International Labour Organization

ILO review of the multi-tier pension system in China

Technical note

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1 Introduction

This technical note provides a review of China's multi-tier pension system in the context of ILO International Labour Standards on Social Security. This review is intended to provide a contribution to ongoing pension policy development. Rather than providing detailed recommendations for distinct tiers and schemes within them, the note focuses on the question of how the system as whole can support achievement of multiple pension objectives.

The design of the pension system has important implications for China's objective of common prosperity. Rapid population ageing and changes in family structures mean that formal old age social protection mechanisms are becoming increasingly important. Any gaps in coverage and adequacy of the pension system risk reversing the gains in the reduction of poverty and leading to greater income insecurity which could undermine impressive improvements in living standards in previous decades. The level of income security provided to individuals and families by the pension system also has significant implications for the wider economy, including in terms of levels of precautionary saving.

Multi-tier pension systems play an important role in achieving coverage and adequacy of the pension system in a financially sustainable way. A multi-tier approach recognises that no single instrument can achieve all objectives of the pension system, not least given that the situation of individuals across the population varies significantly (including in terms of income level and employment circumstances). China has been a pioneer in pursuing a multi-tier pension system, but ensuring its continued evolution requires continued attention. International experience shows that fragmented approaches to achieving overlapping objectives in pension policy can lead to conflicting paths, poor incentives and inefficiencies. An effective multi-tier system is thus not only one where component schemes are well designed, but they work in a complementary and mutually reinforcing fashion with each other, with well-defined roles and responsibilities. There is no one-size-fits-all approach to building a multi-tier system, and countries across the world have successfully employed a range of approaches.

China is at an important moment in the development of its multi-tier pension system. Coverage of China's pension system has expanded rapidly in recent years, and has achieved full legal coverage of Tier 1 basic insurance schemes for employees and residents. By 2020, more than a billion people were participating in basic pension insurance, with the vast majority of older persons (age 60 and over) receiving pension benefits, and most workers making pension contributions. In addition, there were marked efforts to bring greater coordination and consistency to schemes, including through the unification of rural and urban residents' schemes, and progress towards national pooling of basic insurance for urban employees. Meanwhile, growing attention is being put on the contribution of Tier 2 (occupational pensions) and Tier 3 (private commercial pensions). Efforts have been put into improving the regulatory framework for Tier 2 pensions (as indicated in the 13th and 14th National 5-year Plans) while initiatives to expand Tier 3 pensions have involved pilot initiatives and plans to promote the implementation of this Tier at a national level. A question for pension policy in China is how expanding Tier 2 and 3 elements should interact with the continued refinement of Tier 1 pensions.

The note is structured as follows: The paper begins by summarising the main rationale for a multi-tier approach, and describing the shape of China's system. Following a review of key elements of the socio-economic context relevant for pension policy, the note reviews the performance of the multi-tier system in relation to key principles identified in ILO social security standards.

2 The role and shape of China's multi-tier pension system

2.1 The role of multi-tier pension systems

China was a pioneer in advancing a multi-tier pension system. The concept of multi-tier pension systems (which only emerged globally in the 1980s and 1990s) has been embedded in Chinese pension policy since the mid-1990s, and is clearly encapsulated under Article 3 of the Social Insurance Law (Standing Committee of National People's Congress 2010). This stands in contrast to many countries across the globe where pension policy development is relatively fragmented, with a lack of a systemic vision.

The primary rationale for a multi-tier approach is that achieving different pension objectives requires a combination of instruments. These core objectives are commonly described as being: income smoothing, insurance, poverty relief and redistribution (Box 2-1). All of these objectives feature strongly in China's pension policy development. Article 1 of China's Social Insurance Law states clearly a redistributive function of social insurance "enabling citizens to share the achievements of development and promoting social harmony and stability", and emphasising its importance for social cohesion. Pensions are also understood to play an important role in reducing poverty. Income smoothing and insurance are embedded centrally within the parameters of social insurance schemes, with the mix of social pooling and individual accounts that – combined – provide a form of insurance as well as earnings-related benefits.

▶ Box 2-1: Key pension objectives

- **Poverty relief:** pensions provide an important mechanism to reduce poverty of older people and their families.
- **Income smoothing** pension systems provide a mechanism by which individuals reduce their income today (through contributions) in order that they have higher incomes in older age (through pension payments). Income smoothing implies the provision of earnings-related benefits, usually measured by their replacement rate relative to previous earnings.
- **Insurance**: pension systems provide a mechanism to share risks between individuals. These include the risk of outliving one's savings (longevity risk) and economic risks such as retiring at the moment of an economic downturn.
- **Redistribution:** Pension systems can redistribute between different parts of the population, such as between generations, between higher and lower earners, between men and women, and between different geographical regions.

Source: Barr and Diamond (2009)

The key question for multi-tier pension systems is what combination of tiers best achieves these objectives. A key challenge in this context is the significant diversity in the situation of individuals interacting with the pension system. This includes a spectrum in levels of income, and a wide variety of employment circumstances (including those who may spend large portions of their life outside the labour force). The importance of different pension objectives will vary for people in different circumstances: for example, while poverty relief may be a core concern for a low-income agricultural worker, income smoothing, and insurance may be of much greater relevance for those with relatively high earnings. Adding further complexity is that people's situation changes over time. A central challenge is organising a set of tiers that are coherent so that people can build an optimal level of pension adequacy in a financially sustainable way. This also involves defining the level of risks taken on by different actors in achieving these objectives. Box 2-2 provides a definition of what can be considered a benchmark for an effective multi-tier system, but also highlights the challenges involved.

▶ Box 2-2: Definition of an effective multi-tier system

*Effective multi-tier pension systems support the achievement of the **range of system objectives** for **different people** (whose situation may change over time) in a way that is **coherent** and **distributes risks between individuals, enterprises and government** in an appropriate way.*

There is no one-size-fits-all for a multi-tier pension system. This is due to various factors, including: the weight put on different objectives will vary based on the legacy of national systems and path dependencies, national preferences and government policy priorities; the situation of individuals and enterprises within the population will vary from country to country, and different countries will make different assessments on how risks should be shared between individuals, enterprises and the government. This explains why approaches from one country cannot easily be transposed to others, nor compared simplistically, and why countries will often choose "second-best" policy solutions (Barr and Diamond 2009). That is, approaches that seem optimal in theory may not be implementable in a given context.

A useful framework for assessing the performance of multi-tier pension systems are principles for pension policy established by ILO International Labour Standards on Social Security (Box 2-3**)**. These principles align closely with many of the objectives described above, however, they provide a more concrete set of standards against which pension systems can be assessed. These standards have been codified based on international dialogue, and Chinese social partners have been actively involved in international discussion on their implications for pension policy.[1] The principles in Box 2-3 are used as a reference point to discuss the Chinese multi-pillar system in Section 4.

▶ Box 2-3: ILO principles for designing and reforming pension systems

Principle 1. Universality: Progressively reaching universal coverage with respect to pensions means guaranteeing the human right to income security in old age for all, with no one left behind.

Principle 2. Social solidarity and collective financing: The collective financing of social security supports redistribution and sharing of financial and labour market risks between individuals (insurance). Social solidarity and solidarity in financing imply a fair distribution of contributions between employers and workers, as well as solidarity between economically active and non-active members of society, between men and women, between those with high wages/earnings and those with low wages/earnings or no earnings and between present and future generations. Old age pensions are thus the result of social solidarity but at the same

[1] For example, in 2020 the MOHRSS and social partners contributed to an international Tripartite Round Table on Pension Trends and Reforms (ILO 2021).

time a way to boost social cohesion through redistribution towards the vulnerable members of society.

Principle 3. Adequacy and predictability of benefits: *Adequacy* is usually defined in one of two ways: in relation to previous earnings (more closely related to the objective of income smoothing) or in terms of a flat-rate minimum (more closely related to the objective of poverty alleviation. ILO standards foresee that at the very least, each country should have a social protection floor that guarantees at least basic income security in old age, according to a national threshold determined by reference to the monetary value of a set of goods and services that are considered necessary to secure life in dignity. For those able to affiliate with existing social insurance mechanisms, pensions provided should represent a percentage of their reference earnings adequate to allow them to maintain their standard of living in old age. *Predictability* relates to benefits being guaranteed for future retirees, but also that they are adjusted to changes in the cost of living and/or the general level of earnings once an individual retires so as to maintain pensions' purchasing power and their adequacy.

Principle 4: Overall and primary responsibility of the state: ILO standards stipulate that the state is the overall guarantor of the solvency, viability and economic sustainability of the pension system, with due regard to social justice and equity. The specific role of the state may vary for different elements or tiers of the pension system. In addition, governments are responsible for designing and implementing policies to achieve cohesion between the various components of the social protection system at both the normative and operational levels, as well as its coherence with other economic and social policies.

Principle 5: Non-discrimination, gender equality and responsiveness to special needs: ILO standards stipulate that pension systems should be designed to offset gender inequalities originating in the labour market (redistribution). Meanwhile, they should not discriminate on the basis of dimensions such as age, race and disability status, while paying attention to the special needs of groups facing particular barriers to accessing pension systems.

Principle 6: Financial, fiscal and economic sustainability: Sustainability refers to the current and future capacity of the economy to bear the costs of social security. Assessing sustainability requires the valuation scheme specific financing (such as via actuarial valuation) as well as an assessment of the wider economic, fiscal and demographic outlook. However, sustainability also has social and political dimensions, not least in how reduced costs for public pensions increase other costs for households and wider families.

Principle 7: Transparent and sound financial management and administration: This refers to the need for good governance of the system, particularly with respect to financing, management and administration. A key task for management and administration is to support coherent interaction of schemes and pillars. Communication is also key to ensuring stakeholder have the right information to participate.

Principle 8. Involvement of social partners and consultations with other stakeholders: ILO standards underscore the importance of social dialogue and representation of protected persons in social security governance. This is critical to ensure pension systems are adapted to the realities of participating stakeholders, and also that reforms gain the necessary social and political buy in.

Source: ILO (2018).

Other considerations that have emerged strongly in Chinese and international pension policy discussions include:

- **Coherence:** It is important that different schemes and tiers within the pension system are organised coherently so they can be easily navigated by actors in the field of pensions (including workers, employers, pensioners, and the state). A risk of incoherent systems is that they may create perverse incentives that undermine pension coverage, adequacy and financial sustainability (see Section 4.9).
- **Flexibility/adaptability**: A pension system needs to deliver **adequately** for all workers in a diverse range of circumstances, **ranging** from those with little to no capacity to contribute, to those with high contributory capacity. It also needs to adapt to different employment relationships. Moreover, a pension system should ideally be responsive to how people’s circumstances change over time, allowing them to continue building pension entitlements.
- **Supporting economic development:** This includes various aspects including boosting consumption led growth by reducing precautionary savings (by making saving more productive) and, though not its primary function, the role of pension funds (public and private) has been increasingly recognized as supporting long term productive investment for inclusive, socially just and green economic transitions (ISSA 2020).

2.2 Key features of China’s multi-tier pension system

China’s pension system is usually described as consisting of three tiers. These three tiers (and their sub-programmes) are summarised in Table 1 (excluding schemes specifically for public sector workers). Tier 1 consists of two schemes: the Basic insurance for urban and rural residents (RURPS) and the Basic insurance for urban employees (UEPS). The UEPS is a mandatory social insurance scheme for urban employees, with urban self-employed having the possibility to contribute voluntarily. The RURPS is a voluntary scheme for all those not covered by the UEPS. Both the UEPS and RURPS include a social pooling component as well as an individual account. Tier 2 of the pension system consists of the Enterprise annuity, whereby enterprises can voluntarily establish occupational schemes for their employees, following a defined contribution model. Tier 3 consists of individual pensions via private commercial insurance, also following a defined contribution model. Tier 3 was established at the national level in 2022 and is currently being piloted.

▶ Table 1: The main components of China's multi-tier pension system for private sector

	Tier 1				Tier 2	Tier 3
	Basic insurance for urban and rural residents (RURPS)		**Basic insurance for urban employees (UEPS)**		**Enterprise annuity**	**Individual pensions**
	Social pooling	Individual account	Social pooling	Individual account		(Pilots in selected cities)
Mandatory/ voluntary	Voluntary		Mandatory (employees) and voluntary (self-employed)		Voluntary	Voluntary
Legal coverage	Urban and rural residents (not employees)		Urban employees and self-employed		Employees	Participants in RURPS and UEPS
Contributions	None	Stepped contribution between 100 and 2,000 yuan per year[2]	Employer: 16% Minimum and maximum contribution base (60% and 300% of local average wage)	Employee: 8%	Defined at company level. Maximum of 8% for employers and a total 12% of employee's salary.	
Normal pension age	60	60	Men: 60 - Women: 50, 55 or 60 depending on profession. Early retirement possible for those engaged in physical work.			
Benefits	Basic flat benefit paid after 15 years of contribution.	Savings in individual accounts ÷ 139[3]	Defined benefit formula – linked to individual and	Defined contribution	Defined contribution Lump sum or phased withdrawal	Defined contribution

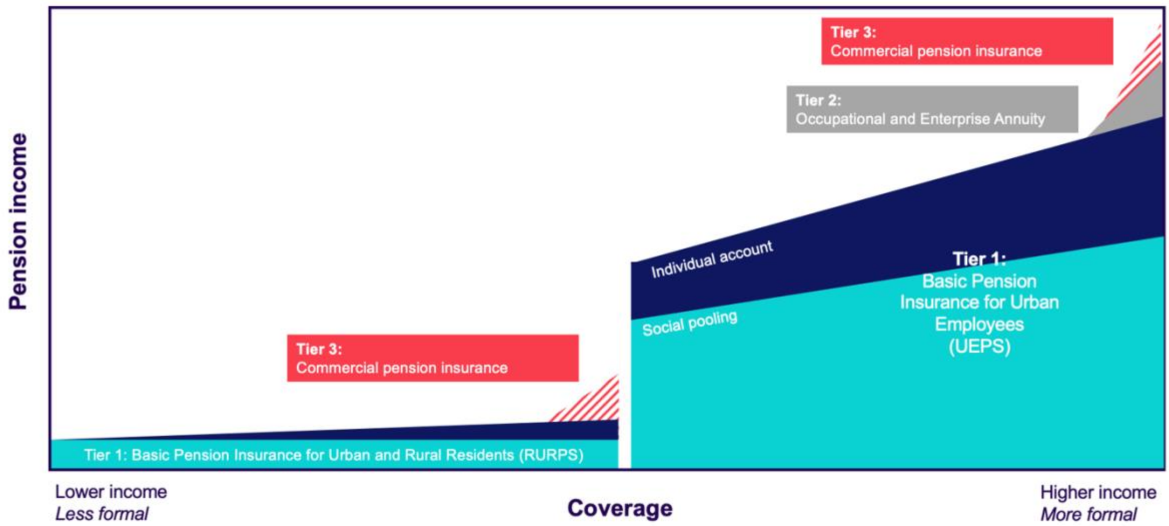
[2] This is the level stipulated by central government, but this may vary at country and municipal level (T. Chen and Turner 2015)
[3] Equivalent to the number of months for retirement at the age of 60 of the basic pensions for employees.

	Minimum benefit of 88 yuan (2018), but higher in many localities Average combined benefit in 2020 was 170 yuan per month[4]		local average wage and years of contribution. Minimum of 15 years contribution to qualify (otherwise lump sum benefit paid) Benefit indexation linked to mix of wages and prices	Accumulated balance ÷ annuity factor (e.g. 139 at age 60). These benefits are not automatically indexed. Benefit payment continues after exhaustion of account.	Taxed There is no requirement for schemes to index pension payments	

[4] IMF (2021)

A simplified illustration of different tiers is shown in Figure 2-1. The Figure is intended to show the level of coverage and adequacy of pension benefits received in old age according to current pension arrangements in China. In the Figure, the horizontal axis indicates approximate coverage of different schemes from lower income workers (less likely to be in formal employment) on the left, to higher income workers (more likely to be in formal employment) on the right. The vertical axis indicates the level of pension income that can be anticipated in old age from different pension arrangements. In sum, the RURPS currently provides provision of relatively modest benefits to mostly lower income and less formal workers, while significantly more adequate benefits are provided by the UEPS to urban employees. The Tier 2 Enterprise annuity provides for supplementary benefits for a portion of employees. Meanwhile the Tier 3 scheme has the objective of providing supplementary benefits both to workers covered by the UEPS and those covered by the RURPs. One factor not included in the Figure is the potential role of *Dibao* which seeks to provide a minimum guaranteed income to those on the lowest incomes. In some cases this may supplement pension income for those at the far left of the Figure. As a point of comparison, Box 2-44 provides some observations on multi-tier systems in other countries.

▶ Figure 2-1: Illustration of the multi-tier pension system in China



▶ Box 2-4: Multi-tier pension systems across the globe

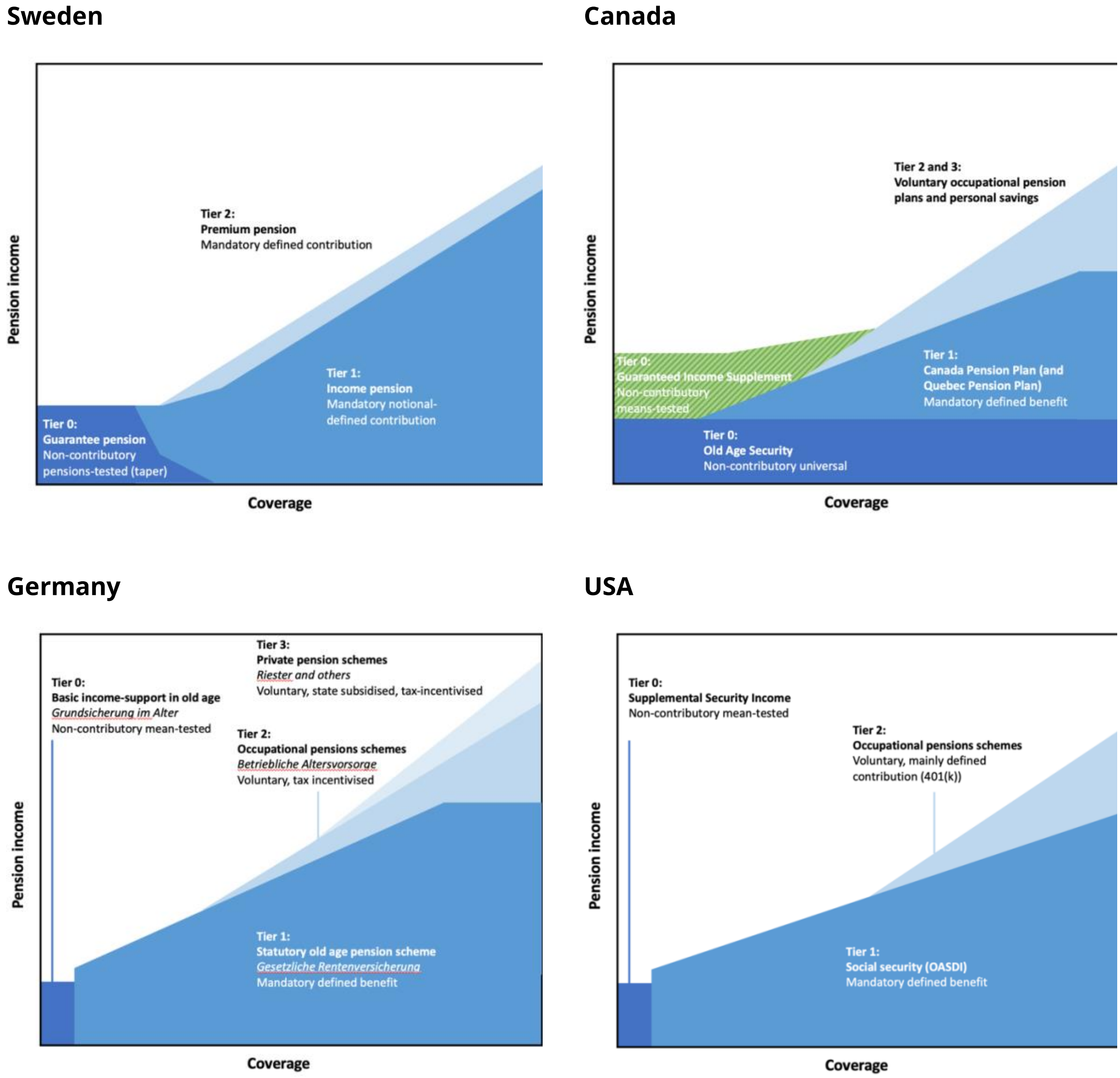
While care should be taken in cross-country comparison of multi-tier pension systems, it is useful to note the key features of systems in other countries and their diversity.

Figure 2-2 provides illustrations of the systems in four high-income countries. It should be noted that these illustrations follow a different Tier typology to that used in China (see ILO (2018)). Key features, in comparison to China, include:

- **Redistribution and poverty alleviation are achieved in distinct ways by different countries**. In Germany and the USA this is mainly achieved via mandatory defined benefit social insurance schemes (“Tier 1”), with residual means-tested social pension schemes (“Tier 0”) for the small population not covered. The result is that functions of poverty alleviation and redistribution are combined with income smoothing and insurance. In Canada, non-contributory schemes play a much greater role, with a universal scheme Tier 0 scheme (Old Age Security) for all older persons, which is supplemented by a means-tested scheme for those on low incomes. The mandatory defined-contribution Canada Pension Plan provides an additional (but modest) level of consumption smoothing (Tier 1). Sweden historically had a universal pension in place, but this was converted to a pensions-tested scheme (Tier 0), with most income security provided by a mandatory notional defined contribution scheme (Tier 1). This entails a strong link between contributions and benefits, but with a degree of risk pooling, while measures such as credits for parents caring for children provide a degree of redistribution.

- **Countries also vary in the design of supplementary saving schemes.** Sweden has a small mandatory defined contribution component to supplement its Tier 1 scheme, but schemes in other countries are voluntary. These tend to involve a mix of occupational and personal private savings, with different degrees of subsidisation and tax incentives which – in turn – have different outcomes in terms of incentives and redistribution.
- **A notable feature of all four countries is a relatively unified approach of the pension system to the labour market.** While pension systems often evolved from schemes orientated around specific enterprises or sectors of the economy, all four countries now have social insurance schemes that cover workers in all working arrangements. This is somewhat distinct from the Chinese multi-tier system, where there remains a division between urban employees and urban and rural residents.

▶ Figure 2-2: Multi-tier pension systems in Sweden, Canada, Germany and USA



Source: OECD (2018), OSFI (2019), Swedish Pensions Agency (2019)

3 Demographic and socio-economic outlook

This section highlights key features of the demographic and socio-economic outlook that are of particular relevance to development of the multi-tier pension system in China.

3.1 Demographics

Population ageing provides a significant challenge to the public policy in China. The population age 65 and over is set to increase from around 13 per cent in 2020, to a plateau of around 36 per cent from 2060 (UN Population Division 2022). This will be reflected in a smaller working age population relative to older persons. Meanwhile, family structures are changing with a reduction in multigenerational households, and rural-urban migration means many older persons are less able to rely directly on children for care and family support. These dynamics not only have important consequences for the pension system, but also other areas of policy including those related to the economy, the labour market and long-term care.

Other emerging and developed countries are confronting similar trends. Many high-income countries are already adapting to ageing populations, while various other emerging economies in Asia and the Pacific are following a similar trajectory of rapid population ageing to China. Nevertheless, while China is expected to reach high income country status in the coming years, it is experiencing an ageing of population at an earlier stage of development than other emerging and developed country peers.

3.2 Economic context

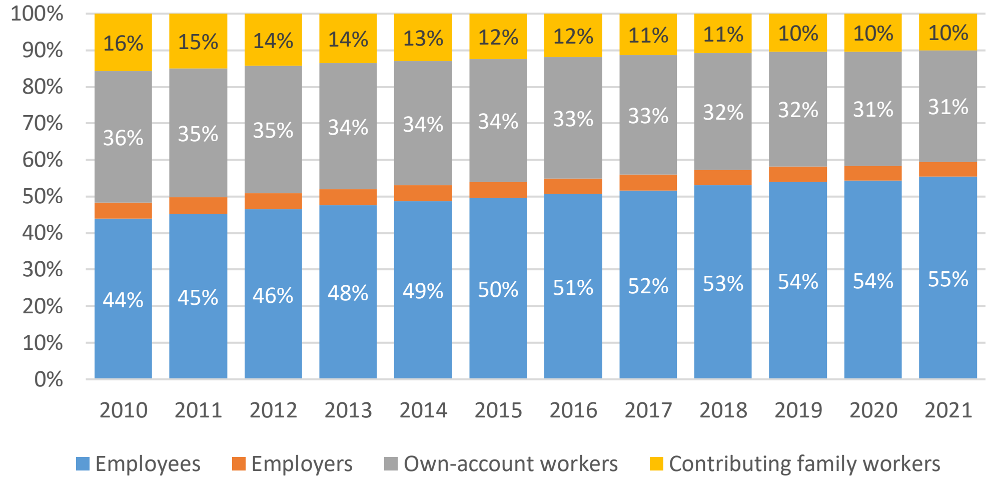
While economic growth in China has slowed in 2022, steady growth is still projected for the coming years. Various international and domestic challenges have contributed to a slowing of economic growth in 2022, however, China is widely anticipated to return to more robust levels of economic growth in the coming years. An important factor in China's future economic development is how it addresses the rapid ageing of the population.

Reducing the currently high levels of precautionary savings in China is recognised an enabler of growth, and this has important links to the pension system. Two key links between the pension system and saving are commonly discussed in China. The first is the potential of pension systems to reduce the need for precautionary saving by strengthening basic guarantees within the pension system (Zhang et al. 2018). The second is the potential to make savings more productive, with a diversification away from a current orientation towards housing. Savings products within Tiers 2 and 3 of the pension system are considered an example of this more productive saving.

3.3 Labour market

Economic growth has been associated with positive developments in the labour market. ILO estimates (Figure 3-1) indicate that the proportion of employees in enterprises has increased from 44 to 55 per cent since 2010. This group of workers are typically easier to incorporate into contributory social protection schemes, and this trend may be one explanation for the increase in contributory coverage of the UEPS (see Section 4.1).

▶ **Figure 3-1: Employment by status in employment (ILO modelled estimates, 2021), 2020-2021**



However, many workers remain in forms of employment that are typically more difficult to incorporate into contributory social protection arrangements.[5] Figure 3-1 indicates that 41 per cent of the employed population are either own account workers or contributing family workers (classified by vulnerable employment) who are typically harder to integrate within contributory schemes. While detailed and up to date national data on the composition of the labour market remains quite scarce, the most recent figures indicate that 200 million workers (around 25 per cent of the labour force) are flexible workers (China Daily 2022; National Bureau of Statistics China 2021).[6] One important trend has been the emergence of digital labour platforms and – by international comparison – China has a high proportion of workers (9.7 per cent in 2019) providing labour through such platforms (Zhou 2020).

3.4 Incomes and wealth

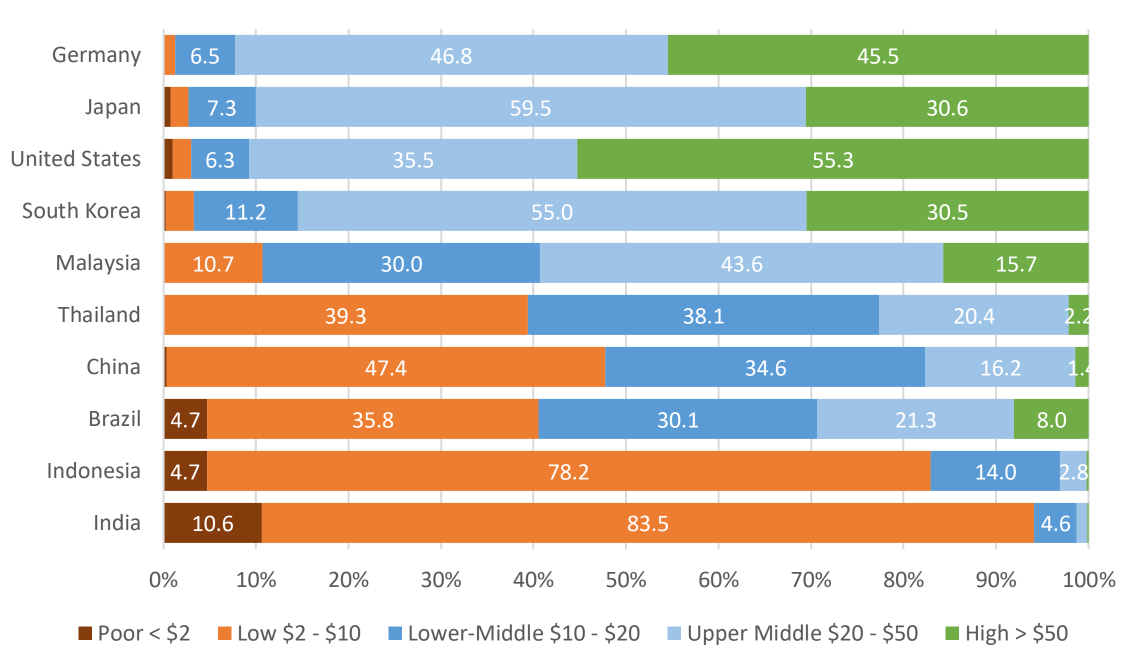
China's middle class has grown substantially in recent years. National measures indicate that 400 million people (around 30 per cent of the population) could be classified as middle income in 2018. Another measure using international dollars puts the proportion of household classed as "middle income"[7] at 51 per cent of the population in 2018 compared to 3 per cent in 2000 (Figure 3-23-2).

It is likely that this will progressively influence individuals' capacity to make retirement savings in the medium- to long-term. A growing middle class implies increasing purchasing power for higher quality goods and services, and greater potential to make savings for old age. The extent to which higher disposable incomes would be allocated to retirement savings schemes is less clear. It is also notable that – in absolute terms – the incomes of China's middle class remain substantially below those of the middle class in higher income countries. As shown in Figure 3-23-2, around one third to a half of the population in countries such as Germany, Japan and the United States are in the "high income" band when measured by international dollars – which compares to 1.4 per cent of the population in China. Notably, the share of the population in the

[5] The ILO define workers in vulnerable employment as the sum of own-account workers and contributing family workers.
[6] This category includes part time and on-call work, disguised employment relations and dependent self-employment (ILO 2020).
[7] Classified as between $10 and $50 per day.

"high income" band is of a similar scale the proportion of the working age population contributing to voluntary occupation or personal savings plans in these countries (See Table 4-2 in Section 4.1). Caution is therefore required in making direct comparisons on the potential for supplementary saving.

▶ **Figure 3-2: Share of population by income bands (PPP$)**



Source: China Power (2021) based on data from Pew Research Centre

Growing inequality also has a range of implications for pension systems. The growth of the Chinese economy in recent decades has been accompanied by increasing levels of income and wealth inequality. Key implications include:

- **Understanding the role of pensions in reducing inequality**. The tax and transfer system in most OECD countries plays a significant role in reducing inequality, and pensions usually make a major (if not the main) contribution to this reduction (Caminada et al. 2019). By contrast, to date, the combination of tax and transfers plays a limited role in reducing inequality in China (OECD 2022).
- **High levels of inequality may result in the capacity for investment and saving being disproportionately concentrated amongst a smaller part of the population**. As a result, wealth growth would not translate automatically in a better retirement security for most older persons.

3.5 Fiscal context

Government revenue remains low compared to OECD countries, with a particularly limited contribution of personal income tax. Tax revenue in China was equal to 22 per cent of GDP in 2019, compared to 34 per cent on average for OECD countries (OECD 2021a). This provides a distinct context in terms of the resources currently available to finance pension expenditure. Personal income tax constituted a much smaller share of revenue, at 1.1 per cent of GDP compared to 8.1 per cent on average for OECD countries. A major factor is that only 4.6 per cent of the population paid personal income tax (OECD 2022:46). Private sector employees, for instance, start paying personal income taxes only at a wage 250% of the national average and even at this level they pay less than 1%.

A relevant feature of taxation in China is the low income tax base, and the relatively high tax wedge linked to social security contributions. The relatively high personal allowance means that only around 20 per cent of workers pay personal income tax, which implies tax incentives introduced in the pension system will only affect a minority of workers. Meanwhile, the parameters of social security contributions – in particular the flat nominal amount paid for lower-income workers – means that lower income workers pay proportionally more of their wage than higher income workers. IMF analysis has shown that the bottom 50 percent of the wage distribution is taxed at a higher rate than all but the top 5 percent (Jain-Chandra et al. 2018).

4 China's multi-pillar pension system in the context of international labour standards

This section discusses the current pension system in relation to the principles set out by international labour standards in Box 2-3 above, in addition to the question of coherence and adaptability. The discussion highlights both the significant achievements, but also remaining challenges.

4.1 Universality (Principle 1)

China has achieved a significant expansion of coverage of schemes within Tier 1 of the pension system (consisting of the RURPS and UEPS). Legal coverage of the system is now universal, with the mandatory UEPS for employees (and voluntary enrolment for self-employed), and the voluntary RURPS for residents in urban and rural areas. Table 4-1 (based on administrative data) highlights the scale of this achievement:

- The RURPS (which has expanded in coverage since 2009) now provides benefits to 161 million older persons (61 per cent of the population aged 60 and over).
- The UEPS provides benefits to 127.6 million retirees. Coverage of the UEPS is more difficult to calculate given that members retire at different ages, but the number of retirees is equal to 48 per cent of the population age 60 and over, and 26 per cent of the population age 50 and over.
- The majority of the labour force are members of either the RURPS (49 per cent) or the UEPS (42 percent) constituting a total of 91 per cent assuming no double counting. 71 per cent of the urban employed are members of the UEPS, which represents a significant increase from 2010 when only 56 per cent of urban workers were covered.

▶ Table 4-1: Indicators on pension coverage (2020)

Indicator description	Numerator		Denominator		Coverage (%)
	Description	# (millions)	Description	# (millions)	
Benefit coverage of older persons					
Proportion of population 60+ receiving RURPS	Number of RURPS recipients	160.7	Population age 60 and over	264.0	61%
Ratio of UEPS recipients to population 60+	Number of UEPS retirees	127.6	Population age 60 and over	264.0	48%
Ratio of UEPS recipients to population 50+	Number of UEPS retirees	127.6	Population age 50 and over	486.6	26%
Coverage of workers					
RURPS members as a share of the labour force	RURPS members (participants minus population receiving pensions)	381.8	Labour force	782.8	49%

UEPS workers as a share of the labour force	UEPS workers	328.6	Labour force	782.8	42%
UEPS workers as a share of urban employed	UEPS workers	328.6	Urban employed	462.7	71%

Source: National Bureau of Statistic China (2021)

Levels of pension coverage in China – and the pace of the increase in coverage – are impressive by international standards. The share of the population that are members of contributory pension schemes is higher than almost any other country in the Asia Pacific region. China is also among a group of middle-income countries in the region that have extended pension coverage to all (or the vast majority) of older persons over the last two decades (ESCAP and ILO 2020).

The Chinese pension system, nevertheless, leaves potential for gaps in coverage. The logic of both the UEPS and RURPS is that eligibility is based on having made sufficient contributions to the scheme. While the figures above suggest very high coverage of the labour force (91 per cent for the UEPS and RURPS combined) this implies a gap in coverage. The possibility that some workers are members of both schemes also means this gap may be greater. The figures also do not account for people of working age outside the labour force, who are not building rights to pension entitlements. The implication is that some people will reach old age without the years of contribution required (15 years) to be entitled to an old age pension. To date, the UEPS and RURPS combined appear to have almost all older people aged 60 and over, although exiting data does not allow a precise calculation of coverage.[8]

In practice, potential coverage gaps are currently avoided through waiving eligibility requirements and allowing "buy ins", but this can create issues for system coherence and financial sustainability. For example, the RURPS requirement for 15 years contribution has been waived until 2029 (Wong and Yuan 2020), while workers with insufficient contribution histories under the UEPS are often provided the option to buy in to the pension scheme on a favourable basis.[9] While these approaches are a pragmatic way to extend coverage, they may risk undermining incentives for workers and enterprises to comply with contribution requirements, and worsen scheme sustainable financing.

There appears to be untapped potential to further increase contributory coverage of the UEPS. Various factors contribute to lower levels of coverage of certain groups of workers including self-employed, flexible workers and migrant workers.

[8] While calculating the proportion of the population covered by the RURPS (61 per cent) is relatively straight forward, this is more challenging for the UEPS given that the age of eligibility can vary (based on sex and occupation, and also with options for early retirement). Data disaggregated by age and sex is not available. Nevertheless, the ratio of UEPS retirees to the population age 50 and over is 26 per cent. If it were assumed coverage of UEPS is even across age groups, this would imply 26 per cent of older persons 60+ were covered by the scheme, implying total coverage of 87 per cent when combined with the RURPS (assuming no double counting). It is likely that coverage is higher at more advanced ages, which implies even higher levels of coverage.

[9] A person who has not made the minimum 15 years of pension contributions to the urban employee pension is allowed to "buy in" to the plan by paying a lump sum fee to earn the right to a full pension (IMF 2021).

- The minimum contribution base (60 per cent of the local average wage) creates a significant tax wedge that can create disincentives for workers on low wages (and their enterprises) to participate in the UEPS.
- Despite reforms in recent years, there are still practical barriers for migrant workers in flexible forms of employment to participate in the UEPS (when outside their home province).
- The contributory system has no specific design features to deal with some categories of workers, such as those with multiple-employers, part-time or casual workers. Greater emphasis can be put on administrative adjustments to enable workers in diverse forms of work to participate in the scheme.

While there is scope to increase coverage of Tiers 2 and 3, this will likely be a gradual process with greatest relevance initially for workers on comparatively high incomes. Currently, the enterprise annuity covers 6 per cent of urban employed and 4 per cent of all employed (as of 2020). This remains below levels of coverage achieved in some OECD countries in Table 4-2, however, it should be noted that the context in these countries varies in important ways. As discussed in Section 3, income levels in these countries are considerably higher and the income tax base is significantly larger (implying greater scope for use of tax incentives). In China it is likely that the audience for Tier 2 and 3 schemes will be those earning above local average wages, and particularly those above the contribution ceiling. Nevertheless, with steady economic growth, a gradual growth in the size of this population can be anticipated.

▶ Table 4-2: Coverage of voluntary retirement savings plans (as percentage of working-age population 15-64 years) in selected OECD countries, latest year available

Country	Occupational	Personal	Total
Denmark	...	17.0	17.0
Germany	54.0	30.0	66.0
Ireland	56.7	19.6	64.7
Japan	52.5	16.8	56.5
Netherlands	...	28.3	28.3
Sweden	...	24.2	24.2
United States	48.1	19.8	...

Source: OECD (2021b)

The role of Tier 3 schemes for lower-income workers – including flexible workers – may be limited by their contributory capacity. In China, Tier 3 has been proposed as a mechanism to increase retirement savings of flexible workers – many of whom have relatively modest incomes (IMF 2021). International experience highlights relatively limited success in expanding coverage to workers with no identified employers, including workers in informal employment, through commercial insurance, in a way that significantly builds pension adequacy (van den Heever 2021). Key issues are limited incentives to save consistently into such schemes when compared to other social insurance options. Promotion of this approach should be weighed against an alternative of supporting greater participation of flexible workers in the UEPS through carefully designed incentives and with setting the objective and a plan to mandating contributions.

4.2 Adequacy and predictability of benefits (Principle 3)

Benefit adequacy and predictability is discussed in turn for the RURPS, UEPS, and Tier 2 and 3 schemes.

4.2.1 RURPS

There is considerable evidence of the positive impact of the RURPS on older persons and their families. Research studying the impact of the RURPS since its introduction has found that it has resulted in higher levels of household income and food expenditure, improved life satisfaction and lower levels of depression amongst older persons (Huang and Zhang 2016; X. Chen and Wang 2016; Ding 2017). There is also evidence that the benefits of the scheme spill over to younger generations (Li, 2018).

Nevertheless, for many older persons the RURPS benefit may be below what can be considered a minimum social protection floor. The average monthly pension payment in 2020 (170 yuan[10]) was below the absolute rural poverty line of yuan 192 per month set by the central government (IMF 2021). Various analysis has noted the low benefit by international standards (Shen et al. 2020; Jain-Chandra et al. 2018). At approximately 3 per cent of GDP per capita, the benefit is also substantially below the global average benefit level for tax-financed social pensions (16 per cent (ESCAP and ILO 2020)). The individual account component currently makes limited contribution to benefit adequacy given that the scheme is relatively new and most contributors choose the lowest contribution for the individual account part of RURPS. In this respect, the RURPS can be considered a work in progress in achieving a minimum level of benefit adequacy.

Income from the RURPS may be combined with other sources to achieve an adequate minimum level of income, although the extent to which these other sources can be relied on will vary. There is a strong perception in China that older persons in rural areas are more able to rely on financial support from family members, income derived from land, labour income and *Dibao* in order to achieve a minimum level of income. These no doubt provide an important component of income security for many older persons, nevertheless, their potential to supplement pension income is reducing over time in the context of demographic change and a reducing share of the population working in agriculture.[11]

4.2.2 UEPS

Replacement rates of the UEPS align with international minimum standards for some workers. Benefits from the UEPS are significantly higher than the RURPS, and existing evidence shows they provide some level of income replacement.

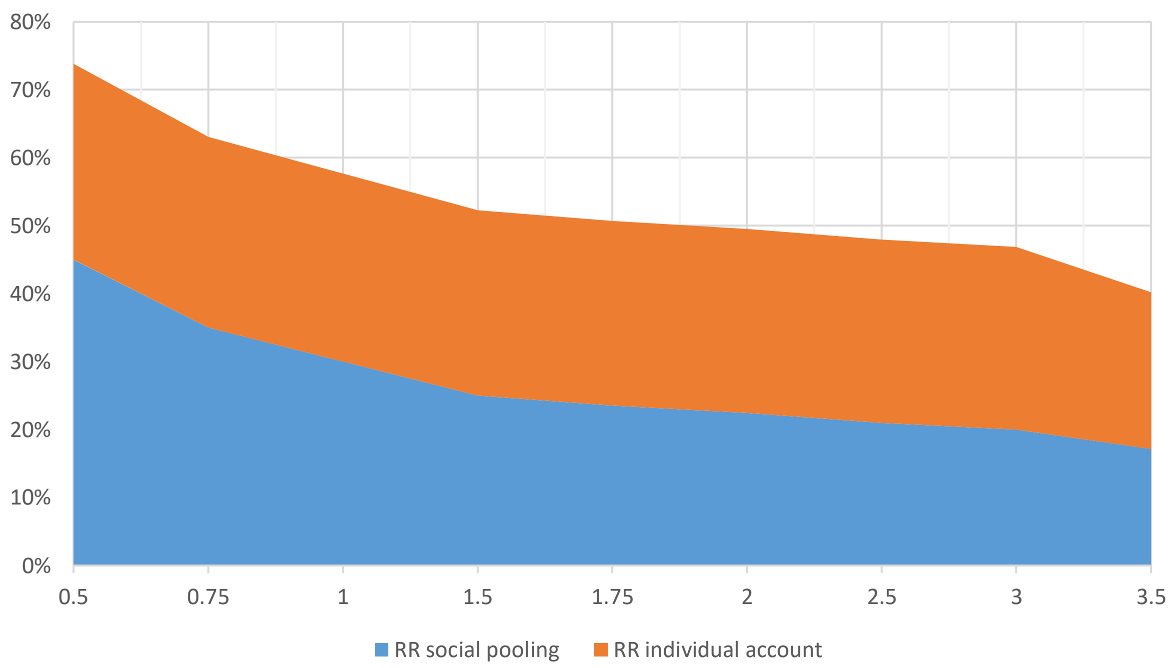
Table 4-3 presents projected replacement rates for the UEPS depending on levels of earning and the numbers of years of contribution, while Figure 4-1 provides an illustration for workers with 30 years of contribution. With 30 years of contribution, the replacement rate is modelled to be between 40 and 74 per cent, which would suggest it complies with minimum pension replacement outlined in ILO Convention 102, but not necessarily those of Convention 128[12].

[10] Including both the social pooling and individual account component.
[11] According to ILO modelling, the proportion of the employed population in agriculture halved between 1990 and 2019 from 60 per cent to 25 per cent.
[12] ILO Convention No. 102 defines a minimum replacement rate of 40 per cent of the reference wage, while the ILO's Invalidity, Old-Age and Survivors' Benefits Convention, 1967 (No. 128) defines a minimum of 45 per cent.

▶ Table 4-3: Gross replacement rate (modelled) according to individual earnings and years of contribution

Individual earnings (multiple of average)	Gross replacement rate (% of gross individual earnings)								
	15 years			30 years			40 years		
	Social pooling	Individual account	Total	Social pooling	Individual account	Total	Social pooling	Individual account	Total
0.50	23	11	**33**	45	29	**74**	60%	47%	**107**
0.75	18	10	**28**	35	28	**63**	47%	46%	**93**
1.00	15	10	**25**	30	28	**58**	40%	46%	**86**
1.50	13	10	**22**	25	27	**52**	33%	45%	**79**
1.75	12	10	**21**	24	27	**51**	31%	45%	**77**
2.00	11	10	**21**	23	27	**50**	30%	45%	**75**
2.50	11	10	**20**	21	27	**48**	28%	45%	**73**
3.00	10	10	**20**	20	27	**47**	27%	45%	**72**
3.50	9	8	**17**	17	23	**40**	23	38	**61**

▶ Figure 4-1: Gross replacement rate (modelled) according to individual earnings for 30 years of contribution



Source: ILO calculations.

Note: The social pooling component is calculated according to the scheme benefit formula. The individual account component assumes a real rate of return 3 per cent and real earnings growth 1.25 per cent.

Nevertheless, various factors contribute to lower replacement rates in practice. When measuring the regional average benefit relative to the regional average wage, the replacement rate varies between 36 per cent (in Shanxi) and 63 per cent (in Chongqing) (Wong and Yuan 2020). Replacement rates appear to be relatively higher in poorer more rural provinces, and lower in wealthier more urban provinces (Cousins 2021). While this is a relatively crude measure, it implies that benefit levels are lower than those modelled in

Table 4-3. There are various factors that may contribute to this trend:

- Workers with shorter contribution histories will achieve significantly lower levels of income replacement.
- Table 4-3 indicates that for workers with 15 years of contribution history, replacement rates would be between 17 per cent (for workers with 3.5x average wage) and 33 per cent (for workers earning half the average wage).
- It has been common practice for enterprises to use an incorrect wage base for calculating contributions (e.g. the local average wage, rather than individual earnings), which will result in reduced benefit adequacy for workers whose actual earnings are above this level (Wong and Yuan 2020).

While China has made important efforts to create greater predictability of benefits, there is scope for greater clarity on how parameters such as interest rates and indexation formula are determined. Key points of relevance include:

- Under the UEPS, while the benefit for the *social pooling* element of the pension is guaranteed (defined by law), benefits derived from the individual account depend on the interest rate imputed for individual accounts following an NDC arrangement (or actual investment returns in the case of DC). Regulations issued by the Ministry of Finance and MOHRSS in 2017 took a step forward in unifying the interest rate for the individual account component of the UEPS across regions.[13] This was associated with a significant increase in the interest rate in subsequent years by historical standards. Nevertheless, the specific way in which the unified rate is calculated is made public, which creates barriers for companies and workers to plan for the future. This is important given, as shown in Figure 4-1 above, the individual account component forms a potentially significant portion of total pension income.
- Pension benefits under the UEPS are adjusted annually according to a mix of wages and prices, however, the methodology for this adjustment is not published.
- With regards the RURPS, while 2014 regulations[14] established that Central Government should determine a minimum standard of basic pension and adjustment mechanisms (linked to economic development and price fluctuations), this adjustment mechanism has not yet been established.

4.2.3 Tier 2 and 3

Schemes within Tier 2 and 3 of the pension system follow a defined contribution model, which entails fewer guarantees of benefit adequacy and predictability. Unlike the defined

[13] The Measures for Unifying and Standardizing the Interest Rates of Individual Accounts of Employee Pension Insurance state that this unified rate “should be determined mainly by considering factors such as employee salary growth and fund balance, and adjusted through a reasonable coefficient” and be no lower than the bank’s fixed term deposit interest rates.

[14] Opinion of the State Council on Establishing Unified Basic Old-age Insurance Scheme for Rural and Urban Residents (Guo Fa No.8 (2014))

benefit components of the RURPS and UEPS, benefit levels are not defined by law, but will be determined by actual investment returns, as well as the level of fees charged by those managing funds. On reaching retirement, the predictability of future income will depend on individuals' capacity to smooth consumption across retirement (where lump sum benefits are paid) or the availability of annuity products. Meanwhile, the voluntary nature of Tier 2 and 3 schemes means that the responsibility to make adequate contributions to such schemes falls on the individual (and the enterprise in the case of Tier 2). Where options for early withdrawal exist, the individual is also responsible for ensuring this does not jeopardise future retirement income. In sum, such schemes place significantly greater risk on individuals.

The extent to which government might seek to reduce risks relating to adequacy and predictability will depend on the role that Tier 2 and 3 are expected to play in the pension system. The risks and unpredictability of pension savings are arguably less of a concern where they relate to a supplementary saving of more affluent workers, over and above basic social security guarantees provided by Tier 1. Such individuals may be willing to take on greater investment risks in hope of greater returns, knowing they can rely on the minimum provided by Tier 1. Meanwhile, distributing a lump sum benefit across retirement years is more feasible where pensioners are also receiving a regular monthly Tier 1 benefit. However, predictability is much more important for those with lower lifetime incomes and where Tier 1 pension benefits are minimal. In other words, in the case where Tiers 2 and 3 are expected to contribute to a more basic level of protection, benefit guarantees are likely to be more important.

There are two particularly notable cases where reducing risk and increasing predictability for Tiers 2 and 3 may be relevant. The first relates to proposals to displace some part of the UEPS with Tier 2 or 3 schemes (through shifting contribution rates and/or some portion of the replacement rate). By reducing the minimum guarantees provided by the UEPS, there would be greater need for Tiers 2 and 3 to reduce risks for participants. The case is where Tier 3 schemes are considered a core part of pension income for flexible workers. In this situation, Tier 3 would provide a primary source of retirement income (rather than a supplement to the UEPS), heightening the need for lower risk in the scheme design.

Various options exist to reduce risks relating to adequacy and predictability of Tier 2 and 3 benefits.

- Within a voluntary model, **auto-enrolment** can be used to nudge workers into enrolling into pension schemes and making adequate contributions, while providing the option to opt out. This approach could be particularly relevant for the Tier 2 Enterprise Annuity. In the United Kingdom, the introduction of auto-enrolment for occupational pensions has led to the proportion of eligible employees contributing to a pension from under 50 to over 90 per cent (Bourquin and Crawford 2020).
- **Economies of scale:** The efficiency of pension saving options will be influenced by the size of saving funds. Larger funds are better able to invest in a more diverse array of assets, and also minimise administrative costs. Avoiding a highly fragmented landscape of pension funds is likely to be favourable for eventual pension adequacy. This may also involve funds being able to operate across both Tier 2 and Tier 3. On the other hand, a larger number of investment funds provide greater choice of investment options.
- **Default funds** can be established that offer a less risky investment portfolio, which can provide a greater level of predictability. Contributors to Sweden's mandatory defined contribution Premium Pension, for example, can choose from a range of investment funds, including a default fund which most new contributors currently opt for. Historically, investment outcomes for those in the default fund were on average better than those that chose an alternative funds (Barr 2013; Gosling 2022).

- The adequacy and predictability of defined contribution schemes can be improved through **effective governance**, as discussed below in Section 4.7

4.3 Non-discrimination, gender equality and responsiveness to special needs (Principle 5)

Women receive lower pension benefits than men, and coverage gaps appear to be greater for women. Analysis of data from the 2013 China Health and Retirement Longitudinal Study (CHARLS) indicated that women aged 60 and over were less likely to receive a pension than men, and that those receiving pensions were significantly more likely to be covered by the RURPS which provides lower levels of benefits. Benefits received by women under the UEPS and public sector schemes were lower for women than men (Zhao and Zhao 2018). Notably, while the gender pension gap in China is smaller than in many EU countries, it has been growing in recent decades (T. Chen and Turner 2015).

Gaps in adequacy and coverage are influenced by labour market factors, but also the design of pension schemes. Lower levels of labour force participation, shorter (and more fragmented) careers and lower wages contribute to less likelihood of women participating in the UEPS and smaller benefits for those who do participate. However, the parameters of the UEPS also contribute to the gender pension gap. While the link of the pension formula to average wage reduces this gap, this is counterweighted by early retirement ages for women which mandate shorter careers (T. Chen and Turner 2015). While the retirement age is 60 or 55 for some professions, for most it is set at age 50.

Individual account arrangements raise particular concerns for gender equality. While defined benefit schemes provide options to create redistributive benefit formula (as with the link to the local average wage in the UEPS), defined contribution arrangements entail a much stronger link between contributions and benefits. In this respect benefits more closely reflect labour market inequalities between men and women.

Various options exist to reduce the pension gender gap, including:

- Increasing the retirement age for women under the UEPS. This would ideally be accompanied by measures to enable continued participation in the labour market, including extending formal care services (given many older women leave the labour market to provide care.
- Strengthening survivor benefits which are currently very limited within the pension system
- Increasing the benefit adequacy of the RURPS, which would disproportionately benefit women
- Providing credits for career breaks taken by women, for example, during periods of maternity

Another important dimension of responsiveness to special needs is how the pension system adapts to different forms of work. A recent ILO/MOHRSS report highlights that the social security system, originally fragmented along Hukou lines, increasingly reflect a divide along employment relationship lines (ILO and MOHRSS 2022). A particular issue is that flexible workers – including those temporary, part-time, multiple jobs, agency work and self-employment arrangements – do not meet necessary thresholds to participate in the UEPS.

4.4 Social solidarity and collective financing (Principles 2 and 4)

The core elements of China's pension system (especially Tier 1) have strong elements of collective financing, however, the extent and nature of social solidarity provided varies by scheme, and is influenced by individual circumstances.

The UEPS is based on collective financing, but the implications for workers are complex. The scheme is financed by contributions from workers and employers, and direct subsidies from government. As illustrated in Figure 4-1, the pension formula is generally redistributive with lower-wage workers achieving higher replacement rates than those on higher wages.[15] However, the nature of redistribution is influenced by factors including:

- The redistributive element only relates to the social pool (the employer contribution of 16 per cent), while the individual account (contribution of 8 per cent) does not include redistribution.
- While lower wage workers earn higher replacement rates, the minimum wage base (60 per cent of the local average wage) means that they pay a proportionally higher contribution.
- Historically, the scheme has involved limited risk pooling and redistribution between regions. The introduction of the Central Adjustment Fund has gone some way to address this, and there is an ongoing process to establish a national pool (Wong and Yuan 2020). Government subsidies provided to the UEPS to plug deficits in provincial and sub-provincial pension schemes also implicitly provide redistribution given they are financed by general government revenues.

The primarily tax-financed nature of the RURPS implies a high level of redistribution, however, this is partially offset by the low adequacy of and expenditure on the scheme. Local and central governments provide significant subsidies to the scheme, covering the full cost of the benefit from the social pooling component, and matching contributions (or covering them for certain groups[16]). Most older persons receiving pensions are heavily subsidised, having made little or no contributions. However, expenditure on the scheme is relatively low for a scheme that covers two thirds of older people aged 60 and over. Total government subsidy to the scheme were 0.3 per cent of GDP in 2017, compared to 1 per cent of GDP to the UEPS (which has fewer beneficiaries, which have had higher lifetime incomes). The higher government subsidies provided to workers with relatively higher incomes raises questions in terms of equity.

There are also significant geographical variations in adequacy, particularly for the RURPS. The benefit level of residents' scheme depends on the financial situation of local governments that in some cases improve the benefits above a certain national target (ILO 2021). While the urban employee pension scheme has uniform national formula, there persist great geographical disparities in residence pension amounts. For example, the average monthly benefits for pensioners in Shanghai was 7.4 times as high as the national average in 2018 (IMF 2021).

The way in which Tiers 2 and 3 are designed can have implications for social solidarity across the system as a whole. Key considerations include:

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[15] This is primarily due to the fact that benefit formula for the social pooling element is linked to the local average wage, as well as individual earnings. Workers earning above the wage ceiling for contributions (3x the local average wage) will have even lower replacement rates (which is visible in Figure 4-1).

[16] Such as severely disabled people or people who cannot afford the payments.

- **Individual account schemes have little/no redistribution.** Moves to reduce the scale of Tier 1 and replace it with Tier 2 and 3 (e.g. shifting a portion of the Tier 1 contribution rate to Tier 2 and 3) will reduce the level of solidarity within the system as a whole. A way to maintain the level of social solidarity would be that Tiers 2 and 3 are supplementary to the current Tier 1.
- **Tax incentives should be considered in terms of their distributional impact.** The low personal income tax base in China means that tax exemptions will only benefit high earners. This tax benefit would need to be weighed against other – more progressive – use of tax revenue across the pension system (for example, strengthening benefit adequacy of the RURPS and subsidising contributions to the UEPS for lower income workers).

4.5 Overall and primary responsibility of the state (Principle 4)

The Chinese government has exercise strong stewardship over the management of the pension system. As described throughout this note, the Chinese government takes on significant financing and governance responsibility in the management of the pension system. It has also taken a proactive approach to continued refinement of the design of various elements of the multi-tier system.

While expansion of Tier 2 and 3 schemes imply a different distribution of risks (see Section 4.2), the state maintains responsibility for regulating such schemes. Some key considerations for regulation of Tiers 2 and 3 are summarised in Section 4.7.

4.6 Financial, fiscal and economic sustainability (Principle 6)

Pension expenditure in China is above average for the Asia Pacific region, but remains below the OECD average. China’s public pension expenditure (at 5.3 per cent of GDP in 2020) is below the OECD average of 7.7 per cent, and well below many countries (such as France and Germany) that spend in excess of 10 per cent of GDP.

Expenditure on the UEPS is set to rise in the context of demographic ageing. The IMF projects that – without reform – expenditure on the UEPS will triple from around 5 to 15 per cent of GDP by 2050 (IMF 2021). There are already concerns relating to deficits already being faced in some provinces, although these mainly reflect specific demographics and levels of economic development, rather than the overall equilibrium of the scheme.

Nevertheless, the increase in expenditure on the UEPS can be mediated by parametric adjustments and administrative improvements. In terms of parametric reforms, increasing retirement ages would have a significant impact on reducing future expenditures. China has stated plans for a phased increase in retirement ages, although details have not yet been decided. It will be important that any such moves consider the situation of particularly vulnerable workers (such as those in arduous or hazardous work) for whom specific adjustments may be required. Any such process also needs to be accompanied by proactive moves to enable older workers to continue participating in the labour market. In addition to adjustment to retirement ages, improved administration – particularly in terms of contribution and compliance – and efforts to expand coverage of the scheme could also support the financial balance.

Progressive increases to the RURPS could also be achieved at relatively low cost. For example, the IMF estimates that the cost of raising the monthly pension to the poverty line would be equal to around 0.05 per cent of GDP – a small expenditure which would increase the social pension by 14 per cent on average (IMF 2021). While a benefit at this level would remain low by international standards, it would represent important progress to increased adequacy at a modest cost.

While Tier 2 and 3 schemes can provide an important complement to pension adequacy for some workers they should not be considered a silver bullet in terms of financial sustainability. In particular, moves to replace some element of Tier 1 with Tier 2 and 3 schemes (for example, by rediverting worker and employer contributions) may be counterproductive. Such moves may undermine the financial sustainability of the UEPS, while not necessarily compensating for any fall in benefit adequacy.

There are various other factors to consider with regards the economic sustainability of the pension system.

- The cost of pensions should be weighed against the **economic costs of weak pension adequacy**. Most pressingly, addressing limited pension adequacy appears to be key to reducing precautionary saving and freeing up household consumption as a catalyst of growth.
- **Investment** will be a key enabler of future economic growth in China. However, it is important to note that – within the pension system – this can come via various channels, including both private investors (involved in the management of Tier 2 and 3 schemes) but also investment from public social security schemes.

4.7 Transparent and sound financial management and administration (Principle 7)

China has – and continues to make – significant progress on improving the management and administration of its pension system. An important recent development has been to stipulate that contribution collection for the UEPS should be undertaken by local tax offices. This is contributing to greater compliance and consistency in contribution collection. Nevertheless, such efforts also need to be accompanied with effective information campaigns aimed at workers and employers.

As noted in Section 4.2, effective governance of Tier 2 and 3 schemes can make an important contribution to strengthening scheme adequacy and predictability. While these elements are not directly managed by government, regulation is key to their effective operation. One potential approach would be to establish a framework of approved or qualified funds that meet a certain standard of investment products. Such standards could include:

- **Disclosure of administrative fees,** and potentially establishment of a maximum fees schedule. This is important given the level of fees charged by commercial insurance companies can have a significant influence on eventual levels of retirement saving.
- **Communication and education**, including annual statements on projected future pension benefits. This can support participants to understand the investment decisions they are making, and have a clearer sense of anticipated retirement income from pension saving schemes.
- **Rules on withdrawal**, **and changes to contributions and investments**. This should include rules on early withdrawal which can potentially undermine retirement savings.
- **Overarching governance standards** including accountability of the administrator/employer/trustees in selecting and monitoring providers, and enrolment and non-discrimination rules.

4.8 Involvement of social partners and consultations with other stakeholders (Principle 8)

Although by national regulations, social security funds have national consultation bodies with social partners, their implementation is not always verified in practice. Another issue is that workers in flexible employment are not represented in most social partner consultative bodies

Beyond Tier 1, collective bargaining can make an important contribution to strengthening of Tier 2 (enterprise annuity) pensions. A positive feature of occupational schemes is their potential to be tailored to the needs and preferences of people in different kinds of employment. Putting this into practice requires effective consultation, and processes of collective bargaining.

4.9 Coherence and adaptability of the pension system

Important reforms have been undertaken to improve the coherence of the pension system. Notable developments include the unification of separate urban and rural residents' schemes into the RURPS, various adjustments to the UEPS (including the standardization of the contribution rate) and the process to merge the UEPS with the public service pension. These reforms, which have been implemented over a relatively short period of time, are impressive by international standards.

The separation of the UEPS and RURPS reflects the pragmatic way in which China has built its pension system, however, there are questions as to whether this represents the most coherent approach to the current and future labour market. China's pension system evolved in the context of sharp institutional and labour market distinctions between urban and rural areas, and was built on a historical foundation of social security arrangements managed by urban enterprises. In this context, building the pension system around particular kinds of employment in different locations has constituted a pragmatic approach to progressively increase coverage. However, the nature of employment is becoming increasingly diverse and more fluid, with a convergence of living standards between urban and rural areas. This raises questions around whether the current configuration of Tier 1 is fit for the future. In other words, a Tier 1 that divides the working population into two distinct groups may not be the most coherent approach for the future labour market. Two important issues arise from the separation of the two schemes.

- **It reduces the potential to harness the contributory capacity of large portions of workers.** Many workers and employers who may have the capacity to contribute to the UEPS are excluded (or opt out) due to factors including *hukou,* high minimum contribution rates, forms of work that are not incorporated within the UEPS and shortfalls in administration (Section 4.1). Arguably, this is also perpetuated by the existence of an alternative system seeking to provide old age income security in the form of the RURPS.
- **There is limited portability between the UEPS and RURPS.**[17] As such, this limits the ability of the system to adapt to workers who change their employment situation over time (for example, from a self-employed worker contributing to the RURPS to an employee in an enterprise contributing to the UEPS). A potential consequence may be workers who have not completed the minimum vesting period in either scheme.

[17] While – in theory – it is possible to transfer between the two schemes, the terms are generally not favourable for workers as they are only able to transfer the fund in the individual account, and may lose the vesting period if transferred from RURPS to UEPS.

Another question relating to coherence is the logic for individual accounts spread across schemes and tiers. Separate systems of individual accounts exist within the UEPS, RURPS, Tier 2 Enterprise Annuity schemes, and the nascent Tier 3. The rationale for multiple individual account options is not completely clear, given they all seek to contribute to the objective of income smoothing. One risk is that individuals accumulate a variety of pension saving accounts across their careers which are difficult to consolidate into a single retirement income. This points to the potential for centralised personal account management, and the government is already developing potential options for this arrangement under Tier 3. As noted in Section 4.2, there are also questions around whether the existence of multiple individual accounts is optimal given that larger savings funds tend to generate greater returns.

There is also a case for greater coherence in terms of the nature and distribution of financial incentives. Financial incentives exist in various forms including the RURPS (both in the tax-financed social pooling, and matching of contributions), UEPS (via the redistributive benefit formula and government subsidy), Tier 2 (in the form of tax incentives) and in proposals for Tier 3. An important risk of incoherent incentives is that they may result in regressive outcomes where relatively well-off workers are provided higher financial subsidy than lower income workers.

5 Conclusion and recommendations

China has made substantial progress in constructing its multi-tier pension system. Coverage of the system has increased significantly in recent years, both in terms of the proportion of older persons receiving pension benefits, and the proportion of workers contributing to a pension scheme. The design of China's pension system puts a strong emphasis on solidarity, with significant elements of social pooling within both Tier 1 schemes. For many pensioners, especially those covered by the UEPS, benefits meet minimum levels of adequacy stipulated by international labour standards. At a policy level, China has also been a pioneer in pursuing a unified multi-tier pension system, with continuous efforts to improve coherence over recent decades. A renewed focus on Tier 2 and 3 schemes shows the seriousness with which China is anticipating the complex implications of population ageing. This context provides a strong foundation for the ongoing improvement of the multi-tier pension system in China.

Through assessing the multi-tier pension system relative to ILO standards, this note points to a number of considerations for the continued development of the multi-tier system. On one hand, these considerations point to gaps in the pension system which relate particularly to how different tiers can combine to provide an appropriate level of adequacy. On the other, they also point to how the Chinese pension system can adapt to the changing national context, including demographic change, economic development, increasing levels of inequality and the changing nature of work.

A cross-cutting consideration is that, in line with historical pension policy development in China, caution is required in undertaking reforms. China has shown how testing and rolling out incremental changes within the current structure is more conducive to addressing existing challenges, than abrupt structural changes which risk undermining current gains.

5.1 Overarching considerations

Overall, there is scope to more precisely define expected role of different pension tiers for achieving benefit adequacy for different kinds of workers. There is broad agreement amongst stakeholders in China that Tier 1 of the pension system will continue to provide the main form of income security to the majority of older persons for the foreseeable future. Meanwhile, there is significant optimism about the potential for Tiers 2 and 3 to supplement this income for many workers. However, continued pension policy development will be supported through a clearer definition of the intended role of different tiers. Two key dimensions include:

- **What kinds of workers will be covered by different tiers?** Analysis in this note suggest that workers on comparatively higher and more stable incomes are most likely to be able (and incentivised) to take advantage of Tier 2 and 3 schemes. Coverage can then be expected to expand with ongoing economic development. International experience casts some doubt on the extent to which flexible workers will be able to take advantage of such schemes.
- **What level of benefit should be provided by each tier?** This involves defining a policy objective for how different tiers should contribute to a combined target replacement rate, and how this will vary for different kinds of workers. This should be adapted to the Chinese context, but can draw on international labour standards and the experience of other countries at a similar level of economic development. Such a process can also be supported by strengthened consistency and clarity in defining the parameters for Tier 1 schemes. Another key question relates to the future adequacy of the RURPS which

remains below what can be considered a minimum social protection floor for older persons.

The relative weight put on different tiers can have important consequences for risk sharing, solidarity and scheme financing.

- **Risk sharing and solidarity**: Tier 1 schemes cushion participants from different kinds of risks (including demographic and economic) by pooling of resources and establishing relatively predictable benefit parameters. Both Tier 1 schemes also redistribute from relatively higher and lower income earners. Tiers 2 and 3 (which typically consist of defined contribution schemes) place more of this risk on participants and involve limited redistribution. A greater weight put on Tier 2 and 3 schemes therefore implies less predictability, and may contribute to increased inequality (including gender inequality), although this will depend on scheme design (discussed below).
- **Scheme financing**: Diverting part of the contribution rate for Tier 1 to Tier 2 and/or 3 schemes would have implications for financing of Tier 1 schemes (particularly the UEPS). Any reform proposals in this direction should carefully assess the impact of such a move on the financial sustainability of the UEPS. The decision would need to be made as to whether this would imply a corresponding reduction in benefits from the UEPS, or an increasing reliance on other revenue sources, such as general government revenues.

5.2 Specific considerations for Tier 1

Despite impressive progress in expanding coverage of Tier 1 schemes, there is scope to refine the interaction between the two "sub-pillars" within this tier. The current configuration of the UEPS and RURPS represents a pragmatic approach to expand coverage building on existing schemes and responding to the national context. However, the existence of these parallel schemes needs to adapt to the changing nature of the labour market with increasing fluidity between different forms of employment and between locations. A future-looking approach might consider how to combine a basic guarantee for all residents (in effect currently provided by the RURPS) with an opportunity for all workers with contributory capacity to build higher levels of pension benefits (through the UEPS). Whatever the design, building greater coherence is likely to take time, but setting out a vision for this integration can contribute to strengthening the coverage, adequacy and financial sustainability of Tier 1.

The interaction of the social pooling and individual account components of Tier 1 schemes can also be reviewed as the wider multi-tier system develops. In the case of the UEPS, these two components have evolved so that – in most cases – they combine to provide a defined-benefit pension. One way to strengthen the guarantees provided by this combined pension would be to establish greater clarity and predictability on benefit parameters – most notably the interest rate for the individual account. This could also support financial planning. The government could also consider merging the two components with a single simplified benefit formula. In the case of the RURPS, a question relates to how the individual account component might relate to broader initiatives to harness individuals' contributory capacity, be that via an expanded UEPS, or Tier 3 schemes.

5.3 Specific considerations for Tier 2 and 3

The extent to which Tier 2 and 3 schemes should be designed to minimise risks for participants will likely depend on their role in the pension system. If positioned as schemes supplementing pension income from Tier 1 for workers with relatively higher and more stable earnings, putting greater risk on contributors may be of less concern. However, if intended to displace some part of Tier 1 and provide a core element of income security for those with lower earnings and less predictable forms of work, then a design that limits risk and provides greater predictability will be more important.

Either way, continued development of Tiers 2 and 3 require strong governance mechanisms. China may wish to implement a system of approved and qualified funds frameworks which meet certain governance standards including disclosure of administrative fees, communication and transparency, and rules on withdrawals, and changes to contributions and investments.

Incentives provided for Tiers 2 and 3 need to be considered in the Chinese context. Tax exemptions – which are important in some other countries – are likely to be more limited in China given high thresholds for income tax. All forms of financial incentives (including tax exemptions and matching of contribution) need to be assessed in terms of their redistributive impact. A set of incentives that provide subsidies to relatively better-off workers may not be the optimal use of resources for the purpose of income security in old age of the majority of the population

Overall, there is a case for a cautious and pragmatic approach to the progressive roll out of Tier 2 and 3. International experience suggests that dramatic structural reforms to the pension system may have unintended consequences and lead to subsequent policy reversals. Within its pension policy, China has a strong record of identifying and piloting appropriate models for its own national context, and incrementally improving the pension system while adapting to demographic, social and economic trends. This pragmatic approach is likely to be the most fruitful for ensuring Tiers 2 and 3 become an effective component of retirement income in line with economic development and growing prosperity.

5.4 Areas for future research/dialogue

This review points to a number of areas of research and dialogue which could support the development of China's multi-pillar pension system. These include:

- **Approaches for enhancing the multi-tier pension system for workers in non-standard employment (for example, flexible, platform and self-employed workers).** These workers can be considered those that are less adequately served by current pension arrangements, and potentially suffer from issues of coherence in the interaction between different tiers. Research on pension arrangements for such workers could help to focus analysis on how to enhance the multi-tier system as a whole. Research could be to review existing legal provisions and incentives for participation, and gather evidence on perceptions of such workers towards the pension system. This would involve consideration of the role of the RURPS, UEPS and individual pensions.
- **Benefit adequacy of the RURPS in the context of the other sources of income in old age**. It is understood that many recipients of the RURPS are able to combine this with other sources of income including from employment, land, family support and other forms of social assistance (such as *Dibao*). Research could assess the extent to which different sources of income combine to provide a minimum income for different groups of older persons. It could also assess the extent to which these sources of income may adjust in line with economic, social and demographic changes.

References

Barr, Nicholas. 2013. 'The Pension System in Sweden: Report to the Expert Group on Public Economics'. Stockholm: Swedish Ministry of Finance.

Barr, Nicholas, and Peter Diamond. 2009. 'Reforming Pensions: Principles, Analytical Errors and Policy Directions'. *International Social Security Review* 62 (2): 5–29. https://doi.org/10.1111/j.1468-246X.2009.01327.x.

Bourquin, Pascale, and Rowena Crawford. 2020. 'Automatic Enrolment - Too Successful a Nudge to Boost Pension Saving?' Institute of Fiscal Studies. https://ifs.org.uk/articles/automatic-enrolment-too-successful-nudge-boost-pension-saving.

Caminada, Koen, Kees Goudswaard, Chen Wang, and Jinxian Wang. 2019. 'Has the Redistributive Effect of Social Transfers and Taxes Changed over Time across Countries?: Has the Redistributive Effect of Social Transfers and Taxes Changed?' *International Social Security Review* 72 (1): 3–31. https://doi.org/10.1111/issr.12193.

Chen, Tianhong, and John Turner. 2015. 'Gender and Public Pensions in China: Do Pensions Reduce the Gender Gap in Compensation?' *Sustainability* 7 (2): 1355–69. https://doi.org/10.3390/su7021355.

Chen, Xi, and Tianyu Wang. 2016. 'Does Money Relieve Depression? Evidence from Social Pension Eligibility'. 10037. IZA Discussion Paper. Bonn: IZA. http://ftp.iza.org/dp10037.pdf.

China Daily. 2022. 'China's Flexibly Employed Reaches 200 Million', 14 February 2022. https://global.chinadaily.com.cn/a/202202/14/WS620a197da310cdd39bc8689a.html#:~:text=China's%20flexible%20employment%20population%20reached,and%202021%2C%20the%20official%20said.

China Power. 2021. 'How Well-off Is China's Middle Class?' 2021. https://chinapower.csis.org/china-middle-class/.

Cousins, Mel. 2021. 'The Sustainability of China's Urban Employees' Pension Programme: A Case of Getting Old before Getting Rich?' *International Social Security Review* 74 (1): 59–77. https://doi.org/10.1111/issr.12257.

Ding, Ya. 2017. 'Personal Life Satisfaction of China's Rural Elderly: Effect of the New Rural Pension Programme: Old-Age Security and Rural Elderly Happiness'. *Journal of International Development* 29 (1): 52–66. https://doi.org/10.1002/jid.3264.

ESCAP and ILO. 2020. 'The Protection We Want: Social Outlook for Asia and the Pacific 2020'. Bangkok: UN ESCAP.

Gosling, Tim. 2022. 'DC Default Funds: Sweden and the Beauty of Limited Choice'. July 2022. https://www.portfolio-institutional.co.uk/opinion/dc-default-funds-sweden-and-the-beauty-of-limited-choice/.

Heever, Alexander M van den. 2021. 'Social Insurance'. In *Handbook on Social Protection Systems*, edited by Esther Schüring and Markus Loewe, 68–77. Cheltenham: Edward Elgar Publishing.

Huang, Wei, and Chuanchuan Zhang. 2016. 'The Power of Social Pensions'. 10425. IZA Discussion Paper. Bonn: Institute of Labor Economics. http://ftp.iza.org/dp10425.pdf.

ILO. 2018. 'The ILO Multi-Pillar Pension Model: Building Equitable and Sustainable Pension Systems'. Social Protection for All Issue Brief. Geneva.

———. 2020. ‘Institutional Constraints for the Extension of Social Insurance Coverage to Informal Economy Workers in China’. Beijing: ILO.

———. 2021. ‘Tripartite Round Table on Pension Trends and Reforms (30 November–2 December and 4 December 2020): Record of Proceedings (Meeting Report)’. Geneva: ILO.

ILO and MOHRSS. 2022. ‘Assessment of Socail Security Covderage of Workers in Diverse Forms of Employment and in Platform Employment in China’. Geneva: ILO.

IMF. 2021. ‘People’s Republic of China: Selected Issues’. Washington, D.C.: IMF.

ISSA. 2020. ‘Investing Social Security Reserve Funds amidst Competing Goals and Opportunities in Africa’. 11 December 2020. https://ww1.issa.int/analysis/investing-social-security-reserve-funds-amidst-competing-goals-and-opportunities-africa.

Jain-Chandra, Sonali, Niny Khor, Rui Mano, Johanna Schauer, Philippe Wingender, and Juzhong Zhuang. 2018. ‘Inequality in China - Trends, Drivers and Policy Remedies’. WP/18/127. IMF Working Paper. Washngton DC: IMF.

National Bureau of Statistics China. 2021. ‘China Statistical Yearbook 2021’. Beijing: National Bureau of Statistics China.

OECD. 2018. ‘Pensions at a Glance 2019: Country Profiles - Japan’. Paris.

———. 2021a. ‘Revenue Statistics in Asia and the Pacific 2021: Emerging Challenges for the Asia-Pacific Region in the COVID-19 Era’. Paris: OECD Publishing.

———. 2021b. *Pensions at a Glance 2021: OECD and G20 Indicators*. Paris: OECD. https://doi.org/10.1787/ca401ebd-en.

———. 2022. *OECD Economic Surveys: China 2022*. OECD Economic Surveys: China. Paris: OECD Publishing. https://doi.org/10.1787/b0e499cf-en.

OSFI. 2019. ‘Multi-Pillar Pension Systems: Lessons from Canada and Internationally’.

Shen, Ce, Jessica Johnson, Zhenhe Chi, and John B. Williamson. 2020. ‘Does a Universal Non-contributory Social Pension Make Sense for Rural China?’ *International Social Security Review* 73 (2): 3–26. https://doi.org/10.1111/issr.12233.

Standing Committee of National People’s Congress. 2010. *Social Insurance Law of the People’s Republic of China*. https://www.mohrss.gov.cn/gjhzs/GJHZzhengcewenjian/201506/t20150625_212401.htm.

Swedish Pensions Agency. 2019. ‘Orange Report 2018: Annual Report of the Swedish Pension System’. Stockholm.

UN Population Division. 2022. ‘World Population Prospects 2022, Online Edition.’ New York: UN Department of Economic and Social Affairs.

Wong, Christine, and Randong Yuan. 2020. ‘Managing across Levels of Government: The Challenge of Pension Reform in China’. In *Ageing and Fiscal Challenges across Levels of Government*, edited by Junghum Kim and Sean Dougherty. OECD Publishing. OECD and Korea Institute of Public Finance. https://doi.org/10.1787/2bbfbda8-en.

Zhang, Longmei, Ray Brooks, Ding Ding, Haiyan Ding, Hui He, Jing Lu, and Rui Mano. 2018. ‘China’s High Savings: Drivers, Prospects, and Policies’. WP/18/277. IMF Working Paper. Washington DC: IMF.

Zhao, Rui, and Yaohui Zhao. 2018. ‘The Gender Pension Gap in China’. *Feminist Economics* 24 (2): 218–39. https://doi.org/10.1080/13545701.2017.1411601.

Zhou, Irene. 2020. 'Digital Labour Platforms and Labour Protection in China'. 11. ILO Working Paper. Geneva: ILO.