowd Out Private-Sector Employment? The authors thank", *IMF Working Paper*, No. 13/146, IMF, https://www.imf.org/external/pubs/ft/wp/2013/wp13146.pdf (accessed on 18 March 2019). [159]

Bhatia Shonar, R. et al. (2016), "Examining the evidence on the effectiveness of India's rural employment guarantee act", *3ie Working Paper*, No. 27, International initiative for impact evaluation (3ie), New Delhi, https://www.3ieimpact.org/sites/default/files/2019-01/wp27-mgnrega.pdf (accessed on 2 July 2019). [103]

Bhatia, A. and J. Bhabha (2017), "India's Aadhaar scheme and the promise of inclusive social protection", *Oxford Development Studies*, Vol. 45/1, pp. 64-79, http://dx.doi.org/10.1080/13600818.2016.1263726. [99]

Bhattacharya, S., V. Falcao and R. Puri (2017), "The Public Distribution System in India: Policy Evolution and Program Delivery Trends", in *The 1.5 Billion People Question: Food, Vouchers, or Cash Transfers?*, The World Bank, Washington, DC, http://dx.doi.org/10.1596/978-1-4648-1087-9_ch2. [97]

Bonturi, M. (2002), "The Brazilian Pension System: Recent Reforms and Challenges Ahead", *OECD Economics Department Working Papers*, No. 340, OECD, Paris, http://dx.doi.org/10.1787/251552114651. [16]

Bosch, M., Á. Melguizo and C. Pagés (2013), *Better Pensions, Better Jobs: Towards Universal Coverage in Latin America and the Caribbean*, Inter-American Development Bank, https://publications.iadb.org/en/publication/17407/better-pensions-better-jobs-towards-universal-coverage-latin-america-and (accessed on 26 June 2019). [6]

BPOPF (2017), *Annual report 2016/17*, http://www.bpopf.co.bw/sites/default/files/publications/2016-17_BPOPF%20Trustee%20Report%20Final%20WEB.pdf (accessed on 27 October 2019). [135]

Breitkreuz, R. et al. (2017), "The Mahatma Gandhi National Rural Employment Guarantee Scheme: A Policy Solution to Rural Poverty in India?", *Development Policy Review*, Vol. 35/3, pp. 397-417, http://dx.doi.org/10.1111/dpr.12220. [101]

Brodsgaard, K. and C. Gang (2019), "The Chinese Communist Party since 1949: Organization, Ideology, and Prospect for Change", in *The Chinese Communist Party since 1949: Organization, Ideology, and Prospect for Change*, BRILL, http://dx.doi.org/10.1163/9789004417984_002. [52]

Burns, J. (2007), "Civil Service Reform in China", *OECD Journal on Budgeting*, Vol. 7/1, https://dx.doi.org/10.1787/budget-v7-art3-en. [51]

Burns, J. and W. Xiaoqi (2010), "Civil service reform in China: Impacts on civil servants' behaviour", *China Quarterly* 201, pp. 58-78, http://dx.doi.org/10.1017/S030574100999107X. [179]

Caixin Global (2019), "Charts of the Day: China's Pension System Is Out of Pocket", *Caixin Global*, https://www.caixinglobal.com/2019-04-19/charts-of-the-day-chinas-pension-system-is-out-of-pocket-101406390.html (accessed on 28 June 2019). [68]

Centre for Policy Research (2013), *Budget brief: NSAP, GOI, 2013-14*, Centre for Policy Research, New Delhi, http://www.accountabilityindia.in (accessed on 2 July 2019). [169]

CEPAL (2019), *CEPALSTAT*, Economic Comision for Latin American and the Caribbean, https://estadisticas.cepal.org/cepalstat/Portada.html?idioma=english (accessed on 3 October 2019). [175]

Chancel, L. and T. Piketty (2017), "Indian income inequality, 1922-2015: From British Raj to Billionaire Raj?", *WID.world*, No. 2017/11, World Inequality Lab, https://wid.world/document/chancelpiketty2017widworld/ (accessed on 1 July 2019). [93]

Chant West (2014), *Chilean Pension System: Relevance for Australia*, Chant West, http://www.chantwest.com.au. (accessed on 27 June 2019). [33]

Colonnelli, E., M. Prem and E. Teso (2018), "Patronage in the Allocation of Public Sector Jobs", *SSRN Electronic Journal*, http://dx.doi.org/10.2139/ssrn.2942495. [152]

Confederation of Indian Industry, E. (2013), *Pensions business in India*, Confederation of Indian Industry, Delhi, https://cii.in/PublicationDetail.aspx?enc=hBRGEmX5YMMX0c1R32dLuUYhX0xLV8t4fM+y/xntaxzvyhA1plj5MiBQgif2RT1D6ZpnheLpFDviGLrBcbzsRYngIHAodW0d8o1+/adnwG33leHeJk0HWVgKG5wuzVwtZMUAR36rTTSk8ToOrj+D9Ez7QetVPVzB7UPwh/cvnb83YGmOowoN0Z9I7J9umE/p (accessed on 28 June 2019). [89]

Cuevas, A. et al. (2017), "Fiscal Challenges of Population Aging in Brazil", *IMF Working Paper*, No. 17/99, IMF, https://www.imf.org/en/Publications/WP/Issues/2017/04/26/Fiscal-Challenges-of-Population-Aging-in-Brazil-44850 (accessed on 26 June 2019). [22]

Dang, H. and P. Lanjouw (2018), "Poverty Dynamics in India between 2004 and 2012: Insights from Longitudinal Analysis Using Synthetic Panel Data", *Economic Development and Cultural Change*, Vol. 67/1, pp. 131-170, http://dx.doi.org/10.1086/697555. [90]

Department of Social Development (2006), *Reform of Retirement Provisions*, Department of Social Development, Pretoria, http://www.treasury.gov.za/publications/other/ssrr/General%20Papers/Reform%20of%20Retirement%20Provisions.pdf (accessed on 13 October 2019). [133]

Donghyun Park (ed.) (2012), *Pension Systems in East and Southeast Asia Promoting Fairness and Sustainability Pension Systems in East and Southeast Asia Promoting Fairness and Sustainability Printed in the Philippines*, http://www.adb.org (accessed on 26 June 2019). [8]

Dorfman, M. (2015), "Pension Patterns in Sub-Saharan Africa", *Social protection and labor discussion paper*, No. No 1503, https://openknowledge.worldbank.org/handle/10986/22339 (accessed on 18 March 2019). [4]

Dorfman, M. et al. (2013), *China's Pension System: A Vision*, The World Bank, Washington, DC, http://dx.doi.org/10.1596/978-0-8213-9540-0. [63]

DSD, SASSA and UNICEF (2012), *The South African Child Support Grant Impact Assessment: Evidence from a survey of children, adolescents and their households*, http://www.dsd.gov.za (accessed on 27 October 2019). [148]

Duflo, E. (2000), "Grandmothers and granddaughters: old age pension and intra-household allocation in South Africa", *Working Paper Series*, No. 8061, NBER, Cambridge, MA, https://www.nber.org/papers/w8061.pdf (accessed on 13 December 2018). [147]

Dutta, P., P. O'Keefe and R. Palacios (2015), *Strengthening social security provision in Myanmar*. [73]

ECLAC (2019), *Non-contributory social protection programmes in Latin America and the Caribbean database*, Social Development Division, ECLAC, https://dds.cepal.org/bpsnc/cct (accessed on 26 June 2019). [18]

Economic Commission for Latin America and the Caribbean (ECLAC) (2018), *Social Panorama of Latin America 2017*, Economic Commission for Latin America and the Caribbean (ECLAC), Santiago, http://www.cepal.org/en/suscripciones (accessed on 26 June 2019). [160]

El Comercio (2019), “Chile acepta crear AFP pública para administrar las pensiones privadas”, https://elcomercio.pe/economia/mundo/chile-acepta-crear-afp-publica-administrar-pensiones-privadas-reforma-previsional-noticia-636192-noticia/ (accessed on 29 October 2019). [174]

El Mostrador (2019), “La cruda verdad que se apresta a revelar Hacienda: pensiones de las FF.AA. son, por lejos, el principal gasto público”, *El Mostrador*, https://www.elmostrador.cl/destacado/2019/06/13/la-cruda-verdad-que-se-apresta-a-revelar-hacienda-pensiones-de-las-ff-aa-son-por-lejos-el-principal-gasto-publico/ (accessed on 27 June 2019). [46]

Eleven News (2019), “More than 168000 elderly aged 85 and above entitled to social pension | Eleven Media Group Co., Ltd”, https://elevenmyanmar.com/news/more-than-168000-elderly-aged-85-and-above-entitled-to-social-pension (accessed on 14 November 2019). [74]

Ernst & Young (2019), *Pension reforms: Towards a secure future*, Ernst & Young, https://www.ey.com/Publication/vwLUAssets/EY-pension-reforms/$FILE/EY-pension-reforms.pdf (accessed on 29 June 2019). [87]

Fajnzylber, E. (2019), “Chile’s Solidarity Pillar: A Benchmark for Adjoining Zero Pillar with DC Schemes”, http://www.worldbank.org (accessed on 29 October 2019). [39]

Gálvez, R. and M. Kremerman (2019), “Pensiones por la fuerza: Resultados del sistema de pensiones de las Fuerzas Armadas y de Orden”*, Buen Vivir N°*. [48]

Gayithri, K. (2009), “Central civil servant pension payments in India: Issues and concerns”, *Pensions: An International Journal*, Vol. 14/3, pp. 202-216, http://dx.doi.org/10.1057/pm.2009.20. [79]

Gelb, A. et al. (1991), “Public Sector Employment, Rent Seeking and Economic Growth”, *Economic Journal*, Vol. 101/408, pp. 1186-99, https://econpapers.repec.org/article/ecjeconjl/v_3a101_3ay_3a1991_3ai_3a408_3ap_3a1186-99.htm (accessed on 18 March 2019). [151]

GEPF (2018), *2018 Annual Report*, https://www.gepf.gov.za/wp-content/uploads/2019/07/AR_2018_20181128_Final_Submitted-min.pdf (accessed on 27 October 2019). [128]

Glinskaya, E. and M. Lokshin (2005), “Wage Differentials Between the Public and Private Sector in India”*, Policy Research Working Papers*, http://dx.doi.org/10.1596/1813-9450-3574. [76]

Golan, J., T. Sicular and N. Umapathi (2017), “Unconditional Cash Transfers in China: Who Benefits from the Rural Minimum Living Standard Guarantee (Dibao) Program?”, *World Development*, Vol. 93, pp. 316-336, http://dx.doi.org/10.1016/J.WORLDDEV.2016.12.011. [62]

Gong, T. and A. Wu (2012), “Does Increased Civil Service Pay Deter Corruption? Evidence from China”, *Review of Public Personnel Administration*, Vol. 32/2, pp. 192-204, http://dx.doi.org/10.1177/0734371X12438247. [64]

Government of India (2015), *Report of the Seventh Central Pay Commission*, Government of India, https://doe.gov.in/seventh-cpc-pay-commission. [85]

Government of Malawi (2015), *Draft 2015/16 Financial Statement Ministry of Finance, Economic Planning and Development*, Ministry of Finance, Economic Planning and Development, https://www.cabri-sbo.org/uploads/bia/malawi_2015_formulation_external_budget_framework_ministry_of_finance_comesa_sadc_english_1.pdf (accessed on 4 August 2019). [114]

HelpAge International (2013), *Pension coverage in China and the expansion of the New Rural Social Pension*, HelpAge International, http://www.pension-watch.net (accessed on 28 June 2019). [55]

Hendricks, F. (2008), "The Private Affairs of Public Pensions in South Africa Debt, Development and Corporatization", *Social Policy and Development Programme*, No. 38, UNRISD, http://www.unrisd.org/80256B3C005BCCF9/(httpAuxPages)/EDEF2C87F707D65DC125756000477706/$file/Hendrickspaper.pdf (accessed on 13 October 2019). [131]

Holmes, R., J. Hagen-Zanker and M. Vandemoortele (2011), "Social protection in Brazil: Impacts on poverty, inequality and growth", Overseas Development Institute, https://www.odi.org/sites/odi.org.uk/files/dpg/brazil_report_-_master_0_0.pdf (accessed on 27 June 2019). [17]

Holmes, R., N. Sadana and R. Saswatee (2010), *An opportunity for change? Gender analysis of the Mahatma Gandhi National Rural Employment Guarantee Act*, Overseas Development Institute, https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/6301.pdf (accessed on 7 October 2020). [105]

Holzmann, R., I. Mac Arthur and Y. Sin (2000), *Pension Systems in East Asia and the Pacific: Challenges and Opportunities*, World Bank, Washington, DC, http://documents.worldbank.org/curated/en/864891468751782001/pdf/multi0page.pdf (accessed on 27 June 2019). [53]

Hu, A. (2016), "Universal pensions in China", *USP Brief*, ILO, https://www.social-protection.org/gimi/ShowRessource.action;jsessionid=LSmP4XVYSwtQ7xFYZM8cFZeG3LBEjMuetS7viuHFNJLqS7hm2kUY!-1751551395?id=53952 (accessed on 25 June 2019). [70]

Hujo, K. and M. Rulli (2014), *The Political Economy of Pension Re-Reform in Chile and Argentina Toward More Inclusive Protection*, UNRISD, Geneva, http://www.unrisd.org/funding (accessed on 27 June 2019). [42]

Iglesias-Palau, A. (2009), "Pension Reform in Chile Revisited: What Has Been Learned?", *OECD Social, Employment and Migration Working Papers*, No. 86, OECD, Paris, https://www.oecd-ilibrary.org/social-issues-migration-health/pension-reform-in-chile-revisited_224473276417 (accessed on 27 June 2019). [36]

ILO (2016), *Extending social protection by anchoring rights in law: Brazil*, International Labour Office, Geneva, https://www.social-protection.org/gimi/gess/ShowRessource.action?ressource.ressourceId=53852 (accessed on 26 June 2019). [15]

IMF (2019), *Namibia: 2019 Article IV Consultation*, IMF, https://www.imf.org/en/Publications/CR/Issues/2019/09/12/Namibia-2019-Article-IV-Consultation-Press-Release-and-Staff-Report-48675 (accessed on 13 October 2019). [137]

IMF (2018), *India: 2018 Article IV Consultation*, https://www.imf.org/en/Publications/CR/Issues/2018/08/06/India-2018-Article-IV-Consultation-Press-Release-Staff-Report-and-Statement-by-the-Executive-46155 (accessed on 4 November 2019). [78]

IMF (2018), *Malawi : 2018 Article IV Consultation and Request for a Three-Year Arrangement Under the Extended Credit Facility*, International Monetary Fund, Washington, DC, https://www.imf.org/en/Publications/CR/Issues/2018/05/09/Malawi-2018-Article-IV-Consultation-and-Request-for-a-Three-Year-Arrangement-Under-the-45863 (accessed on 14 August 2019). [116]

IMF (2015), *Malawi : 2015 Article IV Consultation-Press Release; Staff Report; and Statement by the Executive Director for Malawi*, International Monetary Fund, Washington, DC, https://www.imf.org/en/Publications/CR/Issues/2016/12/31/Malawi-2015-Article-IV-Consultation-Press-Release-Staff-Report-and-Statement-by-the-43467 (accessed on 14 August 2019). [115]

Inchauste, G. et al. (2015), "The Distributional Impact of Fiscal Policy in South Africa", *Policy Research Working Paper*, No. 7194, World Bank, http://documents.worldbank.org/curated/en/502441468299632287/pdf/WPS7194.pdf (accessed on 14 October 2019). [145]

India, G. (2015), *Report of the Seventh Central Pay Commission*, Government of India, https://doe.gov.in/sites/default/files/7cpc_report_eng.pdf. [180]

International Labour Office (2017), *World Social Protection Report 2017-19: Universal social protection to achieve the Sustainable Development Goals*, ILO, Geneva, https://www.ilo.org/global/publications/books/WCMS_604882/lang--en/index.htm (accessed on 26 June 2019). [10]

IOPS (2011), *IOPS Member country or territory pension system profile: Malawi*, International Organisation of Pensions Supervisors, http://www.iopsweb.org/resources/49669389.pdf (accessed on 3 August 2019). [117]

IPC-IG (2018), "A brief history of Malawi's Social Cash Transfer Programme (SCTP)", *working paper*, No. 172, International Policy Centre for Inclusive Growth, Brasília, https://ipcig.org/pub/eng/WP172_A_brief_history_of_Malawi_s_Social_Cash_Transfer_Programme.pdf (accessed on 10 October 2019). [123]

Jackson, R. et al. (2009), *The Graying of the Middle Kingdom Revisited: China's Long March to Retirement Reform*, Center for Strategic and International Studies, https://csis-prod.s3.amazonaws.com/s3fs-public/legacy_files/files/media/csis/pubs/090422_gai_chinareport_en.pdf (accessed on 28 June 2019). [54]

Jha, P. and N. Acharya (2013), "Social Security for the Elderly in India: A Note on Old Age Pension", *HelpAge India - Research & Development Journal*, Vol. 19/2, http://www.cbgaindia.org/journal-article/social-security-for-the-elderly-in-india-a-note-on-old-age-pension/ (accessed on 2 July 2019). [108]

Jha, R. (2014), "Welfare schemes and social protection in India", *International Journal of Sociology and Social Policy*, Vol. 34/3/4, pp. 214-231, http://dx.doi.org/10.1108/IJSSP-10-2013-0099. [96]

Karthik, M., P. Niehaus and S. Sukhtankar (2016), "Building State Capacity: Evidence from Biometric Smartcards in India", *American Economic Review*, Vol. 106/10, pp. 2895-2929, http://dx.doi.org/10.1257/aer.20141346. [106]

Kelobang, K. (2007), *Civil-service pension reform in Botswana*. [134]

Kerr, A. and M. Wittenberg (2017), "Public sector wages and employment in South Africa", http://www.saldru.uct.ac.za. (accessed on 15 November 2019). [127]

Kidd, S. et al. (2018), "Social Protection and Disability in South Africa", https://www.sassa.gov.za/Statistics/Documents/Disability%20Study%20in%20South%20Africa.pdf (accessed on 27 October 2019). [144]

Kiragu, K. and R. Mukandala (2003), *Public service pay reform - Tactics Sequencing and Politics in Developing Countries: Lessons from Sub-Saharan Africa (Draft Report)*, http://www1.worldbank.org/publicsector/civilservice/Mayseminar/PayReformStudy.pdf (accessed on 18 March 2019). [157]

Kritzer, B. (2008), "Chile's Next Generation Pension Reform", *Social Security Bulletin*, Vol. 68/2, pp. 69-84, https://pdfs.semanticscholar.org/06dc/b5d0d3958b2cf86df9777057aa1b808f8b5e.pdf (accessed on 27 June 2019). [165]

Kulkarni, S., S. Raju and S. Bammidi (2015), *Social Security for the Elderly in India*, UNFPA, https://india.unfpa.org/sites/default/files/pub-pdf/ThematicPaper1_2.pdf (accessed on 2 July 2019). [109]

Kumar, M. and R. Chakraborty (2019), "Public Expenditure on Old-Age Income Support in India: Largesse for a Few, Illusory for Most", National Institute of Public Finance and Policy, New Delhi, https://www.nipfp.org.in/publications/working-papers/1848/ (accessed on 30 June 2019). [81]

Lindauer, D. (1988), "Government pay and employment policies and government performance in developing economies", *Policy Research Working Paper*, No. 42, https://ideas.repec.org/p/wbk/wbrwps/42.html (accessed on 18 March 2019). [156]

livemint (2019), "New NPS benefits for government employees explained here", https://www.livemint.com/money/personal-finance/new-nps-benefits-for-government-employees-explained-here-1562584206374.html (accessed on 31 October 2019). [86]

Lixiong, Y. (2018), *The Social Assistance Reform in China : Towards a Fair and Inclusive Social Safety net*, Renmin University of China, Beijing, https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2018/06/The-Social-Assistance-Reform-in-China.pdf (accessed on 28 June 2019). [60]

MANEPO (2017), *Realizing Income Security in Old Age: The Feasibility of a Universal Old Age Pension in Malawi*, Malawi Network for Older Persons' Organization, https://www.ilo.org/wcmsp5/groups/public/---africa/---ro-addis_ababa/---ilo-lusaka/documents/publication/wcms_544232.pdf (accessed on 12 October 2019). [120]

Martínez-Aguilar, S. et al. (2017), "The impact of fiscal policy on inequality and poverty in Chile", http://www.commitmentoequity.org. (accessed on 29 October 2019). [50]

McCord, A. and M. Hannah Paul (2019), "An Introduction to MGNREGA Innovations and their Potential for India-Africa Linkages on Public Employment Programming", GIZ, https://www.giz.de/en/downloads/Working%20Paper%20-%20An%20Introduction%20to%20MGNREGA%20Innovations%20and%20their%20Potential%20for%20India-Africa%20Linkages.pdf (accessed on 2 July 2019). [107]

Medici, A. (2004), *The Political Economy of Reform in Brazil's Civil Servant Pension Scheme*, Inter-American Development Bank, https://publications.iadb.org/en/publication/11659/political-economy-reform-brazils-civil-servant-pension-scheme (accessed on 26 June 2019). [13]

Mehrotra, S., N. Kumra and A. Gandhi (2014), "India's Fragmented Social Protection System Three Rights Are in Place; Two Are Still Missing", No. 2014-18, United Nations Research Institute for Social Development, Geneva, http://www.unrisd.org (accessed on 30 June 2019). [91]

Mesa, A., J. Behrman and D. Bravo (2001), "Characteristics of and determinants of the density of contributions in a Private Social Security System", *Working Papers*, No. wp077, https://ideas.repec.org/p/mrr/papers/wp077.html (accessed on 27 June 2019). [29]

Mesa-Lago, C. and F. Bertranou (2016), "Pension reforms in Chile and social security principles, 1981-2015", *International Social Security Review*, Vol. 69/1/2016, https://onlinelibrary.wiley.com/doi/pdf/10.1111/issr.12093 (accessed on 27 June 2019). [44]

Mhango, M. and P. Thejane (2012), "The Malawi Pension Act: a general commentary on some of its core mandatory provisions with specific reference to sections 9, 10 and 15", *South African Law Journal*, https://www.academia.edu/3013889/The_Malawi_Pension_Act_a_general_commentary_on_some_of_its_core_mandatory_provisions_with_specific_reference_to_sections_9_10_and_15 (accessed on 3 August 2019). [171]

Ministério da Fazenda (2017), *Anuário Estatístico da Previdência Social: Suplemento Previdência do Servidor Público (2017)*, Ministério da Fazenda, Brasília, http://sa.previdencia.gov.br/site/2018/11/aeps2017_supserpub.pdf (accessed on 26 June 2019). [23]

Ministry of Finance (2017), "The 'Other Indias': Two Analytical Narratives (Redistributive and Natural Resources) on States' Development", in *Economic Survey 2016-17 Volume 1*, Government of India, https://www.indiabudget.gov.in/budget2017-2018/e_survey.asp (accessed on 1 July 2019). [98]

Ministry of Finance Economic Planning and Development (2016), *Review of the Malawi National Social Support Programme*, Ministry of Finance Economic Planning and Development, Poverty Reduction and Social Protection Division, https://www.ilo.org/africa/countries-covered/zambia/WCMS_541212/lang--en/index.htm (accessed on 10 October 2019). [125]

Mitchell, O. (2002), "Redesigning Public Sector Pensions in Developing Countries", *Pension Research Council Working Paper*, No. 2002-9, Pension Research Council of the Wharton School of the University of Pennsylvania, Philadelphia, https://pensionresearchcouncil.wharton.upenn.edu/publications/papers-2018/redesigning-public-sector-pensions-in-developing-countries/ (accessed on 26 June 2019). [11]

Myanmar Times (2019), "Govt to raise pensions for civil servants in 2019", https://www.mmtimes.com/news/govt-raise-pensions-civil-servants-19.html (accessed on 14 November 2019). [178]

National Planning Commission (2012), *National Development Plan 2030*, Republic of South Africa, Pretoria, https://www.gov.za/issues/national-development-plan-2030 (accessed on 13 October 2019). [139]

National Treasury (2018), *Budget Review 2018*, National Treasury, Republic of South Africa, http://www.treasury.gov.za/documents/national%20budget/2018/review/FullBR.pdf (accessed on 14 October 2019). [126]

Navarro, L. and J. Selman (2014), "Wage differentials between the public and private sectors in Chile: Evidence from longitudinal data", *CEPAL Review*, Vol. 112/April, https://repositorio.cepal.org/bitstream/handle/11362/37022/1/RVI112NavarroSelman_en.pdf (accessed on 27 June 2019). [38]

NITI Aayog (2016), *Evaluation Study on Role of Public Distribution System in Shaping Household and Nutritional Security India*, Government of India, New Delhi, https://niti.gov.in/writereaddata/files/document_publication/Final%20PDS%20Report-new.pdf (accessed on 1 July 2019). [168]

Nooruddin, I. and N. Rudra (2014), "Are Developing Countries Really Defying the Embedded Liberalism Compact?", *World Politics*, Vol. 66/04, pp. 603-640, http://dx.doi.org/10.1017/S0043887114000203. [154]

OECD (2019), *Global Revenue Statistics Database*, https://www.oecd.org/tax/tax-policy/global-revenue-statistics-database.htm (accessed on 26 June 2019). [161]

OECD (2019), *OECD Economic Surveys: China 2019*, http://dx.doi.org/10.1787/eco_surveys-chn-2019-en. [72]

OECD (2019), *Recommendation of the Council on Public Service Leadership and Capability*, OECD, Paris, http://www.oecd.org/gov/pem/recommendation-on-public-service-leadership-and-capability-en.pdf (accessed on 6 October 2020). [1]

OECD (2018), *OECD Economic Surveys: Brazil 2018*, OECD Publishing, Paris, https://dx.doi.org/10.1787/eco_surveys-bra-2018-en. [20]

OECD (2018), *Pension Funds in Figures*, OECD, Paris, http://www.oecd.org/daf/pensions. (accessed on 27 June 2019). [31]

OECD (2017), *Pension Reform in Brazil*, http://www.oecd.org/eco/surveys/economic-survey-brazil.htm (accessed on 13 November 2019). [24]

OECD (2016), *OECD Pensions Outlook 2016*, Organisation for Economic Co-operation and Development, Paris. [3]

OECD (2015), *Recommendation of the Council on Budgetary Governance*, https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0410 (accessed on 7 October 2020). [149]

OECD (2011), *Chile: Review of the Private Pensions System*, OECD, Paris, http://www.oecd.org/finance/private-pensions/49497472.pdf (accessed on 27 June 2019). [28]

OECD/IDB/The World Bank (2014), *Pensions at a Glance: Latin America and the Caribbean*, OECD Publishing, Paris, https://dx.doi.org/10.1787/pension_glance-2014-en. [7]

Oksanen, H. (2010), “The Chinese pension system - First results on assessing the reform options”, *European Economy - Economic Papers 2008 - 2015*, https://ideas.repec.org/p/euf/ecopap/0412.html (accessed on 25 June 2019). [65]

Palacios, R. and E. Whitehouse (2006), *Civil-service pension schemes around the world*, World Bank, Washington DC, http://documents.worldbank.org/curated/en/546181468147557849/Civil-service-pension-schemes-around-the-world (accessed on 18 March 2019). [150]

Palacios, R. and E. Whitehouse (2006), *Civil-service Pension Schemes Around the World*, World Bank, Washington DC, https://openknowledge.worldbank.org/bitstream/handle/10986/20205/903400NWP0P1320Box0385283B00PUBLIC0.pdf?sequence=1&isAllowed=y (accessed on 26 June 2019). [2]

Patnaik, B. (2013), *India’s Direct Benefit Transfer and Public Distribution System: Can They Work Together?*, International Policy Centre for Inclusive Growth, https://ideas.repec.org/p/ipc/opager/199.html (accessed on 2 July 2019). [170]

Paul, B. et al. (2009), *India Labour Market Report 2008*. [77]

Pauta (2018), *Casi cinco mil jubilados de las FF.AA. reciben pensiones sobre $2 millones - Pauta.cl*, Pauta, https://www.pauta.cl/economia/casi-cinco-mil-jubilados-de-las-ff-aa-reciben-pensiones-sobre-2-millones (accessed on 27 June 2019). [47]

Piketty, T., L. Yang and G. Zucman (2019), “Capital accumulation, private property, and rising inequality in China, 1978-2015”, *American Economic Review*, Vol. 109/7, pp. 2469-2496, http://dx.doi.org/10.1257/aer.20170973. [71]

Pozen, R. (2013), *Tackling the Chinese Pension System*, The Paulson Institute, https://www.brookings.edu/wp-content/uploads/2016/06/31-reforming-chinese-pension-system-pozen.pdf (accessed on 28 June 2019). [58]

Queisser, M. (1998), “The Second-generation Pension Reforms in Latin America”, No. AWP 5.4, OECD Development Centre, http://www.oecd.org/els/public-pensions/2429287.pdf (accessed on 27 June 2019). [26]

Ralston, L., C. Andrews and A. Hsiao (2017), “The Impacts of Safety Nets in Africa: What Are We Learning?”, *Policy Research Working Papers*, No. 8255, The World Bank, Washington, DC, http://dx.doi.org/10.1596/1813-9450-8255. [173]

Ravallion, M. (2019), “Is a Decentralized Right-to-Work Policy Feasible?”, *NBER Working Paper*, No. 25687, https://www.nber.org/papers/w25687.pdf (accessed on 2 July 2019). [104]

Registrar of Pension Funds (2018), *Annual Report 2017*, Financial Services Board, https://www.fsca.co.za/Annual%20Reports/Registrar%20of%20Pension%20Funds%20Annual%20Report%202017.PDF (accessed on 13 October 2019). [130]

Republic of South Africa (2012), *Comprehensive social security in South Africa: Discussion document*, Republic of South Africa, Pretoria, https://www.gov.za/documents/comprehensive-social-security-south-africa-discussion-document-25-nov-2016-0000-0 (accessed on 13 October 2019). [140]

Reuters (2020), "Chile's Pinera proposes reform of pension system that has fueled protests", *Reuters*, https://www.reuters.com/article/us-chile-pensions/chiles-pinera-proposes-reform-of-pension-system-that-has-fueled-protests-idUSKBN1ZF075 (accessed on 7 October 2020). [45]

Reuters (2019), "China says will guarantee pensions amid warnings of funds drying up", *Reuters*, https://www.reuters.com/article/us-china-economy-pension/china-says-will-guarantee-pensions-amid-warnings-of-funds-drying-up-idUSKCN1S001M (accessed on 28 June 2019). [67]

Reuters (2019), "UPDATE 3-Brazil ups pension reform savings goal by 15 pct to 1.237 trillion reais - Reuters", *Reuters*, https://www.reuters.com/article/brazil-politics-pensions/update-3-brazil-ups-pension-reform-savings-goal-by-15-pct-to-1-237-trillion-reais-idUSL1N2270ZV (accessed on 27 June 2019). [25]

Robles Farías, C. (2013), *Sistemas de protección social en América Latina y el Caribe: Chile*, CEPAL, Santiago, https://repositorio.cepal.org/bitstream/handle/11362/4046/1/S2013036_es.pdf (accessed on 27 June 2019). [40]

Robles, C. and V. Mirosevic (2013), *Social protection systems in Latin America and the Caribbean: Brazil*, https://repositorio.cepal.org/handle/11362/4062 (accessed on 26 June 2019). [14]

Rocha, R. and C. Thorburn (2007), *Developing Annuities Markets : The Experience of Chile*, World Bank, Washington, DC, http://dx.doi.org/10.1596/978-0-8213-6666-0. [32]

Rodrik, D. (1997), "What Drives Public Employment?", *NBER Working Paper*, No. 6141, National Bureau of Economic Research, Cambridge, MA, http://dx.doi.org/10.3386/w6141. [153]

Rofman, R. (2005), "Social Security Coverage in Latin America", *Social Protection Discussion Paper*, World Bank, Washington, DC, https://pdfs.semanticscholar.org/fbcc/5fb1415785bb515127e2f549be18a7ec7c48.pdf?_ga=2.2664050.338047107.1561644519-1677943622.1561644519 (accessed on 27 June 2019). [34]

Rofman, R., E. Fajnzylber and G. Herrera (2008), *Reforming the Pension Reforms: The Recent Initiatives and Actions on Pensions in Argentina and Chile*, World Bank, Washington, DC, https://pdfs.semanticscholar.org/ab78/0edbb4fbabc71b62eeb4b614fb76827f0a7f.pdf (accessed on 27 June 2019). [41]

Rofman, R. and M. Oliveri (2012), "Pension coverage in Latin America: trends and determinants", *Social Protection and Labor Policy and Technical Notes*, https://ideas.repec.org/p/wbk/hdnspu/70926.html (accessed on 27 June 2019). [164]

Sane, R. and A. Shah (2011), *Civil service and military pensions in India*, http://www.saner.org.in. (accessed on 30 June 2019). [82]

Satpathy, S. (2018), "Social Protection to Mitigate Poverty: Examining the Neglect of India's Informal Workers", *Urbanisation and its Discontents*, Observer Research Foundation, https://www.orfonline.org/series/urbanisation-and-its-discontents/ (accessed on 30 June 2019). [95]

Schade, K., J. La and A. Pick (2019), "Financing social protection in Namibia", https://www.oecd-ilibrary.org/development/financing-social-protection-in-namibia_6957c65a-en (accessed on 28 October 2019). [138]

Schiel, R., M. Leibbrandt and D. Lam (2014), “Assessing the impact of social grants on inequality A South African case study”, *WIDER Working Paper*, No. 2014/160, UNU-WIDER, https://www.wider.unu.edu/sites/default/files/wp2014-160.pdf (accessed on 14 October 2019). [146]

Schwarz, A. and M. Abels (2016), *Issues for Civil Service Pension Reform in Sub-Saharan Africa*. [5]

Soares, F., R. Ribas and R. Osório (2010), “Evaluating the impact of Brazil’s Bolsa Família: Cash Transfer Programs in Comparative Perspective”, *Latin American Research Review*, Vol. 45, pp. 173-190, http://dx.doi.org/10.2307/27919200. [19]

Sojo, A. (2014), *The Chilean system of contributory pensions as locus of rivalry and of a new social compact*, ECLAC, Santiago, https://repositorio.cepal.org/bitstream/handle/11362/37293/1/S1420795_en.pdf (accessed on 27 June 2019). [43]

Solinger, D. (2017), “Manipulating China’s “Minimum Livelihood Guarantee””, *China Perspectives* 2017/2, pp. 47-57, https://journals.openedition.org/chinaperspectives/7342 (accessed on 28 June 2019). [61]

Soto, M. (2005), “Chilean Pension Reform: the Good, the Bad, and the In Between”, No. 31, Center for Retirement Research, https://crr.bc.edu/wp-content/uploads/2005/06/ib_31_508c.pdf (accessed on 27 June 2019). [27]

South China Morning Post (2019), *Civil servants pay to rise 300 yuan on average, Chinese government claims | South China Morning Post*, South China Morning Post, https://www.scmp.com/news/china/article/1690230/civil-servants-pay-rise-300-yuan-average-chinese-government-claims (accessed on 25 June 2019). [66]

Statistics South Africa (2019), *Quarterly Labour Force Survey, Quarter 2: 2019*, http://www.statssa.gov.za/publications/P0211/P02112ndQuarter2019.pdf (accessed on 27 October 2019). [143]

Subsecretaría de Previsión Social (2019), *Informe Estadístico Semestral de la Seguridad Social - Segundo Semestre de 2018*. [35]

Swarup, D. (2013), *The reform experience of India : widening coverage in a sustainable and equitable way*, IMF, https://www.imf.org/external/np/seminars/eng/2013/oapfad/pdf/swarup_ppr.pdf (accessed on 28 June 2019). [80]

Taylor Committee (2002), *Transforming the Present – Protecting the Future, Consolidated Report of the Committee of Inquiry into a Comprehensive System of Social Security for South Africa*, Department of Social Development, Pretoria, https://sarpn.org/CountryPovertyPapers/SouthAfrica/taylor/ (accessed on 13 October 2019). [132]

Tesouro Nacional (2019), *Relatório Resumido Da Execução Orçamentária Do Governo Federal E Outros Demonstrativos*, Tesouro Nacional, Brasília, http://www.tesouro.fazenda.gov.br (accessed on 26 June 2019). [21]

The Asian Age (2019), “Govt denies possibility of reintroduction of Old Pension Scheme”, https://www.asianage.com/business/in-other-news/160719/govt-denies-possibility-of-reintroduction-of-old-pension-scheme.html (accessed on 31 October 2019). [176]

The Economic Times (2019), "Budget 2019: Rs 3.18 lakh crore allocated to defence budget", https://economictimes.indiatimes.com/news/defence/rs-3-18-lakh-crore-allocated-to-defence-budget/articleshow/70092583.cms (accessed on 31 October 2019). [83]

The Economic Times (2019), "MGNREGA scheme: Big Budget number! Rs 60,000 crore set aside for MGNREGA this year", *The Economic Times*, https://economictimes.indiatimes.com/news/economy/agriculture/big-budget-number-rs-60000-crore-set-aside-for-mgnrega-this-year/articleshow/67786461.cms (accessed on 2 July 2019). [102]

The Hindu Business Line (2019), "Direct benefit transfer of subsidies crosses Rs 3-lakh-cr mark in 2018-19 - The Hindu BusinessLine", https://www.thehindubusinessline.com/economy/direct-benefit-transfer-of-subsidies-crosses-3-lakh-cr-mark-in-2018-19/article26913247.ece (accessed on 12 November 2019). [100]

the pioneer (2019), "Demand for revival of OPS gains momentum", https://www.dailypioneer.com/2019/state-editions/demand-for-revival-of-ops-gains-momentum.html (accessed on 31 October 2019). [88]

The Registrar of Financial Institutions (2019), *Annual Report 2018*, The Registrar of Financial Institutions, Lilongwe, https://www.rbm.mw/Supervision/PensionsandInsurance/Home. [118]

The Telegraph (2018), "Cry against Rs 200 pension for elderly", *The Telegraph*, https://www.telegraphindia.com/india/cry-against-rs-200-pension-for-elderly/cid/1670492 (accessed on 2 July 2019). [110]

The Wire (2018), "Why Govt Employees Are Up in Arms About the New Pension Scheme", *The Wire*, https://thewire.in/labour/why-govt-employees-are-up-in-arms-about-the-new-pension-scheme (accessed on 30 June 2019). [84]

Times of India (2019), "Rising inequality is a concern: Manmohan Singh", *Times of India*, https://timesofindia.indiatimes.com/india/rising-inequality-is-a-concern-manmohan-singh/articleshow/69932157.cms (accessed on 30 June 2019). [94]

UNDP (2011), *Successful Social Protection Floor Experiences*, http://www.undp.org (accessed on 29 October 2019). [49]

UNICEF Malawi (2019), *2018/19 Social Welfare Budget Brief*, UNICEF, https://www.unicef.org/esa/sites/unicef.org.esa/files/2019-04/UNICEF-Malawi-2018-Social-Welfare-Budget-Brief.pdf (accessed on 11 October 2019). [122]

United Nations Department of Economic and Social Affairs, P. (2019), *World Population Prospects 2019*, United Nations, https://population.un.org/wpp/ (accessed on 28 June 2019). [69]

UNPAN (2004), *Republic of Malawi: Public Administration Country Profile*, United Nations Public Administration Network, http://unpan1.un.org/intradoc/groups/public/documents/un/unpan023275.pdf (accessed on 4 August 2019). [112]

Villarroel, I. and A. Mariana (2015), *Inventory of social protection programs in Myanmar*. [75]

Voice of America (2019), "Public Resentment is Rising Over China's Pension Crisis", *Voice of America*, https://www.voanews.com/east-asia/public-resentment-rising-over-chinas-pension-crisis (accessed on 28 June 2019). [167]

Willis Towers Watson (2019), *The world's largest pension funds - 2019*, https://www.thinkingaheadinstitute.org/en/Library/Public/Research-and-Ideas/2019/09/P_I_300_2019_research_paper (accessed on 27 October 2019). [129]

World Bank (2019), *Implementation Completion and Results Report (IDA-48970)*, World Bank, http://documents.worldbank.org/curated/en/608041560195381124/pdf/Malawi-Financial-Sector-Technical-Assistance-Project.pdf (accessed on 12 October 2019). [119]

World Bank (2018), *China Systematic Country Diagnostic: Towards a More Inclusive and Sustainable Development*, World Bank, Washington, DC, https://openknowledge.worldbank.org/handle/10986/29422?locale-attribute=es (accessed on 28 June 2019). [59]

World Bank (2018), *Malawi Economic Monitor May 2018 Realizing Safety Nets' Potential*, World Bank, Lilongwe, http://www.worldbank.org/mw (accessed on 15 August 2019). [124]

World Bank (2018), *Malawi Systematic Country Diagnostic: Breaking the Cycle of Low Growth and Slow Poverty Reduction*, World Bank, http://documents.worldbank.org/curated/en/723781545072859945/pdf/malawi-scd-final-board-12-7-2018-12122018-636804216425880639.pdf (accessed on 15 August 2019). [121]

World Bank (2018), *Overcoming Poverty and Inequality in South Africa - An Assessment of Drivers, Constraints and Opportunities*, http://documents.worldbank.org/curated/en/530481521735906534/pdf/124521-REV-OUO-South-Africa-Poverty-and-Inequality-Assessment-Report-2018-FINAL-WEB.pdf (accessed on 27 October 2019). [141]

World Bank (2018), *Poverty and Shared Prosperity 2018: Piecing Together the Poverty Puzzle*, https://openknowledge.worldbank.org/bitstream/handle/10986/30418/9781464813306.pdf (accessed on 27 October 2019). [142]

World Bank (2017), *A Fair Adjustment: Efficiency and Equity of Public Spending in Brazil*, World Bank, http://documents.worldbank.org/curated/en/643471520429223428/pdf/Volume-1-Overview.pdf (accessed on 26 June 2019). [12]

World Bank (2016), *Live Long and Prosper: Aging in East Asia and Pacific*, World Bank, Washington, DC, http://pubdocs.worldbank.org/en/165351470911396346/Live-Long-and-Prosper.pdf (accessed on 26 June 2019). [9]

World Bank (2015), *Malawi Economic Monitor October 2015 - Adjusting in Turbulent Times*, http://www.worldbank.org/mw (accessed on 14 November 2019). [111]

World Bank (2013), *Botswana Social Protection Assessment*, http://documents.worldbank.org/curated/en/421451468199469145/pdf/860090WP0P1274090Box382163B00PUBLIC00ACS.pdf (accessed on 28 October 2019). [136]

World Bank (2008), *Malawi - Contractual savings : insurance and pensions - technical note*, World Bank, Washington, DC, http://documents.worldbank.org/curated/en/276161468046489055/Malawi-Contractual-savings-insurance-and-pensions-technical-note (accessed on 4 August 2019). [113]

World Bank (2008), “Malawi - Contractual savings : insurance and pensions - technical note”, No. 79208, World Bank, http://documents.worldbank.org/curated/en/276161468046489055/Malawi-Contractual-savings-insurance-and-pensions-technical-note (accessed on 14 August 2019). [172]

Zhao, Q. et al. (2019), “Evaluation on the Sustainability of Urban Public Pension System in China”, *Sustainability*, Vol. 11/5, p. 1418, http://dx.doi.org/10.3390/su11051418. [56]

Zhu, H. and A. Walker (2018), “Pension system reform in China: Who gets what pensions?”, *Social Policy & Administration*, Vol. 52/7, pp. 1410-1424, http://dx.doi.org/10.1111/spol.12368. [57]